

(No Model.)

D. H. ALLEN.
WIRE FENCE.

No. 408,282.

Patented Aug. 6, 1889.

FIG. 1.

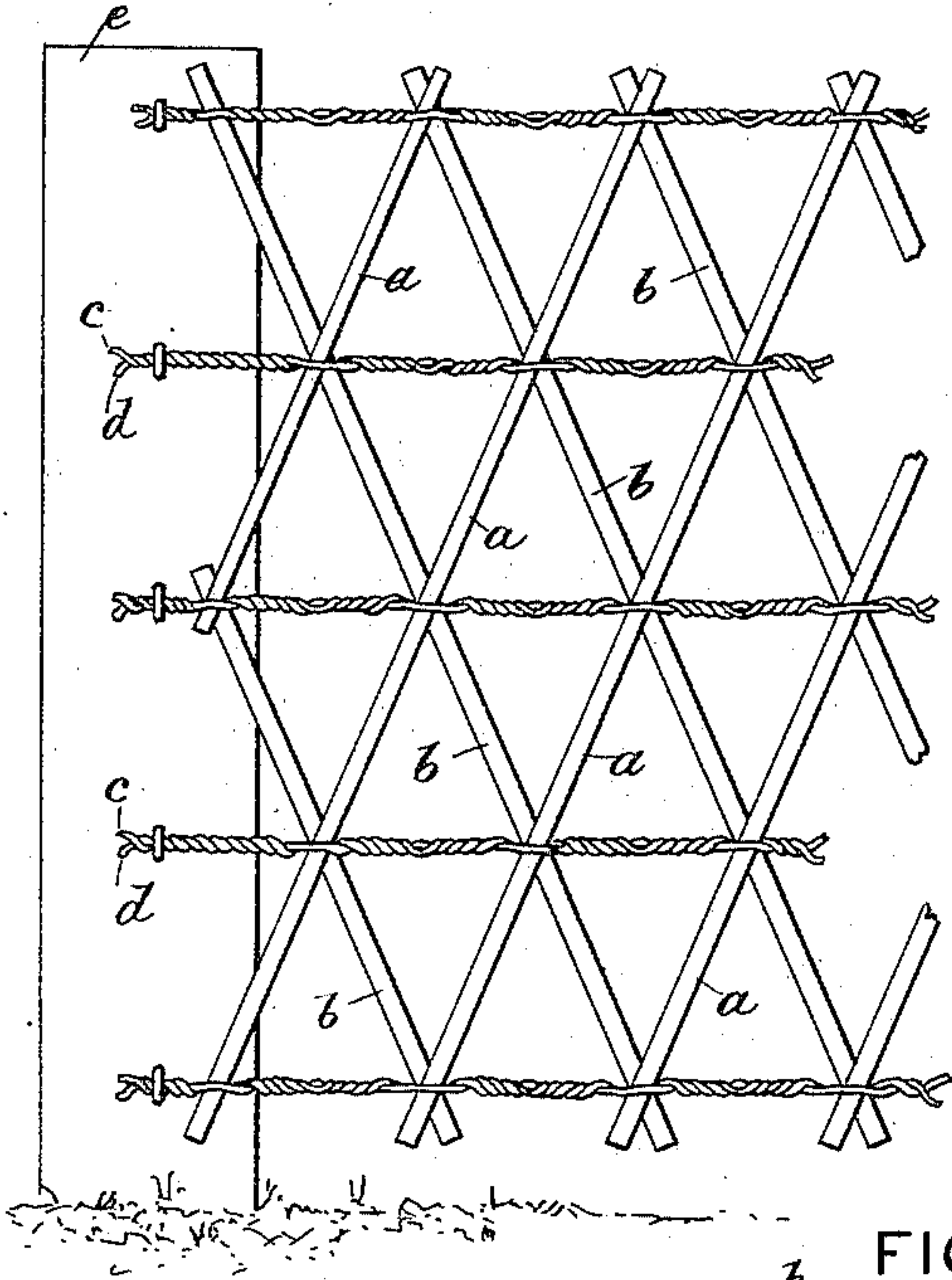


FIG. 2.

