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C. S. HOLDEN ET AL

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STOCKING AND METHOD OF MAKING SAME

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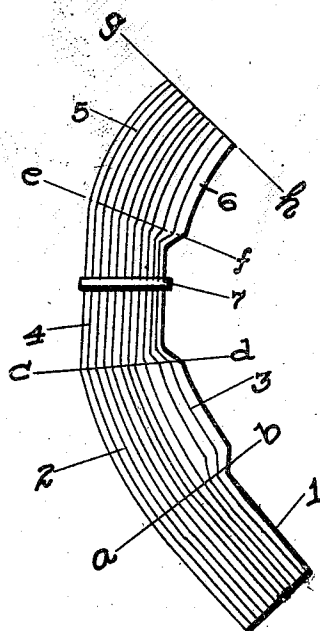


Fig. 1.

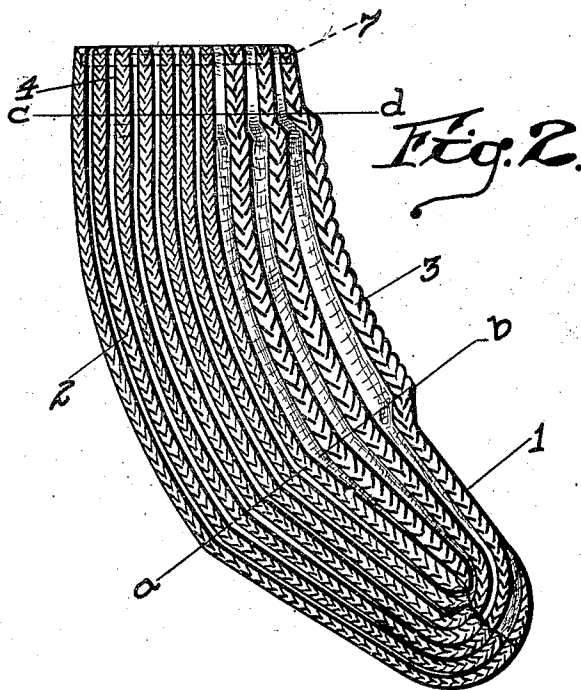


Fig. 2.

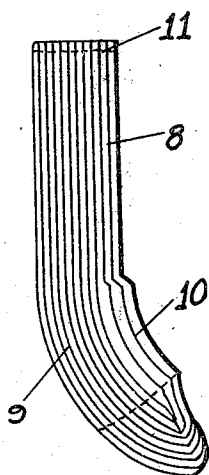


Fig. 4.

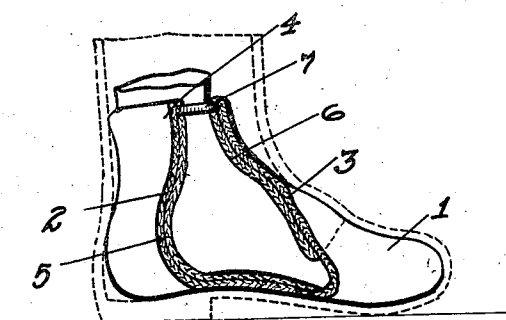


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STOCKING AND METHOD OF MAKING SAME.

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Our invention relates to stockings and has for its object to provide a method of making an improved stocking that is adapted to be knitted on a single circular knitting machine in the general shape of a human foot, without necessitating the use of special mechanism to form the heel and toe.

Another object of our invention is to provide a stocking that is particularly adapted to be worn in connection with rubber boots and similar foot wear, by reason of the fact that a portion of the stocking is made of double thickness in order to fill up the space over the instep and around the ankle, and to provide increased wear at the heel of a boot, while the toe portion of the stocking is of single thickness so as to provide ample room at the toe of the boot.

A still further object of our invention is to provide a stocking that will remain at any desired height on the limb of a wearer, by reason of the incorporation in the stocking of an elastic at the proper place.

The above and other advantageous features of our invention will hereinafter more fully appear, reference being had to the accompanying drawings, in which—

Fig. 1 is a plan view of a length of tubular knitted material, from which the stocking is made.

Fig. 2 is a view on an enlarged scale of a completed stocking made from the length shown in Fig. 1.

Fig. 3 is a view of the stocking shown in Fig. 2 applied to the foot of a wearer, parts of the stocking being broken away to illustrate the manner in which it fits the foot.

Fig. 4 is a modification of the stocking shown in Fig. 2.

Like reference characters refer to like parts in the different figures.

Referring to Fig. 1, a length of material, generally tubular in form, is produced by a suitable circular knitting machine with a toe portion 1 knitted in a plain rib stitch. That portion of the material extending from the line *a—b* to the line *c—d* is then knitted with a portion 2 in plain rib stitch, while the other portion 3 is knitted with a tuck stitch. In knitting the portions 2 and 3, successive continuous courses are knitted, partially in plain rib stitch and partially in tuck stitch, and as the portions 2 and 3

emerge from the machine, the fabric takes the form of an arc between the lines *a—b* and *c—d* because of the fact that the tuck stitch portion 3 contains only one half the number of stitches in the rib stitch portion 2 for a given number of courses, each tuck stitch containing twice as much yarn as a rib stitch.

A portion 4, extending from the line *c—d* to the line *e—f* is then knitted with a plain rib stitch just as the portion 1, after which portions 5 and 6 are knitted to the line *g—h* with a rib stitch and a tuck stitch, respectively, and of the same length as the rib stitch portion 2 and the tuck stitch portion 3. The completed fabric then appears with alternate straight and curved portions, as clearly shown in Fig. 1.

