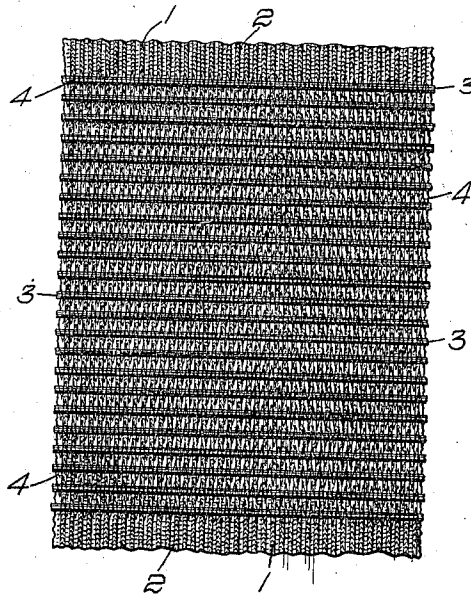


H. A. CARTER.
KNITTED FABRIC.
APPLICATION FILED JAN. 14, 1910.

963,744.

Patented July 12, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

HORACE A. CARTER, OF NEEDHAM HEIGHTS, MASSACHUSETTS.

KNITTED FABRIC.

963,744.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HORACE A. CARTER, a citizen of the United States, and a resident of Needham Heights, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Knitted Fabrics, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings representing like parts.

This invention relates to elastic knitted fabrics.

In order that the principle of the invention may readily be understood, I have disclosed a single embodiment thereof in the drawing, wherein is represented in plan a portion of a knitted fabric constructed in accordance with my invention.

So far as I am aware, elastic knitted fabrics have heretofore been constructed by incorporating rubber strands therewith during the knitting operation. This requires the use of special machinery which adds materially to the cost of production.

I have devised a simple manner of constructing knitted fabrics which are substantially as elastic as knitted fabrics having rubber strands incorporated therewith during the process of knitting and which may be knitted upon ordinary types of knitting machines, the rubber or other suitable elastic strands being applied thereto after the knitting operation is completed.

In accordance with my invention, I knit a fabric in the usual manner, the fabric being ribbed or plain and flat or circular as desired.

In the drawing, I have represented a fabric whose back ground or body is knitted, and hence is provided with wales 1 and courses 2 at right angles thereto, the fabric therefore being elastic in the direction of said courses.

To either face of the knitted fabric I secure one or more elastic and preferably rubber strands 3 by applying one end of such strand or strands thereto, preferably beneath the presser foot of a sewing machine, and then sew the said strands thereto by rows of stitches which are elastic longitudinally of the knitted courses. These elastic stitches I have represented diagrammatically, but they may be of any suitable nature, such for example as the interlock stitch of the Union Special machine or an overlock stitch, or the stitch known as cross or zigzag or any

form of the elastic stitch made by sewing machines. Such stitches are freely elastic in the direction of the length of the rows of stitches and therefore the inherent elasticity of the knitted fabric is not impaired by the sewing stitches.

In accordance with my invention, I may apply a plurality of rubber or other suitable strands simultaneously, in which event I may employ a number of needles corresponding to the number of strands or a less number of needles acting in succession upon the successive strands, or if desired the strands may be introduced singly.

It is apparent that if the strands be applied to a circular fabric, such for example as a stocking, the strands may be attached by spiral rows of stitches, the rubber strands thus passing around and around the fabric. If, however, the strands be applied to a flat fabric, they may extend to and fro upon the face of the fabric, for which purpose the knitted fabric may be reversed at the end of the formation of a row or rows of stitches, so that the succeeding row extends in parallelism but in the opposite direction. Thus, it is unnecessary to sever the rubber strands at the edges of the fabric. If desired, however, the rubber strands may extend merely from edge to edge or through any desired portion of the fabric and not passed to and fro thereon.

It is apparent that the rubber strands need not be applied throughout the entire width of a knitted fabric; that is, from edge to edge of a flat fabric, but may extend over merely a limited portion of the surface, so as in effect to form a gored or gusset portion, in which event, the laterally adjacent portions of the fabric consist merely of knitted stitches.

Having thus described one illustrative embodiment of my invention, I desire it to be understood that although specific terms are employed, they are used in a generic and descriptive sense and not for purposes of limitation, the scope of the invention being set forth in the following claims.

Claims.

1. A knitted fabric having a rubber strand extending to and fro upon one face of the fabric in substantial parallelism to the courses thereof only, and secured thereto by sewed stitches elastic longitudinally of said courses.

2. A knitted fabric having a substantially

smooth surface inherently elastic in the direction of its courses and an inherently elastic strand secured to the surface of the said knitted fabric and extending in the direction only of said knitted courses, said elastic strand being secured by sewed stitches, which are elastic longitudinally of said courses, whereby the elasticity of the knitted fabric is not impaired and whereby the nor-

mal shape and substantially smooth surface 10 of the fabric are preserved.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

HORACE A. CARTER.

Witnesses:

FRED WHITTIER,
EDGAR S. STANLEY.