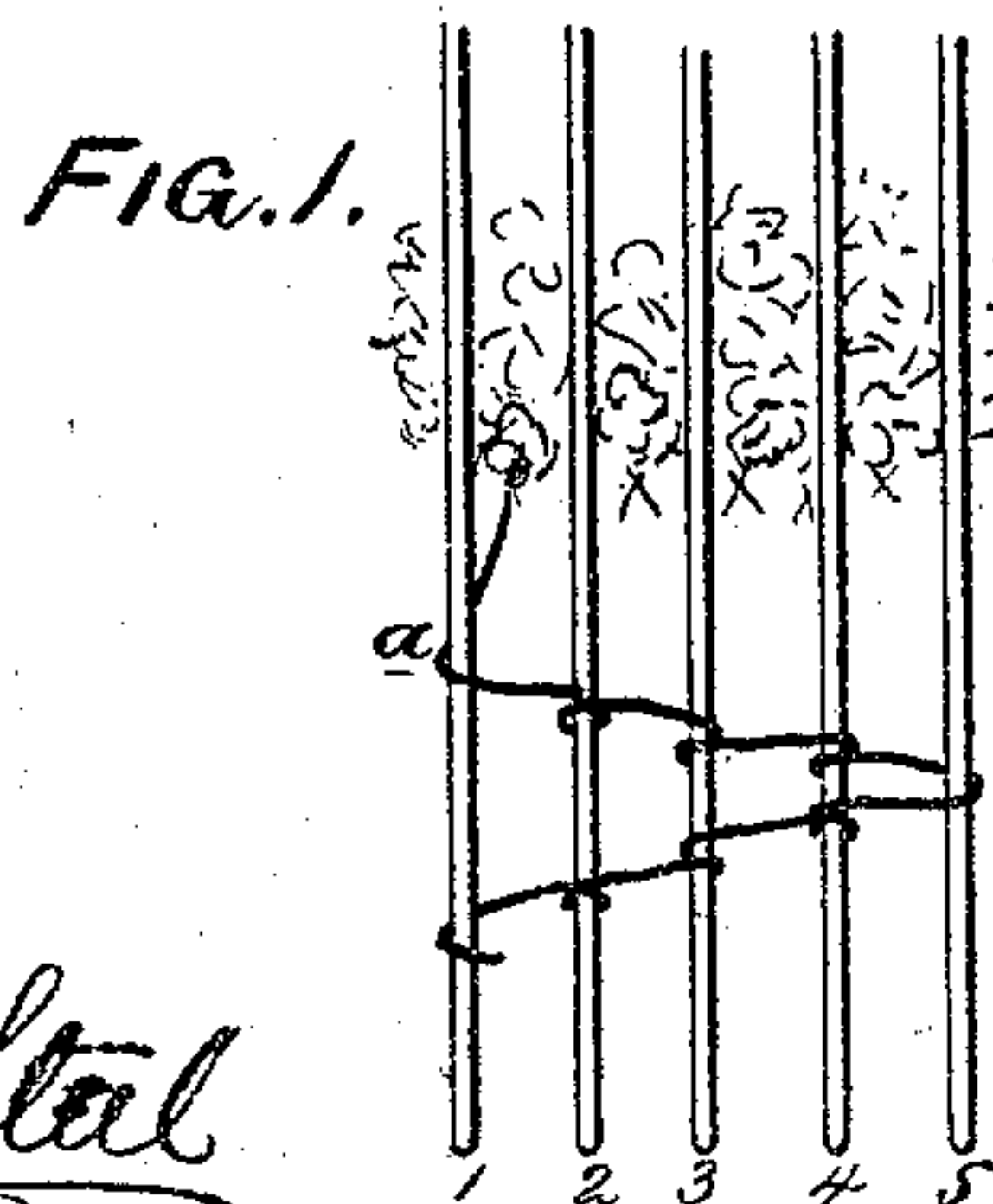
