

June 19, 1934.

W. I. JONES

1,963,852

SLIDE FASTENER

Filed Dec. 8, 1931

Fig. 1.

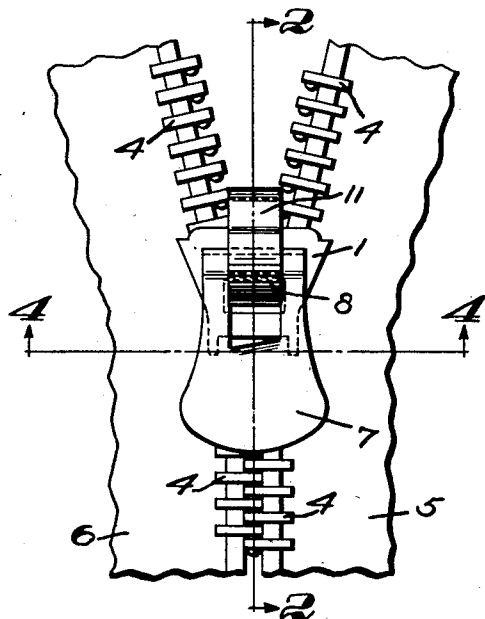


Fig. 2.

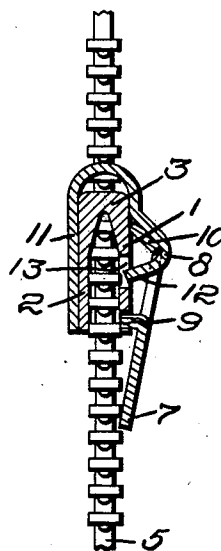


Fig. 3.

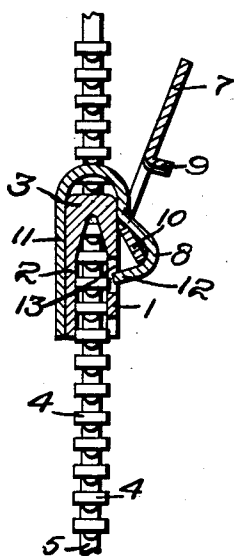


Fig. 4.

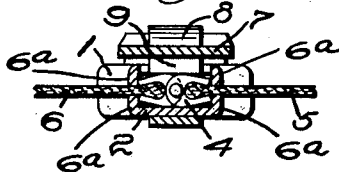
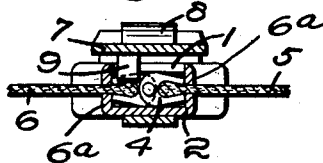


Fig. 5.



Inventor:
Walter I. Jones,
by *Ernest R. Farnum & Townsend*
Attys

UNITED STATES PATENT OFFICE

1,963,852

SLIDE FASTENER

Walter I. Jones, Arlington, Mass., assignor to
United-Carr Fastener Corporation, Cambridge,
Mass., a corporation of Massachusetts

Application December 8, 1931, Serial No. 579,673

3 Claims. (Cl. 24—205)

My invention aims to provide improvements in sliders for multiple operated fastener installations.

In the drawing which illustrates preferred embodiments of my invention:—

Figure 1 is a plan view of a portion of a multiple operated fastener installation showing my improved slider in locked position;

Fig. 2 is a section taken on the line 2—2 of Figure 1;

Fig. 3 is a section similar to that shown in Fig. 2, but showing the slider in unlocked position;

Fig. 4 is a section taken on the line 4—4 of Figure 1 to show the construction of the locking means; and

Fig. 5 is a section similar to Fig. 4 but showing a modified form of locking means.

Referring to the drawing which illustrates my invention, I have shown an improved slider and slider-locking means for use in connection with multiple operated fastening installations. The slider body may be made in any manner suitable for use with the pull tab arrangement and locking means hereinafter described.

My invention relates more particularly to the construction of the means on the slider to which the pull tab is hinged and also to the means for locking the slider in any desired position along the opposed series of fastening elements.

The slider member illustrated has a top plate portion 1, a bottom plate portion 2 and means 3 to connect them together in predetermined relation, and to provide diverging channels for passage in the usual manner of fastening elements 4 secured to opposed edges of stringers 5. Each of the plate members 1 and 2 (Fig. 4) has side flanges 6^a extending toward the side flanges of the other part but being spaced from each other in the usual manner to pass over the stringers while holding the slider in assembled relation as it is moved to and fro along the fastening elements 4. To facilitate sliding movement of the slider, I have provided a pull tab 7 attached substantially centrally of the top plate 1 (Figs. 1 and 2) to a loop 8.

In many multiple operated fastener installations it is desirable to provide means whereby the slider may be locked in any desired position along the fastener elements. I have provided a simple and efficient locking means by pressing from the tab a projection 9 which is adapted to engage the fastening members 4 either frictionally (Figs. 2 and 4) or between two of them (Fig. 5) when the pull tab is moved to a predetermined position.

