April 28, 1931. G. RAMSEY 1,802,352

ELASTIC BAND FOR WEARING APPAREL

Filed July 5, 1928 . 2 Sheets-Sheet 1

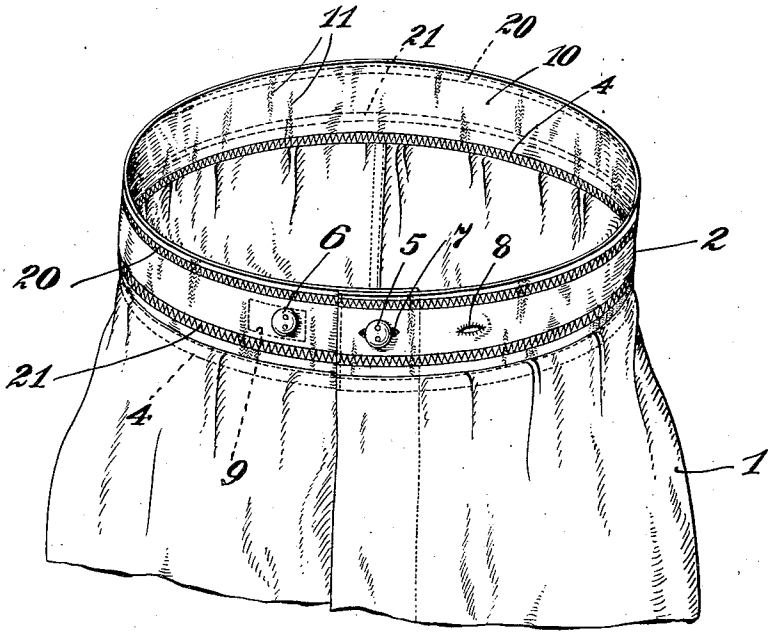


Fig. 1.

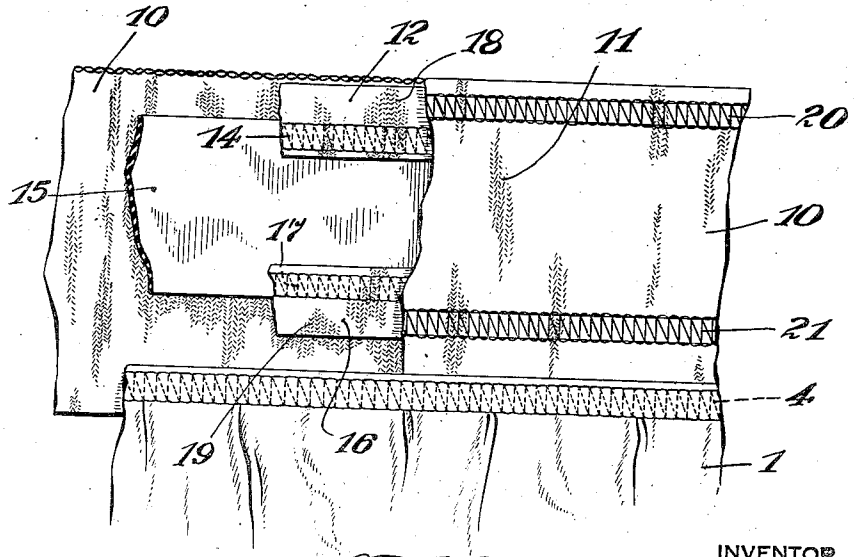


Fig. 2.

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ELASTIC BAND FOR WEARING APPAREL

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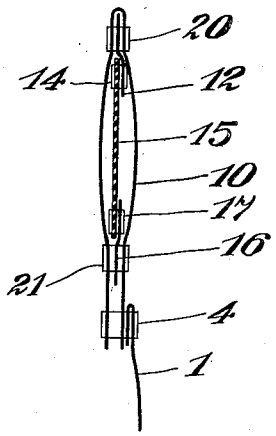


Fig. 3.

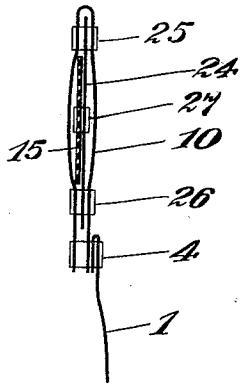


Fig. 5.

