May 13, 1952 R. E. MEECH 2,596,861

SLIDER FOR SLIDE FASTENERS

Filed Nov. 8, 1950

Fig. 1.

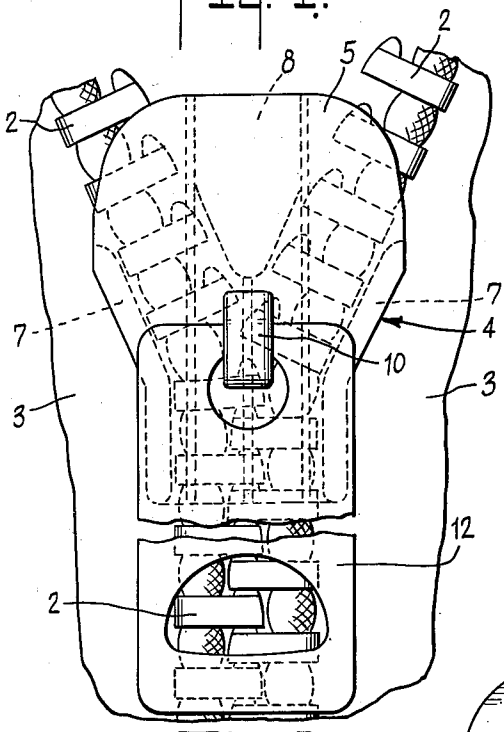


Fig. 2.

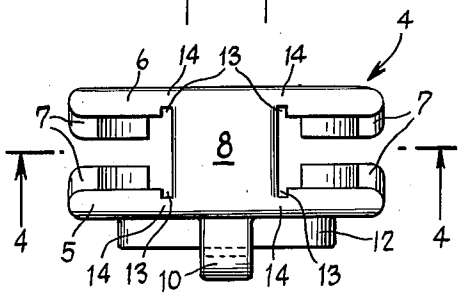


Fig. 3.

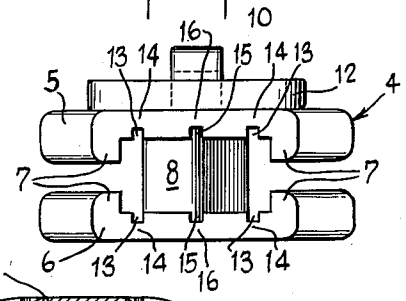


Fig. 4.

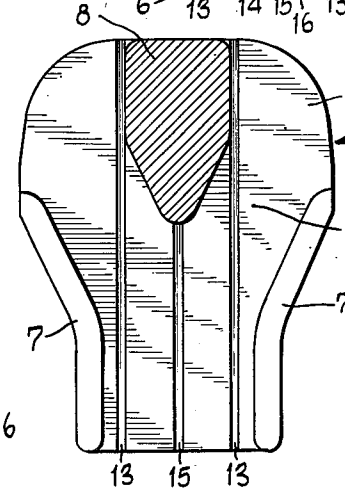


Fig. 5.

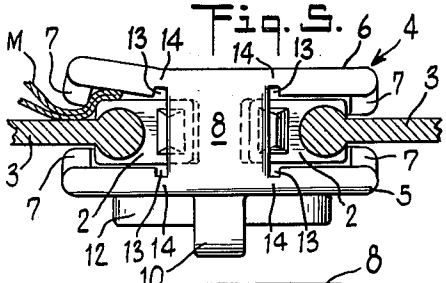
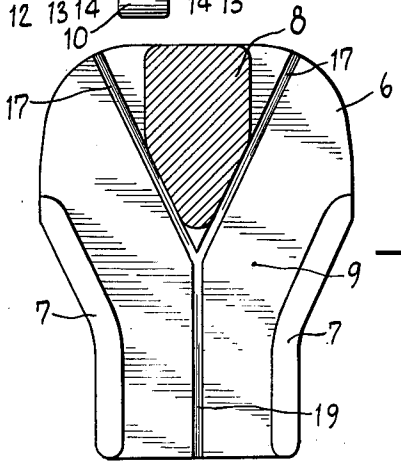


Fig. 6.



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SLIDER FOR SLIDE FASTENERS

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4 Claims. (Cl. 24—205.15)

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

In the operation of slide fasteners, overlying flaps, flimsy materials, or other foreign matter frequently get caught in the fastener and become jammed in the channel of the slider body between the wing portions thereof and the fastener elements. Naturally, this is objectionable, and it is to a slider, should such catching accidentally occur, that the present invention relates. The slider of the present invention may be readily freed or released for normal operation by manual operation of the slider in either direction because of the yieldable arrangement of the wing portions.

Accordingly, it is one of the objects of the present invention to provide an improved slider which will tend to resist catching of materials therein, and if so caught may be readily released merely by manipulating the slider in a normal manner in a closing or opening direction due to the fact that the wings will automatically flex to permit such materials to be released.

It is another object of the invention to provide an improved non-catching and readily-releasable slider which is simple and inexpensive in its construction, and, at the same time, effective in its use.

It is a further object of this invention to provide such a slider which is foolproof, requiring no particular skill or knowledge on the part of the users capable of operating slide fasteners having conventional sliders.

Various other objects and advantages of this 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, an embodiment and several modifications thereof which my invention may assume in practice.

In these drawings:

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

Fig. 2 is an end view of the upper end of the improved slider of the present invention;

Fig. 3 is an end view of the lower end of the same;

Fig. 4 is a sectional view taken on line 4—4 of Fig. 2;

Fig. 5 is an end view of a slide fastener, together with my improved slider, showing how it functions when any foreign material becomes accidentally caught therein; and

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Fig. 6 is a view, similar to Fig. 4, of the inner side of a slider wing showing a slight modification of the present invention.

