

No. 711,388.

Patented Oct, 14, 1902.

J. F. DONAGHY.
WIRE FENCE.

(Application filed July 17, 1902.)

(No Model.)

FIG. 1.

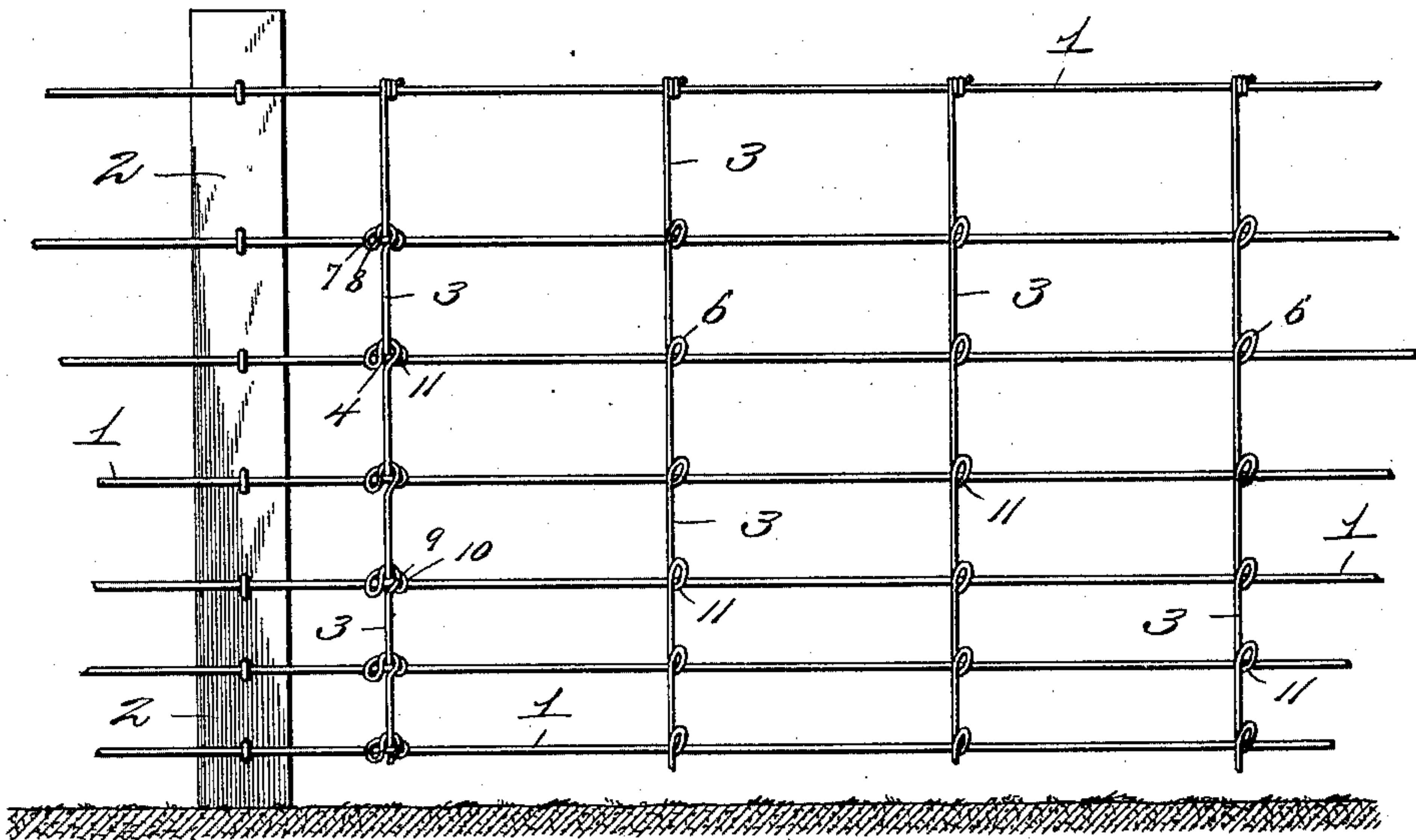


FIG. 2.

