

Aug. 7, 1962

P. J. MERINO

3,047,925

REVERSIBLE ZIPPER

Filed Nov. 30, 1960

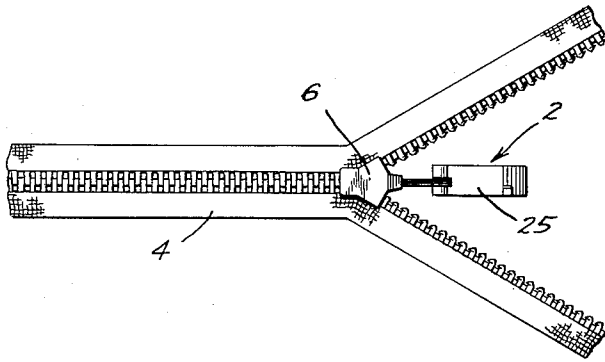


Fig. 1

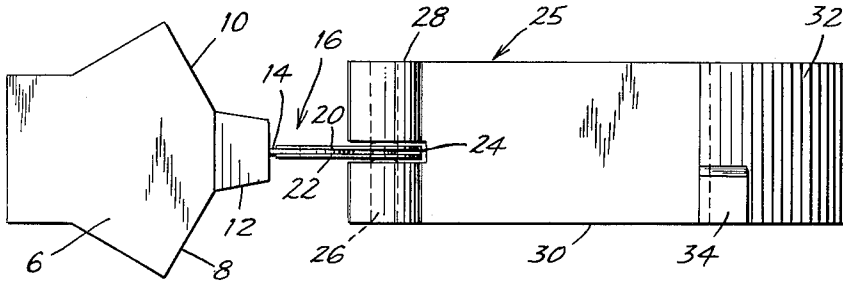


Fig. 2

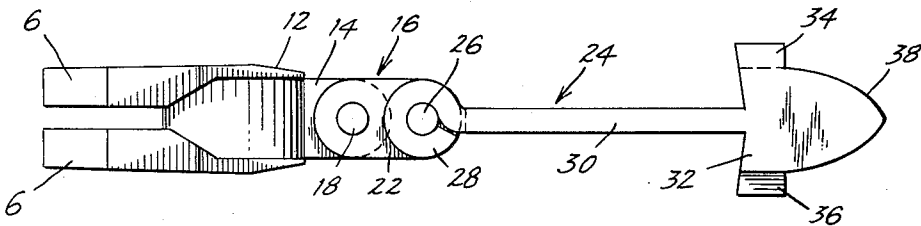


Fig. 3

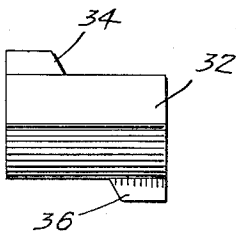


Fig. 4

INVENTOR

Peter J. Merino,

BY

Diggins + Le Blanc

ATTORNEYS

1

3,047,925

**REVERSIBLE ZIPPER**

Peter J. Merino, 1744 SW. 4th St., Miami, Fla.

Filed Nov. 30, 1960, Ser. No. 72,653

3 Claims. (Cl. 24—205.14)

2

FIGURE 1 is a perspective view of the zipper of the present invention wherein the slider and tracks of the zipper are in operative engagement;

FIGURE 2 is a top view of the slider and tab of the present invention;

FIGURE 3 is a side view of the slider and tab employed in the present invention; and

FIGURE 4 is an end view of the tab used in the present invention.

This invention relates to zippers, and more particularly to reversible zippers.

Recent years have noted the increased manufacture and sale of reversible garments, that is, garments that are provided with an attractive appearance on both sides, so that the owner can effectively double his wardrobe by turning the garment inside out. Such garments have been known in the past, but the increased use of synthetic fibers and the greater popularity of casual clothing has generated a greater demand for such apparel.

Such garments, while in most respects simple to manufacture, have presented a problem in the area of suitable fasteners. For example, jackets and coats such as those known as "windbreakers" necessarily require some fastening device. In the past, buttons have been largely used in reversible garments because buttons can be placed on both the inside and outside of one flap of the garment, while button holes can be placed in the other flap which are suitable for use with either set of buttons. The public has, however, shown a preference for zippers as a garment fastening means.

The standard zipper comprises a slider on which is mounted a tab for pulling the slider along the tracks of the zipper. The most satisfactory zippers provide some sort of locking means associated with the tab member so that the slider will remain stationary when pulled to its desired position. Such zippers are not suitable for reversible garments due to the fact that the slider can be pulled with facility from only one side, thus making it very difficult to zip up the garment when it is worn inside out.

Several attempts have been made in the past to provide a zipper suitable for use with reversible garments. One such zipper is constructed with a tab on either side of the slider. This type zipper is unsatisfactory in two respects. First, the cost of the zipper is increased by the multiplication of tabs and, second, the tab on the inside of the garment is quite likely to catch on other garments as the outside tab pulls the slider to its desired position. Another attempted solution has been the provision of a string or tape attached to a ring on the top of the slider. This string or tape can be pulled down on either side of the zipper tracks. This type zipper is not satisfactory, however, because no locking means can be provided with this string or tape and thus there can be no assurance that the slider will stay in its desired position.

