Feb. 20, 1934. A. J. KREIN 1,948,444

GARMENT SUPPORTING BAND

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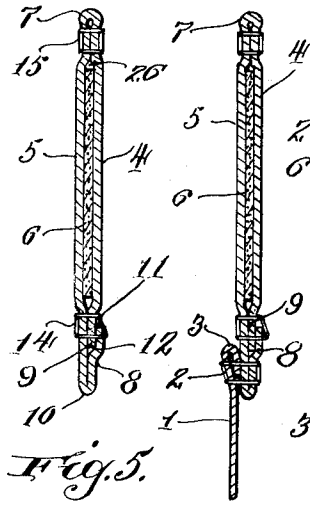


Fig. 5.

Fig. 4.

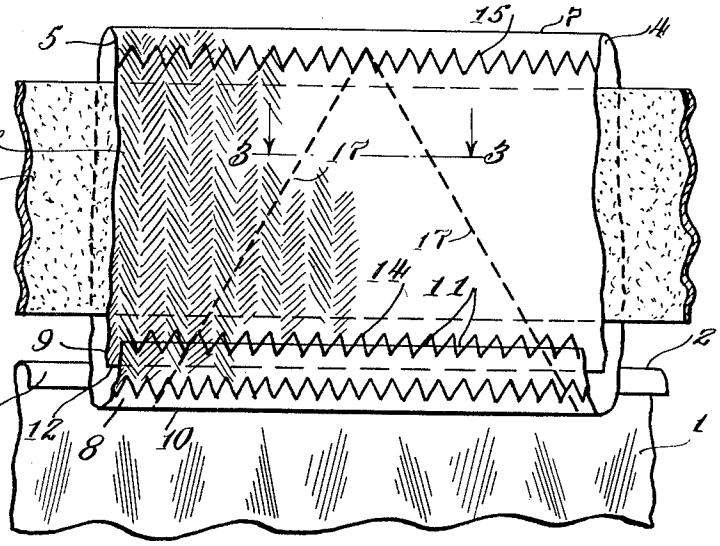


Fig. 2.

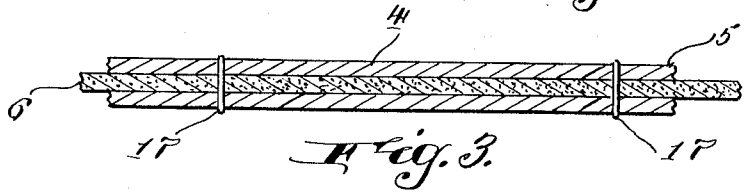


Fig. 3.

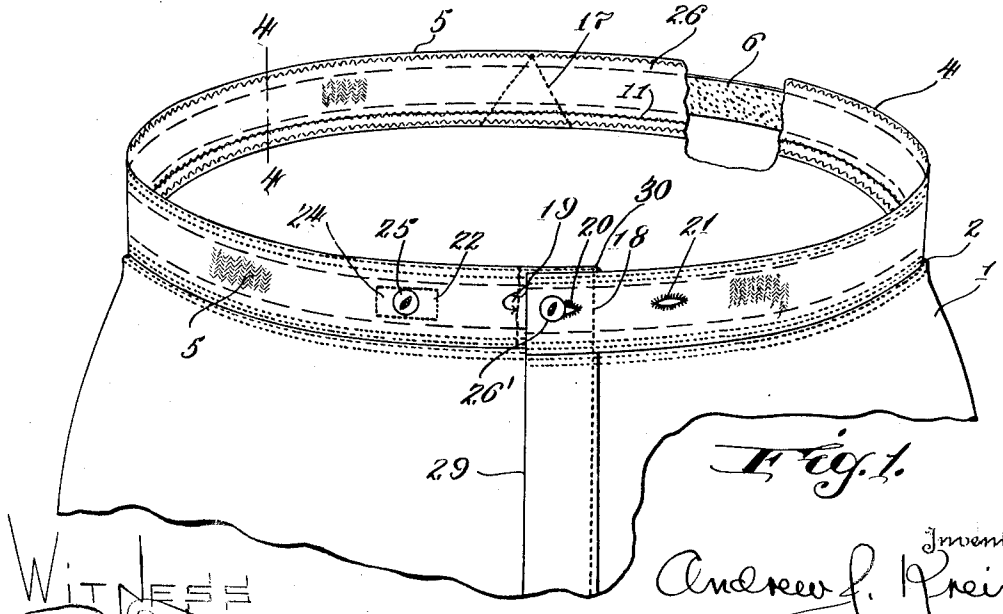


Fig. 1.

