Feb. 18, 1936. D. SICKEROTT 2,031,432

HOSIERY TOE FABRIC

Filed Oct. 26, 1935

Fig. 1.

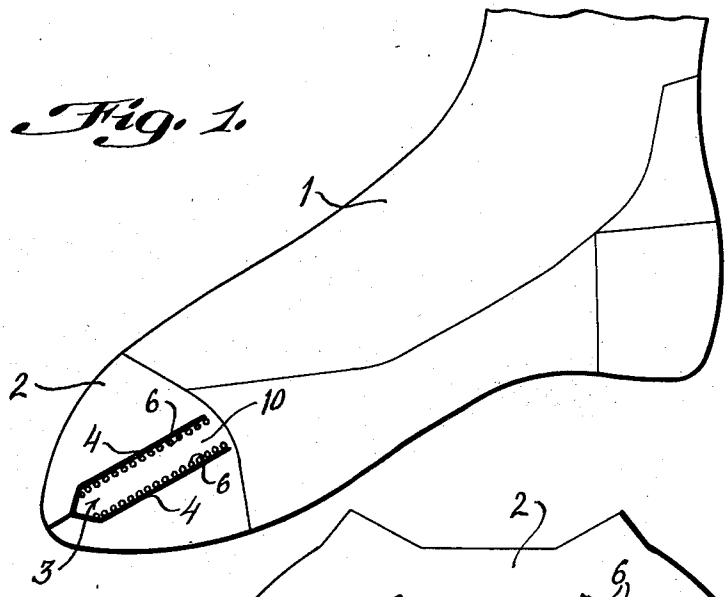


Fig. 2.

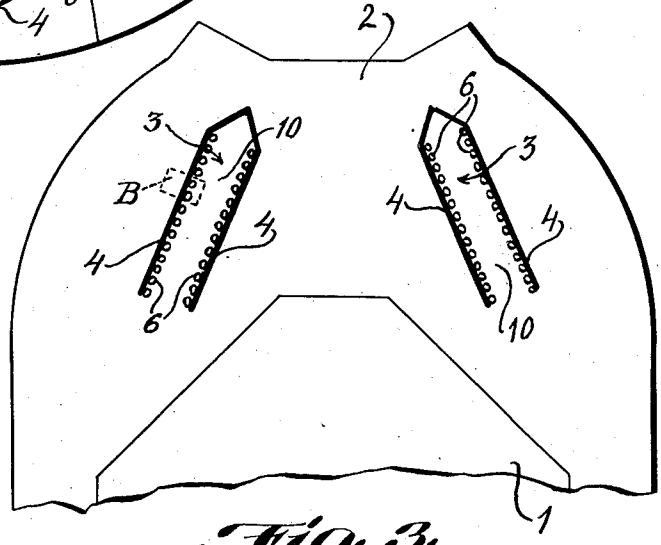
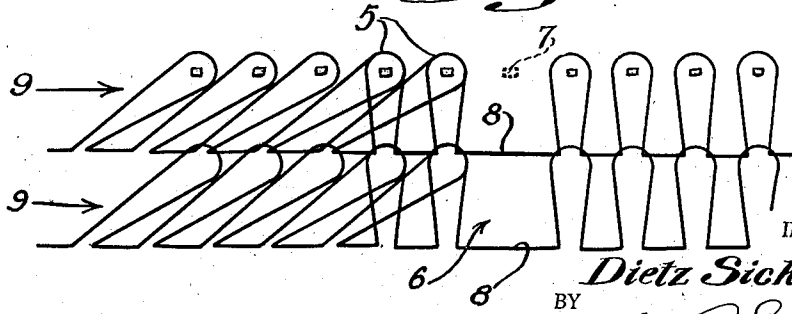


Fig. 3.



INVENTOR.

Dietz Sickerott

BY

Wm. R. Smith

ATTORNEY.

Patented Feb. 18, 1936

2,031,432

UNITED STATES PATENT OFFICE

2,031,432

HOSIERY TOE FABRIC

Dietz Sickerott, Philadelphia, Pa.

Application October 26, 1935, Serial No. 46,889

4 Claims. (Cl. 66—187)

The present invention generally relates to hosiery and, more particularly, to a knitted toe fabric therefor, and has for one of its main objects the provision of a toe fabric constructed to afford ventilation without weakening the knitted structure of the fabric.

Another important object of the invention contemplates the provision of a stocking toe fabric of the full fashioned type wherein are incorporated toe gores having an improved construction to include a restricted number of rows of openings so disposed that the stretchability of the usual toe fabric is not affected.

The invention further aims to provide a full fashioned toe fabric manufactured in a characteristic manner so that during the knitting operation, a single wale of dropped stitches constituting ventilating openings will be formed immediately adjacent the toe gore narrowing marks which create ridges in the fabric, said ridges effectively acting as a reenforcement for the dropped stitches forming said openings.

Still another meritorious feature of the invention resides in the provision of a full fashioned stocking toe fabric with toe gores wherein are included pairs of overlapping loops forming two ridges, one on each opposite side of the toe gores, and a single wale of dropped stitches immediately adjacent each ridge and constituting a row of openings for ventilation purposes, said ridges and wales of dropped stitches being associated so that the major portion of the toe gore consists of a panel of closely knitted formation thus preventing an increase in the normal stretchability of the fabric structure and, accordingly, preventing the gores and related portions of the toe fabric from becoming flabby and shapeless.

It is also among the distinguishing features of the invention to provide a toe fabric knitted on the commonly known full fashioned footer knitting machine which, in its usual narrowing operation, produces toe gores in the narrowed foot portion of the fabric, said toe gores being defined by pairs of transferred, overlapping loops forming a ridge-like narrowing line, the machine further operating in accordance with the present invention to produce a single wale of dropped stitches adapted to provide a row of ventilating openings and disposed immediately adjacent each ridge-like narrowing line and in paralleling relation thereto, said wale of dropped stitches and the associated ridge-like narrowing line cooperating in such a manner that the latter will reinforce the wale of dropped stitches and protect them against excessive strains.

