

June 8, 1937.

W. C. BUCHHOLZ

2,082,779

KNITTED ARTICLE AND METHOD OF PRODUCING SAME

Filed May 7, 1936

2 Sheets-Sheet 1

Fig. 1.

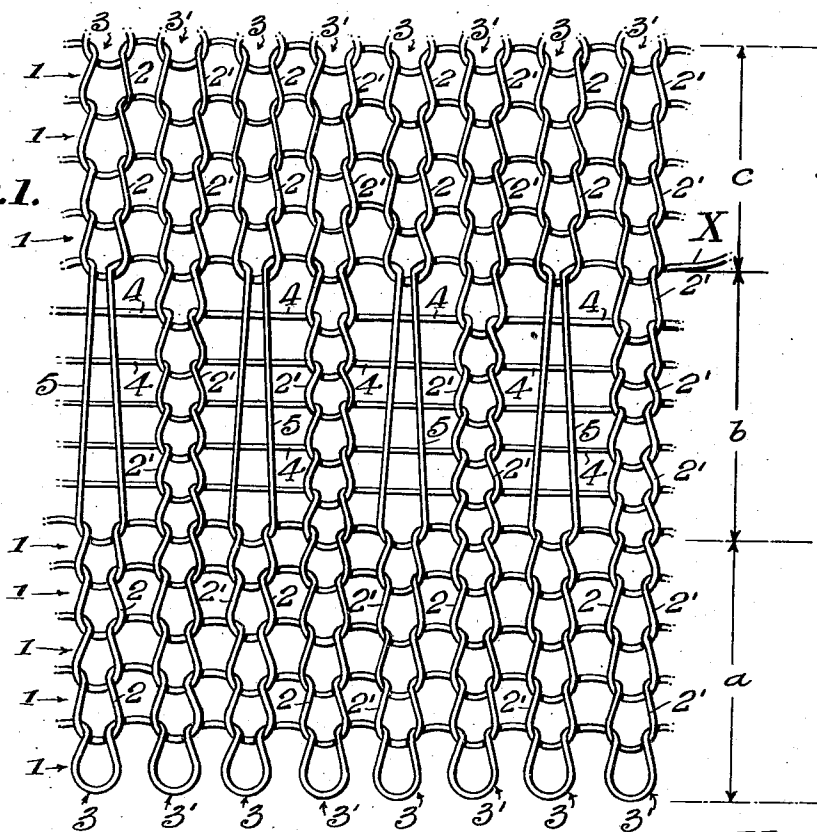
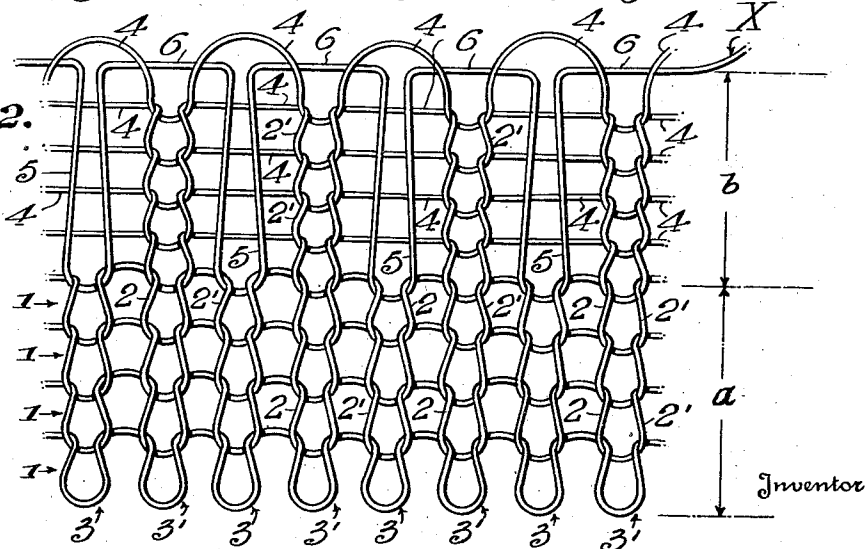


Fig. 2.



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Fig. 3.

