

Dec. 4, 1934.

I. I. LEVINE

1,982,996

FLY

Filed July 28, 1934

2 Sheets-Sheet 1

Fig. 1.

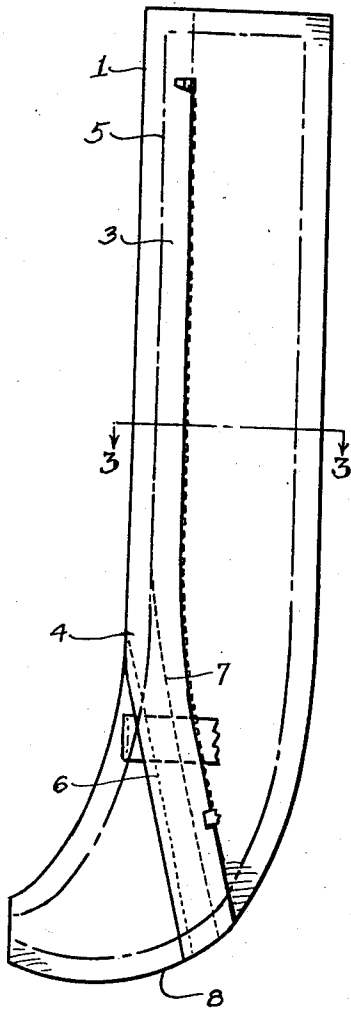


Fig. 2.

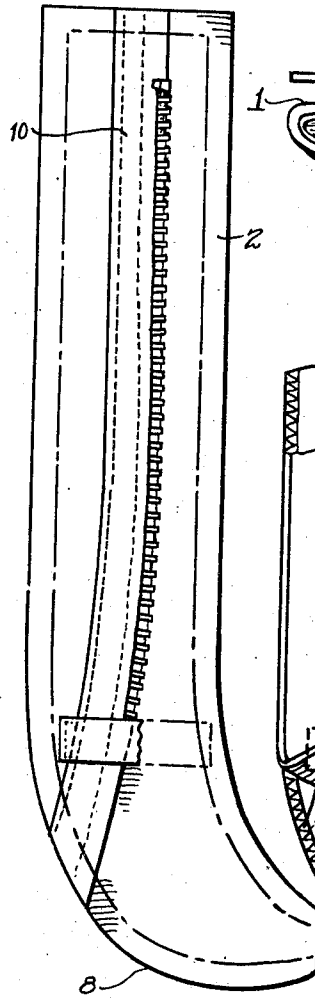


Fig. 7.

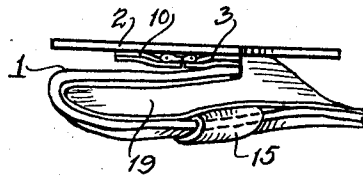


Fig. 6.

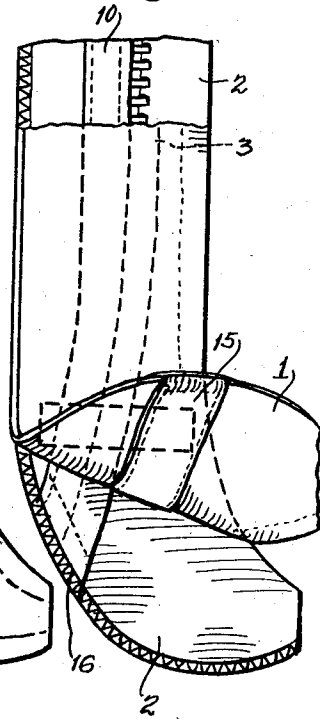


Fig. 5.

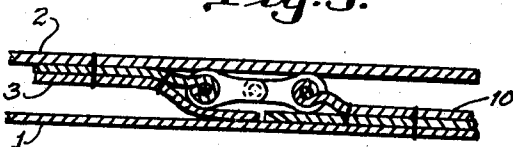


Fig. 3.