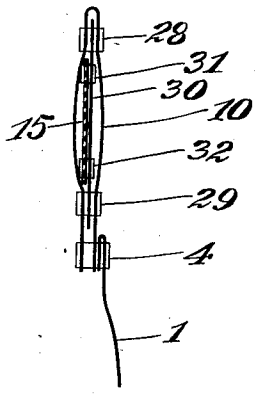


Fig. 7.

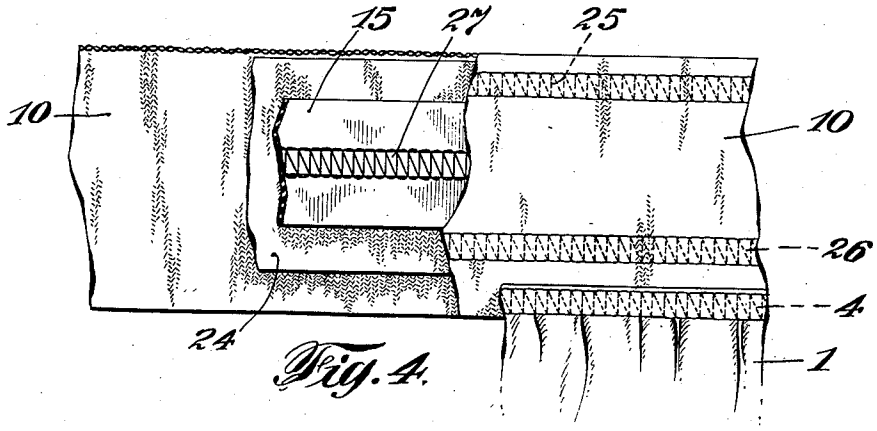


Fig. 4.

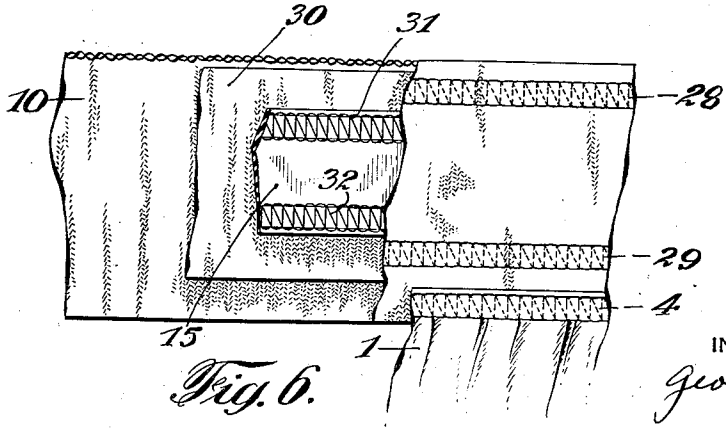


Fig. 6.

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Patented Apr. 28, 1931 1,802,352

UNITED STATES PATENT OFFICE

GEORGE RAMSEY, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE FAULTLESS MANUFACTURING COMPANY, OF BALTIMORE, MARYLAND, A CORPORATION OF MARYLAND

ELASTIC BAND FOR WEARING APPAREL

Application filed July 5, 1928. Serial No. 290,333.

The present invention relates broadly to wearing apparel and is more particularly related to a constricting band comprising a support for some article of use or wear.

The present invention has to do more especially with the supporting band of garments adapted to be suspended from the waist such as pajama trousers, skirts, bloomers, or any other article of wear suspended from the waist of the wearer, or stockings, socks or the like where the garment or apparel is retained in position by constriction of a supporting band around the wearer's body or limb.

The present invention provides an elastic constricting member adapted to apply adequate constriction to effect a suspension of the garment or wearing apparel by pressure applied gently over a relatively wide band or area on the wearer. This general type of invention is disclosed in the Harsh Reissue Patent 16,641, reissued May 31, 1927, and upon which the present invention is based. In the present invention, a band of elastic material preferably a band of sheet rubber, is secured to a stretchable textile carrying or anchoring member and this in turn is secured within a stretchable protecting sheath. This construction permits relatively free movement of the side walls of the protecting sheath independent of the adjacent elastic band. At the same time, the elastic band acting through the stretching textile carrying member communicates tension forces to the edges of the protecting sheath, whereby this stretchable sheath moves consonantly with the stretching or contraction of the elastic band. This ensemble produces a very satisfactory constricting member, which imparts a minimum of localized stresses or strains through the skin of the wearer.

Other and further objects of the present invention will in part be obvious and will in part be pointed out in the specification hereinafter, following by reference to the accompanying drawings forming a part of this specification.

