(No Model.) 2 Sheets—Sheet 1.

A. & C. A. CHURCH.

WIRE FENCE TOOL.

No. 598,907. Patented Feb. 15, 1898.

FIG. 1.

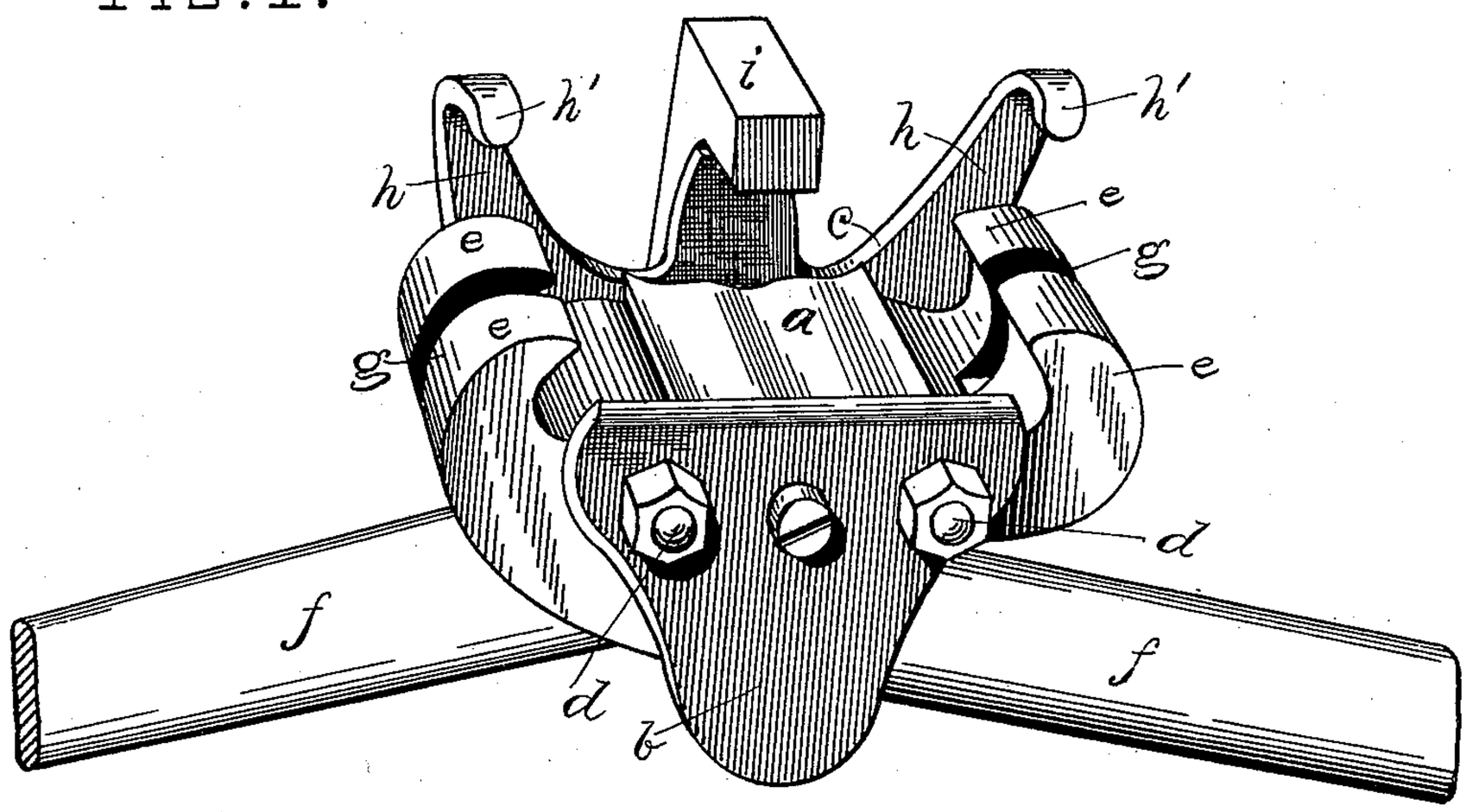
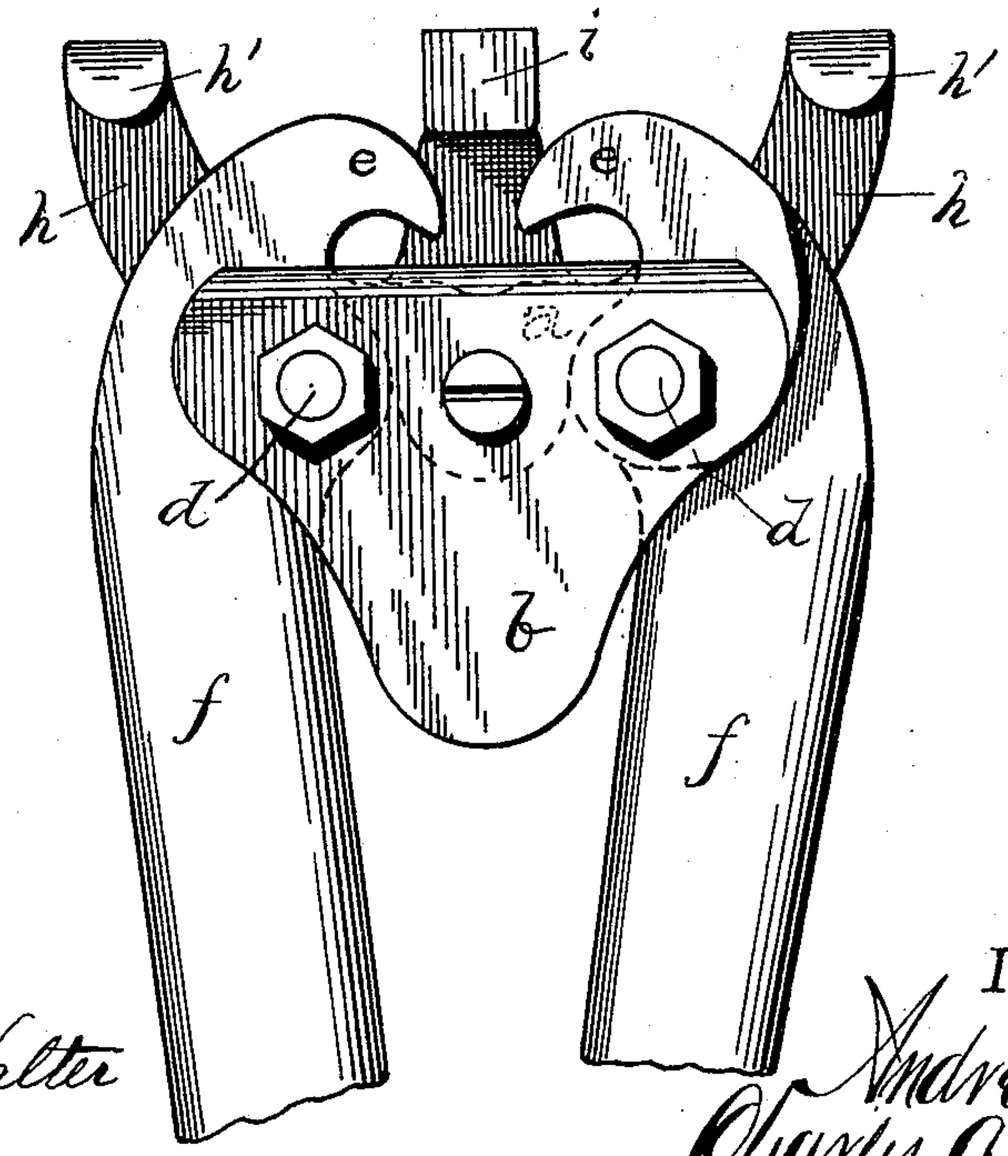


