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A. J. MILLER

2,434,217

TROUSER CONSTRUCTION

Filed Jan. 30, 1947

FIG. 1.

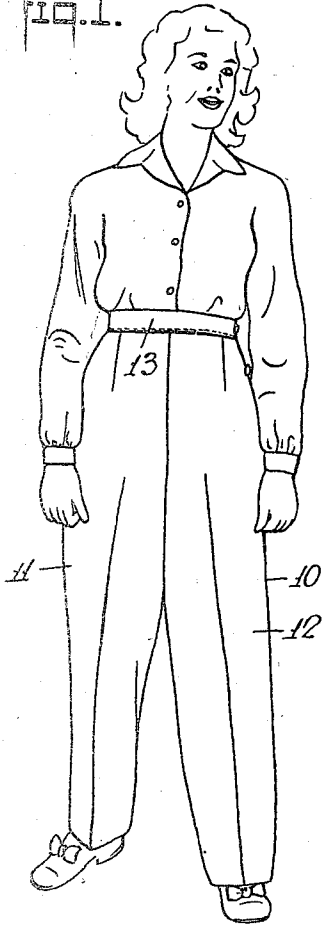


FIG. 2.

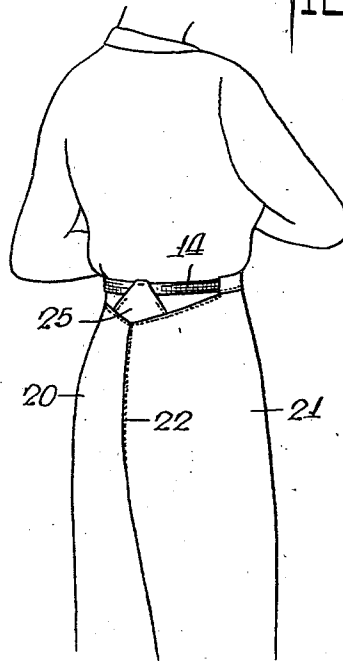


FIG. 5.

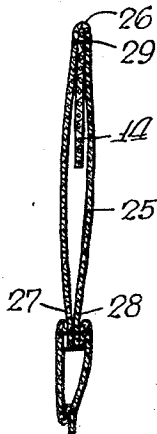


FIG. 6.

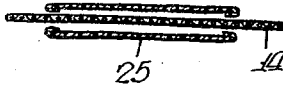


FIG. 3.

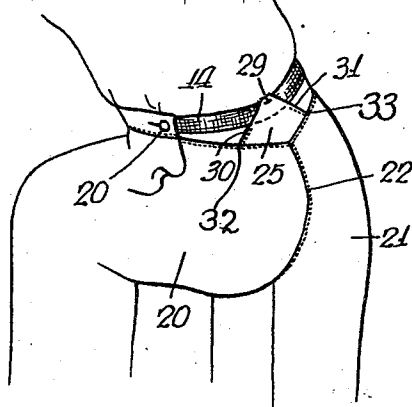
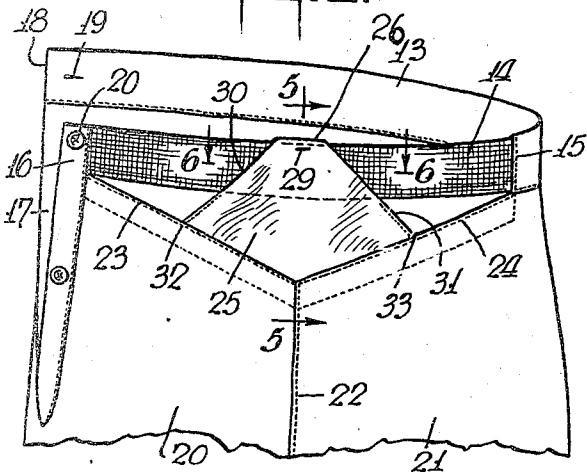


FIG. 4.



