

No. 678,160.

Patented July 9, 1901.

W. M. CHEW.
WIRE FENCE MACHINE.

(Application filed Mar. 26, 1901.)

(No Model.)

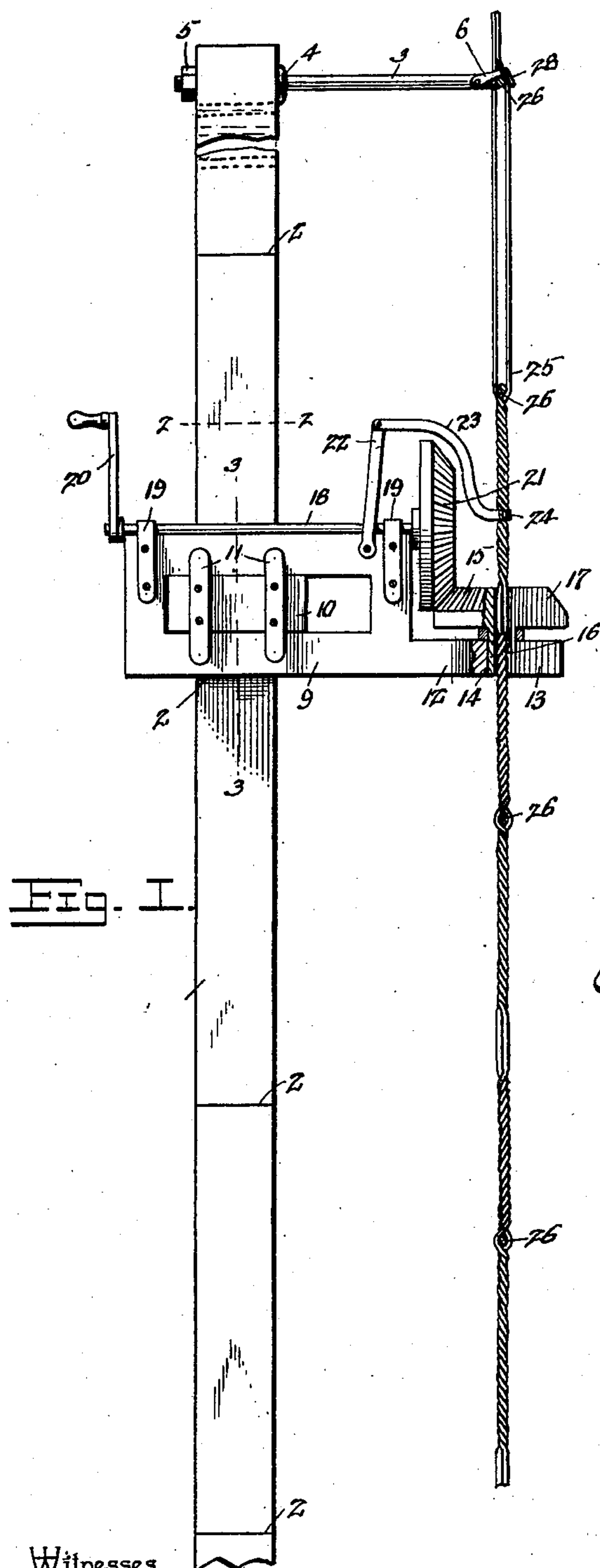


Fig. 1.

Fig. 4.