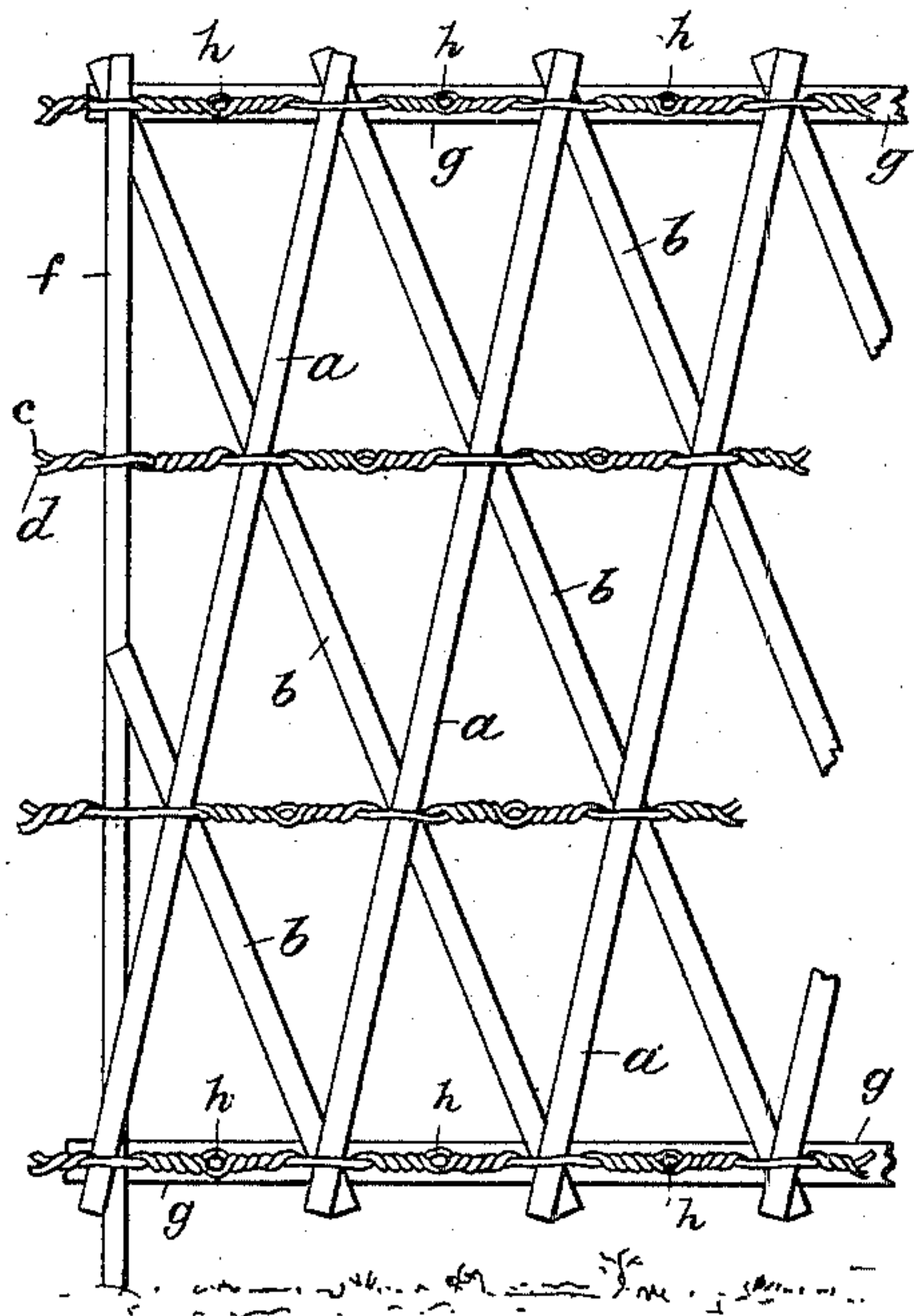


FIG. VI.

