

(No Model.)

W. HEWITT.
METALLIC FABRIC.

No. 316,458.

Patented Apr. 28, 1885.

Fig. 1.

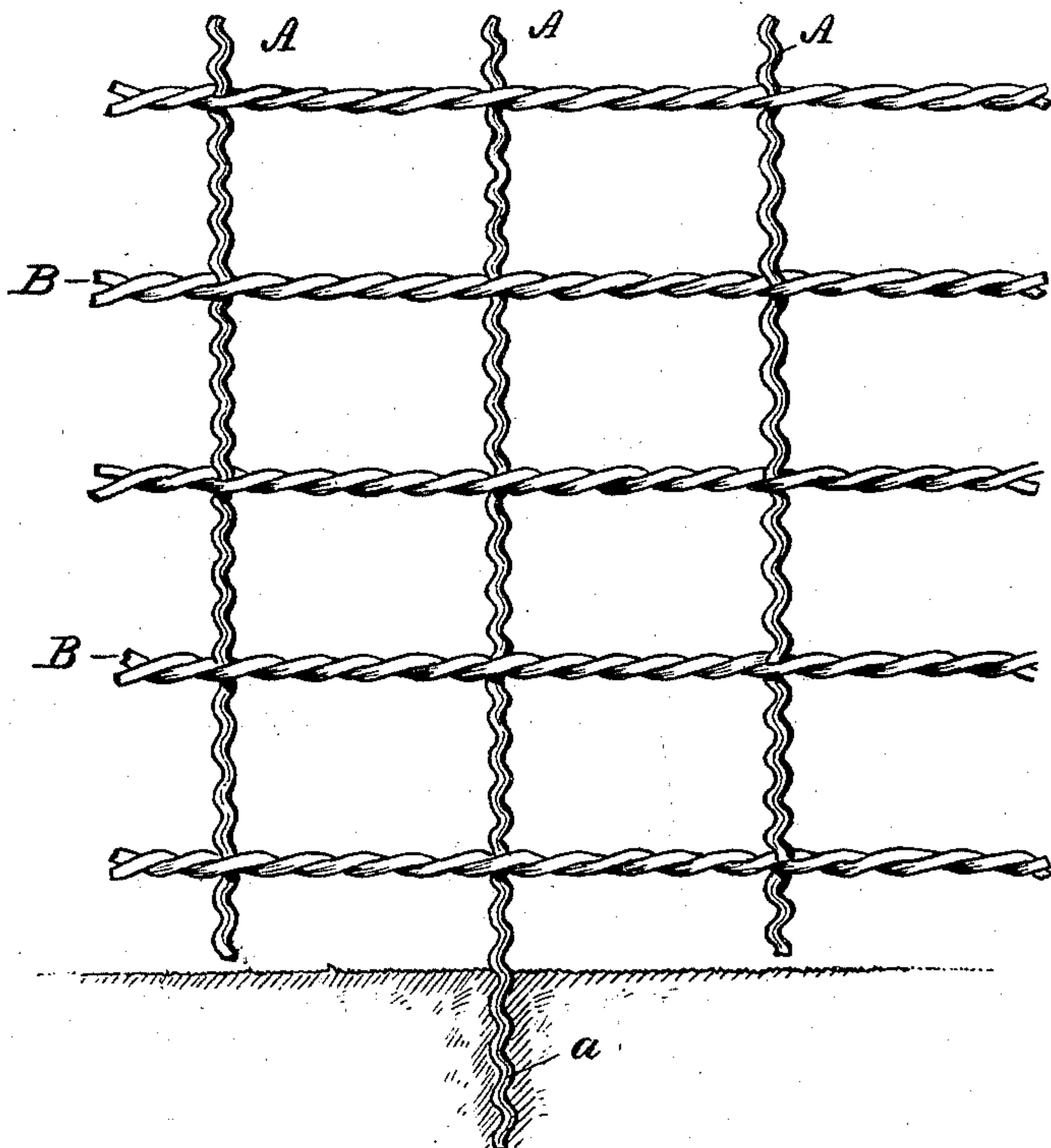


Fig. 2.

