

Jan. 11, 1938.

S. SAFTLAS

2,105,301

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Filed Oct. 10, 1936

2 Sheets-Sheet 1

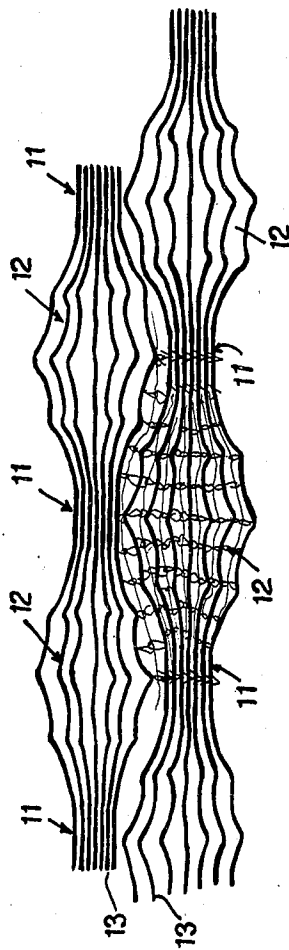


Fig. 1.

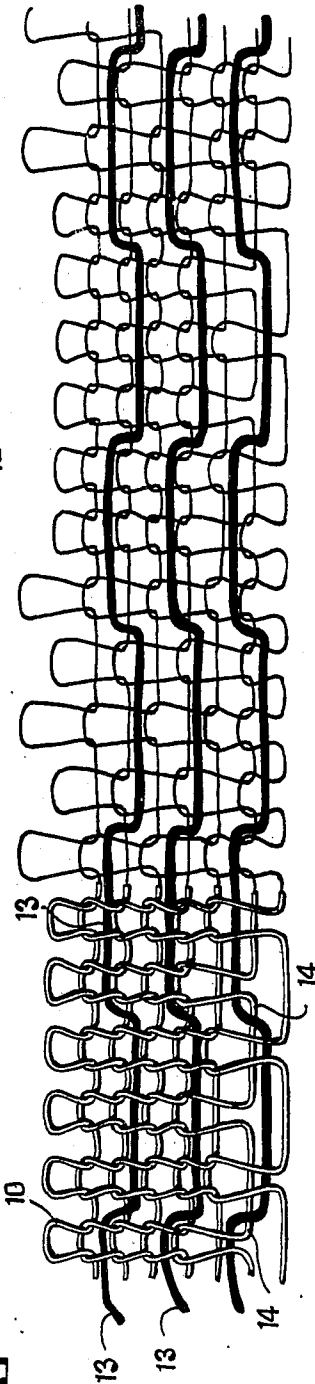


Fig. 2.

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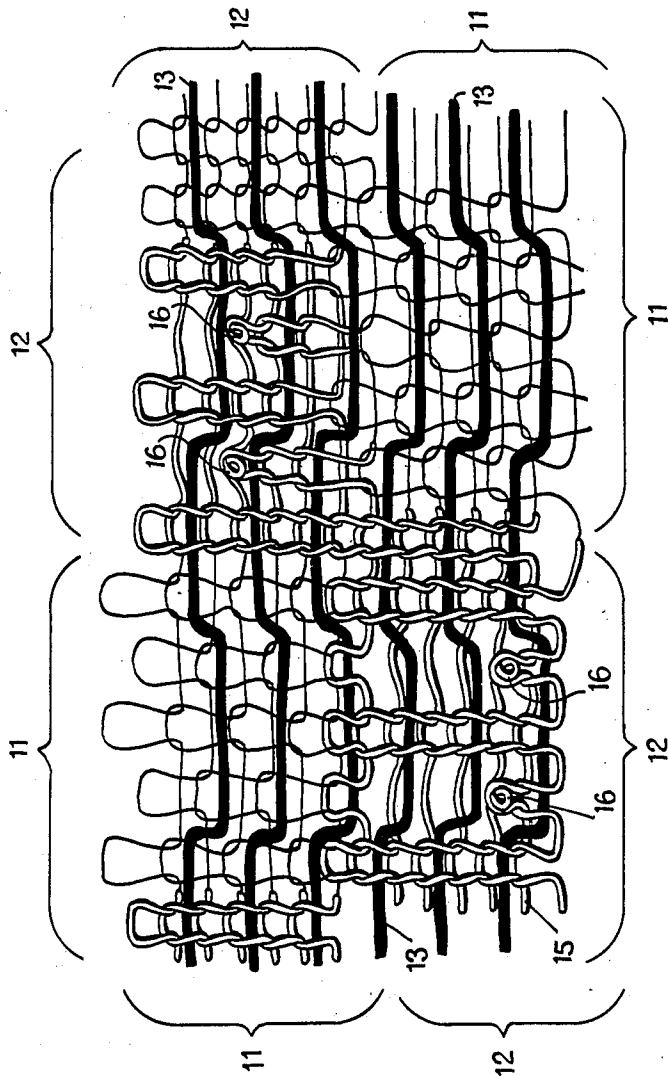
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Fig. 2.



