

May 21, 1946.

O. FREGEOLLE
KNITTED TERRY FABRIC
Filed Aug. 17, 1945

2,400,637

FIG. 1.

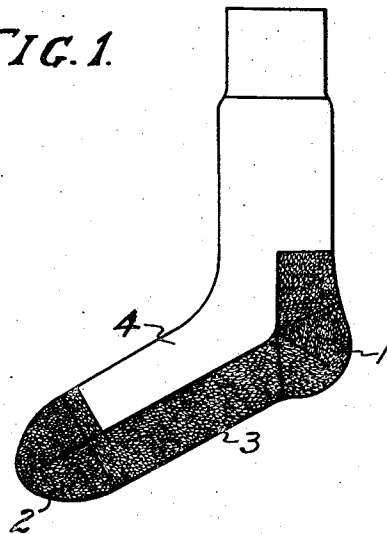
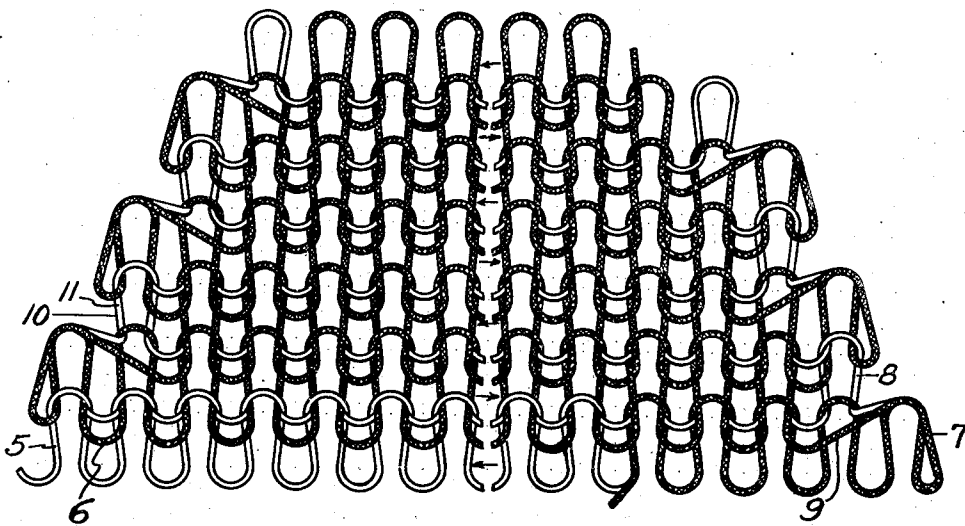


FIG. 2.



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UNITED STATES PATENT OFFICE

2,400,637

KNITTED TERRY FABRIC

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Application August 17, 1945, Serial No. 611,147

3 Claims. (Cl. 66—182)

This invention relates to a new and useful improvement in knitted fabric and in particular to hosiery fabric of the terry type.

The cushion foot sock for military, sports and other wear is now well known. A type thereof is disclosed in U. S. Letters Patent No. 2,144,563. As shown therein the terry portions may include the heel, sole and toe or may be limited to any one or any combination of these parts. Also it is well known that the terry fabric may be included in any part or parts of a stocking knit either in a circular or reciprocatory manner or both.

This invention relates to a new type of terry fabric produced by reciprocatory knitting in the heel or toe, for example, of a stocking. Heretofore, it has been a characteristic of reciprocatorily knit terry fabric that the body and terry yarn at the beginning of a course are both knit into tight loops by at least two or three needles after which one of the yarns produces terry loops for the remainder of the course. This construction occurs in both directions of reciprocatory knitting so that at each suture the edge of the terry has a zig zag appearance since it coincides with the end of alternate courses but not with the beginning of intermediate courses. This construction has not been intentional but has been considered unavoidable because there was no known way of separating the body and terry yarns adequately so that the nibs of the first two or three sinkers could be projected between the two yarns. A fabric of the type just described has been accepted for several years as the best which could be produced and is described in U. S. Letters Patent No. 2,375,684. The construction was not desired but resulted from the characteristics of the knitting mechanisms.

