

# G. Jelley. Knit Fabric.

N<sup>o</sup> 80,183.

Patented Jul. 21, 1868.

Fig. 3.

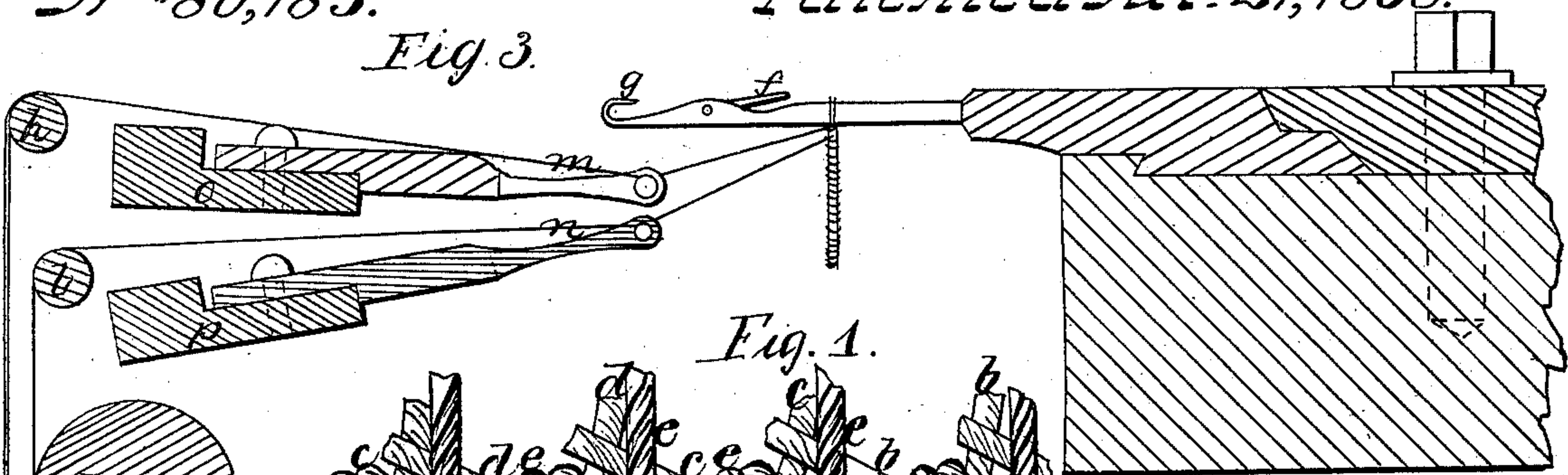


Fig. 1.

