

Oct. 30, 1956

M. J. GORDON

2,768,385

LADIES HOSE CONSTRUCTION

Filed Feb. 26, 1954

2 Sheets-Sheet 1

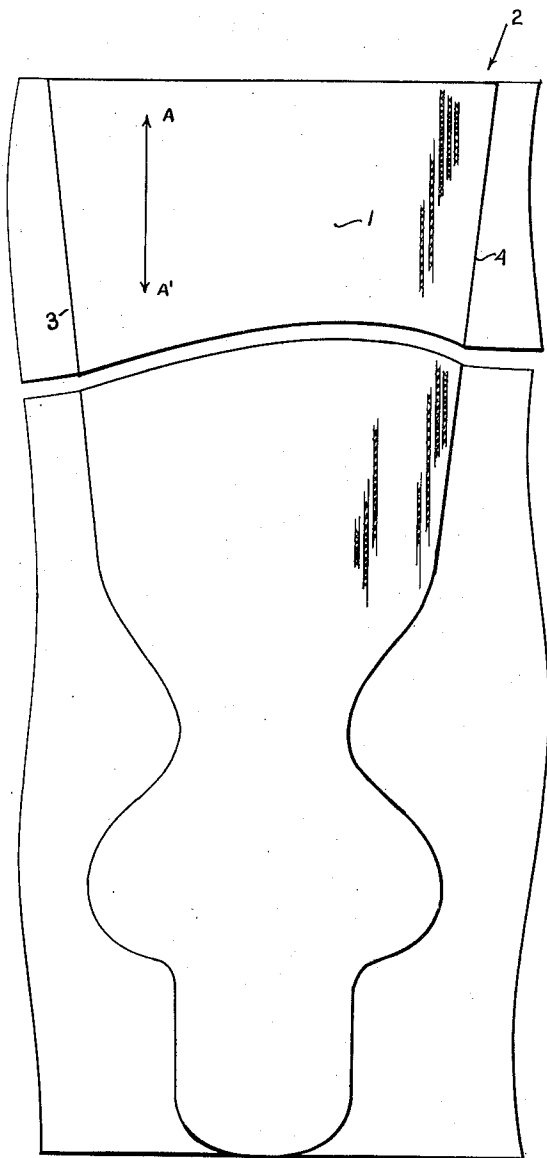


FIG. 1

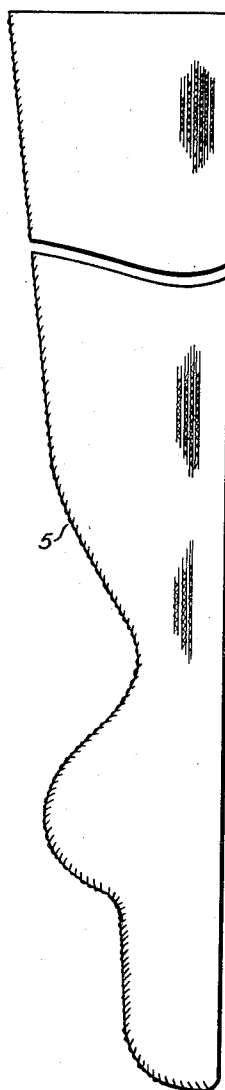


FIG. 2

INVENTOR.

