

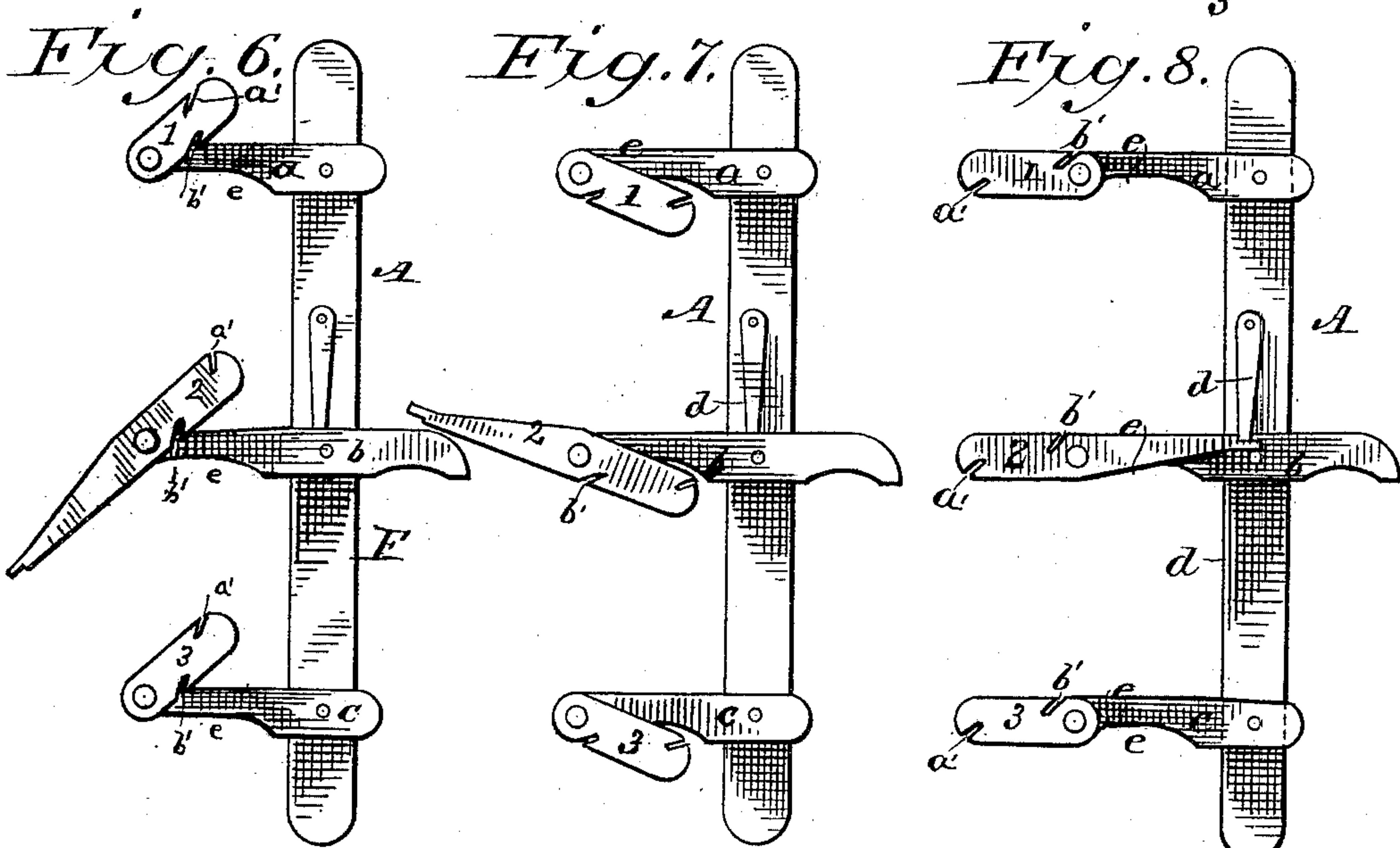
