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SEPARATOR FOR INVISIBLE SEPARABLE FASTENER STRINGERS
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1 Claim. (Cl. 24—205.13)

This invention relates to separable fastener stringers, wherein the scoops for coupling the stringers are arranged upon and concealed at the inner surface of the stringer tapes. More particularly, the invention deals with a separator for detachably coupling the stringers, adapting the same for use in connection with various articles such, for example, as jackets, where it is desirable to completely separate the two stringers to facilitate arrangement of the jacket upon the body of the wearer and removal of the jacket therefrom

Still more particularly, the invention deals with a separator employing a box and pin combination fixed to one common end of the stringers and concealed on the inner surface of the stringer tapes.

The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

FIG. 1 is an inside view of one end portion of a pair of stringers showing the box and pin separator of the stringers and one end portion only of a slider arranged on the stringers, with part of the construction broken away and in section.

FIG. 2 is a section substantially on the line 2—2 of FIG. 1.

FIG. 3 is a diagrammatic perspective view of the box part of the separator detached; and

FIG. 4 is a view, similar to FIG. 3, showing the pin part of the separator.

In illustrating one adaptation and use of my invention, I have indicated in FIG. 1 of the drawing one end portion of a pair of a stringer tapes 10 and 11, the beaded edge portions 12 and 13 of which are reversely folded on the inner surfaces 14 and 15 of the tapes 10 and 11, as clearly illustrated in FIG. 2 of the drawing, the scoops 16, 17 of the separable fastener stringers being mounted on and secured to these reversely folded beaded edge portions 12 and 13, so as to dispose the scoops in a concealed state upon the inner surface of the stringer tapes 10 and 11. In FIG. 2 of the drawing, the surfaces 18 and 19 will be the outer or exposed surfaces of the fasteners as applied to the articles or garments, in connection with which the fastener is attached in the usual manners.

In FIG. 1 of the drawing, at 20 I have shown the contracted end portion of a slider movable along the scoops 16, 17 to couple and uncouple the stringers. The ends of the stringer tapes 10 and 11 are folded inwardly upon the surfaces 14 and 15, as indicated at 21 and 22, respectively, in FIG. 1 of the drawing and these ends are cutaway, as indicated at 23 and 24 to facilitate mounting of a separator 25 on the stringers, the separator comprising a box part 26 and a pin part 27. The box part 26 includes an extending channelled bar portion 28, the channel 29 of which extends into the box part, as will appear in the section through the box part in FIG. 2 of the drawing and this channel receives the folded beaded edge portion 13, upon which the box part is compressed to secure the same thereon. Further, two or more indentations 30 are employed in the portion 26 to securely key the box part against movement longitudinally of the beaded edge portion 13. At the side of the box part 26 opposed to the channel 29 is a chamber 31 adapted to receive the pin part 27, as clearly illustrated in FIGS. 1 and 2 of the drawing. The chamber has an end wall 32 with an aperture 33 therein. The free end portion 34 of the pin part 27 strikes the wall 32 in checking movement of the pin part into the box part.

The pin part 27 has a longitudinal channel 35 to receive the folded beaded end portion 12, as clearly noted in FIG. 2. The pin part 27 is also connected upon the beaded end portion to secure the pin part thereto and, to insure the pin part against movement longitudinally of the stringer, two or more indentations 36 are employed. The inner surface of the pin part 27 has inwardly of the end 35 a rounded surface 37 adapted to move over the wall 38 of the box part 26, including the portion 28 thereof, as will appear from a consideration of FIG. 1 of the drawing. The other or inner end of the pin 27 has a notch 39 to clear the scoop 17 which is arranged adjacent the end of the portion 28, as noted in FIG. 1 of the drawing. Adjacent the notch 39, the pin 27 has another surface 40 which is adapted to bear upon the edge 38, again, as noted in FIG. 1.

As with other devices of this type and kind, when the end portion 20 of the slider is in engagement with the surface 41 of the box part 26, the scoops 16 and 17 will be completely separated and the pin part 27 can be withdrawn from the box part in complete separation of the stringers, the slider remaining on the bar portion 28 of the box part 26. With the parts in this position, it will also be understood that the pin part 27 can be reinserted into the slider and the box part, preparatory to movement of the slider along the scoops to recouple the scoops thereof.

It will appear, from a consideration of FIG. 2 of the drawing, that the pin and box parts are arranged within the cutaway portions 23 and 24 and the end of the box part terminates in alignment with or within what is normally the lower edge 42 of the stringer tapes to be completely concealed in viewing the stringer tapes from the outer surfaces 18 and 19 thereof.

The box part 26, including the portion 28 thereof, has an inwardly set or short wall 43 and the pin part 27 has a corresponding wall 44, around which the stringer tapes are folded, as clearly seen in FIG. 2 of the drawing, so that when the stringers are coupled together, the folded portions of the tape will abut, as indicated at 45 in said figure. It will also appear from this figure that the stringer tapes 10 and 11 are arranged flatly upon outer surfaces of these walls 43, 44 when the fastener is in use.

It will also be apparent that the channels of the box and pin parts open through inner adjacent surfaces of said parts when the box and pin parts are coupled together.

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

In separable fasteners, the stringer tapes of which includes scoops arranged upon reversely folded beaded edge portions of the tapes in concealing the scoops upon the inner surfaces of the tapes, a separator comprising a box part and a pin part detachable with respect to the box part, each of said parts having longitudinal channel portions arranged upon and secured to the reversely folded beaded edge portions of the stringer tapes, said box part including an extending channelled bar portion adjacent a channel in alignment with the channel of the box part, said extended bar portion also having a straight edge facing said pin part and adapted to cooperate therewith when said pin and box separator is in closed position said box part including at the side thereof to the channel a chamber in which the pin part is removably mounted, said side of the box part including an end wall limiting inward movement of the pin part in said
box part, said pin part having an undulating edge adapted to cooperate with the straight edge of said extended bar portion so that when said pin and box separator is operatively joined said pin part engages said bar portion near the upper end thereof and again within the confines of said box part and the cross-section of said box part in a plane at right angles to said box channel and through said box chamber being such that the half which encompasses said chamber is substantially the shape of the letter L whereas the part which includes the box channel has substantially the shape of the letter U.

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