Nov. 26, 1935. W. HEINITZ 2,022,418

METHOD OF MAKING BEGINNING COURSES FOR KNITTED WEBS

Filed June 13, 1932

Fig. 1.

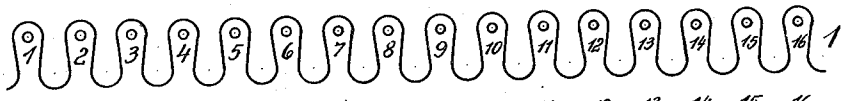


Fig. 2.

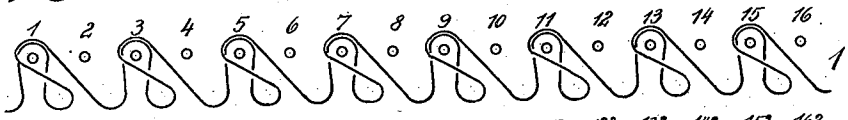


Fig. 3.

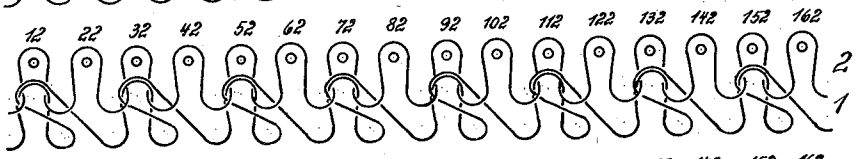


Fig. 4.

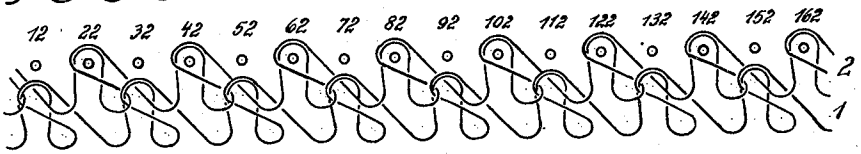


Fig. 5.

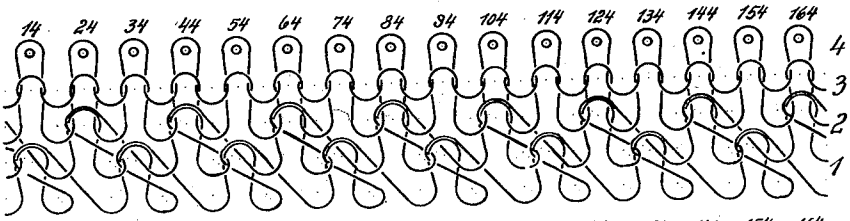


Fig. 6.

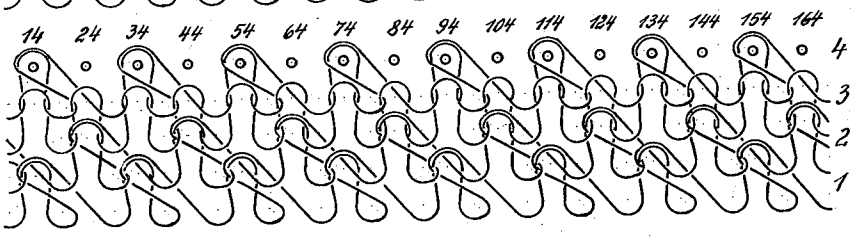
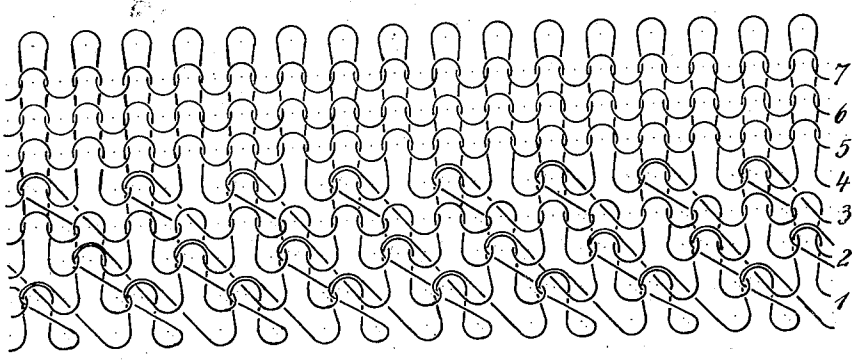


Fig. 7.



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UNITED STATES PATENT OFFICE

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METHOD OF MAKING BEGINNING COURSES FOR KNITTED WEBS

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4 Claims. (Cl. 66—198)

My invention relates to a method of making beginning or transferring courses for knitted webs on flat knitting machines.

It has already been suggested to form beginning or transferring courses for looping by transferring each second loop to the adjacent loop but this old method is only applied to the first course and, besides, requires special devices, such as downholding and arresting jacks, for the transferred loops.

It is an object of my invention to provide an improved method and an improved knitted web of the kind referred to so as to dispense with all special devices. To this end I begin a real starting or transferring series of courses, for instance, the widened heel course of a leg, by transferring each second loop to the adjacent loop by covering in not less than two courses.

If desired, I may interpose any number of plain courses between the courses having transferred loops.