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2,105,301

FABRIC

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Application October 10, 1936, Serial No. 104,981

8 Claims. (Cl. 66—190)

This invention relates to a new and improved fabric.

An object of the invention is to provide a fabric of distinctive design and appearance comprising in part a basic knit fabric formed of thread of a predetermined size and comprising a filler yarn or thread incorporated in a predetermined manner into the basic knit fabric and of a different and predeterminedly heavier size than the basic knit fabric.

A further object of the invention is to provide such a fabric wherein portions of the basic knit fabric are formed of a simple jersey knit stitch and other portions are formed of jersey and tuck stitches in predetermined relation.

A still further object of the invention is to provide a fabric of the character described wherein stitches in predetermined wales are permitted to drop and run for a predetermined number of courses, including preferably a plurality of courses carrying the filler yarn, whereby a distinctive lacy design may be obtained.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the product possessing the features, properties, and the relation of elements which are exemplified in the following detailed disclosure, and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

Fig. 1 is a diagrammatic representation of a fabric embodying one form of the invention;

Fig. 2 is an enlarged diagrammatic representation of a fabric comprising a basic knit portion and filler threads as formed at one stage of the process of the invention and as though no stitches were to be dropped; and

Fig. 3 is a similar view of the same fabric after predetermined stitches in predetermined wales thereof have been dropped and permitted to run as provided in the invention.

The fabric of the present invention comprises a basic knit fabric formed preferably of a relatively fine thread or yarn 10. The base fabric may however be formed in part of areas 11 comprising a jersey knit stitch, as shown at the left of Fig. 2 and in part of areas 12 comprising different stitches, as for example jersey and tuck stitches, as shown in the center of Fig. 2. Where the fabric is so formed the various areas 11 and

12 may be predeterminedly positioned to give any desired design, for example, a checkerboard design, to the base fabric.

A preferred method of forming those portions 12 of the fabric comprising jersey knit and tuck stitches is to form such stitches alternately in each course, as shown in Fig. 2, i. e., over those areas the stitches in one course may preferably be a jersey knit, a tuck, a jersey knit, a tuck stitch, etc., and the stitches in the next adjacent course may be of the same character, save that in the latter course a tuck stitch may be formed in that wale wherein a jersey knit stitch was formed in the first course, and a jersey knit stitch may be formed in that wale wherein a tuck stitch was formed in the first course. The third course of the area is preferably formed in the same manner as is the first course, the fourth course in the same manner as is the second course, and so on.

The result of this method of knitting the base fabric differently, in different portions thereof is to provide a fabric wherein predetermined areas 11, i. e., the areas of jersey and tuck stitches, are relatively closely knit, and other predetermined areas 12, i. e., the areas comprising only jersey knit stitches, are relatively loosely formed.

The individual threads 13 are preferably carried through the fabric along predetermined courses, as for example along every third course, or along alternate courses, as shown in Fig. 2, and are preferably incorporated in the fabric by carrying them in back of the knit loops of a predetermined number of wales, and by then tying them into the fabric by passing them in front of predetermined sinker wales 14. Filler threads so incorporated into the base fabric may be considered as undulating between courses, as shown in the drawings. Filler threads so inlaid, as shown, are termed herein "undulating". The filler yarns or threads are preferably much heavier, as for example four times as heavy, as the yarn forming the basic knit fabric. They may preferably be carried past two or more wales before they are tied into the fabric at a sinker wale, and preferably they may be carried past a predetermined odd number of wales before being tied into the fabric.

