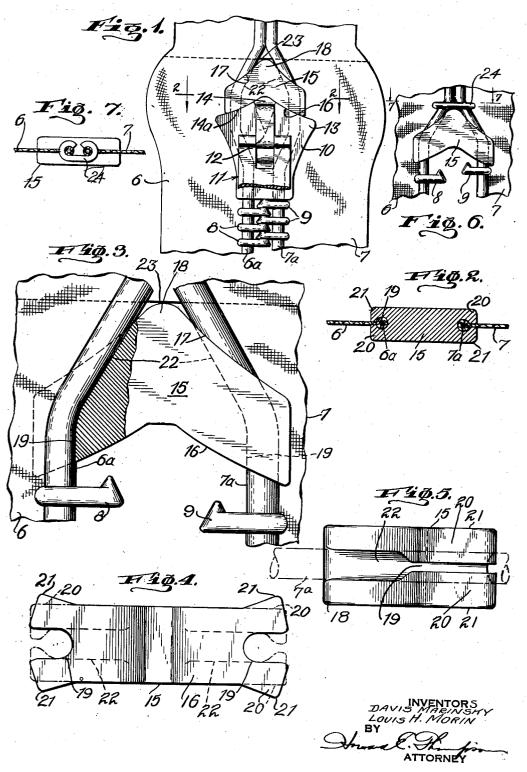
BRIDGE TOP STOP FOR SEPARABLE FASTENER

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BRIDGE TOP STOP FOR SEPARABLE FASTENERS

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This invention relates to what is commonly referred to as bridge top stops for use in connection with the stringers of separable fasteners, the stringers having coupling links or scoops attached 5 to adjacent edges thereof which are coupled and uncoupled by a slider movable along the stringers, the top stop forming means for limiting the upward movement of a slider in the operation of closing or coupling the fastener stringers; and 10 the object of the invention is to provide a stop device of the character described consisting of a body portion which is recessed on one surface to conform with or substantially conform with the end portion of a slider in connection with which 15 the device is employed so that the thrust of the slider against said stop will be substantially equally distributed throughout said body; a further object being to provide the side portions of the body with normally straight channels which 20 are adapted to be compressed or pinched around the beaded adjacent edges of the fastener stringers in coupling said stringers in spaced relationship to each other; a further object being to provide the body with a converging projecting 25 outer end portion with grooves in opposite sides thereof communicating with the first mentioned channels whereby the stringer ends may be brought into abutting relationship to each other beyond said stop body and stitched or otherwise 30 secured together in forming a neat and finished appearance to said end of the fastener; a still further object being to provide a stop device of the class described in the form of a die cast body composed of metallic or thermoplastic materials 35 which is originally shaped to facilitate easy mounting upon the stringer tapes and reshaped in attaching or securing the device to said tapes; and with these and other objects in view, the invention consists in a device of the class and 40 for the purpose specified which is simple in construction, efficient in use and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of our improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a detailed view of a part of a separable 50 fastener showing one of our improved devices thereon and indicating the method of its use.

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

Fig. 3 is an enlarged plan and sectional view of a part of the structure shown in Fig. 1.

Fig. 4 is an edge view looking in the direction of one end of the device, showing the same in its unattached form.

Fig. 5 is a side edge view of the device illustrating the same in its attached form; but with the 5 stringers detached.

Fig. 6 is a view similar to Fig. 1 illustrating a modification; and,

Fig. 7 is a section on the line 7—7 of Fig. 6.

In Fig. 1 of the drawing, 6 and 7 represent parts 10 of the tapes of the stringers of separable fasteners of the kind under consideration, the enlarged or beaded edges 6a, 7a of which have links or scoops 8 and 9 attached thereto. At 10 is shown a slider movable longitudinally of the stringers 15 to couple and uncouple the links 8 and 9, a finger piece or pull 11 being employed for operating the slider which is pivoted to the slider as indicated at 12.

