July 11, 1939. D. W. GALLOWAY 2,166,092

TROUSER FLY CONSTRUCTION

Filed March 9, 1938

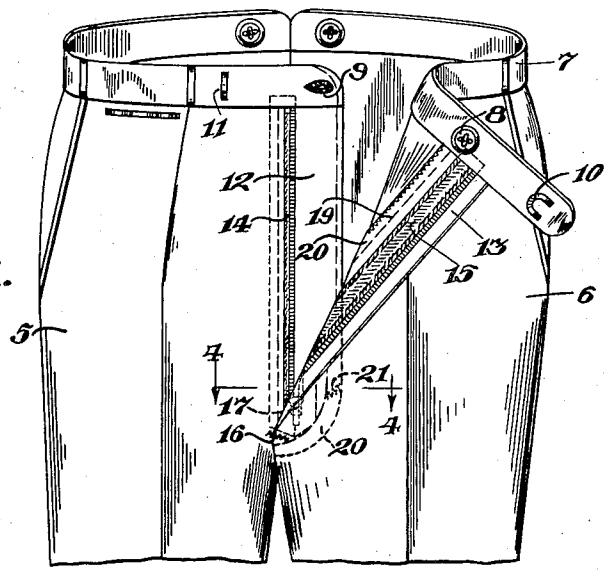


Fig. 1.

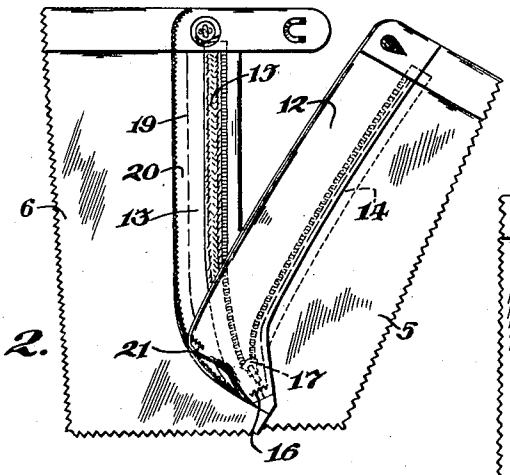


Fig. 2.

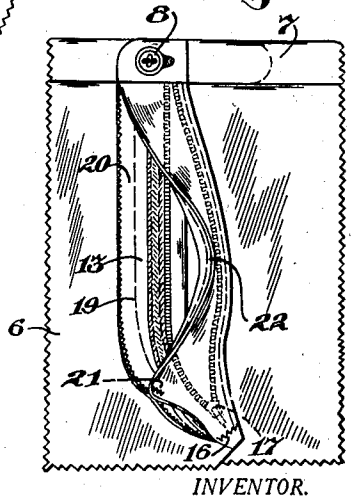


Fig. 3.

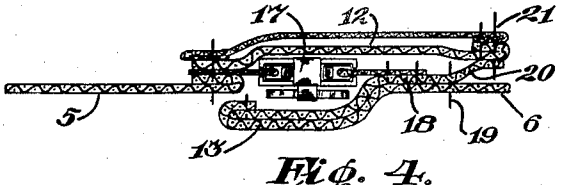


Fig. 4.

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TROUSER FLY CONSTRUCTION

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3 Claims. (Cl. 2—234)

This invention relates to trouser fly constructions and is an improvement upon the construction shown in the patent to Craig, Patent 1,960,218, May 24, 1934.

The use of the cross tape shown in the Craig patent is generally satisfactory and has been used in many thousands of pairs of trousers. In volume production, however, it is sometimes difficult to control the relative tension or slack on the goods between the points where the cross-tape is attached resulting in occasional puckers or a poor hang of the trousers in this location. My invention not only overcomes this fault but has a great many other advantages not only over the Craig construction but over all prior trouser fly constructions. These advantages will more clearly appear after describing the preferred embodiment shown in the drawing. In the drawing:

Fig. 1 is a front view of a pair of trousers embodying my invention;

Fig. 2 is a detailed view of the fly construction viewed from the inside of the trousers with the fly open.

