

[54] TWIN PULL TAB SLIDER

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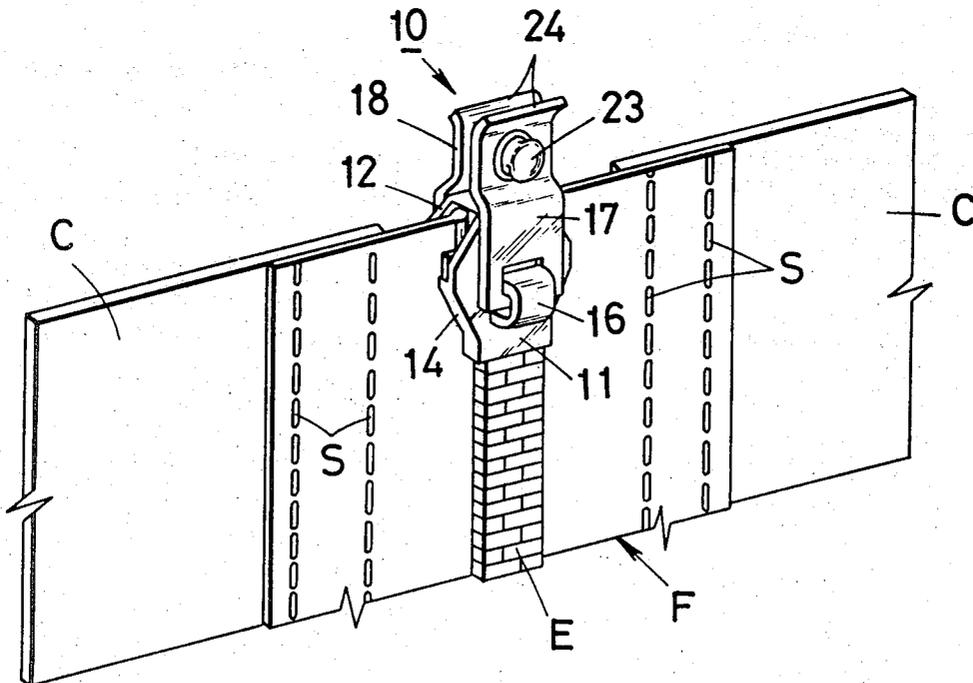
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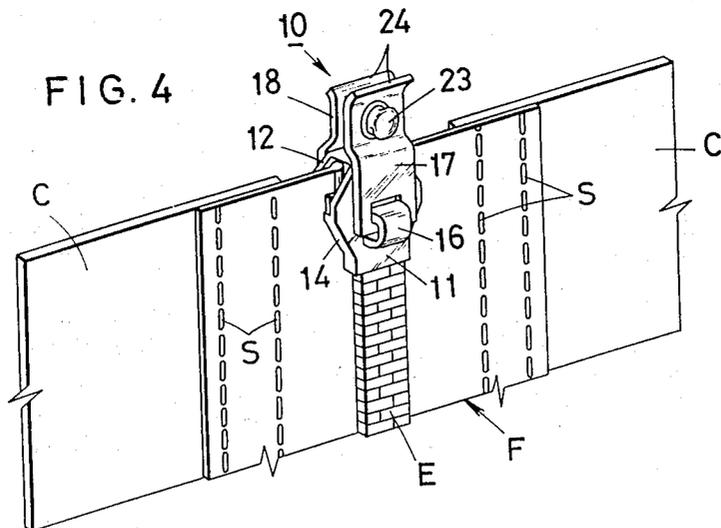
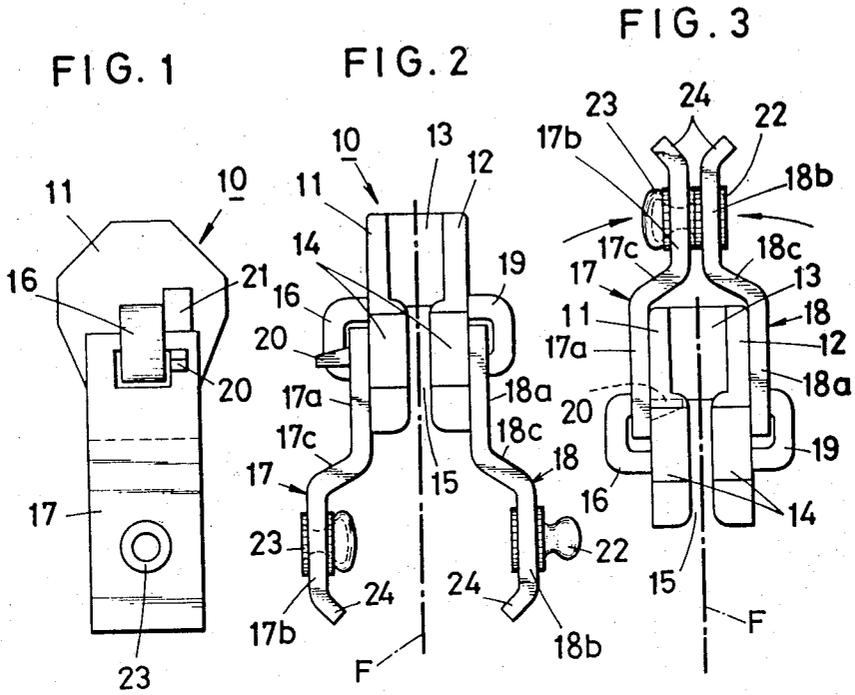
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[57] ABSTRACT