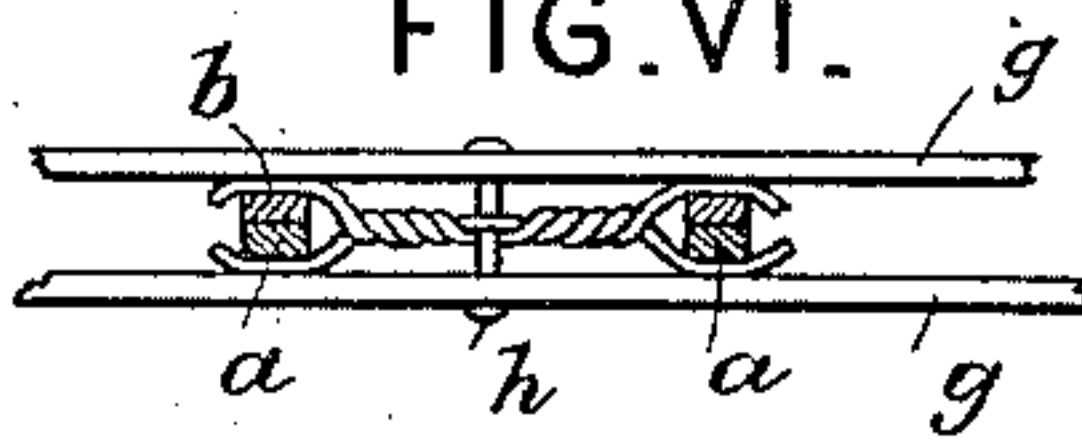


FIG. 3.