According to the present invention, it has now been found that a zipper can be provided for reversible garments which utilizes only a single tab and yet which can be easily and conveniently locked in place on either side. In addition, the zipper of the present invention is easier to operate and less likely to catch than zippers that have heretofore been known.

It is accordingly a primary object of the present invention to provide a reversible zipper.

It is another object of the present invention to provide a reversible zipper in which a single tab can be used to lock the zipper on either side.

It is still another object of the present invention to provide a zipper which is easier and less troublesome in operation.

These and further objects and advantages of the invention will become more apparent upon reference to the following specification and claims and appended drawings wherein:

Referring now to the several figures, FIGURE 1 shows a zipper, generally indicated at 2, being drawn along a zipper track 4. FIGURES 2, 3 and 4 show the zipper 2 in more detail.

The slider 6 of the zipper is conventional and is provided with leading surfaces 8 and 10 which act to guide the two sides of the zipper track into the slider where they are forced into locking engagement. A solid portion 12 defines the length of the openings formed by the leading surfaces 8 and 10 and serves as a base for a lug 14 which protrudes outwardly in the direction of the zipper closing. The lug 14 is connected to a bifurcated linking member 16 by means of a pin 18.

The fingers 20 and 22 of the member 16 extend on either side of the lug 14 and the pin 18 is inserted in such a manner that the lug 14, together with the slider 6, is easily pivotable around the pin 18. The linking member 16 extends into an aperture 24 provided in the tab 25 and is retained in pivotal relationship therewith by means of a pin 26. The zipper is thus provided with a double jointed link which enables the tab 25 to be folded down on either side of the slider 6.

The tab 25 can be of any desired shape, but preferably has a cylindrical portion 28 at one end, into which is cut the aperture 24. The cylindrical portion 28 is axially drilled or otherwise prepared to receive the pin 26. The tab is also provided with an elongated portion 30 which is thinner in cross section than the cylindrical portion 28 and is long enough to enable a second built-up portion 32 to clear the slider 6 when the tab is folded back upon the slider.

The built-up portion 32 may take any desired shape, but as shown has a rounded end portion 38. Protruding laterally outward from the portion 32 are two flanges 34 and 36 which serve as locking devices. As can be seen from the various figures, the flange 34 extends upwardly at one end and on one side of the portion 32 while the flange 36 extends downwards at the other end and on the other side of this portion.

The zipper described above is completely reversible and self-locking. When it is desired that the tab be on the top side of the zipper tracks shown in FIGURE 1, the tab is pulled upwardly and folded down over the slider 6. This movement is permitted by the double jointed link made up of the members 14 and 16 and the pins 18 and 26. When the tab is folded over, the flange or locking member 34 is forced between the teeth of the zipper track in the well-known manner and prevents further movement of the slider. If the tab is desired to be used on the bottom side of the track 4, the tab is pulled downwards and folded around the slider 6 so that the flange 36 engages the zipper track.

The provision of the tab mounted on the top of the slider has the further advantage of lessening the force necessary to pull the tab up, as the line of force is in a direct line with the line of motion of the slider. This also prevents the zipper from tipping in towards the body with the resulting catching that is often experienced with presently known zippers.

It should be understood that the zipper described above is merely a preferred example and is not to be taken as limiting in any way. Numerous other structures embodying the same concept could be constructed within the scope of this invention. For example, the

3

4

portion 30 of the tab could be made as thick as the portion 28 and a flange or tooth provided on either side of the portion 30. In this event, an aperture could be provided in both the top and bottom of the slider 6 so that when the tab 25 was folded back on the slider 6, the flange or tooth would enter the aperture and engage the zipper track in the well-known manner. In such a structure, the portion 32 could be eliminated if desired.

It will be apparent from the foregoing that a zipper has been provided that is completely reversible and self-locking. The present zipper is cheaper and simpler to manufacture and much more satisfactory in operation than previous zippers. Not only can the tab of the zipper be used on either side of the zipper track, but the chance of snagging other garments is considerably reduced.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

What is claimed and desired to be secured by United States Letters Patent is:

1. A reversible zipper comprising in combination a slider having two opposite broad sides defining substantially parallel planes, said slider having a lug intermediate said two planes and extending outwardly therefrom in the direction of zipper closing, a tab, a link pivoted at its respective ends to said tab and said lug, said link being of sufficient length to permit said tab to be pivoted to engage in substantially parallel relation said opposite broad sides of said slider, and means on said tab for locking said slider against movement when said tab is engaging either of said opposite broad sides of said slider.

2. A reversible zipper according to claim 1 wherein said link is pivoted to said tab and said lug by a pair of spaced parallel pins.

3. A reversible zipper according to claim 2 wherein said locking means comprises a projection on each side of said tab.

References Cited in the file of this patent

UNITED STATES PATENTS

1,903,415	Greenberg -----	Apr. 4, 1933
1,955,288	Greenberg -----	Apr. 17, 1934
2,811,763	Jordan -----	Nov. 5, 1957
2,836,872	DiLuglio -----	June 3, 1958

FOREIGN PATENTS

640,727	France -----	July 20, 1928
---------	--------------	---------------