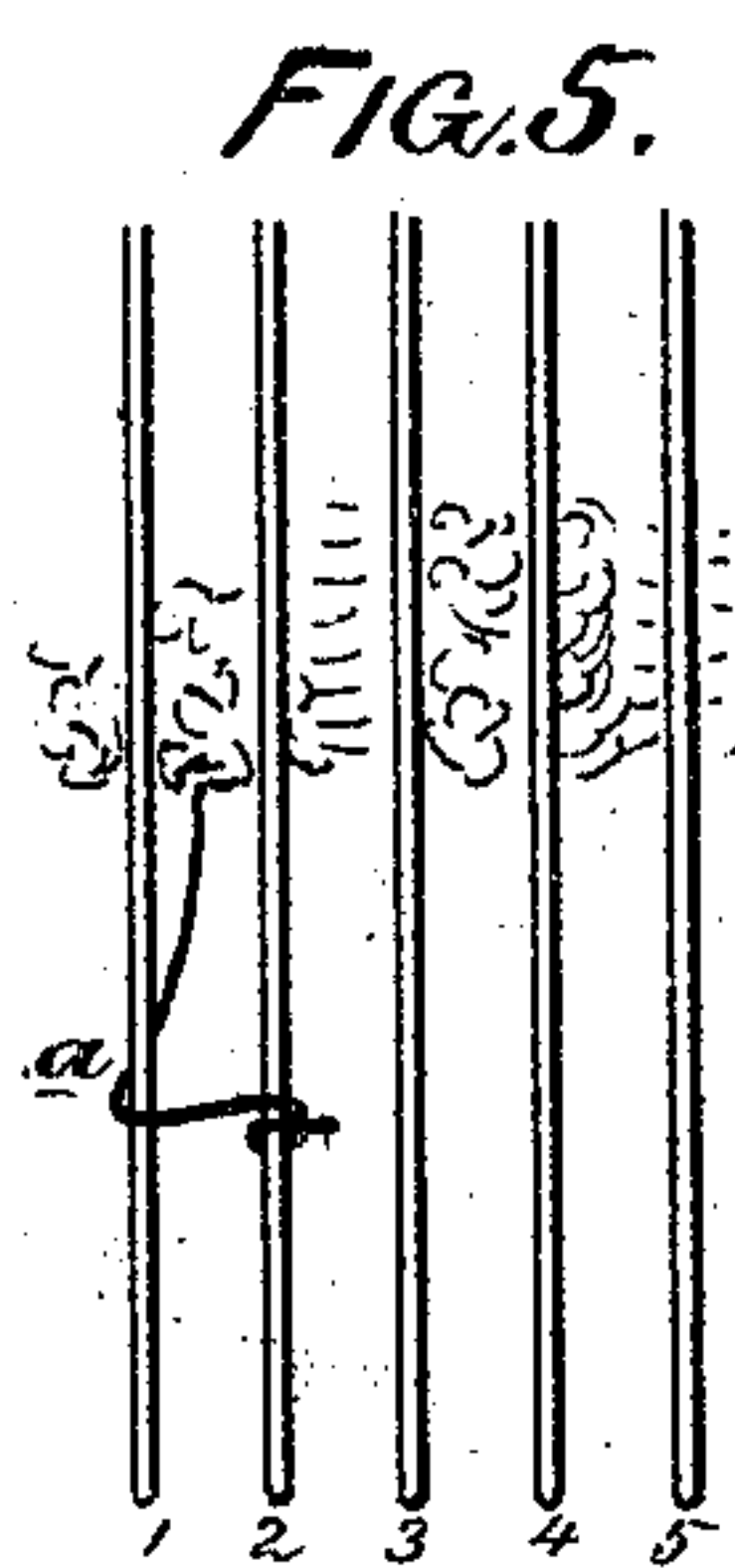