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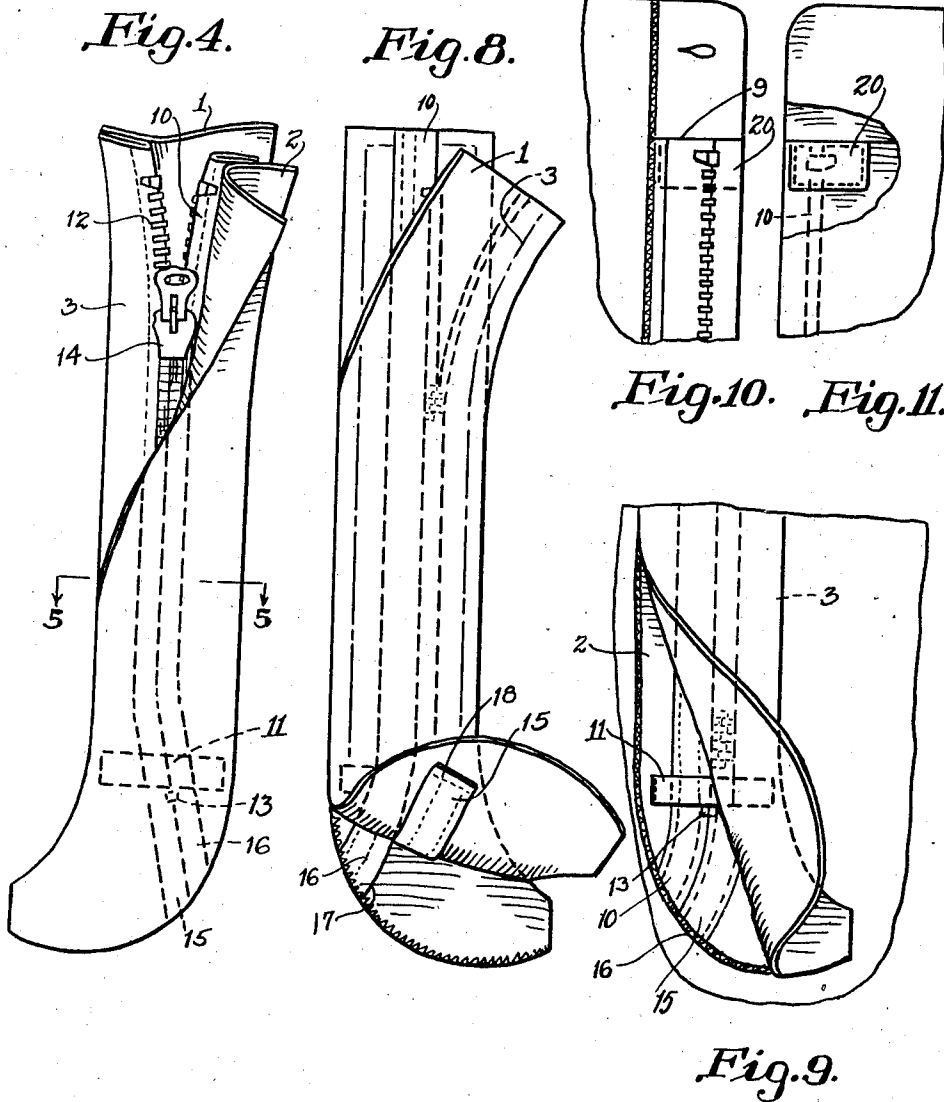
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2 Sheets-Sheet 2



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# UNITED STATES PATENT OFFICE

1,982,996

FLY

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Application July 28, 1934, Serial No. 737,434

8 Claims. (Cl. 2—234)

This invention relates to fly construction for trousers and particularly to a fly closed by a slide fastener of the "zipper" type.

One of the objects of the invention is to provide a fly construction in which, notwithstanding the employment of the "zipper" slide fastener, the right fly as well as the left is made of one integral piece of conventional shape instead of requiring the use of an additional piece of cloth at the bottom of the right fly.

Another object of the invention is the provision of a fly construction comprising the right and left cooperating flies, curved at their lower ends in conventional manner, with one strip of the "zipper" slide fastener extending along that edge of the right fly which will be stitched to the right front of the trousers down to a point adjacent the beginning of the lateral curvature of the fly, and then being diverted from its rectilinear course and extended across the fly to the opposite edge, and the left fly having on its inner side the cooperating "zipper" strip extending lengthwise of the fly intermediate its longitudinal edges, and curving to correspond to the curvature of the complementary "zipper" strip.

Other objects of the invention relate to several novel arrangements for finishing the raw lower ends of the cooperating "zipper" strips.

In the drawings which accompany and form a part of the following specification and throughout the several figures of which the same characters of reference have been employed to designate identical parts:

Figures 1 and 2 are respectively, views in side elevation of the confronting faces of the right and left flies with the "zipper" strips in position;

Figure 3 is a cross section taken along the line 3—3 of Figure 1;

Figure 4 is a perspective view showing the flies with the "zipper" type fastening in assembled relation;

Figure 5 is a cross section taken along the line 5—5 of Figure 4;

Figure 6 is a perspective view of the lower portion of a fly embracing the features of the present invention illustrating one method of finishing the lower ends of the "zipper" strips;

Figure 7 is a plan view of Figure 6;

Figure 8 is a perspective view of the assembled flies with the lower end of the left fly turned up illustrating another method for finishing the lower ends of the "zipper" type strips;

Figure 9 is a similar view, part being broken away showing still a third method for finishing the "zipper" strips;

Figure 10 is an inside view in elevation illustrating the concealed padding for preventing the slide pushing a hole through the material when the trousers are pressed; and

Figure 11 is a similar view from the outside of the trousers, a layer of the fabric being broken away to reveal the pad.

