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H. S. REGAR

1,719,082

METHOD OF PRODUCING SCALLOPS IN KNITTED FABRICS

Filed Dec. 29, 1926

2 Sheets-Sheet 1

FIG. 1

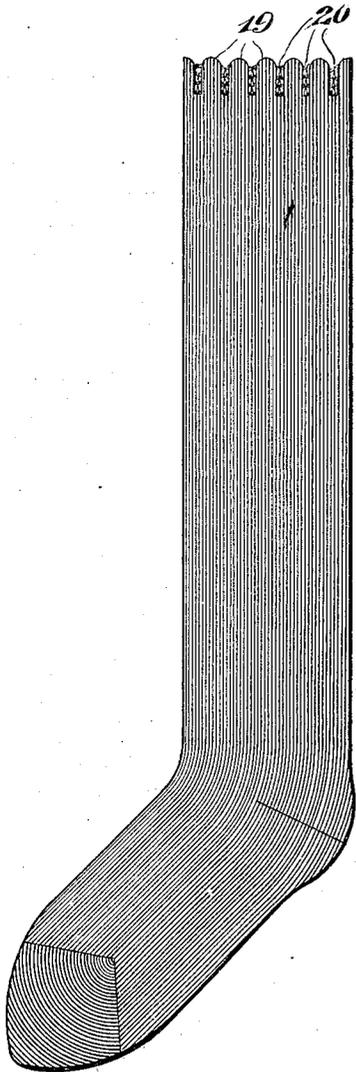
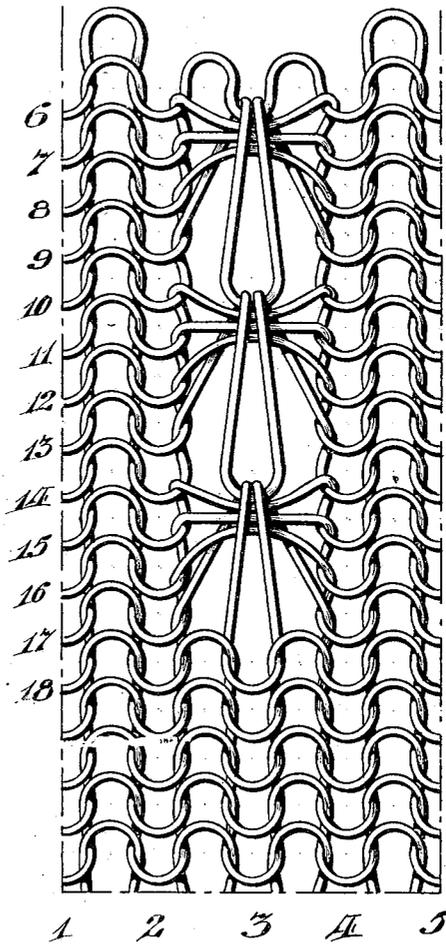


FIG. 2



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FIG. 3.