A slider having a twin pull tab structure is disclosed for use particularly on slide fasteners exposed to severe external pressure. Means is provided to bring the two pull tabs into snapping engagement at a position beyond and forwardly of an end of the slider body when the slider is locked against movement relative to the fastener.

3 Claims, 4 Drawing Figures





TWIN PULL TAB SLIDER

This invention relates to improvements in and relating to a slider for slide fasteners and more particularly to a slider of the character which is suitable for mounting on and manipulating such heavy duty slide fasteners or zippers which are applied to joints in partition members such as oil fence or seams in hoods for trains and automobiles. An object of the invention is to provide an improved slider which is constructed such that it can be retained in locked relation with a slide fastener against severe stresses exerted to or around the slider. Another object of the invention is to provide an improved slider which is designed to permit the same to be manipulated conveniently from either side, upper or lower, to open and close a slide fastener.

These and other objects and features of the invention will appear more clear from the following detailed description taken in conjunction with the accompanying drawings which illustrate by way of example only a preferred embodiment of the invention and in which:

FIG. 1 is a front plan view of a slider embodying and constructed in accordance with the invention;

FIG. 2 is a side elevation of the same shown in unlocked position;

FIG. 3 is a view similar to FIG. 2 but showing the slider as in locked position; and

FIG. 4 is a perspective view showing the slider as applied to a slide fastener attached to an article.

Referring to the drawings and FIG. 1 in particular, there is shown a slider 10 including a pull tab pivotally connected thereto in well known manner. More specifically, as shown in FIGS. 2 and 3, the slider 10 comprises an upper wing member 11 and a lower wing member 12 constituting a slider body and connected together at one end by a neck portion 13. Each wing member has inwardly directed side flanges 14. The wing members 11,12 define with the neck portion 13 a substantially Y-shaped guide channel 15 through which a slide fastener F is allowed to pass in well known manner. A supporting lug 16 projects upwardly from the one or upper wing member 11 and is adapted to carry a pull tab 17 pivotally thereabout. A similar additional pull tab 18 is also provided in accordance with the invention, which pull tab 18 is pivotally connected to another lug 19 on the other or lower wing member 12.

There is provided a locking prong 20 secured to or formed integrally with at least one of the two pull tabs 17,18 and adjacent at least either of opposite sides of the lug 16 (or 19). In the illustrated embodiment, the locking prong 20 is adapted to extend through an opening 21 in the upper wing 11 into the guide channel 15 so as to engage with fastener elements E thereby to lock the slider 10 against movement relative to the fastener F.

