Oct. 8, 1940. D. J. HARRIS 2,217,272

HOSIERY AND METHOD OF MAKING THE SAME

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Fig. 2.

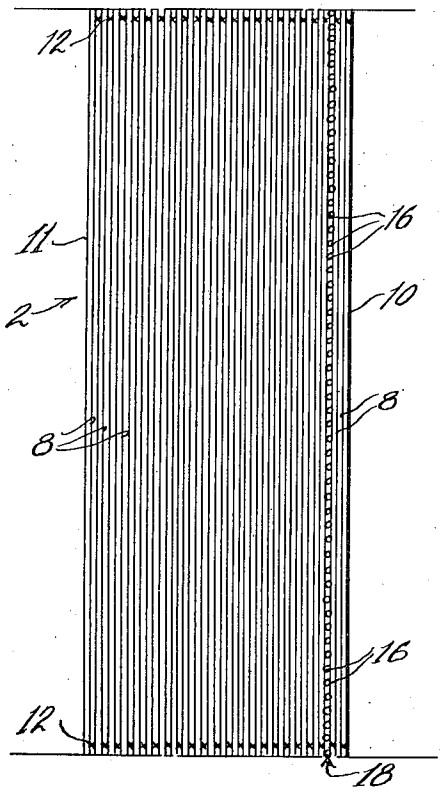


Fig. 1.

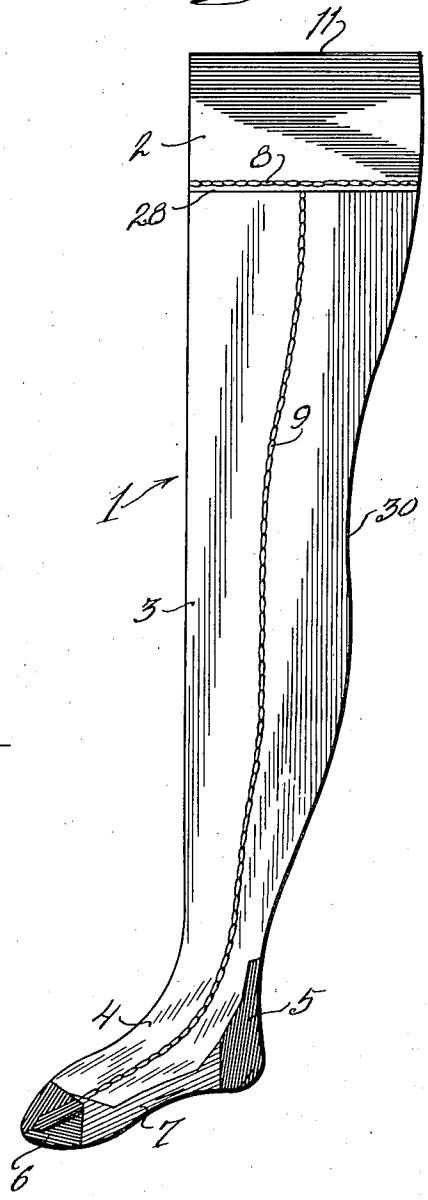
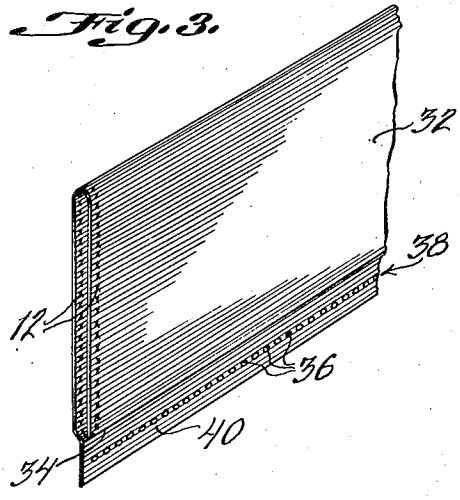


Fig. 3.