Fig. 3 is a similar view with the trousers fastened at the belt but with the fastener in open position;

Fig. 4 is a cross-section on line 4—4 of Fig. 1.

The general construction of the trousers may be varied as desired and the ones herein shown have right and left leg portions 5 and 6 respectively, a belt portion 7 with a button and buttonhole fastening 8, 9 and also a hook and eye fastening 10, 11 at the belt line. The construction of the fly herein shown is substantially that disclosed and claimed in the Craig patent except for the reinforcing cross-tape at the bottom. Accordingly, it will only be generally described here. There is a right fly 12 and a left fly 13 each having attached thereto a stringer 14, 15 of a slide fastener. These two flies are united at the bottom by the usual bar tacking 16 and a slider 17 serves the purpose of opening and closing the fastener. In the right fly construction it will be observed that there is an inner piece 18 united to the front of the trousers by suitable stitching such as 19. This piece 18 has a free edge 20 extending beyond the row of stitching 19.

In practicing my invention I utilize this free edge as a means for making connection between the right and left flies to transmit a heavy tearing force from one to the other so that it will not come against the slider 17 and bar tacking 16. This is quite essential in slide fastened trousers in order to avoid damage to the lower end of the fastener as pointed out in the above mentioned Craig patent. This free edge on the outer or left fly is stitched to the edge of the underneath or right fly 12 by heavy bar stitching 21. The angle of this bar stitching is approximately 30° to the horizontal in order that the tear stresses may be resisted by all of such stitches. This bar stitching 21 extends from the edges of these flies in this manner to approximately the line of stitching 19. When under stress the pull will be transmitted from the right fly through the free edge 20 which will be lifted upwardly by such stress and transmitted through the stitches 19 to the opposite side of the trousers. The location of the reinforcing stitches 21 is just high enough so that the tearing stresses will not come on the slider 17 when at the bottom of the fastener. In this manner the length of the fly opening is not materially reduced. Also, according to my invention, it is possible to construct the trousers in completed halves and then join these halves together by stitching. Then as a final operation the fly parts will be joined by the reinforcing stitching 21. This row of bar stitching 21 is sewed through only the inner fly and the free edge portion 20 of the outer fly. In this manner the reinforcing stitching 21 does not extend through the front portion of the trousers.

It will now be see that this bar tack reinforcement as applied to the trouser flies in the manner described, not only performs all of the functions of the cross-tape reinforcement in a better way, but is simpler and cheaper and does away with the aforementioned disadvantage of the cross-tape. It has the further important function of preventing the underneath flap of the right fly from tending to turn under. It is a common experience especially unless great care is taken in adjusting the trousers at all times, for these flies to get folded underneath the fastener and, in some instances, resulting in injuries. As will be seen in Fig. 3 any tendency for this flap 22 to be turned under is resisted by the stitches 21. In this manner there is less likelihood of the protective flap getting out of position.

While I have shown and described in this application one embodiment which my invention may assume in practice, it will be understood that this embodiment is merely for the purposes of illustration, and that various other forms may be devised within the scope of my invention as defined in the appended claims.

What I claim as my invention is:

1. In trouser construction, a pair of overlapping flies and a slide fastener for uniting the fly fronts, the under fly having a protective flap extending underneath the fastener and being permanently attached to the other fly on the opposite side of the fastener at a sufficient distance from the bottom end of the slide fastener to remove tearing stresses from the bottom end of the fastener when the fastener is open.

2. In trouser construction, right and left leg portions carrying a pair of overlapping flies and a slide fastener for uniting the flies, the upper fly including a strip of material underneath the inner edge of one leg portion, and means for securing the same to such leg portion, icluding a row of stitches spaced only a short distance from its inner edge to leave the edge of such strip free, the inner fly including a flap which extends under said slide fastener and terminating opposite such free edge, and means for attaching the free edge directly to the edge of said under fly at a sufficient distance above the bottom of the flies so that tearing stresses will be transmitted to such inner free edge instead of coming upon the bottom end of the slide fastener.

3. In trouser construction, the combinations defined in the preceding claim wherein said means for attaching the under fly to the free edge of the strip on the outer fly comprises a row of reinforcing stitches running transversely at an angle to the horizontal.

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