

No. 621,496.

Patented Mar. 21, 1899.

W. H. JOHNSON & S. D. FRY.

FENCE STAY.

(Application filed Mar. 1, 1897.)

(No Model.)

Fig. 1

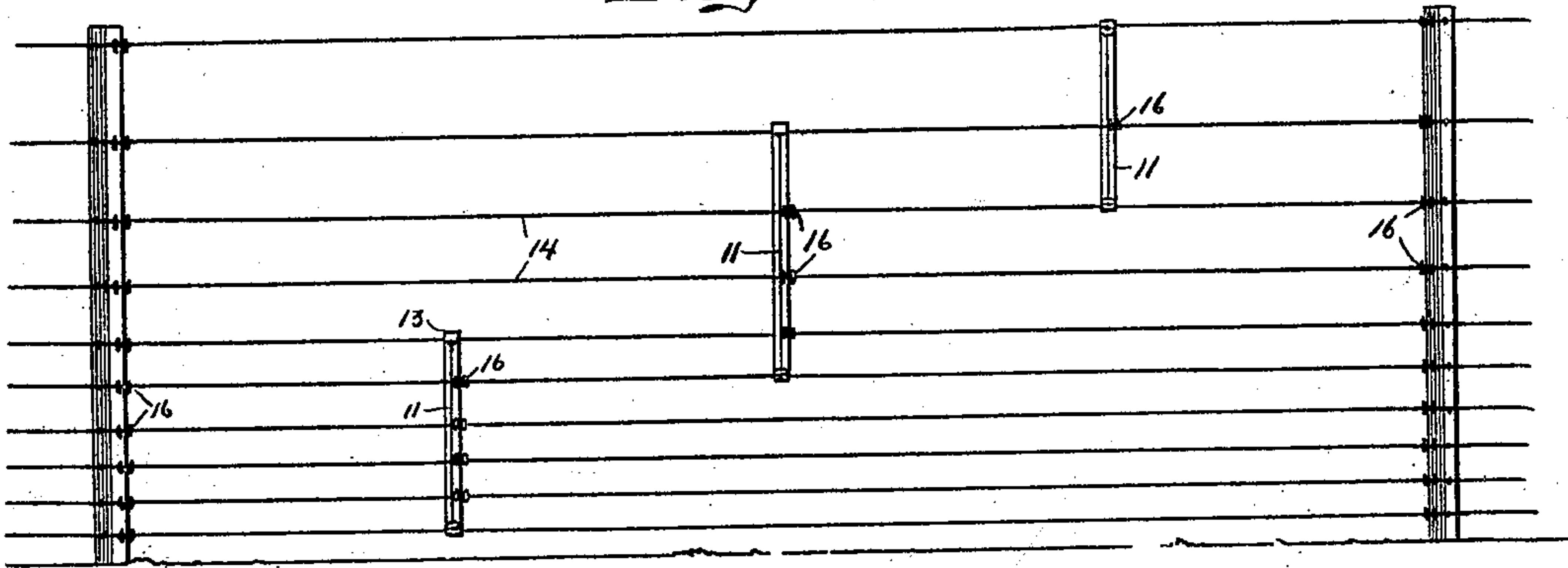
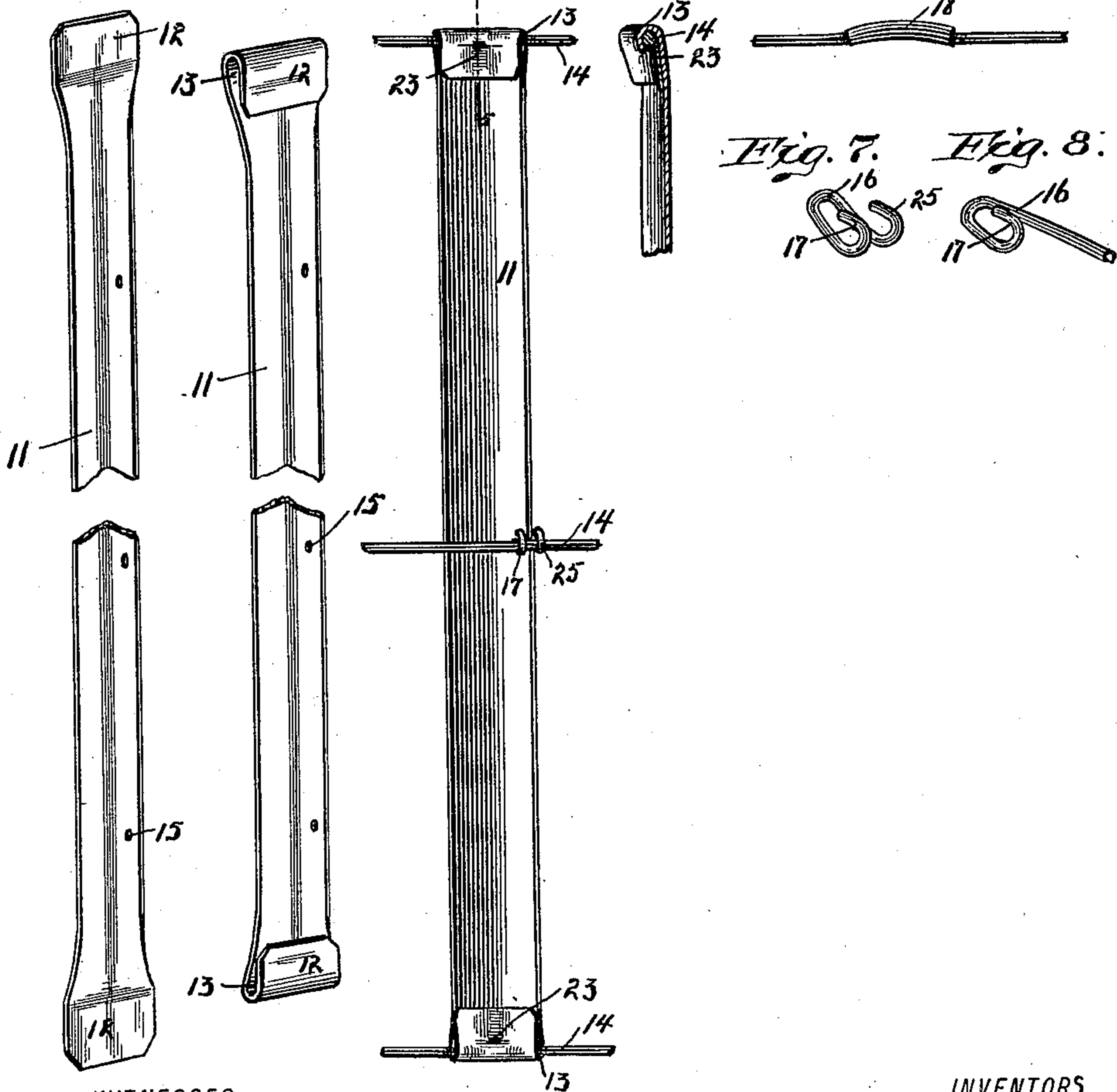


