

Jan. 3, 1939.

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2,142,157

ELASTIC WELT FOR STOCKINGS

Filed Feb. 24, 1936

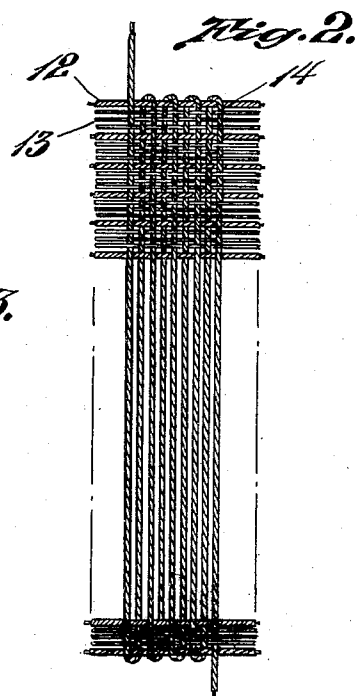
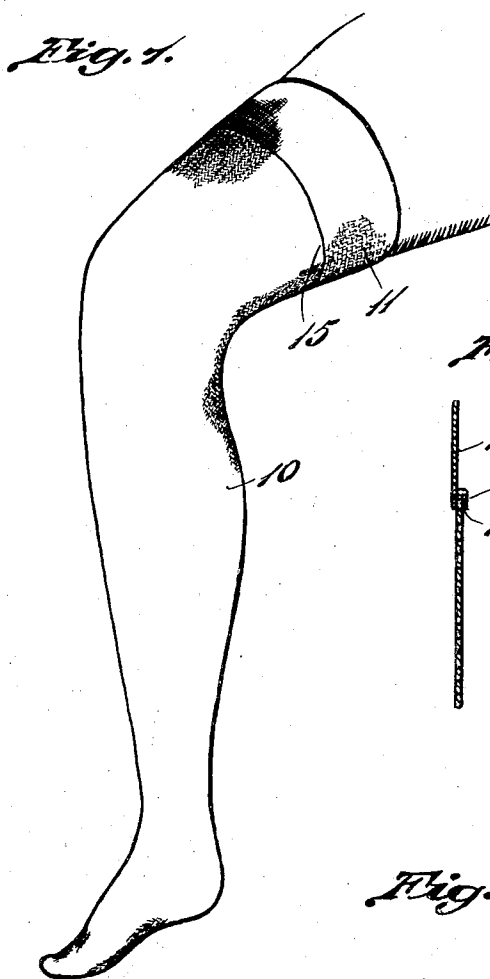


Fig. 3.



Fig. 4.

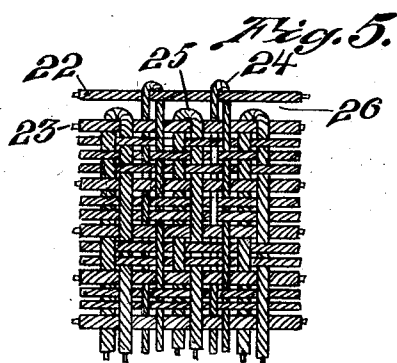
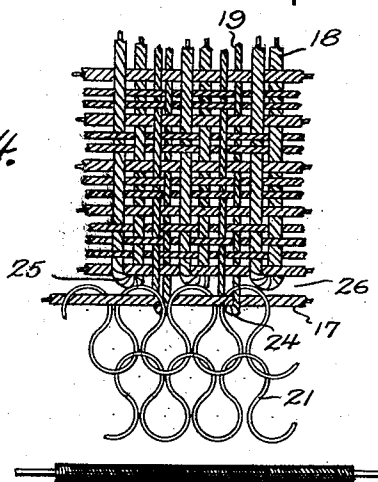


Fig. 6.

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2,142,157

ELASTIC WELT FOR STOCKINGS

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Application February 24, 1936, Serial No. 65,179

8 Claims. (Cl. 66—172)

This invention relates to a welt for a stocking; and has for one of its objects the provision of a welt which will stretch longitudinally of the stocking as well as circularly thereof.