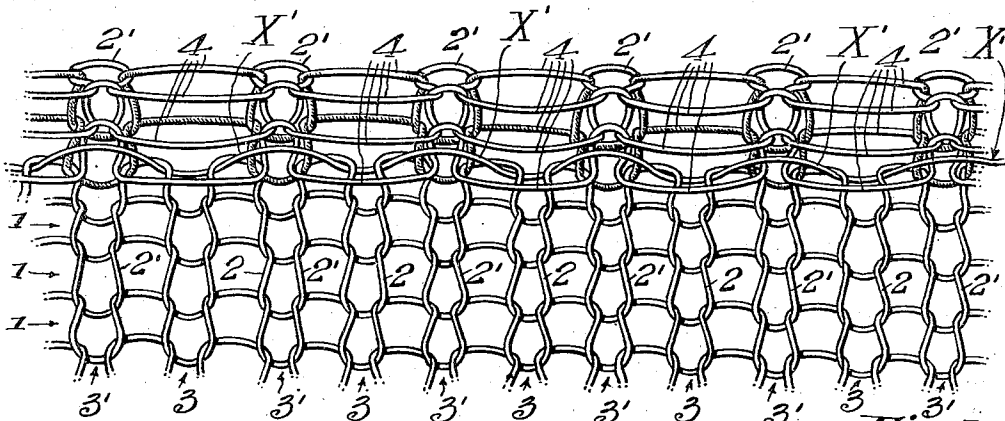


Fig. 5.

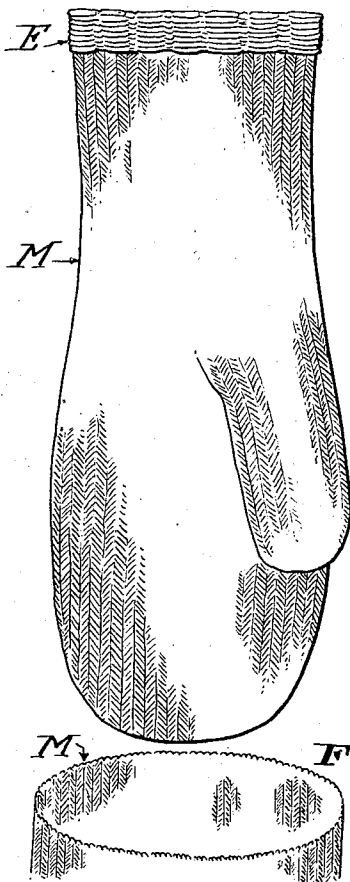


Fig. 6.

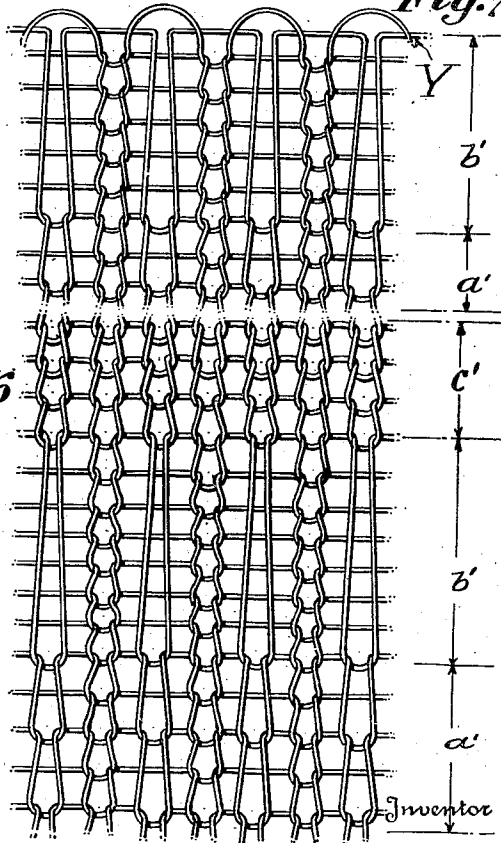


Fig. 4.

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KNITTED ARTICLE AND METHOD OF
PRODUCING SAME

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Application May 7, 1936, Serial No. 78,484

7 Claims. (Cl. 66—172)

This invention relates to knitted articles and methods of producing the same. More particularly the invention relates to a knitted article having a rolled-over or folded edge and to methods of forming articles with such edges.

An object of the invention is to provide a knitted article formed with an improved edge portion which is easy and economical to produce and which is neat and of pleasing appearance as well as capable of holding its shape.