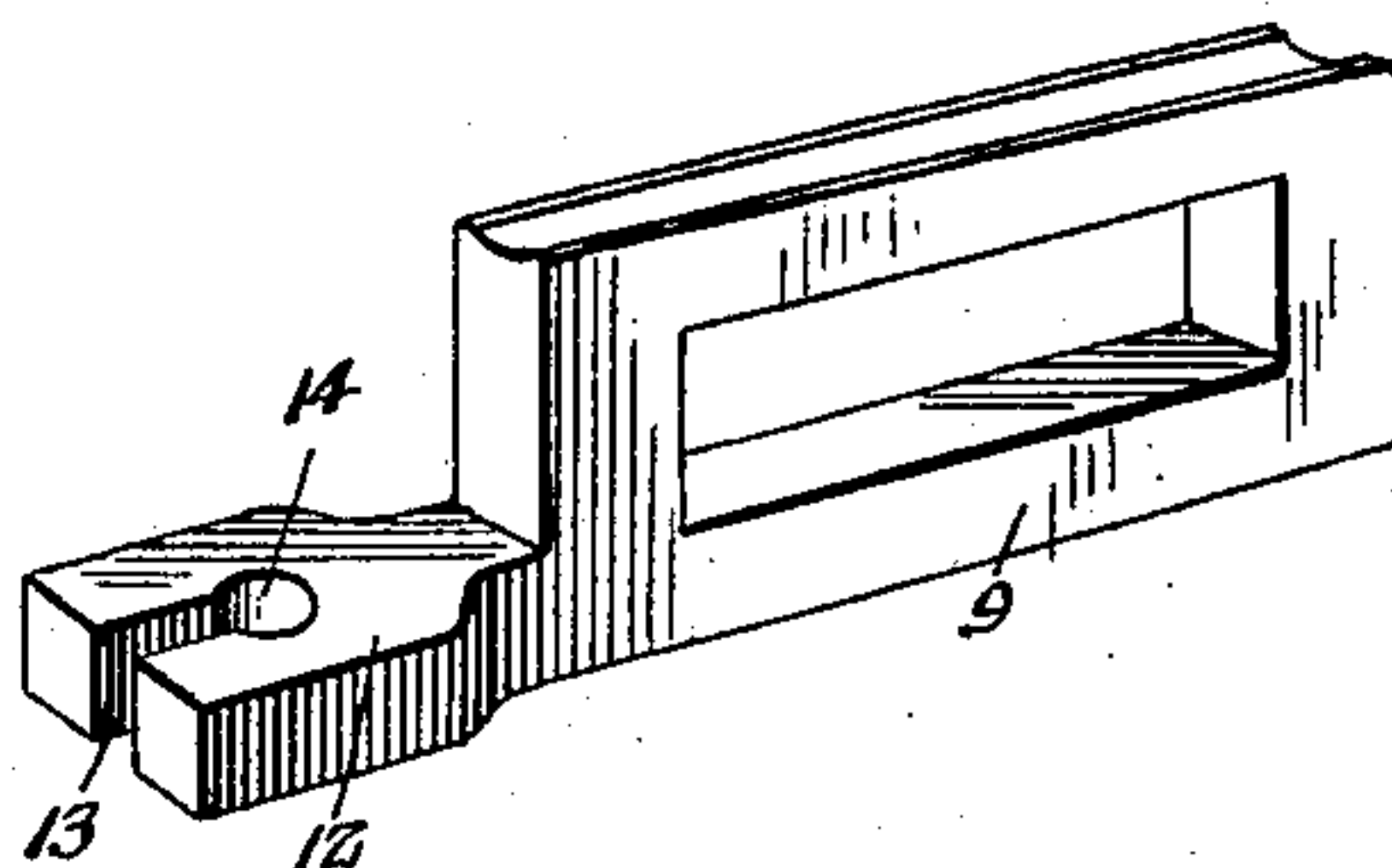


Fig. 2.