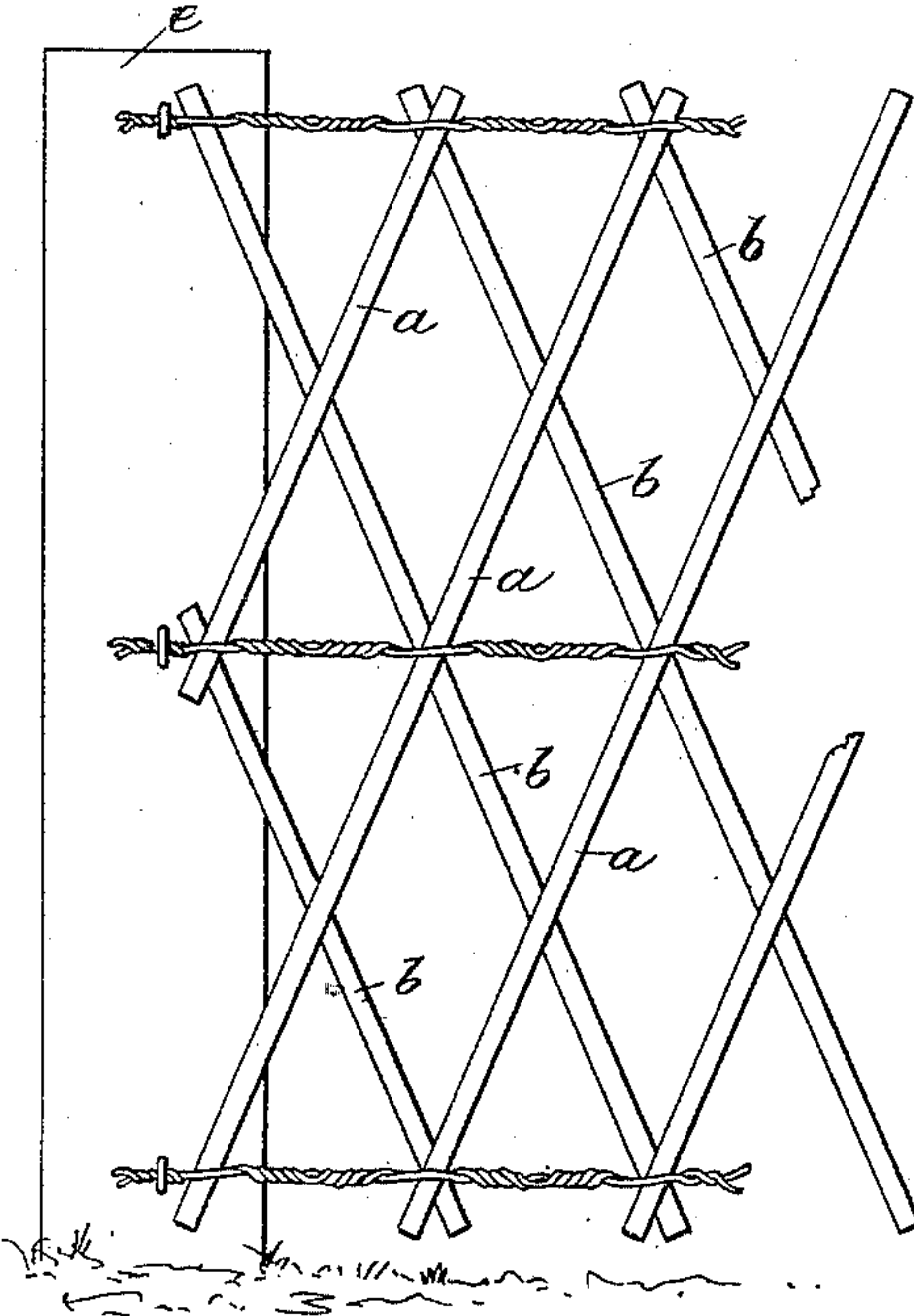


FIG. 4.

