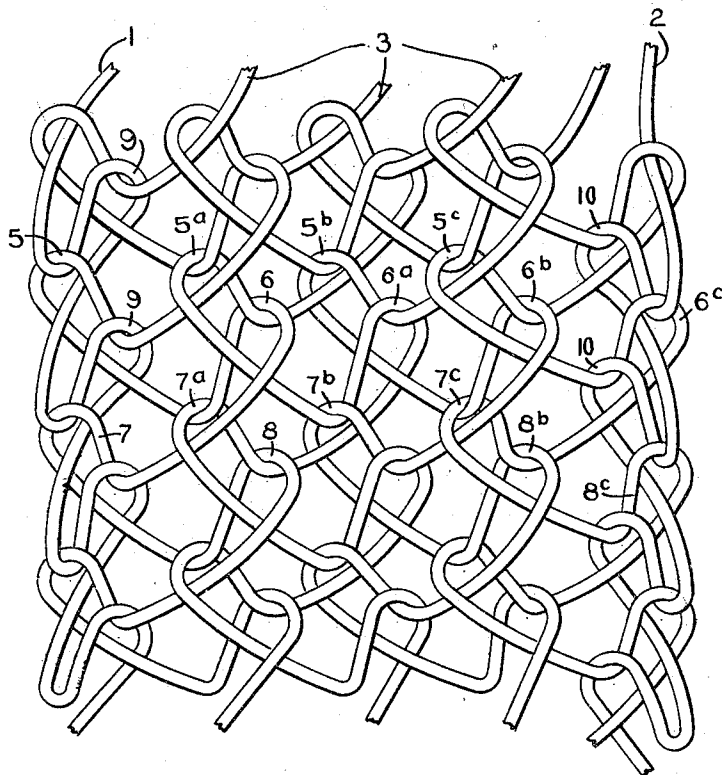


J. WATERFIELD.
KNITTED FABRIC.

APPLICATION FILED JAN. 20, 1915. RENEWED MAY 22, 1918.

1,276,294.

Patented Aug. 20, 1918.



Witnesses.

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UNITED STATES PATENT OFFICE.

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KNITTED FABRIC.

1,276,294.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN WATERFIELD, a citizen of the United States, residing at the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Knitted Fabrics, of which the following is a specification.

My invention relates to flat knitted fabrics, the object of the invention being to provide an improved knitted fabric for various uses but particularly adapted for use in the manufacture of tapes, shoe laces and the like.

Another object is to provide an improved fabric composed of a plurality of independent lengthwise extending threads so interlocked during the knitting operation as to form a solid continuous fabric of the desired width and having the outer row of loops at each side interlocked together by lengthwise extending selvage threads.

In the drawings accompanying and forming a part of this application the figure illustrates on a very much enlarged scale a portion of the knitted fabric comprising my invention.

This fabric is knitted in the manner shown and described in my copending application Serial No. 746,828, filed February 7, 1913, of which application this is a division, from which it will appear that the fabric is knitted flat on what may be termed a flat knitting machine composed of two parallel rows of needles and complementary knitting mechanism, the needles being alternately vibrated laterally and vertically, the yarns being fed diagonally first to one row and then to the other row of needles by oscillating yarn guides, mechanism for forming selvages in each edge of the fabric, and mechanism for drawing tight the loops or stitches formed by the needles after the loops have been discharged from the needles thus forming a solid, firm and permanent fabric, which will not unravel.

My improved fabric is formed of threads running longitudinally of the fabric. The edge threads are selvage threads and the other threads are body threads. Each of the body threads is formed into pairs of loops running transversely of the fabric one of the

which projects to the left and the other to the right of a line between the loops.

In the drawings I have given two adjacent transverse series of these body loops the distinguishing numerals of 5, 6, 5^a, 6^a, 5^b, 6^b, 5^c and 6^c and 7, 8, 7^a, 8^a, 7^b, 8^b, 7^c, and 8^c. It will be seen that loop 5^a of the second thread passes through loop 6 of the first thread from the rear to the front, that loop 5^b of the third thread passes through loop 6^a of the second thread from the front to the rear and that loop 5^c of the fourth thread passes through loop 6^b of the third thread from the rear to the front.

It will also be observed that loop 6 passes down and through loop 7^a of the next lower transverse row from the rear to the front, that loop 6^a passes down and through loop 7^b of the next lower transverse row from the front to the rear, that loop 6^b passes down and through loop 7^c of the next lower transverse row from the rear to the front. It will be seen from the drawing that each thread is formed into loops that extend alternately in opposite directions and that the loops which extend to the left pass through the loops of the adjacent threads from the front to the rear, while those which extend to the right pass through the loops of adjacent threads from the rear to the front.

At the edges these loops are secured from unraveling by the selvage threads which are formed into loops. As will be seen loop 5 of the left hand body thread passes through loop 9 of the left hand selvage thread and that this loop 9 of the selvage thread passes through loop 7 of the body thread loops of the transverse row next below loop 5. On the other side of the fabric loop 10 of the right hand selvage thread passes through loop 8^c and loop 6^c passes through loop 10. The same construction pertains to all the fabric.

From which it will be seen that no matter where the fabric is punctured by cutting a stitch the fabric will not unravel as will other knitted fabrics.

It will be further observed that the threads run longitudinally of the fabric and that each body thread is formed into pairs of loops, one loop of each pair projecting to the right and the other loop projecting to

the left of a line extending between the loops and that the right hand loop of one transverse row of loops passes through the left hand loop of the next lower adjacent transverse row.

5 Having described my invention what I claim is:

1. As an article of manufacture, a knit fabric composed of a plurality of independent body threads, each extending lengthwise of the fabric, each body thread being formed into loops which extend alternately in opposite directions, the loops of each thread which extend in one direction passing through loop of the adjacent thread from the rear to the front and around another loop of said adjacent thread, and the loops which extend in the other direction extending through loops of adjacent thread from the front to the rear and around other loops of said adjacent thread.

2. As an article of manufacture, a knit

fabric composed of a plurality of independent body threads, each extending lengthwise of the fabric, each body thread being formed into loops which extend alternately in opposite directions, the loops of each thread which extend in one direction passing through a loop of the adjacent thread from the rear to the front and around another loop of said adjacent thread, and the loops which extend in the other direction extending through loops of an adjacent thread from the front to the rear and around other loops of said adjacent thread, and selvage threads at each edge of the fabric which are interlooped with the body threads.

In witness that I claim the foregoing I have hereunto subscribed my name this 11th day of December, 1914.

JOHN WATERFIELD.

Witnesses:

J. ALBERT BRACKETT,
FRANK S. TALBOT.