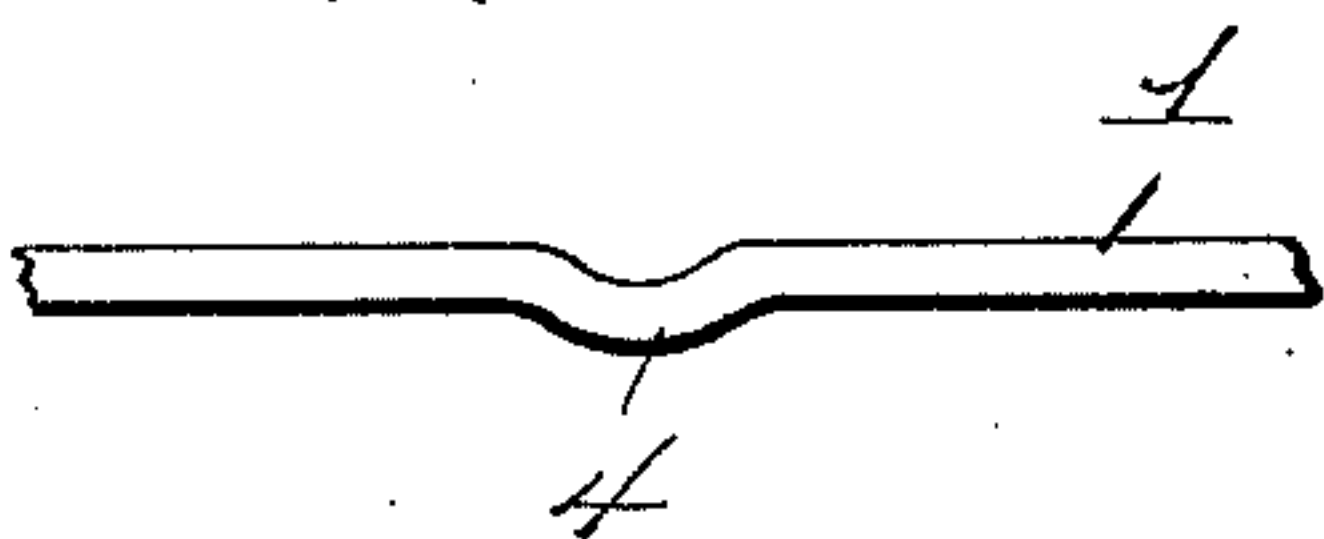


FIG. 3.