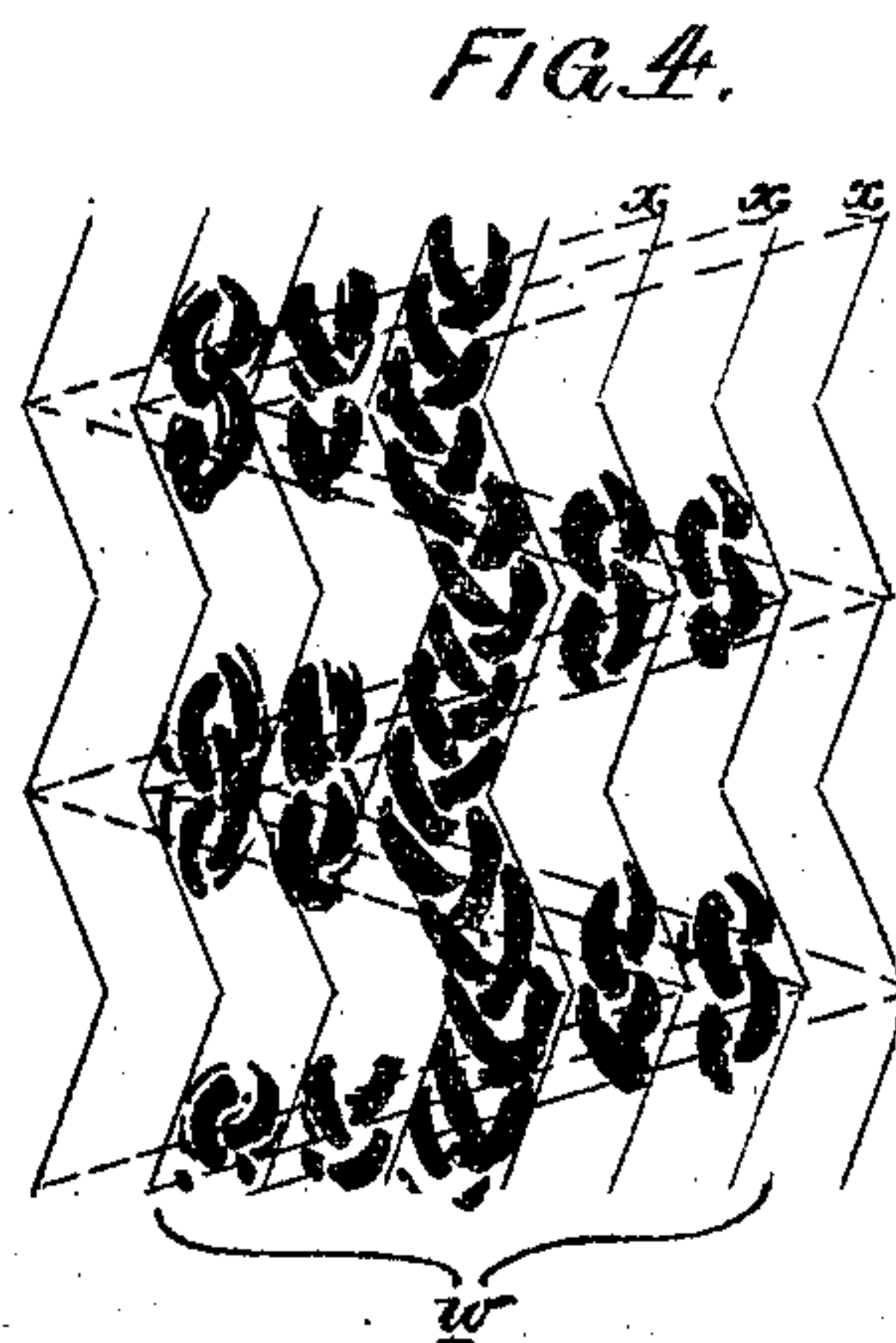