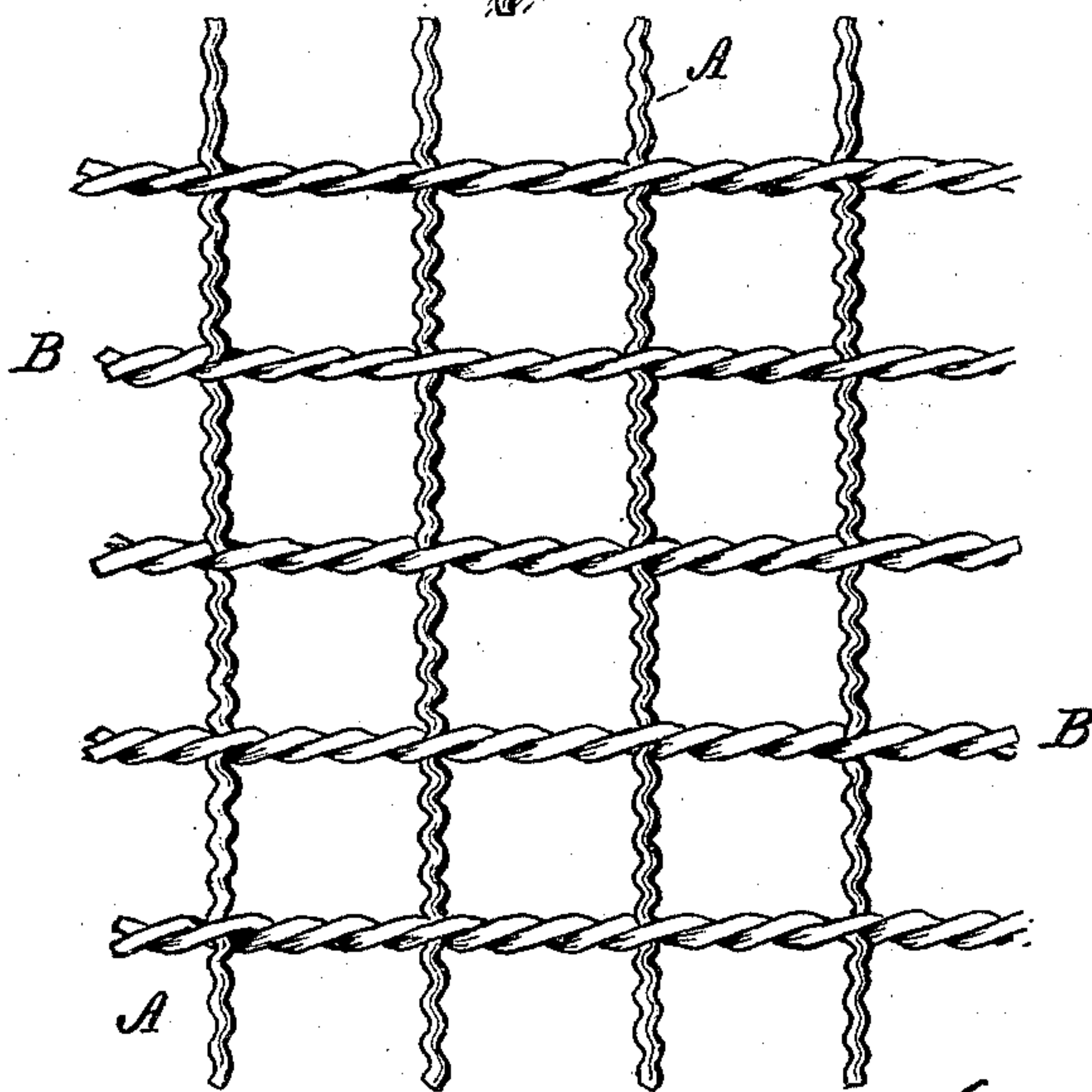


Fig. 4.

