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A. E. CARLILE

2,460,124

END STOP FOR SLIDE FASTENERS

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FIG. 1.

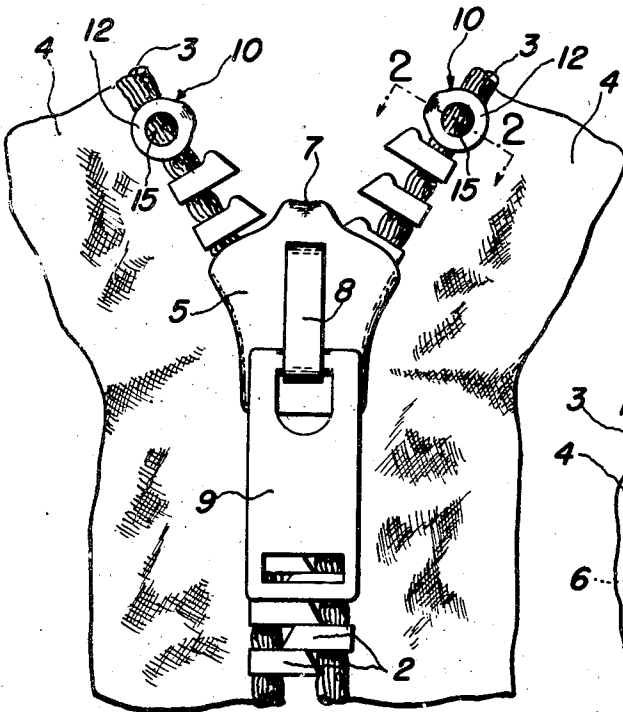


FIG. 2.

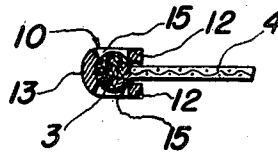


FIG. 3.

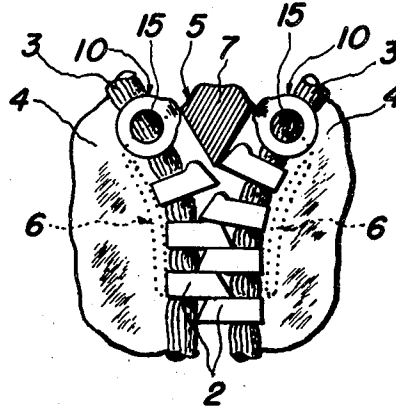


FIG. 4.

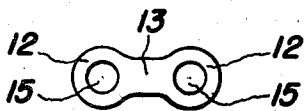


FIG. 5.

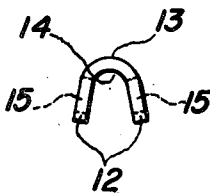
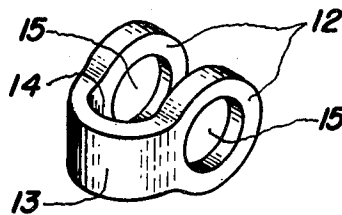


FIG. 6.



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END STOP FOR SLIDE FASTENERS

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4 Claims. (Cl. 24—205.11)

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This invention relates to slide fasteners and, particularly, to an improved end stop therefor.

In slide fasteners, there is generally provided end stops for limiting the movement of the slider along the fastener stringers. One such stop, commonly known as a bottom stop, is usually employed at the bottom end of the fastener for limiting the downward or opening movement of the slider, and usually, a pair of stops, commonly known as top stops, are positioned at the upper end of the series of fastener elements on each of the stringers for limiting the upward or closing movement of the slider.

Various types of top stops have been heretofore suggested and used but for one reason, or another, they have not been entirely satisfactory. While some of these top stops effectively limited the movement of the slider, they would tend to jam or lock accidentally in the slider channel and this, of course, was objectionable in that the fastener could not be opened without difficulty. Other stops were thick and bulky in their construction and did not enter the slider channel, as is desirable, so as to permit a full closure of the fastener. Also, some of these stops were expensive to fabricate and difficult to apply to the fastener stringers without the use of expensive tools and equipment. Others of these stops did not securely grip the edge of the fastener stringer and at times, would slip therealong or become entirely displaced therefrom, thereby defeating the purpose for which they were intended.

Accordingly, it is one of the objects of the present invention to provide an improved end stop which enters the slider channel far enough to permit substantial closure of the fastener, but which is so designed and constructed that it will not jam in or catch on the slider.

It is another object of the invention to provide an improved end stop which is simple and inexpensive in its construction and one which may be easily and conveniently fabricated and applied to the stringers, and at the same time, a stop which is effective in its use.

It is a further object of this invention to provide an improved end stop for slide fasteners which will securely grip the edge of the fastener stringers thereby eliminating any danger of slippage along or displacement from the stringers.

It is still another object of the present invention to provide an improved top stop blank which can be easily and inexpensively fabricated so as to provide a top stop which can be conveniently applied to the fastener stringers.

Various other objects and advantages of this

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invention will be more apparent in the course of the following specification, and will be particularly pointed out in the appended claims.

In the accompanying drawings, there is shown for the purpose of illustration, one embodiment which my invention may assume in practice.

In these drawings:

Fig. 1 is a plan view of a slide fastener having the end stops of my invention incorporated therewith;

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a plan view of the slide fastener shown in Fig. 1 with the top wing of the slider removed showing how my improved end stops act to limit the movement of the slider;

Fig. 4 is a plan view of a blank from which my end stop is formed;

Fig. 5 is an end view showing how the blank of Fig. 4 is bent to form the end stop for attachment to the stringers; and

Fig. 6 is a perspective view of my improved end stop before attachment to the stringer.