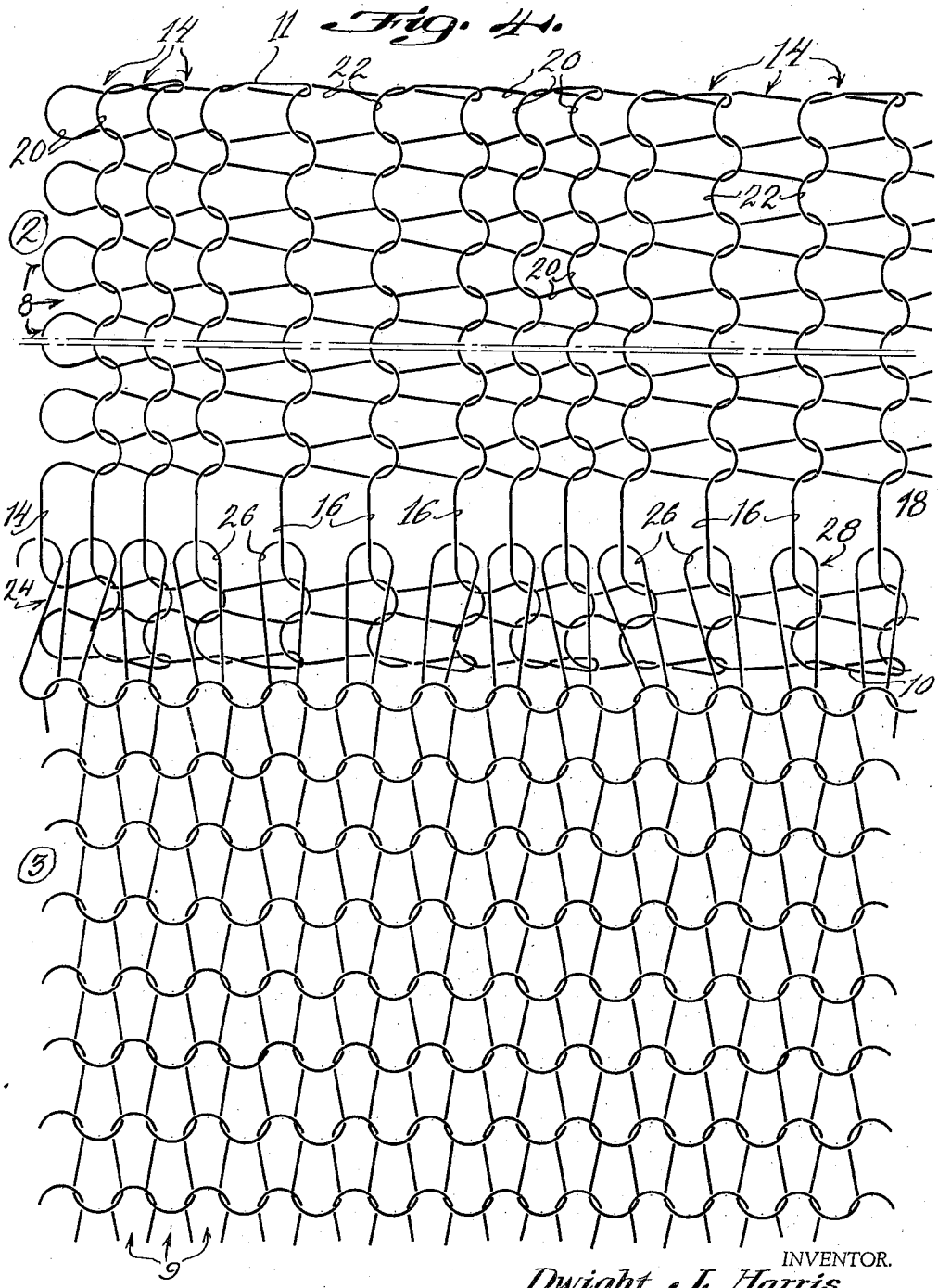
INVENTOR.
Dwight J. Harris
BY Wm. P. Smith
ATTORNEY.

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Fig. 4.



INVENTOR.
Dwight J. Harris
BY
Wm. P. Smith
ATTORNEY.

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UNITED STATES PATENT OFFICE

2,217,272

HOSIERY AND METHOD OF MAKING THE SAME

Dwight J. Harris, Philadelphia, Pa.

Application April 22, 1938, Serial No. 203,471

8 Claims. (Cl. 66—172)

The present invention relates to hosiery and method of making the same. More particularly, the invention pertains to knitted stockings of the type shown and described in my co-pending application, Serial Number 183,275, filed January 4, 1938, of which the present application is a continuation in part.

As stated in my co-pending application aforesaid, the invention generally aims to provide a stocking having a welt constructed of weft knitted fabric so disposed that the wales thereof are directed circumferentially of the stocking, whereby a "run" occurring in said welt will travel around, and not lengthwise of, the stocking, so that such a run cannot pass beyond the welt and enter into the leg portion, where it would become visible.

