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STOCKING AND METHOD OF KNITTING THE SAME

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Fig. 1.

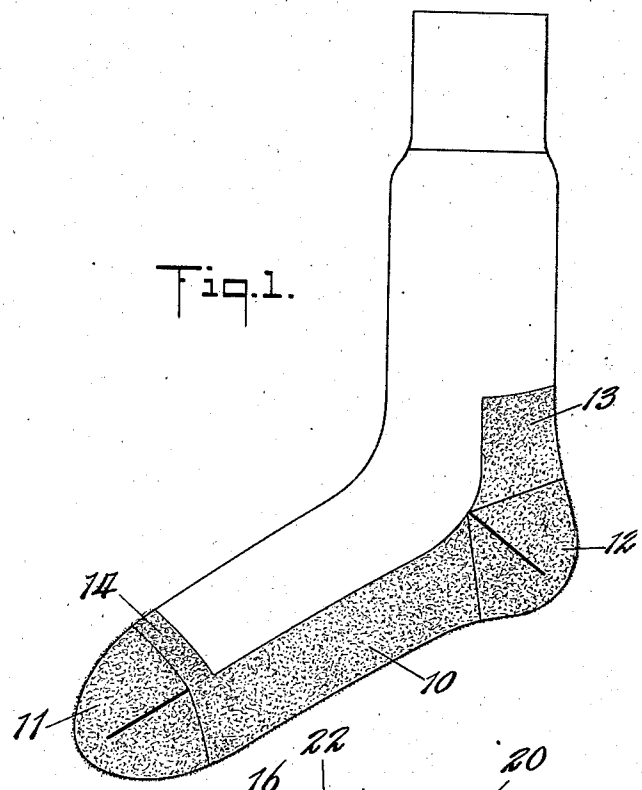
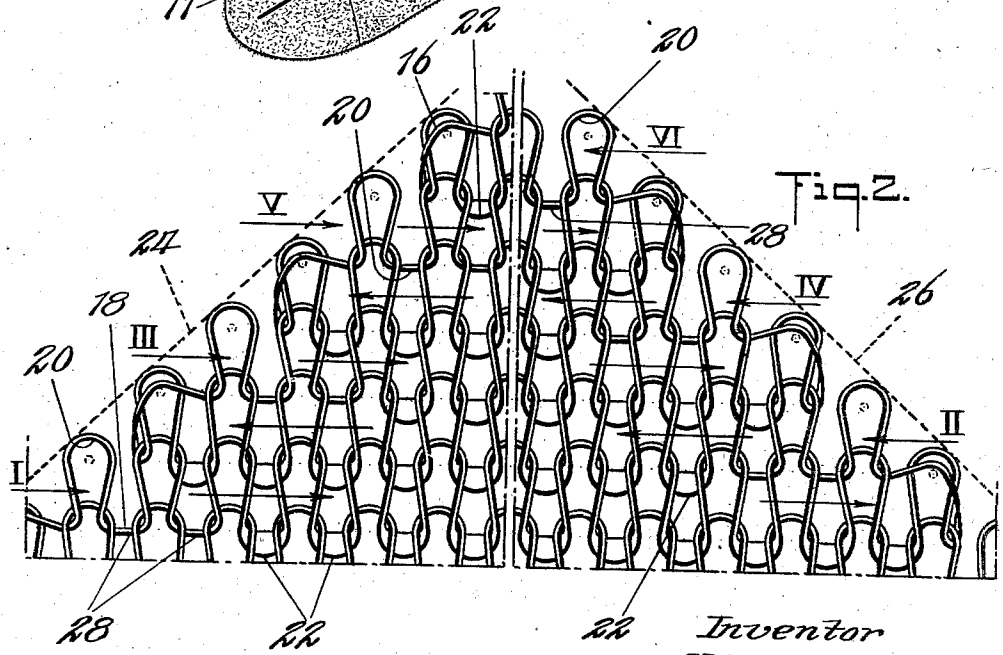


Fig. 2.



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STOCKING AND METHOD OF KNITTING THE SAME

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14 Claims. (Cl. 66—185)

This invention relates to circular knit hosiery and a method of making same. More particularly it relates to circular knit heel or toe pockets having pile fabric known as terry cloth, and the method of making such pockets. Heel or toe pockets of circular knit hosiery are made by reciprocatory knitting, and it has been found that if it is attempted to make terry loops in every stitch in such a pocket, the yarns tend to get out of place, resulting in excessively long stitches, particularly at the suture, and in cutting of the threads. This is due in part to the necessary feeding tension on the body yarn tending to pull the loop on the last inactive needle upwardly, thus causing the body yarn to be fed from an extra high point and sometimes causing the neb of the sinker to go under the yarn instead of over it. In this way the body yarn is laid over the neb, and terry loops are made of both yarns. Also sometimes the thread is cut. It has heretofore been attempted to overcome this difficulty by omitting terry loops entirely from the heel and toe pockets in stockings, but this is undesirable.

