

(No Model.)

J. E. JONES.  
WIRE FENCE.

No. 558,960.

Patented Apr. 28, 1896.

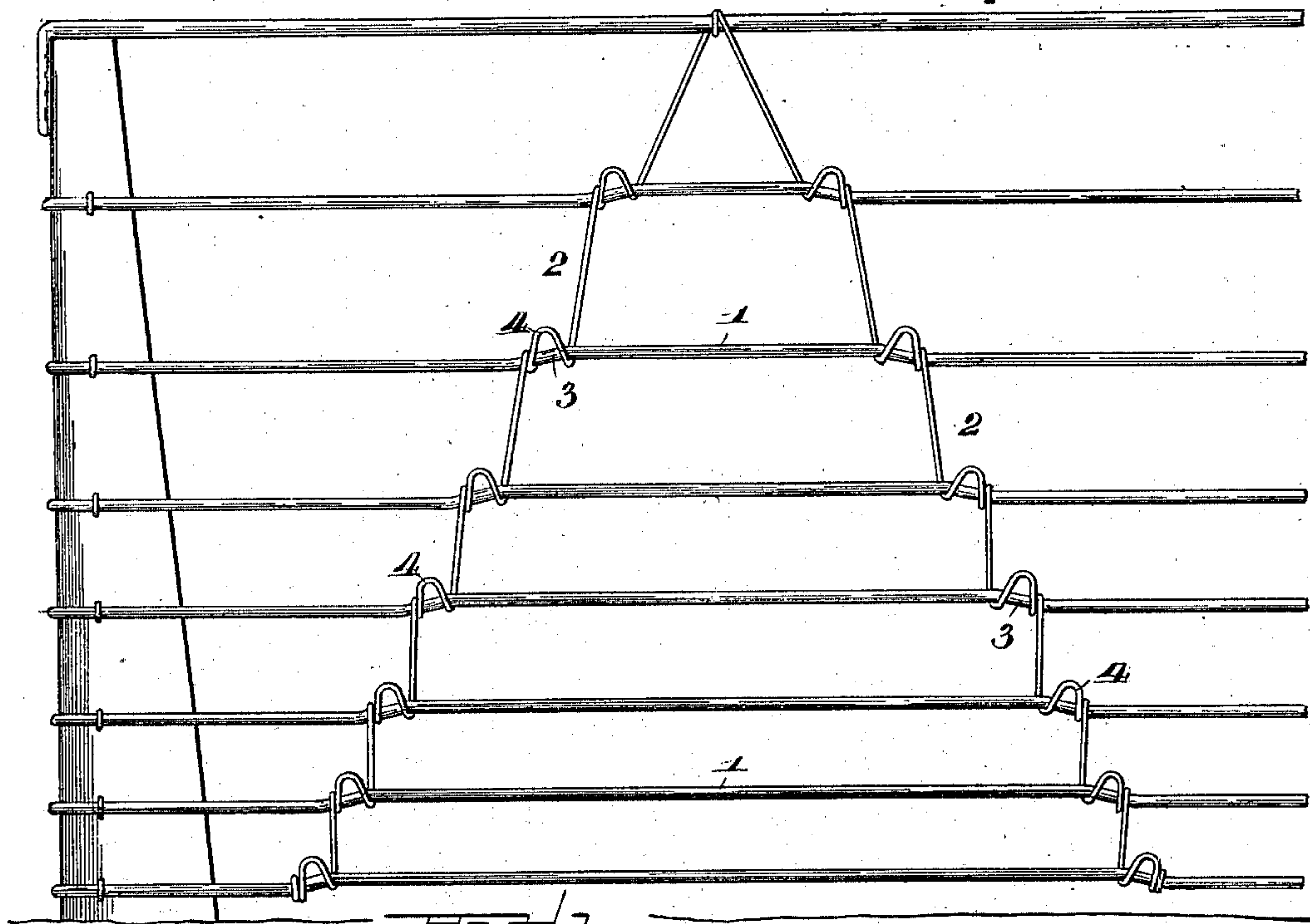


FIG. 1.