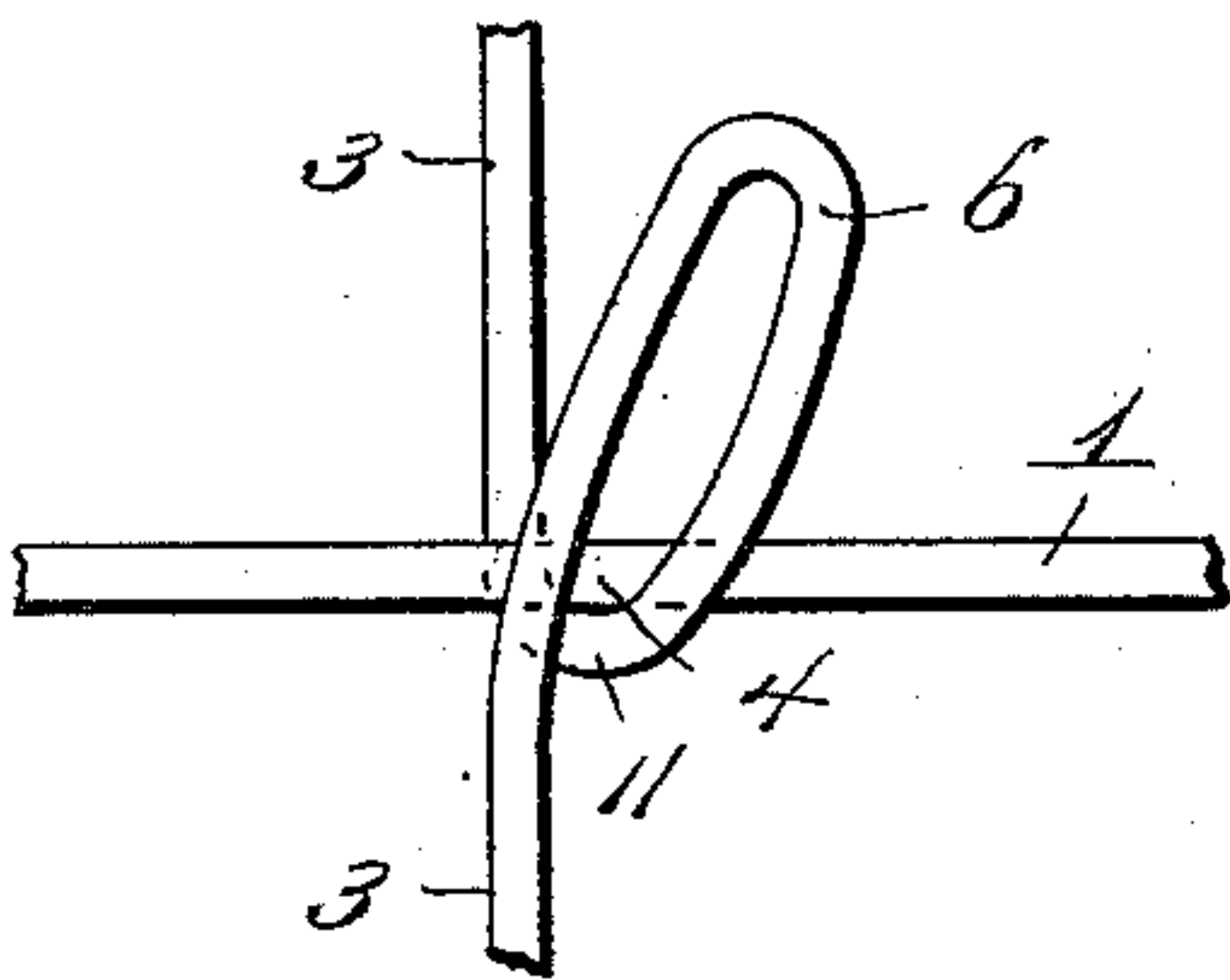


FIG. 4.