Realizing that the present invention may be carried out in structures other than those specifically shown herewith, the disclosure herewith is to be understood as illustrative and not in the limiting sense.

Fig. 1 illustrates the present invention as comprising a waist band for a garment.

Fig. 2 is a detailed view illustrating one form of embodiment of the present invention and showing parts broken away to more fully disclose the details of construction.

Fig. 3 is a schematic cross section through the construction illustrated in Fig. 2 and more clearly illustrates the construction and arrangement of the parts.

Fig. 4 is a view similar to Fig. 2 illustrating another embodiment of the present invention.

Fig. 5 is a schematic cross section of the construction illustrated in Fig. 4.

Fig. 6 is a view similar to Fig. 4 illustrating a slightly different construction from that shown in Fig. 4.

Fig. 7 is a schematic diagram of the construction illustrated in Fig. 6.

Referring now to the drawings and more especially to Fig. 1, the garment 1 may be made of any material but preferably of ordinary woven cloth which is relatively non-stretchable. The waist band 2 comprises the elastic member forming the present invention and is adapted to be attached to the inelastic cloth of the garment by making the waist band of less length than the top of the garment, then stretching the waist band to the length of the garment and sewing the waist band to the garment by elastic stitches 4, while the waist band is stretched. When the waist band contracts, it causes small gathers or shirring to occur in the upper portion of the garment and this shirring permits the waist band to expand when the same is buttoned or secured around the waist of the wearer. The securing means may comprise a pair of spaced apart buttons 5 and 6 sewed to one end of the waist band and a pair of spaced apart buttonholes 7 and 8 which are worked through the other end portion of the waist band. Preferably, a small piece of inelastic material 9 is sewed opposite to the buttons 5 and 6 to form an anchorage to which the button sewing threads may be attached. This small piece of inelastic cloth

9 may comprise the label of the maker or other desirable material.

Referring now more especially to Figs. 2 and 3, which illustrate one embodiment of the supporting elastic band according to the present invention, a sheath of stretchable fabric 10, such as ribbed knitted cloth, is folded upon itself with the ribs 11 running crosswise of the sheath. A small braid or band 12 of similar stretchable fabric material is sewed by stretchable stitches 14, well known in the art, to one edge of a band of elastic material, preferably a band of sheet rubber 15. Another small band or braid 16 of the same kind of stretchable material is arranged and sewed in the same manner to the other edge of the elastic band 15 by means of stretchable stitches 17. Preferably, the ribs 18 and 19 in the narrow bands 12 and 16 run parallel to the ribs 11 in the sheath 10. The stretchable fabric forming the sheath 10 is now folded upon itself and the folded edge is sewed to the upper edge of the narrow band 12 by stretchable stitches 20 which pass through the fold of the sheath 10 and through the edge of the narrow band 12 without passing through any portion of the elastic member 15. Another smaller row of stretchable stitches 21 are sewed through the sheath 10 and the lower edge of the narrow stretchable band 16 also without passing through elastic member 15. This is clearly illustrated in the schematic cross section shown in Fig. 3. The lower free edge of the completed band may now be attached to the upper edge of the garment 1 as previously explained by stretching the band to equal the length of the upper edge of the garment and then sewing the lower edge of the sheath to the upper edge of the garment 1 by means of stretchable stitches 4.

It will be observed that where the sheath is stretched as for example when on the body of the wearer, the stretching action of the sheath is communicated to the elastic band 15 through the narrow tension bands 12 and 16, thereby placing the whole structure under the influence of the elastic band 15. At the same time, the side walls of the sheath are free to slip or move within limits upon the elastic member 15. This produces a very easy action on the skin of the wearer and since the pressure is distributed over a relatively wide area, the constriction of the garment is unnoticeable since it yields freely to the movements of the wearer, and any expansion or contraction of the waist due to breathing or muscular movement is freely accommodated by means of the elastic construction of the waist band. The narrow anchoring bands 12 and 16 communicate forces from the sheath to the elastic band 15 and at the same time form strengthening members which tend to prevent undue stretching of the elastic member 15. This preserves the elastic member from being injured by tearing out of the stitches or otherwise when the garment is unduly stretched as is the natural thing for a person to do who is inspecting the garment and testing its elasticity by manually stretching the band, and it also contributes to the life of the band when in use.