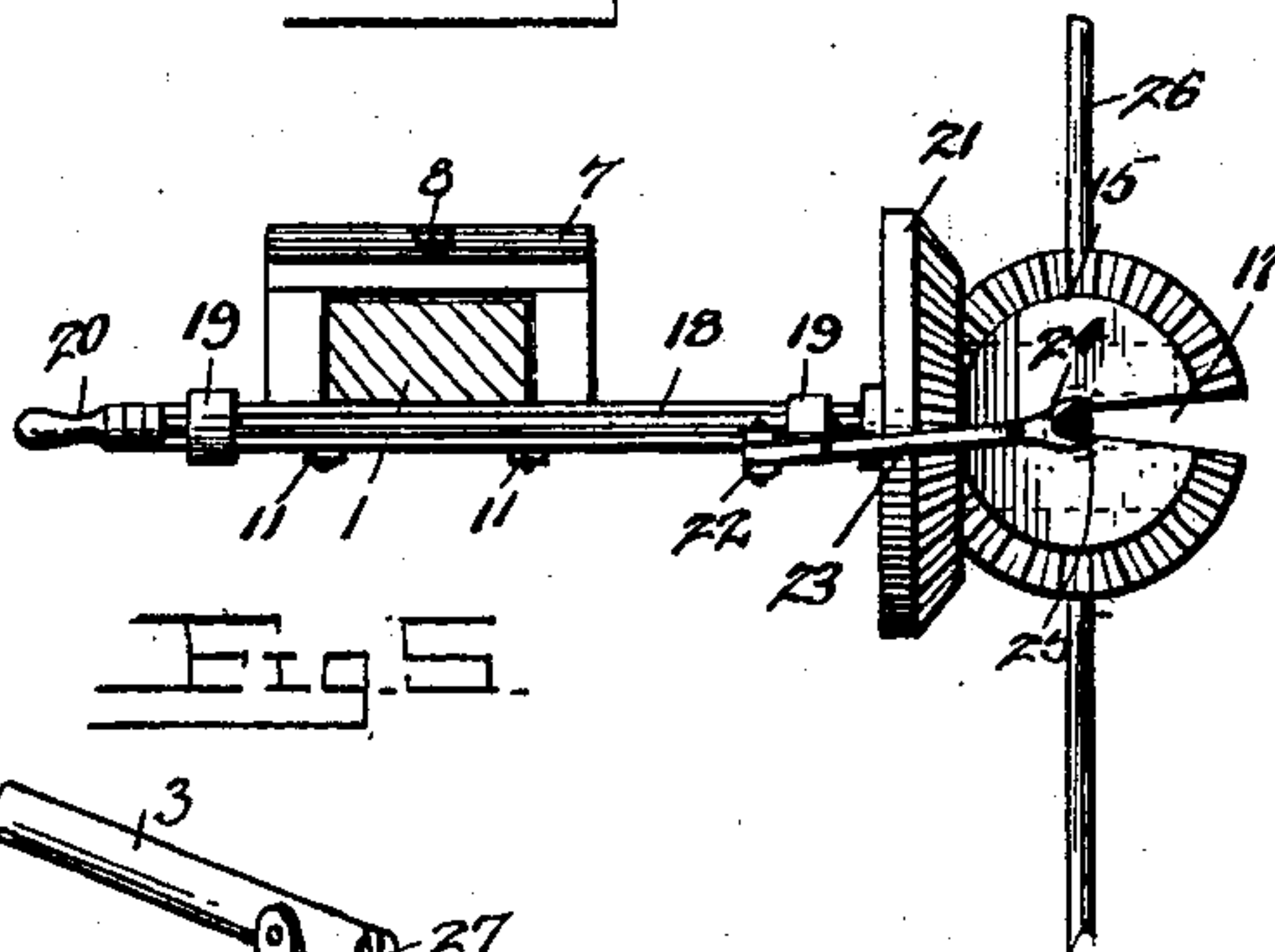


Fig. 5.