The lacy effect is preferably imparted to the fabric by deliberately dropping stitches, as shown in Fig. 3, as for example in predetermined wales, such as alternate wales, in a predetermined course, and permitting the dropped stitches to run in those wales for a predetermined number

of courses. This is preferably accomplished in each particular wale, for example, by casting off the thread from the needle in that wale. This permits the thread in the next lower course to pull out. A run is thus started, which proceeds backward along the wale. When the stitches have run the desired number of courses they are caught in any usual manner, as for example by predeterminedly knitting the course 15 at which the dropped stitches are to be caught in a tight manner so as to catch the loop 16 of the dropped stitch at that course and hold it against the fabric. The tight knitting of that course at which the run is to stop, will, of course, have been carried out when that course, shown as 15 in Fig. 3, was originally knitted. This tightly knit course may preferably be a course with which no filler thread is associated.

Where, as shown in Fig. 3, the base fabric comprises certain areas 12 of only jersey knit and certain other areas 11 of knit and tuck stitches, the dropped stitches may preferably be formed in those areas 12 of the fabric comprising only jersey knit stitches.

The dropped stitches are preferably permitted to run for several courses, and more particularly for a sufficient number of courses to pass a plurality at least of the heavier filler threads 13.

The fabric resulting from the process of manufacture described above comprises a plurality of areas of predetermined size, namely, the areas 12 comprising the dropped stitches which are loosely knit and which have a lacy appearance, and a second plurality of areas, namely the areas 11 comprising the jersey knit and tuck knit portions without dropped stitches, which are relatively tightly knit. A detailed view of such a final product is shown in Fig. 3. A general view of a larger piece of the final product is shown in Fig. 1. In Fig. 1, the areas 12 have the dropped stitches and correspond to areas 12 in Fig. 3. In Fig. 1, the areas 11 do not have dropped stitches. They are like the areas 11 in Fig. 3. The arrangement of these areas in the fabric as a whole may be such as to impart a predetermined design to the fabric, such for example as a stripe design or a checkerboard design, or any other desired design. The filler threads impart a distinctive appearance to this design, for in those portions of the fabric which do not comprise dropped stitches, the filler threads remain held close together, while in those portions of the fabric comprising the dropped stitches the filler threads are held in more spaced relation, for as those portions of the fabric itself are more loosely knit, the filler threads are held at greater distances from each other. This effect is especially noticeable where the portions of the fabric which do not comprise dropped stitches are tightly knit, as for example where the jersey and tuck knit stitches are employed in the formation of those areas.

By dropping stitches and permitting them to run over predetermined areas of the fabric, the entire fabric becomes extended over those areas and its yardage per pound of cloth substantially increased. As a result fewer courses of filler thread per yard are used and the weight and cost of the fabric per yard are reduced.

The resulting fabric, which gives the appearance of a corded lace fabric, and which may be made on standard knitting machines, possesses a pleasant and distinctive appearance.

It will be understood that different designs may be secured by employing as the thread form-

ing the base fabric and the thread forming the filler yarns of different size or of different color, or of different material. All such uses are to be deemed within the scope of this invention.

It will be understood furthermore that while the invention has been described in connection with the formation of lacy areas by dropping threads preferably in alternate wales, other forms of lace may be obtained, and other designs secured by dropping threads in different predetermined wales. It is to be understood furthermore that the areas of loosely knit and tightly knit fabric may be of varying sizes and shaped and positioned in various ways throughout the fabric as a whole. Furthermore the filler threads or yarns may be carried across the fabric in adjacent courses or alternate courses, or in any predetermined courses. They may be tied into any predetermined sinker wales, so that a regular or an irregular effect may be secured.

It should also be understood that while a combination of tuck and jersey knit has been described as preferable in the formation of the tightly knit portions of the fabric, any other suitable means may be employed for the formation of such portions. Thus the base fabric may be all formed if desired of jersey knit stitches only. Where the base fabric comprises only a jersey knit stitch, the dropped stitches may preferably be formed in any predetermined wales in predetermined groups of wales over predetermined areas in the fabric. The generalized view shown in Fig. 1 might represent the final product with the base only jersey knit, in which case areas 12 have the dropped stitches as before and areas 11 do not have the dropped stitches as before.

In all forms of the design, and irrespective of the type of threads employed, it is intended that the lacy effect secured shall be obtained by the dropping of stitches in predetermined wales and by letting those stitches run for a predetermined number of courses, such that the dropped stitch is permitted to run past a predetermined number, preferably a plurality, of the filler threads.