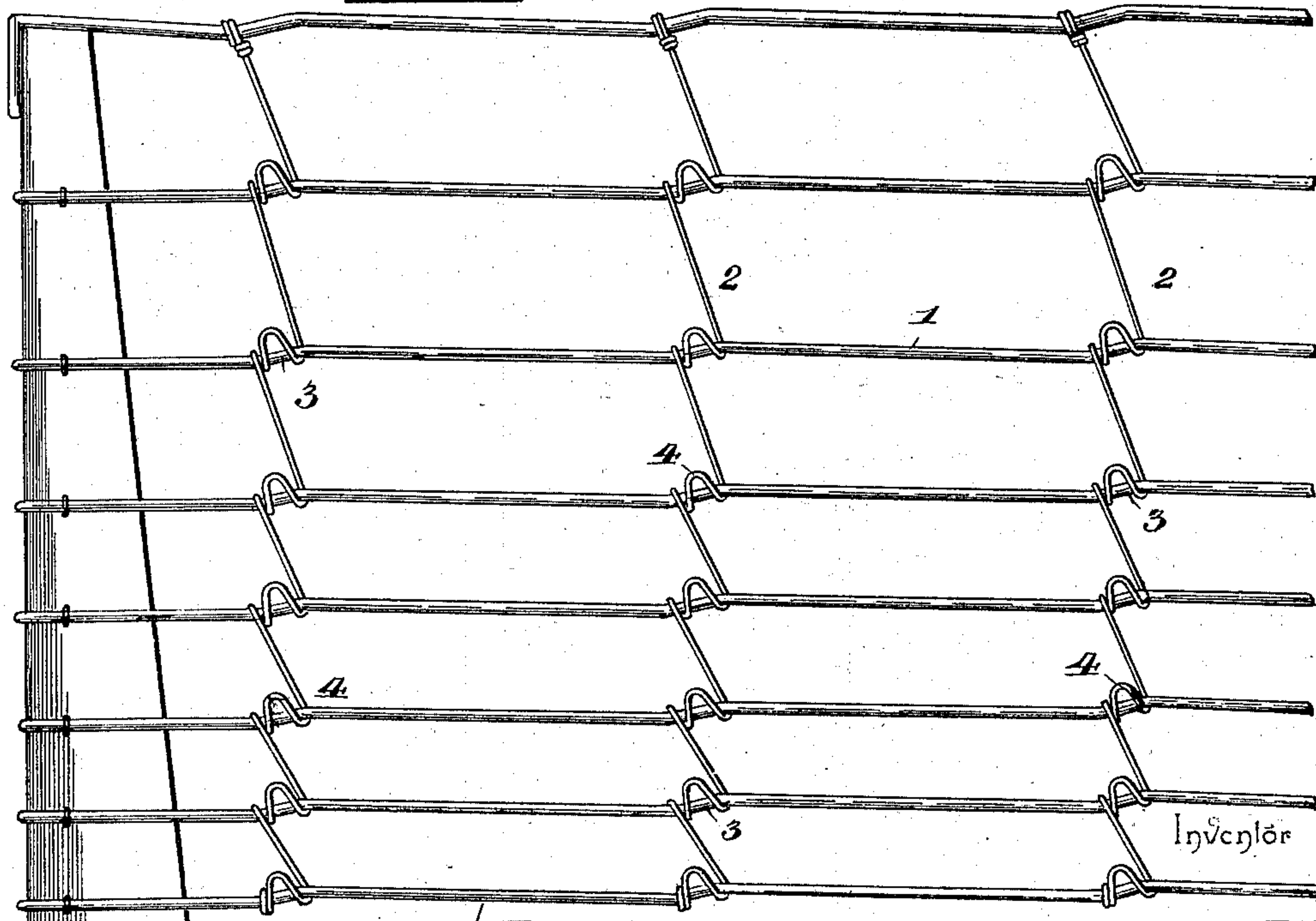


FIG. 2.

Witnesses

*H. F. Doyle*  
*E. E. Doyle*

By his Attorneys.

James E. Jones,

*Chas. Snow & Co.*



# UNITED STATES PATENT OFFICE.

JAMES E. JONES, OF ATLANTA, NEW YORK.

## WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 558,960, dated April 28, 1896.

Application filed July 25, 1894. Serial No. 518,560. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES E. JONES, a citizen of the United States, residing at Atlanta, in the county of Steuben and State of New York, have invented a new and useful Wire Fence, of which the following is a specification.

This invention relates to wire fences; and it has for its object to provide a new and useful construction of stay, which combines with the line-wires or runners to provide for securing the line-wires or runners at any desired tension by the adjustment of the stays thereon.

With this object in view the invention consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a side view of a fence embodying the present invention, the stays being illustrated as being arranged in inclined positions. Fig. 2 is a similar view showing the stays arranged in vertical planes.

Referring to the accompanying drawings, the numeral 1 designates the line-wires or runners of the fence, connected at intervals by wire stays 2 and provided at the points of intersection with the stays with short straight inclined portions 3, around which straight inclined portions 3 the open loops 4 of the stays 2 are coiled.

