

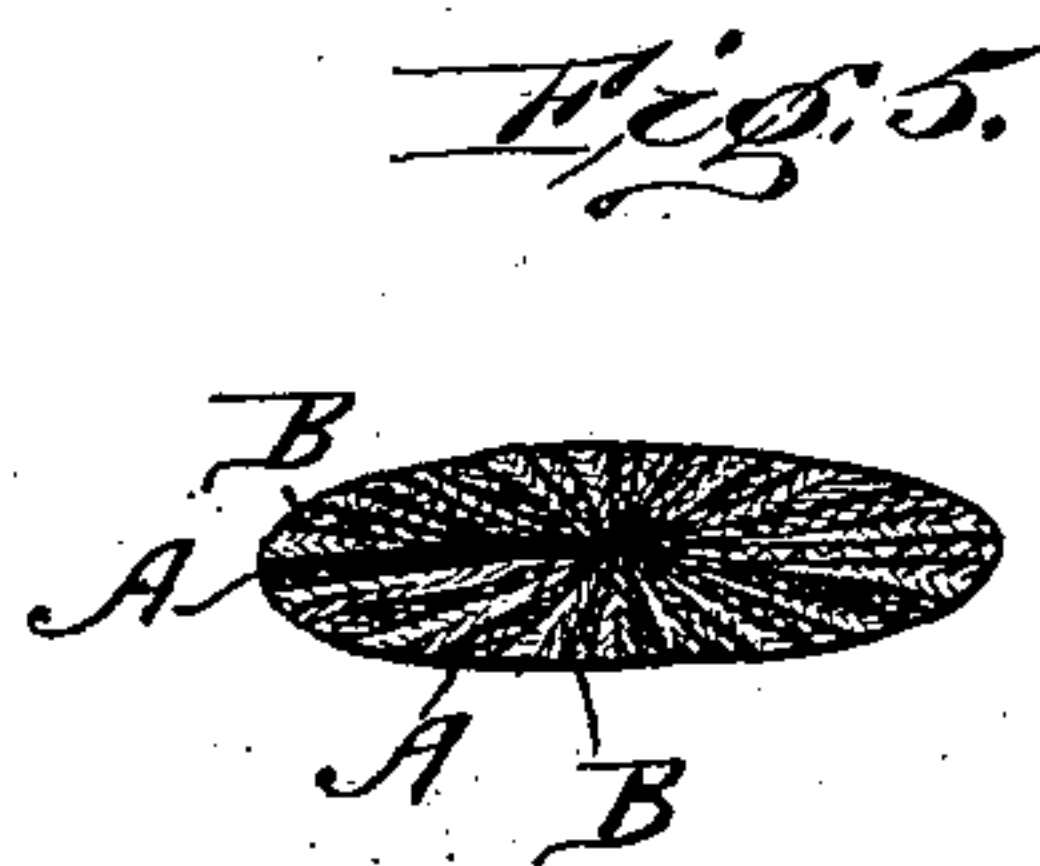