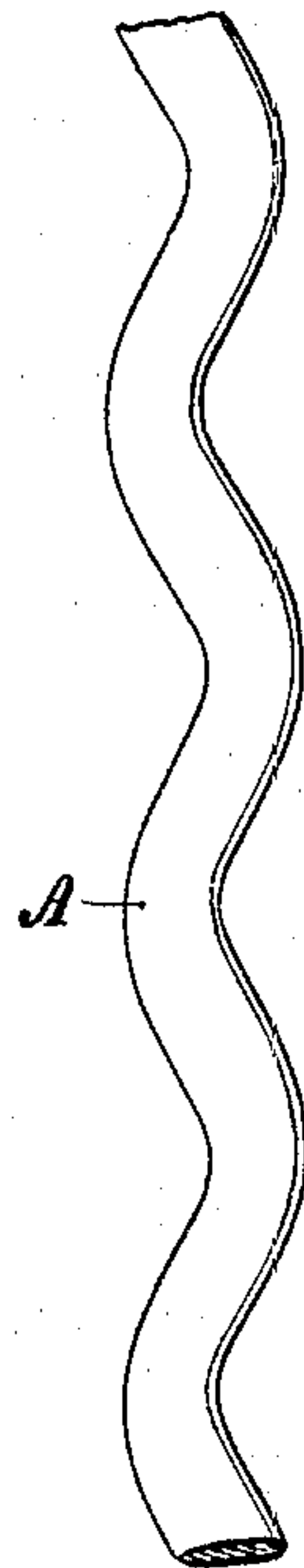
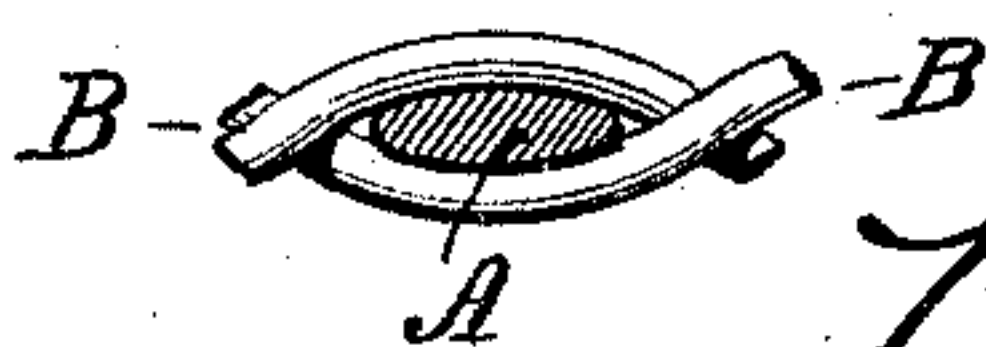


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM HEWITT, OF TRENTON, NEW JERSEY, ASSIGNOR TO THE TRENTON
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METALLIC FABRIC.

SPECIFICATION forming part of Letters Patent No. 316,458, dated April 28, 1885.

Application filed October 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HEWITT, a citizen of the United States, residing at Trenton, New Jersey, have invented an Improvement in Metallic Fabrics, which can be used
5 either for fencing, for the making of screens, or bed-bottoms, or for such other purposes as metallic or wire fabrics are ordinarily applicable to, of which the following is a specification.

10 The object of my invention is the construction of a cheap, durable, mechanically-simple and easily-manufactured metallic fabric.

To the above ends my invention consists in the combination, to form a metallic fabric, of a
15 series of corrugated or wrinkled metallic strips, rods, or pieces—that is to say, strips of metal having kinks, bends, folds, or turns in them—with a series of twisted wire cables connected in predetermined relationship to the
20 corrugated strips by having their strands embrace the strips separately, each strip being independently of every other strip locked into place by the cables, substantially in the manner shown in the drawings, and herein set forth.