It will be seen that the two pull tabs 17,18 are symmetric in shape, each having a flat stem portion 17a, (18a) adapted to lie flat against the corresponding wing member 11,(12) when the slider is held either in fully unlocked position as shown in FIG. 2 or in fully locked position as shown in FIG. 3, and a dog-legged engaging portion 17b,(18b) adapted to join the twin pull tabs releasably together thereat so as to retain the slider 10 in locked relation with the fastener F as shown in FIG. 3. The engaging portions 17b,18b extend longitudinally from the stem portions 17a,18a for a length sufficient

to permit them to be joined together beyond and forwardly of that end of the slider body at which the wings 11,12 are connected together. In order thus to join the twin tabs 17,18 together at their respective engaging portions 17b,18b, there is provided a socket member 22 projecting outwardly from the one engaging portion 18b and adapted to engage snappingly with a socket receptacle 23 projecting inwardly from the other engaging portion 17b as viewed in FIG. 2.

It will be also seen that the engaging portions 17b,18b are dog-legged or symmetrically bent outwardly as indicated at 17c in FIG. 2 such that the distance therebetween is smaller with the slider in fully unlocked position (see FIG. 3) than the distance between opposed flat stem portions 17a,18a. This arrangement is advantageous from the points of view of saving the material required to form the socket and receptacle parts 22 and 23 and of increasing the strength of linkage of the twin pull tabs 17,18, as this will be appreciated from inspection of FIG. 3. Another advantage is that the dog-legged engaging portions 17b,18b are held apart from the surfaces of the fastener F when the latter is unlocked as seen in FIG. 2 and can thus be readily manipulated with ease.

The slider having such characteristic twin pull tab structure according to the invention may be effectively applied to slide fasteners used to separably close seams or openings in various heavy-duty articles exposed to severe external pressure and requiring the fastener to be operated from either side as exemplified in FIG. 4 wherein the slider 10 is mounted on a slide fastener F secured as by stitches S to a schematically presented article C. The slider 10 is shown in FIG. 4 as in fully locked position, which position corresponds to that of FIG. 3.

Now to explain the operation of the slider 10 of the invention, reference is first made to FIG. 2, wherein the slider is held in a first or unlocked position in which the two pull tabs 17,18 are separated and the locking prong 20 lifted apart from the fastener elements E. To bring the slider 10 now to a second or locked position in which the two tabs 17,18 are joined together and the locking prong 20 engaged with the fastener elements E as shown in FIG. 3, the tabs 17,18 are flipped or rotated substantially 180° about the respective lugs 16,19 in opposite directions as indicated by the arrows. This locked position is retained by snapping the socket 22 on one tab into engagement with the receptacle 23 on the other tab. The operation may be simply reversed so as to bring the slider 10 back to fully unlocked position.

Free ends of the pull tabs 17,18 are bent inwardly as viewed in FIG. 2, and as indicated at 24 but flare away from each other when the pull tabs are snapped together as seen in FIG. 3, the arrangement being that such flared ends can be conveniently grabbed with fingers to facilitate the separation of the two pull tabs.

It will be apparent that various changes and modifications may be made in the structures disclosed, without departing from the scope of the appended claims.

What is claimed is:

1. A slider for heavy duty slide fasteners which comprises an upper wing and a lower wing constituting a slider body and connected together at one end, a pair of pull tabs pivotally carried at their one ends on said upper and lower wing respectively and arranged to rotate between a first position in which the slider is un-

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locked and a second position in which the slider is locked relative to the fastener, a locking means extending at least from one of said pair of pull tabs and adapted to lock the slider against movement relative to the fastener, and engaging means provided at the other ends of said pull tabs for joining the latter together when the slider is held in said second position.

2. A slider as defined in claim 1 wherein said pair of pull tabs have flat stem portions adapted to lie flat against the slider body and engaging portions adapted to be joined together by said engaging means, said en-

gaging portions being dog-legged such that the distance therebetween is greater with the slider in said first position but smaller with the slider in said second position than the distance between said flat stem portions.

3. A slider as defined in claim 1 wherein said engaging means comprises a socket projecting in one direction from one of said pull tabs and a socket receptacle engageable therewith and projecting in the opposite direction from the other pull tab.

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