Obviously, in perfect reciprocatorily knit terry fabric the terry loops should run from one end of the course to the other. There should not be a space of several needles at the beginning of each course in which the terry loops are missing. This has been accomplished in the present invention, one form of which is shown in the drawing of which:

Fig. 1 is an illustration of a stocking having a heel, sole and toe of terry fabric; and

Fig. 2 is a diagrammatic, enlarged illustration of several reciprocatorily knit courses of the heel or toe showing the arrangement of the loops of a narrowed portion adjacent the sutures.

In general, the stocking of Fig. 1 may be knitted in any conventional manner. However, since this invention is associated with reciprocatory

knitting it will be assumed that the heel 1 and toe 2 and also the sole and instep, 3 and 4, respectively, if desired, are reciprocatorily knit in the conventional way. In Fig. 2, which represents the narrowed portion of a heel or toe, the body yarn loops are numbered 5 and the terry yarn loops 6 with the exception of those which require particular identification. As will be seen from this figure, the terry yarn loops run to the end of a course such as 7 as before.

However, at the beginning of the next course the terry yarn instead of being knitted with the body yarn into tight loops for several wales is not knitted at all by the first needle to knit which knits only a body yarn loop 8, the terry yarn being carried above and across the nibs of the sinkers on either side of this needle to the next needle and thus forming a long terry yarn loop 9. The remainder of the course consists of conventional terry fabric, i. e., of tightly knit body yarn loops each accompanied by a longer sinker loop of the terry yarn.

This construction is repeated in the other direction as shown by course 10 in Fig. 2, the initial loop 11 of which is composed of the body yarn only, the terry yarn being carried across this loop and over the nibs of adjacent sinkers to the second needle after which conventional terry fabric is knit as before throughout the remainder of the course. Although, as described above, there is no actual terry loop knitted by the first needle of each course, the somewhat longer terry loop extending from the last needle wale of the preceding course to the second needle wale of the next course spans this space and not only conceals the body yarn loop but provides a terry construction which is indistinguishable from the rest except upon close inspection. There is no break in the terry fabric at the suture so that the terry areas of the heel and toe are complete and appear uniform although, as stated above, there is a slight variation in the length of the initial terry loop of each course.

This fabric can be produced by the device forming the subject matter of U. S. Letters Patent #2,361,280 to which reference is made for a complete disclosure and which consists essentially of body and terry yarn feeds which feed both yarns from a sufficient elevation to carry them both over the nibs of the sinkers and a pick so arranged that it will engage and pull down the first needle after it has taken the body yarn but before it can take the terry yarn with the result that the yarns are immediately separated widely enough that the body yarn will enter the throat of the

first sinker. This also results, as already explained, in the knitting of the body yarn only in the first wale of the course but this is not objectionable since the base fabric is composed of the body yarn only throughout so that this wale is as strong as the rest of the fabric and has the merit of being of the same construction instead of different as was the case in the early construction.

The widened portion of the heel and toe is not shown but its construction is the same as the narrowed portion shown in Fig. 2. the first knitted loop of each course consisting of the body yarn only and a terry loop extending from the last loop of the course previously knit to the second needle loop of the next course.

This construction also is found in the parts of reciprocatorily knit fabric which are of uniform width such, for example, as the sole. In short, wherever reciprocatory knitting is performed the fabric construction of this invention can be included.

I claim:

1. In a stocking which includes a reciprocatorily knit portion, the combination in said portion of terry loops and plain loops throughout

each course in each direction of knitting of said portion with the exception of the initial loop of each course which is composed of a single yarn only, said initial loop being bridged by a terry loop extending from the adjacent end loop of a previous course.

2. In a circular knit stocking including a reciprocatorily knit portion, the combination in said portion of terry loops and plain loops throughout each course in each direction of knitting of said portion with the exception of the initial loop of each course which is composed of a single yarn only, said initial loop being bridged by a terry loop extending from the adjacent end loop of a previous course to the second loop of the following course.

3. In a circular knit stocking including a reciprocatorily knit portion, the combination in said portion of terry loops and plain loops throughout each course in each direction of knitting of said portion with the exception of the beginning of each course which consists of a plain single yarn loop and a terry loop extending from the adjacent end loop of a previous course to the second loop of the following course.

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