

No. 841,194.

PATENTED JAN. 15, 1907.

L. SWANK.
WIRE FABRIC.
APPLICATION FILED NOV. 7, 1906.

Fig. 1.

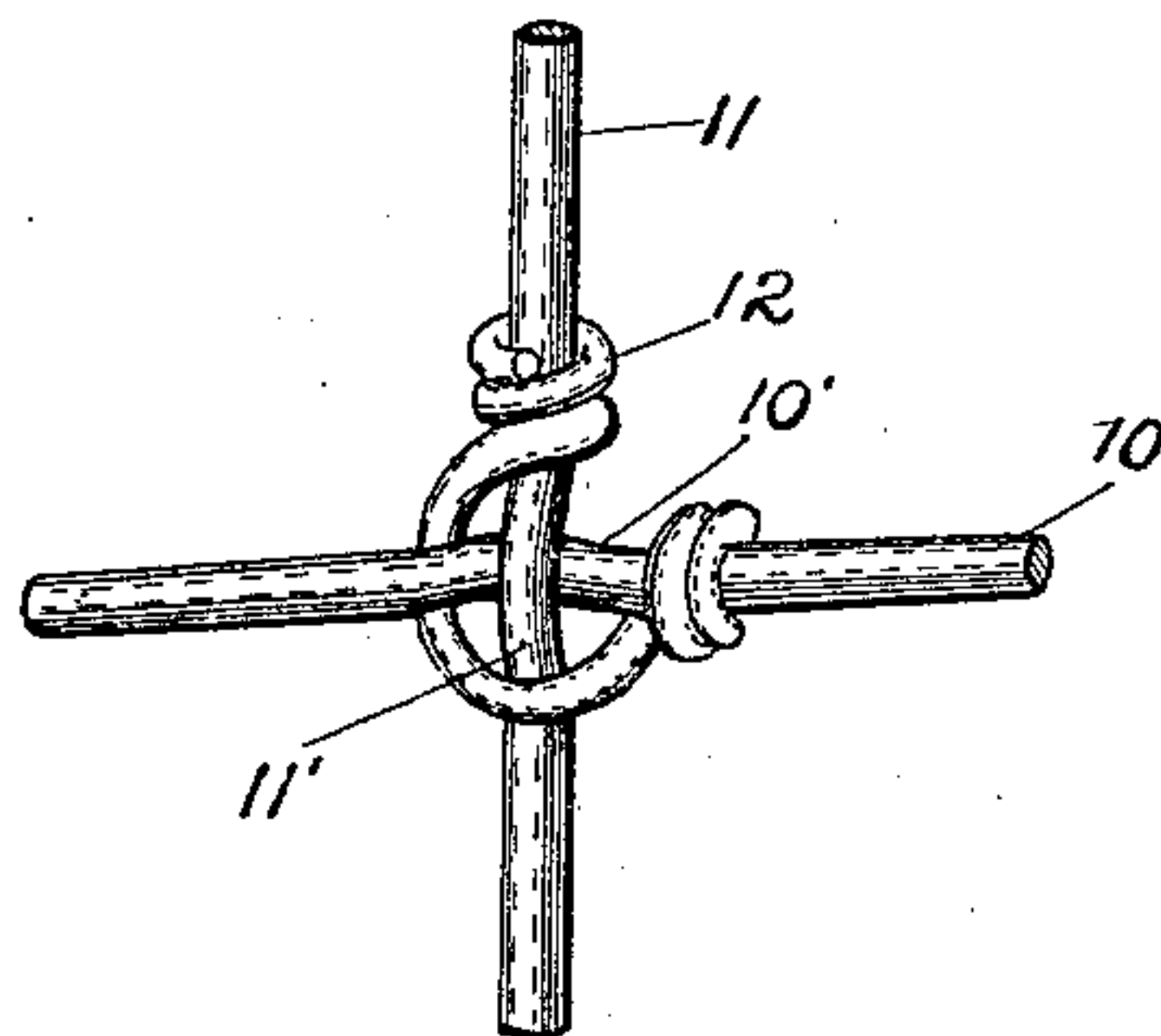
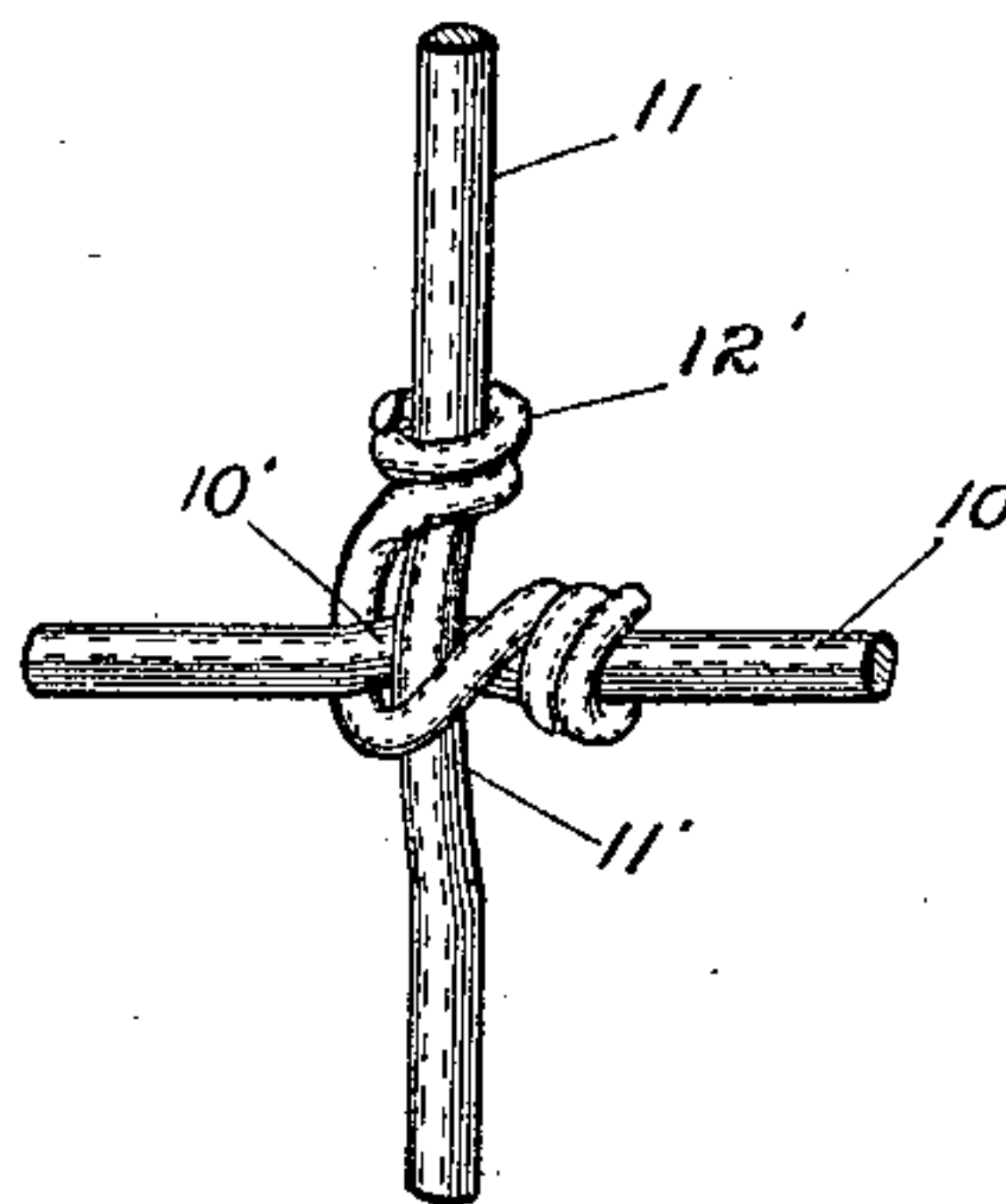


