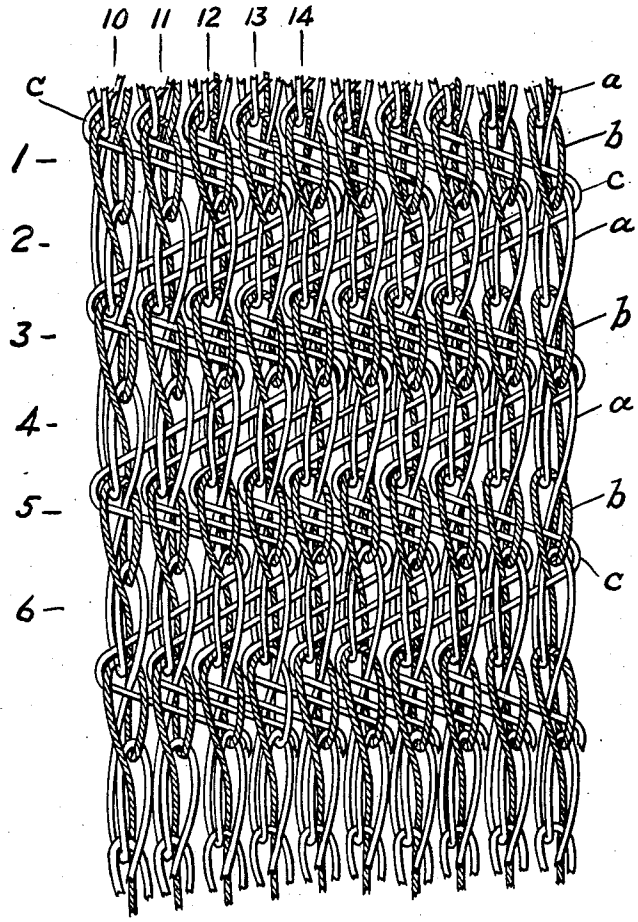
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KNITTED FABRIC

Filed March 6, 1929



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UNITED STATES PATENT OFFICE

JOHN C. DECKER, OF UPPER MORELAND TOWNSHIP, MONTGOMERY COUNTY, AND HARRY AULL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO FRIEDBERGER-AARON MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA

KNITTED FABRIC

Application filed March 6, 1929. Serial No. 344,675.

In the manufacture of knitted fabrics, especially fabrics knit on a machine of the "rib-lace" type for use in the manufacture of hats and caps, wherein the yarn may be of artificial silk or may be so treated as to impart more or less stiffness to the fabric, it has been found, usually or always, that the fabric, when cut, presents edges that readily fray and that the severed pieces will not lie flat but will assume a form more or less curved or distorted.

The object of the present invention is to provide a fabric which may be knit on a machine of the type specified and which may be cut into blanks of any form without subsequent fraying at the ends, which blanks, regardless of their size and shape, will not curl or distort but will lie flat on a plane surface.

A face view of a fabric embodying the invention is shown in the figure of the drawing.

A machine of the type adapted to knit my improved fabric is one in which the different threads composing the fabric to be knit produce a warp and weft effect in the fabric, this being effected by causing one or more threads to extend only in a general longitudinal direction to form a warp effect while one or more threads are, as the knitting proceeds, moved laterally and produce a weft effect. The fabric shown in the figure is of this character, its novelty residing in the way in which the threads are interlooped and interlaced to impart to it the desirable characteristics hereinbefore specified. The figure is not only enlarged, but is somewhat distorted in order to make the structure and mode of knitting more readily understood by one skilled in the art; the mild distortion causing the drawing of the fabric to present an appearance similar to, but not precisely identical with, that of the fabric itself.

The specific fabric shown, which embodies the invention in one of its simplest forms, comprises numerous sets of threads, each comprising three threads *a*, *b* and *c*. The general direction of extension of all the threads is longitudinally of the fabric. Threads *a* and *b* are interlooped to form the warp effect. Threads *c* extend laterally, in successive courses of knitting, to form the weft effect.

Each thread *a* extends forward through a loop in course 1, forward and through a loop in course 3, back through the said loop in course 1 and forward to form a loop in course 2, forward through the said loop in course 3, forward through a loop in course 5, and so on.

Each thread *b* extends forward through a loop in course 2, forward and through a loop in course 4, back through said loop in course 2 and forward to form a loop in course 3, forward through the said loop in course 4, forward through a loop in course 6, and so on.

Thus, thread *a* forms the loops in alternate courses which may be arbitrarily called the even numbered courses and extends through loops in the odd numbered courses, while thread *b* forms the loops in the odd numbered courses and extends through the loops in the even numbered courses.

Thread *c*, at each course of knitting, extends from each wale formed by interlooped threads *a* and *b* to the second wale beyond and thence back again to the first wale. Thus, selecting one of the threads *c*, it extends from the bights of adjacent loops in courses 1 and 2 of wale 12 to the bights of adjacent loops in courses 2 and 3 of wale 10. Another thread *c* extends in a similar manner in the same course from wale 13 to wale 11. Another thread *c* extends in a similar manner in the same course from wale 14 to wale 12; and so on. The three threads specified, in the next course, extend respectively from wale 10 to 12, from wale 11 to 13 and from wale 12 to 14.

Looking at the fabric on the face thereof shown in the drawings; each thread *c* extends under all the loops but over all the threads where the latter extend through the loops. Specifically, each thread *c* is, in one course, confined between thread *a* and each loop formed by thread *b* and is, in the next course, confined between thread *b* and each loop formed by thread *a*.

A fabric with threads interlooped and interlaced as above described can be cut along any lines to form a blank of any shape and such blank does not curl or kink but returns a flat form when placed on a plane surface.

What we claim and desire to protect by Letters Patent is:

1. A knitted fabric consisting of sets of threads; each set of threads comprising a plurality of loop-forming threads each of which forms loops in non-adjacent courses of a wale and extends through loops formed by the other thread in other courses of the same wale, and comprising also a weft-effect thread extending laterally in one direction between non-adjacent wales of one course and in opposite directions between the same non-adjacent wales of an adjacent course, said arrangement extending substanially throughout the fabric.

2. A knitted fabric consisting of sets of threads; each set of threads comprising a plurality of loop-forming threads each of which forms loops in non-adjacent courses of a wale and extends through loops formed by the other thread in other courses of the same wale, and comprising also a weft-effect thread extending laterally in one direction between non-adjacent wales of one course and in opposite directions between non-adjacent wales of another course, the last named thread being confined between a loop and that part of a loop-forming thread which extends through such loop, said arrangement extending substantially throughout the fabric.

3. A knitted fabric consisting of sets of threads; each set of threads comprising a plurality of loop-forming threads each of which forms loops in non-adjacent courses of a wale and extends through loops formed by the other thread in other courses of the same wale, and comprising also a weft-effect thread extending laterally in one direction between non-adjacent wales of one course and in opposite directions between the same non-adjacent wales of an adjacent course, the last named thread being confined between a loop formed by one of the loop-forming threads and that part of the other loop-forming thread which extends through such loop, said arrangement extending substantially throughout the fabric.

In testimony of which invention, we have hereunto set our hands, at Philadelphia, Pennsylvania, on this 4th day of March, 1929.

JOHN C. DECKER.
HARRY AULL.