

(No Model.)

I. KINNEY.

WIRE FABRIC AND METHOD OF MAKING THE SAME.

No. 415,673.

Patented Nov. 19, 1889.

FIG. I.

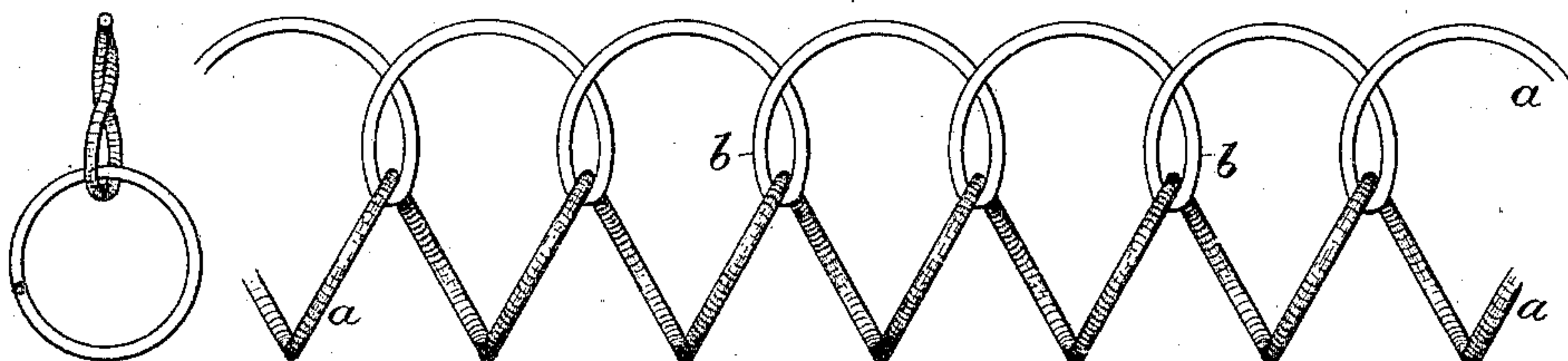


FIG. II.

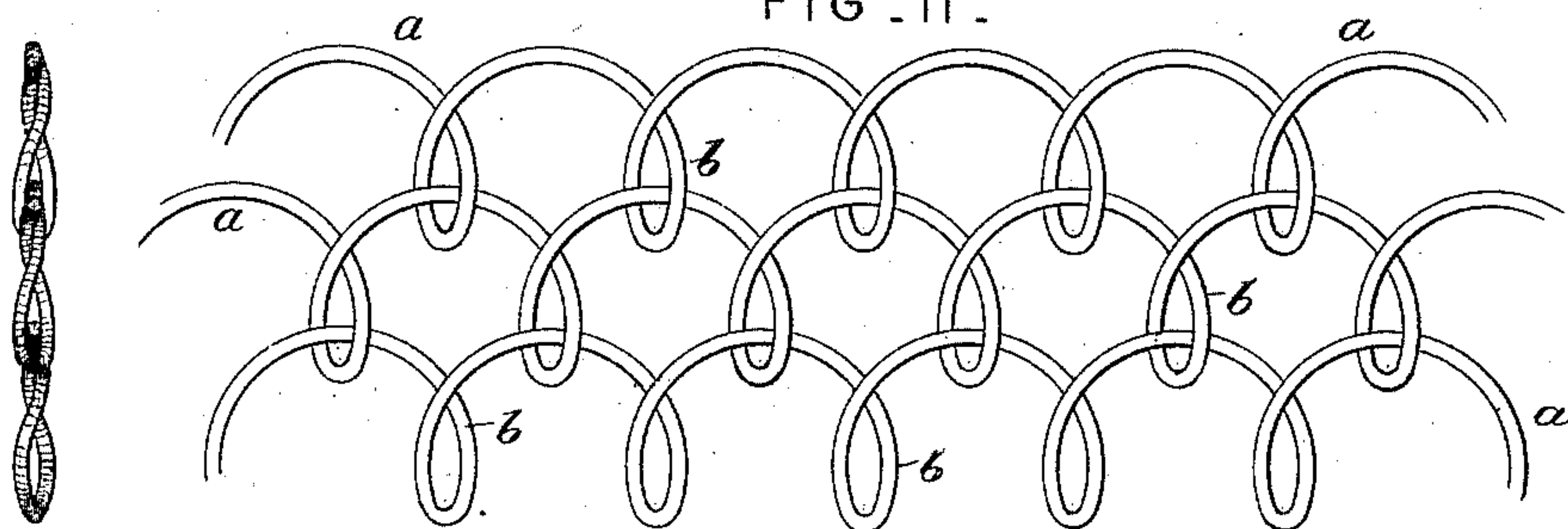


FIG. III.