It will be understood that I perform the transferring or covering operation repeatedly and not in a single course only, as in the old method, so that a loop which accidentally has not been engaged for transferring in one of the courses, is sure to be engaged in another course and the web runs off properly. In particular, the formation of two-needle ladders is prevented.

My method is particularly suitable for webs in which the starting or transferring courses are extra courses and are subsequently removed, because even if a loop has not been engaged in the first or second course it will certainly be engaged in the third course, so that this course is perfect and any defects of transferring or covering are limited to the extra courses.

In the drawing affixed to this specification and forming part thereof the formation of transferred courses according to my method and a knitted web obtained by my method, are illustrated diagrammatically by way of example.

In the drawing

Figs. 1 to 6 are diagrams showing the several stages of operation by which my method is performed, and

Fig. 7 illustrates a portion of the finished web.

Referring now to the drawing, Fig. 1 shows the first stage. 1 is the first course after sinking or distribution. The loops of this first course are supported on needles which are numbered from 1–16. In the second stage, Fig. 2, each second loop is transferred or covered to the adjacent loop so that in the example illustrated the needles having odd numbers, i. e. the needles 1, 3, 5, etc., support two loops while the needles having even numbers, i. e. 2, 4, 6, etc., are without loops. In the third stage, Fig. 3, the second course 2 is sunk or distributed. The needles for the second course are numbered again from 1–16, with the numeral "2" added, so that in the second course, the first needle is 12, the second is 22, the third is 32, and so on. In the fourth stage, Fig. 4, the loops from each second needle of the second course are transferred to the adjacent needle, as described for the first course with reference to Fig. 2, but in the second course 2 the needles corresponding to the needles having even numbers in the first course 1, i. e. 22, 42, 62, etc. support two loops and the needles corresponding to the needles having odd numbers in the first course 1, i. e. the needles 12, 32, 52, etc. in the second course, are without loops so that the points where the loops are transferred are staggered in the courses 1 and 2.

In the fifth stage, two courses 3 and 4 are sunk. The course 3 is plain and in the course 4 in which the needles are numbered again from 1 to 16 but with the numeral "4" added, the loops from the needles corresponding to those having even numbers in the first course 1, i. e. 24, 44, 64, etc., are transferred to the needles corresponding to those having odd numbers in the first course, i. e. 14, 34, 54, etc. during the sixth stage, as shown in Fig. 6. The points where the loops are transferred, are in the same position in courses 1 and 4, and laterally displaced with respect to course 2.

Knitting is then continued by forming courses 5, 6, 7 . . . of plain loops in the usual manner and as shown in Fig. 7.

Any number of courses may be knitted with transferred loops. For instance, instead of knitting two courses 1 and 2 with transferred loops, interposing a plain course 3 and then knitting the fourth course 4 with transferred loops again, before the normal web is begun with the course 5, Fig. 7, as shown and described, I may dispense with the covering or transferring in the fourth course 4, i. e., make the course 3 and the course 4—which is plain in this instance—the first two courses of the web proper. On the other hand, I may provide more than three courses with courses having transferred or covered loops, with any number of plain courses such as the course 3, Figs. 5 and 6, interposed between them.

It is not necessary that the points where the loops are transferred, should be staggered in the several courses as shown but the points might as well be on the same wales throughout the web.

The example illustrated shows that number

and sequence of courses having transferred loops which has been found to be the most suitable.

Various changes may be made in the details disclosed in the foregoing specification without departing from the invention or sacrificing the advantages thereof.

In the claims affixed to this specification no selection of any particular modification of the invention is intended to the exclusion of other modifications thereof and the right to subsequently make claim to any modification not covered by these claims is expressly reserved.

I claim:—

1. The method of making beginning courses for knitted webs on flat knitting machines, comprising transferring each alternate loop to the adjacent loop in a plurality of succeeding courses at the beginning of the web whereby the transferred loops of one course will be alternately arranged with respect to the transferred loops of the adjacent course.

2. The method of making beginning courses for knitted webs on flat knitting machines, comprising forming the first course of the web by sinking the thread to provide a series of loops, transferring each alternate sunk loop to the adjacent sunk loop in said first course, forming the second course, and transferring each alternate sunk loop to the adjacent sunk loop in said second course and the transferred loops of the second course being arranged in the knitted web intermediate of the transferred loops of the first course.

3. The method of making beginning courses for knitted webs on flat knitting machines, comprising forming the first course of the web by sinking the thread to provide a series of loops, transferring each alternate sunk loop to the adjacent sunk loop in said first course, forming the second course, transferring each alternate sunk loop to an adjacent sunk loop of said second course, and the transferred loops in one course being alternately arranged with respect to the transferred loops of the other course.

4. The method of making beginning courses for knitted webs on flat knitting machines, comprising forming the first course of the web by sinking the thread to provide a series of loops, transferring each alternate sunk loop to the adjacent sunk loop in said first course, forming the second course, transferring each alternate sunk loop to an adjacent sunk loop in said second course, knitting a plain course following said first and second transferred courses, and forming the next course with each alternate loop thereof transferred to an adjacent loop whereby the transferred loops of said second course will be arranged in the knitted web intermediate of the transferred loops of the remaining courses.

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