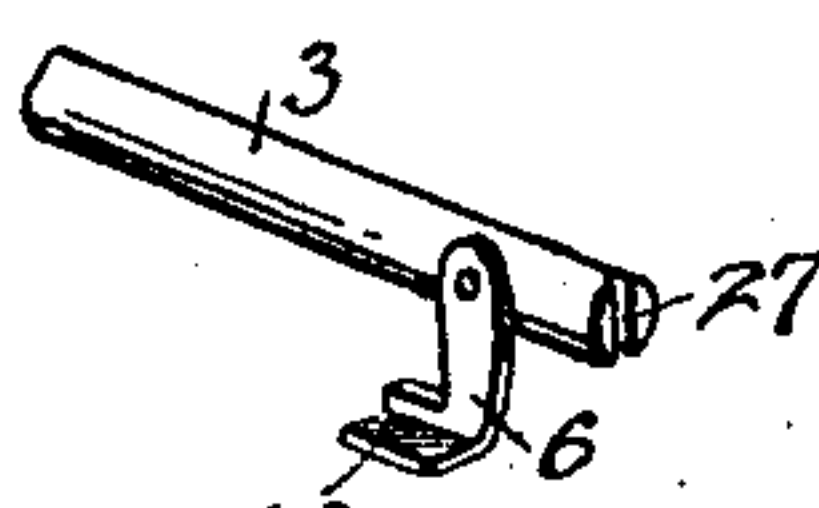
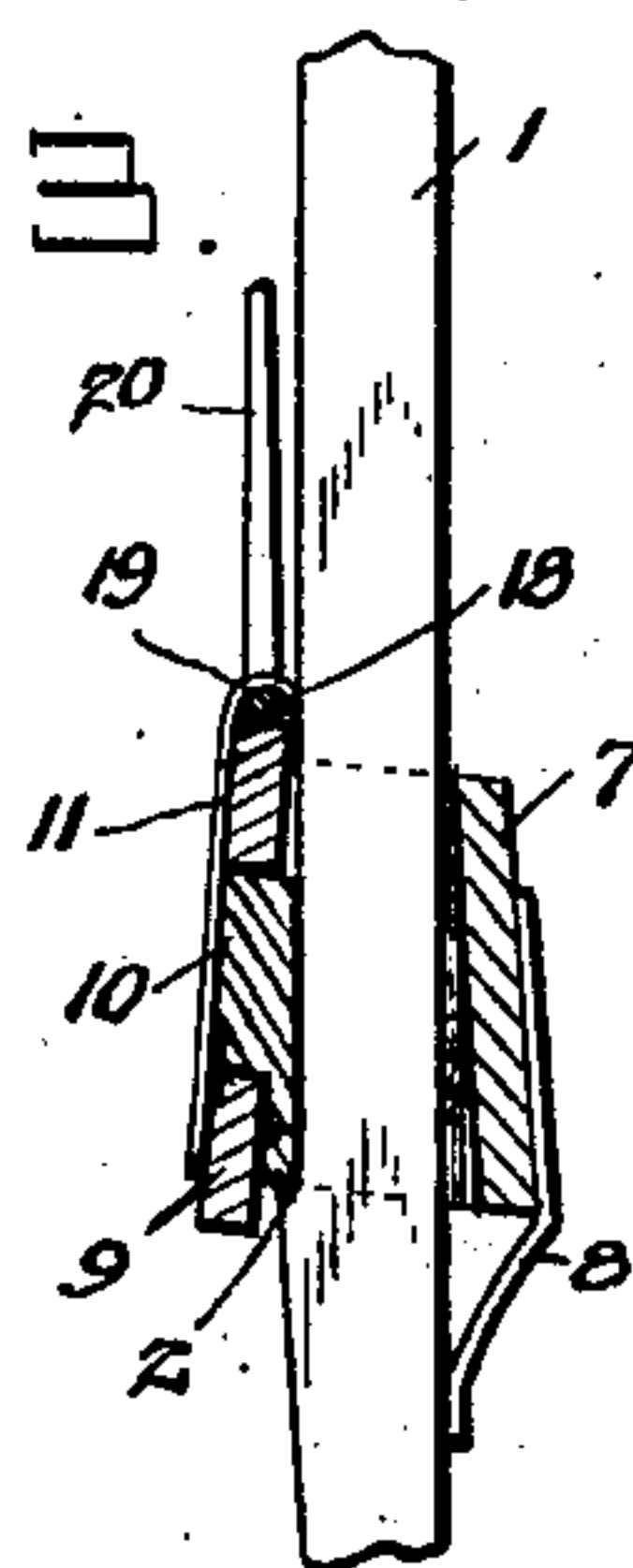


Fig. 3.



Witnesses
F. C. Alden.
H. J. Shepard.

W. M. Chew, Inventor.
by C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM M. CHEW, OF NEAR PETERSBURG, INDIANA, ASSIGNOR OF ONE-HALF TO JOSEPH L. ROBINSON, OF PETERSBURG, INDIANA.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 678,160, dated July 9, 1901.

Application filed March 26, 1901. Serial No. 52,991. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. CHEW, a citizen of the United States, residing near Petersburg, in the county of Pike and State of Indiana, have invented a new and useful Wire-Fence Machine, of which the following is a specification.

