Aug. 26, 1958 N. H. GOODMAN 2,848,885

FOOTLETS AND METHOD OF MAKING SAME

Filed Jan. 14, 1954

FIG. 1

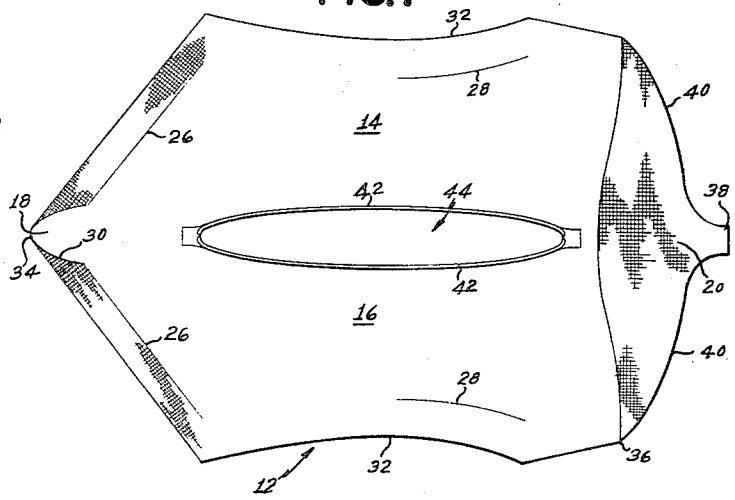


FIG. 4

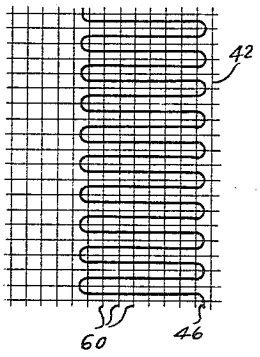


FIG. 2

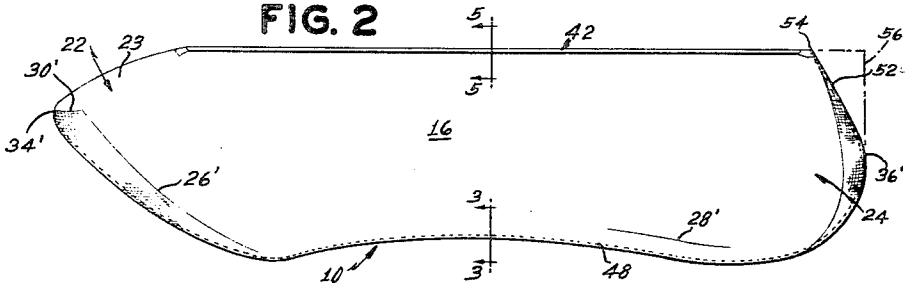


FIG. 6

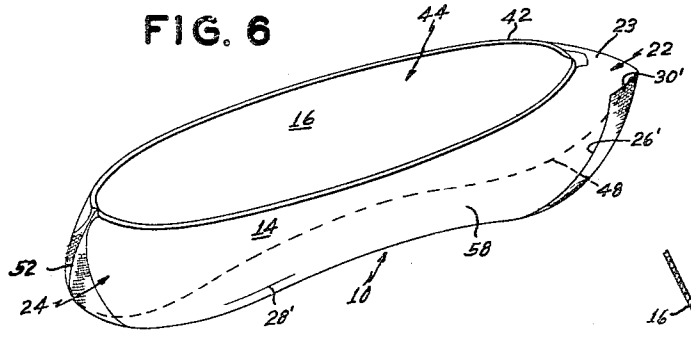


FIG. 3

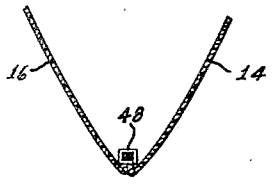
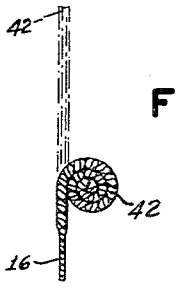


FIG. 5



INVENTOR.
NORMAN H. GOODMAN
BY Davis Lewis & Harry Cole
ATTORNEYS

United States Patent Office 2,848,885 Patented Aug. 26, 1958

2,848,885

FOOTLETS AND METHOD OF MAKING SAME

Norman H. Goodman, New York, N. Y., assignor to Triumph Hosiery Mills, Inc., New York, N. Y., a corporation of New York

Application January 14, 1954, Serial No. 403,954

9 Claims. (Cl. 66—171)

This invention relates generally to improvements in foot covering articles or footlets and method of making the same.