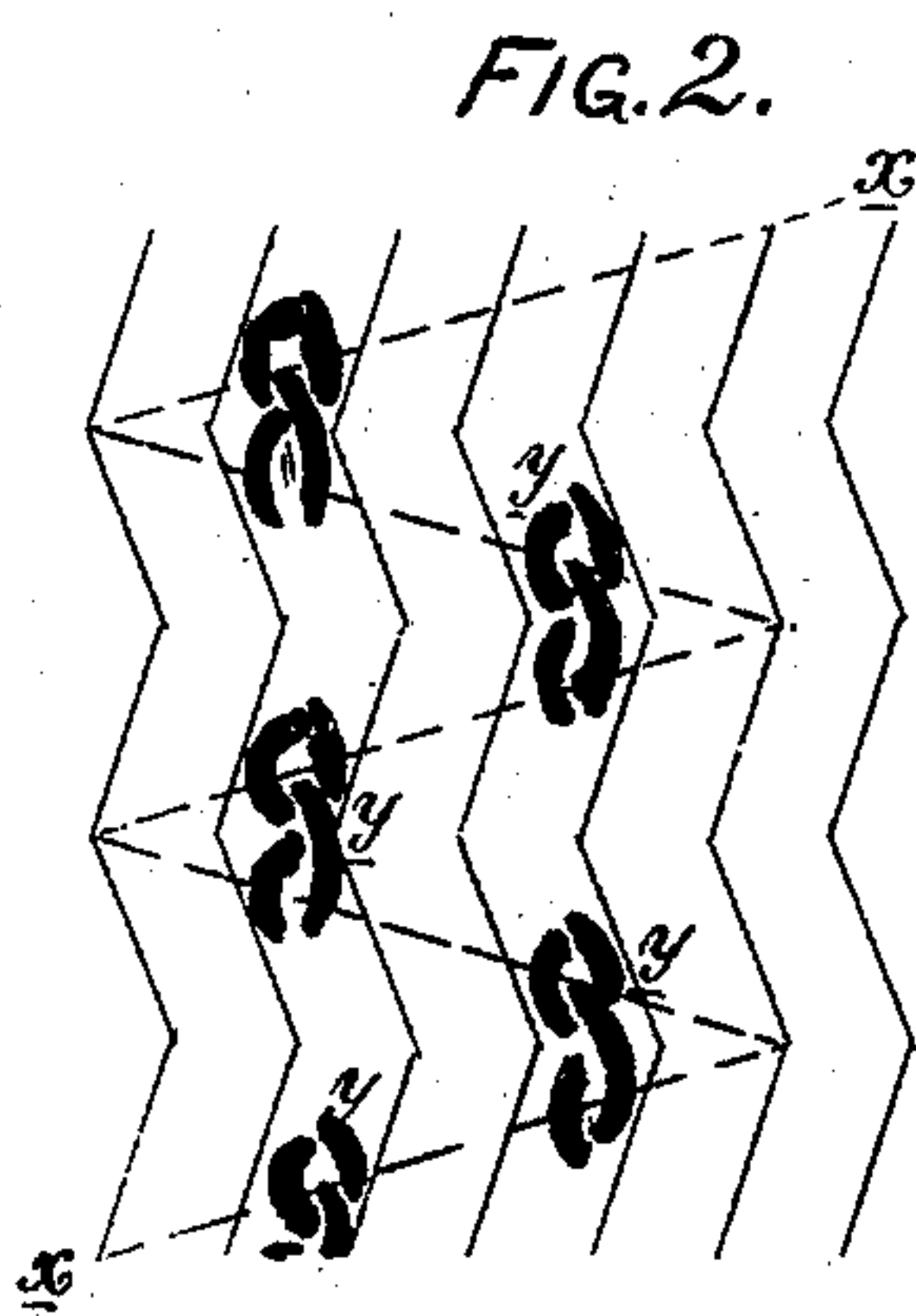