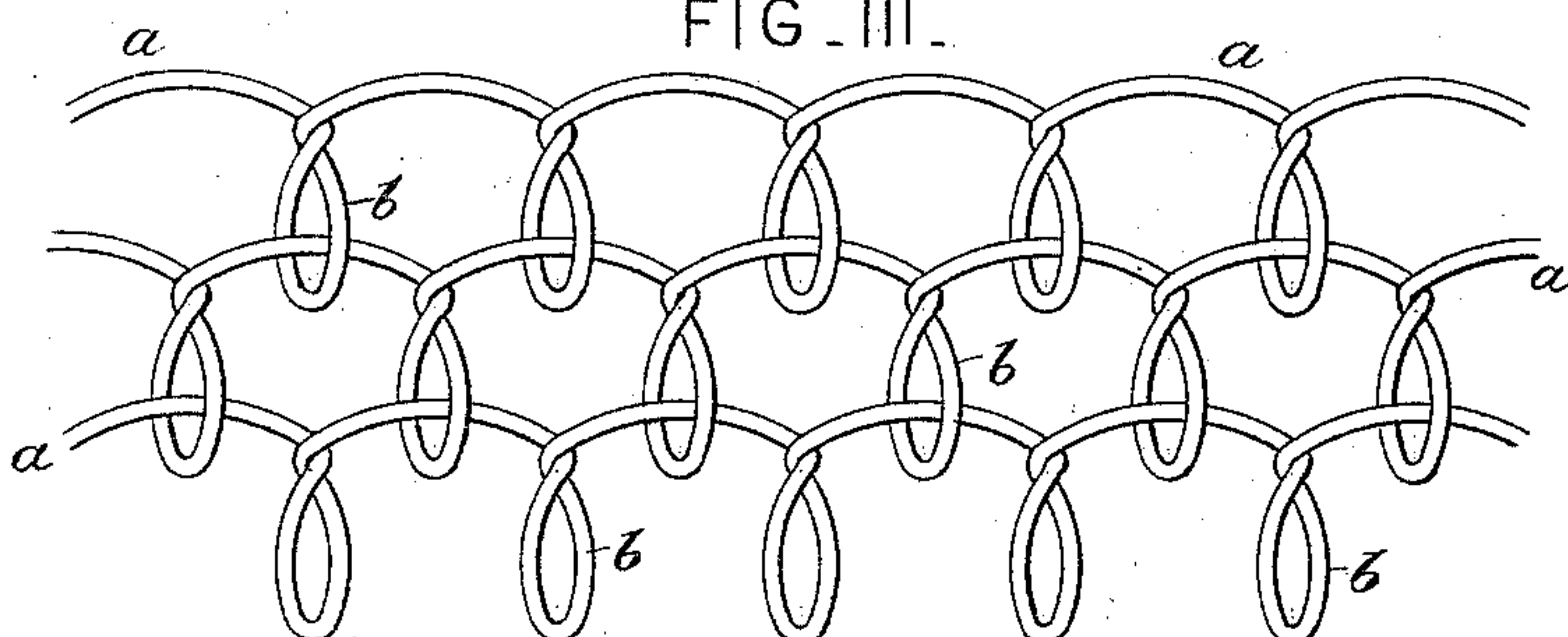


FIG. IV.

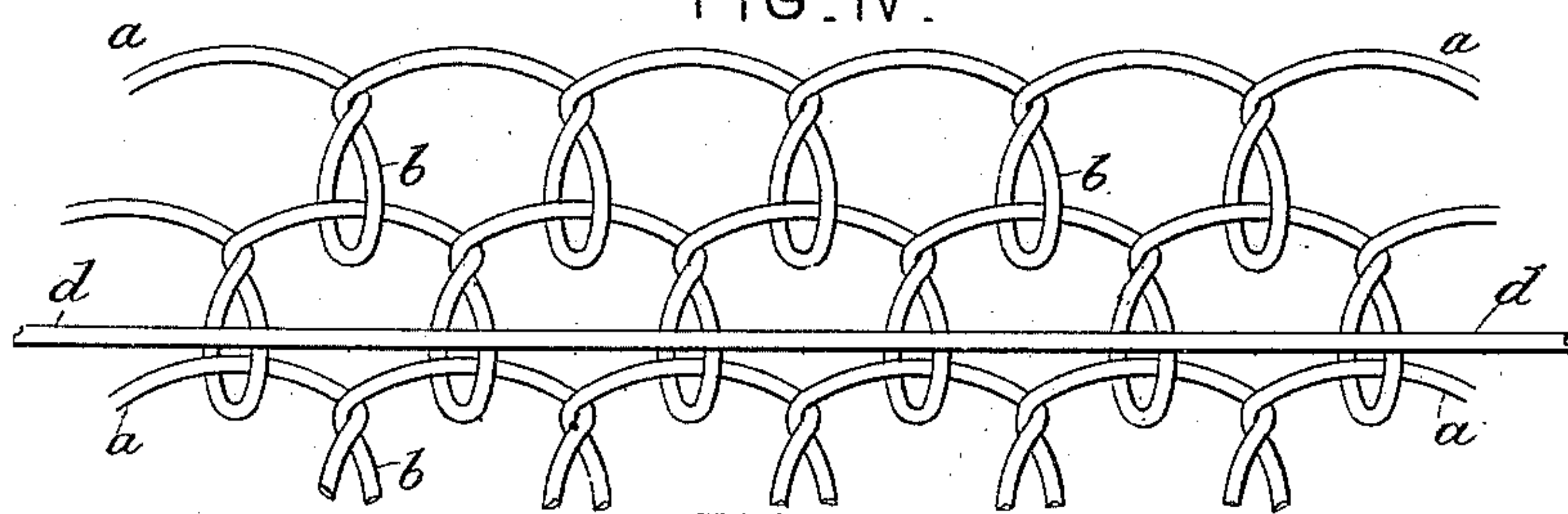
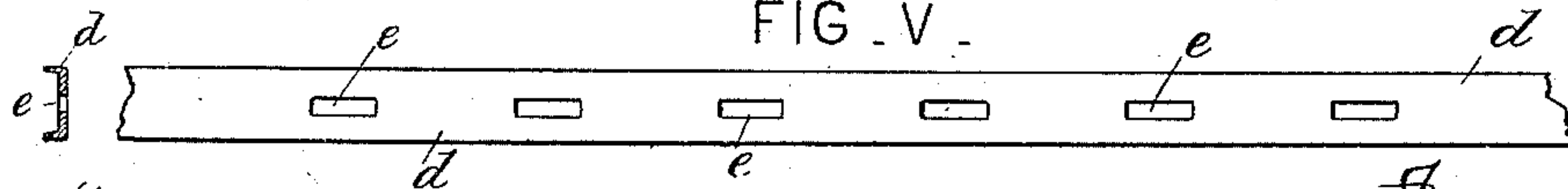