Another object is to provide an improved method of producing such articles. Other objects will become apparent from the following description, the appended claims, and the accompanying drawings, in which:

Figure 1 is a diagrammatic view showing stitches at one stage of the making of an article embodying one form of the invention;

Figure 2 is a diagrammatic view of the embodiment shown in Figure 1 but at a subsequent stage of the making of the article;

Figure 3 is a diagrammatic view of the fabric shown in Figure 2 but with the upper edge thereof rolled over or folded in accordance with the invention;

Figure 4 is a fragmentary perspective view illustrating the tubular form of the article;

Figure 5 is a plan view of a knitted mitten provided with a rolled-over cuff edge in accordance with the invention;

Figure 6 is a diagrammatic view of a portion of fabric at the same stage of manufacture as in Figure 1 but with the specific form of stitch differing from that shown in Figure 1; and

Figure 7 is a diagrammatic view showing the article or fabric of Figure 6 at a subsequent stage of manufacture.

For the purpose of illustrating the invention it will be shown and described as embodied, for example, in a knit mitten formed from seamless tubular knit fabric made by round-and-round machine knitting. It will be apparent, however, that the invention is not limited in its application to the specific embodiments disclosed.

In accordance with one embodiment, of the invention, the article may be formed by round-and-round knitting in seamless tubular form. In Figure 1 the fabric shown diagrammatically includes a body portion indicated as occupying the zone *a* and comprising stitches of a well known kind. As shown, this body portion comprises a plurality of circumferential courses 1 of interlocked stitches 2—2' which are arranged in a plurality of longitudinally extending rows of stitches 3 and 3'.

Adjoining the body portion is an edge portion shown as occupying the zone *b* knitted in the following manner: Instead of the yarn or thread from each stitch 2 being connected to the adjacent stitch in the same course, the yarn is carried or run i. e. floated across the adjacent longitudinal row to the second next stitch in the same course. Thus in the edge portion zone *b* the stitches 2' in the regularly spaced longitudinal rows 3' run directly across intervening rows 3 to the stitches 2' in the next row 3' but have no operative connection with the intervening longitudinal rows 3. This causes the formation of straight crossing or bridging portions or floats 4 connecting the various stitches 2' with the nearest other stitches 2' in each course.

The topmost stitch 2 in each of the longitudinal rows 3 of the body portion *a* (as viewed in Figure 1) is held by a single long loop or stitch 5 which extends all the way up through the edge portion zone *b*. Above the zone *b* is a false end portion occupying the zone *c* and which is to be removed before completing the article. In the form shown in Figures 1 to 5 inclusive, the zone *c* is knitted in the same manner as the zone *a*, i. e., so as to comprise a plurality of rows 1 of stitches 2 and 2'.

One method of forming the articles up to the stage shown in Figure 1 is to knit on a circular machine in the usual way, beginning at the top of the zone *c* and continuing to knit with all needles until the bottom of the zone *c* is reached. When this point is reached, alternate needles—those holding the stitches 2 in the longitudinal rows 3—are put out of action, but the stitches are left on these inactive needles while the knitting of stitches 2' in the intervening rows 3' is carried on by continued action of the associated alternate needles until the bottom of the zone *b* is reached. Then the needles holding the long stitches 5 and which are held out of action during the formation of the zone *b* are put back in action, and knitting is resumed with all needles until the zone *a* is completed.

After the zones *c*, *b* and *a* have been completed, the stitches of zone *c* are ravelled out, and this reduces the article to the form shown in Figure 2. The ravelled or free end of the yarn or thread is indicated at X, and it will be observed that this is a continuation of the long loops or stitches 5 in the longitudinal rows 3. It also will be noted that the horizontal portions 6 connecting adjacent loops or stitches 5 in the rows 3 cross behind the respectively intervening stitches 2' in the rows 3'. Consequently, by drawing the end

X tight, the topmost edge of the fabric, as viewed in Figure 2, will be rolled over or folded down, due to the anchorage of the loops 5 on the stitches in the top course 1 of the zone a. The fabric of the zone b will then be in the position or form shown in Figure 3, it being noted that the long loops or stitches 5 have been pulled out straight and now form a straight binding thread or end portion X', the extreme end X'' of which may be knotted or otherwise secured in any approved manner to prevent its being pulled out. This completes the edge.