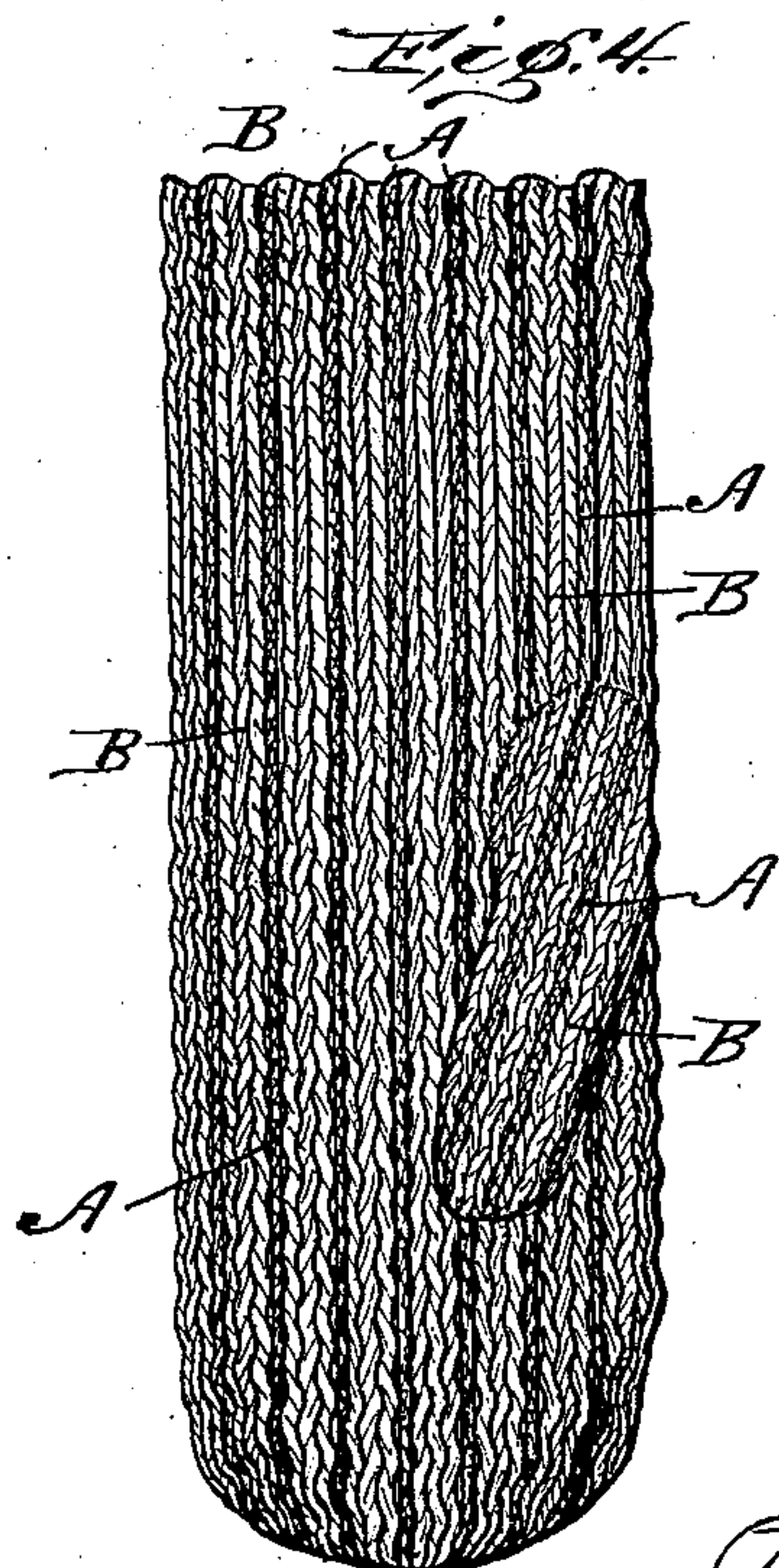
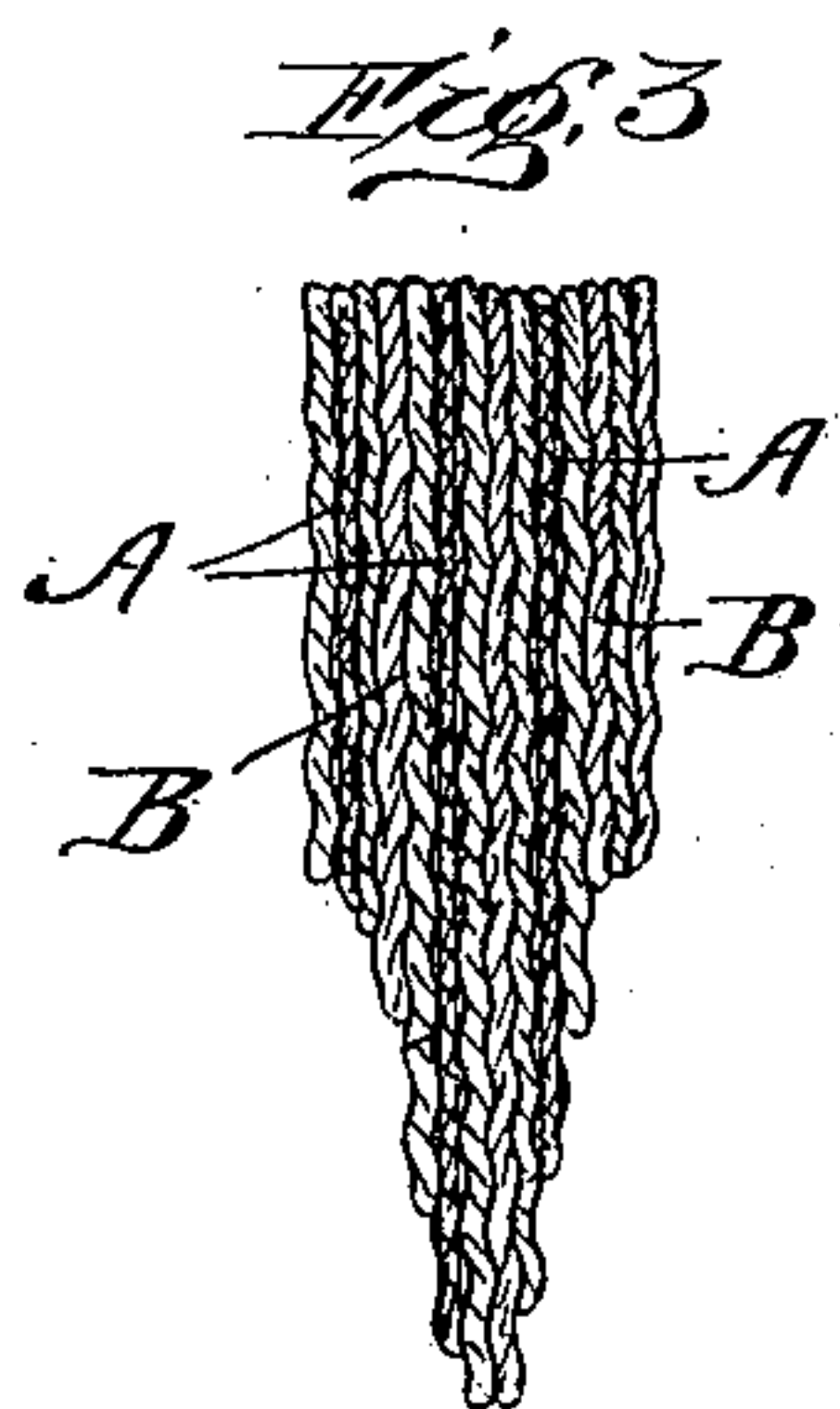
