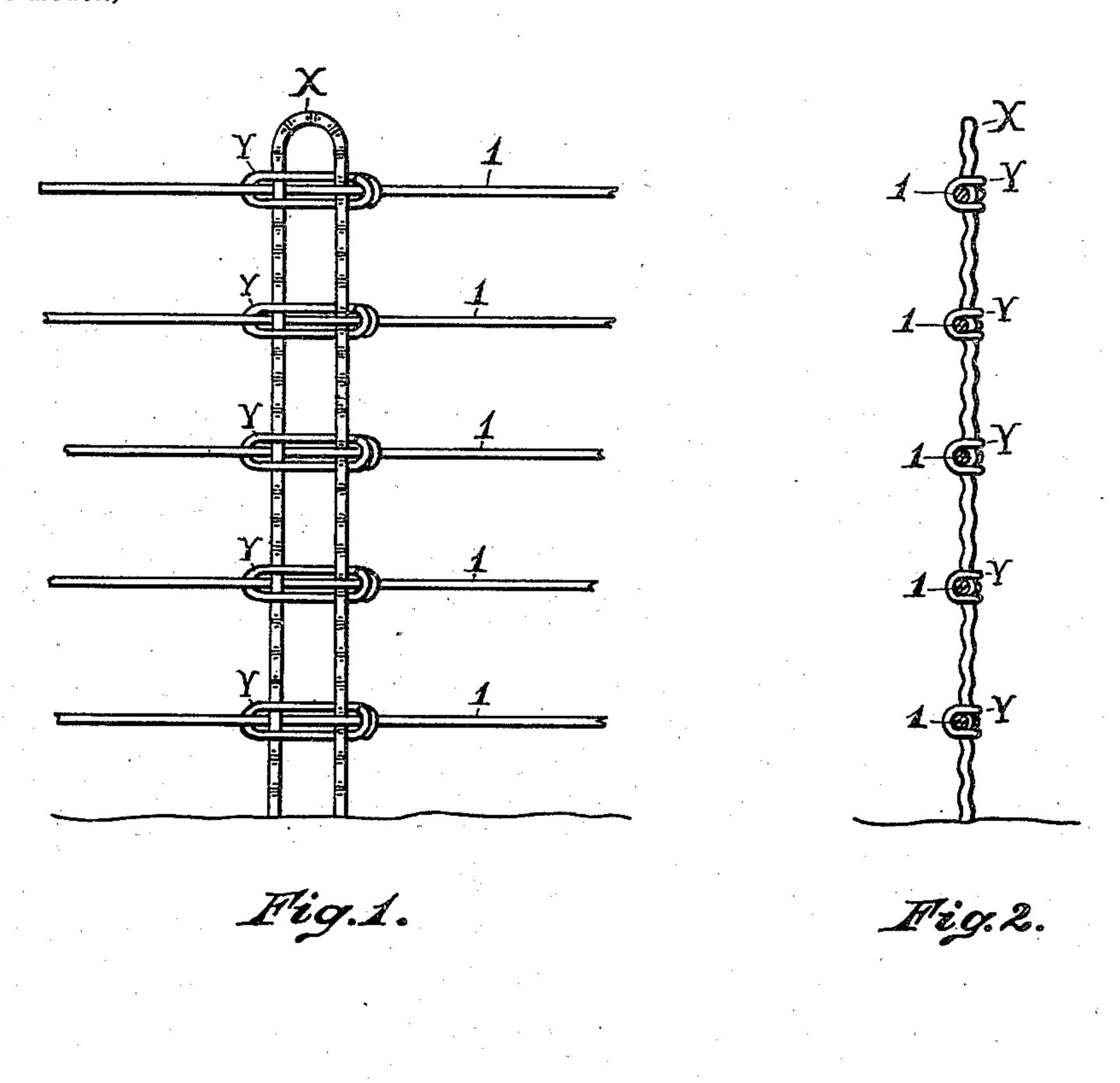
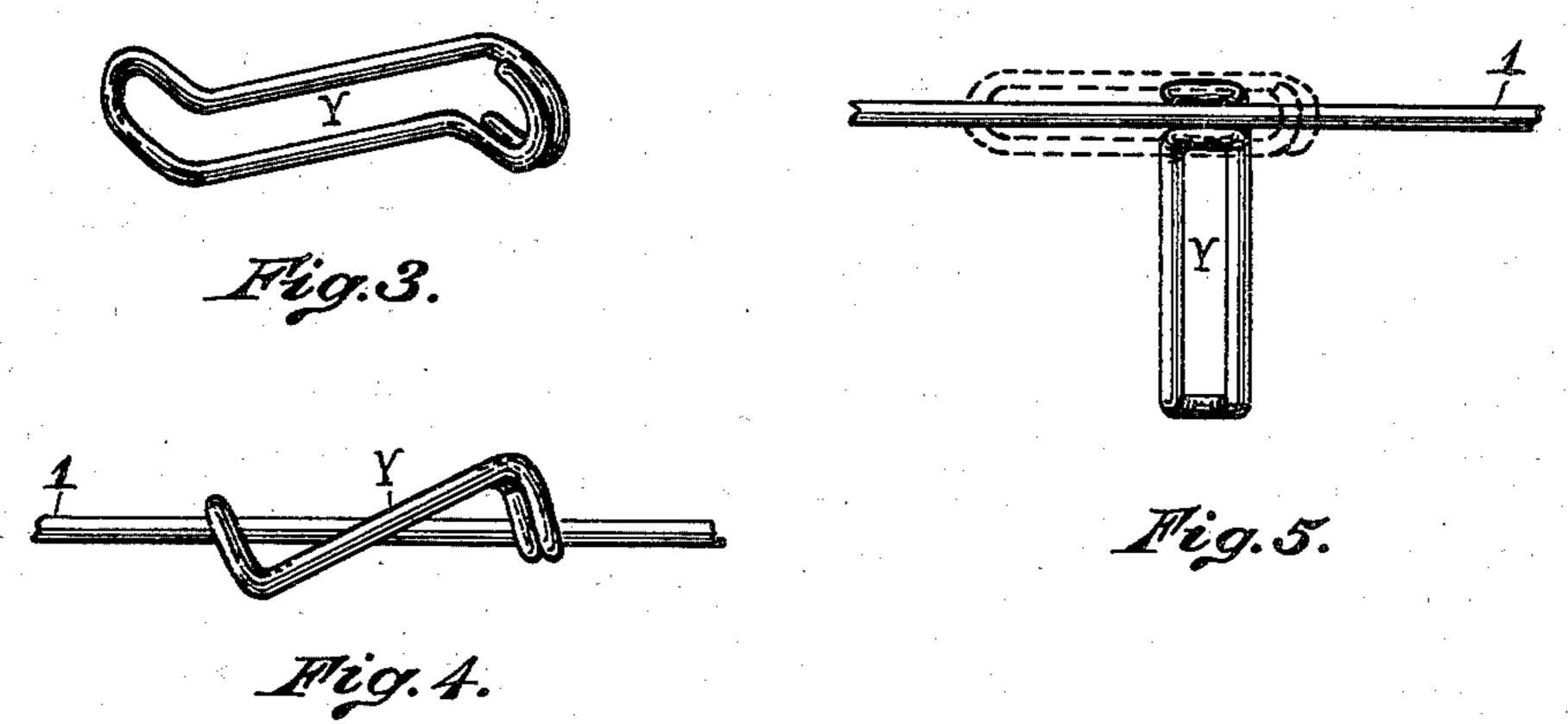
I. N. O'NEAL. WIRE FENCE.