FIG. 2.



Witnesses.
David C. Walter
L. E. Brown.

Inventors:
Andrew Church,
Charles A. Church,
By Munn & Hall, Their Attys.

(No Model.) 2 Sheets—Sheet 2.

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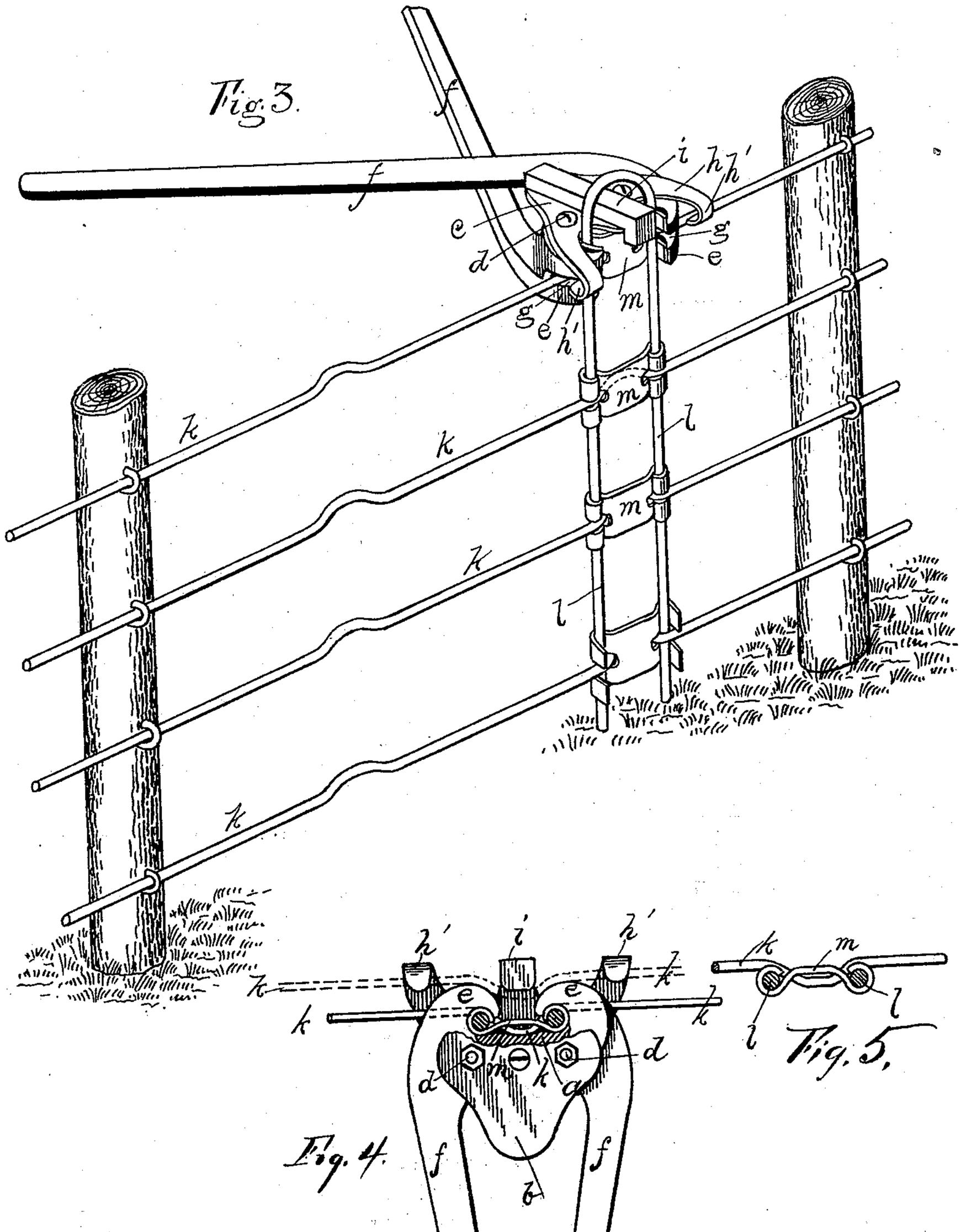
Fig. 3.