To lock the pull tab 7 in the position shown in

Figs. 2 and 4 so as to maintain the projection 9 against the fastener elements 4, and thereby provide a brake against accidental movement of the slider, I have made the loop 8 resilient and provided a cam 10 on the pull tab. In the particular construction illustrated the loop 8 is formed as a part of a strip 11 secured to the bottom plate portion 2 and passing around one end of the body of the slider and overlying the top plate portion 1. The strip 11 is attached only at the bottom plate portion 2, thereby leaving a portion of substantial length to be freely yieldable relative to the slider body, as shown in Figs. 1 and 2. The free end 12 of the loop extends into an aperture 13 in the top plate portion 1 so that it cannot catch upon anything when the slider is in use. The end 12 is, of course, free to move in the aperture 13. The cam 10 is angled relative to the tab 7 and is so proportioned that it also acts as a pivot through the loop 8. As the tab 7 is moved about its pivot the upper and lower edges of the cam 10 engage the top plate portion 1 and the loop 8, thereby to spring the loop 8 outwardly to permit the cam to pass from the position shown in Fig. 3 to the position shown in Fig. 2. The loop then returns to its normal position and holds the tab 7 in either position shown. The point of contact between the projection 9 and the fastener elements 4 is so positioned with relation to the pivot point of the tab that the slider is locked more efficiently when a downward pressure is exerted thereupon and when the projection is in locking position. Thus, any stresses tending to separate the fasteners only locks the slider more efficiently, because of the arrangement of the parts.

The operation of my device is simple and locking is more or less automatic since in order to move the slider along the fastening elements the pull tab must be moved from a position shown in Fig. 2 to a position shown in Fig. 3, or a more right angled position if desirable, thereby moving the projection 9 from the path of the fastening elements. When the slider is moved to the desired position it is merely necessary to press the pull tab 7 back into the position shown in Fig. 2 and that action swings the projection 9 over the edge of the plate 1 into engagement with the fastener members 4, as shown in Figs. 1 and 4.

The locking means shown in Fig. 5 may be desired because it is narrow enough to engage between two fastener elements on one stringer while the locking means shown in Fig. 4 is angled and wide enough to contact with the edges of a fastener element of each stringer.

While I have illustrated and described preferred embodiments of my invention I do not wish to be limited thereby, because the scope of my invention is best defined by the following claims.

- 5 1. A slider for a multiple operated fastener installation having substantially rigid top plate and bottom plate portions secured together in spaced relation, means located between said plate portions for engaging and disengaging fastener elements on the edges of adjacent stringers as they pass through the slider in one direction or another, a freely yieldable loop supported adjacent to one of said plate portions and forming a part of the slider, said loop having a free end, a pull tab hinged to said loop, a fastener element engaging portion extending from said tab and arranged to engage directly with the fastener elements to lock the slider against movement when the said tab is in one position relative to the slider and cam means extending from the tab adjacent to the yieldable loop and adapted to cooperate with one plate portion and the loop to hold the tab in position against accidental movement when the fastener-engaging portion is in locking position.
- 10 2. A slider for a multiple operated fastener installation having a top plate and a bottom plate secured together in spaced relation, means located between said plates for engaging and disengaging fastener elements on the edges of adjacent stringers as they pass through the slider in one direction or another, means carried by the slider and having a yieldable loop adjacent to one of said plates, a pull tab hinged to said loop, a fastener element engaging por-
- 15
- 20
- 25
- 30
- 35

tion extending from said tab to engage the fastener elements and lock the slider against movement when the said tab is in one position relative to the slider and cam means extending from the tab adjacent to the yieldable loop and adapted to cooperate with the plate and the loop to hold the tab in position against accidental movement when the fastener-engaging portion is in locking position, said loop having its free end terminating in an aperture in the plate adjacent to said loop for the purposes described.

3. A slider for a multiple operated fastener installation having a top plate and a bottom plate secured together in spaced relation, means located between said plates for engaging and disengaging fastener elements on the edges of adjacent stringers as they pass through the slider in one direction or another, a yieldable loop located at one face of one of the plates of the slider and having a free end, a pull-tab having a hinge portion confined within the loop to locate the pull-tab in a specific hinged relationship with the slider, a fastener element-engaging structure associated with the pull-tab to lock the slider against movement when the pull-tab is in one position relative to the slider, and said hinge portion of the pull-tab constructed and arranged with relation to the yieldable loop in such a manner as to provide a cam which cooperates with the loop and the plate of the slider adjacent to the loop in such a manner that the loop will hold the pull-tab in a position to hold the fastener element-engaging structure in locking position.

WALTER I. JONES.

40

115

45

120

50

125

55

130

60

135

65

140

70

145

75

150