Figs. 4 and 5 illustrate a slightly different construction in which the narrow stretchable bands shown in Fig. 2 are replaced by a single stretchable fabric band 24. As in the other construction, preferably the ribs in the band 24 run parallel to the ribs in the sheath 10. In this construction, the anchoring fabric band 24 is secured at each edge of the sheath by rows of stretchable stitching 25 and 26, which do not pass through the elastic member 15, and the elastic member 15 is secured to the anchoring band 24 by means of a single central row of stretchable stitches 27. In this construction, there is slightly more anchorage material between the sheath 10 and the elastic member 15 and at the same time slightly more cloth between the point of anchorage in the sheath than in the construction shown in Fig. 2. This produces a very flexible, but at the same time strong band adaptable for use where garments are subjected to heavier stresses than would be the case of that shown in Fig. 2. Furthermore, when the band is ironed after laundering the member 24 acts to shield the rubber member 15 from the direct intense heat of the iron, where the iron is applied on the double thickness side.

Figs. 6 and 7, illustrate a construction similar to that illustrated in Figs. 4 and 5 and in the construction of the completed band as shown in Figs. 6 and 7 the anchoring band 30 is secured in position in the sheath 10 by rows of elastic stitching 28 and 29 exactly as explained relative to Figs. 4 and 5 while the elastic band 15 is anchored to the anchoring band 30 by means of rows of stretchable stitching 31 and 32, which are located adjacent to the edge of the elastic member 15, but do not pass through the sheath 10. In this case, a still stronger construction is produced by the multiple stitching and at the same time the gentle flexible elastic qualities are preserved. In the two latter constructions shown in Figs. 4 and 6, preferably the elastic member 15 is toward the outside of the garment and away from the skin of the wearer. This interposes two layers of fabric cloth or cloths between the elastic member and the skin of the wearer, thereby producing a cushion under the elastic member and at the same time providing a medium permitting the free access of air to the skin of the wearer under the sheet rubber band. The rubber comprising the rubber band, in the preferred form, is treated after processes known in the art, whereby the rubber is adapted to withstand laundering without undue injury or

deterioration to the elasticity of the rubber.

The manufacture of the device is facilitated by attaching the elastic member 15 to the anchoring or carrying stretchable fabric 24 before the fabric 24 is attached to the enclosing stretchable member 10. It will be observed by reference to Figs. 4, 5, 6, and 7 that the advantages of having the side wall of the stretchable member 10 free to move against the body of the wearer may also be obtained by omitting the side of the enclosing sheath 10 which lies adjacent to the anchoring or carrying elastic member 24. In this form of the invention, the advantages of double thickness of fabric on one side of the elastic sheet rubber band 15 are lost, but the advantage of the freedom of movement of the cloth 10 against the skin of the wearer relative to the movement of the band of sheet rubber 15 is retained.

Having thus described my invention, what I claim is:—

1. A supporting band for personal wear comprising a band of elastic material, a carrying band of stretchable material to which said band of elastic material is secured by stretchable stitching, and a stretchable tubular band enclosing said carrying band and attached to said carrying band by stretchable stitching whereby the elasticity of said elastic material is communicated to said carrying band and from said carrying band to said stretchable band.

2. A supporting band for personal wear comprising a band of elastic material, a carrying band of stretchable material to which said band of elastic material is secured by stretchable stitching, and a tubular stretchable band enclosing said carrying band attached at its edges to the edges of said carrying band by stretchable stitching whereby the elasticity of said elastic material is communicated to said carrying band and from said carrying band to the edges of said stretchable band.

3. A supporting band for personal wear comprising a sheath of stretchable material, an elastic member enclosed within said sheath, a band of stretchable material also within said sheath and anchored to said sheath, said band of stretchable material being attached to said elastic member and to said sheath by stretchable stitching whereby the elasticity of said member is communicated through said band of stretchable material to said sheath.

4. As an article of manufacture, a band for personal wear comprising a sheath of stretchable material, an elastic member enclosed within said sheath, anchoring band means of stretchable material, stretchable means to secure said anchoring band to said elastic member, and stretchable means to secure said band to the edges of said sheath whereby the elasticity of said elastic member is communicated through said anchoring band means to said sheath.

5. As an article of manufacture, a band for personal wear comprising an elastic member, a sheath of stretchable fabric enclosing said elastic member, and stretchable anchoring means sewed to said sheath by stretchable stitches and sewed to said elastic member by stretchable stitches independent of said sheath and of the first mentioned stretchable stitches.

GEORGE RAMSEY.