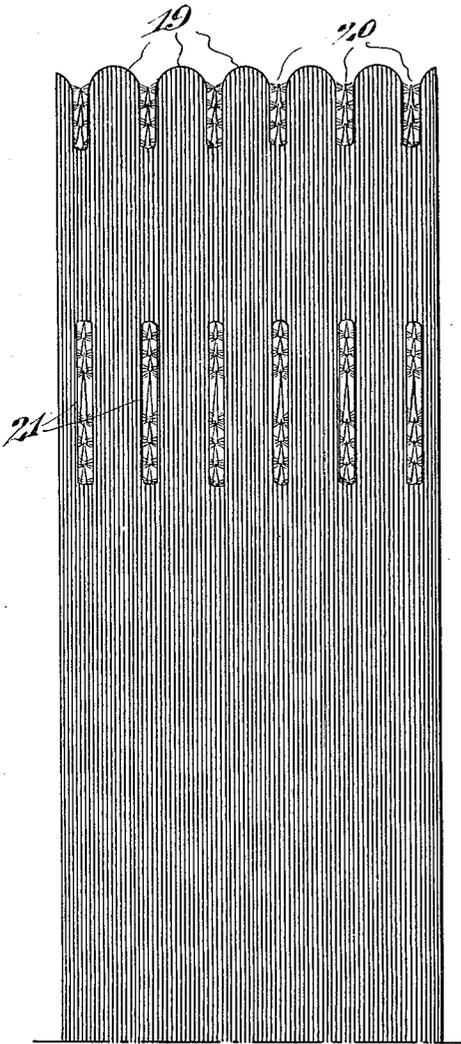
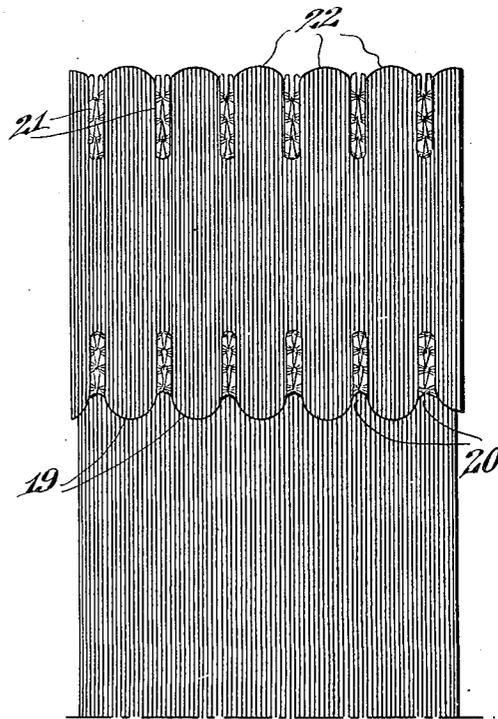


FIG. 4.



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METHOD OF PRODUCING SCALLOPS IN KNITTED FABRICS.

Application filed December 29, 1926. Serial No. 157,636.

This invention relates to knitted fabrics and particularly to a method for producing scalloped or picoted effects on the plain or folded edges of knitted articles.

5 One of the objects of my invention is to produce the scalloped or picoted edge effects in both the body and the edge of knitted fabrics on a knitting machine and at the same time knitting the body thereof
10 without removing the material from the machine. This produces a seamless knitted article.

Another object of the invention is to provide a method by which scalloped or picoted
15 edges may be produced on knitted fabrics in an economical and improved manner.

Another object is to provide knitted fabrics with open tucked portions which, when
20 folded along a transverse line of the open portions, will produce a scalloped or picoted edge.

According to the invention, the method of producing the scalloped or picoted edges of
25 knitted fabrics consists in forming tucks in suitable spaced wales along a transverse line of the fabric, and folding the fabric along the said line.

In practice, the method employed for producing the scalloped or picoted edges is carried
30 on in a knitting machine having groups of short latch needles wherein the long latch needles are thrown in to cooperate with the short latch needles to knit the body of the fabric and the long latch needles are thrown
35 out while the short latch needles make a plurality of stitches and then thrown in to make a single stitch which binds in the threads from the plurality of stitches, repeating the process until the desired number of long
40 stitches have been formed, then throwing in the long latch needles to cooperate with the short latch needles to knit the balance of the material and then folding over the top of the hose through the rows of long stitches in
45 order to present the scalloped or picoted edge.

The drawings illustrate a stocking embodying my invention and the views therein are as follows:—

50 Figure 1 is a view of a child's stocking, around the top of which scallops and open work have been formed according to my new method.

55 Figure 2 is a view, drawn to a greatly enlarged scale, illustrating a method of making the stitches to form the open work and

scallops shown in the stocking in Figure 1,

Figure 3 shows the upper portion of a stocking having the scalloped top shown in Figure 1 but drawn to a larger scale and
60 having additional open work formed in the body of the stocking,

Figure 4 shows the stocking in Figure 3 with its top folded through the open work
65 to form a cuff.

In producing a stocking such as shown in the drawing, the knitting machine is set up and the stocking knitted in the usual manner with the exception that as many long
70 latch needles are spaced around the cylinder as scallops or formations of open work are desired. The cams are set so that the long and short latch needles cooperate to produce ordinary knitting in the body of
75 the fabric but, when it is desired to produce the stitch which forms the open work and scallops, the cams behind the long latch needles are lowered during two or more reciprocations so that the loop in the hook cannot
80 ride over the latch and consequently is not pulled through the loops on the needles. The operation of knitting machines, including cam changes and the use of long latch needles, is well known in the art and requires
85 no explanation here further than that required to explain the method of making the stitch required to produce the open work and scalloped effects.