The primary object of the present invention resides in the provision of a novel manner of constructing and topping the weft knitted welt fabric whereby to produce a welt of distinctive characteristics and to facilitate the transfer thereof onto the needles of a flat full-fashioned knitting machine for the interknitted connection of said welt with the leg fabric of the stocking and for the production of a seam therebetween of increased strength and reduced bulkiness.

It is a specific feature of the present invention to provide a plain weft knit single thickness welt having finished selvedges, one of said selvedges being free to form the upper marginal edge of the stocking and the remaining selvedge being directly interknitted with the stocking leg.

It is also a characteristic feature of this invention to provide a stocking welt consisting of a single thickness of weft knitted fabric having finished selvedges, one selvedge adapted to constitute the normal top edge of the stocking and the other selvedge including a row of open loops devised for interknitted connection with the leg portion of the stocking, said welt moreover having end rows of lock stitches intended to be gathered in a rear seam.

Still another important object of the invention contemplates the provision of a welt fabric folded walewise to form a double ply welt and having a single ply tab adapted for interknitted connection with a stocking leg blank and provided with a row of drop loops paralleling the selvedge edge thereof in order to facilitate said interknitting connection.

Other important objects and advantages of the invention will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood by those skilled in the art, I have, in the accompanying drawings and in the detailed description based thereupon, set out a possible embodiment of the invention.

In these drawings:

Figure 1 diagrammatically illustrates a stocking made in accordance with the invention.

Figure 2 is a diagrammatic representation of a flat knitted welt fabric construction.

Figure 3 is a diagrammatic representation of a double ply welt fabric with a tab extending therefrom and adapted for direct interknitted connection with the leg fabric of a stocking.

Figure 4 is an enlarged diagrammatic representation of the preferred knitted structure of the welt and its interknitted connection with the leg fabric blank.

Having more particular reference to the drawings, wherein like characters of reference will designate corresponding parts throughout, I have shown in Figure 1 a finished knitted stocking 1 of the type specified in my previously filed application aforesaid, and which consists of a welt fabric 2, and a leg fabric 3 including the instep 4, the heel 5, sole 7, and toe 6.

As will clearly appear from Figure 1, the wale loops 8 of the welt fabric extend in a direction at substantially right angles to the wale loops 9 of the leg fabric 3, that is, the wale loops 8 of the welt extend transversely or circumferentially of the stocking, whereas the wale loops 9 of the leg fabric extend longitudinally or lengthwise of the stocking. In this manner, should a run occur in any part of the welt, such a run will travel circumferentially of the stocking and not towards and into the leg, where it would be visible.

In accordance with the present invention, the welt fabric 2 is started in the usual manner on a suitable flat knitting machine of any well known construction, thereby producing a weft knitted fabric blank having finished selvedges 10 and 11 respectively. As shown at 12, there is preferably formed at the beginning and end of the welt knitting, a row of lock stitches which prevent raveling of the fabric during subsequent handling thereof, for the purpose to be later specified.

Also, as more clearly shown in Figure 4, during the knitting of the successive courses 14 of the welt fabric 2, a loop 16 is dropped in each of said courses at one end portion thereof, thereby forming an open wale 18 adjacent to, and paralleling the selvedge 10 of said fabric, in order to facilitate the topping and direct interknitted connection thereof with the stocking leg fabric, in the manner to be hereinafter described.

It is moreover found desirable, although not necessary, to knit the welt fabric with successive series of courses, the courses in the alternating series being constructed of normal or tight loops 20 and elongated or loose loops 22, thus imparting to the fabric a distinctive characteristic and increased stretchability.

Although individual welt fabrics may be made,

I prefer to knit several of them in a continuous strip from which each welt may subsequently be cut, in the manner stated in my co-pending application hereinbefore identified, that is to say, in making continuous strips of welt fabrics, it is advisable to form loose courses between the welt fabric, thus providing a clear demarking and cutting line therebetween. Each loose course may be preceded and followed by one or more plain raveling courses, which separate the lock stitch courses 12 from the interposed loose course.

In manufacturing the stocking, a complete welt fabric 2 is transferred to an ordinary full-fashioned leg knitting machine by engaging the needles thereof with the loops 16 of the open wale 18 adjacent the selvedge 10 of the welt fabric, whereupon the leg fabric 3 is knitted as a continuation thereof. The first course 24 of the leg fabric is preferably knitted with elongated loops 26, whereby the interlooping of the two fabrics, as shown at 28, may be had without creating a bulky seam.