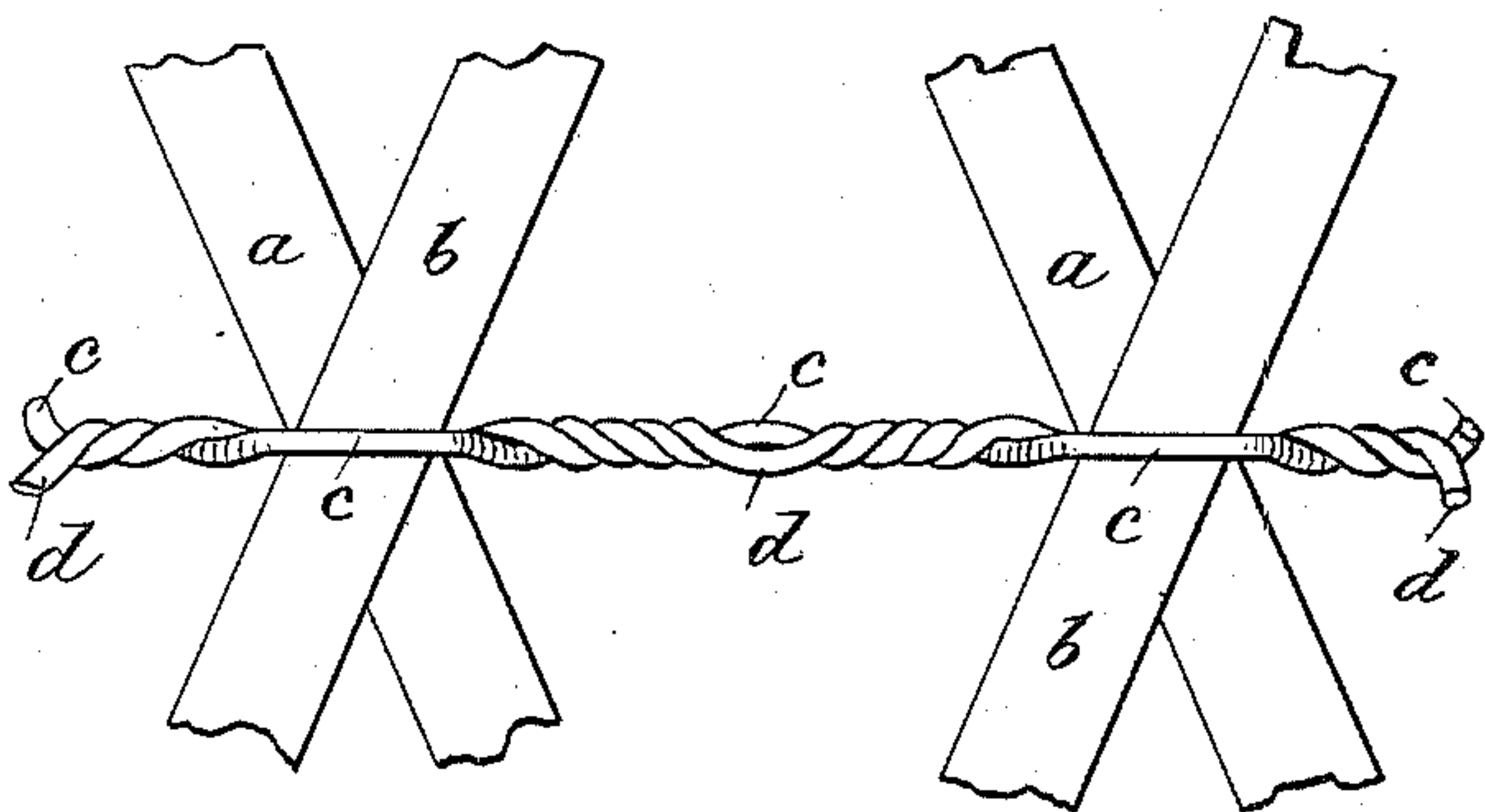
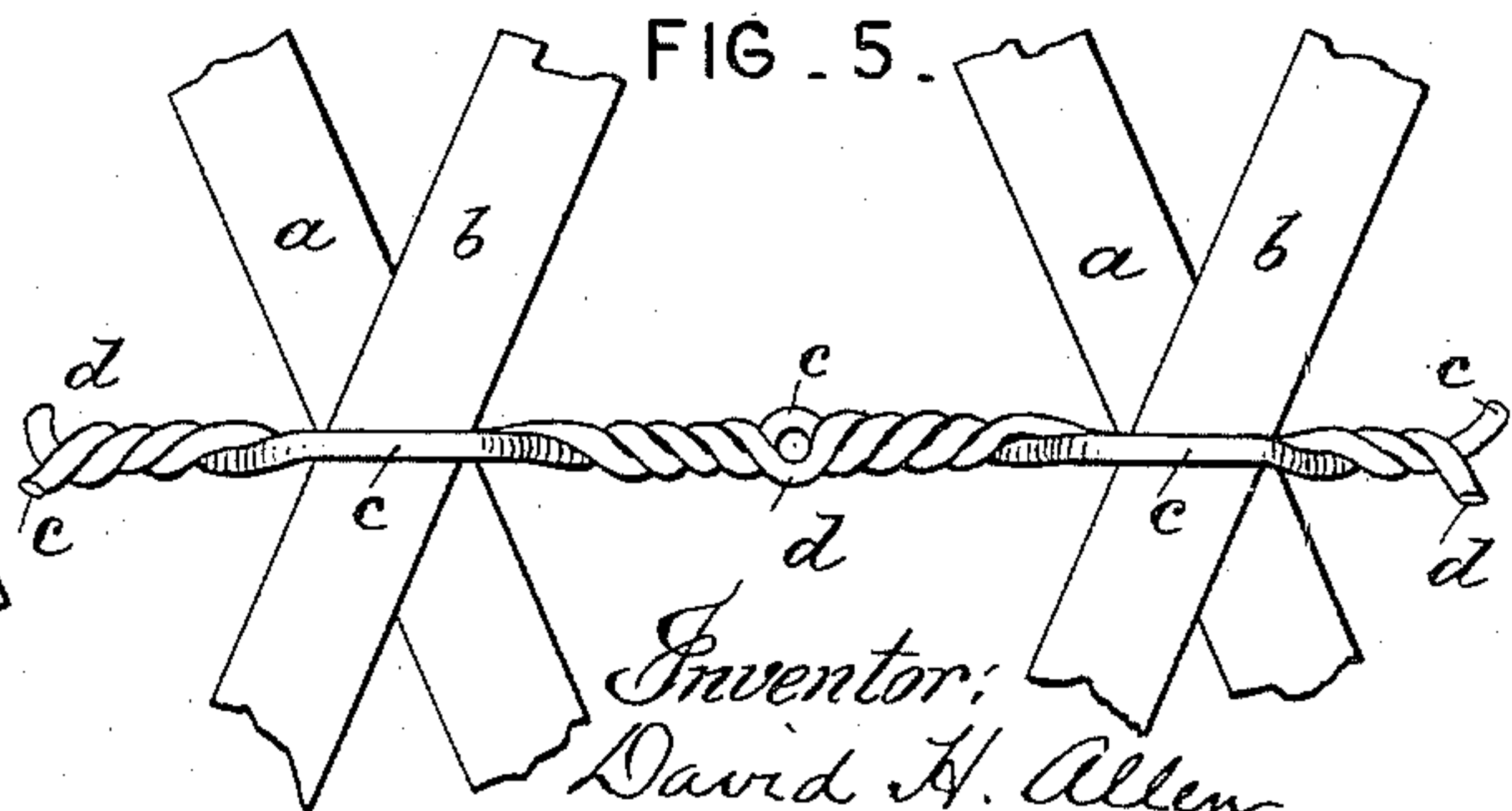