One object of the present invention is the provision of an improved method of making a foot covering article or the like from a flat blank knit on a conventional full-fashioned hosiery machine. Pursuant to this object of the present invention a flat blank having integrally interconnected portions is knit on a full-fashioned hosiery machine and said portions are subsequently secured together in a manner to be described hereinafter to form an article of wearing apparel of the aforenoted character.

Another object of the present invention is the provision of an improved method of making a foot covering article of the above character which is inherently simple, and which readily lends itself to efficient and economical mass production.

Yet another object of the present invention is the provision of improved foot covering articles, or the like, which are of full-fashioned construction to provide a superior fit, present an aesthetically attractive appearance, and which are eminently suitable for their intended purpose.

The above and other objects, features and advantages of the present invention will be more fully understood from the following description considered in connection with the accompanying illustrative drawings.

In the drawing which illustrates the best mode now contemplated by me of carrying out my invention:

Fig. 1 is a top plan view of a flat blank from which the foot covering article of the present invention is made;

Fig. 2 is a side elevational view of a foot covering article formed according to the present invention;

Fig. 3 is a sectional view, on an enlarged scale, taken on the line 3—3 of Fig. 2;

Fig. 4 is a view illustrating the inter-knitting of an elastic yarn with the blank of Fig. 1 at the foot opening;

Fig. 5 is a sectional view, on an enlarged scale, taken on the line 5—5 of Fig. 2, and

Fig. 6 is a top perspective view of the foot covering article.

Referring to the drawing in detail, the foot covering article or footlet 10 is formed from a blank 12 which is knit in the flat on a conventional full-fashioned hosiery machine. The flat knit blank 12 may be formed of any suitable material and in the preferred embodiment said blank is formed of "elastic nylon" which is also commonly known as Helanca processed nylon, said material being preferred because of its elastic properties. The flat knit blank 12 comprises a pair of similar longitudinally extending portions 14 and 16 which are integrally interconnected at both ends thereof as indicated at 18 and 20, it being understood that blank 12 is knit in the flat to provide said integrally interconnected portions 14 and 16. The elastic nylon full-fashioned flat blank 12 is knit to the desired size and shape and the integral portions 14 and 16 are interconnected at opposite ends thereof as indicated at 18 and 20, the end 18 of said blank being adapted to form the toe part 22 of footlet 10 and the end 20 of said blank being adapted to form the heel part 24 of the finished footlet. The forward or toe end 18 of blank 12 will have full-fashioned narrowings as indicated at 26, and the heel end 20 of said blank will also have full-fashioned narrowings as indicated at 28. The toe end 18 of blank 12 will also have a looping line 30 of narrowing marks approaching close to the selvage as clearly shown in Fig. 1, in the region of the full-fashioned narrowings indicated at 26, it being understood that said full-fashioned narrowings are formed in a conventional manner on a full-fashioned hosiery machine in knitting the blank 12 to a predetermined size and shape. The integrally interconnected portions 14 and 16 have outside peripherally extending free selvage edges 32 which extend from the point 34 of the toe end 18 to substantially the point 36 in the region of the end 20 of blank 12. Accordingly, the free selvage edges 32 of the portions 14 and 16 extends at least from the region of the end 18 of blank 12 to a point 36 short of the heel end point 38 thereof. The peripherally extending free edges 40 of the portions 14 and 16, which extend from the peripheral points 36 to the heel end point 38 of blank 12, may be unfinished in that the heel end 20 of blank 12 is cut and sewn to form the article 10, as will be subsequently described in detail. Accordingly the peripherally extending edges 32 are selvage edges whereas the peripherally extending edges 40 at the heel end 20 of blank 12 may be unfinished edges. The portions 14 and 16 also define inside free marginal edges 42 which are adapted to define the foot opening 44 of the finished footlet 10. The inside free marginal edges 42 of the portions 14 and 16 are elasticized and for this purpose an elastic yarn may be secured to said edges in any desired manner, as by means of a stitching operation. Pursuant to the preferred embodiment of the present invention, an elastic yarn 46 is inter-knit with the portions 14 and 16 at the edges 42 as illustrated in Fig. 4 whereby to form continuously elasticized edges 42, which in the completed article 10 define a continuously elasticized foot opening 44. Thus the portions 14 and 16 are provided with inside continuous longitudinally extending elasticized marginal edges 42, the latter having elastic yarn 46 continuously interknit therewith to form the continuously elasticized foot opening 44. Accordingly an elastic yarn 46 may be integrated with the longitudinally extending inside edges 42 of portions 14 and 16 in any desired manner, as by means of the aforedescribed interknit between said elastic yarn and the threads 60 of the fabric of said portions.