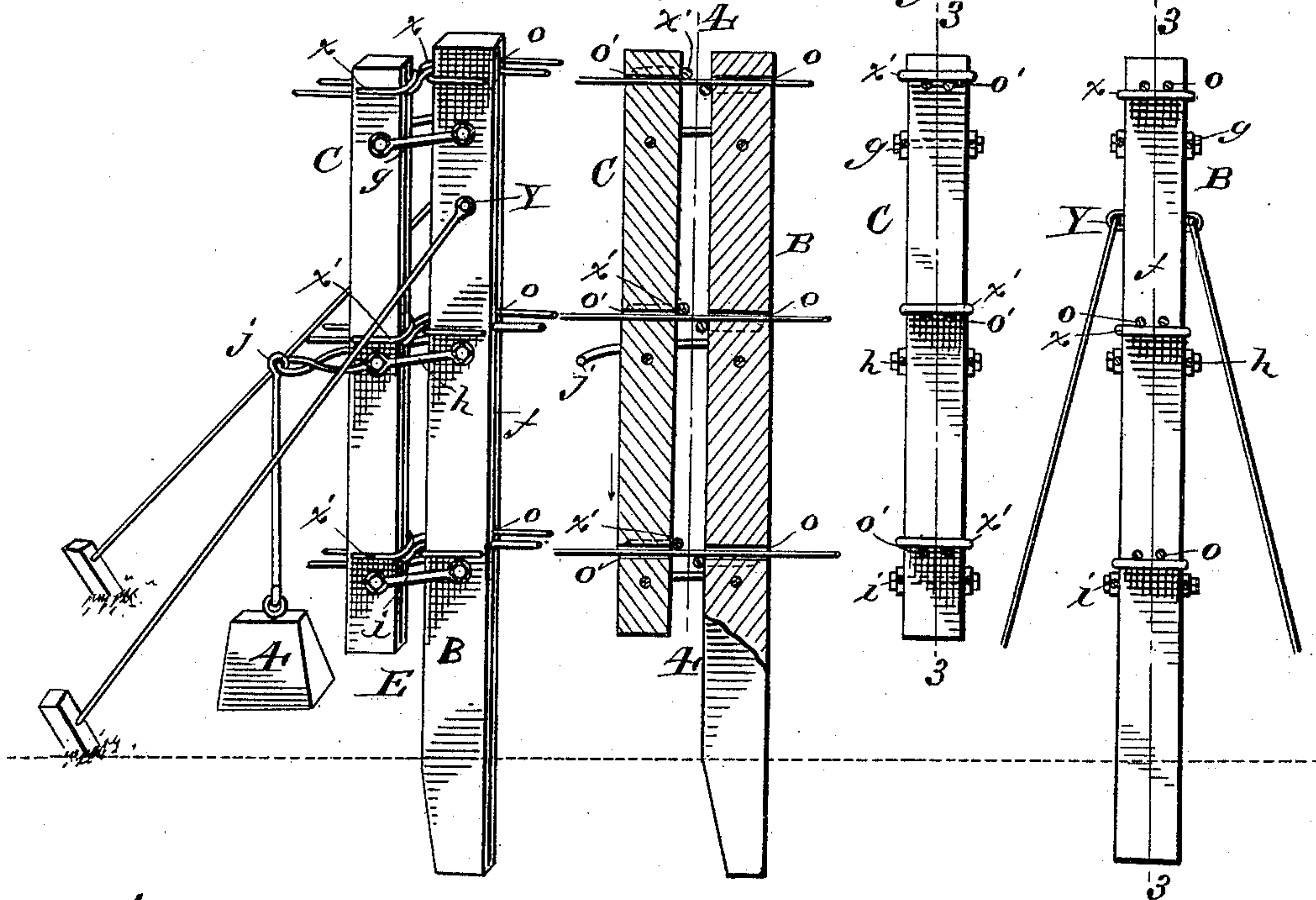


