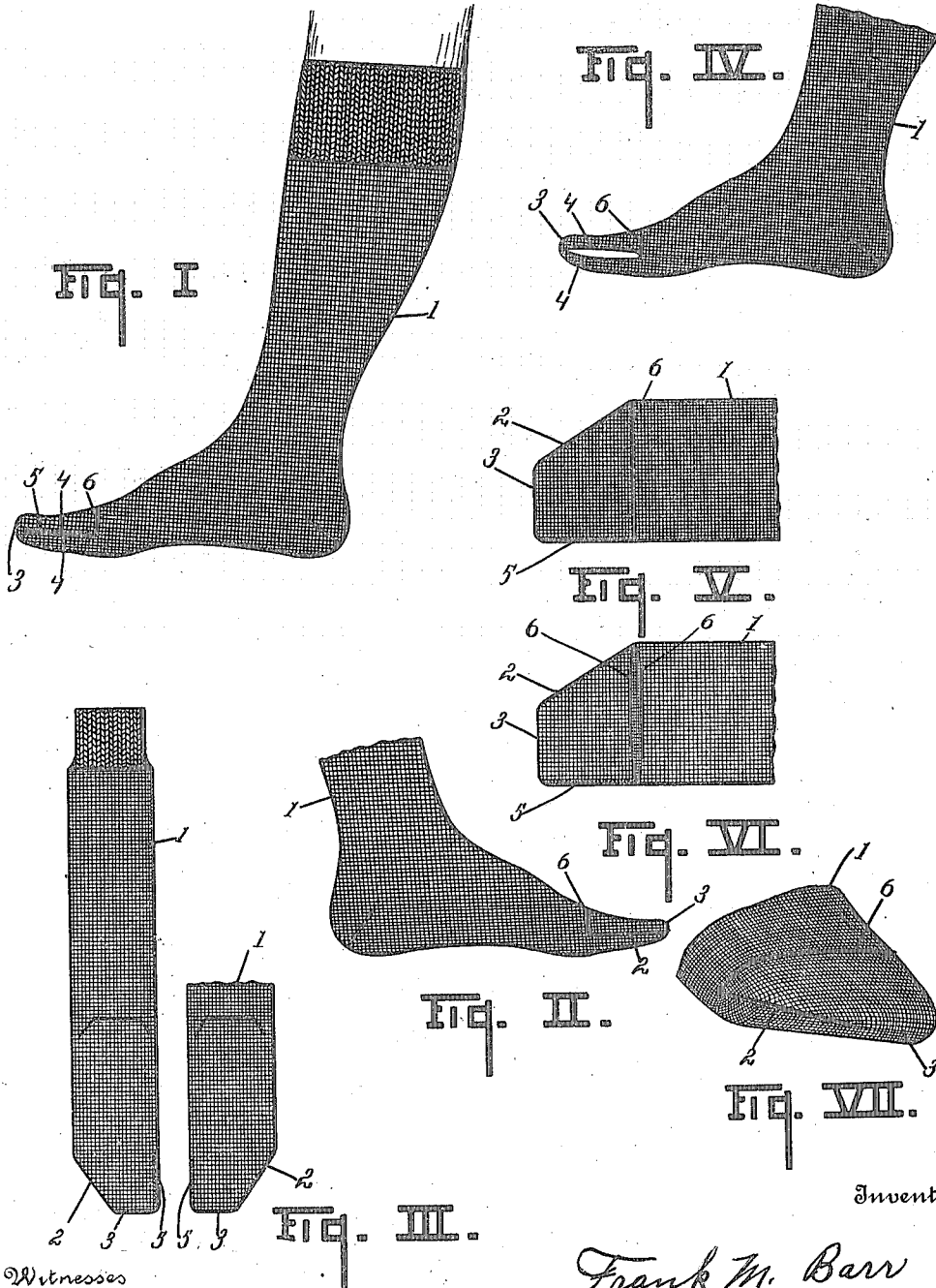


F. M. BARR.
KNITTED HOSE.

APPLICATION FILED SEPT. 15, 1913. RENEWED OCT. 8, 1915.

1,160,819.

Patented Nov. 16, 1915.



Inventor

Frank M. Barr
By Chappell & Earl

Attorneys

Witnesses

Luelle Greenfield
Margaret Glasgow

UNITED STATES PATENT OFFICE.

FRANK M. BARR, OF MUSKEGON, MICHIGAN, ASSIGNOR TO LOUIS P. HAIGHT, OF
MUSKEGON, MICHIGAN.