Referring more particularly to the drawings, there is shown a conventional slide fastener comprising a series of spaced-apart cooperating interlocking elements 2, attached to the opposed beaded edges 3 of a pair of stringer tapes 4. There is arranged on the fastener elements 2, a slider 5, for longitudinal movement therealong in opposite directions to open and close the fastener in a well-known manner. Such a slider consists generally of spaced upper and lower wings having inwardly extending side or marginal flange portions 6 connected at one end by a neck portion 7, so as to provide substantially a Y-shaped channeled body member. On the top wing of the slider, there is arranged a longitudinally extending lug 8 to which a pull member 9 is pivotally attached to manipulate the slider.

There is attached to the beaded edges 3 of each of the stringer tapes 4, adjacent the endmost fastener element of the series of fastener elements 2 thereof, the improved end stop 10 of the present invention. As more clearly shown in Figs. 5 and 6 of the drawings, this end stop consists of a unitary piece of sheet metal having a pair of spaced-apart oppositely disposed substantially circular portions 12 connected by an arcuated central portion 13, so as to provide a substantially U-shaped tape receiving channel 14 between the portions 12. In each of the circular portions 12, there is arranged substantially concentric therewith, and in alignment with each other

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preferably a circular hole 15 for a purpose hereinafter to be described.

This end stop member is formed preferably from a sheet metal blank having substantially the configuration of the figure eight, as shown in Fig. 4 of the drawings. This blank is bent upon itself at the central portion 13 to substantially a U-shape so that the end portions 12 are disposed directly opposite each other ready for attachment to the stringers. In applying the end stop to a fastener stringer, the end stop is positioned on the beaded edge 3 of the stringer with the beaded edge 3 disposed in the channel 14 of the stop so that the portions 12 are disposed on opposite sides of the stringer so as to straddle the beaded stringer edge. After the stop has been positioned on the edge of the stringer in such a manner, the circular portions 12 are forced toward each other into engagement with the beaded edge 3 of the stringer, so as securely to grip the same. After the opposed portions 12 are forced toward each other into clamping engagement with the beaded edge 3, it will be seen that that portion of the beaded edge portion on each side of the tape defined by the holes 15 in the circular portions 12, will be exposed and extend into the holes as shown in Fig. 2 of the drawings. This is one of the most important aspects of the present invention for the reason that additional gripping power is obtained by providing such holes in the end stop. In other words, that portion of the beaded edge 3 in the holes 15 will puff out or be forced into the holes 15, due to the compressive gripping or clamping force of the portions 12, with the edge portions of the holes cooperating with the puffed out beaded edge portions to aid in preventing movement of the end stop along the stringer and to prevent displacement of the end stop therefrom. It will be seen, as shown in Fig. 3 of the drawings, that the end stop cooperates with the neck 7 and the flanges 6 to prevent movement of the end stop through the channel of the slider, thereby limiting the upward or closing movement of the slider along the stringers.

As a result of my invention, it will be seen that there is provided a top stop which is simple and inexpensive to fabricate and to assemble on the fastener stringers. Also, the end stop of the present invention is so constructed and arranged that a greater clinching power or holding force is obtained, than in other such stops heretofore suggested and used. My improved top stop is also neat in appearance and permits full closing movement of the slider.

While I have shown and described an embodiment which my invention may assume in practice, it will be understood that this embodiment is merely for the purpose of illustration and description, and that other forms may be devised within the scope of my invention as defined in the appended claims.

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What I claim as my invention is:

1. An end stop for slide fasteners of the class described comprising a body member having a pair of spaced apart oppositely disposed portions for engagement with the edge portion of the stringer tape on which it is adapted to be mounted, each of said portions having an aperture arranged therein into which the edge portion of the stringer tape is adapted to expand so as to aid in preventing displacement of the stop from the stringer tapes.

2. An end stop for slide fasteners of the class described comprising a body member having a pair of spaced apart oppositely disposed portions for engagement with the edge portion of the stringer tape on which it is adapted to be mounted, each of said portions having a substantially circular hole arranged therethrough centrally thereof into which the edge portion of the stringer tape is adapted to expand so as to aid in preventing displacement of the stop from the stringer tape.

3. An end stop for slide fasteners of the class described comprising a body member having a pair of spaced apart oppositely disposed substantially circular portions for engagement with the edge portion of the stringer on which it is adapted to be mounted, each of said circular portions having a substantially circular hole arranged therethrough substantially concentric therewith into which the edge portion of the stringer tape is adapted to expand so as to aid in preventing displacement of the stop from the stringer tape.

4. An end stop for slide fasteners of the class described comprising substantially a U-shaped body member having a pair of spaced-apart oppositely disposed leg portions for engagement with the edge portion of the stringer tape on which it is adapted to be mounted, each of said leg portions being substantially circular in shape and having a circular aperture arranged therethrough centrally thereof exposing a portion of the stringer tape whereby said exposed portion may expand into said apertures so as to aid in preventing displacement of said stop from the stringer tapes.

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Disclaimer

2,460,124.—*Alfred E. Carlile*, Great Neck, N. Y. END STOP FOR SLIDE FASTENERS. Patent dated Jan. 25, 1949. Disclaimer filed May 12, 1951, by the assignee, *Talon, Inc.*

Hereby enters this disclaimer to claims 1 and 2 of said patent.

[*Official Gazette June 19, 1951.*]