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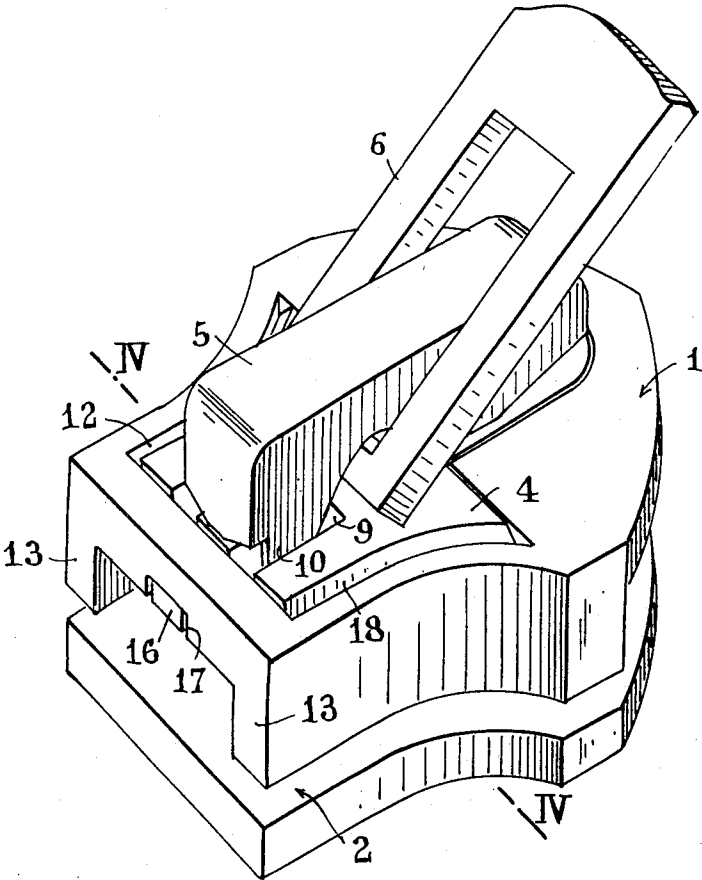
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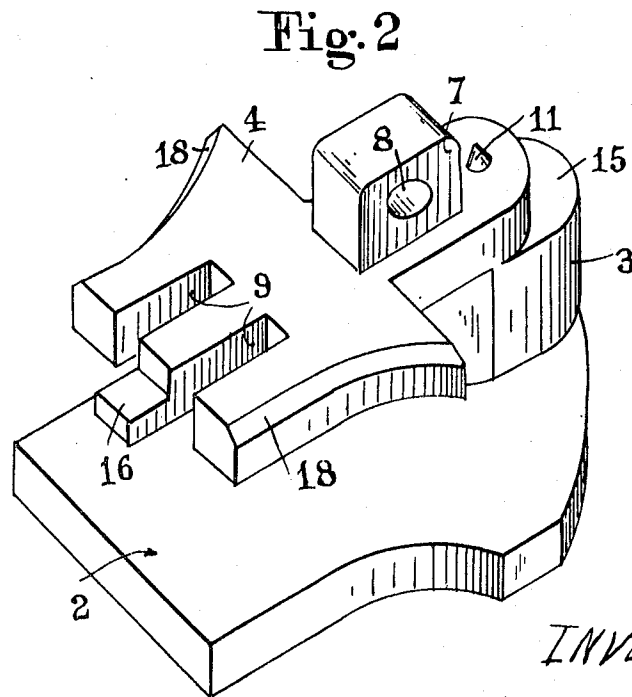
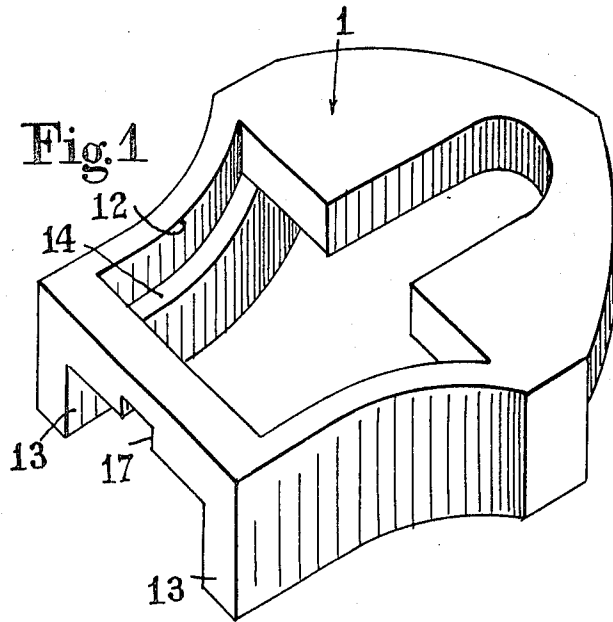
[54] **SLIDE FASTENER CONTROL ELEMENT**
 2 Claims, 5 Drawing Figs.