KNITTED HOSE.

1,160,819.

Specification of Letters Patent. Patented Nov. 16, 1915.

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To all whom it may concern:

Be it known that I, FRANK M. BARR, a citizen of the United States, residing at Muskegon, Michigan, have invented certain new and useful Improvements in Knitted Hose, of which the following is a specification.

This invention relates to improvements in knit hose and method of making the same.

10 The main objects of this invention are: First, to provide seamless knit hosiery which are rights and lefts and in which the inner sides of the toe portions are knit in a line substantially straight with the inner side of the foot portions and conform to the natural shape of the foot, and in which there are no seams at the end of the great toe. Second, to provide an improved method of making seamless knit hosiery in which the inside of the toe portions and the foot portions are in a substantially straight line and the outer side of the toe portions are narrowed, there being no seams at the end of the great toe portions.

25 Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claim.

35 A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing forming a part of this specification, in which:

40 Figure I is an inner side view of a hose embodying my invention, the same being shown on a right foot form. Fig. II is a detail side elevation of the outer side of the hose shown in Fig. I. Fig. III is a detail bottom view of a pair of hose embodying my invention folded in the flat. Fig. IV is a detail inside view before the selvage edges along the inside of the great toe are united. Fig. V is an enlarged detail top view. Fig. VI is a similar detail top view before the opening on the top of the hose where the toe portion joins the foot portion is united. Fig. VII is a detail perspective end view from the outer side.

50 In the drawing, similar reference numerals refer to similar parts throughout the several views.

Referring to the drawing, the hose 1 is of the so-called seamless type; that is, it is knitted round and round on a circular knitting machine, as distinguished from "full fashioned hose" knitted in the flat on a flat bed machine.

60 My improved hose is knitted to the toe portion in the well-known manner. One-half of the needles are then thrown out of action and the toe portion knitted with a reciprocating motion. As the machine begins on such reciprocating motion the needles at the outer side of the toe are manipulated to produce the narrowing 2 for the toe portion 3.

70 The first and second needles on the inner side are manipulated to produce selvage edges 4 along the inner side of the great toe. These selvage edges are formed substantially straight with the inner line of the hose. The preferable method by which this is accomplished is by raising needle number 1, that is the first needle on the inner side in action so that the thread or yarn is wrapped around it but no stitch is formed, the remainder of the needles in action taking their regular stitches. The next step is to throw the needle number 2, that is the second needle on the inner side, out of action before the thread or yarn on the opposite side of the machine is drawn into the needle, then operating needles in action until they come to numbers 2 and 1, when these are also thrown into action, taking their regular stitches. In this way, needle number 1 knits but one stitch to needle number 2's two stitches. The combination of these stitches and the wrapping on needle number 1 produces a selvage edge which is slightly shorter than the fabric produced on the other needles in action, and this draws the fabric slightly on the inside and on the end of the great toe portion back from the end of the stocking, there being a continuous knit fabric over the end of the great toe portion, thereby producing a straight sided great toe portion without a seam across the end.

95 The selvage edges are joined by a row of stitches 5. The row of stitches 5 are in a line substantially straight with the inner side of the foot portion of the hose, thus providing a hose having a substantially straight line on its inner side extending nearly to the end of the toe of the hose and

conforming to the natural shape of the foot. The edges 6 are joined in the usual way by "looping."

By this method I produce hose which are
5 rights and lefts and have substantially
straight lines on the inner sides of the foot
portions extending nearly to the end of the
great toe and a great toe portion which is
without a seam at the end. This is of great
10 advantage, as it is found that the toe of
ordinary hose being narrowed equally on
the inner and outer side tends to draw the
big toe inward toward the other toes, which
has a tendency to produce enlarged joints,
15 bunions and other injurious effects.

With my improved hose, the foot may assume its natural position, the toes are not drawn together or pressure produced thereon, as is likely to occur in hose narrowed
20 from both sides.

A further advantage is, that my improved hose can be made substantially as economi-

cally as the ordinary hose tapered or narrowed on both sides.

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

A seamless knit hose having a toe portion narrowed on its outer side and an unnarrowed continuous knit great toe portion
30 provided with substantially straight selvedge edges at the side thereof, the selvedge edges being slightly shorter than said continuous knit portion and being united in a line substantially straight with the inner side of the
35 foot portion of the hose.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

FRANK M. BARR. [L. s.]

Witnesses:

MAX LANGE,
ANNA VANDERBURG.