MELVIN J. GORDON

BY

Ezekiel Wolf
his Attorney

Oct. 30, 1956

M. J. GORDON

2,768,385

LADIES HOSE CONSTRUCTION

Filed Feb. 26, 1954

2 Sheets-Sheet 2

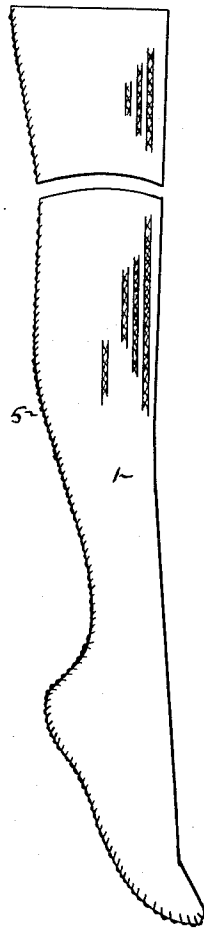


FIG. 3

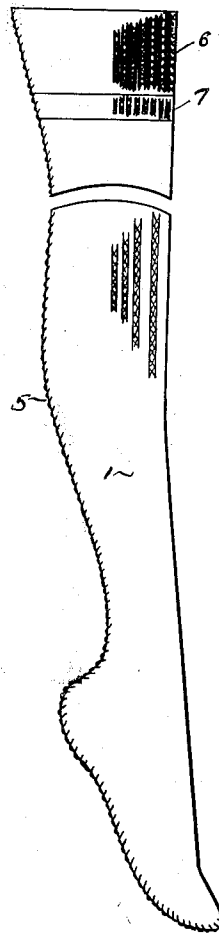


FIG. 4

INVENTOR.

MELVIN J. GORDON

BY

Ezekiel W. H.
his attorney

1

2,768,385

LADIES' HOSE CONSTRUCTION

Melvin J. Gordon, Wellesley, Mass., assignor to Melvin J. Gordon, Sadye Z. Gordon, and Natalie G. Stone, doing business as Manchester Hosiery Mills, Manchester, N. H.

Application February 26, 1954, Serial No. 412,899

2 Claims. (Cl. 2—239)

The present invention relates to a method of producing full fashioned hosiery without initially knitting the hosiery to a preestablished full fashioned pattern.

The common practice now employed in knitting full fashioned hosiery is to knit a hose in a flat form, wherein the edges of the form correspond to the line of stitching along the back of the hose where the edges are seamed together. In this process of knitting, each hose is knit in a preestablished pattern which runs lengthwise from the welt section to the toe, having cross widths at each point corresponding to the desired shape of the full fashioned hose. The fabric is shaped by a narrowing process during the knitting. After each piece has been completed, they are seamed together along a back seam by means of an overlapping stitch and then subjected to the usual washing and dyeing and forming treatment to produce the full fashioned hose.

This procedure has the disadvantage that exact lengths desired are almost impossible to attain due to changes in tension from tight or loose cones and certain other atmospheric conditions during the knitting process.

Another disadvantage is that this type of hose must be knitted on a large and expensive so called full fashioned machine, and the speed of knitting and operation has limitations which tend to make the cost of such hosiery quite expensive.

One of the objects of the present invention is to manufacture a knitted hose which is substantially less expensive to produce and which will have substantially all the advantages of the full fashioned knitted hose and also additional advantages in durability and length control. These advantages are accomplished by using a straight knitted fabric which may be knitted in continuous lengths or widths and which are thereafter cut in the desired full fashioned pattern prior to stitching the edges together to form the hose.

The knitted fabric in the present instance is formed with any desired type of lock stitch in such a way that the stitching may run lengthwise of the hose similar to the stitching in a full fashioned knit hose. Such lock stitch knit fabrics, such as tricot, may be used for this purpose. In such cases, lock stitching will prevent unravelling and running in both the longitudinal and transverse directions of the knit and also will prevent fraying at the edge of the material so that the material may readily be hemmed together at the edge in over-stitching commonly used in seaming full fashioned hosiery.

Any type of desired yarn may be used for this purpose, and such yarn having a large amount of stretch may be used to overcome the restraint imposed by the lock stitching structure.

Without further describing the advantages of the present invention, the invention will now be described in connection with the drawings illustrating an embodiment of the invention, in which:

Figure 1 shows the knit cloth as cut from the knit sheet material ready to stitch.

2

Figure 2 shows the stitching of the hose prior to pre-boarding.

Figure 3 shows the hose as shaped after pre-boarding or final boarding, so called Dunn system, and,

5 Figure 4 shows a section of a modified hose in which a section of the cloth forming the welt or after welt may be knit with a highly stretchable yarn.