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[51] Int. Cl..... A44b 19/26
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ABSTRACT: A control slider for sliding fastener, of the type consisting of two elements assembled to each other in superposed relationship, said elements constituting the plates adapted to engage the two opposite faces of the sliding fastener one of said plates comprising the central core. One of these plates, namely the lower one, carries a lug adapted to support the ancillary elements of the slider, such as its locking member and its pull tab, the other plate being formed with a cavity adapted to receive said lug therein. The surface area of said cavity is sufficient to permit the passage of said ancillary elements carried by said lug and the two main elements are fastened to each other by crimping or elastic snap engagement of said hollowed upper plate over said lug rigid with the central core and carried by the other or lower plate.

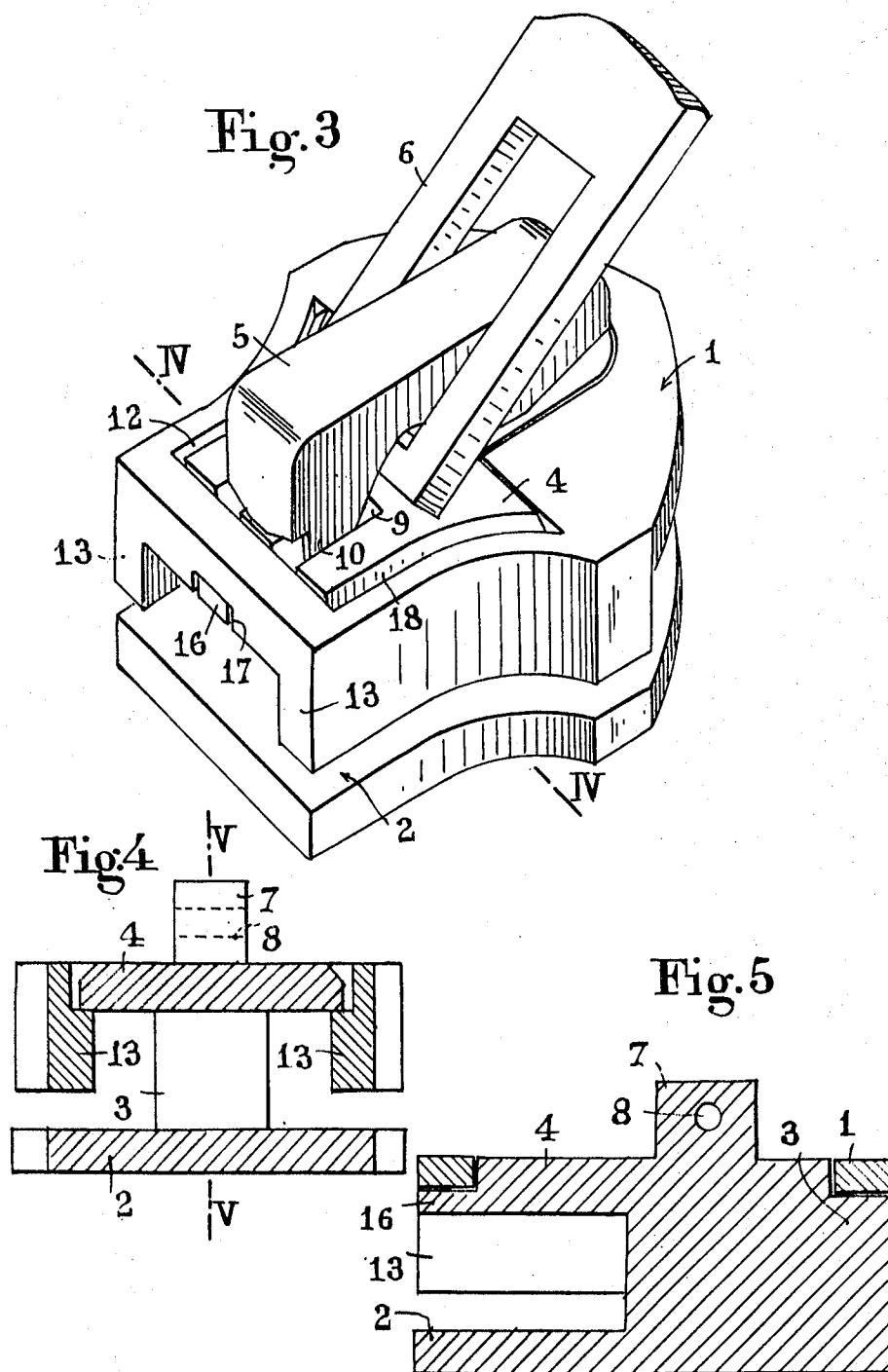




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SLIDE FASTENER CONTROL ELEMENT

The present invention relates to slide fastener control elements or sliders.