After completion of the flat knitted stocking blank, the marginal edges of the same may be united together in the ordinary fashion to form the back seam 30, wherein the lock stitches 12 of the welt fabric are gathered, leaving the exposed surface of the welt with a smooth and even appearance, the finished selvedge 11 constituting the top marginal edge of the stocking. It is to be understood that the welt fabric 2 may be knitted with a relatively heavy reinforced yarn to impart to said fabric the desired or required body.

In stockings of the type to which the present invention pertains, it is sometimes found desirable to construct the welt of a double ply fabric. The present invention accomplishes this desirable feature by providing the construction illustrated in Figure 3.

The mode of knitting the fabric to form a double ply welt will be clearly understood by reference to said Figure 3, wherein is diagrammatically shown a fabric blank 32 which may be knitted in the same manner as the welt fabric 2 illustrated in Figure 2, with the exception that it is of greater width. A number of blanks, such as blank 32, may also be knitted in a continuous strip from which the individual blanks may subsequently be cut. The cut blank may then be folded upon itself so that the selvedge edge 34 lies slightly above the row of drop stitches 36 constituting the open wale 38 and suitably secured thereto by means of a looping, sewing, or stitching operation, thus forming a double ply welt provided with a short extension or tab 40. Said short extension or tab may then be topped upon a full-fashioned knitting machine by engaging the needles thereof with the loops 36 of the open wale 38 in the manner hereinbefore described in connection with the single thickness welt 2.

From the foregoing, it will be appreciated that whether the stocking is made with a single thickness welt or with a double ply welt, the wales of the welt fabrics in both instances will extend at right angles to the wales of the leg fabric and, accordingly, a run occurring in either type of welt fabric will not pass into the leg, since such run will follow the direction of the wale in which it occurs.

It is to be understood that the invention is capable of other modifications and, therefore, any modifications coming within the scope of the subjoined claims is to be considered within the spirit of the invention.

What I claim is:

1. A knitted stocking comprising a weft knitted double ply welt terminating with a tab provided with a row of open stitches, and a weft knitted leg having an interknitted connection with the row of open stitches of said tab, the wales of the welt extending circumferentially of the stocking and the wales of the leg extending longitudinally of the stocking.

2. A stocking welt comprising a weft knitted fabric provided with selvedge portions and having a wale of open topping stitches in one of its selvedge sections and a course of lock stitches in each of its diametrically opposed end sections.

3. A stocking welt comprising a weft knitted fabric provided with selvedge portions and folded walewise upon itself to provide a double ply of fabric having its wales running transversely thereof and a tab depending from said welt and having a row of open topping stitches.

4. A stocking welt comprising a weft knitted fabric provided with selvedge portions and having a course of lock stitches in each of its diametrically opposed end sections and folded walewise upon itself to provide a double ply of fabric having its wales running transversely thereof, and a tab depending from said welt and having a row of open topping stitches.

5. In a stocking of the character described, the combination with a stocking having its wales extending longitudinally of the stocking: a welt comprising a weft knitted selvedge portion folded walewise upon itself to provide a double ply of fabric having its wales running at substantially right angles to the wales of the leg, and a tab depending from said welt and having a wale of open stitches interknitted with the wales of said leg.

6. In a stocking of the character described, the combination with a stocking leg having its wales extending longitudinally of the stocking: a stocking welt comprising a weft knitted selvedge fabric portion having a course of locked stitches in each of its diametrically opposed end sections and folded walewise upon itself to provide a double ply of fabric having its wales running at substantially right angles to the wales of the leg, and a tab depending from said welt and having a wale of open stitches interknitted with the wales of said leg, said courses of lock stitches being gathered in a rear seam.

7. The method of making stockings comprising flat weft knitting a welt fabric, forming a wale of open loops at one selvedge portion of said welt fabric, forming a course of locked stitches at the beginning and end of the welt fabric, transferring said welt fabric to a full-fashioned knitting machine by engaging the needles thereof with said open loops, knitting a leg portion fabric thereonto and completing the stocking with a back seam enclosing said lock stitches.

8. The method of making stockings comprising flat weft knitting a welt fabric, dropping adjoining wale loops in certain successive courses constituting the welt fabric to form a topping wale in one selvedge portion of said welt fabric, transferring loops in certain courses of the welt fabric to form a row of locked stitches at the beginning and end of said welt fabric, transferring said welt fabric to a full-fashioned knitting machine by engaging the needles thereof with said topping wale, and knitting a leg fabric thereonto.

DWIGHT J. HARRIS.