Since certain modifications in the article which embody the invention may be made without departing from its scope, it is intended that all matter contained in the above description or shown in the accompanying drawings, shall be interpreted as illustrative and not in a limiting sense.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A fabric comprising a basic knit portion formed of thread of a predetermined size, filler threads of a different predetermined size undulating between courses and incorporated into said basic knit portion in predetermined courses thereof, predetermined areas in said fabric having tight-stitch held dropped stitches therein in predetermined wales thereof, the dropped stitches extending in said wales for a predetermined number of courses comprising at least a plurality of courses carrying said filler threads.

2. A fabric comprising a basic knit portion formed of thread of a predetermined size, filler threads of a heavier size than said basic knit portion, said filler threads undulating between courses and being carried behind predetermined numbers of knit loops and being incorporated into the fabric by being passed in front of predetermined sinker wales, said fabric comprising a predetermined number of areas having tight-stitch held dropped stitches extending in predetermined wales thereof, and a predetermined number of other areas having no dropped stitches

therein, each of said areas being traversed by a plurality of said filler threads.

3. A fabric comprising a basic knit portion formed of thread of a predetermined size, filler threads of a heavier size than said basic knit portion, said filler threads undulating between courses and being carried behind predetermined numbers of knit loops and being incorporated into the fabric by being passed in front of predetermined sinker wales, said fabric comprising a predetermined number of areas having tight-stitch held dropped stitches extending in predetermined wales thereof, and a predetermined number of other areas having no dropped stitches therein, each of said areas being traversed by a plurality of said filler threads, said filler threads being held more closely together in those areas having no dropped stitches than in those areas having dropped stitches.

4. A fabric comprising a basic knit portion formed of thread of a predetermined size and formed with jersey knit areas and with other more tightly knit areas, filler threads of a predetermined size greater than that of said basic knit portion and undulating between courses and incorporated into said basic knit portion at predetermined places therein so as to traverse said jersey knit areas and said tightly knit areas, said jersey knit areas having tight-stitch held dropped stitches therein in predetermined wales thereof, dropped stitches extending in a wale for a predetermined number of courses comprising at least a course carrying a filler thread.

5. A fabric comprising a basic knit portion formed of thread of a predetermined size and formed with jersey knit areas and with other more tightly knit areas, filler threads of a predetermined size greater than that of said basic knit portion and undulating between courses and incorporated into said basic knit portion at predetermined places therein so as to traverse said jersey knit areas and said tightly knit areas, said jersey knit areas having tight-stitch held dropped stitches therein in predetermined wales thereof, dropped stitches extending in a wale for a predetermined number of courses comprising at least a plurality of courses carrying said filler threads.

6. A fabric comprising a basic knit portion having certain areas having no dropped stitches

therein, said portion having certain other areas having dropped stitches therein in predetermined wales thereof, said dropped stitches extending in said wales until held to said fabric by a tightly knit course, each of said areas comprising a plurality of wales and a plurality of courses, undulating filler threads of a predetermined heavier size than the size of the thread of the basic knit portion of the fabric, said filler threads being incorporated into said base fabric at predetermined places therein, a plurality of said filler threads being incorporated into each of said areas.

7. A fabric comprising a basic knit portion having certain areas having no dropped stitches therein, said portion having certain other areas having tight-stitch held dropped stitches therein in predetermined wales thereof, each of said areas comprising a plurality of wales and a plurality of courses, undulating filler threads of a predetermined heavier size than the size of the thread of the basic knit portion of the fabric, said filler threads being incorporated into said base fabric at predetermined places therein, a plurality of said filler threads being incorporated into each of said areas, the filler threads being held more closely adjacent each other in the areas having no dropped stitches therein than in the areas having dropped stitches therein.

8. A fabric comprising a basic knit portion having certain areas having no dropped stitches therein, said portion having certain other areas having tight-stitch held dropped stitches therein in predetermined wales thereof, each of said areas comprising a plurality of wales and a plurality of courses, undulating filler threads of a predetermined heavier size than the size of the thread of the basic knit portion of the fabric, said filler threads being incorporated into said base fabric at predetermined places therein, a plurality of said filler threads being incorporated into each of said areas, the filler threads being held more closely adjacent each other in the areas having no dropped stitches therein than in the areas having dropped stitches therein, and each filler thread being incorporated into the fabric adjacent a predetermined course thereof.

SAMUEL SAFTLAS.