5 Another object of the invention is the provision of a welt to which a garter or hose supporter may be attached and which will absorb strains instead of transmitting them to the leg portion of the fabric of the stocking itself and yet will
10 keep the stocking tight and smooth along the leg portion.

Another object of the invention is the provision of a welt which will eliminate the necessity of providing double thickness or double
15 weight knitted fabric which is usually provided for the welt of a stocking to prevent runs and provide a strong portion for the hose supporter.

Another object of the invention is the provision of an extremely thin welt which will go well with
20 a thin, sheer stocking formed of silk or the like and eliminate the appearance of a heavy garter type structure as has been common heretofore.

Another object of the invention is the provision of a welt which will have openings or loops along
25 one edge for the convenient knitting of the leg portion of the stocking thereto.

Another object of the invention is the provision of a woven welt which will have both elastic warp
and elastic weft yarns.

30 With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing:

35 Fig. 1 is a perspective view of a full length stocking with my welt at the top thereof;

Fig. 2 is a fragmental view largely diagrammatic of the welt portion of the stocking;

Fig. 3 is a sectional view showing this welt as
40 sewed to the upper edge of the leg portion of the stocking;

Fig. 4 is a diagrammatic view of a portion of the welt and a portion of the leg of the stocking joined thereto in one form of construction of
45 the welt;

Fig. 5 is a view similar to Fig. 4 showing a different structure of the welt;

Fig. 6 is a detail view of one of the elastic strands of either the warp or weft of the woven
50 welt.

Full length stockings formed of silk or other material are usually provided with a so-called welt at their top formed either by doubling back a portion of the knit silk of the stocking on itself or by increasing the weight of the yarn so

as to provide a heavier welt at the top of the stocking to be engaged by the garters or other hose supporters to better resist the strains at this point. This weight increase requires considerable manipulation of the machine on which this thickened welt is provided or even a changing of the stocking from one machine to another and the use of a comparatively large amount of material which, if the stockings are formed of silk, is expensive. This portion of the stocking
10 is not exposed to view and with my improved welt the double weight is unnecessary.

Further, when such a doubled or heavier silk welt is utilized, any strains which exist in the welt are transmitted to the leg portion of the
15 stocking and runs which start in the welt are transmitted to the leg portion; and in order to overcome these difficulties, I have provided a welt having rubber weft yarns which will be extendible in the direction of the length of the stocking, and by combining in this structure nonelastic
20 yarns I provide a very firm welt to which the hose supporter may be attached and one which, by reason of the elastic yarns which may also extend circularly of the leg, will stretch to permit absorption of the strains which may be
25 caused by the hose supporter and by reason of its attachment and different structure any runs which would ordinarily commence in the welt will not be transmitted to the leg portion of the
30 stocking; and I may weave this fabric so thin that it will not be objectionable at the top of the stocking and will stretch greater than the knit leg portion in lengthwise of the stocking direction to absorb the strains which may be placed
35 upon it; and the following is a more detailed description of the present embodiment of this invention, illustrating the preferred means by which these advantageous results may be accomplished:

Referring to the drawing, 10 designates the leg
40 portion of the stocking and 11 the welt which is secured thereto at the top thereof as in Fig. 1, either by reason of the stocking being knit to the welt or the two sewed together, as shown in Fig. 3.
45 This welt, shown more particularly in the remaining figures of the drawing, is of a unit construction and is woven in a manner to provide the same from one to five inches in width, usually about three inches, and of continuous lengths to
50 be cut off the required dimension and formed into band form of the required size although they may be circularly woven. The warp yarns consist of rubber yarns 12 and non-elastic yarns 13 which are woven with rubber filling yarns 14 by
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some suitable weave, that shown here being a one and one weave, although various weaves to present different effects may be utilized. I have found that a weave, commonly called a grosgrain effect, is satisfactory. By reason of the rubbers in the warp and also in the filling a stretch in two directions at substantially right angles to each other is provided and such a welt when formed up may be sewed at the upper edge of the stocking 15, as shown at 16 in Fig. 3.