Referring now more particularly to Figure 2, in which all the threads are shown as
90 nearly in the same plane as possible, as is customary in drawings of this character, the wales 1, 2, 4 and 5 would be made by short latch needles and wale 3 by a long latch
95 needle.

The short latch needles will operate to form stitches during each reciprocation but, at the start of the operation, the cam behind the long latch needle is lowered so that
100 yarns 6, 7, 8 and 9 are held in its hook until it moves upwardly to engage yarn 10 when the cam is raised and these yarns pass behind the latch in the usual manner. Its hook engages yarn 10 and moves downwardly, causing its latch to close and casting
105 off yarns 6, 7, 8 and 9. The cam is again lowered during the next three reciprocations and yarns 11, 12 and 13 gathered in the hook with yarn 10. The cam is again
110 raised during the next reciprocation and yarn 14 gathered in the hook and yarns 10, 11, 12 and 13 cast off. This cycle of opera-

tion is given repeated with yarns 15, 16, 17 and 18, after which the long latch needle is actuated to cooperate with the short latch needles and knit the body of the fabric.

5 In Figure 2, the yarns are shown in nearly the same plane and without distortion, as is the custom in illustrating knitted work, but it is well known that in practice each loop is bound into the adjoining loop and
10 that the yarn contracts to form a close fabric. Hence, it will be readily understood that the stitches, made by the long latch needle from yarns 10, 14 and 18, will draw the adjoining stitches, made by the short
15 latch needles, downwardly and thus form the scallops 19, shown in Figures 1, 3 and 4, as well as produce the formations of open work 20.

In producing the stocking illustrated, I
20 place one long latch needle between groups of five short latch needles and each long latch needle makes one stitch to four stitches made by the short latch needles until it has made three long stitches; the cam is then
25 raised so that a solidly knit stocking body may be produced.

However, it is evident that reasonable variation may be made in the relative number of long and short latch needles, the
30 number of stitches dropped, and the number of long stitches made, in order to produce different shapes and sizes of scallops and formations of open work.

Some stockings are provided with turned
35 over tops or cuffs and it is sometimes desirable to provide the cuffs with scallops at both top and bottom. The method of producing scallops 19 and open work 20 at the bottom of the cuff has already been described.
40

By referring to Figures 3 and 4, it will be noted that the formations of open work 21 are similar to the formations 20 except that there is a group of long stitches in
45 either end of the formation and a very long stitch at the center.

In knitting the stocking illustrated, I

time the cam so that, at any desired point in the body of the stocking, the long latch
50 needles will make three of the long stitches shown in Figure 2, then a stitch considerably longer, and then three more long stitches. The severe tension on the yarn forming the longest stitch tends to wrinkle
55 the fabric alongside the centers of the formations of open work so that, when the cuff turned over as shown in Figure 4, scallops 22 are produced.

After knitting, the stockings are washed and boarded in the usual manner and the
60 scallops stretched into shape by hand so that a permanent scalloped edge of pleasing effect is produced.

While I have illustrated and described my invention, as applied to the manufacture of
65 hosiery, it will be understood that my method may be employed in producing scalloped edges and open work effects in any type of knitted fabrics and that the relative sizes and locations of the stitches employed may
70 be varied to suit the requirements of the manufacturer, and hence I do not limit myself to the illustration used but consider that I am at liberty to vary the method of manufacture within the scope of the appended
75 claims.

The invention is hereby claimed as follows:

1. The method of producing a picot edge in knitted fabrics by forming trucks in
80 suitably spaced wales along a transverse line of the fabric, and folding the fabric along the said line.

2. The method of producing a picot edge in a knitted stocking by forming trucks in
85 suitably spaced wales along a transverse line of the stocking fabric and intermediate the top and bottom of the same, and then folding the upper part over along the said transverse line.
90

In testimony whereof I have signed my name to this specification.

HOWARD SEVERN REGAR.