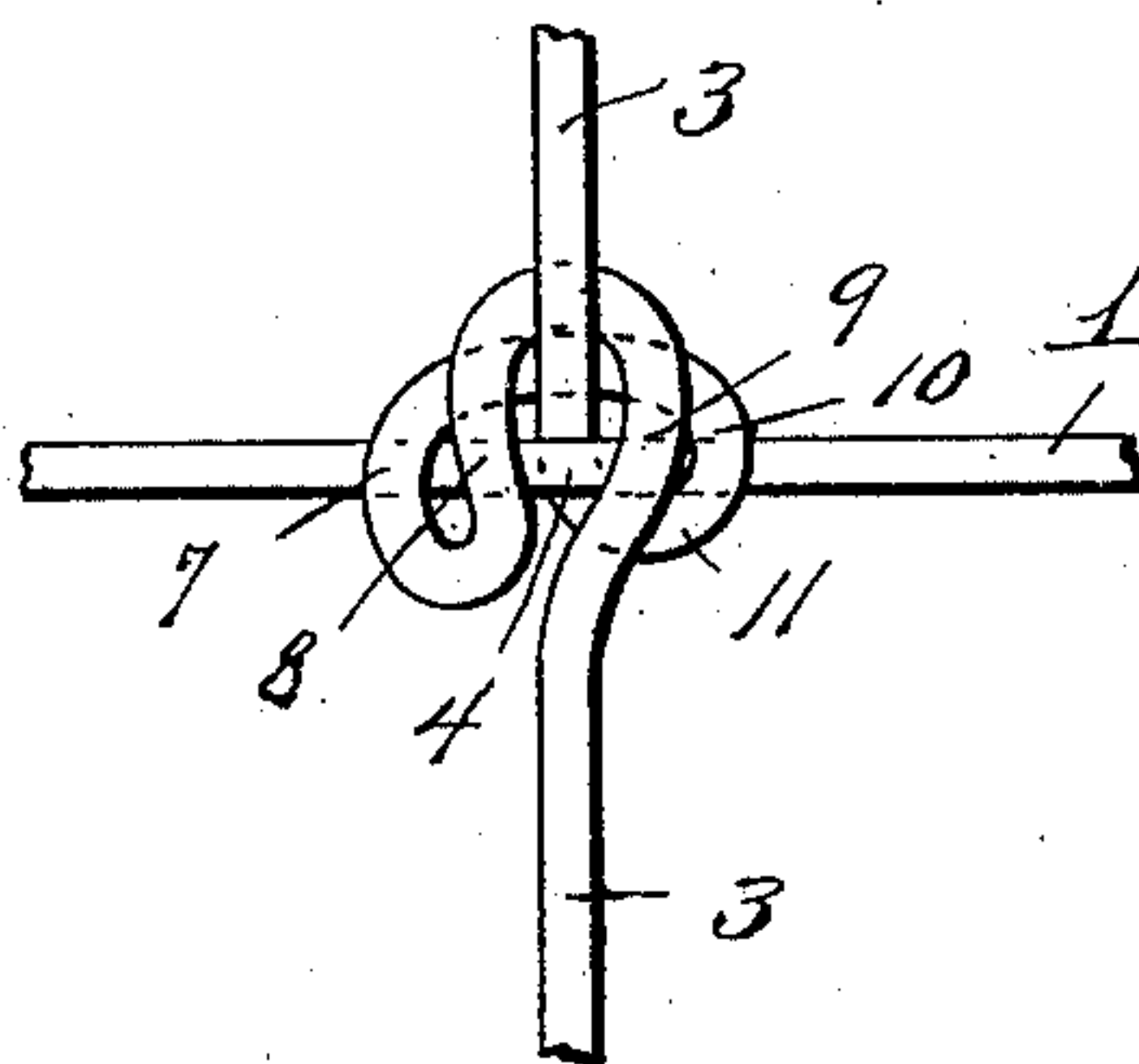


FIG. 5.