FIG. 5.



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UNITED STATES PATENT OFFICE.

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WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 408,282, dated August 6, 1889.

Application filed January 29, 1889. Serial No. 297,901. (No model.)

To all whom it may concern:

Be it known that I, DAVID H. ALLEN, a citizen of the United States, and a resident of Miamisburg, county of Montgomery, and State of Ohio, have invented a new and useful Improvement in Wire Fences, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to that class of fences known as "wire fences," or more especially to that construction of fence in which both wire and slats or palings are employed; and it consists in a novel manner of combining the pales and wire so as to form a truss-fence which will not sag or get out of shape, as is usually the case with this class of fences.

In the accompanying drawings, Figure 1 shows a portion of my improved fence in which five series of wires are employed. Fig. 2 is a similar view showing four series of wires and the manner of applying an additional pale for finishing up the end of a panel. Fig. 3 is a similar view showing three series of wires. Figs. 4 and 5 are enlarged detail views showing two different methods of twisting the wires, and Fig. 6 is a plan view showing the manner of applying the horizontal pales or slats.

In manufacturing my improved fence I prefer to make each panel separate and complete *per se*, and have shown and will describe my invention with this in view. The fence may, however, be made by hand or machinery in any length convenient for transportation, and secured to posts in the same manner as continuous fences, or it may be manufactured upon the spot in continuous form as it is put up, if preferred, or in case it may be more convenient.

a b represent slats or pales of a size appropriate to the use for which the fence is intended, being square, rectangular, polygonal, or round in cross-section, of wood, paper, metal, or other material, and of any length desired.

c d represent two pieces of wire, which may be of any desired gage or nature, according to the size of the pales *a b* and use for which they may be employed.

e e indicate the posts, to which the panels of

the fence are attached by staples, or in any usual or preferred manner.

