

No. 669,530.

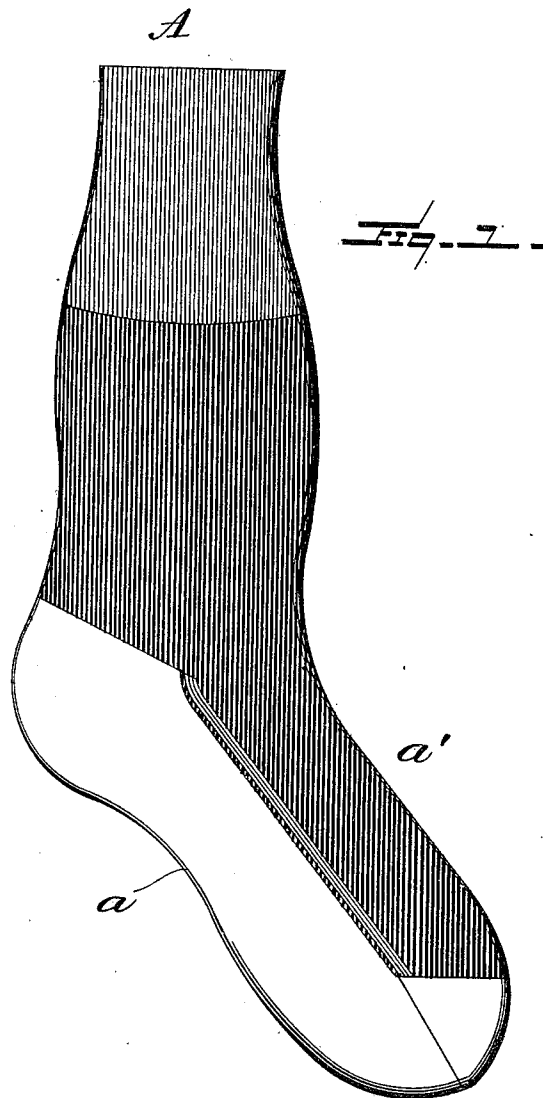
Patented Mar. 12, 1901.

E. E. KILBOURN.
MANUFACTURE OF SEAMLESS HOSIERY.

(Application filed July 12, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 2.

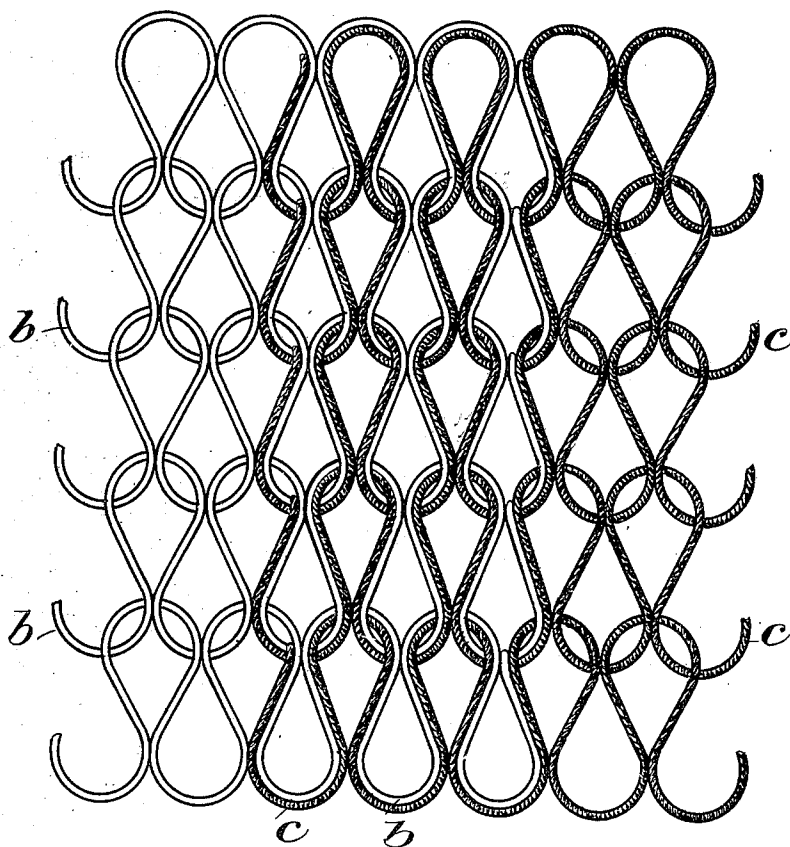
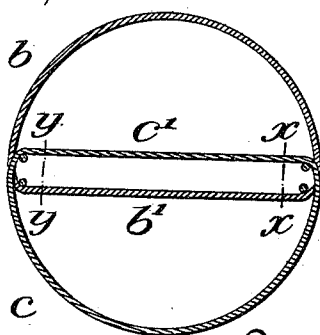


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD E. KILBOURN, OF NEW BRUNSWICK, NEW JERSEY.

