June 14, 1932. N. J. POUX 1,863,535

SEPARABLE FASTENER

Filed July 9, 1930

FIG. 1.

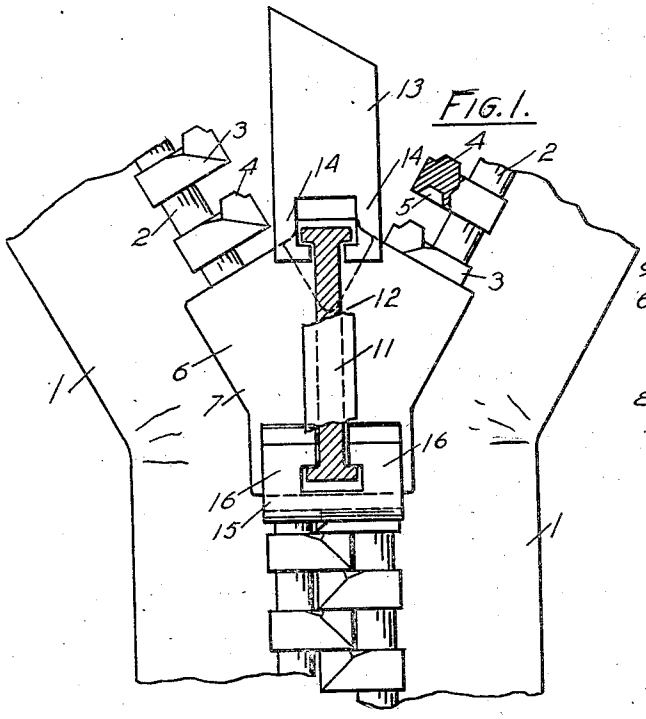


FIG. 2.

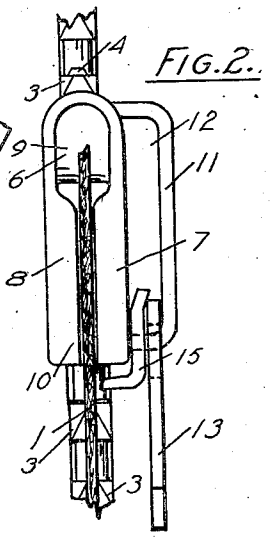


FIG. 3.

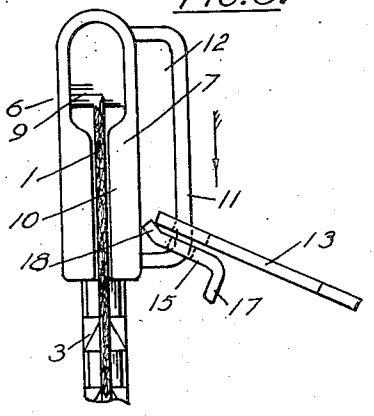


FIG. 4.

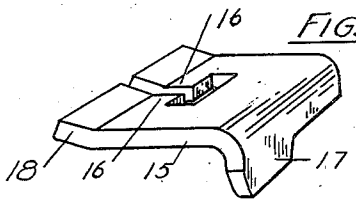
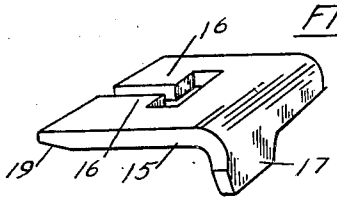


FIG. 5.



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Patented June 14, 1932 1,863,535

UNITED STATES PATENT OFFICE

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SEPARABLE FASTENER

Application filed July 9, 1930. Serial No. 466,703.

Separable fasteners having interlocking members adapted to be swung together and which are operated by a slider are ordinarily closed, or opened throughout their entire length. It is desirable in certain environments to provide means whereby the slider may be locked in intermediate positions so as to leave a part of the fastener open and the closed part secure. The present invention is designed to achieve this result in a simple and efficient manner. Features and details of the invention will appear from the specification and claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing as follows:—

Fig. 1 shows a plan view of the fastener, partly closed and partly open.

Fig. 2 a side elevation of the same, the slider being locked in position.

Fig. 3 a side elevation, the lock on the slider being in release position.

Fig. 4 a perspective view of the locking pawl.

Fig. 5 a modification of the pawl.

1—1 mark the stringers. These have the usual ribs 2. Interlocking members 3 are secured along the ribs. These interlocking members have projections 4 and recesses 5 which are adapted to be brought into and out of interlocking engagement.

A slider 6 has a front plate 7, a rear plate 8 and a connecting separator 9. The plates 7 and 8 have the usual guide flanges 10. The slider has a tag lug 11 with side grooves 12. A tag 13 has projecting inturned fingers 14, these fingers extending into the grooves and securing the tag on the lug so as to permit the tag to pivot at the ends of the lug and to slide the length of the lug in the operation of the slider. This manner of mounting the tag is of common construction as is also the slider and other parts previously described.

A locking pawl 15 has the projecting inturned fingers 16 which extend into the groove 12 so as to loosely secure the pawl on the lug 11. The pawl has the engaging end 17 and is so positioned on the lug that it will slide to the bottom of the lug and the engaging end will swing inwardly into interlocking position with the members. Thus it is held in locking position and will hold the slide against an opening movement by gravity alone. When the tag is pulled upwardly to effect a closing movement through the action of the slider the tag moves up to the top of the lug and the pawl, due to the bell crank action upon it, permits this upward movement. When, however, the tag is released, it drops to the bottom of the lug and assumes the position shown in Fig. 2 so that its gravity is added to that of the gravity of the pawl itself in holding the pawl in locking engagement with the members. When it is desired to release the pawl so as to effect an opening movement of the slider, the tag is shown to the position shown in Fig. 3. The inturned fingers of the tag engage the inturned fingers 16 of the pawl and swing the pawl outwardly, the inturned ends of the fingers resting on the lower end of the walls of the groove 12 so that this engagement of the fingers with these walls acts as a fulcrum and the end of the tag exerting the force swinging the pawl out of engagement. In order to facilitate this action the fingers 16 have the bend 18 so that when the pawl is in its lower position this extends slightly outwardly from the front plate 7.

The same effect or clearance may be provided by beveling the pawl at 19 as indicated in Fig. 5.

What I claim as new is:—

1. In a separable fastener, the combination of stringers; interlocking members secured on the stringers and adapted to swing into and out of interlocking engagement; a slider actuating the members; a tag lug on the slider; a tag slidingly and pivotally mounted on the lug; and a pawl pivotally mounted on the lug, said pawl having a rearward projection in the path of the tag whereby the pawl may be swung to release position through the action of the tag.

2. In a separable fastener, the combination of stringers; interlocking members secured on the stringers and adapted to swing into and out of interlocking engagement; a slider actuating the members; a tag lug on the slider; a tag slidingly and pivotally mounted

on the lug; and a pawl pivotally mounted on the lug, said pawl having a rearward projection in the path of the tag whereby the pawl may be swung to release position through the action of the tag, the weight of the tag operating on the pawl to hold it in locked position.

3. In a separable fastener, the combination of stringers; interlocking members secured on the stringers and adapted to swing into and out of interlocking engagement; a slider actuating the members; a tag lug on the slider; a locking pawl swingingly mounted on the tag lug; a tag slidingly and pivotally mounted on the lug and adapted to operate in moving the slider from either end of the lug; and means on the tag engaging the pawl when the tag is at one end of the lug, said means acting on the pawl to release the same with the tag in one position and acting on the pawl to lock the same with the interlocking members when the tag is in another position at the same end of the lug.

In testimony whereof I have hereunto set my hand.

NOEL J. POUX.