This invention relates to wire-fence machines, and has for its object to provide an improved machine for twisting stays or pickets upon the runner-wires which have been set up or secured to posts. It is furthermore designed to facilitate the application of the machine to the fence and to provide for the convenient adjustment of the device to twist the stays for the entire lengths thereof and to arrange for preventing the stays from becoming entangled with the twisting mechanism.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a side elevation of the present machine applied to a portion of a fence. Fig. 2 is a transverse sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a detail sectional view taken on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of the frame for carrying the twisting mechanism. Fig. 5 is a detail perspective view of the means for holding the upper end of the stay to be twisted.

Like characters of reference designate corresponding parts in all the figures of the drawings.

In carrying out the present invention there is provided an upright or standard 1, preferably in the form of a polygonal wooden post or bar, which is provided upon one face with a plurality of inclined notches to form ratchet-shoulders 2, and thereby provide the standard with a rack. The upper end of the standard is provided with a plurality of transverse

perforations alined longitudinally, as indicated by dotted lines in Fig. 1, for the adjustable reception of a transverse arm 3, having an intermediate stop-shoulder 4 and a terminal nut 5, whereby the rod or arm is rigidly connected to the standard. It will be observed that the rack and the arm are disposed at substantially right angles to one another. At the outer end of the arm there is provided a wire clamp in the form of a pivotal hook 6 for holding the upper end of a stay-wire, as will be hereinafter explained.

Upon the intermediate portion of the standard there is slidably mounted a tubular or box-like bracket 7, which loosely fits the standard, so as to be capable of a slight lateral movement, but is prevented from turning upon the standard by reason of its polygonal shape. A pendent spring-tongue 8, as best shown in Fig. 3, is carried by the back of the bracket and is in frictional engagement with the smooth back of the standard, so as to yieldingly hold the lower front edge of the bracket in engagement with one of the shoulders of the rack, and thereby adjustably support the bracket upon the standard. It will now be apparent that the lateral movement of the bracket is designed to permit of the disengagement of the bracket from the ratchet-shoulders. A longitudinally-slotted frame 9 is slidably carried by the bracket, the front of the latter being provided with an intermediate longitudinal rib or projection 10, that is slidably received within the slot of the frame, said slot being longer than the rib in order that the frame may be slid endwise in opposite directions transversely across the standard. After the frame has been applied to the bracket a pair of cleats 11 are secured to the outer side of the rib, with their opposite ends overlapping the frame, so as to prevent lateral displacement thereof and form a guide therefor. As indicated in Fig. 1, the frame projects at opposite sides of the standard and across the shouldered face thereof, there being a laterally-enlarged base projection 12, which is provided with a longitudinal bifurcation 13, terminating at its inner end in an enlarged circular perforation 14, as shown in Fig. 4.

The twisting mechanism comprises a horizontal beveled gear 15, having a journal 16,

that is rotatably mounted in the perforation 14 of the frame, the gear lying upon the upper side of the base extension and having a radial substantially V-shaped slot 17, that extends into the journal and has its opposite edges inclined or converged inwardly. Upon the upper edge of the frame, which is dished or concaved, there is mounted a rotatable shaft 18, held to the frame by means of the bearing-straps 19, that embrace the shaft and the opposite sides of the frame. The ends of the shaft project in opposite directions beyond the respective ends of the frame, and at its outer end there is provided a crank-handle 20, and at the opposite end there is provided an upstanding beveled gear 21 in mesh with the other gear 15. At the forward end of the frame and rising above the gear 21 there is an upright 22, to the upper end of which is pivotally connected an arm 23, which normally hangs downwardly across the outer face of the gear 21 and is provided at its lower free extremity with a fork 24.