In a preferred form of our invention, an elastic band 7 is then placed around the rib knit portion 4 at substantially its middle, after which the mixed knit portions 5 and 6 are pulled down over the mixed knit portions 2 and 3 until the line *g—h* defining the ends of the portions 5 and 6 substantially coincides with the line *a—b*. The portions 5 and 6 are then secured in this position in any suitable manner, as by stitching, after which the end of the toe portion 1 is also closed in any suitable manner, as by looping, the completed stocking then being turned inside-out and appearing as shown in Fig. 2. It is apparent that the completed stocking approximates the shape of a human foot with the curved portions of double thickness.

Referring to Fig. 3, the stocking is there shown as having been applied to a human foot, the toes being covered by only the portion 1 of single thickness. The double thickness of the stocking, comprising the portions 2, 3, 4, 5 and 6, begins in the arch of the foot just behind the ball, and continues around the heel and upwardly to a point just above the ankle bone. It is apparent that the elastic band 7 being located just above the enlargement of the ankle bone, will serve to hold the stocking in place on the foot, although if desired, the band may be omitted.

A boot properly proportioned to receive the foot shown in Fig. 3, is indicated in dotted lines, from which it is apparent that only the toe portion of the stocking, which

is of single thickness, will be received in the toe of the boot, which is adapted to incase the foot tightly. That portion of the stocking which is of double thickness, however, is located in the instep and heel portions of the boot, which portions must necessarily be made large enough to admit the whole foot of the wearer. The double portion of the stocking therefore tends to fill up the space over the instep and ankle and at the heel of the wearer's foot without in any way crowding that portion of the foot received in the toe of the boot.

It is well known to those who are accustomed to wearing rubber boots, that when the foot is covered by a stocking which is thin enough to be comfortably received in the toe of a boot, there is always a considerable amount of play over the instep and ankle and at the heel, which results in chafing the foot of the wearer, and in wearing out the stocking. It is also well known that a stocking thick enough to fit at all closely at the instep, ankle and heel, will severely cramp the toes of the wearer and thereby interfere with the circulation of blood in the foot, with resulting numbness and coldness.

It will be apparent from an inspection of Fig. 3, that our improved stocking is adapted to overcome both of the above mentioned objectionable features, by reason of the fact that it provides a fabric of single thickness in the toe portion of a boot and a fabric of double thickness in the instep and heel portions of a boot. The fact that the stocking is of double thickness at these places also insures greater wearing qualities, because of the fact that the two layers may rub upon each other. It is also obvious that the position of the stocking on the foot will vary for different wearings, because of the absence of a closely fitted heel, thereby distributing the wear. The stocking may be also worn with either side out, so as to obtain wear on both layers of the fabric.

Furthermore, the fact that the stocking terminates just above the ankle of the wearer, insures there will always be an air space in that portion of the boot above the ankle, thereby providing the necessary ventilation of the boot. Our improved stocking naturally adapts itself to the shape of a foot of any size, without wrinkling, as distinguished from stockings with fitted heels.

Referring now to Fig. 4, there is shown a modification of the stocking shown in Fig. 1, in which the rib stitched portion 8 is extended considerably beyond the combined ribbed and tucked stitched portions 9 and 10 which impart the desired form to that portion of the stocking which is adapted to be received on the foot of the wearer. The portion 8 is adapted to extend to a point above or below the knee when the stocking is worn, so as to provide a stocking of

double thickness covering the entire lower leg of the wearer. The stocking shown in Fig. 4 is preferably provided with an elastic band 11 at the upper end of the portion 8 so that the stocking will be held in position. The stocking shown in Fig. 4 is particularly adapted for use where warmth is desired, as when wearing boots in the winter time, when ventilation of a boot is not of any particular importance.

We claim,

1. A knitted stocking providing a toe portion having a single thickness of fabric and a fashioned instep portion having a double thickness of fabric.

2. A knitted stocking having a toe portion of less thickness than the remainder of said stocking.

3. A stocking comprising a length of tubular knitted material pulled back on itself to provide an instep and heel portion of double thickness, the toe portion of the stocking being of single thickness.

4. A knitted stocking comprising a plain rib knit toe portion and a fashioned instep and heel portion having double the thickness of the toe portion.

5. A stocking comprising a plain rib knit toe portion and a fashioned instep portion having two layers of fabric, one of which terminates just behind the ball of the foot when the stocking is applied.

6. A knitted stocking comprising a plain rib knit toe portion, a fashioned instep and heel portion having double the thickness of the toe portion, the upper part of said latter portion being made with a tuck rib stitch.

7. A knitted stocking comprising a plain rib knit toe portion of single thickness, an upper instep portion of double thickness made with a rib tuck stitch, and a double heel portion of double thickness made with a plain rib stitch.

8. A knitted stocking providing a toe portion of single thickness of fabric and an upper instep portion of double thickness made with tuck rib stitching thereby to form a thickened portion to take up the space between the upper part of the instep of a human foot and a boot.

9. The method of making knit stockings which consists in making a continuous length of tubular fabric of two portions of plain rib stitch alternating with two portions of plain and tuck stitch, the latter portions having all the rib tuck stitches at corresponding parts of the several courses of said portions, then pulling one of the latter portions over until it overlaps the other of said portions, thus producing a stocking having a single thickness at the toe, a double thickness at the instep with the said tuck stitches at the upper part of said instep.

10. The method of making knit stock-

ings which consists in making a continuous length of tubular fabric of two portions of plain rib stitch alternating with two portions of plain and tuck stitch, the latter portions
5 having all the rib tuck stitches at corresponding parts of the several courses of said portions, then pulling one of the latter portions over until it overlaps the other of said portions, thus producing a stocking having a single thickness at the toe, a double thick- 10
ness at the instep with the said tuck stitches at the upper part of said instep, and a double thickness of plain rib stitch there-
above.

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