July 3, 1934. B. MAINZER 1,965,315

ADJUSTABLE WAISTBAND

Filed Aug. 5, 1931

Fig. 1.

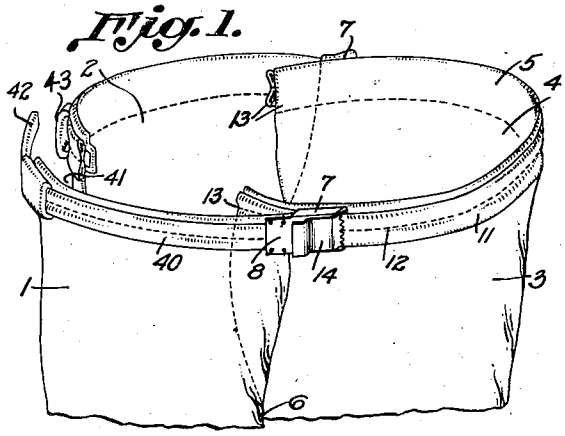


Fig. 2.

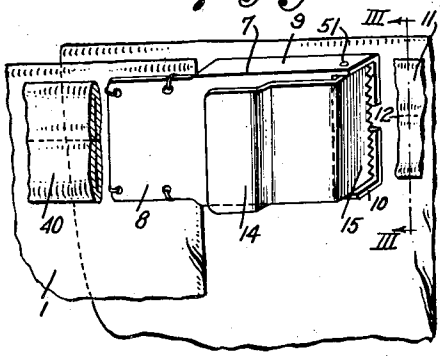


Fig. 4.

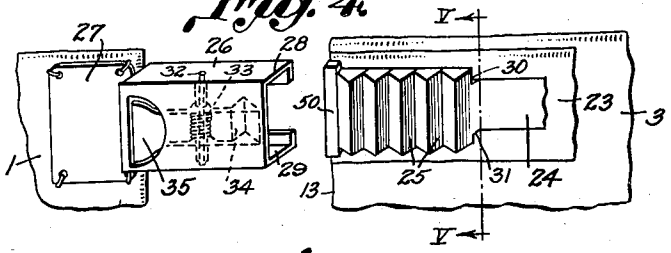


Fig. 3.

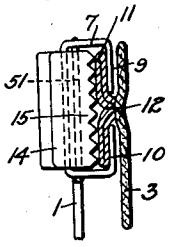


Fig. 6.

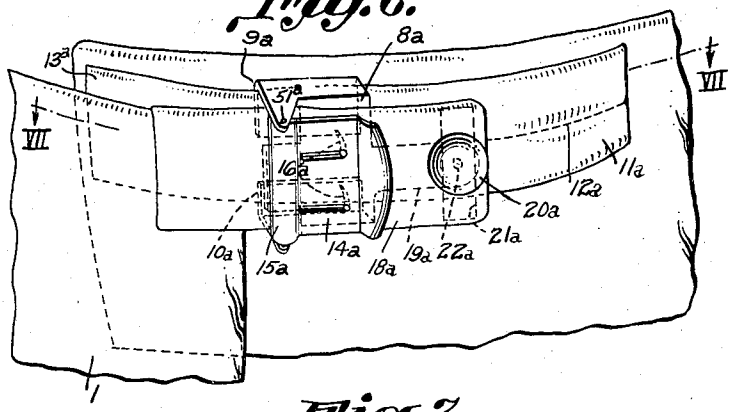


Fig. 5.

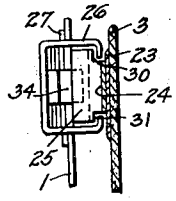


Fig. 7.

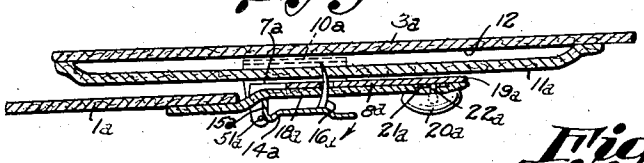


Fig. 8.

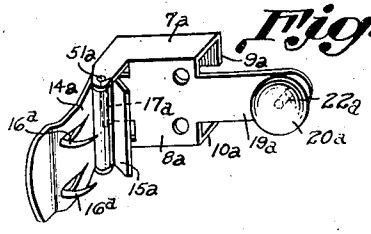
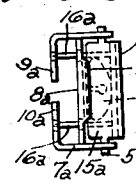


Fig. 9.