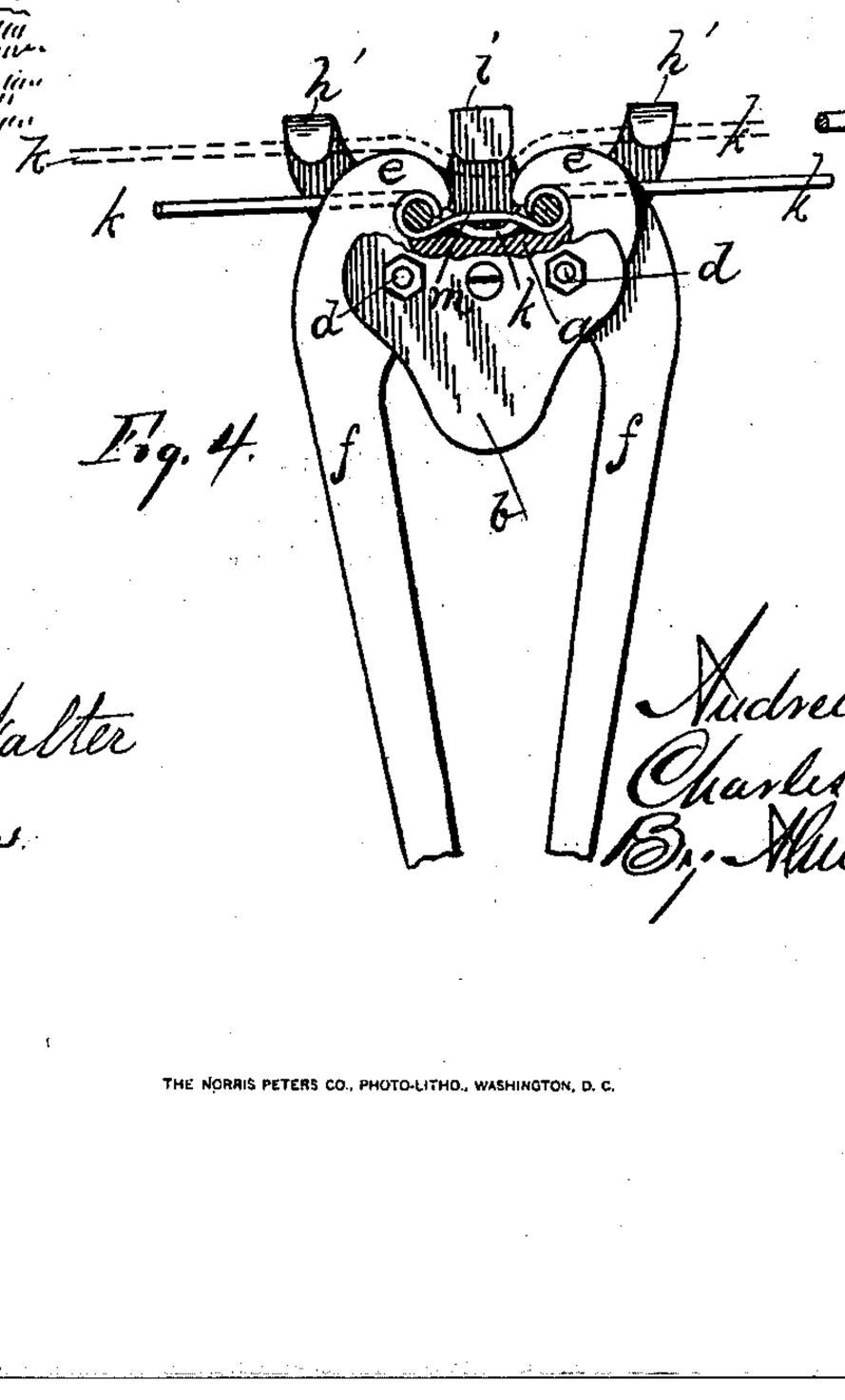


Fig. 4.

Fig. 5.

Witnesses.
David C. Walter
L. C. Brown.

Inventors:
Andrew Church,
Charles A. Church,
By Allen Hall,
Their Atty.

UNITED STATES PATENT OFFICE.

ANDREW CHURCH AND CHARLES A. CHURCH, OF ADRIAN, MICHIGAN.

WIRE-FENCE TOOL.

SPECIFICATION forming part of Letters Patent No. 598,907, dated February 15, 1898.

Application filed July 23, 1896. Serial No. 600,243. (No model.)

To all whom it may concern:

Be it known that we, ANDREW CHURCH and CHARLES A. CHURCH, citizens of the United States, residing at Adrian, Lenawee county, Michigan, have invented certain new and useful Improvements in Wire-Fence Tools, of which the following is a specification.

In the construction of the wire fence devised by us, which is made the subject of a separate application concurrent herewith, the horizontal wires are braced and held in parallel relation by means of suitable vertical ties or braces, the horizontal and vertical parts being secured together by means of plates bifurcated at each end, thus forming projecting prongs or fingers, which plates bestride the horizontal wires, the extremities of the fingers or prongs being closely crimped around the brace or tie. Before applying the vertical wires each of the horizontal wires of the fence is crimped or bent with a short horizontal bend where the braces or ties are to be applied.