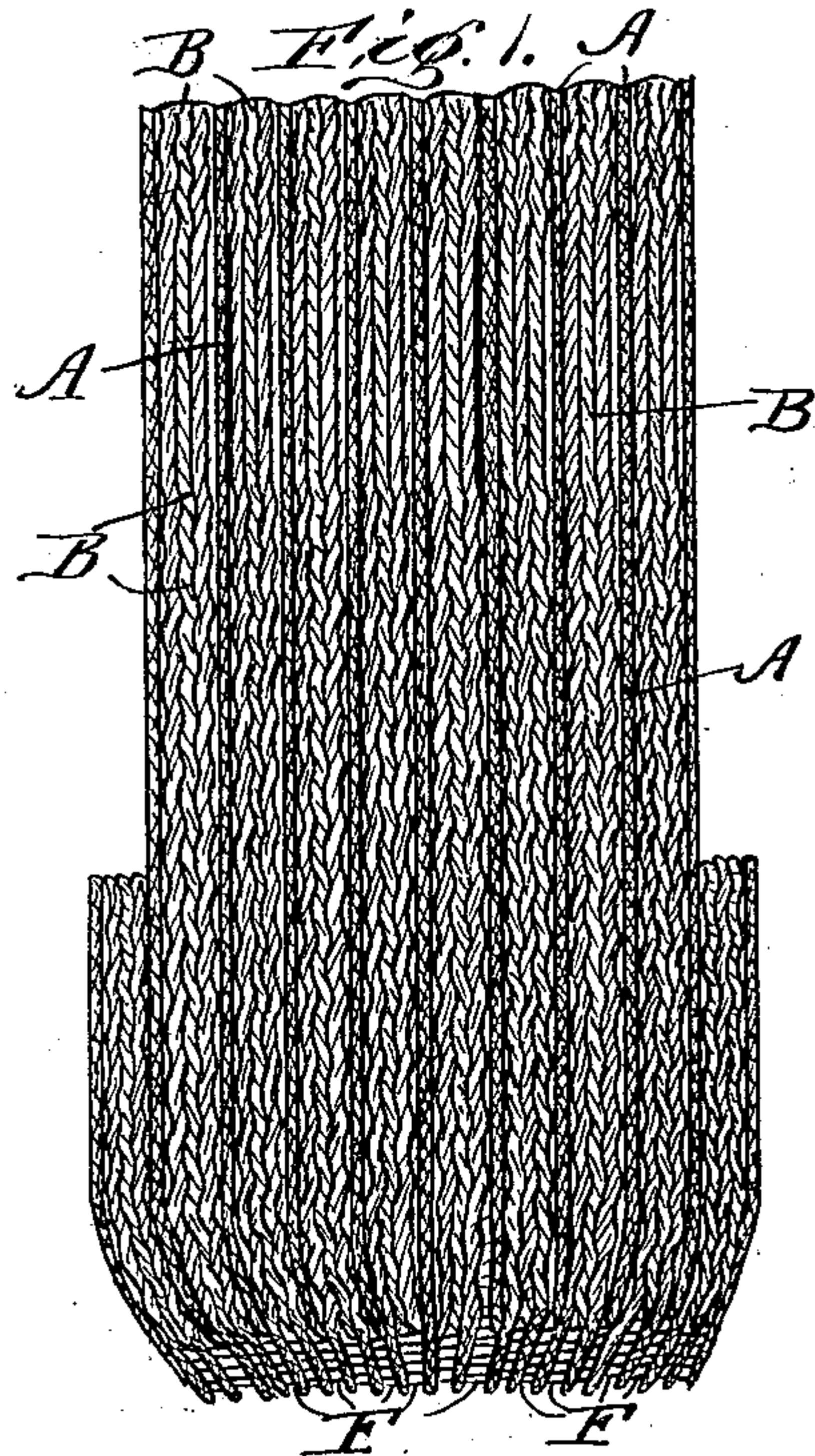