INVENTOR  
Albert J. Miller  
BY *J. Basseches*  
his ATTORNEY

# UNITED STATES PATENT OFFICE

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## TROUSER CONSTRUCTION

Albert J. Miller, York, Pa., assignor to Cohler Co.  
Inc., Red Lion, Pa., a corporation of Pennsylvania

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2 Claims. (Cl. 2-227)

**1** This invention relates to a trouser construction, more particularly to a pajama trouser and still more particularly to a trouser construction for pajamas which is self-sustaining at the waistline.

My invention has for its object the provision of a pajama, in which the waistline construction includes the resilient support of an elastic band and applies, in a novel manner, the resiliency of an elastic insert to insure comfort in wearing this type of trouser, especially as part of a sleeping garment wherein unusual stress is encountered.

Known to me is the provision of wearing apparel in which elastic bands are employed at the waistline to suspend such articles of apparel as pajama trousers, skirts, and bloomers. In the application of such elastic waist bands, the trouser construction was left unaltered and the incorporation of the elastic waist band was merely a substitution, in effect, for the belt or waist band.

The distribution of the fabric with relation to the elastic waist band did not serve to solve the problem incident to the distribution of the fabric around the crotch, a discomfort which has been a source of considerable annoyance, especially in women's pajama trousers.

Where endeavors have been made to supply the requisite fullness for a trouser garment such as pajamas, excessive shirring the fabric adjacent the waist band, especially when made of elastic material, or by the use of pleats, the desired comfort or relief from binding action in the crotch, was not secured and a presentable appearance on the buttocks made this excessive fullness undesirable.

I have found that an angular arrangement of the panels of the trouser which fit over the buttocks may be made to conform to the contour of the body depending upon whether a low or high location and suspension is effected.

I have further found that a formation of the rear panels constituting the garment in a downwardly divergent axially adjacent section serves to provide a form fitting back, which by axial resilient suspension, diverts any strain or pull from the crotch to comfortably locate the fabric of the garment without the excessive shirring heretofore considered necessary.

I have found that by forming the panels constituting the rear segment of a trouser, particularly the pajama trouser for ladies, so that the waistline is downwardly divergent adjacent the waistline seam with an axial suspension from a

**2** resilient waist band, that a flat fit of the garment on the buttocks may be secured, excessive shirring eliminated and strain tending to gather the fabric in the crotch avoided.

**5** Still more particularly, I have found that it is an object of my invention to provide a trouser, particularly a pajama trouser, in which the comfort of an elastic waist band for suspension of the garment is combined with a flat form fitting character over the buttocks, the economy of eliminating excessive shirring to join the waist band to the fabric while securing comfort incident to the minimizing of strain or tendency to pull the fabric in the crotch.

**10** To attain these objects and such further objects as may appear herein or be hereinafter emphasized, I make reference to the accompanying drawing forming part hereof, in which—

**20** Figure 1 is a perspective view illustrating a garment in accordance with my invention;

Figure 2 is a perspective rear view thereof;

Figure 3 is a perspective rear view demonstrating my garment with the attendant strain in bending;

**25** Figure 4 is a fragmentary perspective view magnified to show the garment apart from the wearer;

Figure 5 is a magnified section taken on the line 5-5 of Figure 4;

**30** Figure 6 is a magnified section taken on the line 6-6 of Figure 4.

Making reference to the drawing, it is contemplated by me to provide a trouser construction **10**. In the illustration, the trouser construction **10** is part of a pajama ensemble in which the front panels **11** and **12** respectively are joined by a waist band segment **13**. The waist band includes a rear segment **14** of elastic webbing, one end whereof **15** is joined to the terminal portion of the waist band **13**. The opposite end is joined to a strap **16** defining the slit or fly **17** for coupling to the end **18** of the waist band **13** by the complementary button hole **19** and button **20**.

**45** The rear of the trouser is made from panels **20** and **21** joined at the sides by the usual seams to the front panels **11** and **12** and at the medial portion by the crotch seam **22**.