Witness

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GARMENT SUPPORTING BAND

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2 Claims. (Cl. 2—237)

The use of straps or strips of sheet rubber, each respective strip of rubber being enclosed in a tube of stretchable textile fabric to which the rubber strip is stitched in the direction of its length, in the manufacture of waistbands and other garment supporting bands has been extensively developed in a commercial way and the various stages of their development have been described and claimed in detail in certain United States patents. These patents are, however, limited to the stitching of the fabric to the rubber by means of lines of elastic stitching extending in the direction of the length of the band. Also, the strips of rubber fit closely within the fabric tube so that when the garment supporting band is washed the shrinkage of the fabric in a lateral direction tends to distort the rubber so that it does not lay flat, and in pressing the band the rubber is apt to be creased in such a way as to cause deterioration of the rubber, and an unsightly appearance of the supporting band. Further, the longitudinal stitching has the effect of forming a weakened line which in the course of a limited amount of wear and a few launderings causes the rubber to separate into strips and to tear, shortening the life of the rubber as the elastic element of the band. All of these circumstances reduce the popularity and hence the commercial value of the product.

On the other hand, the manufacture of sheet rubber of which the rubber strips are made, has been so developed and improved that the sheet rubber now produced is incomparably superior in the manner in which it serves the function of the elastic element of a garment band to the woven rubber and fabric elastic tape previously used for this purpose.

The object of the present invention is to produce a garment band comprising a fabric mesh tube enclosing a strip of sheet rubber which serves as the elastic element of the band, the rubber being so secured and supported in the tube as to avoid the difficulties pointed out and other difficulties previously encountered in the manufacture of waistbands and other garment supporting bands of these materials. While the description and illustration apply more particularly to the use of this band as a belt or waistband for supporting trousers or corresponding nether garments, it will be easily understood that it is capable of a more general application, being adapted for use in garters or as a waistband for a blouse or shirtwaist, and for innumerable other purposes.

In the accompanying drawing, I have illustrated a fabric and sheet rubber band embodying the features of the invention in the preferred form together with so much of a garment to which the band is applied as is necessary to a full and complete understanding of the invention and the manner of applying the same.

In the drawing:

Figure 1 is a fragmentary perspective view of the waist portion of a pajama or other type of trousers garment equipped with the waistband of the invention.

Figure 2 is an elevation of a fragment of the waistband, the tube being broken away to expose the rubber strip.

Figure 3 is a horizontal section on the line 3, 3 in Figure 2.

Figure 4 is a vertical transverse section on the line 4, 4 in Figure 1.

Figure 5 is a similar section of the band prior to attachment to the waist portion of the garment.

Referring to the drawing by numerals, each of which is used to indicate the same or similar parts in the different figures, the construction shown comprises particularly in Figures 1, 2 and 4 a fragmentary portion of a nether garment, the portion 1 illustrated being located in the waist zone of the same including the top edge 2 of the garment at the waist line. This top edge is shown as turned over at 3 forming a hem or reinforced edge for convenience in attaching the waistband.

The waistband 4 consists of a tube 5 of stretchable woven textile fabric enclosing a flat strip 6 of sheet rubber of highly elastic properties and preferably having the maximum of resistance to the treatment received in laundering, i. e., resistance to heat, soap and other solvents.

The fabric tube 5 in the preferred form as shown, though it may be otherwise formed, consists of a strip of the textile material folded over on itself, the fold 7 extending longitudinally at the top.

As shown, one longitudinal edge portion 8 of the fabric is of greater width than the other edge 9, and extends beyond the same, being folded at the bottom at 10 and turned upwardly, the extreme edge 11 of the wider edge portion 8 being laid over and overlapped in its relation to the extreme edge 12 of the narrow edge portion 9. These edges are then stitched by a line of zigzag stitching or in any preferred manner at 14, and the top edge portion 7 is stitched through and through joining the two walls of the tube by a line of zigzag stitching 15, both lines of stitching extending in the direction of the length of the band and parallel to the edges 11, 12, the fold 10 likewise extending longitudinally. These lines of zigzag stitching for which any suitable laterally spaced or other stitching may be substituted, are located at a distance from the corresponding edges of the rubber strip 6 which provides for the lateral shrinkage of the tube 5 without wrinkling, folding or distortion of the sheet rubber strip and the stitching at the top edge at 15 also prevents the unsightly deformation of the top edge

of the fabric tube which results in various waist bands of this general type now in use.