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ADJUSTABLE WAISTBAND

Berthold Mainzer, Heppenheim, Germany

Application August 5, 1931, Serial No. 555,285
In Germany August 8, 1930

4 Claims. (Cl. 2—237)

This invention relates to an article of clothing which is held on the body of the wearer by the action of a belt and more particularly to an article of clothing with means for changing the width thereof independently of the closure.

One object of the invention is to produce an article of clothing, the waist width of which can be changed whilst the article is being worn without affecting the connection of the cloth parts on which the changing of the width is effected.

A further feature of the invention consists in that the belt is so constructed that it fits smoothly and without forming folds and exerts a uniform pressure on the body of the person wearing the article of clothing.

A further object of the invention consists in arranging the means for adjusting the width at a point where they do not influence the proper fitting of the article.

It is intended to utilize the invention particularly for men's trousers, but the invention is not limited to this article of clothing.

Further features of the invention are hereinafter described and illustrated in the accompanying drawing in which:—

Fig. 1 is a perspective view of the upper portion of a pair of trousers, chosen by way of example.

Fig. 2 is an enlarged view of a form of construction of the means for varying the width.

Fig. 3 is a section on line III—III of Fig. 2.

Fig. 4 shows a modified form of construction for adjusting the width, in perspective view.

Fig. 5 is a section on line V—V of Fig. 4.

Fig. 6 is a slightly modified form of construction of the means illustrated in Fig. 2.

Fig. 7 is a section on line VII—VII of Fig. 6.

Fig. 8 is a perspective view showing a detail of Fig. 6.

Fig. 9 is a side elevation of Fig. 8.

The trousers illustrated in Fig. 1 are composed of the left and right front sections 1, 2 and the left and right rear sections 3, 4 of any material. On the upper edge of the trousers a band 5 is arranged which is suitable for holding the trousers on the hips of a person by a belt effect. The companion side sections 1, 3 and 2, 4 respectively are connected by side seams 6 at their lower portion. In the upper portion they are not sewn and are cut so wide that they overlap a considerable length.

According to the invention, on these overlaps means are provided for slidably connecting the overlapping cloth parts for the purpose of changing the waist width, and also means for securely connecting these cloth parts in any overlapping position. It is thus possible to adjust the width whilst the trousers are being worn and without the overlapping cloth parts losing their connection.

In the known trousers with lateral means for adjusting the width, creases or folds are produced which press irregularly on the body or, when overlaps were provided, the connection of the front and rear sections work loose every time when changing the width so that it is not possible to adjust the width when the article of clothing is being worn.

The means for the slidable connecting of the cloth portions and the means for determining the width can be constructed in a large variety of manners and may also be combined.

In the example illustrated in Figs. 1, 2 and 3 on each front section 1, 2 a clamp 7 is arranged which combines the means for the slidable connection of the sections and the means for fixing the width. At the top and bottom of a plate 8 sewn on the rear end of the front section 1 extending over the rear section 3 arms 9, 10 of the clamp 7 are bent over in hook shape. A belt 11 is sewn on to the band 5 of the rear section by means of a central longitudinal seam 12. The belt portions above and below this seam are pulled between the plate 8 and the arms 9, 10 of the clamp 7 so that the front section 1 is slidably guided on the rear section 3 by means of the clamp 7. The belt 11 extends to the front edge 13 of the rear cloth section and is there tightly sewn so that the clamp 7 cannot be pulled out. Between the arms 9, 10 of the clamp 7 a clamping element 14 is mounted pivotable about an axle 51. The clamping element 14 consists of an angular plate which presses with its serrated short arm 15 against the belt 11 and secures same against shifting. It is not necessary for the belt 11 to extend up to the rear end of the section 3. It need only be as long as is necessary for adjusting the narrowest width.

The connection between the sections 2 and 4 is constructed analogously.

In the example illustrated in Figs. 6 to 9 the belt is not held by the short arm 15*a* of the clamping element 14*a* pivotal around an axis 51*a*, but by points 16*a* inwardly bent from the plate 14*a* and which in closing position of the clamp 7*a* penetrate into the material of the belt 11*a*. In order to prevent the points from also penetrating the band of the cloth section 3*a* and possibly injuring the person wearing the article of clothing an abutment 17*a* is provided on the plate holding

the inwardly bent clamping arm 15*a* of the clamping element in its extreme position.

In this form of construction the fixing of the clamp 7*a* on the front section 1*a* is also slightly different from that of the example according to Figs. 1 to 3. The front section 1*a* is extended towards the rear by a tongue 18*a* which is threaded between the plate 8*a* and the clamping element 18*a*. This tongue 18*a* and an extension 19*a* of the plate 8*a* are connected by a press button 20*a*. In order to distribute the tension of the belt uniformly on the tongue 18*a* a reinforcing plate 21*a* is inserted between the separate cloth layers thereof and surrounds the pin 22*a* of the press button 20*a*.