A. JONES.  
FENCE MACHINE.

No. 391,897.

Patented Oct. 30, 1888.

*Fig. 2. Fig. 3. Fig. 4. Fig. 5.*



WITNESSES,

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# UNITED STATES PATENT OFFICE.

AHIRA JONES, OF EAST BETHLEHEM, PENNSYLVANIA.

## FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 391,897, dated October 30, 1888.

Application filed July 12, 1888. Serial No. 279,721. (No model.)

*To all whom it may concern:*

Be it known that I, AHIRA JONES, of East Bethlehem, in the county of Washington and State of Pennsylvania, have invented a new and useful Improvement in Devices for Wiring Wood Fences, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to supply an economical and simple machine for weaving ordinary wire around wood or other pickets and thereby forming a continuous picket and wire fence.

In the accompanying drawings, Figure 1 is a perspective view showing a section of fence and my improvements in operation. Fig. 2 is a perspective view of the anchor mechanism similar to that shown at the right-hand side of Fig. 1. Fig. 3 is a section of the same on the line 3 3 of Figs. 4 and 5. Fig. 4 is an elevation of the part C taken from the point of view 4 4 of Fig. 3. Fig. 5 is an elevation of the part B taken from the point of view 4 4 of Fig. 3. Figs. 6, 7, and 8 are elevations of the weaving-stick, showing the movable parts in different positions to illustrate the working of the device.

A is a weaving-stick composed of a straight piece, F, of any required dimensions, having three fixed bars, *a b c*, at right angles to it, two at either end and one midway between the upper and lower bars projecting outwardly an equal distance. The bar *b* projects in one direction an equal distance with the other two, but has also a projection in an opposite direction made in the shape and for the purpose of a handle. At the extremities of each of the bars *a b c* are fixed upon journals arms 1 2 3, which I will designate as "wire arms." The wire arm 2 is fixed upon the bar *b* near its center, leaving a projection toward the stick F to engage with a catch, *d*. This is for the purpose of holding the weaving-stick firmly upon the wire when it is in position for making a fence. At the extremities of each of the wire arms 1 2 3 are slots or openings *a'*, cut diagonally in the edge of the stick to admit of the entrance of the wire and to hold it when weaving. On the opposite side of each of the wire arms is a similar opening, *b'*, extending in an opposite direction and parallel to the opening

*a'*. These slots are situated at such distance from each other as will keep the wires apart when the weaving-stick is in position sufficiently to admit of the introduction between the parallel wires of a picket. The under side of each of the bars *a b c* is hollowed out into a curve, *e*.

B is a straight piece of wood sharpened at the lower end and pierced upon its face *f* by a series of parallel holes, *o*. Immediately below each of the series of parallel holes *o* is fixed a round metal rod, *x*, extending transversely across the piece.

C is a stick of corresponding dimensions with B, but somewhat shorter. It is pierced with a series of parallel holes, *o'*, corresponding in position with the holes *o* in the stick B. Above each of these series of holes a round metal rod, *x'*, is secured, as in the piece B. The sticks B and C are joined together by three sets of parallel bars, *g h i*, fixed upon each side of the two sticks upon pivots which permit an oscillatory motion of the bar C along the stick B, which is intended to be firmly fixed in the ground. The parallel bar *h* projects behind the stick C when in position, forming a loop, *j*, from which a weight, 4, is to be suspended in use. At points *y*, on either side of the stick B, are secured rods of any desired length, which are intended to be fastened by pegs in the ground and hold the stick B in an upright position in use.

The sticks B and C, joined together as above described, constitute the anchor used in weaving. In order to bring the anchor into use the stick C is raised until the parallel holes *o'* and *o* are in a direct line, after which three sets of parallel wires are introduced entirely through the two sticks B and C, the coil of wire being on the side of the stick C. The stick C is then lowered and a weight, 4, is attached upon the loop *j*, causing the stick C to descend until it comes more or less closely in contact with the stick B. It will be seen that the rods fixed upon the opposite faces of the sticks B and C will catch the wires and will hold them in a bight between the two, the intensity of tension depending upon the gravity of the weight 4.