In using the machine as shown in Fig. 1 of the drawings, to twist a stay-wire 25 upon the runner-wires 26 the standard is placed alongside of the fence and a doubled stay-wire is placed astraddle of the runner-wires, with its upper end engaged with the hook or wire clamp 6, after which the frame 9 is slid endwise, so as to receive the stay-wire within the bifurcations of the gear 15 and the base extension 12, the forked arm 23 then being swung over the gear 21 and then downwardly to receive the stay-wire within the fork, and finally the crank-handle is operated to turn the gears, and the opposite portions of the doubled stay-wire are twisted together between adjacent runner-wires. After the stay has been sufficiently twisted the frame 9 is slid rearwardly to disengage the twisting-gear from the stay, and the bracket is slid upon the standard to bring the frame between the next adjacent runner-wires, after which the twisting-gear is again engaged with the stay, these operations being repeated until the entire length of the stay has been twisted.

The purpose of the pivotal forked arm 23 is to form a guard to prevent the adjacent upper portion of the stay-wire from becoming entangled in the gears and to maintain the stay in proper alinement with the center of the horizontal twisting-gear.

It will be understood that the stay is formed from a doubled wire, the bend of which embraces the lowermost runner-wire, with its opposite sides extending upwardly at opposite sides of the runner-wires and projecting above the latter. The adjacent portion of the stay is received within a vertical transverse groove or seat 27, formed in the arm 3, which bears terminally against the uppermost runner-wire, and the hook-shaped clamp is swung downwardly, so as to engage over the runner-wire, whereby the latter is clamped between the hook and the outer end of the arm 3, so as to prevent outward displacement of the

machine. The hook, furthermore, has a lateral projection 28, which engages the farther side of the outer portion of the stay or picket to hold the latter tightly against the runner-wire.

What is claimed is—

1. A wire-fence machine, comprising a standard having a rack, a tubular or box-like bracket slidably mounted upon the standard and in adjustable interlocked engagement with the rack, a frame carried by the bracket and slidable transversely of the standard, and twister mechanism carried by the frame.

2. A wire-fence machine, comprising a standard, a bracket adjustable longitudinally thereon, a frame slidable transversely of the standard and carried by the bracket, one end of the frame having a longitudinal bifurcation, the inner end of which terminates in an enlarged circular perforation, a substantially horizontal beveled twister-gear, having a journal that is rotatably mounted in the perforation, there being a radial slot in the gear and extended into the journal thereof, a rotatable shaft mounted upon the frame, a beveled gear upon one end of the shaft and in mesh with the twister-gear, and a crank-handle at the opposite end of the shaft.

3. A wire-fence machine, comprising a standard, a bracket, which is adjustable longitudinally upon the standard, and has an intermediate outwardly-directed rib extended transversely of the standard, a frame having a longitudinal slot slidably receiving the projected rib and of greater length than the same, one or more cleats or projections secured to the rib and overlapping the slotted edges of the frame, and twister mechanism carried by the frame.

4. In a wire-fence machine, the combination with a support, of a rotatable radially-slotted twister beveled gear, operating mechanism having a beveled gear in mesh with the twister, a supporting-arm carried by the support and projected beyond the peripheral edge of the beveled gear, and a guard-arm pivotally connected to the outer end of the former arm, and having its free extremity provided with a fork, the pivotal arm being normally extended across the adjacent peripheral edge of the beveled gear with the fork in alinement with the inner end portion of the slot in the twister.

5. A wire-fence machine, comprising a standard, having ratchet-shoulders formed upon the front face thereof, a tubular bracket slidably embracing the standard, and having a spring frictionally engaging the back of the standard to draw the lower edge of the bracket into engagement with the respective shoulders of the standard, and twister mechanism carried by the bracket.

6. A wire-fence machine, comprising a standard, a lateral arm at the upper end thereof, and having a wire-clamp, a bracket adjustable longitudinally upon the standard, a frame carried by the bracket and adjust-

able transversely of the standard in the direction of the lateral arm, and twister mechanism mounted upon the frame, and having a twister element alined with the wire-clamp
5 upon the lateral arm.

7. A wire-fence machine, having a lateral arm provided with an outer terminal notch for the reception of a stay or picket, and a pivotal hook projected beyond the outer end

of the arm, and having a lateral projection to engage the opposite side of the picket.

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

WILLIAM M. CHEW.

Witnesses:

O. O. SMITH,

WILLIAM LÜBS.