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

LAFE SWANK, OF ANDERSON, INDIANA, ASSIGNOR TO DWIGGINS WIRE FENCE COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF INDIANA.

WIRE FABRIC.

No. 841,194.

Specification of Letters Patent.

Patented Jan. 15, 1907.

Application filed November 7, 1906. Serial No. 342,348.

To all whom it may concern:

Be it known that I, LAFE SWANK, a citizen of the United States, residing at Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Wire Fabric, of which the following is a specification.

The object of my invention is to produce means for connecting crossing wires of a wire fabric by an applied tie-wire, said tie-wire being so applied that the crossing wires, while being held against abnormal displacement, will nevertheless be held with such degree of flexibility that the fabric may be readily displaced transversely in its own plane at different points, the construction being such that in a fence fabric the fabric may be readily conformed to variations in grade.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of one form of my improved tie; Fig. 2, a similar view of a slight modification.

In the drawings, 10 and 11 indicate crossing wires of the fabric—for instance, a running-wire 10 and a stay-wire 11. In Fig. 1 the tie-wire 12 is doubled upon itself, and beginning at one crotch between the wires 10 and 11 one arm of the tie-wire is passed beneath one of the crossing wires—say the wire 10—and carried over the other crossing wire and twisted about this wire. The other arm of the tie-wire is carried over the stay-wire 11 and under the opposite arm of the running-wire 10 and twisted about this arm of the running-wire. It will be noticed that by this arrangement the tie-wire passes through only three quadrants relative to the crossing wires, and as a consequence the two crossing wires will be held against abnormal displacement in the directions of their length, but nevertheless may be swung somewhat about their crossing-point as an axis, thus permitting a limited degree of flexibility in the plane of the fabric transversely thereof. It is advisable that at the crossing-point the wire 10 be provided with a short kink 10' and the wire 11 provided with a similar and opposite kink 11'.