Before advertent to a detailed description of the present invention, it may be stated in distinguishing the new from what is old, that the flies are narrow fabric strips having parallel edges extending for more than half the length of the fly, the edges then curving in the same direction, one being concave and the other being convex so that the fly has a lateral curved and substantially pointed extension to one side. It is customary where a slide fastener of the "zipper" type is employed to make the edge of the fly remote from the free edge straight throughout its length and to attach one of the "zipper" strips to this straight edge by stitching. The "zipper" strip is customarily formed of a series of hooks attached to one piece of braid by way of finish to another piece of braid, the longitudinal edge of the "zipper" strip opposite the hooks being open between the two pieces of braid. It is customary in the art to insert a roughly triangular piece of fabric, additional to the flies, between the pieces of braid constituting the "zipper" strip, and to stitch it in place. This necessitates not only the employment of additional material, but also an added step in the construction of the fly, involving an added item of expense, and besides it makes an inferior crotch finish.

It was with the object of improving the construction of the fly as well as lessening the cost of making the same that the principal feature of the present invention was evolved which avoids using an additional piece of material.

Referring now in detail to the several figures and first advertent to the group of Figures 1 to 5, inclusive, the numerals 1 and 2 represent respectively, the right and left flies. On the outer face of the right fly a "zipper" strip 3 is arranged with its fabric edge adjacent the edge of the fly which will be stitched to the right side of the trousers and continuing down to the point 4 which in the embodiment of the invention shown is somewhat more than half way down the edge of the fly, from which point the "zipper" strip is deflected away from the edge with which it has substantially coincided and extends inclinedly across the fly to the opposite edge. That portion of the "zipper" strip which parallels the edge of the fly is stitched to the fly by a single row of stitching

5 while the portion of said "zipper" strip which extends across the fly is stitched thereto by double rows of stitching 6 and 7. The lower edge 8 of this "zipper" strip is finished in any of the three modes presently to be described and the upper edge of the "zipper" strip may be sewed into the belt line in the manner indicated at 9 in Figure 10 and which is well known in the tailoring art.

10 The complementary "zipper" strip 10 extends longitudinally of the intermediate portion of the left fly 2 preferably parallel to the edges of said fly, and below the middle of the fly it is made to veer toward the convex edge of the fly with a curvature corresponding to that of the "zipper" strip 3, the relation of the "zipper" strips being illustrated in the assembled fly shown in Figure 4.

15 It will be observed that a buffer strip 11 of any suitable material crosses the linear junction of the slide fastener adjacent the lower ends of the series of hooks 12, and that just below the said buffer strip, the "zipper" strips are positively locked together by a staple 13. The buffer strip is for the purpose of engaging the slide 14 at the lower limit of its travel bringing it yieldingly to a stop and preventing its direct engagement with the staple 13 which might be torn from the fabric by violent operation of the slide.

20 Below the staple 13 the hooks are absent from the "zipper" strips leaving the fabric ends 15 and 16 which may be finished in any of several ways, one of which is illustrated in Figure 8, showing that the end 16 of the "zipper" strip 10 is cut flush with the convex edge of the left fly and surged together with the fly edge 17. The lower end 15 of the "zipper" strip 3 terminates short of the convex edge of the right fly 1 being stitched to the face of said fly with its free edge 18 turned under.

30 In Figure 6 another form is illustrated of finishing the lower ends of the flies. The lower end 16 of the "zipper" strip 10 is surged to the convex edge of the left fly 2, in the same manner as in Figure 8. The lower end 15 of the "zipper" strip 3 is stitched to the face of the fly 1, being folded about the convex edge of said fly and stitched beneath the lining 19 of said fly as best illustrated in Figure 7.

40 Still another mode of finishing the ends of the flies is illustrated in Figure 9 in which the end 16 of the "zipper" strip 10 terminates beneath the surging at the convex edge of the left fly 2 while the lower end 15 of the "zipper" strip 3 is stitched against the fly 2 and has its free edge surged to the convex edge of the fly 2 in the same manner as the lower end 16 of the "zipper" strip 10.

50 The upper ends of the "zipper" strips are concealed between plies of the waist band of the trousers in the manner known to the art and which forms no part of the present invention. However, it has been discovered that in pressing garments having flies provided with the "zipper" type closure, protection is needed to keep the slide from pushing a hole through the front of the trousers by the pressing action. To avoid this a small patch of fabric 20 is sewn on the opposite face of the left fly to that upon which the "zipper" strip 10 is secured, said patch being positioned to come between the slide and the left front of the trousers when the "zipper" slide is in closed position, its function being to pad the slide and prevent it working through the front of the trousers when under pressure.

