

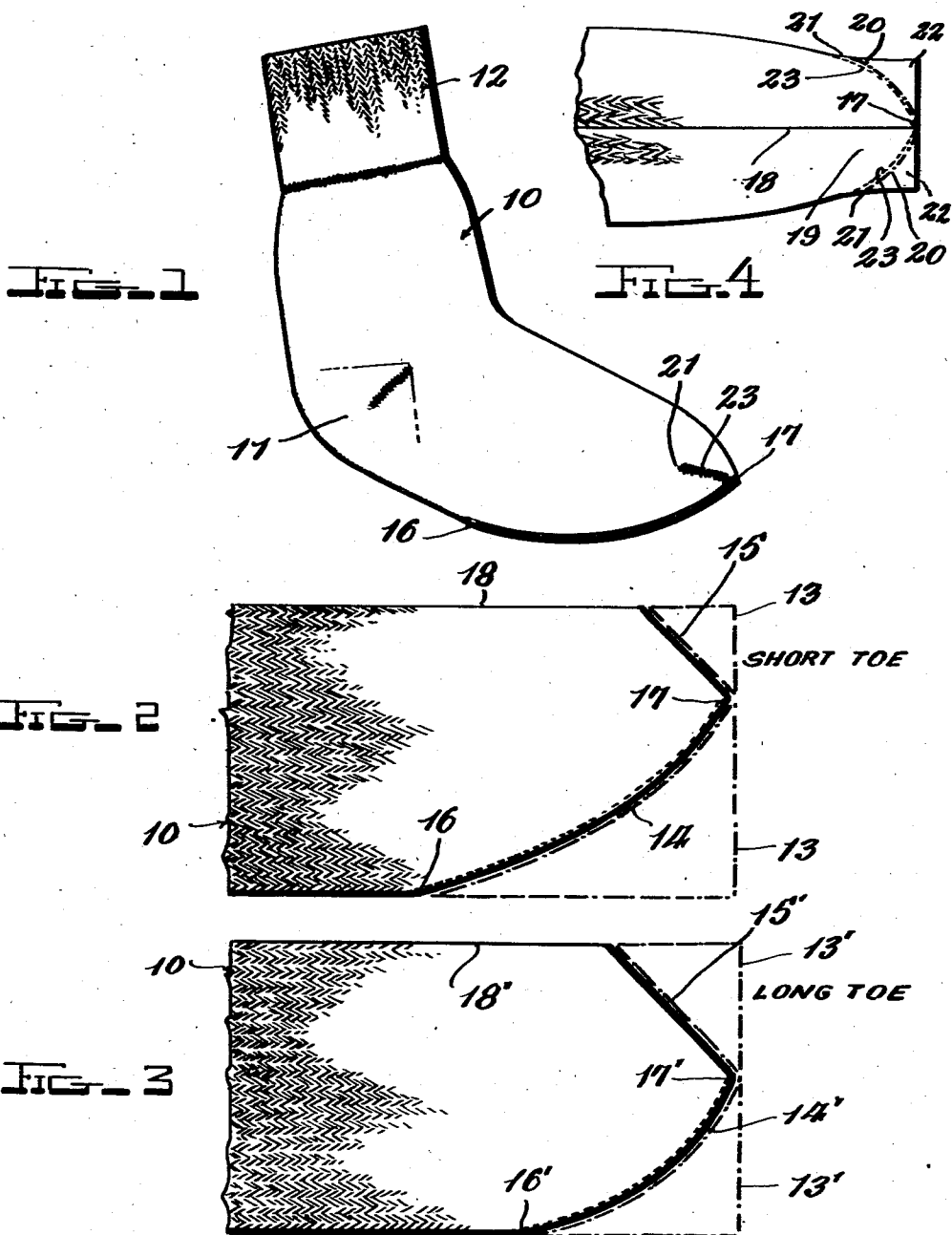
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G. T. WHITLOCK

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TOE CLOSING FOR SOCKS AND THE LIKE

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INVENTOR.

G. T. Whitlock.

BY

Christian R. Nielsen.
ATTORNEY

UNITED STATES PATENT OFFICE

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TOE CLOSING FOR SOCKS AND THE LIKE

Gary T. Whitlock, Hendersonville, N. C.

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1 Claim. (Cl. 2-239)

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The invention relates to knitted socks and the like, in which a tubular blank either without or with a fashioned heel portion may have the open end of the toe of the blank closed by suitable stitching.

It is an important aim of the invention to provide a novel construction in the sock, in the particular of the arrangement of certain seams with respect to each other.

It is also an object of the invention to present a novel method of procedure in the closing of the toe of a blank in order to present a garment having the novel qualities sought.

A further important aim of the invention is to enable the adaptation of such a sock to proper fit for long and short toe socks, as will appear. A still further important aim is to enable the production of a sock embodying my invention without radical changes in the construction or manner of operation of the machine used in the production of the garment. Another important aim is to enable the production of a garment embodying my invention by persons without having skilled training, but enabling the training of lay persons to perform the operations required under very short instructions.

Additional objects, advantages and features of invention reside in the form and relation of cuts and seams made in the tubular knitted blank from which my garment is produced, and also in the manner of procedure in forming the cuts and shaping the blanks preliminary to stitching, and otherwise, as will be understood from the following description and accompanying drawings, wherein

Figure 1 is a side elevation of a sock embodying my invention.