The slider 10 may be of any desired form and 20 construction and of conventional types, but in the construction shown the wide end 13 of the slider is provided with a projecting contracted or substantially V-shaped portion 14 as clearly seen in Fig. 1 of the drawing. At 15 is shown one of our 25 improved end stop members which is in the form of a substantially V-shaped body, the inner end of which is provided with a concaved or recessed wall 16 which is of a contour conforming with the outer edge 14a of the projection 14 on the 30 slider so that said edge of the slider seats snugly within the recess 16 as clearly seen in Fig. 1 of the drawing. The outer end of the member 15 has converging walls 17 forming a substantially pointed V-shaped projection 18. The sides of the 35 member 15 are normally provided with straight channels 19 opening through the inner and outer end of said member. These channels form jaw elements 20 at each side of the member 15, the outer surfaces of which project slightly as seen 40 at 21, note Fig. 4 of the drawing. However, in mounting the member 15 upon the beaded edges 6a. 7a of the tapes 6 and 7, the jaw elements 20 are compressed so that the resulting member will have relatively flat and straight outer surfaces 45 as will appear upon a consideration of Fig. 2 of the drawing and as is indicated in dotted lines in Fig. 4. It will be apparent that a sectional view through the compressed jaw members would show what might be described as a substantially dove- 50 tail form. Extending onto the contracting wall 17 of the member 15 are grooves 22 which communicate with the channels 19 and permit the stringer ends to be brought into juxtaposition and stitched or otherwise secured together in the 55 manner indicated at 23 in Fig. 1 of the drawing. This stitching at 23 preferably extends across the stringer tapes so that a series of stringer tapes may be stitched in a single operation.

Fig. 6 and Fig. 7 show another method whereby the stringer tapes may be held into juxtaposition, namely, by means of a metallic staple as indicated at 24.

It will be understood that the thickness of the bridge stop member 15 will be greater than the thickness of the links 7 and 8 and sufficient to strike the end walls 14a of the slider; and in fact in order to produce a neat and finished appearance the thickness of the member 15 may be the same as the thickness of the slider. It will also appear that by nesting the slider within the member 15 or the V-shaped recess 16 therein, the thrust of the slider against the stop will be equally distributed throughout the entire stop so as to avoid any stress or strain upon a particular part thereof.

In making up the complete fastener of metallic elements, that is to say metallic links and metallic slider, the member 15 will also be metallic; whereas when thermoplastic elements are employed such for example as cellulose acetate elements, the member 15 will also be formed of this material. In using cellulose acetate members 15, it is preferred that acetone be first applied to the tapes and the members in attaching the same thereto so as to insure a firm mounting of the member in connection with its supports.

It will be understood that while the stop member 15 has been described as a bridge top stop 35 that in fact it forms a stop at one end of the stringers for limiting the movement of the slider at one end of the stringers in the operation of closing or coupling the links regardless of the manner in which the device is used. For example on tobacco pouches and similar articles, the stringer end may be disposed in any direction.

Having fully described our invention, what we claim as new and desire to secure by Letters Patent, is:

An end stop device for mounting on adjacent edges of the stringers of separable fasteners of the class described, said device comprising a V-shaped body having parallel sides, a pointed outer end and a substantially concave inner end, said pointed outer end comprising converging

wall portions substantially paralleling corresponding wall portions of said concave end, the sides of said body having longitudinal grooves opening through the inner and outer ends of said body, said grooves forming a pair of jaw 5 members at each side of said body forming means for securing the device to said stringers, and the converging walls of said outer end having grooves therein communicating with and in alinement with the grooves in the sides of said 10 body.

2. A top stop for separable fasteners employing stringers composed of stringer tapes with coupling links arranged longitudinally of adjacent edges of said tapes and a slider movable 15 longitudinally of the stringers to couple and uncouple the same, said top stop comprising a substantially V-shaped body of solid construction throughout the central portion thereof and having parallel sides, a pointed outer end and a 20 concave inner end shaped to conform with one wide end of the slider, the sides of said body being channelled to form pairs of jaw members within and between which the stringer tapes are arranged and secured, said channels extending 25 beyond said jaw members and converging at said pointed end of the top stop, and the solid central portion of said body between the channels having a substantially dart-shaped contour adapted to retain the stringer tapes in spaced 30 relation at the inner end of said body while facilitating the arrangement of said tapes in juxtaposition at the pointed end thereof.

3. As an article of manufacture, a top stop for separable fastener stringers, said top stop having parallel sides, a pointed end comprising converging wall portions and a concave end including wall portions substantially paralleling said converging wall portions, the sides of said top stop having grooves opening through the two ends thereof and converging toward said pointed end, protruding portions of said parallel sides bounding the grooves therein being of substantially dove-tailed cross sectional contour, and said end stop intermediate the converging grooves and the concave end wall thereof, having a solid substantially dart-shaped body portion.

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