(Application filed Feb. 14, 1902.)

(No Model.)





WITTHESSES:

S. G. Gewall. Fig. 6. ISAAC N. O'NEAL;

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United States Patent Office.

ISAAC N. O'NEAL, OF KOKOMO, INDIANA, ASSIGNOR OF ONE-HALF TO H. H. HARTGROVE, OF KOKOMO, INDIANA.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 708,391, dated September 2, 1902.

Application filed February 14, 1902. Serial No. 94,033. (No model.)

To all whom it may concern:

Be it known that I, ISAAC N. O'NEAL, a citizen of the United States, residing at Kokomo, in the county of Howard and State of Indiana, have invented new and useful Improvements in Wire Fences, of which the following is a specification, which is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to wire fences, and has for its object the provision of a wire fence of new and novel construction, neat and attractive in appearance, strong and durable in its parts, and which can be constructed at a comparatively low cost of material and labor.

Another object is to provide a wire fence provided with a double stay-rod of a new and novel form to be used in connection with the construction of my fence in a new and novel manner, and still another object is to provide a wire fence in connection with which are used links or fasteners of a new and novel form and adapted to be applied to the fence in a new and novel manner.

Other objects and advantages will appear from the following specification and from the the drawings, forming a part of this specification.

The invention consists in a wire fence embodying certain novel features and details of construction and relative disposition of parts, as hereinafter particularly set forth, illustrated in the drawings, and incorporated in the claims hereunto appended.