In carrying out my invention the slats or pales *a* and *b* are first arranged in such relation to each other that one parallel series *a a a a* will cross the other parallel series *b b b b* in such manner that any one pale of either series will cross a certain number of pales of the other series—as, for instance, in Fig. 1 one of the slats or pales *a* will cross five of the pales *b*, or in Fig. 2 each of the pales *a* will cross four of the pales *b*, or in Fig. 3 each of the pales *a* will extend across five of the pales. The greater the inclination of the pales the stiffer the fence will be and the more times the pales of one series will cross those of the other series. The wires *c* and *d* are stretched across both series of pales *a* and *b*, one wire on either side thereof and in line with the points of junction of said slats. In Fig. 1 there are five such series of wires, and in Fig. 2 four such series. After the wires and pales are brought into the relation described the wires *c* and *d* are engaged by a lever or slotted wheel or any mechanism in use for twisting two wires together at a point substantially midway between two adjacent junctions of the slats *a* and *b*, and thereby twisted from such central point in opposite directions toward either of the junctions. By continuing this twisting said wires will be caused to firmly and tightly unite and bind the pales *a* and *b* together, and when all the series of wires are so twisted and all the junctions are so bound and made fast a panel of the fence will be produced which is a self-constituted truss, and which, when secured to posts, cannot sag or get out of shape, each pale helping to support and brace others by its numerous junctions therewith.

As above stated, the twisting of the wires may be done by a simple lever or round bar of iron, in which event they will appear as in Fig. 5, or by a slotted wheel or lever, which will cause them to assume the relation shown in Fig. 4.

In Fig. 2 I have shown the method of applying and securing the end pales of the fence, (indicated by *f*), in which case the last or outside pale of one series, as *b*, will have to be made shorter and its end either be left loose

or attached to said end pale in any usual manner. It will be apparent that the pale *f* may be employed also in connection with the construction shown in Figs. 1 and 3, in which five
5 and three series of wires, respectively, are used. In the same figure I have shown one series of pales *b* inclined at greater angle than the other series, which is necessary with four series of wires, in order that the end pales *a*
10 and *b* may be brought into line and secured to *f*.

In Figs. 2 and 6 I have shown two or more additional horizontal pales or slats, (indicated by *g*,) which are located at or near the top and
15 bottom of a panel of fence, and on either or both sides thereof. Said slats are secured in place by means of nails, screws, or bolts *h*, which pass through the loops in the twisted wires and serve as additional braces for stiff-
20 ening the fence or panels thereof, and also give a finished appearance thereto. These horizontal pales or slats may of course be employed in connection with a panel having any number of wires.

25 It will be apparent by the construction described that each panel of my improved fence is so well braced that it is like a board panel and will not sag, and that therefore it is not necessary in applying and securing said fence
30 either in panel or continuous form to the posts to brace said posts, as is always necessary in applying ordinary forms of wire fence; also, that the greater the length of the pales and the greater the inclination thereof the
35 greater will be the number of junctions and the stiffer and more rigid will be the fence when completed.

I am aware that fences have been constructed having vertical pales bound to-
40 gether with wire, and also that Letters Pat-

ent have been issued for a fence in which inclined pales have been employed; but,

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

1. A fence-panel consisting of parallel series of pales crossing each other at points intermediate their lengths and secured at their junctions by parallel wires twisted together intermediate adjacent junctions, substan-
45 tially in the manner specified. 50

2. A fence composed of two parallel series of pales crossing each other at various points and two or more continuous series of parallel wires, those of each series being twisted to-
55 gether intermediate the junctions for binding said pales together at their junctions, substantially in the manner specified.

3. In a wire fence, the combination, with two parallel series of pales crossing each other
60 at various intervals in their lengths, of two continuous wires twisted from a point intermediate two adjacent junctions in opposite directions or toward each junction, substan-
65 tially in the manner specified.

4. A fence-panel composed of two parallel series of pales crossing each other at various points, and two or more continuous series of parallel wires binding said pales together at
70 their junctions, in combination with the end and horizontal pales or slats secured thereto in the manner substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand this 24th day of January, A. D. 1889.

DAVID H. ALLEN.

Witnesses:

WILLIAM H. GAMBLE,
AMOS K. CLAY.