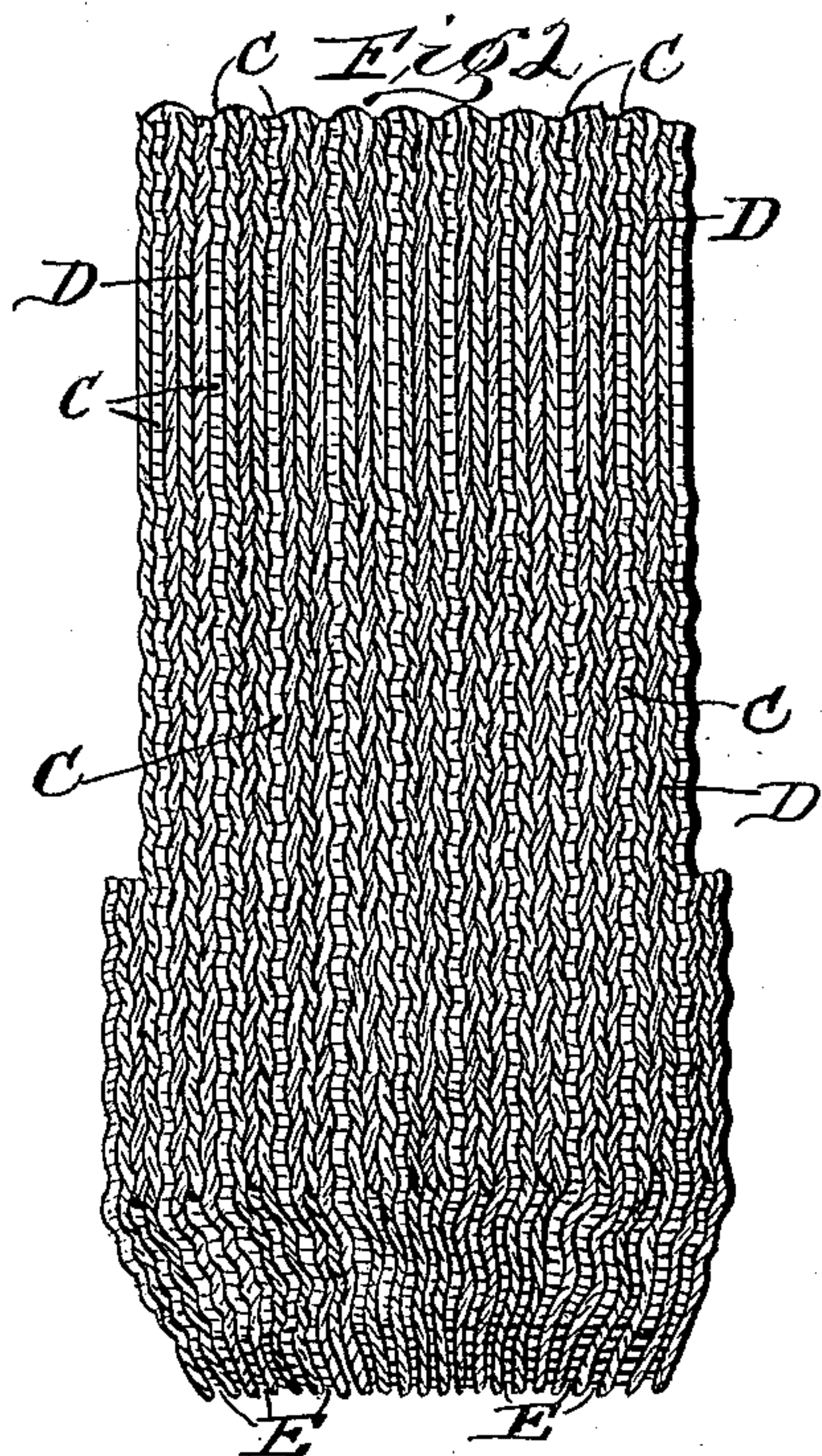
(No Model.)