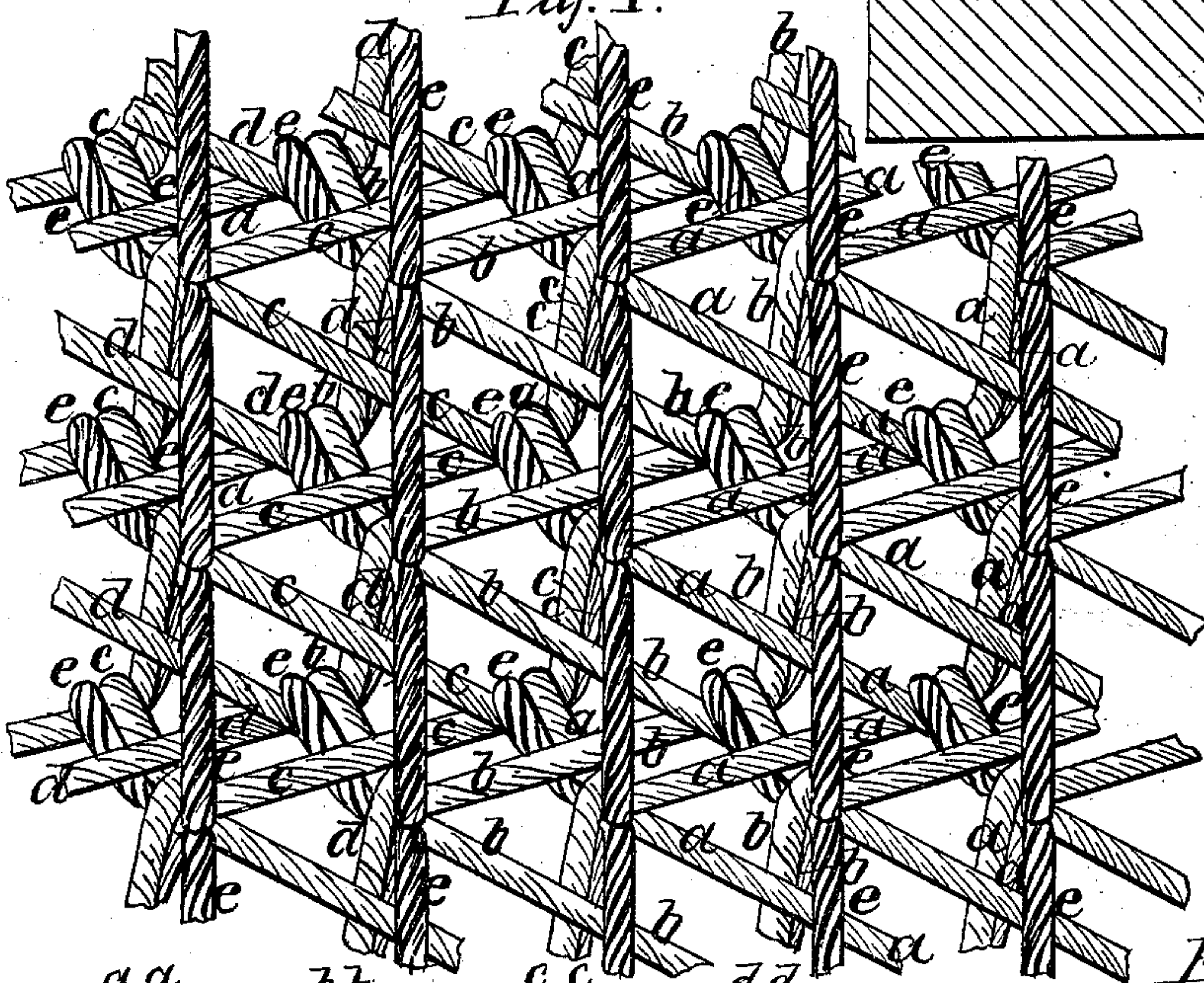
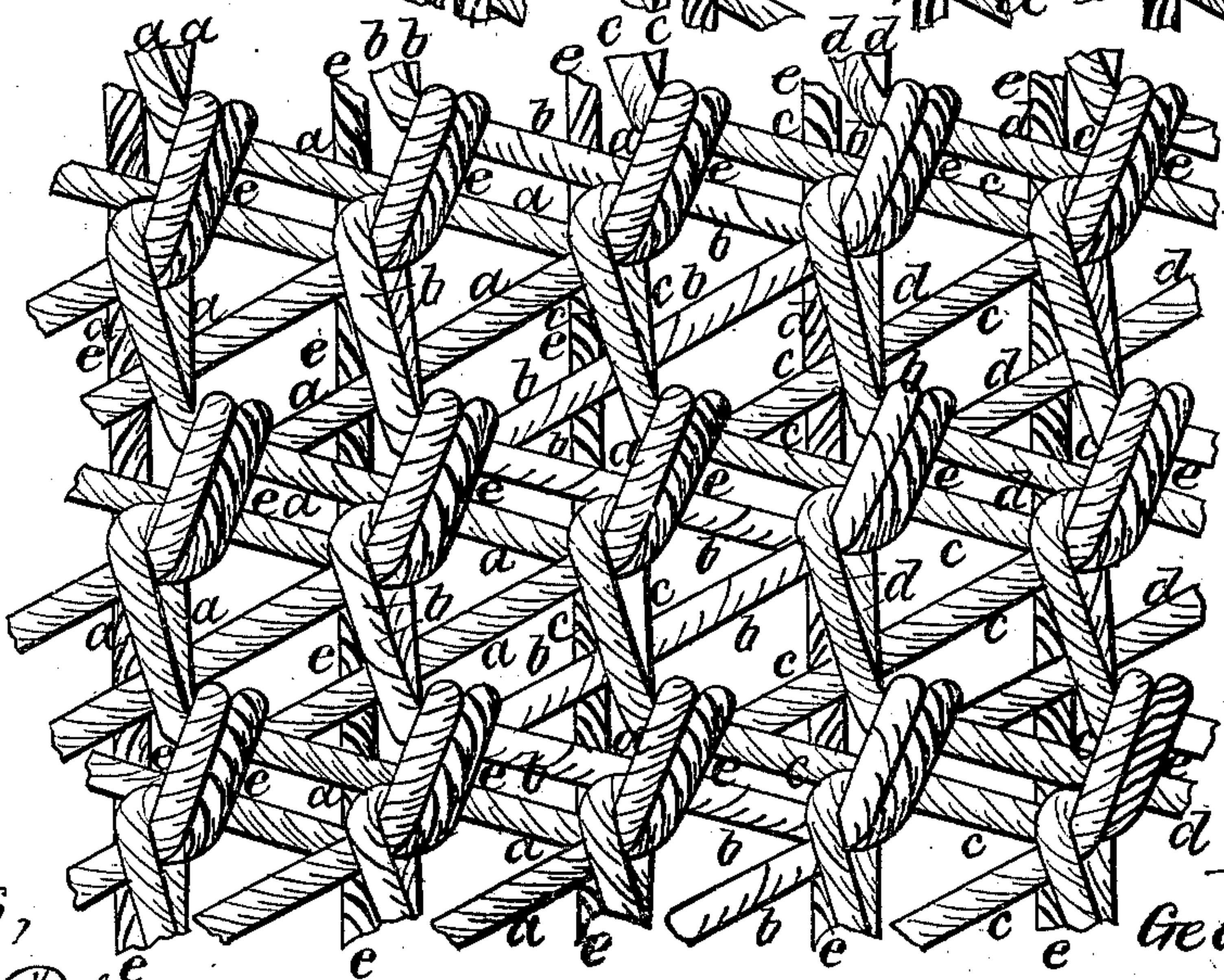


Fig. 2.