One object of the present invention is to provide circular knit hosiery having terry fabric substantially covering the heel and toe pockets.

Another object is to provide a strong suture in a pocket having a terry coverage.

Another object is to devise a method of knitting which will obviate the difficulty in handling the yarns when knitting terry cloth by reciprocatory knitting on circular knitting machines.

In carrying out my invention any suitable machine may be used. A machine for this purpose is described and claimed in the Frank R. Page and John J. McDonough application Serial No. 470,672 filed December 30, 1942, now Patent No. 2,366,124, dated December 26, 1944.

I have discovered that a heel or toe having terry cloth extending over the entire heel or toe pocket can be made without difficulty by omitting the terry loops from the first few stitches knit in each course. Since the courses are knit in opposite directions, it follows that terry loops are found in every other course in the wales near each suture, in addition to being in every course throughout the rest of the pocket. Thus, by pursuing the method set forth herein, it is possible to produce a heel or toe of terry cloth with the terry loops omitted from say three or four stitches in alternating courses on each edge of the pocket, maintaining that uniform spacing in spite of the narrowing and widening of the fabric which is going on at the same time.

In the accompanying drawing—

Figure 1 is an illustration of a stocking in which pile fabric or terry loops form one face of the foot of the stocking;

Figure 2 is a broken diagram illustrating the relation of the body thread and the "terry" thread in courses of a heel or toe pocket, the terry loops being shown on the side away from the reader.

In the drawing, Figure 1 shows a stocking having a sole 10, toe pocket 11, heel pocket 12 and high splice 13 formed of terry fabric on one face, the other face being formed of conventional type of stitches. The stocking desirably also has terry loops all around the ring toe, as shown at 14. The terry face is illustrated on the outside. For the purpose of this invention it is immaterial whether the terry surface or the plain surface be considered the outside of the stocking, though it is the usual custom to wear the terry surface next to the person.

The foot of a stocking is commonly made of a body yarn and a reinforcing yarn. In stockings containing pile fabric the stitches are so formed that one of these yarns is knit with the conventional type of stitch, whereas exaggerated or "terry loops" are formed of the other yarn. For convenience the terry loops will be spoken of as being formed in the reinforcing yarn. However, it is obvious that the reinforcing yarn might be knit with conventional type of stitch and the terry stitches might be formed in the yarn which comprises the body of the remainder of the stocking.

For the purposes of this invention, it is immaterial whether the two threads are being knit in plain or rib stitch. The loops other than the terry loops will be spoken of herein as "normal" loops.

It is characteristic of the invention that the pocket produced does not contain terry loops on the first few stitches knit in each course. Unless qualified, "pocket" is intended to refer either to the heel or the toe pocket of a circular knit stocking, formed by reciprocatory knitting.

In Figure 2, a portion of a pocket is shown. The lighter line 16 is the body thread or the thread which is formed into normal loops 18 throughout the pocket. The heavier line 20 is the so-called reinforcing thread, in which terry loops 22 are formed in most of the stitches.

As shown in Figure 2, the knitting begins at the lower left hand corner at the suture 24 and proceeds from left to right in the first course I. In the first two stitches of course I, the loops

28 of reinforcing thread 20 are normal loops, substantially like the loops 18 formed throughout the body thread. Terry loops 22 are formed in thread 20 in all the succeeding stitches of course I up to the right hand suture 26. Similarly in the second course II, in which the knitting is from right to left from suture 26 to suture 24, the loops of reinforcing thread 20 are normal loops in the first two stitches adjacent the suture 26 at the beginning of the course. Thereafter terry loops 22 are formed in thread 20 in the remainder of the stitches up to the end of course II at suture 24. In the third course III, the knitting is again from left to right as in course I, and again the stitches of reinforcing thread 20 are made with normal loops for the first two stitches adjacent the suture 24 at the beginning of the course and terry loops 22 are formed in the thread 20 in all the other stitches of course III up to its end at suture 26.

The number of starting stitches from which the terry loops are omitted in a given course can be varied within reasonable limits without departing from the invention. In Fig. 2, by way of illustration, the terry loops are omitted from the first two stitches in courses I to V inclusive and from the first stitch in the course VI.

By the method described it has been possible to prevent the difficulties heretofore encountered in reciprocatory knitting of terry loops in pockets. At the same time, a substantially all-over terry pocket has been provided.

In the pocket produced, the terry loops in each course are spaced a predetermined distance from one suture and extend up to the other suture. The courses are so arranged that only in alternate courses are terry loops spaced from a given suture. In each wale terminating in a suture, normal lops and terry loops are alternated in at least two courses adjacent the end of said wale.

Thus while the terry loops near the suture are a little more sparse than in the rest of the pocket, there is no wale in which all terry loops are omitted. Terry loops are not absent from contiguous portions of successive courses. This produces a thinning of the terry loops near the suture which does not detract either from the appearance or from the performance of the terry fabric stocking, and at the same time produces a circular stocking which is free from the objectionable cut threads and enlarged eyelets heretofore encountered in terry pockets.