The salient feature of the invention resides in the combination of the straight inclined portions 3 of the line-wires or runners and the disposition and wrap of the loops 4, and this construction and combination of parts should be noted with great particularity. In the first place it is to be noted that the line-wires or runners 1 are offset or bent to form straight inclined portions 3 at the desired intervals before the stays are applied thereto, said straight inclined portions of the several line-wires or runners being arranged either in inclined alinement, as shown in Fig. 1, or vertical alinement, as shown in Fig. 2, according to the preferred position of the stays. The stay-wires 2 are of a smaller gage than the line-wires or runners, so it will be obvious that the loops 4 may be twisted or coiled around the inclined portions 3 of the line-wires or runners by the insertion of a pin in the loops without bending or crimping the straight in-

clined portions 3 of the line-wires at a point between the sides of the loops in the stays. The point of the inclined portion 3 of a line-wire between the sides of a loop in the intersecting stay therefore forms a fulcrum for a lever or pin, which is inserted in the loop to coil it around the runner, and by thus coiling the loops around the line-wires or runners the tension of the stays may be adjusted and also any looseness in the line-wires or runners may be taken up.

The looseness in the line-wires or runners is taken up by the operation of applying the stays, by reason of the fact that the contiguous portions of the stays are not in vertical alinement and intersect the line-wire at an interval approximately equal to the length of the inclined portion 3 thereof, whereby the opposite strains upon said contiguous portions of the stays, caused by coiling the loop around the line-wire, has a tendency to draw one portion of the line-wire downward and the other portion upward, and thus tend to increase the deflection or angle of the inclined portion 3. This result necessarily takes up the slack in and increases the tension of the line-wires or runners and also serves to maintain the tension of the line-wires or runners; and in this connection it is to be noted that the result referred to is insured by reason of the disposition of the contiguous portions of a stay out of alinement with each other and the disposition of the loop 4 between such contiguous portions at an oblique angle and in a plane substantially parallel with said contiguous portions of the stay.

In further explanation of the herein-described improvements, a description of the manner of constructing the fence will serve to emphasize the novelty of the construction claimed. In the first place, the line-wires or runners are applied somewhat loosely to the posts, after which the operator, with a pair of pincers or pliers, forms the short straight inclined portions 3. The stays are applied from their upper ends downwardly, and hence are first attached to the uppermost line-wire or runner. After fastening the stay-wire to the top line-wire or runner, it is grasped at a point about two inches below the second line-wire by means of the pliers, a twisting-pin is passed over the line-wire from the rear and engaged



with the stay above the pliers, and then the pliers are brought up against the line-wire before the pin is operated to form the loop. Thus sufficient slack is formed between the upper and second line-wires to form the loop and coil, when the pin is carried around the line-wire without drawing the line-wires bodily toward each other out of their normal stretched positions. In this way the stay is attached successively to the line-wires and is cut off when the lowermost line-wire is reached. Subsequently any slight looseness of the line-wires may be taken up by increasing the twist of the stays around the same, a very slight increase of tension caused by each stay amounting to an effective difference when multiplied by the entire number of stays.

A further advantage of the construction described resides in the fact that the inclined portions 3 of the runners prevent lateral displacement of the stays and allow contraction of the line-wires due to low temperature without straining the same sufficiently to cause fracture. If the strain exceeds the strength of the stays, which are of a smaller gage than the line-wires or runners, a stay will be fractured and thus relieve the strain upon the line-wires, the stay being replaceable at a less cost than the line-wires.

In Fig. 1 of the drawings the stays are arranged in an inclined or oblique position, and in order to facilitate application and increase the ornamental appearance said stays are arranged in pairs, providing a substantially V-shaped stay, the opposite portions of which are preferably formed of a continuous wire.

In Fig. 2 the stays are illustrated as arranged in substantially vertical planes, but the constructions illustrated in both figures

of the drawings embody the salient features of the invention.

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

In a wire fence, the combination of a series of parallel line-wires provided at intervals with short straight inclined portions 3 arranged in alinement from the top to the bottom of the fence, and a stay-wire intersecting all of the line-wires and provided at the point of intersection with each line-wire with a locking-loop 4 coiled upon the short straight inclined portion 3, of the line-wire and disposed at an oblique angle to a vertical plane and also in a plane substantially parallel with the contiguous straight portions of the stay-wires, the said straight portions of the stay-wire contiguous to and upon opposite sides of each line-wire intersecting the inclined portion 3 of the line-wire near its extremities and being out of alinement with each other whereby tensile strain in opposite directions upon said contiguous portions of the stay-wire, produced by twisting the loop 4, around the line-wire, provides means for positively increasing the angle of deflection of the inclined portion 3, of the line-wire and thereby increasing the tension thereof without causing the bending or kinking of said inclined portion of the line-wire, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES E. JONES.

Witnesses:

W. E. OTTO,

L. R. PARTRIDGE.