2 Sheets—Sheet 1.

I. W. LAMB.  
KNIT MITTEN.

No. 601,894.

Patented Apr. 5, 1898.



Witnesses:  
*J. M. Fowler Jr.*  
*May C. Moore*

*Isaac W. Lamb,*  
Inventor  
by *J. M. Moore*  
Attorney



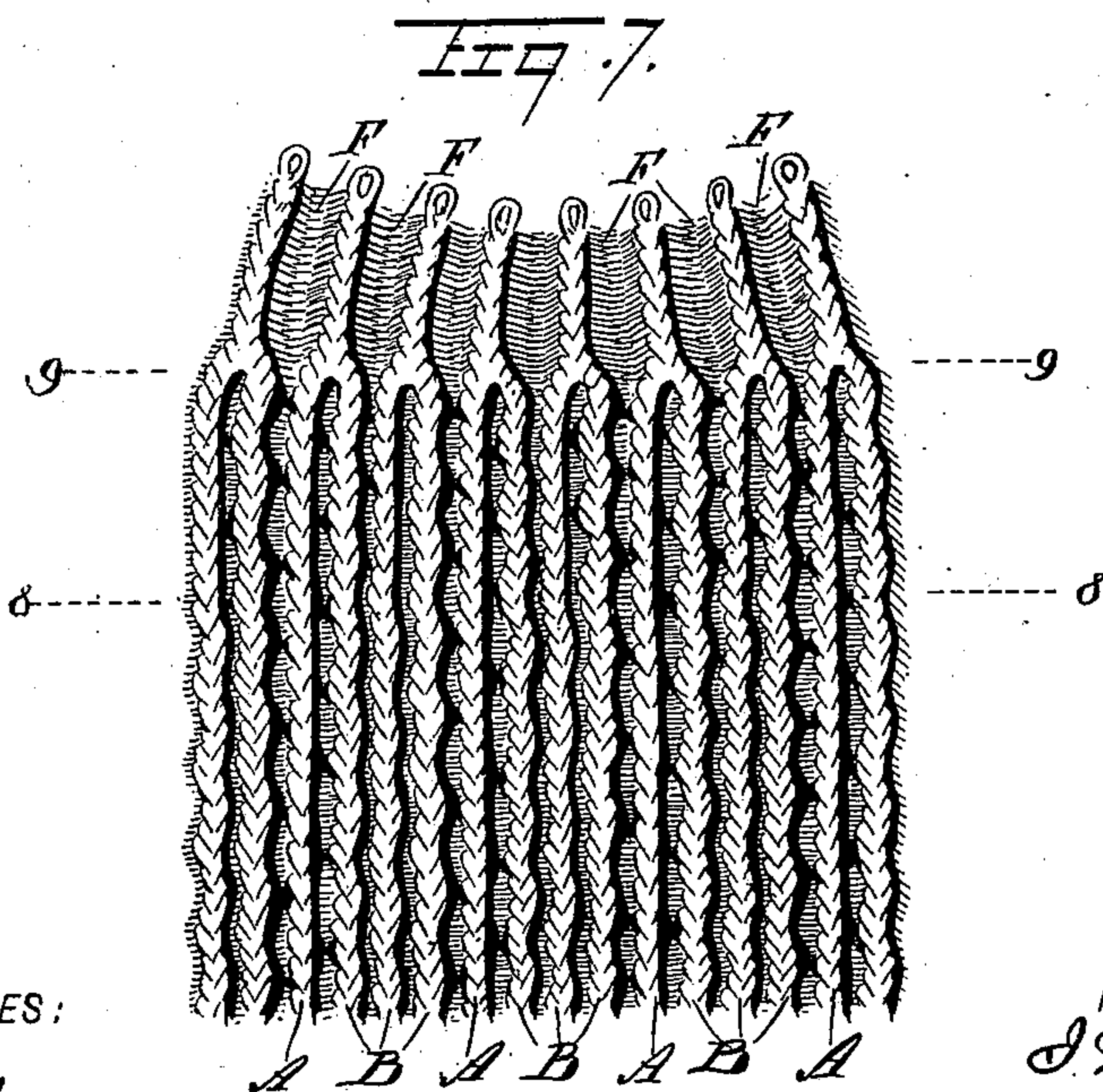
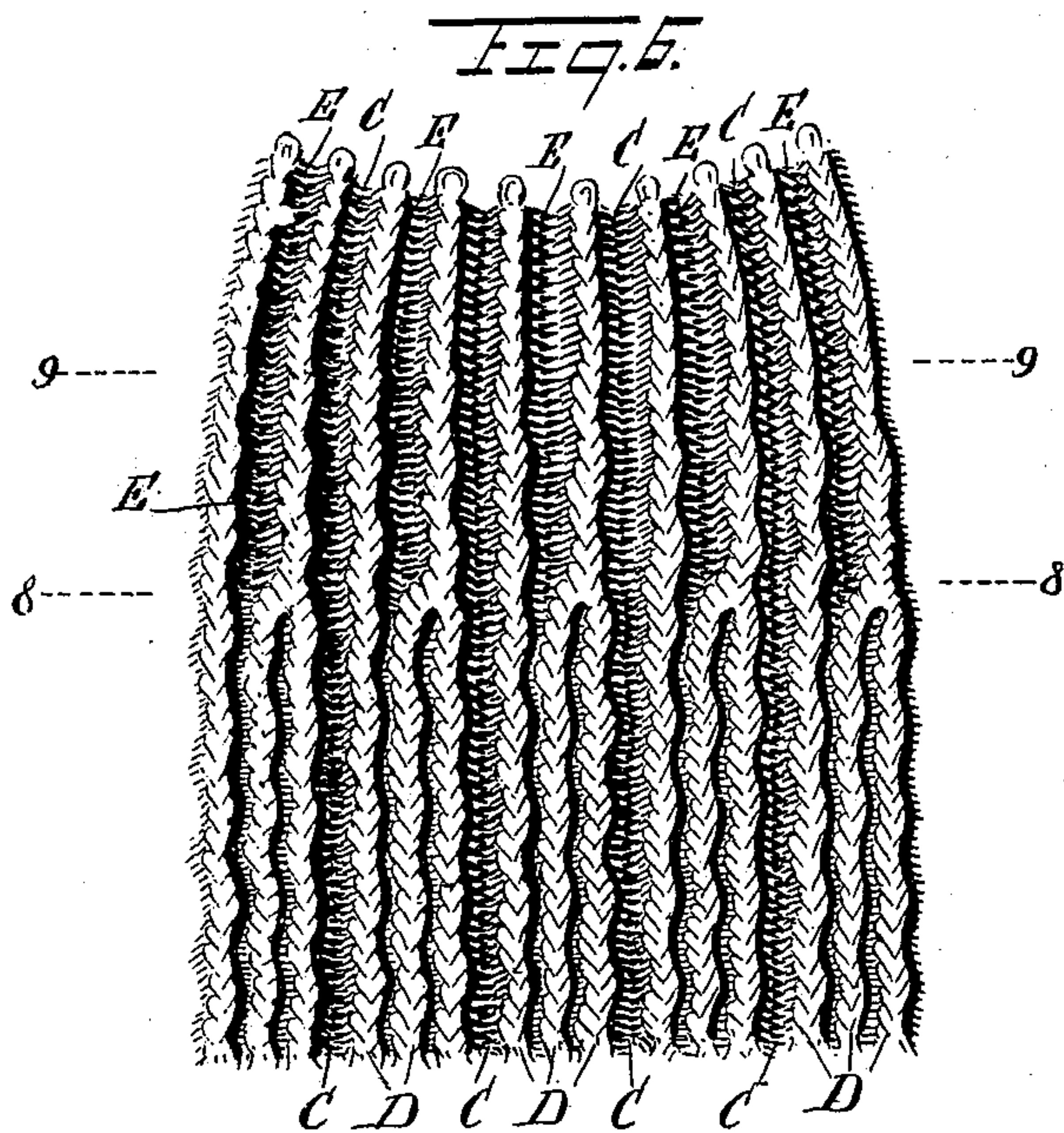
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2 Sheets—Sheet 2.