The upper sections of the panels **20** and **21** are **50** defined by angularly directed edges **23** and **24**, which diverge downwardly from adjacent the edges **15** and **16** and are free from the waist band **14**. Suspension of the edges **23** and **24** is effected by the substantially diamond-shaped suspending **55** loop or flap **25** comprising a double layer of

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fabric folded at 26 over the waist band portion 14 and extending freely to have the terminal portions 27 and 28 joined in the seam forming the edges 23 and 24, previously described. A tacking stitch 29 axially locates the loop 25 with respect to the waist band 14. The divergent sides 30 and 31 of the suspending loop extend substantially to the center 32 and 33 of the panels 20 and 21 adjacent the edges 23 and 24.

The resultant construction, as more clearly apparent from Figures 1, 2, and 3, supplies a snug supporting fit at the waistline 13 in the frontal aspect. The substantially downwardly divergent angular edges 23 and 24 serve to provide a fit over the buttocks which is flat and free from excessive shirring or fullness. The cost of shirring and excessive length of material with regard to the elastic 14 is wholly eliminated.

In use, activity does not cause discomfort, since the divergent suspension effected by the loop 25 tends to direct the strain or stretch adjacent the mid points 32 and 33 and away from the crotch line 22. This action, in suspending the back panels 20 and 21, secures distensibility in bending, as shown in Figure 3 without binding at the crotch, as the panels 20 and 21 and the seam line 22 are drawn away from the medial line of the body.

It will be observed that I have not specifically defined the trouser construction except for illustrative purposes in the form of pajamas, and that other forms of tailoring may be resorted to, to form the rear portion, whether made of spaced panels joined at the crotch or in a single panel, including, if desirable, a slit back, as in underwear or a closed back which may form part of any other trousers, or sportswear, whether for women or men.

It will be understood, also, that while I have described a waistband portion partly made of inelastic material with an elastic webbing segment, the entire waistband may be of inelastic webbing to secure some of the benefits of my construction in supporting the rear panel by the suspending loop and with the angular edge providing body conforming contour. In this construction, particularly embodying the divergently directed supporting loop as the suspending means between the waistband, and the upper edge of the rear portion, the stresses involved in activity will divert the gathering of the material from the crotch portion, to minimize discomfort.

It will also be understood that I may thread a continuous length of elastic webbing through the doubled fabric tubularly formed waistband portion 13 to provide a continuous elastic waistband portion, and that to a measure, this will not depart from the spirit of my invention, even though increasing the cost of materials and labor.

It will be further understood that while all the

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desirable features of my invention may be used in combination, segregated elements may find utility. Therefore I intend that my invention shall be limited only by the appended claims.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent, is:

1. In a pair of trousers having side panels forming the front and back and joined at their adjacent edges to form a body portion and leg portions, the front portions extending to the waist line and including a waist band, the upper edges of the rear portion extending from a medial point below the waist line and diverging upwardly to the sides of the garment, an elastic waist band for the rear portion and substantially extending from side to side attached to the ends of the front waist band, and a substantially centrally disposed suspending flap having downwardly divergent side edges connecting substantially the central portion only of the elastic waist band and the upper edges of the rear portion, leaving about the upper half of the divergent edges of the rear portion free and unattached.

2. In a pair of trousers having side panels forming the front and back and joined at their adjacent edges to form a body portion and leg portions including a vertically directed seam at the rear of the body portion extending into the crotch, the front portion extending to the waist line and including a waist band, the upper edges of the rear portion extending from a medial point below the waist line and diverging upwardly to the sides of the garment, an elastic waist band for the rear waist line and substantially extending from side to side attached to the ends of the front waist band, and a substantially centrally disposed suspending flap having downwardly divergent side edges connecting substantially the central portion only of the elastic waist band and joined to the upper edges of the rear portion to each side of said vertically directed seam, leaving about the upper half of each divergent edge of the rear portion free and unattached.

ALBERT J. MILLER.

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