Referring more particularly to the drawings, there is shown in Fig. 1, a conventional type of slide fastener having the improved slider of my invention incorporated therewith. Such a fastener consists of cooperating rows of spaced-apart interlocking fastener elements 2 attached to the opposed beaded edges of stringer tapes 3. There is arranged on the fastener elements, the slider of the present invention, generally designated at 4, for longitudinal movement therealong in opposite directions for opening and closing the fastener in a manner well known to those skilled in the art.

This slider consists generally of a body member having spaced-apart upper and lower wing portions 5 and 6, respectively, each having marginal flanges, as at 7, and which are integrally connected at the upper end thereof by means of a substantially V-shaped neck portion 8 so as to provide substantially a Y-shaped channel 9 within the slider body. On the outer side of the upper wing, there is provided a lug 10 to which a pull member 12 is pivotally attached for manipulating the slider in a well-known manner.

According to the present invention, there is arranged preferably on the inner surface of at least one of the wing portions a plurality of longitudinally extending channels or grooves which are positioned to either side of the neck portion and between the same and the flange portion so as to provide a section in the wing at those points which is thinner than the remaining portions of the wing so as to provide a flexing point for the other portions for a purpose to be described. In Figs. 1 through 5 of the drawings, there is shown the preferred form of my invention. In this construction, there is arranged on the inner surface of each of the wing portions 5 and 6, a longitudinally extending groove or channel 13 which is positioned preferably directly next to the next to the neck portion and extends throughout the length of the wing portions so as to provide relatively thin sections, as at 14, in the wings directly opposite these grooves. Also, if desired, another groove or channel 15 may be provided centrally of each of the wings which extends from the neck portion 8 to the lower end of the wings so as to provide a relatively thin section 16 at this point.

Having described the construction of my improved slider, it will be seen that when in use the outer portions of the wings will tend to yield

slightly when any foreign material becomes caught between the flanges and the fastener elements. This is exemplified in Fig. 5 of the drawings wherein there is shown a flimsy material M caught and jammed in the slider. Due to the construction of my slider, it will be seen that the wing portion directly opposite the material will yield slightly at the flexing point 14 so that the material will not become too tightly jammed in the slider. This material can be easily dislodged from such position merely by manipulating the slider in either direction. After the material becomes dislodged, the outer portion of the wing will assume its normal position in parallelism due to the inherent resilient characteristics of the material from which it is made. It will be understood that my improved slider may be made from any suitable metal but is preferably made from a plastic material, such as nylon, etc.

In Fig. 6, there is shown a slight modification of the slider of my invention. In this construction, there is arranged to either side of the neck portion 8 of the slider preferably on the inner surface of both of the wing portions 5 and 6, a channel or groove 17 which extends substantially parallel to the diverging channels 18 in the upper end of the slider and the side of the neck portion 8. These grooves 17 intersect one another and with another groove or channel 19 at the point immediately below the neck portion which groove or channel extends from that point longitudinally of the slider to the bottom end of the wings. Thus, in this construction, it will be seen that the outer portion of the wings will flex about the thin sections of the slider body arranged directly opposite the grooves 17 and 19 when any foreign material is caught between the flanges of the slider.

As a result of my invention, it will be seen that there is provided an improved slider which is so constructed that in the event any foreign materials become caught in the slider that they will not become jammed therein so as to make the fastener inoperable. In other words, there is provided a slider which is substantially foolproof from the standpoint of jamming. Also, it will be seen that there is provided a non-jamming slider which is simple and inexpensive in its construction and, at the same time, effective in its use.

While I have shown and described an embodiment and several modifications thereof which my invention may assume in practice, it will be understood that this embodiment and the modifications are 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.

What I claim as my invention is:

1. A slider for slide fasteners of the class described comprising a body member having spaced-apart wing portions connected by a neck portion at one end thereof, said wing portions having inwardly extending marginal flanges so as to provide substantially a Y-shaped channel therebetween, at least one of said wing portions having a section arranged to either side of said neck portion and between the same and each of said marginal flanges which is thinner than the remaining portions of said wing so as to provide a flexing point for the outer portions of said wing whereby said outer portion will slightly yield when any foreign materials accidentally become lodged between the flanges and the fastener elements and in the channel of said slider.

2. A slider for slide fasteners of the class described comprising a body member having spaced-apart wing portions connected by a neck portion at one end thereof, said wing portions having inwardly extending marginal flanges so as to provide substantially a Y-shaped channel therebetween, at least one of said wing portions having a longitudinally extending groove arranged therein to either side of said neck portion and between the same and each of said marginal flanges so as to provide a section at this point which is thinner than the remaining portions of said wing whereby a flexing point at said thinner section is provided for the flexing of the outer portions of said wing when foreign materials accidentally become lodged between the flanges and the fastener elements and in the channel of said slider.

3. A slider for slide fasteners of the class described, as defined in claim 2, including another groove arranged centrally of the wing portion which extends from the lower end of said wing to substantially the neck portion of the slider.

4. A slider for slide fasterens of the class described comprising a body member having spaced-apart wing portions connected by a neck portion at one end thereof, said wing portions having inwardly extending marginal flanges so as to provide substantially a Y-shaped channel therebetween, at least one of said wing portions having a plurality of longitudinally extending grooves arranged therein between said neck portion and each of said marginal flanges so as to provide a section at these points which is thinner than the remaining portions of said wing whereby a flexing point is provided for flexing of the outer portion of said wing whereby said outer portions will slightly flex when any foreign material accidentally becomes lodged between the flanges and the fastener elements and in the channel of the slider.

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