The invention is also distinguished by the fact that the formation of my improved toe fabric with its ventilating feature does not necessitate additional parts or attachments on the knitting machine, nor demand material changes in the usual construction thereof.

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 drawing, and in the detailed description based thereupon, set out a possible embodiment of the invention.

In this drawing:—

Figure 1 is an elevational view of a stocking foot, diagrammatically illustrating the construction of my improved toe fabric.

Figure 2 is an enlarged fragmentary plan view of a portion of a full fashioned toe fabric blank embodying the invention.

Figure 3 is a diagrammatic view showing on a greatly enlarged scale the portion of the stocking blank within the dotted area B in Figure 2, and illustrating the formation of portions of the narrowing courses in the toe fabric made in accordance with the present invention.

Referring more particularly to the drawing, wherein like characters of reference will designate corresponding parts throughout, I have shown the foot portion 1 of a full fashioned stocking having the toe fabric 2 which is knitted in the usual and commonly known way to provide the toe gores 3.

These toe gores 3 have their opposite sides defined by two ridges 4 each ridge extending walewise of the fabric and formed by a row of pairs of transferred overlapping loops 5 (Figure 3) made by the functioning of the narrowing mechanism of well known full fashioned footer knitting machines.

According to the present invention, a row of openings 6 is arranged within the toe gores 3 adjacent each ridge 4 and disposed in paralleling relation thereto. The row of openings 6 may be made in any suitable way, for instance, by leaving out a needle as indicated at 7 in Figure 3, to form a dropped stitch 8 in each narrowing course 9 thus providing a single wale of dropped stitches immediately adjacent the overlapping loops 5 constituting the gore defining ridges 4.

By proceeding in this manner, each gore 3 is provided with a panel 10 consisting entirely of close knit loops and bordered on its opposite sides

by the single row of openings 6 reenforced by the ridge 4. This particular structure of the toe gore assures the retention of the shape of the stocking toe fabric.

It will be appreciated that the provision of rows of openings 6 in the stocking toe fabric affords adequate ventilation. As is well known in the art, relatively heavy yarn is utilized in knitting the toe fabric for the purpose of imparting a reinforced structure thereto. The use of heavy reinforcing yarn in the knitting of the toe fabric produces closely knitted loops, which stop the proper circulation of air, and the present invention overcomes this inconvenience by introducing ventilating openings in the fabric structure at diametrically opposite points to provide cross-ventilation.

Attention is particularly called to the fact that by associating and co-relating, in the manner heretofore stated, the rows of ventilating openings 6 with the toe gore ridges 4, consisting of wale-wise rows of overlapping loops 5, the latter constitute a reenforcement for the wale of dropped stitches 8.

It will be obvious that the formation of dropped stitches in the knitted fabric would ordinarily occasion a wale-wise weakening of the fabric. This objectionable consequence is overcome in the present invention due to the wale-wise arrangement of pairs of overlapping loops forming ridges 4 and disposed next to the wale of dropped stitches 8. The row of openings being disposed immediately adjacent and in paralleling relation to the ridges 4, it will be understood that these ridges act to prevent the wale of dropped stitches 8 from undue stretching and, accordingly, obviate the possibility of said dropped stitches breaking under ordinary wearing strains.

Moreover, because of the respective positioning of the ridges 4 and rows of openings 6, no excessive change occurs in the normal stretchability of the toe gores, but the panels 10 in the gores 3 and associated portions of the toe fabric retain their close knit structure, necessary for the proper shaping of the toe section of the stocking.

It is pointed out that the manufacture of my improved toe fabric requires no special means nor material changes in the usual footer knitting machine, but merely necessitates a simple adjustment, such as that which would result in producing dropped stitches in the wale adjacent the ridges formed by the toe gore narrowing marks.

I wish it to be understood that the rows of ventilating openings 6 and incidental features of the invention may be formed in a manner other than that herein described. Therefore, I consider within the spirit of the invention those modifications which may come within the scope of the subjoined claims.

What I claim is:

1. In a stocking toe fabric of the character described, a toe gore including a panel consisting entirely of closely knitted loops, a ridge consisting of overlapping loops and bordering each side of said panel walewise of the fabric, and a wale of dropped stitches forming a single row of openings disposed adjacent and in paralleling relation to each ridge.

2. In a stocking toe fabric of the character described, a toe gore including a panel consisting entirely of closely knitted loops and having a pair of narrowing lines each consisting of overlapping loops forming a ridge on the opposite sides of said panel and arranged walewise of the fabric, and dropped stitches forming a row of openings associated with each ridge and paralleling the same, said row of openings being confined to that wale immediately adjacent its associated ridge.

3. In a stocking toe fabric of the character described, a toe gore including a panel consisting entirely of closely knitted loops and having a pair of narrowing lines each consisting of pairs of overlapping loops forming a ridge on the opposite sides of said panel and arranged walewise of the fabric, and dropped stitches forming a row of openings associated with each ridge and paralleling the same, said row of openings being confined to that wale immediately adjacent its associated ridge.

4. In a stocking toe fabric of the character described, a toe gore including a panel consisting entirely of closely knitted loops and having a pair of narrowing lines each consisting of pairs of overlapping loops forming a ridge on the opposite sides of said panel and arranged walewise of the fabric, and dropped stitches forming a row of openings associated with each ridge and paralleling the same, said row of openings being disposed within the toe gore and confined to that wale immediately adjacent each associated ridge.

DIETZ SICKEROTT.