FIG. V.



Attest:
Geo. T. Smallwood
Geo. L. Wheelock

Inventor
Israel Kinney
By Knight Bros.

UNITED STATES PATENT OFFICE.

ISRAEL KINNEY, OF BRANTFORD, ONTARIO, CANADA.

WIRE FABRIC AND METHOD OF MAKING THE SAME.

SPECIFICATION forming part of Letters Patent No. 415,673, dated November 19, 1889.

Application filed August 9, 1889. Serial No. 320,295. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL KINNEY, a subject of the Queen of Great Britain, residing at Brantford, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Wire Fabrics and Method of Making the Same, of which the following is a specification.

Fabrics of wire have heretofore been made having a general appearance similar to mine; but the manner in which the fabric is made up and pressed is such that a loose fabric is produced.

The object of my invention is to so make up the fabric that the wires thereof shall be tight, but at the same time permit more or less flexibility of the fabric.

To this end my invention consists, essentially, in combining one coil of wire with another—one at a time—by first pressing or flattening down a single coil, and into the series of small loops thus formed I run another coil and press or flatten it down, and so on until the desired width of fabric is obtained. This makes a tight fabric, and it cannot be made by flattening all the coils together, or in any other way. The loops are all reversed from those where the coils are all flattened down together.

In order that my invention may be fully understood, I will proceed to describe the same with reference to the accompanying drawings, in which—

Figure I represents the first coil of wire flattened down and its contiguous coil in place ready to be flattened down. Fig. II represents the completed fabric. Fig. III represents a fabric made after my invention, having each loop twisted. Fig. IV represents a fabric, as in Fig. III, having a stiffening rail or strip. Fig. V is a plan view of the stiffening-strip.

In carrying out my invention, a coil of wire such as *a* is taken. This is flattened down, producing elliptical loops *b*. Another coil of wire *a* is run through the loops *b*, as shown in Fig. I, and this is flattened down, also producing loops *b*. This operation is repeated until the desired width of fabric is obtained, as shown in Fig. II. Following the course of

a length of wire, all being alike, beginning at the left-hand end of the upper coil in Fig. II, it will be seen that the wire passes under its own length, then over the connecting parts of the loops of the contiguous flattened coil, then under the same, and then over its own length, thus interlocking the wires together tightly. In Fig. III I have shown a twist in the neck of each loop made before the contiguous coil is run through. In both the forms shown in Figs. II and III it will be observed, following the length of each strand or wire, that each joint or crossing made by its own loops is the reverse of its predecessor—*i. e.*, the wire that crossed under at one joint crosses over at the next joint.

In Fig. IV is shown a stiffening rail or strip of metal *d*, having longitudinal slots *e*, as shown in Fig. V, into which the loops of one of the flattened coils are introduced before another coil is run through said loops. This strip may also be used with the form shown in Fig. II.

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

1. The method of making wire fabric, which consists in flattening down a coil of wire, running another coil of wire through the loops produced by the flattening, and then flattening it down, and so on until the desired width of fabric is built up, as explained.

2. A wire fabric consisting of an interlocking series of wires having loops, the crossings of each wire at its own loops beginning from one end and in succession being the reverse one of the other, substantially as set forth.

3. A wire fabric consisting of a series of interlocked wires having loops with twisted necks, substantially as set forth.

4. A wire fabric consisting of a series of interlocked wires having loops, and a stiffening-strip having openings through which the loops of one of the wires are introduced, substantially as set forth.

ISRAEL KINNEY.

Witnesses:

M. F. MUIR,

PETER PURVES.