Our invention relates to and its object is to provide a tool or implement adapted and designed to make the bend in the horizontal wire here referred to; also, to crimp and clamp the fingers or prongs of the plate around the vertical braces alluded to. We attain these objects by means of the device hereinafter described and shown and illustrated in the accompanying drawings, made part hereof, in which—

Figure 1 illustrates a perspective front view of our device with its jaws distended; Fig. 2, a front elevation of the same with its jaws closed; Fig. 3, a perspective view of a fence, showing our fence-tool in the act of clamping the fingers of a plate around the legs of a vertical brace; Fig. 4, a bottom plan view of our device, showing the clamping process completed, and by means of dotted lines showing the mode of crimping the horizontal fence-wire; and Fig. 5 is a plan view, partly in section, showing the horizontal wire, the vertical braces, and the clamping-plate as left by our tool in their final fixed relation.

Like letters of reference indicate like parts throughout the several views.

In the drawings, *a* is a block to one side of which is secured a face-plate *b* and to the other side of which is secured a back plate *c*. Between these two plates, on either side of the block, are pivoted, as at *d*, jaws *e e*, provided with handles or levers *f f*, these jaws being turned inwardly in claw-shape fashion and being slotted centrally and longitudinally, as at *g*. (See Fig. 1.) The arrangement of the jaws and their handles and pivots is such that the jaws are closed by bringing the extremities of the handles toward each other, and the jaws are opened by the opposite motion of the handles. The back plate *c* is provided with two fingers *h* and a lug *i* between the fingers, all in the same plane and projecting beyond the line of movement of the jaws *e*. The fingers *h* terminate in an inward curve toward the jaws, forming a hook *h'*, and the lug *i* in like manner projects inwardly, as shown.

If desired, either of the plates *b* or *c* may be formed integral with the block *a*, or the three parts may be all formed of one piece; but for convenience of assembling the parts we prefer the construction shown.

In forming the horizontal crimps or bends in the horizontal fence-wires *k* the arms or levers of our implement are thrown wide apart, thus opening the jaws *e*, as shown in Fig. 1. The hooks *h'* and the lug *i* are rested upon the top of and engaged with the wire to be treated, as shown by the dotted lines in the bottom plan view, Fig. 4. The arms are now brought together, which causes the curved extremities of the jaws to respectively travel in the arc of a circle of which bolt *d* is the center, engaging in their course the wire on either side of the lug *i*. As the lug *i* is somewhat shorter than the fingers *h*, the outer curved surfaces of the jaws *e* force the wire outwardly on either side of the lug between the lug and the hooks, thus forming a bend or indentation in the wire, as shown by the wire in dotted lines in Fig. 4. During this operation the workman is relieved of the weight of the tool, as it rests mainly upon the top of the wire. When the wires, the vertical braces *l*, and the clamping-plates *m* are assembled, the plates will present the appearance shown upon the lower wire in Fig. 3, the fingers or prongs of the plate being open, as shown. In order to crimp and clamp the fingers or prongs of the plates around the vertical members of the brace or tie, the arms of the implement are thrown wide apart, thus opening the jaws to their full extent. The jaws of the implement are

now made to clasp the projecting fingers or prongs, the horizontal wire falling into the slots *g g*, forming a guide and support for the implement. The extremities of the arms are now brought together, the claw-like extremities of the jaws engaging and carrying the outer ends of the fingers or prongs with them in the circle described by the extremities of the jaws, thus upsetting and tightly clamping and crimping the fingers of the sheet-metal plate around the vertical members of the brace or tie of the fence. This operation may be repeated rapidly and as often as desired and by a single operator without assistance.

What we claim, and desire to secure by Letters Patent, is—

1. In a wire-fence tool, a pair of arms fulcrumed therein, three fixed stops in the plane of said arms adapted to hold a wire in the path of the inner extremities of said arms, and a hook or claw on the inner extremity of each of said arms, the exterior surfaces of said hooks being adapted to deflect the wire between the center stop and each of the other two stops, the interior surfaces of said claws being adapted to clasp between them and to bend inwardly the opposite ends of a clamping-plate, substantially as and for the purpose specified.

2. A wire-fence tool comprising a block, a pair of handles or levers fulcrumed thereon, a longitudinally slotted or split curved jaw upon each of said handles, and hooks or stops secured to said block adapted to engage and hold a wire in the path of said jaws, substantially as and for the purpose specified.

ANDREW CHURCH.
CHARLES A. CHURCH.

In presence of—
D. B. MORGAN,
F. E. PRIDDY.