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KNIT MITTEN.

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WITNESSES:

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INVENTOR

I. W. Lamb.

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ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ISAAC W. LAMB, OF PERRY, MICHIGAN, ASSIGNOR TO THE LAMB GLOVE AND MITTEN COMPANY, OF SAME PLACE.

## KNIT MITTEN.

SPECIFICATION forming part of Letters Patent No. 601,894, dated April 5, 1898.

Application filed June 15, 1896. Serial No. 595,624. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC W. LAMB, of Perry, in the county of Shiawassee and State of Michigan, have invented certain new and useful Improvements in Knit Mittens, of which the following is a full, clear, and exact description.

The invention relates to mittens in which the hand-blank is knit flat and then folded over and the adjoining edges sewed together except at the thumb-opening, and the thumb-blank is likewise knit flat and folded over and sewed together at the edges, and then sewed to the hand-blank at the thumb-opening.

The object of the invention is to provide certain new and useful improvements in mittens of the class described whereby a user is enabled to wear the mitten on either hand, as the seam will occupy the same relative position in either case.

A further object is to materially reduce the cost of production and at the same time form a mitten of high quality and one having a comfortable fit and a neat appearance.

The invention consists principally in a mitten-blank formed of a ribbed fabric having a main portion and a tip of a different rib style than the main portion, the tip being formed by the stitches narrowed in all the courses at the inside, and with some of the stitches narrowed in the last courses and at the outside of the tip.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the outer face of the hand-blank for a mitten. Fig. 2 is a like view of the inner face of the blank. Fig. 3 is a side elevation of the thumb-blank. Fig. 4 is a side elevation of the finished mitten. Fig. 5 is an end view of the tip of the mitten. Fig. 6 is an enlarged face view of the inside of the tip of the hand-blank, and Fig. 7 is a like view of the outside of the tip of the hand-blank.

The hand-blank shown in the drawings is knitted throughout the wrist portion, the palm, and the finger portions in any one of the well-known styles. For instance, the outside of the blank (see Fig. 7) is knitted with every

fourth rib A plain and the intermediate three ribs B racked or shogged, while on the inside of the blank (see Fig. 6) a space or mock rib C is left between every three succeeding ribs D, the latter forming groups, each containing three ribs.

