March 18, 1958 M. S. REEVES ET AL 2,826,797

ZIPPER LOCKING DEVICE

Filed Oct. 6, 1955

Fig. 1

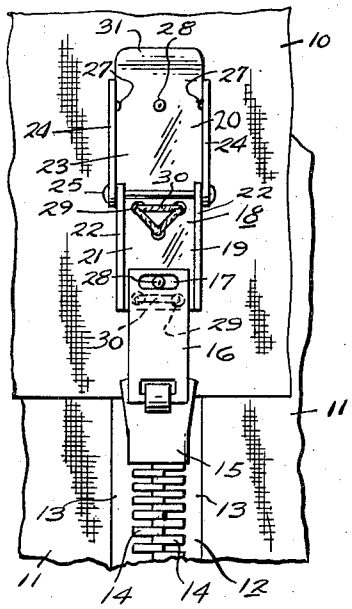


Fig. 2

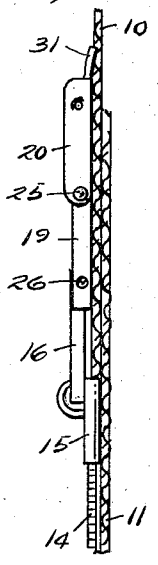


Fig. 3

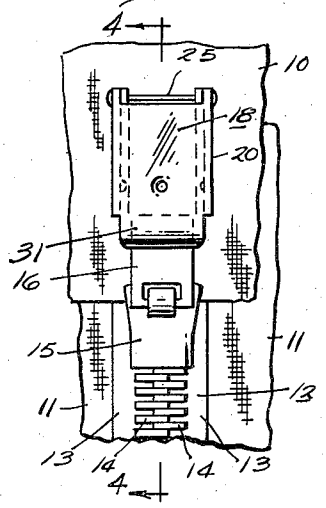


Fig. 6

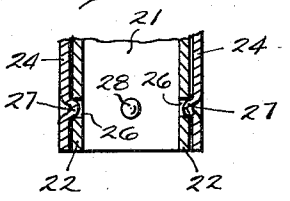


Fig. 5

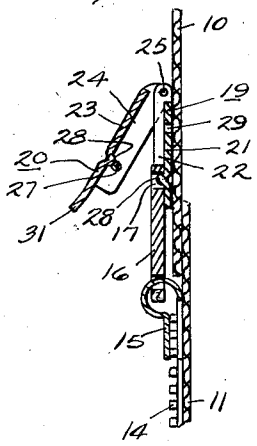
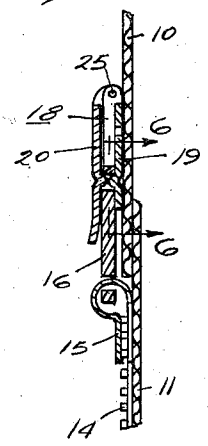


Fig. 4



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ZIPPER LOCKING DEVICE

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1 Claim. (Cl. 24—205.11)

This invention relates to interlocking slide fasteners and particularly to means for arresting the slider, after it has performed its function of interlocking the fastener elements, by detachably securing to a latch device a conventional pull tab attached to the slider.

A principal object of the present invention is to provide a latch device for receiving the free end of such a pull tab between separable latch parts to thereby stay the slider, the latch device being a type of snap action latch the coacting snap elements of which are built into the latch itself, independently of the pull tab.

An important object of the present invention is to provide a latch device that may be furnished separate and apart from any slide fastener or part thereof and which may be operatively installed for use with a slide fastener having a conventional pull tab, without any modification whatsoever of the slide fastener parts, including the pull tab.

Other objects and advantages of the present invention will appear more fully hereinafter, it being understood that the invention consists substantially in the combination, construction, location and relative arrangement of parts, all as described in the accompanying drawings and as finally pointed out in the appended claim.

In the accompaying drawings:

Figure 1 is a front elevation of an organization constructed in accordance with and embodying the principles of the present invention, the slide fastener being shown closed and the latch device being shown open to disclose the pull tab lodged in one of the latch parts;

Figure 2 is a side elevation of the organization shown in Figure 1;

Figure 3 is a view similar to Figure 1, however, the latch device is shown closed;

Figure 4 is a vertical section on line 4—4 of Figure 3;

Figure 5 is a view similar to Figure 4, however, the latch device is shown partially open; and

Figure 6 is an enlarged fragmentary vertical section on line 6—6 of Figure 4.

The organization selected for illustrating a construction embodying the present invention includes a layer of material **10** and a layer of material **11** that underlies the material **10** and which extends downwardly therefrom. The material **11** is provided with an opening that is closed by a conventional slide fastener designated generally by the numeral **12**.