25 In the accompanying drawings, Figure 1 is a side elevation of a section of fabric embodying my invention and shown applied for use as a fence. Fig. 2 is a plan view of a section of fabric embodying my invention and adapted for use—as, for instance, a bed-bottom. Fig.
30 3 is a transverse sectional view through one of the corrugated strips, indicating also the manner in which the wires composing one of the cables embrace said strip. Fig. 4 is a side
35 elevational view of a full-sized section of a convenient form of corrugated strand or strip.

Similar letters of reference indicate corresponding parts in all the figures.

In the drawings, the corrugated strips are lettered A, and the cables which unite them to form the fabric B. The corrugated strips are preferably of elliptic section, as shown in Figs. 3 and 4. They may, however, be of other cross-sectional form. The office of the
45 corrugations, kinks, or bends in the strips is to form seats for and to retain against displacement the strands or wires composing the cables, which latter in being twisted about the strips lodge, so to speak, or seat themselves
50 with respect to given corrugations of said strips, and so remain in position.

In the application of my fabric as a fence all that is necessary to do is to prolong given corrugated strips, as at *a* in Fig. 1, so that the prolonged ends may be embedded in the ground
55 and form posts for the fence, the adjacent corrugated strips which are not prolonged constituting the pickets of the fence. It is also possible to employ wooden posts and apply the fabric to them, and, if desired, between
60 the posts one or more prolonged strips may be provided.

In the drawings I have represented cables as composed of two strands. It would, however, be possible to employ more strands than
65 two, although I prefer to use two only.

The fabric, considering, for the sake of illustration, its cables as warp-threads and its corrugated strips as weft-threads, is conveniently made by spreading apart at given intervals in
70 the act of twisting or forming the said cables the strands of all the cables, inserting a given strip between all of the strands so spread apart, and then continuing the twisting of all
75 of the strands so as to bind in by itself and independently of every other strip the strip so introduced, and by then repeating the operation with the next corrugated strip, and with each of the succeeding strips until the
80 fabric is completed.

The corrugated strips themselves are preferably of malleable metal, and have their corrugations or crimps rolled into them.

It is essential that the crimps of the strips about which the cables are twisted should be
85 of sufficient curvature or present a sufficient kink, so to speak, to occasion the securing of the strands of the cable about the crimps in such manner that the cables cannot be displaced with respect to their position longitudinally upon the corrugated strips, and this
90 is a most important feature of the invention, for, were the conditions otherwise, it is apparent that it would be possible to withdraw or pull out any particular crimped strip, and
95 thereby destroy the fabric. It is apparent, also, that any longitudinal movement of the cables is impossible by reason of their strands surrounding and being twisted upon the strips.

The corrugated or wavy outline of the strips
100 presents a good appearance and renders the fabric ornamental.

I am aware that a wire-fence fabric has been produced by binding together with transverse binding wires or cables a series of main wires which have angles bent into them at opposite
5 directions and at suitable distances apart for the binding-wires to engage with said angles when the latter have been so arranged, in making the fabric, that alternate opposite angles in adjacent wires are together encircled
10 and united by the loops of the binding-wires, the result being that in the completed fabric the said angles extend, respectively, above and below the line of direction of the wires on which they are formed; but to this construction, an essential of which is that two of the
15 angles of adjacent angle-provided wires should pass through and be bound together by the same loop in the cable, I lay no claim.

I am also aware that a wooden picket-fence
20 has been made in which wooden pickets hav-

ing convex and concave longitudinal edges or surfaces have been bound together by means of wire cables to form a fence, and to this construction I lay no claim.

Having thus described my invention, I claim 25 and desire to secure by Letters Patent—

As a new article of manufacture, a metallic fabric composed of a series of corrugated, kinked, or crimped strips, rods, or pieces of metal and of a series of wire cables, the strands 30 of which respectively embrace and bind in each strip independently of every other strip, substantially as shown and described, and for the purposes specified.

In testimony whereof I have hereunto signed 35 my name this 15th day of October, A. D. 1884.

WM. HEWITT.

In presence of—

F. C. LOWTHORP, Jr.,

J. BONSALE TAYLOR.