The machine employed for knitting the mitten-blank may be any of the well-known straight-knitting machines, but preferably, however, of the type shown in the application for Letters Patent, Serial No. 640,347, filed by me June 1, 1897, and in which machine the front needle-plate is shogged or racked and is provided with cardigan-cams for knitting the hand-blank, as described. The machine is also provided with the usual cam devices for regulating the throw of the needles for knitting a fabric with a closer or more open mesh. The needles on one of the needle-plates are all in and are actuated, while on the other needle-plate every fourth needle is removed and the loop of this needle is placed on the adjacent needle.

Now when the hand-blank has been knitted as far as described—say up to lines 8 8 of Figs. 6 and 7—and the tip portion of the mitten is reached then the stitch for the middle rib D in each of the groups on the inside of the fabric is narrowed out, the loops being placed on the adjacent needles and the empty needles put out of work. A series of such courses are now knit—say up to lines 9 9 of Figs. 6 and 7—the number being determined by the size and fineness of the yarn and the size of the mitten. During this part of the operation additional mock ribs E are alternately formed with the remaining ribs D, as is plainly shown in Fig. 6, and both sets of ribs are continued until the extreme end of the tip is reached. During the knitting of the courses between the lines 8 8 and 9 9 the ribs on the outside of the blank are alternately shogged, as indicated in Fig. 7. When, however, a desired series of courses has been completed up to lines 9 9, as above described, then alternate stitches on the outside of the tip are narrowed out by placing the loops on the adjacent needles and putting the empty needles out of work. In doing so mock-ribs F are formed on the outside of the fabric to the end of the tip. At the same time the



throw of the needles is changed, by adjusting the cam devices accordingly, to knit a close-mesh fabric to the end of the tip. The racking or shogging device is moved out of action during the knitting of the last set of courses of the tip by holding the reciprocating needle-plate stationary, as described in the patent application referred to, and it is expressly understood that the shogging ceases during the time the outside of the blank is narrowed down. It is desirable to continue the shogging after narrowing out the stitches on the inside of the mitten up to the point where the stitches are narrowed out on the outside of the mitten, and then the shogging should cease. The thumb is knitted in the same manner—that is, the tip end may be narrowed first on the inside then on the outside, and at the same time the last courses are knitted closer to the end of the tip. The thumb may be narrowed in the ordinary manner at the edges, if preferred, since but little narrowing is required on the thumb.

Now it will be seen that the main portion of the hand or thumb blank, as shown, is knitted in a three-to-one rib. The first set of courses of the tip has a two-to-one rib, and the extreme end or last set of courses of the tip has a one-to-one rib with a closer mesh. In finishing the hand-blank formed as above described is folded over upon itself and the edges of the tip sewed together. The side edges are also sewed together, except at the point where the thumb is to be introduced. The thumb-blank is secured to the hand-blank with the seam uniting the edges of the blank running together down the inside and meeting the seam of the blank. By this construction, no matter on which hand the mitten is placed, the said seams will occupy the same relative positions and by their location will be concealed in a great measure from view.

It will be seen that by forming the mitten as described the tip is not knitted as firm as the rest of the mitten; but as the loops or

stitches are drawn closely together at the tip it is evident that a perfect mitten is produced, giving the desired warmth to the ends of the wearer's fingers.

I do not confine myself to the particular style of rib more particularly herein described, but intend to use any style of rib which may be found desirable. On small mittens especially I often use a two-to-one rib and then only narrow on the outside of the tip. For boys' mittens I also often use a one-to-one rib. In the latter case I narrow out every alternate stitch, first on the inside of the fabric, and then after knitting a few rounds I narrow on the outside of the fabric, tightening the stitch after the narrowing on the outside, and also stopping the shogging immediately after the narrowing on the outside.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A mitten-blank formed of a ribbed fabric having a main portion and a tip of a different rib style than the said main portion, the tip being formed by the stitches narrowed in all the courses at the inside, and with some of the stitches narrowed in the last courses and at the outside of the tip, substantially as shown and described.

2. A mitten-blank formed of a ribbed fabric having a main portion and a tip of a different rib style than the said main portion, the tip having stitches narrowed in all the courses at the inside of the tip and with some of the stitches narrowed in the last courses and at the outside of the tip, the meshes in all the courses being closer than those of the preceding courses, substantially as shown and described.

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

ISAAC W. LAMB.

Witnesses:

W. S. BARRETT,  
S. J. WHITFORD.