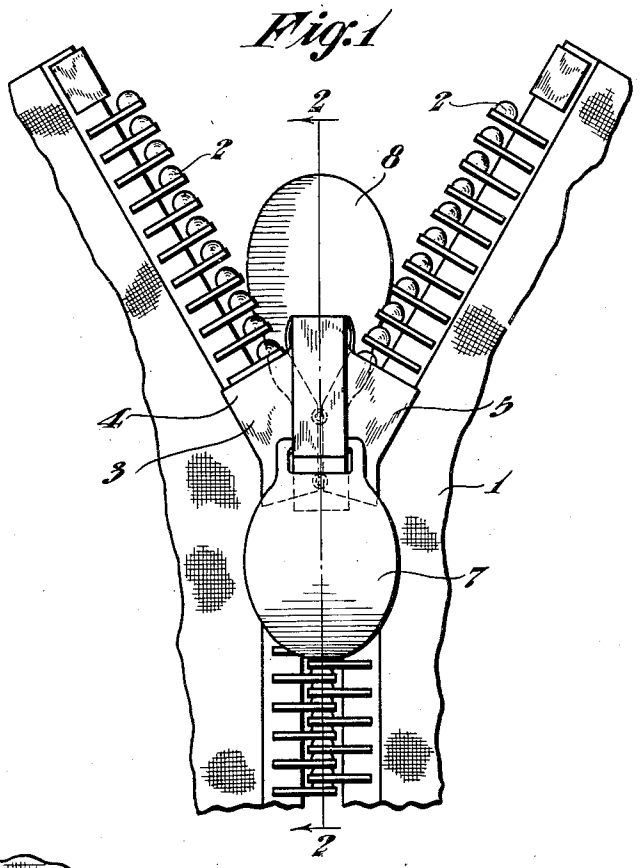
Nov. 1, 1932. W. F. RUST 1,886,123

AUTOMATIC FASTENING DEVICE

Filed July 28, 1928

Fig. 1



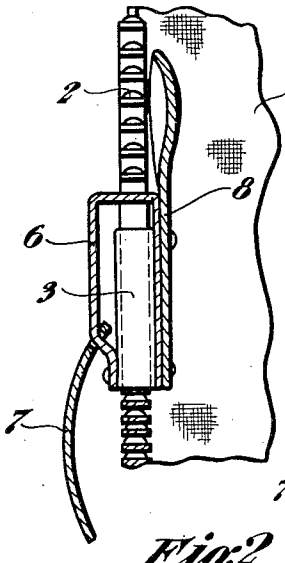


Fig. 2

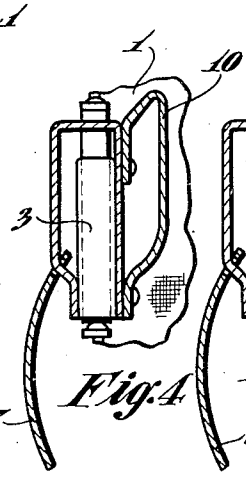


Fig. 4

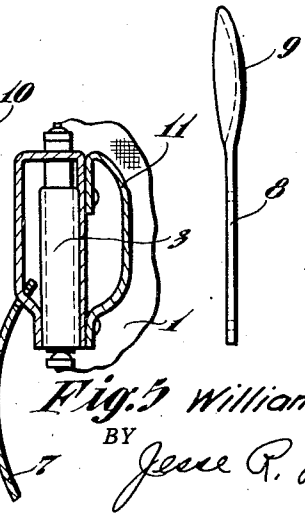


Fig. 5

Fig. 3

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UNITED STATES PATENT OFFICE

WILLIAM F. RUST, OF PITTSBURGH, PENNSYLVANIA

AUTOMATIC FASTENING DEVICE

Application filed July 28, 1928. Serial No. 295,919.

My invention relates to automatic fastening devices of the type used for clothing bags, golf bags and the like.

My invention has for one of its objects to provide simple and efficient means whereby the closing movements of automatic fasteners may occur without any obstruction to such movement by the entanglement of clothing or other fabrics carried by the devices provided with such fasteners.

A further object of my invention is to provide means carried by the sliders of automatic fasteners for clearing the path of movement of the slider and rows of fasteners whereby such relative movements are not obstructed.

A still further object of my invention is to prolong the life of automatic fasteners by preventing such damage as may be caused by fabric or other material becoming entangled therewith.

In the operation of automatic fastening devices such as are used in connection with golf bags, clothing bags and the like, it may frequently occur that articles of clothing or other materials of fabric will project into the path of closing movement of the rows of fasteners and the slider for operating them. Inasmuch as the slider may be operated with some force, it may occur that the fastening devices are permanently damaged by their being bent or distorted because of their inability to close in proper sequence.

In order to prevent the damage to the fastening devices and to correspondingly prolong the life of these devices, I have provided means for insuring a clear path of movement during the closing operation of the fastening devices.

The usual slider is provided with a guard or shield which extends in advance of the slider and closely adjacent to the rows of fasteners for clearing the path of movement in order that clothing and other articles may not be engaged by the fastening devices or the slider.

My invention will be described in connection with the accompanying drawing, in which

Figure 1 is a plan view of a portion of an article provided with fastening devices embodying my invention;

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

Fig. 3 is a longitudinal sectional view of the guard;

Fig. 4 is a fragmentary view of a modification and

Fig. 5 is a similar view of a further modification.

In the drawing, an article that is composed of leather or other suitable flexible material, indicated at 1, such, for example, as a clothing bag, is provided with automatic fastening devices 2 in two rows. These devices may be of any usual or conventional kind that are arranged to automatically interlock when brought into proper relative position by means of a slider 3.