With the above-enumerated objects in view I will now refer to the accompanying drawings, in which—

Figure 1 is a view of a section of a wire fence constructed in accordance with my invention. Fig. 2 is a cross-section of same. Fig. 3 is a detail perspective of one of the clamps. Fig. 4 is a detail side view of one of the clamps, showing same attached to a portion of a linewire. Fig. 5 is a detail front view of one of the clamps in the act of being attached to a line-wire and in dotted lines its position after being attached; and Fig. 6 is a detail of a portion of a line-wire, showing the position of the stay-wire in section and also showing

the final shape of the clamp fulfilling its function.

Similar letters and figures of reference denote and refer to similar parts throughout the several views.

The numeral 1 designates the horizontal or line wire of my fence. These wires should be secured to posts in any well-known manner and properly tightened before attaching the other parts of my fence thereto.

X represents a double stay-wire formed of one length of wire, being bent in the middle to form the two parallel portions substantially as shown in Fig. 1. The stay-wire X should be passed through a machine, by which 65 it is crimped or corrugated into the form substantially as shown in Fig. 2.

Y represents my clamp or lock formed of one length of wire bent in the middle, so as that the two parts will be parallel and a short 70 distance apart. The ends are then bent in opposite directions parallel with and overlapping each other, so as to form a closed end corresponding to the opposite end of the link thus formed. Each looped end is then bent 75 in opposite directions and at right angles to the central parallel portions, substantially as shown in Fig. 3. I prepare the clamps Y in quantities in the form shown in Fig. 3, and the stays X are also previously formed and 80 crimped substantially as shown.

In operation the line-wires 1 are strung and secured in the usual manner. The clamps Y are attached to the line-wires 1 in the manner shown in Fig. 5, the contacting end portions 85 of the clamp Y being sprung apart by the line-wire 1, the line-wire 1 passing between said contacting ends of Y, after which the parts close together and the clamp is loosely suspended on the line-wire, as shown by the 90 dotted lines in Fig. 5 and also shown in Fig. 4. A clamp Y is placed on each line-wire in the manner described. The ends of the stay X are now placed in the two triangular spaces formed by the clamp and the uppermost line- 95 wire (said spaces being shown clearly in Fig. 4) and passed through said spaces to the second line-wire and clamp, where the ends of X pass through similar spaces in like manner, and so on to and including the bottom 100 line-wire and clamp, one portion of the staywire X being on one side of the line-wires and the other portion of the stay X being on the opposite side of the line-wires, as is apparent

5 in Figs. 1 and 6.

After the above-described operation is completed I apply pressure on each clamp Y from the front and rear, forcing the front portion rearward and the rear portion forward, causing the clamps Y to tightly bind the stays X to the line-wires 1, substantially in the form shown in Fig. 6, which shows a completed joint. By this operation it is apparent that the ends of the clamp Y are forced to an oblique angle with reference to the central portions thereof, as shown.

It is obvious that by the operation just described the line-wires will be forced into the indentations of the stays X, which will prevent the stays X from vertical displacement.

I have shown single line-wires in connection with my fence; but it is apparent that cable-wires can be used with success, if desired.

It is apparent that the required number of clamps can be strung on the line-wires in advance of the operation of inserting the stays, so that the workman will not have to bother with this operation and will be relieved of carrying a quantity of clamps.

From the above description it will be seen that I have produced an improved wire fence embodying the objects elsewhere referred to

in this specification.

35 While I have illustrated and described the

best means now known to me for carrying out my invention, I wish it to be understood that I do not restrict myself to the exact details of construction shown, but hold that any slight changes or variations in such details 40 as would suggest themselves to the ordinary mechanic would fall within the limit and scope of my invention.

Having now fully shown and described my invention and the best mode for its construction to me known at this time, what I claim as new, and desire to secure by Letters Patent

of the United States, is—

1. In a wire fence, the combination with the horizontal line-wires, of a vertical stay em-50 bodying two parallel corrugated strands connected at their upper ends and straddling the line-wires, and a clamp having its ends bent in opposite directions and embracing the line-wire to bend the latter to the stay, substan-55 tially as described.

2. In a wire fence, the combination with the horizontal line-wires, and the corrugated vertical stay straddling the line-wires, of a substantially **Z**-shaped clamp for each line-wire, 60 each clamp having its ends engaged with the line-wires at opposite sides of the stay, sub-

stantially as described.

In witness whereof I have hereunto set my name in the presence of two subscribing wit- 65 nesses.

ISAAC N. O'NEAL.

Witnesses:

R. E. RANDLE, R. W. RANDLE.