Fig. 2. Fig. 3. Fig. 4. Fig. 5. Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. JOHNSON, OF VEEDERSBURG, AND STEPHEN D. FRY, OF ATTICA, INDIANA, ASSIGNORS, BY MESNE ASSIGNMENTS, OF ONE-THIRD TO ALFRED F. JOHNSON, OF VEEDERSBURG, INDIANA.

FENCE-STAY.

SPECIFICATION forming part of Letters Patent No. 621,496, dated March 21, 1899.

Application filed March 1, 1897. Serial No. 625,595. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. JOHNSON, residing at Veedersburg, and STEPHEN D. FRY, residing at Attica, in the county of Fountain and State of Indiana, citizens of the United States, have invented a new and useful Fence-Stay, of which the following is a specification.

Our invention relates to an improvement in fence-stays.

10 The objects of our invention are, first, to produce a stay which is light, strong, and durable; second, to attach the intermediate wires to said stay in such manner that they may be stretched or loosened without affecting the stay, and, third, to provide means for rigidly securing the ends of the stay to the fence-wires.

The accompanying drawings illustrate our invention.

20 Figure 1 is a side elevation of a fence provided with our improved stay. Fig. 2 is a view of the stay before the loops are formed upon the ends thereof. Fig. 3 is a similar view showing the stay ready for attachment to the fence-wires. Fig. 4 shows a stay in position. Fig. 5 is a section on line 5 5 of Fig. 4. Fig. 6 is a detail of Fig. 4. Figs. 7 and 8 are details of the wire hooks used for holding the intermediate wires in position.

30 In the drawings, 11 indicates a stay formed of a strip of sheet metal, the middle portion of which is pressed into a V shape and the ends 12 of which are left substantially flat. Ends 12 are then doubled upon themselves so as to form hooks 13, each adapted to receive one of the longitudinal wires 14 of the fence. Formed through one of the sides of the V-shaped portion of the stay at distances to correspond with the distances between the various wires of the fence are holes 15. Stays 11 may be made of any desired length, so as to extend across any desired number of the fence-wires 14. It has heretofore been customary to rigidly secure the various intermediate wires to the stay. With such a construction the stays soon become twisted and out of line, owing to the difference in contraction and expansion of the various wires, and it is practically impossible to straighten them. In our construction the intermediate

wires are held in vertical position by means of a wire 16, which is adapted to be passed through any one of holes 15 of the stay. Wire 16 is doubled upon itself at about its middle point, and one end thereof is bent at substantially a right angle to the plane of the loop thus formed to form a hook 17, which is adapted to receive the intermediate wire 14. In this form the wires are placed upon the market, to be used in the manner hereinafter described.

In operation two of wires 14 are placed one in each hook 13 of the stay 11. Each of the hooks 13 is then clamped about the inclosed wire 14 in such manner as to prevent the removal of said wire. In order to secure wire 14 in position in hook 13 in such manner as to prevent the stay from being slipped along the wire, at the time hook 13 is clasped about the wire the wire and hook are together bent or kinked, as at 18, so as to conform somewhat to the V-shaped portion of the stay. In order to prevent the removal of wire 14 from hook 13 through the end thereof, a lip or projection 23 is forced inward from the inner surface of said hook, the arrangement being such that said lip or projection will engage said wire, as shown in Fig. 5.

The wires 14, which lie between the ends of the stay, may be secured thereto in any desired manner, but, as previously stated, it is preferable that a fastening means be used which will hold said wires in vertical position, but which will at the same time allow a free longitudinal movement thereof. With this in view the operator takes one of wires 16, previously bent into the form shown in Fig. 8, inserts the straight end thereof into one of holes 15, and pushes said wire through said hole until hook 17 engages and receives wire 14. The operator then bends the straight end of wire 16 into a hook 25, similar to hook 17, embracing wire 14.

Stays 11 may be secured to any two of the wires of the fence, but it is preferable that successive stays be secured to wires which are intermediate to the ends of adjacent stays, as shown in Fig. 1.

By securing the stay to the fence-wires at its ends only the intermediate wires are free

to move independently of the stay, so that if through unequal contraction or expansion the stay becomes tilted it may be easily straightened by tightening or loosening one
5 of the wires to which the end of the stay is secured. No amount of contraction or expansion of the wires, however, can twist or crook the stay, for the reason that it is secured at its ends only.

10 We claim as our invention—

1. As an article of manufacture, a fence-stay formed of sheet metal and having a corrugated middle portion and a flattened end, and a hook formed of said flattened end adapted
15 to receive and be secured to the wires of a wire fence.

2. The combination with a series of wires,

of a stay having a corrugated middle portion and a flattened end provided with a hook adapted to receive one of said wires, and a
20 kink or bend formed in said wire and the embracing hook.

3. The combination with a series of wires, of a stay provided with a hook adapted to receive one of said wires, a kink or bend formed
25 in said wire and the embracing hook, and a projection formed upon the inner face of the hook in position to engage the wire.

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