In the form of construction according to Figs. 4 and 5 the device for adusting the width consists of a row of locking teeth and a locking pawl adjustably engaging therein. A band 23 is stitched on to the band of the rear cloth section 3 and carries a further flexible band 24 on which a row of locking teeth 25 bevelled on one side are secured one behind the other. On the front section 1 a frame 26 is fixed by means of a sewn on plate 27 which engages by means of downwardly bent hook-shaped arms 28, 29 in grooves 30 or 31 extending longitudinally to the row of teeth and thus slidably guides the front section 1 on the rear section 3. The frame 26 carries a locking pawl 34 pivotable on an axle 32 against the action of a spring 33, which pawl engages in the teeth 25 and thus unites the front section 1 to the rear section 3 in any desired adjusted position. If it is desired to change the width, the locking pawl is disengaged against the action of the spring 33 by exerting pressure on its gripping surface 35 accessible from the outside. On the front edge 13 of the rear section the row of teeth is limited by an abutting element 50 which prevents a loosening of the connection between the frame 26 and the row of teeth 25.

In those forms of constructions in which a belt is sewn in the centre, it is often desirable to give the article of clothing an appearance as if it were held by a separate belt extending all round. For this reason a belt 40 is sewn in its longitudinal centre to those portions of the band where it is not necessary for obtaining the tightening, i. e. to the front sections 1 and 2 (Fig. 1) and this belt extends to the fastening flap 41 of the article of clothing. The belt portion sewn on the underlapping front section 2 terminates flush with the front edge, whereas the portion of the belt on the overlapping side has a tongue 42 extending over the closing edge and is preferably secured in a loop 43 provided on the front section 2.

It is evident that the forms of construction illustrated are only shown by way of example and all forms of construction deviating therefrom are claimed providing they come within the scope of the invention as set forth in the following claims.

I claim:—

1. An article of clothing, comprising in combination a waistband worked on the cloth parts adapted to hold the article of clothing on the hips of a person by belt effect, a closing flap for putting on and taking off the article of clothing, side seams connecting the lower portions of the front and rear cloth sections, the upper portions of the cloth sections being unsewn and overlapping each other together with the corresponding band parts, a belt sewn with a central longitudinal seam on the underlapping cloth sections, a clamp fixed on the end of the band of each overlapping cloth section, hooks on said clamp slidably engaging behind said belt from above and below, and means arranged on said clamp for fixing the same in any position on said belt.

2. An article of clothing, comprising in combination a waistband worked on the cloth parts adapted to hold the article of clothing on the hips of a person by belt effect, a closing flap for putting on and taking off the article of clothing, side seams connecting the lower portions of the front and rear cloth sections, the upper portions of the cloth sections being unsewn and overlapping each other together with the corresponding band parts, a belt sewn by a central longitudinal seam on the underlapping cloth sections, a clamp fixed on the end of the band of each overlapping cloth section, hooks on said clamp slidably engaging behind said belt from above and below, a clamping element pivotally mounted on said clamp, and an inwardly bent clamping bar on said clamping element adapted to press the material of said belt against said clamp.

3. An article of clothing, comprising in combination a waistband worked on the cloth parts adapted to hold the article of clothing on the hips of a person by belt effect, a closing flap for putting on and taking off the article of clothing, side seams connecting the lower portions of the front and rear cloth sections, the upper portion of the cloth sections being unsewn and overlapping each other together with the corresponding band parts, a belt sewn by a central longitudinal seam on the underlapping cloth sections, a clamp fixed on the end of the band of each overlapping cloth section, hooks on said clamp slidably engaging behind said belt from above and below, a clamping element pivotally mounted on said clamp, an inwardly bent clamping bar on said clamping element adapted to press the material of said belt against said clamp, and an abutment on said clamp for said bar adapted to determine the innermost position of said clamping element.

4. An article of clothing, comprising in combination a waistband worked on the cloth part adapted to hold the article of clothing on the hips of a person by belt effect, a closing flap for putting on and taking off the article of clothing, side seams connecting the lower portions of the front and rear cloth sections, the upper portions of the cloth sections overlapping each other together with the corresponding band parts, a belt sewn with a central longitudinal seam on to the underlapping cloth sections, a clamp fixed on the end of the band of each overlapping cloth section, hooks on said clamp, slidably engaging behind said belt from above and below, a plate articulated on said clamp and inwardly bent points on said plate adapted to penetrate the material of said belt.

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