This slide fastener has a pair of tape stringers **13** to which there are attached, in the conventional manner, interlocking elements **14**. The slider controlling the engagement and disengagement of the fastener elements, designated **15**, has attached to the top thereof a pull device or tab **16**. It will be observed that the latter is conventional in every respect, being rectangular in shape and provided with a free end portion that is apertured, as at **17**.

The latch device of the present invention, designated generally by the numeral **18**, is provided with a pair of parts, designated respectively by the numerals **19—20**,

each of which is channel shaped in transverse cross section, the part **19** being provided with a base wall **21** and opposite side flanges **22—22**, and the part **20** being provided with a base wall **23** and opposite side flanges **24—24**. Corresponding end portions of the flanges **22—22** and **24—24** extend beyond the base walls **21—23**, and a pin **25** is projected therethrough for relative pivotal movement of the latch parts **19—20**. The part **20** is slightly wider than the part **19** so that normally the part **20** fits over the part **19** with the opposite side flanges **24—24** respectively on the outer sides of the opposite side flanges **22—22**. The latter flanges respectively are apertured at **26—26**, and the opposite side flanges **24—24** respectively are deformed at **27—27** to provide inwardly projecting protuberances that register with and removably lodge respectively in the apertures **26—26**. The base walls **21** and **23** respectively are deformed to provide a pair of opposed protuberances designated **28—28**. The base wall **21** is provided with a set of apertures **29** through the medium of which the latch device **18** is sewed to the material **10**, as by thread designated **30**, opposite the end of the slide fastener **12**, as best shown in Figure 1. The free end of the base wall **23** of the latch part **20** extends beyond the opposite side flanges **24—24** to form a lip **31** that turns slightly out of the plane of the base wall **23**. This lip facilitates the operation of opening the latch device **18**.

Referring particularly to Figure 1, the pull tab **16** fits freely between the opposite side flanges **22—22** of the latch part **19**, and referring particularly to Figure 4, the pull tab **16** additionally fits snugly between the base walls **21—23** respectively of the latch parts **19—20**. When the pull tab **16** is operatively positioned within the latch device in the manner aforesaid, the protuberances **28—28** respectively of the base walls of the latch parts project freely into the aperture **17** formed in the pull tab.

In the use of the organization of the present invention, the opening in the material **11** is first closed in the conventional manner. Then the pull tab is positioned with its free end portion lodged in the latch part **19**, between the side flanges **22—22** and with the protuberances **28** projecting into the aperture **17** formed in the pull tab **16**, as best shown in Figure 1. Then the latch part **20** is closed, whereupon the protuberances **27—27** formed on the opposite side flanges **24—24** respectively snap into the apertures **26—26** formed in the opposite side flanges **22—22**, and the protuberance **28** formed in the base wall **23** enters the aperture **17** formed in the pull tab **16**. Thus the slider **15** is arrested or stayed by reason of being anchored or latched to the latch device **18** through the medium of the pull tab **16**. In order to free the slider **15**, the latch parts **19** and **20** are separated, whereupon the protuberances **27—27** snap out of the apertures **26—26** and the protuberances **28—28** separate, freeing the pull tab **16** for removal from the latch part **19** and the slider **15** for movement downwardly to disengage the interlocking elements **14**.

Of course, the present invention as hereinbefore described and as shown in the accompanying drawings is susceptible of various changes and modifications which may be made from time to time without departing from the general principles or real spirit of the invention, and accordingly, it is intended to claim the same broadly, as well as specifically, as indicated by the appended claim.

What is claimed as new and useful is:

In combination with a slide fastener for closing an opening formed in the material of a garment or the like, said slide fastener comprising two rows of interlocking slide fastener elements adapted for attachment to said material respectively on opposite sides of said opening, a slider operatively fitted to said slide fastener elements, and a pull tab attached to said slider, a preformed unitary

latch device releasably interlocked with said pull tab comprising a first latch part underlying the free end portion of said tab and adapted to be fixed to said garment, and a second latch part overlying the free end portion of said pull tab and hinged to said first latch part, at least one of said latch parts being indented to thereby provide a protuberance internally of said latch, said pull tab being detachably engaged with said protuberance, and said latch parts being provided respectively with at least one pair of complementally formed areas operating to releasably hold said latch parts closed and said pull tab therebetween.

References Cited in the file of this patent

UNITED STATES PATENTS

1,130,438	Schmidt	Mar. 2, 1915
1,275,034	Huxley	Aug. 6, 1918
1,864,356	Johnson	June 21, 1932
2,087,045	Roberts	July 13, 1937
2,272,681	Smith	Feb. 10, 1942

FOREIGN PATENTS

834,338	France	Nov. 17, 1938