After the formation of the full-fashioned flat knit blank 12 as aforedescribed, the portions 14 and 16 are secured together in the manner now to be described. The portions 14 and 16 are stitched together along the peripherally extending edges 32 to form a seam 48 as shown in Figs. 2, 3 and 6. Thus the free selvage edges 32 of blank 12 are stitched together by stitching 48, the stitching or seam 48 extending from the point 34' of the toe end 22 to the peripheral point 36' in the heel part 24 of footlet 10. Thus the outside peripherally extending selvage edges 32 are united by a seam 48 which extends along a peripheral line substantially from the toe end of the blank to the region of the heel end thereof. The peripheral edge 52 which extends from the peripheral point 36' to the point 54 of heel part 24, is formed by a simultaneous cutting and sewing operation whereby the fabric area 56 outside of said peripheral edge will be cut away. Accordingly, after the selvage edges 32 are secured together in the aforedescribed manner the heel part 24 will be simultaneously cut and sewn from the peripheral point 36' to define the peripheral edge 52, which constitutes a continuation of the seam 48. From the above it will be

apparent that the fabric area 56 will be cut away in the aforedescribed cutting and sewing operation whereby there is defined a foot covering article 10 having a foot opening 44 which is in communication with the interior foot receiving compartment 58 of the footlet 10.

Since elastic yarn 46 is interknit with a plurality of threads 60 of the knit fabric blank 12, the marginal edges 42 of foot opening 44 will be of spiral formation in the relaxed condition of said edges as clearly shown in Fig. 5. Thus the marginal edge 42 of the foot opening 44 will assume a spiral formation in the relaxed condition thereof and the foot opening 44 will be of a finished and aesthetically attractive appearance. Furthermore the foot opening 44 will have a high degree of elasticity whereby to facilitate the placing of the foot covering article 10 on the wearer's foot and the removal therefrom, as will be readily understood. Thus the continuously elasticized foot opening 44 may be stretched a substantial amount to facilitate the placement of the foot covering article or footlet 10 on the wearer's foot. From the above it will be apparent that the footlet 10 will have full-fashioned narrowings 26' and 28' at the toe and heel end regions, respectively, of the footlet 10. It will also be apparent that the toe region 22 of the footlet 10 will have a looping line 30', said looping line and said full-fashioned narrowings being initially formed in blank 12 in the knitting thereof on a conventional full-fashioned hosiery machine. It is to be noted that the toe portion 22 of the footlet 10 is of seamless integral construction except for the seam 48 at the base of said toe portion.

The foot covering article 10, formed according to the method aforedescribed, comprises a knitted blank 12 formed of elastic nylon, said blank having a pair of similar integrally connected longitudinally extending portions 14 and 16 which have initially separated outside peripherally extending selvage edges 32, the latter being united by the seam 48 which extends longitudinally from one end 34' of the blank 12 to a point 36' at the opposite end thereof. As aforedescribed, the securement together of the portions 14 and 16 is completed by a simultaneous cutting and sewing operation to form the seamed edge 52 which extends from the peripheral point 36' to the point 54. Thus the selvage edges 32 are united by a seam 48 along a peripheral line extending substantially from one end of the blank 12 to the region of an opposite end thereof to form the foot covering article 10 which has a foot opening 44 which communicates with the interior foot receiving compartment 58. As aforenoted, the foot opening 44 is defined by inside continuous longitudinally extending elasticized marginal edges 42 of the portions 14 and 16. The blank 12 may be initially knit in the flat with a conventional stitch or a non-run stitch on a full-fashioned hosiery machine. Since the foot covering article or footlet 10 is of full-fashioned construction as aforedescribed a superior fitting article is obtained. Footlets 10 which are formed from the knit blanks 12 in the manner aforedescribed will be absolutely uniform since said blanks are knit to a predetermined size and shape as aforedescribed on a full-fashioned hosiery machine. The aforedescribed method is inherently economical as there is substantially no surplus material in the knitting of blank 12 and there is accordingly very little trimming required to thus minimize waste. The article 10 formed as aforedescribed will have a very neat and aesthetically attractive appearance, it being noted that the upper toe region 23 of article 10 is of seamless construction and accordingly presents a very attractive appearance on the wearer's foot.

While I have shown and described the preferred embodiments of my invention, it will be understood that various changes may be made in the idea or principles of the invention within the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A method of making a foot covering article, comprising the steps of knitting a flat blank of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free edges and inside free marginal edges, securing together said outside free edges of said portions from the region of one end thereof to a point short of the other end thereof, and securing together said other end from said point to form a foot covering article having a foot opening communicating with an interior foot receiving compartment, said foot opening being defined by said inside marginal edges.