Witnesses,

D. N. Paper  
John R. Snow.

Inventor,  
Geo. Jelley.

by his attorney,  
R. U. Eddy.



# United States Patent Office.

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*Letters Patent No. 80,183, dated July 21, 1868.*

## IMPROVEMENT IN KNITTED FABRIC.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, GEORGE JELLEY, of Roxbury, in the county of Norfolk, and State of Massachusetts, do hereby declare that I have invented a new or improved Knit Fabric; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 exhibits a front view, and

Figure 2 a rear view of a piece of such fabric as it appears when stretched both widthwise and lengthwise.

These figures exhibit the method of interlooping the threads or yarns to form the fabric.

Figure 3 is a sectional view of mechanism as used in the making of such fabric.

For instance, if we have a series of yarns, *a, b, c, d, &c.*, of which one, for instance, is colored red, and the rest blue, and we have another series, *e e e, &c.*, of white yarns, they are to be interlooped in the manner as shown in the drawings, the same serving to represent loops of the white yarns on the face of the fabric, as arranged in straight parallel lines on the ground or main knitting, composed of the blue and red yarns.

Each of the ground-yarns is run in a zigzag across three others of such ground-yarns. At each angle of the zigzag there is a loop in the yarn. One of the loops, at one angle, receives two loops, one of which is from one of the yarns *e*, and the other from one of the ground-yarns. The other loop, or that at the next angle, lies against a loop of white yarn, and receives a ground-yarn, and a loop of another ground-yarn, the whole being as represented in the figures.

The fabric, when produced with yarns colored in different colors, as described, presents a very ornamental and beautiful appearance, and, besides, is a very strong fabric.

In making the above fabric, I employ a knitting-loom, having one range or set of hooked needles, each of which may be provided with a latch, as shown at *f*, in fig. 3, in which the hooked needle of such latch is exhibited at *g*.

With the needles, the sinkers are to be employed, as usual.

Besides the needles and sinkers, the loom is to have two beams or rollers, *h i*, two guide-rollers, *k l*, and two sets of eyed guides, *m n*, such guides being extended from two horizontal bars, *o p*.

To prepare the machine for knitting the fabric, the ground or red and blue yarns are to be wound on the beam *i*. The white yarns are to be wound on the beam *h*.

Next, the blue and red yarns are to be run alternately through the guides *m*, that is, so that there shall be a blue yarn in one guide and a red yarn in the next one, the yarns being arranged in this order throughout the series of guides *m*. Thus every two of the ground guides, *m*, will contain yarns of different colors, blue and red, one yarn of one color being in one guide, and the other being in the other.

When, however, the ground-yarns are of any different color or colors, they are to be similarly arranged, it being understood that the upper guides, *m*, are to receive the ground-yarns, of whatever color or colors they may be. The white yarns from the beam *h*, equal in number to the ground-yarns, are to be run through the guides *n*, also equal in number to the guides *m*.

Loops of the ground-yarns are next to be formed on the needles, and moved back on their shanks by means of the sinkers.

The upper bar should next be moved a distance of two needles to the left, and next be moved upward, so as to cause the yarns of its guides to pass up between the needles. Next, the said bar is to be moved to the right, over the needles, a distance of one needle. Next, it should be moved downward, so as to form loops on the needles. Next, the sinkers should be moved, so as to move or cast the back loops off the needles, and over the new loops thus made. These latter loops should next be moved back on the stems of the needles by the sinkers. Next, the upper bar is to be moved to the right a distance of two needles, and passed up, so as to cause its guides to rise between and above the needles. At the same time, the lower bar is to be moved upward,

so as to carry its yarns up between the needles. Next, the upper bar, *o*, should be moved to the left, and the other, *p*, should be moved to the right, each going a distance of one needle. Next, both bars are to be brought down, so as to form loops. Next, the sinkers should be put in operation, so as to cast off the back loops, and cast them over the loops last formed. This completes the operation, which, being successively repeated, will cause the fabric to be formed.

I claim the arrangement and combination of the series of ground-yarns, *a b c*, and the series of stripe-yarns, *e e e*, in the manner substantially as described, so as to produce a knit fabric, on which the stripe-yarns will appear on one side of the fabric, in right-line parallel ranges, as set forth.

GEORGE JELLEY.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.