70 While I have in the above description defined what I believe to be preferred and practical forms

of the invention, it will be understood to those skilled in the art that the specific details of construction as shown and described are merely by way of example excepting as they illustrate the subject matter of the claims and are not to be construed as limiting the scope of the invention.

What I claim is:

1. Fly assembly comprising right and left flies in lapped relation, the lower ends of said flies being laterally curved and adapted to be substantially congruently arranged, a slide fastener of the "zipper" type closing said flies, comprising strips having series of hooks, and a slide for interdigitating said hooks, one strip being sewn on the right fly adjacent and substantially parallel to the edge of said fly remote from its free edge, to a point adjacent the beginning of the curved portion of said fly, from which point it is diverted from said edge in a downwardly inclined direction to the opposite edge, the other strip being sewn approximately along the middle of the left fly and having its lower portion diverted with a curvature corresponding to that of the first strip, and means for uniting said strips at the lower limit of the opening range of said slide fastener.

2. Fly assembly comprising right and left flies in lapped relation, the lower ends of said flies being laterally curved and adapted to be substantially congruently arranged, a slide fastener of the "zipper" type closing said flies, comprising strips having series of hooks, and a slide for interdigitating said hooks, one strip being sewn on the right fly adjacent and substantially parallel to the edge of said fly remote from its free edge, to a point adjacent the beginning of the curved portion of said fly, from which point it is diverted from said edge in a downwardly inclined direction to the opposite edge, the other strip being sewn approximately along the middle of the left fly and having its lower portion diverted with a curvature corresponding to that of the first strip, a staple uniting said strips adjacent the lower limit of the opening range of said slide fastener, and a fabric buffer secured to both strips above said staple intersecting the line of separation between said strips.

3. Fly assembly comprising right and left flies in lapped relation, the lower ends of said flies being laterally curved and adapted to be substantially congruently arranged, a slide fastener of the "zipper" type closing said flies, comprising strips having series of hooks, and a slide for interdigitating said hooks, one strip being sewn on the right fly adjacent and substantially parallel to the edge of said fly remote from the free edge to a point adjacent the beginning of the curved portion of said fly, from which point it is diverted in a downwardly inclined direction to the opposite edge of the fly, the other strip being sewn approximately along the middle of the left fly and having its lower portion diverted with an inclination corresponding to that of the first strip, means for uniting said strips at the lower limit of the opening range of said slide fastener, said strips, without hooks, extending below said uniting means, the lower end portion of the strip on the left fly being surged to the convex edge of said fly.

4. Fly as claimed in claim 3, the lower end portions of both strips being surged to the convex edge of the left fly.

5. Fly as claimed in claim 3, the lower end of the strip on the left fly being surged to the convex edge of said fly, and the lower end of the strip on the right fly being sewed to the face

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of said right fly, terminating short of the convex edge of said fly.

6. Fly as claimed in claim 3, the right fly having a lining, the lower end of the strip on said left fly being surged to the convex edge of said left fly and the lower end of the strip on the right fly being stitched to the face of said right fly and being folded over the convex edge of said right fly and having its free end sewn between the said fly and the lining thereof.

7. Fly assembly comprising right and left flies in lapped relation, the lower ends of said flies being laterally curved and adapted to be substantially congruently arranged, a slide fastener of the "zipper" type closing said fly, comprising strips having series of hooks, and a slide for interdigitating said hooks, one strip being sewn on to the right fly adjacent and substantially parallel to the edge of the fly remote from the free edge, to a point adjacent the beginning of the curved portion of said fly, from which point it is directed in a downwardly inclined direction to the opposite edge of the fly, the complementary strip being sewn approximately along the middle of the left fly and having its lower portion diverted

with an inclination corresponding to that of the first strip, means for uniting said strips at the lower limit of the opening range of said slide fastener, and a pad sewn across the strip which is secured to the left fly, above said slide in relation to the front of the trousers, when said slide is at the upper limit of its range of movement to prevent said slide wearing a hole in the superposed trousers fabric.

8. Fly assembly comprising right and left flies in lapped relation, the lower ends of said flies being laterally curved and adapted to be substantially congruently arranged, a slide fastener of the "zipper" type closing said flies, comprising strips having series of hooks, and a slide for interdigitating said hooks, one strip being sewn on the right fly adjacent to and substantially parallel with the edge of said fly remote from its free edge to a point adjacent the beginning of the curved portion of said fly, from which point it is diverted from said edge in a downwardly inclined direction to the opposite edge, the complementary strip being sewn to the left fly in operative relation to the first strip.

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