MANUFACTURE OF SEAMLESS HOSIERY.

SPECIFICATION forming part of Letters Patent No. 669,530, dated March 12, 1901.

Application filed July 12, 1900. Serial No. 23,375. (No model.)

To all whom it may concern:

Be it known that I, EDWARD E. KILBOURN, a citizen of the United States, residing at New Brunswick, in the county of Middlesex and State of New Jersey, have invented certain new and useful Improvements in the Manufacture of Seamless Hosiery; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to the art of hosiery, and more particularly to the class known as "seamless stockings;" and it consists in a stocking in which the front and rear parts of the foot of the stocking are composed of independent threads which are interlooped or interknit at the sides of the foot, each course of stitches around the foot consisting of two short threads having their ends terminating on the inside of the stocking.

My said invention is illustrated in the accompanying drawings and is disclosed in the following description and claims.

In the drawings, Figure 1 is a side view of a seamless stocking embodying my said invention. Fig. 2 is an enlarged view of five courses at the point of the interlocking of the threads at one side, and Fig. 3 is a diagram indicating the manner in which the two threads are laid in a single course around the foot.

In Fig. 1, A indicates the stocking, *a* the rear part of the foot, and *a'* the front part. The rear is in this instance shown as composed of white yarn or thread and the front of black, though these may be of any preferred colors. The front is usually of the same color as the leg of the stocking and the rear the same as the heel, although this may be changed, if it is desired, and any two colors used for the foot.

These stockings are knit on circular machines by a continuous rotary movement, the threads being each introduced into the knitted web as a continuous thread after the manner indicated in Fig. 3. The thread *b*, which may be assumed to be the thread forming the rear part of the foot, is fed to the needles in the usual manner a little more than half-way around the needle-cylinder, when it is drawn

inward and is no longer knitted into the fabric. At a predetermined point in advance of the point at which the thread or yarn *b* is withdrawn the thread *c*, which is assumed to be the thread knitted to form the front of the foot, is brought into position to be taken by the needles, and the two threads for a short space are both engaged and knitted into the web or stocking. At the opposite side of the cylinder the thread *c* is again carried slightly more than half-way around the cylinder, and the thread *b* is brought into knitting an equal number of needles in advance of the withdrawal of the thread *c*, so that the two threads are knitted together into the web at that side, after which the thread *c* is withdrawn inward. After the foot of the stocking is completed the threads will be found floated across the interior of the foot, as indicated at *b'* and *c'*. These float-threads are then severed on the dotted lines and the stocking finished for the market in the usual manner. The foot will then be found to be composed of short threads, each extending a little more than half-way around the foot and knitted together or interlocked at each side of the stocking. This interlocking of the threads is found to securely fasten the threads, and the web is found to be as strong and durable as when the foot is composed of two continuous threads interlooped at each side.

The two threads may be interknit or interlocked by one, two, three, or more needles, as may be found most desirable. In Fig. 3 the threads are shown as passing together and being jointly acted upon by two needles, while in Fig. 2 the two threads are shown as they would appear when interknit or interlocked by three needles. In this figure, *b* designates the thread for the rear part of the foot, and *c* the thread for the front of the same, and this figure, taken with the diagram shown in Fig. 3, clearly shows the interlocking of the threads and the mode by which it is accomplished. One of the advantages of this mode of making stockings is the greater speed at which the machine can be run while knitting the foot over the mode of making feet of different colors by reciprocating the movable parts and interlooping the threads.

What I claim, and desire to secure by Letters Patent, is—

1. The method of making feet of two colors which consists in supplying two continuous
5 threads, one for the front and one for the rear part of the foot, interknitting them at opposite sides of the foot and floating them across the interior of the stocking, then removing the float-threads, substantially as described.
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2. The herein-described stocking, each course of loops through a portion of which is composed of two short threads of different colors, said short threads having their ends

interlocked with the ends of other threads at
15 opposite sides of the stocking.

3. The herein-described stocking having a foot each course of loops in the main portion of which is composed of two short threads having their ends interlocked with the ends
20 of other threads at opposite sides of the stocking.

In testimony whereof I affix my signature in the presence of two witnesses.

EDWARD E. KILBOURN.

Witnesses:

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