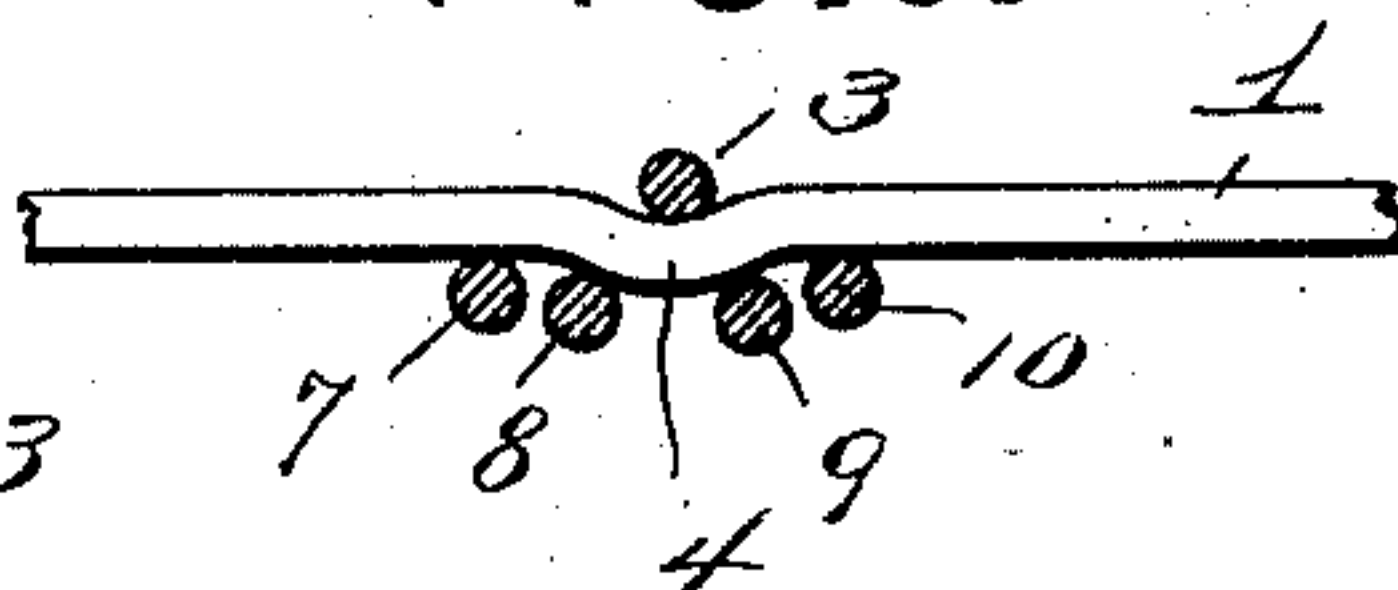


FIG. 6.