H. BOOT.

Improvement in Knit Fabrics.

No. 130,467.

Patented Aug. 13, 1872.



Witnesses.

Wm. A. Steel
John Parker

Henry Boot
by his Attor.
Hewson and Son

UNITED STATES PATENT OFFICE.

HENRY BOOT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THOMAS DOLAN, OF SAME PLACE.

IMPROVEMENT IN KNIT FABRICS.

Specification forming part of Letters Patent No. 130,467, dated August 13, 1872.

Specification describing an Improved Knitted Fabric, invented by HENRY BOOT, of Philadelphia, Pennsylvania.

Improved Knitted Fabric.

The object of my invention is the production of a knitted shawl or stocking fabric having a body composed of parallel waved ribs, on which, by the introduction of different-colored threads, can be caused to appear rows of dots, or stripes having broken or castellated edges. This object is attained by a peculiar lapping and traversing of each thread of the fabric upon five of the needles of an ordinary knitting-machine, as best observed in Fig. 1, the nature of the fabric and the course of the threads composing the same being shown in Fig. 2.

In producing the fabric each thread, *a*, Fig. 1, is caused to traverse five needles, first in one direction and then in the other, the thread being traceable in a zigzag direction at the back of the fabric, as indicated by dotted line *x* in Fig. 2. The thread, although lapped around each needle, is "pressed off" to form the required loops only after it has passed around two needles, or after having made a double lap, which occurs with the needles 2 and 4, Fig. 1, when the thread is traversing to the right, and with the needles 4 and 2 when it is traversing to the left, the result being that the loops of thread appear only at corresponding intervals upon the face of the fabric, thus forming a double row of loops or dots, *y*, Fig. 2, upon the latter. When all of the threads are of one color these loops or dots, taken together, form the waved ribs *z*, Fig. 3, of which the surface of the fabric is composed; and when the threads are of different colors waved stripes having broken or castellated edges may be produced by means of the said loops or dots, as shown in Fig. 4. The course of each thread in traversing five needles of the machine, first in one direction and then in the other, and the character of the stitch, are shown more in detail in Figs. 5, 6, 7, 8, and 9, where it will be observed that the thread *a* is first lapped over the bearded needle 1, after which the machine "knocks off" without "pressing." The thread is then lapped over the needle 2, and is then

pressed off of both needles to form the required loops. This finishes the first course, or first double lap, and produces one of the loops of which each dot *y* on the surface of the fabric is composed. The thread is next lapped over the needle 3, Fig. 6, on which it is retained until lapped over the needle 4, when it is again pressed off of both. After this the thread is lapped around the needle 5, Fig. 7, and is then returned to the needle 4, from which, as well as from the needle 5, it is again pressed. The thread is next lapped around the needles 3 and 2, Fig. 8, and, after having been pressed, is lapped around the needle 1, to be again returned to the needle 2 and pressed. This completes the stitch, the operation being repeated in precisely the same manner with the whole number of threads as long as the knitting is continued. The waved ribs *z*, Fig. 3, upon the face of the fabric are composed entirely of the loops formed, as above described, by pressing the several threads after every second lap, and each dot *y*, Fig. 2, is composed of two loops of the same thread united, one of the said loops being formed when the thread traverses in one direction, and the other upon the same needle when it traverses in the opposite direction. A double row of dots, *y*, may be thus produced by the use of a single thread of a color differing from that of the other threads. With three threads of a color differing from that of the body of the fabric a stripe, *w*, Fig. 4, having broken or castellated edges will be produced, and this stripe may, by the use of an additional number of threads, be increased in width or be variegated by using threads of different colors.

I claim as my invention—

A knitted fabric produced by causing each thread to traverse five needles, first in one direction and then in the other, and by pressing the needles so as to draw off the loops from the same after every second lap of the thread.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY BOOT.

Witnesses:

CHAS. H. SALMON,
JOHN K. RUPERTUS.