In some instances, it is desirable to provide loops along the lower edge 17 of the welt and I have shown in Fig. 4 elastic yarns 18 and non-elastic yarns 19 in the filling with the non-elastic yarn 19 looped about the warp 22 with the elastic yarns 18 terminating short of the rubber warp 22 as at 25 to provide a loop 26 standing out from the edge of the welt 11 so that the leg portion 10 of the stocking may have its yarns 21 topped and knitted into these loops 26 and joined thereto such as shown diagrammatically in Fig. 4.

By reason of this construction a two-way stretch is provided in the elastic welt of a stocking that is rubber yarns in this woven welt will extend lengthwise of the stocking such as to prevent runs in the woven welt being transmitted to the leg portion from strains which may be exerted by reason of the hose supporters as the strains will be taken up in the welt rather than transmitted to the leg portion where such strains may cause runs in the stocking. Further, the use of a welt of this character will save the silk which is usually provided for the extra-heavy thickness and thus effect a saving in cost of materials and also a saving in the manipulation on the machines.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. A stocking comprising as one unit a knit leg portion and a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion being woven and containing rubber and relatively non-elastic yarns extending lengthwise of the leg portion to absorb the longitudinal strain which is disposed lengthwise of said yarns in the welt by reason of the pull of the garter thereon, said non-elastic yarns being of such a length as to limit the stretch of the rubber yarns and prevent shifting of position of the woven yarns in the fabric.

2. A stocking comprising a knit leg portion and a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion being woven and containing rubber and relatively non-elastic yarns extending lengthwise of the leg portion to absorb the longitudinal strain caused by the pull of the garter, said non-elastic yarns being joined to the knit portion of the leg.

3. A stocking comprising a knit leg portion and

a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion being woven and containing rubber and relatively non-elastic yarns extending lengthwise of the leg portion to absorb the longitudinal strain caused by the pull of the garter, said non-elastic yarns being joined to the knit portion of the leg, with the elastic yarns unattached to the knit course of said leg portion.

4. A stocking comprising a knit leg portion and a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion being woven with right angularly extending yarns one set of right angular yarns containing rubber and relatively non-elastic yarns extending lengthwise of the leg portion to absorb longitudinal strain which is disposed lengthwise of said yarns in the welt by reason of the pull of the garter thereon, and some of the other set of right angular yarns of said welt being also elastic.

5. A stocking comprising a knit leg portion and a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion being woven and containing rubber and relatively non-elastic weft yarns extending lengthwise of the leg portion to absorb longitudinal strain which is disposed lengthwise of said yarns in the welt, some of the warp yarns of said welt being also elastic.

6. A stocking comprising as one unit a knit leg portion and a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion containing rubber yarns extending lengthwise of the leg portion to absorb the longitudinal strain which is disposed lengthwise of said yarns in the welt by reason of the pull of the garter thereon and non-elastic yarns having portions disposed lengthwise of the stocking and limiting the stretch of the rubber yarns similarly disposed.

7. A stocking comprising as one unit a knit leg portion and a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion containing rubber and relatively non-elastic yarns extending lengthwise of the leg portion to absorb the longitudinal strain which is disposed lengthwise of said yarns in the welt by reason of the pull of the garter thereon, said non-elastic yarns being so disposed as to limit the stretch of the rubber yarns and prevent shifting of position of the yarns in the fabric.

8. A stocking comprising a knit leg portion and a light weight welt portion at the upper end thereof to which a garter is intended to be attached, said welt portion being provided with right angularly extending yarns one set of right angular yarns containing rubber and relatively non-elastic yarns having portions extending lengthwise of the leg portion to absorb longitudinal strain which is disposed lengthwise of said yarns in the welt by reason of the pull of the garter thereon, and some of the other set of right angular yarns of said welt being also elastic.

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