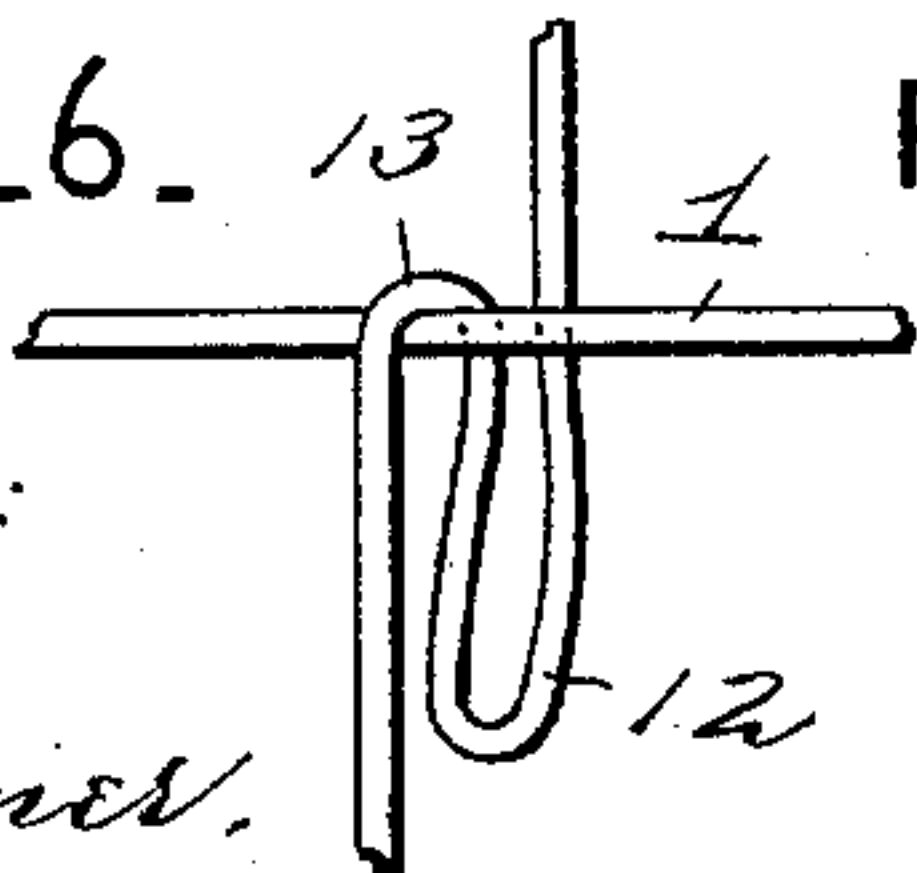
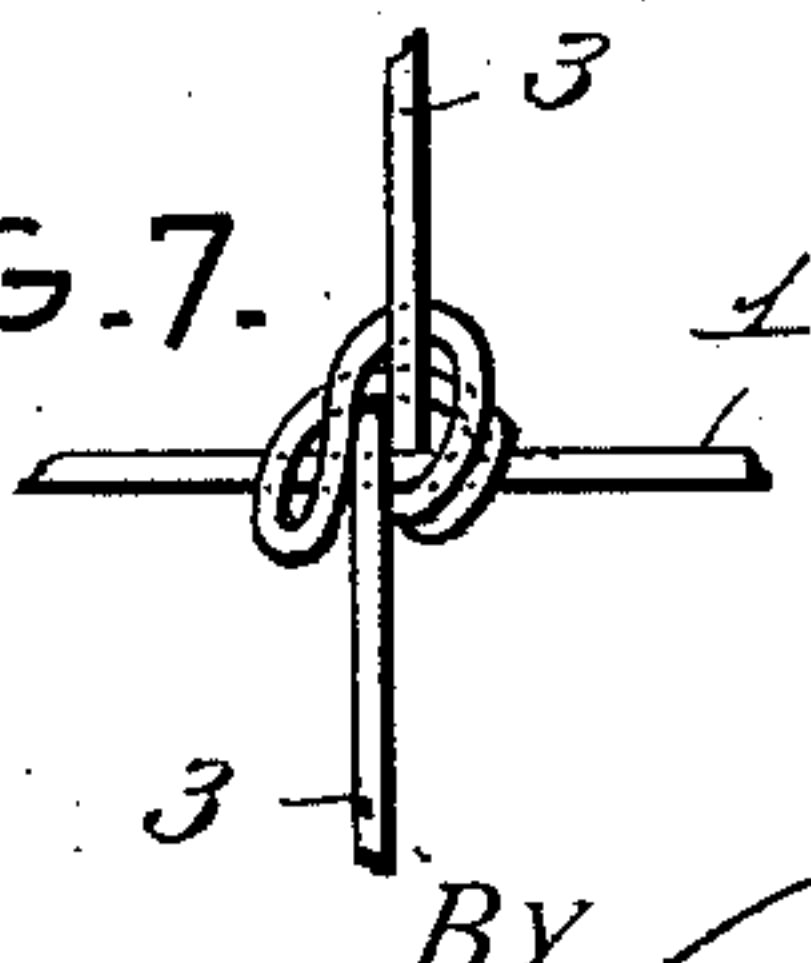


FIG. 7.



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WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 711,388, dated October 14, 1902.

Application filed July 17, 1902. Serial No. 115,890. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. DONAGHY, a citizen of the United States, residing at Coraopolis, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Wire Fence, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to wire fences, and has special reference to the construction of the fence-stays or stay-wires and the means for binding, locking, or fastening the line and stay wires together in such a manner as to establish a close and reliable connection at the point of crossing or intersection of the wires, while at the same time allowing for the necessary expansion and contraction of said wires.

The object of the invention is to simplify and improve the construction of wire fences in the particular above stated and to reduce as far as possible the number and difficulty of the operations necessary to form the tie or lock at the point of intersection of the wires.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a view in elevation of a portion of a wire fence constructed in accordance with the present invention. Fig. 2 is a plan view of a portion of one of the line-wires. Fig. 3 is a view in elevation of a portion of one of the stays or stay-wires, showing also a portion of one of the line-wires associated therewith prior to forming the tie or lock. Fig. 4 is a view in elevation of the tie or lock after the same has been completed. Fig. 5 is a horizontal section through the tie, taken just above the line-wire. Fig. 6 is a fragmentary elevation showing another form of stay. Fig. 7 is a similar view showing the manner of bending the loop of the stay to form the tie or lock.