The invention is not necessarily limited to making tapered segments but might be used wherever reciprocatory knitting is used in circular knitting, as for example in a split foot.

Modifications will occur to those skilled in the art, and the invention therefore embraces such embodiments thereof as fall within the scope of the following claims.

I claim:

1. In an article of hosiery having terry loops in the heel and toe, the terry loops starting at a uniform distance from the suture and continuing to the next suture in each course substantially throughout the heel or toe, the stitches which do not contain terry loops at the starting end of the courses containing normal loops of both a body thread and a terry thread.

2. An article of circular knit hosiery having terry loops in the heel and toe, the terry loops starting at a distance from one heel or toe suture and continuing to the other suture in each course throughout the heel or toe, the ends of the courses from which the terry loops are spaced being alternated, and each stitch in said ends containing normal loops of a body thread and of the terry thread.

3. In an article of hosiery, a pocket having terry fabric substantially covering one surface and comprising a body thread and a reinforcing thread, one of said threads forming terry loops in predetermined stitches, said terry loops in each course extending to one end of the course and being spaced from the other end of said course by a plurality of normal loops of both threads, the terry loops in successive courses extending to opposite ends.

4. In an article of hosiery, a pocket comprising a body thread and a reinforcing thread, the latter occurring in all stitches but forming terry loops in only predetermined stitches and normal loops in the remaining stitches, the terry loops in each course being spaced from the suture at one end of the course and extending to the suture at the other end of said course, the terry loops in successive courses extending to opposite sutures.

5. In an article of seamless hosiery, a pocket in which there is a body thread and a reinforcing thread and having terry loops formed by one of said threads in at least part of every course, said pocket having wales terminating in a suture, each wale having adjacent its termination alternating normal and terry loops in said one thread.

6. In an article of seamless hosiery, a pocket in which there is a body thread and a reinforcing thread and having terry loops formed by one of said threads, said pocket having wales and courses terminating in a suture, each wale adjacent its termination having alternating normal and terry loops formed from the same thread in different courses, and each course having normal loops in the terry-forming thread adjacent only one suture.

7. In an article of seamless hosiery, a pocket in which there is a body thread, and a reinforcing thread and having terry loops formed by one of said threads, said pocket having wales and courses terminating in a pair of sutures, each wale adjacent its termination having alternating normal and terry loops formed from the same thread in different courses, each course having normal loops in said thread adjacent one suture, successive courses having said normal loops adjacent opposite sutures.

8. In circular knitting, a method of reciprocating knitting of a portion having a body thread and a reinforcing thread and having terry loops in one of said threads, said method comprising knitting in each course throughout the pocket a predetermined number of starting stitches with normal loops of both threads, then making terry loops in one of said threads and continuing said terry loops to the end of said course.

9. In circular knitting, a method of reciprocating knitting of a pocket having a body thread and a reinforcing thread, one of said threads forming terry fabric on one face of the pocket, the steps of omitting terry loops from a plurality of successive stitches in both threads at the beginning of each of a plurality of courses, then making terry loops in one of the threads throughout the remaining stitches of the course.

10. In a fabric having a portion with a suture knit by reciprocation, the combination in that portion of courses containing terry loops starting at a distance from one end of the fabric courses and extending to the other end of said courses, and other courses alternated therewith

containing terry loops starting at a distance from the other end of the fabric courses and extending to said one end of said courses, the stitches not containing terry loops adjacent the suture being knit with normal loops of the yarn which formed the terry loops in said course.

11. A method of reciprocating knitting of a portion having a body thread and a reinforcing thread and having terry loops in one of said threads, said method comprising knitting in each course a predetermined number of starting stitches with normal loops of both threads, then making terry loops in one of said threads and continuing said terry loops to the end of said course.

12. A method of knitting a fabric by reciprocation, said fabric having a body thread and a reinforcing thread, one of said threads forming terry fabric on one face of the fabric, including the steps of knitting a plurality of successive stitches with normal loops of both threads at the beginning of each of a plurality of courses, then making terry loops in one of the threads throughout the remaining stitches of the course.

13. In a fabric having a reciprocatorily knit portion, the combination in that portion of courses containing terry loops at a distance from one end of fabric courses and extending to the other end of said courses, and other courses alternated therewith containing terry loops starting at a distance from the other end of the fabric courses and extending to said one end of said courses, each of said courses containing normal loops in the terry thread throughout the distance between the terry loops and the first mentioned end of said course.

14. In an article of circular knit hosiery having a portion with a suture knit by reciprocation, the combination in said portion of terry loops and plain loops in each course in the same yarn, the plain loops forming plain stitches adjacent to and in the suture in at least alternate courses whereby the suture is increased in strength because of the presence of non-terrying stitches.

FRANK R. PAGE.