These sliders consist essentially, as a rule, of a pair of superposed parallel plates interconnected by a central core. The function of this core is to separate the interlocking elements (teeth or scoops) of the two rows attached to the two portions of the corresponding sliding fastener, while the slider plates move the one along one face and the other along the opposite face of this fastener. Besides, at least one of the two plates comprises marginal portions adapted to slide along the sides of the two rows of interlocking teeth or like elements.

In general, the two plates and the central core of this slider consist of a unitary member made for example by moulding. The other component elements of the slider, notably the pull tab and its movable locking member, are made separately and attached by a subsequent operation to the slider body.

To fit a slider of this type to a sliding fastener it is necessary to engage the slider therein from one or the other end. Now this operation must be performed before fitting the stops usually provided at the end of zip or sliding fasteners. On the other hand, the use of these sliders for equipping a continuous line of interlocking elements or teeth which has a relatively great length is scarcely convenient. In fact, in this case all the sliders must be engaged on the line at one end thereof and then caused to slide in succession to the various positions contemplated for these sliders.

Now in many instances the use of continuous lines of interlocking rows of teeth or like elements provided with sliders disposed at spaced intervals has become increasingly popular. In fact, with this system the line can be cut into sections having the desired length for constituting as many individual sliding fasteners.

It for this reason that sliders have been proposed which are adapted to be fitted not at one end but at any desired intermediate point along a continuous line of sliding fastener, or to a finished sliding fastener. To this end, these sliders consist of separate parts adapted to be assembled at the point selected for fitting the slider.

However, hitherto known sliders of this type are not very convenient and far from proving definitely satisfactory. In fact, the assembling and fitting in position of their various component elements constitute delicate operations involving a higher cost of the assembly.

It is therefore the object of the present invention to provide a slider of the type set forth hereinabove but so designed that it can easily and rapidly be assembled at the selected location along the line of interlocking elements. Broadly, this slider consists of two elements adapted to be assembled with each other to constitute the plates of the two faces.

However, this slider is characterized in that the central core provided on the inner face of one plate carries a lug adapted to constitute a support for the ancillary slider elements, namely its locking member and its control tab, and the other plate has formed therein a recess adapted to receive said lug and of which the surface area is sufficient to permit the passage of the ancillary elements carried thereby. Now, these two elements can be firmly assembled by fitting the recessed plate by snap or elastic locking engagement on the lug rigid with the core provided on the other plate.

Thus, the slider according to this invention can be fitted in position without difficulty at any intermediate location along a continuous line of sliding or zip fasteners, or along a finished single sliding fastener section, since it is only necessary to assemble at this selected location the two main elements of the slider one of these elements carrying the above-defined ancillary elements thereof.

Besides, other features and advantages of the slider according to this invention will appear as the following description proceeds with reference to the accompanying drawing illustrating diagrammatically by way of example a typical form of embodiment of the invention.

In the drawing:

FIGS. 1 and 2 are perspective views illustrating the two main component elements of the slider;

FIG. 3 is a perspective view showing the slider after the two elements of FIGS. 1 and 2 have been assembled, one element carrying the ancillary elements of the slider;

FIG. 4 is a vertical cross section taken along the line IV-IV of FIG. 3, but showing the two main elements of the slider and FIG. 5 is a longitudinal section taken along the line V-V of FIG. 4.

The slider according to this invention for a conventional sliding fastener consists of two main elements 1 and 2 constituting the small plates adapted to engage the two opposite faces of the sliding fastener. In the example illustrated, these two elements or parts are made from a material having at least a partial elasticity, for example a suitable moulded plastic material.

On its inner face one of the plates, namely plate 2, carries a projection adapted to constitute the central core 3 of the corresponding slider. This core carries on the other hand a lug 4 parallel to plate 2 and adapted to constitute a support for the ancillary elements of the slider, namely the movable locking member 5 thereof and its pull tab 6. To this end, the lug carries an upper boss 7 on which the element constituting the locking member of the slider can be fitted. In fact, this member, of well-known type, is hollow and somewhat trough-shaped. Moreover, a transverse hole 8 is formed through the projection or boss 7 for inserting the pivot pin of this member or receiving the crimping or anchoring points thereof.