2. A method of making a foot covering article, comprising the steps of knitting a full-fashioned flat blank of elastic nylon of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free edges and inside free marginal edges, securing together said outside free edges of said portions from the region of one end thereof to a point short of the other end thereof, and securing together said other end from said point to form a foot covering article having a foot opening communicating with an interior foot receiving compartment, said foot opening being defined by said inside marginal edges.

3. A method of making a foot covering article, comprising the steps of knitting a flat blank of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free edges and inside elasticized free marginal edges, stitching together said outside free edges of said portions from the region of one end thereof to a point short of the other end thereof, and stitching together said other end from said point to form a foot covering article having a foot opening communicating with an interior foot receiving compartment, said foot opening being defined by said inside marginal edges.

4. A method of making a foot covering article, comprising the steps of knitting a full-fashioned flat blank of elastic nylon of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free selvage edges extending at least from the region of one end thereof to a point short of the other end thereof and inside elasticized free marginal edges, stitching together said free selvage edges, and stitching together said other end from said point to form a foot covering article having a foot opening, the latter being defined by said elasticized marginal edges.

5. A method of making a foot covering article, comprising the steps of knitting a full-fashioned flat blank of elastic nylon of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free selvage edges extending at least from the region of one end thereof to a point short of the other end thereof and inside free marginal edges having elastic yarn interknit therewith to define continuous elasticized free marginal edges, stitching together said free selvage edges, and stitching together said other end from said point to form a foot covering article having a foot opening, the latter being defined by said elasticized marginal edges.

6. A method of making a foot covering article, comprising the steps of knitting a full-fashioned flat blank of elastic nylon of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free selvage edges extending at least from the region of one end thereof to a point short of the other end thereof and inside elasticized free marginal edges, stitching together said free selvage edges, and simultaneously stitching together and cutting said other end from said point to form a foot covering article having a foot opening, the latter being defined by said elasticized marginal edges.

7. A method of making a foot covering article, com-

prising the steps of knitting a full-fashioned flat blank of elastic nylon of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free selvage edges extending at least from the region of one end thereof to a point short of the other end thereof and inside elasticized free marginal edges, said flat blank having full-fashioned narrowings at both ends thereof and a looping line in the region of said one end, stitching together said free selvage edges and stitching together said other end from said point to form a foot covering article having a foot opening, the latter being defined by said elasticized marginal edges.

8. A method of making a foot covering article, comprising the steps of knitting a full-fashioned flat blank of elastic nylon of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free selvage edges extending at least from the region of one end thereof to a point short of the other end thereof and inside elasticized free marginal edges, said flat blank having full-fashioned narrowings at both ends thereof and a looping line in the region of said one end, stitching together said free selvage edges and simultaneously stitching together and cutting said other end from said point to form a foot covering article having a foot opening, the latter being defined by said elasticized marginal edges.

9. A foot covering article comprising a knitted blank

formed of elastic nylon and having a pair of similar longitudinally extending portions interconnected at opposite ends thereof and having initially separated outside peripherally extending selvage edges and inside free marginal edges, said outside edges being united by a seam along a peripheral line extending substantially from one end of said blank to the region of the opposite end thereof to form a foot covering article having a foot opening communicating with an interior foot receiving compartment, said foot opening being defined by said inside marginal edges of said portions, said knitted blank having full-fashioned narrowings at said one end thereof and in the region of the opposite end thereof and a looping line in the region of said one end.

References Cited in the file of this patent

UNITED STATES PATENTS

1,912,539	Paul	June 6, 1933
1,936,064	Mills	Nov. 21, 1933
2,001,293	Wilson	May 14, 1935
2,304,053	Kaufman	Dec. 1, 1942
2,641,914	Neumager	June 16, 1953

FOREIGN PATENTS

114,599	Australia	Feb. 12, 1942
725,957	France	May 20, 1932
797,252	France	Apr. 23, 1936
1,003,221	France	Nov. 14, 1951

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 2,848,885 August 26, 1958

Norman H. Goodman

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

In the heading to the sheet of drawing, line 2, and in the heading to the printed specification, line 2, title of invention, for "FOOTLETS AND METHOD OF MAKING SAME" read -- FOOT COVERING ARTICLE AND METHOD OF MAKING SAME --; in the printed specification, column 1, line 16, strike out "or footlets"; line 58, strike out "or footlet"; column 2, lines 2 and 59, for "footlet" read -- the foot covering article --; same column, lines 4 and 32, for "footlet" read -- foot covering article --; column 3, lines 20 and 54, strike out "or footlet"; lines 21, 23, 24, and 29, strike out "footlet", each occurrence, and insert instead -- foot covering article --; lines 55 and 56, strike out "Footlets" and insert instead -- The foot covering articles --.

Signed and sealed this 14th day of April 1959.

(SEAL)
Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATS(
Commissioner of Pater