The construction shown in Fig. 2 is very similar to that shown in Fig. 1, differing but slightly therefrom. In this construction the first arm of the tie-wire 12' is applied as in

preceding case, being carried under the wire 10 and over the wire 11 and wrapped about it. The opposite arm of the tie-wire, however, after being carried over the wire 11 is carried over the opposite arm of the wire 10 (instead of under, as in the preceding case) and is then wrapped about the opposite arm of the wire 10. The tie-wire, however, passes through only three quadrants relative to the crossing wires, but passes diagonally across the crossing-point, thus making a slightly-tighter wrap. There is, however, a transverse flexibility of the fabric which is perhaps a trifle greater than in the preceding case. The fabric is, however, a little stiffer against any but a swinging movement of one crossing wire upon another.

I claim as my invention—

1. In a wire fabric, the combination with crossing wires, of a tie-wire having one end wound around one crossing wire and its other end wound around the other crossing wire with its intermediate portion passed alternately under and over the crossing wires.

2. In a wire fabric, the combination, with crossing wires, of a tie-wire having one end attached to one crossing wire and its other end attached to the other crossing wire with its intermediate portion passed alternately under and over the crossing wires.

3. In a wire fabric, the combination, with crossing wires having mating kinks at crossing-points, of a tie-wire having one end wound around one crossing wire and its other end wound around the other crossing wire with its intermediate portion passed alternately under and over the crossing wires.

4. In a wire fabric, the combination, with crossing wires having mating kinks at crossing-points, of a tie-wire having one end attached to one crossing wire and its other end attached to the other crossing wire with its intermediate portion passed alternately under and over the crossing wires.

5. In a wire fabric, the combination with crossing wires, of a tie-wire having one end wound around one crossing wire and at its other end wound around the other crossing wire, the intermediate portion of said tie passing through three quadrants only of the crossing wires and binding the crossing wires together.

6. In a wire fabric, the combination with crossing wires, of a tie-wire having one end attached to one crossing wire and at its other

end attached to the other crossing wire, the intermediate portion of said tie passing through three quadrants only of the cross and binding the crossing wires together.

5 7. In a wire fabric, the combination with crossing wires having mating kinks at crossing-points, of a tie-wire having one end wound around one crossing wire and at its other end wound around the other crossing
10 wire, the intermediate portion of said tie passing through three quadrants only of the cross and binding the crossing wires together.

8. In a wire fabric, the combination with crossing wires having mating kinks at crossing-points, of a tie-wire having one end attached to one crossing wire and at its other end attached to the other crossing wire, the intermediate portion of said tie passing through three quadrants only of the cross
20 and binding the crossing wires together.

9. In a wire fabric, the combination with crossing wires, of a tie-wire wound around the first crossing wire, thence through to adjacent quadrant of the cross beneath the second wire into a second quadrant, thence over
25 the first wire and into the diagonally opposite quadrant and wound around the second crossing wire.

10. In a wire fabric, the combination with crossing wires, of a tie-wire attached to the first crossing wire, thence through to adjacent quadrant of the cross beneath the second wire into a second quadrant, thence over
30 the first wire and into a third quadrant and attached to the second crossing wire.

11. In a wire fabric, the combination with crossing wires, of a tie-wire wound around the first crossing wire, thence through to adjacent quadrant of the cross beneath the second wire into a second quadrant, thence over
40 the first wire and into a third quadrant and wound around the second crossing wire.

12. In a wire fabric, the combination with crossing wires, of a tie-wire attached to the first crossing wire, thence through to adjacent quadrant of the cross beneath the second
45 wire into a second quadrant, thence over the first wire and into the diagonally opposite quadrant and attached to the second crossing wire.

ond wire into a second quadrant, thence over the first wire and into the diagonally opposite quadrant and attached to the second crossing wire.

13. In a wire fabric, the combination with crossing wires having mating kinks at crossing-points, of a tie-wire wound around the first crossing wire, thence through to adjacent quadrant of the cross beneath the second wire into a second quadrant, thence over
50 the first wire and into the diagonally opposite quadrant and wound around the second crossing wire.

14. In a wire fabric, the combination with crossing wires having mating kinks at crossing-points, of a tie-wire attached to the first crossing wire, thence through to adjacent quadrant of the cross beneath the second wire into a second quadrant, thence over the
60 first wire and into a third quadrant and attached to the second crossing wire.

15. In a wire fabric, the combination with crossing wires having mating kinks at crossing-points, of a tie-wire wound around the first crossing wire, thence through to adjacent quadrant of the cross beneath the second wire into a second quadrant, thence over
70 the first wire and into a third quadrant and wound around the second crossing wire.

16. In a wire fabric, the combination with crossing wires having mating kinks at crossing-points, of a tie-wire attached to the first crossing wire, thence through to adjacent quadrant of the cross beneath the second wire into a second quadrant, thence over the
75 first wire and into the diagonally opposite quadrant and attached to the second crossing wire.

In witness whereof I have hereunto set my hand and seal, at Anderson, Indiana, this 3d day of November, A. D. 1906.

LAFE SWANK. [L. s.]

Witnesses:

J. E. VAN DEVENTER,
W. L. FINCH.