Like reference-numerals designate corresponding parts in all the figures of the drawings.

The wire fence contemplated in this inven-

tion is composed of a series of line-wires 1, of which there may any number, the said wires being fastened at intervals to fence-posts 2 and being connected intermediate the posts by means of stays or stay-wires 3, arranged at any suitable distance apart.

By reference to Fig. 2 it will be seen that each line-wire is kinked or bent, as shown at 4, to form an offset for the reception of the stay 3, the stay-wire being received in the hollow side of the offset 4, as illustrated in Fig. 5. Each stay is provided at intervals with oblong loops 6, shaped to resemble the script letter "e," the loop being so disposed as to extend at an angle or inclination to the vertical, as shown in Fig. 3. It will be understood that each stay-wire is first formed with a series of loops before starting to set up the fence, and the loops 6 are arranged at intervals corresponding with the location of the line-wires 1. It will also be noted that the said loops extend upward, so as to form pockets or rests in which the line-wires are placed preparatory to forming the tie or lock.

After placing a line-wire in position between a loop 6 and a stay 3, as shown in Fig. 3, by means of a suitable implement, such as a rod or lever, the upper or free portion of the loop is bent backward over the line-wire 1 from one side of the upwardly-extending portion of the stay 3 just above the line-wire and thence horizontally across and in rear of the stay and then forward over the line-wire and at the opposite side of the stay, after which the tie or lock is completed by bending the extremity of the loop downward in front of and across the line-wire, as shown in Fig. 4, until the extremity of the loop approaches and nearly touches the downwardly-extending portion of the stay, as shown in Fig. 4.

As a result of the construction hereinabove described only one portion of the stay is received in the hollow side of the kink 4 of the line-wire, as shown in Fig. 5, while other portions 7, 8, 9, and 10 of the loop 6 bear against the opposite side of the line-wire, the portions 7 and 8 resting at one side on the projecting portion of the kink 4 and the other portions 9 and 10 of the loop bearing against the line-wire at the opposite side of the projecting portion of the kink 4. It will be apparent that

the line-wire is thus firmly locked to the stay-wire and relative slipping movement between the line-wire and stay-wire is prevented both in a horizontal and vertical direction, the portions 7, 8, 9, and 10 of the loop preventing horizontal movement, the base 11 of the loop preventing the line-wire from moving downward, while the portions of the loop passing behind the upwardly-extending portion of the stay prevent upward movement of the line-wire. It will also be apparent that by means of the construction described it is unnecessary to twist the loop upon itself while passing the same behind the body of the stay, and this is an important item, as it obviates excessive chafing and breaking of the galvanized coating from the wire at the point where it is most important to protect the wires from rust. The construction described also avoids the additional operation of twisting the loop upon itself and renders the operation of forming the tie or lock simple and easy to accomplish.

In Figs. 6 and 7 I have shown a slight change in the manner of forming the loop and lock or tie without departing from the principle of the invention. By reference to said figures it will be noted that the loop (indicated at 12) extends downward instead of upward, the line-wire resting in the bend 13. The loop 12 is bent upward to pass in front of the line-wire and thence backward around the upwardly-extending portion of the stay,

after which it is again bent forward over the line-wire and downward in front of the same, terminating adjacent to the downwardly-extending portion of the stay. The form first described is, however, preferred.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

The combination with a wire fence embodying a line-wire provided with a kink or offset, of a stay crossing the line-wire and having a single portion thereof received in said kink or offset, the stay being provided with an oblong loop one portion or side of which extends under the line-wire and both portions or sides of which extend upward at one side thereof thence over the line-wire, behind the body of the stay above the plane of the line-wire, then over the line-wire at the opposite side of the stay and finally downward across the line-wire to a point near the downwardly-projecting portion of the stay, leaving two portions of the loop bearing against the line-wire at opposite sides of the projecting portion of the kink or offset and thereby forming a lateral lock or bond, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH F. DONAGHY.

Witnesses:

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