In Fig. 1, D is the starting-post, upon which are secured three sets of parallel wires extend-



ing from the post D to the anchor E, through which they are threaded, as above described. The weight being applied and the tension of the wires being properly regulated, the weave-  
 5 stick is affixed to the wires next to the post D. By a rising or lowering motion of the weave-stick A a rotary motion is imparted to each set of the parallel wires simultaneously. A  
 10 picket is then introduced in front of the twist in the wire and another raising or lowering motion of the weave-stick produces a similar convolution of the wires around the picket and holds it firmly in place. This is contin-  
 15 ued until the distance between the post D and the anchor E is filled up, when the anchor E is removed and the process continued, permanent stationary posts being placed at proper intervals.

It will be seen that the curves *e* in the bars  
 20 *a b c* permit the wires to come up into parallel position after the twist has been made. In this way three different weaves of the wire may be effected, depending upon the motion imparted to the weave-stick. The same motion  
 25 continued after the introduction of each successive picket makes a weave in which the same wire is at all times on top. An alternate motion will produce an alternating under and over weave. If the wire arms are deflected  
 30 back toward the stick F and a motion is imparted to the weaving-stick A, so as to carry the wire arms completely around the bars *a b c*, one complete revolution of the wires around each other will be effected.

I am aware that numerous devices have been  
 35 invented for the purpose of wiring wood fences of which some are more or less similar to the one which I claim as my invention. The difference between any other with which I am ac-  
 40 quainted and mine is the position of the wire slots *a' b'*, which are diagonal, upon the wire arms and extend in an opposite direction. The advantage of this arrangement is that the wires  
 45 always press toward each other and hold fast to the wire arm while being woven. The projection of the wire arm 2 to a catch, *d*, has the advantage of supporting the weaving-stick upon the wires, and prevents that vibratory  
 50 motion which in other machines interrupts the work after each passage of the weave-stick.

In the anchor the tension of the wires is simple and easily regulated. The wires may

be held loosely and fed out as the weaving pro-  
 gresses, or they may be held as in a vise and  
 55 any desired tension of the sets of wires may be produced.

In the accompanying drawings the dimen-  
 sions of my machine are given as accommo-  
 60 dating three sets of wires. This of course may be varied to suit convenience, taste, or utility to any number of series of wires. The stick  
 F may be pierced by different sets of holes, and the arms *a b c* may be secured to it by  
 65 bolts, so that any desirable change in adjustment in the position of the wires may be effected by merely removing the bolt-nuts and shifting the position of the bars.

What I claim as new, and desire to secure by  
 Letters Patent of the United States, is— 70

1. A weaving-stick having the wire slots or openings *a' b'* cut diagonally on opposite sides of the wire arms and extending in an oppo-  
 site and parallel direction, and the extended  
 75 wire arm 2, in combination with the catch *d*, substantially as set forth.

2. In a device for weaving fence, an anchor composed of two parallel sticks provided with openings *o* and *o'* for the passage of wires, and clutching the wires between opposite bars  
 80 or rods, *x x'*, substantially as set forth.

3. In a device for wiring wood fence, an anchor having two parallel sticks, B and C, secured together by movable bars *g h i*, pierced  
 85 by holes *o* and *o'* for the passage of wires, and clutching the wires between opposite rods, *x x'*, by means of a force communicated by the weight 4, substantially as set forth.

4. In a device for wiring wood fence, the combination of a weaving-stick, A, having on  
 90 its wire arms wire slots or openings cut diagonally in the wire arm and extending in parallel and opposite directions, with the extended wire arm 2 engaging with the catch *d*, and the  
 95 anchor E, composed of two parallel sticks, B and C, pierced with holes *o o'* for the passage of wire, and clutching the wires between the opposite rods or bars by means of force communicated by the weight 4, substantially as set  
 100 forth.

In testimony of all which I have hereunto  
 subscribed my name.

AHIRA JONES.

Witnesses:

HIRAM T. CLEAVER,  
 WM. P. WOLF.