To anchor the rubber strip 6 to the fabric, it is stitched transversely at a suitable location or locations. As shown, this transverse stitching 17 is located at the center of the back and consists of two straight lines of stitching converging at the top of the waistband. It will be understood that these stitches extend through and through the fabric and through the rubber, anchoring the rubber to the tubular portion of the band at this point. The strip of rubber 6 is also anchored or secured to the tube at the front near the ends of the band by transverse lines of stitching 18, 19, and by buttonholes 20, 21, which are formed in the fabric band and stitched through the rubber. The buttonholes are formed in one end of the band and the other end of the band is stitched with rectangular or other suitable lines of stitching 22 by means of which a reinforcing patch 24 of fabric may be secured. At the center of this a button 25 is sewed to the band and a button 26' is similarly secured at the end of the band. The buttons and buttonholes and the manner of securing and forming them is nonessential as other fastenings and other methods of securing them may be employed and in some instances the fastenings may be omitted, the band being continuous.

The construction described provides a waist adjustment by means of a plurality of buttons and buttonholes. If no adjustment is desired, a single button and buttonhole only may be used.

The stitching 17 and the stitching 21, 20, 22, surrounding the buttons and buttonholes and the lines of stitching 18, 19 which are preferably provided as to the edge of both fly flaps 29 and 30, serve to hold the rubber strips 16 at the center of the fabric tube 5 allowing a space which is preferably about one eighth of an inch at 26, between the edges of the rubber and the stitching 14, 15, providing for the lateral shrinkage of the fabric without wrinkling the rubber or deforming the band. The relation of the band to the tube as to longitudinal shrinkage as described is also such that this shrinkage is rendered harmless and has no effect whatever in deforming the rubber strip, the relation of the length of the band to the rubber being more or less indefinite on account of the ability of the fabric to expand and contract in a longitudinal direction, the ribs of the fabric shown at 27 in Figure 2 preferably extending transversely so that shrinkage of the fabric in a longitudinal direction has no effect on the appearance of the band when it is laundered, particularly when it is pressed.

It is of interest that the lines of stitching 17, 17, which anchor the rubber to the fabric tube, are interengaged at the top and bottom with the lines of stitching 14, 15, maintaining the relation of these lines of stitching to the rubber, as already pointed out, and providing for lateral shrinkage of the fabric without distorting the rubber or the band. While this interlocking relation of the lines of stitching is not essential, it is helpful in securing the result described. It is also of interest that the lines of stitching 14, 15 at the top and bottom serve to hold the fabric tube in the desired form or position substantially as shown, preventing unsightly deformation as already pointed out. This deformation occurs in the prior art bands, particularly at the top where the fabric is merely folded over to form the tube, being thus reinforced and supported as in the construction described.

I have thus described specifically and in detail a garment band embodying the features of my invention in the preferred form in order that the manner of constructing, applying, operating and using the invention may be fully understood, however, the specific terms herein are used descriptively rather than in a limiting sense, the scope of the invention being defined in the claims.

What I claim as new and desire to secure by Letters Patent is:

1. In a garment supporting band a flat tube of stretchable textile fabric, a strip of sheet rubber within the tube extending longitudinally thereof, transverse stitching at the ends and intermediately of the length of the band extending through the fabric and the rubber and serving to anchor the rubber to the fabric, said anchored portions being spaced in the direction of the length of the band and the rubber being free of attachment to the fabric between said anchored portions, the free portion of the rubber constituting the major portion of the length of the band, said anchor stitching serving to hold the rubber near the center of the tube and lines of stitching extending longitudinally at each edge of the tube, said lines of stitching consisting of mainly laterally spaced stitches, the rubber being spaced from said lines of stitching to provide for shrinkage of the tube without distortion of the rubber, said longitudinal lines of stitching engaging both walls of the tube and connecting them together, the longitudinal lines of stitching serving to support the edges of the tube beyond and independently of the rubber, the freedom of the main portion of the rubber from attachment to the tube serving to prevent creasing of the rubber in pressing and crinkling of the tube.

2. In a garment supporting band a flat tube of stretchable fabric, a strip of sheet rubber within the tube extending longitudinally thereof, transverse stitching at the ends of the band and intermediately of the length of the band extending through the fabric and the rubber and anchoring the rubber to the fabric at locations spaced apart in the direction of the length of the band, the rubber being otherwise free of attachment to the fabric, the free portions between the anchored areas constituting in each instance a considerable portion of the length of the band, lines of stitching attaching the two walls of the tube at each edge of the tube extending longitudinally of the tube and spaced from the edge of the rubber and from the edge of the tube to provide for shrinkage of the tube without distortion of and wrinkling of the rubber, the transverse stitching and part of said locations being interengaged with said lines of stitching at the edges of the tube, said lines of stitching being diagonally arranged as to the length of the band and arranged to converge toward one edge substantially as described said longitudinal lines of stitching being composed of transversely spaced stitches serving to support the edges of the tube independently of the rubber and the interengagement of the transverse and longitudinal lines of stitching, serving to position the rubber without distorting the fabric.

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