The slider 3, which may be stamped in suitable shape from sheet metal, comprises two bifurcated hollow portions 4 and 5 that extend at an angle to each other and respectively enclose the rows of fasteners. The slider 3 is also provided with a loop 6, to which is connected a tab 7 by means of which the slider is actuated.

Secured to the inner or lower side of the slider is a guard member 8 that is somewhat elongated and is provided at its outer end with a portion 9 that is somewhat concave and spatulate in form which extends in advance of the slider 3 in the direction of its closing movement. The outer end portion 9 of the guard 8 is closely adjacent to the lower side of the rows of fasteners and is of such width as to be substantially co-extensive with the rows of fasteners when they are in closed position.

In the modification of Fig. 4, the guard member is in the form of a relatively wide loop member 10 which operates to depress any articles of clothing or other fabrics that may be adjacent to the fasteners 2 and thereby removing them from the path of the fasteners 2 and the slider 3.

The structure of Fig. 5 differs from that of Fig. 4 only in that the guard member 11 differs in shape from that of the member 10.

In the operation of the fasteners, the slider

3 is actuated in the desired direction by the tab 7. When the fasteners are being closed, the slider operates upwardly, as viewed in Figs. 1 and 2 in the drawing, the respective rows of fasteners being brought into locking position by the bifurcated portions 4 and 5 of the slider. The guard member 8 precedes the slider 3 and by reason of its curvature operates to clear the path of any projecting portions of fabric or clothing that may tend to be drawn into the slider by the fasteners. If the curved loop member 10 or 11 is used, it operates by depressing the material to a greater depth than would be effected by the guard member 8.

When the slider 3 is actuated in the opposite direction to open the fasteners, the guard member 8 or the member 10 or 11, as the case may be, simply slide over the various materials in order to be in position for the succeeding closing operation, there being little or no likelihood of any of the materials interfering with the opening operation since the fasteners are emerging from the slider and there is no tendency for them to be drawn into it.

It will be appreciated that I have provided simple and efficient means for preventing damage either to the contents of a bag or other device employing separable fasteners or to the fastening devices by reason of such materials being drawn into the mechanism as it is being closed. The guard member of my invention will materially prolong the life of such fastening devices and, in addition, save the user of such devices from annoyance and expense in connection with such occurrences.

Many modifications will occur to those skilled in the art relating to devices of this same general character and my invention is, therefore, not to be limited to the precise embodiments shown and described herein.

I claim as my invention:

1. An automatic fastener comprising two rows of coacting members, supporting means therefor, a slider for controlling the connection of said members in accordance with its position and a guard comprising an elongated member carried by said slider and adjacent to and spaced from said rows of members for maintaining a free path for their relative movements, said guard being of such width as to extend directly beneath the rows of coacting members and positioned to force away obstructing material at the point of engagement and disengagement of the coacting members.

2. A closure device comprising two rows of separable interlocking fasteners, supporting means therefor and a slider having a guard which comprises a substantially rigid member secured to the lower side of said slider and of such width that it extends directly beneath the open rows of fasteners in advance of the slider in the direction of its closing movement, said guard at all times being spaced from the interlocking fasteners and positioned to force away obstructing material at the point of engagement and disengagement of said fasteners.

3. An automatic fastener comprising two rows of coacting members, means for supporting said members, a slider for controlling said members, and a guard connected to and movable with said slider and of such width as to extend directly beneath said rows of coacting members preceding and adjacent the junction of said rows, said guard at all times being spaced from the members and positioned to force away obstructing material at the point of engagement and disengagement of the coacting members for preventing the obstruction of relative movements of said members and said slider.

4. An automatic fastener comprising two rows of interlocking members, means for supporting said members, a slider for controlling said members and a guard comprising a member having a cam face carried by said slider and projecting in advance thereof and of such width as to extend directly beneath said rows, said guard member at all times being spaced from the interlocking members and having its cam face positioned to force away obstructing materials at the point of engagement and disengagement of said interlocking members.

5. An automatic fastener comprising two rows of interlocking members, means for supporting said members, a slider for controlling said members and a guard carried by said slider for preceding said slider in its movement to close said members and of such width as to extend directly beneath said rows, said guard at all times being spaced from the members and positioned to force away obstructing material from the paths of movement of said interlocking members at the point of their engagement and disengagement.

6. A separable fastener comprising two rows of interlocking members, means for supporting said members, a slider, and an elongated member secured to said slider and extending in advance thereof and of such width as to extend directly beneath said rows, said elongated member at all times being spaced from the interlocking members and positioned to shield the rows of members from obstructing material at the point of engagement and disengagement of said interlocking members.

7. A separable fastener comprising interlocking members mounted in two rows, means for supporting said members, a slider, and a guard member connected to and movable with said slider and of such width as to extend directly beneath said rows and also extending adjacent to the junction point of said rows, said guard member at all times being

slightly spaced from the members in said rows and positioned to force away obstructing material at the point of engagement and disengagement of said interlocking members.

8. A closure device comprising two stringers, rows of interlocking elements secured to said stringers, and a slider movable along said stringers for causing the interlocking elements to engage with and disengage from each other, said slider having a guard which comprises a substantially rigid member, secured to the lower side of said slider and of such width as to extend directly beneath said elements, as they engage with and disengage from each other, said guard at all times being spaced from the elements and positioned to force away obstructing material at the point of engagement and disengagement of the elements.

In testimony whereof, I have hereunto subscribed my name this 25th day of July 1928.

WILLIAM F. RUST.