Besides, the lug 4 has formed therein one or a plurality of notches 9 permitting the passage of the anchoring points 10 of the locking member 5. A spring (not shown) is disposed in the opposite end of the locking member 5 for urging same to its normal locking position. Besides, the corresponding end of lug 4 is advantageously provided with a stud 11 adapted to hold this spring against movement. In a known manner, the locking member has notches formed therein for engagement by the edge of the relevant end of the control or pull tab 6.

On the other hand, the plate 1 has formed therein a cavity 12 of which the shape and surface area correspond substantially to those of the lug 4 and to the portion thereof which is connected to the central core 3. Besides, this cavity 12 is adapted to receive in snap engagement the lug 4. In this respect, it may be noted that the surface of this cavity is at least equal to that of the area occupied by the ancillary elements inserted in or fitted to the lug 4 i.e., the tilting locking member 5 and the control or pull tab 6. This is an essential feature characterizing the slider of this invention.

Furthermore, the plate 1 comprises on its inner face a pair of lateral walls 13 adapted to slide against the rows of interlocking elements of the sliding fastener. Now each wall 13 is provided with an inner shoulder 14 disposed at lower level than plate 1 so as to retain the lug in position after this lug 4 has been engaged and retained in snap engagement in its cavity.

On the other hand, the upper end of the central core 3 is notched to provide a bearing shoulder 15 for the upper plate 1. At the opposite end, the lug 4 carries a projection 16 adapted to be engaged in a corresponding notch 17 formed in the registering portion of plate 1.

The ancillary elements of the slider according to this present invention, i.e. the tilting locking member 5 and pull tab 6, are inserted on the lug 4 of member 2, before this member 2 is assembled with the other main element 1 of the slider. Under these conditions, to complete the slider it is only necessary to assemble the two members 1 and 2 in superposed relationship.

By reason of the specific arrangement of these two members and also of their relative elasticity, this assembling operation may be achieved by simply force fitting the lug 4 into the cavity 12 of the upper plate 1. To facilitate this operation, the lug 4 may comprise on the other hand a slightly beveled portion 18 along its edges. It should also be noted that this simplified assembling is permitted by the fact that the surface area of

cavity 12 is at least equal to that of the room occupied by the locking member 5 and pull tab. 6. Thus, these two members can pass through this cavity and project above the upper plate 1 as illustrated in FIG. 3.

After the lug 4 has thus been fitted into the cavity 12, the two main elements 1 and 2 of the slider are perfectly assembled. In fact, the lug 4 is retained by the shoulder 14 formed on top of the sidewalls 13 of plate 1. On the other hand, this plate 1 bears on the shoulder 15 of central core 3 and also on the projection 16 carried by lug 4.

Due to the specific mode of assembling the two main component elements of the slider of this invention, this slide can easily and rapidly be fitted in position at any intermediate point along a continuous line of paired rows of interlocking teeth or scoops as usually provided in a sliding or zip fastener, or along a finished slide fastener already provided with end stops. To this end, it is only necessary to form beforehand an aperture in the sliding fastener by separating some of the registering teeth thereof, but only along a reduced length.

This constitutes the essential feature characterizing the slider of this invention. In this respect, it may be emphasized that in comparison with some known separable sliders consisting of a plurality of component elements, the present slider is advantageous mainly in that the assembling operation is performed by handling only two elements, one of which already supporting the various other ancillary elements of the slider, such as the locking member and the pull tab.

Of course, the slider according to this invention should not be construed as being strictly limited by the specific form of embodiment described hereinabove with reference to the attached drawing.

In fact, it will readily occur to anybody conversant with the art that the means for assembling the two main component elements of this slider may differ from those contemplated in the example described and illustrated herein. In fact, in this example these two main component elements are assembled by mutual interlocking action as permitted by the use of an last partly resilient material.

However, it would also be possible to manufacture these two main elements from nonelastic material and to subsequently assemble these elements by crimping the upper plate 1 to the lug 4 by simple mechanical distortion.

I claim:

1. A control slider for controlling the mutual locking and release of the complementary interlocking elements forming the two rows attached to the two portions of a sliding fastener, said slider comprising in combination a pair of superposed partially elastic plates, a central core rigid with one face of the first one of said plates, a lug rigid with said core and parallel to said first plate, said lug being somewhat spaced from said first plate, a pull tab mounted on said lug, a cavity formed in the other plate and adapted to receive the lug carried by the first plate, said cavity comprising a shoulder forming a passageway of somewhat smaller surface area than the lug carried by the first plate, whereby said lug is adapted to be resiliently retained in position when said lug is positioned in said cavity beyond said shoulder, said pull tab extending beyond the other plate.

2. A control slider as set forth in claim 1, wherein the lug carried by said first plate comprises a projection and the other plate comprises a notch engageable by said projection.

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