Figure 2 is a side view of the blank as initially constructed, to produce a sock for a short toe.

Figure 3 is a similar view showing the manner of cut for a long toe.

Figure 4 is a top view of a blank showing the manner of forming the style of cut for the top seam of the toe.

There is illustrated a sock 10, which may be knitted on standard forms of knitting machines adapted to produce a tubular blank, or in which it is possible to fashion a heel, as indicated at 11, although the heel may be otherwise formed as found desirable. In the present instance a half sock is indicated, having an ankle portion 12 of conventional form, although the invention is applicable as well to full socks and stockings, as will be appreciated.

In producing the article of Figure 1, a blank

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is formed upon a conventional knitting machine, in which the heel portion 11 is fashioned as heretofore, and the toe portion extended in tubular form, as indicated in dotted lines at 13. The blank is customarily pressed flat, so that a seam is formed running along the instep of the sock and at the top, and at the sole and heel, so that when the foot portion of the garment lies upon its side pressed flat as above described, it will have the form shown in Figures 2 and 3 extending to the lines 13 and 13' respectively, defining the ends of the knitted blanks. While the blank is held in this form, the lower corner portion is cut off on a convex curved line extending from the mid sole to about two-thirds the height of the flattened blank at the end of the sock, as indicated at the line 14 in Figure 2, for a short toe; or lower at the extremity as indicated at 14' in Figure 3, for a long toe. In the first instance, the cut at 14 extends higher on the foot portion of the sock where it intersects the end of the blank, as may be seen in the figures. If desired, the blank may also be cut off diagonally at the upper part, as indicated at 15 in Figure 2, and 15' in Figure 3. Either with or without the cut at 15 or 15' the edges formed at the cut 14 or 14' are then stitched together upon a suitable sewing machine customarily used for forming such seams in socks of this general kind, the seam extending from the intersection of the cut with the edge of the folded blank at the middle of the sole as indicated at 16, and extending upwardly to the end of the blank or nearly thereto, as shown at 17. The blank is then flattened between the point 17 and the top crease 18 of the blank, as shown in Figure 4, so that the top crease is brought down to the point 17, and the intervening portions of the blank at each side project laterally, so that a small tube-like portion is formed at the top of the blank, flattened in a plane at right angles to that in which the blank was initially flattened as shown in Figures 2 and 3. This flattened top 19 is then trimmed at the outer end, on a curved line 20, from one side to the other, the cut extending from the termination of the stitching at 17 backwardly into the material of the sock on each side, as indicated at 21, in Figure 4. The corner portions 22 are thus cut off additionally at the top of the blank.

As before stated, the last mentioned flattening and cutting of the blank on the line 20 may be effected without making the cut at 15 or 15', so that but one cutting operation is required at this upper part.

After the top cut is made as described, the

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aligned edges thus formed are stitched together to form seams 23 meeting the bottom seam at 17 and extending into the sides of the sock, to the point 21 shown in Figures 1 and 4.

In case of the long toe shown in Figure 3, the transverse trimming at the line 20 will extend for a greater distance transversely, as may be understood, and the resultant seam 23 will be longer in the case of the blank as shown in Figure 2.

While I have described my invention with great particularity in the best form and procedure known to me, and practiced in production thus far, it will, nevertheless, be understood that some modifications in proportions and arrangements may be made without departing from the spirit of the invention, as more particularly set forth in the appended claim. Thus, when the top portion of the blank is folded transversely and horizontally, as shown in Figure 4, if the upper portion of the front part at 19 is thrust longitudinally endwise and outwardly, the seam 23 will tend to be located higher at the end of the sock, while on the contrary, if the top portion is drawn longitudinally inward before the cut is made at 20, the opposite will be true in some degree, and there will also be greater fullness in the upper portion of the toe. In either case, the stitching of the top seam is proceeded with in the same manner as before described, the meeting edge portions of the top and lower side parts of the sock at the line 20 are stitched together to form the seam 23 at each side of the sock. It is also possible to extend the curved cut 20 further backward on one side than on the other, if it should be found desirable for any reason, as, to give a greater fullness on one side than on the other, whereby the sock will tend to assume a shape to fit the big toe at one side and the shorter toes for the outer side. This would involve the production of rights and

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lefts, and may be omitted for supplying certain classes of trade where nicety of fit is not demanded.

I claim:

- 5 The method of forming the end of a foot piece of the character described consisting in producing a tubular blank, flattening the same to form creases midway of the top and bottom of the foot piece, cutting off the lower corner of the blank on a curved line extending from the crease at the bottom a substantial distance from the extremity of the blank, and extending upwardly thereon to a distance short of the upper crease, securing the edges thus formed together to form a lower curved seam, flattening the upper portion of the sock above said seam in a plane transverse to that on which the sock was flattened initially, and trimming off the outer end portions of the blank on a curved line extending from side to side and extending rearwardly a shorter distance than the first cut, and lying immediately adjacent the termination of the first cut at the extremity of the blank, and securing to each other the edges thus formed by the last mentioned transverse cut, for the purposes described.
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GARY T. WHITLOCK.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
414,479	Appleton	Nov. 5, 1889
358,383	Clow	Feb. 22, 1887
2,319,577	Bard et al.	May 18, 1943
806,939	Switzer et al.	Dec. 12, 1905
252,778	Klein	Jan. 24, 1882