As indicated in Figure 1, the full fashioned hose 1 is shown as cut from the knitted fabric sheet 2 which knitted fabric sheet is preferably knitted with lock stitches running in the direction of the arrows A, A' which will permit considerable stretch transverse to the direction A, A' and somewhat less stretch lengthwise of the direction A, A'. This may be overcome, if desired by knitting a part of the fabric sheet of a highly extensible yarn, such for instance as the part which will form the welt of a stocking, and the other part of the fabric sheet of ordinary yarn.

The hose is cut out in a flat form as any pattern would be cut out conforming generally to the shape of the hose which is ultimately desired, as for instance, a full fashioned hose.

In the case in Figure 1, the edges 3 and 4 of the hose will be brought together to form a seam from the toe to the end of the welt. Figure 2 shows the hose after it is cut from Figure 1, stitched together along the line 5 by over-stitching to form the rear seam of the hosiery. In this stitching no particular care need be taken to prevent any running of the stocking or any imperfection due to slight inaccuracies in stitching, since the material from which the hose is cut is of a lock stitch knit cloth in which no runs are possible, lengthwise or crosswise of the hose. The appearance of the hose may be exactly the same as the appearance of a full fashioned hose of the general knit stocking which is capable of running, since the lock of the stitch may be done in such a way that the stitches are aligned vertically up and down one above the other along the stocking.

After the stocking has been stitched together along the seam, it may be pre-boarded, under heat, approximately 250° on a form to shape the stocking or hosiery in the desired full fashioned shape forming the calves of the legs and to provide a shapely appearance.

In the present invention, the stocking when finished has a smooth appearance with the knitting stitches lined lengthwise of the hose in the same way that the ordinary full fashioned hose appears to the wearer.

In the form indicated in Figure 4, the fabric may be made with a section knit with a highly stretchable yarn and this form of hose, as in Figure 1, may be cut so that this section comes in the welt 6, and/or in the after welt 7. This will provide longitudinal stretch in the stocking in the direction of the line of stitches and allow "give" when the knee is bent as well as stretch in other directions. Such highly stretchable yarn may be of the type disclosed in the Billion Patent No. 2,564,245, in the Heberlein Patent No. 2,019,183, and in the Kagi Patent No. 2,019,185, or any of the other issued patents relating to such type of highly stretchable yarns.

One advantage of the present invention, however, is that the hose is incapable of running due to the use of two separate threads in the knitted fabric, and due to its uniform knitting, provides a structure of durable wear.

Having now described my invention, I claim:

1. A method of manufacturing ladies' knit hosiery which comprises using a two bar tricot fabric sheet having parallel lines of lock stitches, cutting out of the sheet a hosiery form in flat development lengthwise of the lock stitches with the side edges designed to form the rear seam of the hose and the center seam lengthwise of the sole and of the foot, seaming the edges of the hose

3

together to form said two mentioned seams, and forming said hose on a form under heat.

2. A method of manufacturing ladies' knit hosiery which comprises using a pre-knit fabric sheet having parallel lines of lock stitches and a band transverse thereto having a yarn of substantially greater stretch than the yarn in the rest of the fabric sheet, cutting out of the sheet a hosiery form in which said transverse band comes in the position of the welt or just below it at the top of the hose seaming the sides of the cut-out to provide rear seam and seam longitudinally across the middle of the sole and thereafter shaping the hose to the form of the leg and foot desired.

5

10

15

4

UNITED STATES PATENTS

References Cited in the file of this patent

972,442	Ermentrout et al. -----	Oct. 11, 1910
1,220,209	Ellis -----	Mar. 27, 1917
1,227,217	Taylor -----	May 22, 1917
1,802,634	Dreyfus -----	Apr. 28, 1931
1,883,883	Dennis -----	Oct. 25, 1932
2,088,943	Botts -----	Aug. 3, 1937
2,111,850	Flescher -----	Mar. 22, 1938
2,285,967	Hardy -----	June 9, 1942
2,608,079	Slater -----	Aug. 26, 1952

FOREIGN PATENTS

492,632	Great Britain -----	Sept. 23, 1938
---------	---------------------	----------------