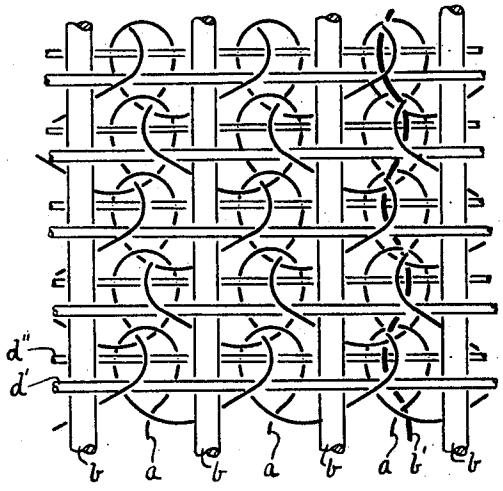
May 7, 1929. T. VORCK ET AL 1,711,624

MANUFACTURE OF KNITTED WARP FABRICS

Filed July 30, 1927



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Patented May 7, 1929. 1,711,624

UNITED STATES PATENT OFFICE.

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MANUFACTURE OF KNITTED WARP FABRICS.

Application filed July 30, 1927, Serial No. 209,425, and in Germany November 5, 1926.

The present invention relates to the manufacture of knitted warp fabrics having rib threads, and according to the main feature thereof, only one row of needles is employed to incorporate in the fabric both front and back weft threads.

Knitted warp fabrics containing rib threads and both front and back weft threads, are known, but they have hitherto required two rows of needles, one for the front and one for the back of the fabric. Up to the present it has never been proposed to attempt the insertion of a plurality of wefts with only one row of needles, as is accomplished by the present invention.

Among the objects of the present invention are to enable many new designs of fabric to be produced, with a considerably increased output, and to permit the manufacture of first class knitted fabrics having rubber warp threads, which are particularly suitable for the manufacture of corsets, straps and braces. A further object is to enable high class tapestry or Gobelin, and brocade effect decorations to be made, as well as fabrics for curtains, hanging and upholstery fabrics, with or without a plush surface, and fancy and shoe upper stuffs or cloths, and straps or belts of all kinds.

In order that the invention may be clearly understood and readily carried into practice, we have appended hereto a sheet of drawings in which the figure illustrates the run of the threads in a warp knitted fabric manufactured according to the invention, the weft threads being for the sake of clearness, shown straightened out.

Referring to the drawing, the warp threads a form stitches, in known manner, alternately in two adjacent longitudinal rows, the threads forming meshes between the rows when crossing from row to row to form consecutive stitches.

The rib threads b run between and parallel to the longitudinal rows of stitches. The two weft threads d', d'' are jointly encircled by the stitches, but are separated by the rib threads, so that d' is located in front, whilst d'' is disposed at the back. Thus whilst d'' is disposed between the back stitch loops on the one hand and the warps b on the other hand, d' is disposed between the front stitch loops and the rib warps b.

It is also possible to insert in the fabric rib warp threads as b' (right hand course of stitches in the drawing) which run along, instead of between the stitch courses, these threads being tightly embraced by stitch loops drawn down alternately from right and left thereof, so that the stitch loops not only encircle the two wefts d' d'', but also embrace the rib warp thread b'. Consequently the threads b' are constrained to take a sinuous formation and are gripped very tightly in position in the fabric. An important advantage of the invention in this connection lies in the fact that the figuring weft like warp threads do not have to run through the ground of the fabric, so as to be what is called "dead" material, but only appear in the figures or designs themselves, whereby the effect of a real Gobelin tapestry is obtained, which is not the case with a woven imitation.

The rib threads for non-elastic fabric do not, of course, consist of rubber, but consist of any other suitable non-elastic material; they may be coloured or may be effect threads of many varied kinds, because if several weft threads are omitted, then the rib threads become apparent, and can be made use of in a pattern effect.

What we claim is:—

1. A method of manufacturing knitted warp fabrics, wherein a single row of needles is employed to form parallel warp courses of interlooped stitches, rib warp threads are run between said courses, a pair of weft threads are run on opposite sides of said rib warp threads but both behind the needles, whereafter the next stitch loops placed in the needles are drawn down to encircle said pair of weft threads.

2. A method as set forth in the first claim, wherein the knitted warp threads form alternate stitches in different courses of stitches.

3. A method of manufacturing knitted warp fabrics, wherein a single row of needles is employed to form parallel warp courses of interlooped stitches, rib warp threads are run along said courses of stitches, a pair of weft threads are run on opposite sides of said rib warp threads but both behind the needles, whereafter the next stitch loops placed in the needles are drawn down to encircle said pair of weft threads, consecutive warp knitting loops being drawn down alternately on opposite sides of the rib warp threads so as additionally to hold same in position.

4. Knitted warp fabric having spaced parallel longitudinal warp courses of interlooped stitches, pairs of weft threads en-

circled and held down by the warp stitch loops, and rib warp threads running freely between the longitudinal courses of stitches and freely between the weft threads of each pair.

5. Knitted warp fabric having spaced parallel longitudinal warp courses of interlooped stitches, consecutive stitches being formed by different warp threads, pairs of weft threads encircled and held down by the warp stitch loops, and rib warp threads running freely between the longitudinal courses of stitches and freely between the weft threads of each pair.

6. Knitted warp fabric having spaced parallel longitudinal warp courses of interlooped stitches, pairs of weft threads encircled and held down by the warp stitch loops, and rib threads running freely between the weft threads of each pair, but running along the warp courses of stitches, alternate stitches of which are drawn down from opposite sides of the rib threads so that the latter are encircled and gripped thereby.

In testimony whereof we have signed our names to this specification.

THEODOR VORCK.
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