It will be understood that the stitches shown in Figures 1, 2 and 3 are distorted somewhat from their actual forms or shapes in order that their relations may be more clearly illustrated. The edge has a compact and pleasing appearance as shown in Figure 5, wherein a mitten M provided with a cuff edge E formed in accordance with the invention is shown as it actually appears in a finished article.

Figures 6 and 7 show how the invention may be practiced when knitting the body zone a' with a stitch formation differing from that employed in Figures 1 and 2. The stitch formation shown in the body zone a' is well known and need not be described in detail. By drawing tight the free end Y shown in Figure 7, the edge zone b will be rolled or folded over, and this will result in the formation of a finished edge having the appearance of the edge E shown in Figure 5.

It is apparent that I have provided for the production of a knitted article formed with an edge portion having the desired characteristics such as neatness and permanence, and that the method disclosed makes possible the economical production of the improved edge. The invention is not limited to the use of the specific stitch or stitches disclosed in the illustrative embodiments except insofar as the stitches are pointed out in the claims.

I claim:

1. The method of producing an article of knitted fabric having a rolled edge which comprises knitting at least one row of stitches, then holding the last-knitted stitches of alternate rows and continuing to knit stitches on the other rows for a plurality of courses, then continuing to knit a plurality of courses of stitches on all of the rows, then raveling the thread or yarn to the course in which knitting of stitches in alternate rows only was begun, and drawing the thread or yarn tight.

2. The method of producing a tubular article of knitted fabric having a rolled or folded edge which comprises knitting a plurality of courses of stitches by round and round knitting to form a plurality of longitudinally extending rows of stitches, then holding the last knitted stitches of alternate longitudinal rows and continuing to knit a plurality of courses of stitches on the other longitudinal rows, then resuming the knitting of stitches on all the longitudinal rows for a plurality of courses, then raveling the thread or yarn to the course in which knitting of stitches on alternate longitudinally extending rows was begun, and then drawing the thread or yarn tight.

3. The method of producing a tubular article of knitted fabric having a rolled or folded edge which comprises knitting a plurality of courses of

stitches by round and round knitting on a plurality of needles to form a plurality of longitudinally extending rows of stitches, then holding alternate needles out of action with stitches of corresponding alternate longitudinal rows retained thereon while continuing to knit a plurality of courses of stitches with the other needles and on the other longitudinal rows of stitches, then putting said first named needles back into action and resuming the knitting of stitches with all needles on all said longitudinal rows, then raveling the thread or yarn to the course in which knitting of stitches on alternate longitudinally extending rows was begun, and drawing the thread or yarn tight.

4. The method of producing an article of knitted fabric having a rolled edge which comprises knitting a plurality of courses of stitches, then holding the last-knitted stitches of alternate wales and continuing to knit stitches on the other wales for a plurality of courses thereby to form stitches in said alternate wales which are elongated longitudinally of the wales, then discontinuing knitting, and then pulling the yarn or thread of said elongated stitches tight.

5. The method of producing an article of knitted fabric having a rolled edge which comprises knitting a plurality of courses of stitches, then holding the last-knitted stitches of regularly spaced wales and continuing to knit stitches on intervening wales for a plurality of courses thereby to form stitches in said spaced wales which are elongated longitudinally of the wales, then discontinuing knitting and then pulling the yarn or thread of said elongated stitches tight.

6. A tubular knit article comprising a body portion having a plurality of circumferentially extending courses of stitches and a plurality of wales or longitudinally extending rows of stitches; and a rolled over edge portion comprising continuations of regularly spaced longitudinally extending rows of stitches, each of said continuations including a plurality of stitches, and single stitches at the ends of the longitudinal rows intervening between said regularly spaced longitudinal rows, said single stitches being under tension substantially greater than the tension incident to stitch forming and thereby holding the edge portion in rolled-over or folded position, the greater tension of said single stitches being due to the thread or yarn thereof having been pulled tight after completion of the knitting.

7. A tubular knit article comprising a body portion having a plurality of circumferentially extending courses of stitches and a plurality of wales or longitudinally extending rows of stitches; and a rolled over edge portion comprising continuations of alternate longitudinally extending rows of stitches, each of said continuations including a plurality of stitches, and single stitches at the ends of the longitudinal rows intervening between said alternate longitudinal rows, said single stitches being under tension substantially greater than the tension incident to stitch forming and thereby holding the edge portion in rolled-over or folded position, the greater tension of said single stitches being due to the thread or yarn thereof having been pulled tight after completion of the knitting.

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