

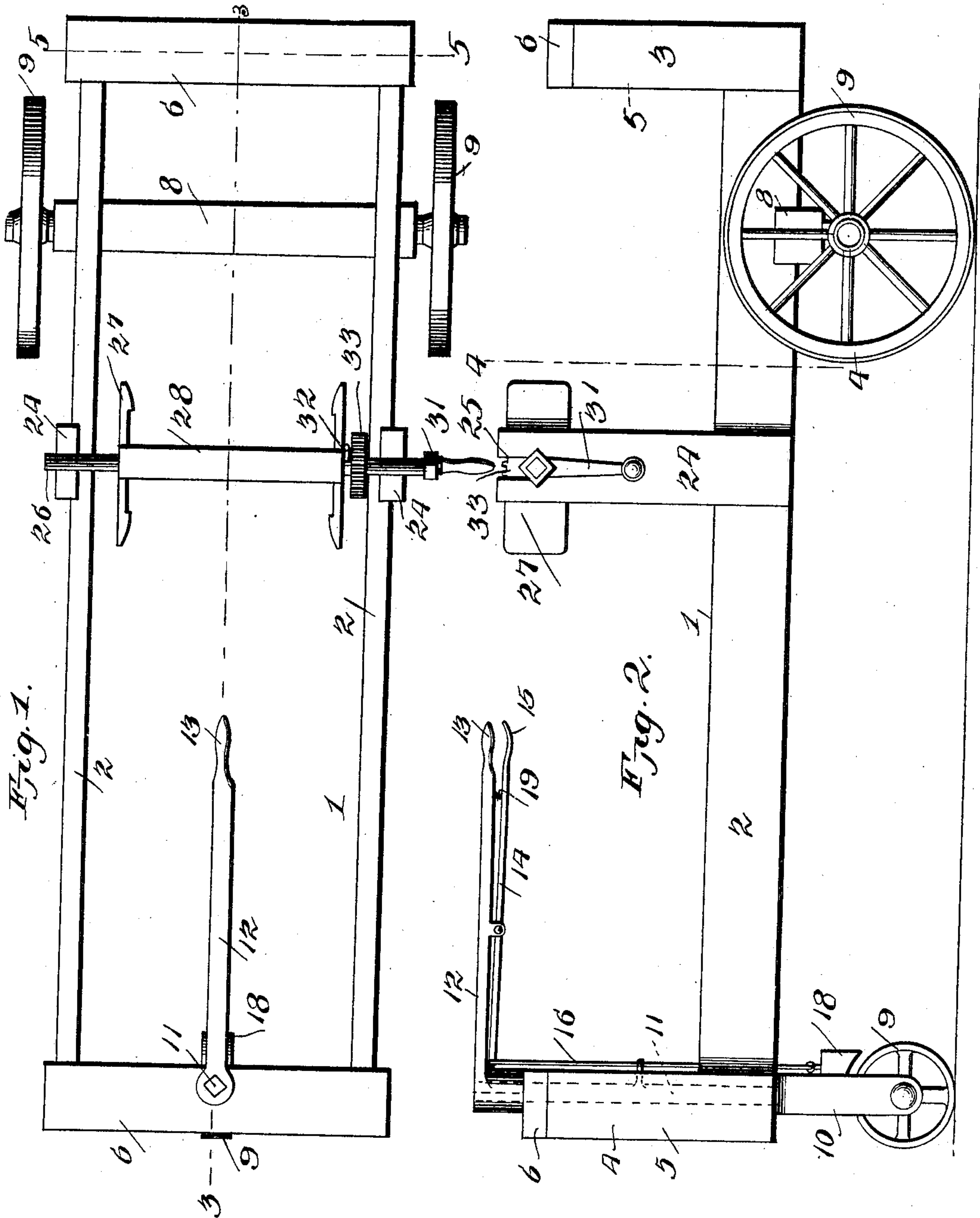
No. 827,644.

PATENTED JULY 31, 1906.

C. F. LEONARD.  
WIRE FENCE MACHINE.

APPLICATION FILED FEB. 24, 1905.

2 SHEETS—SHEET 1.



Witnesses  
Frank Hough

C. C. Hines.

Inventor  
C. F. Leonard,

By Victor J. Evans

Attorney

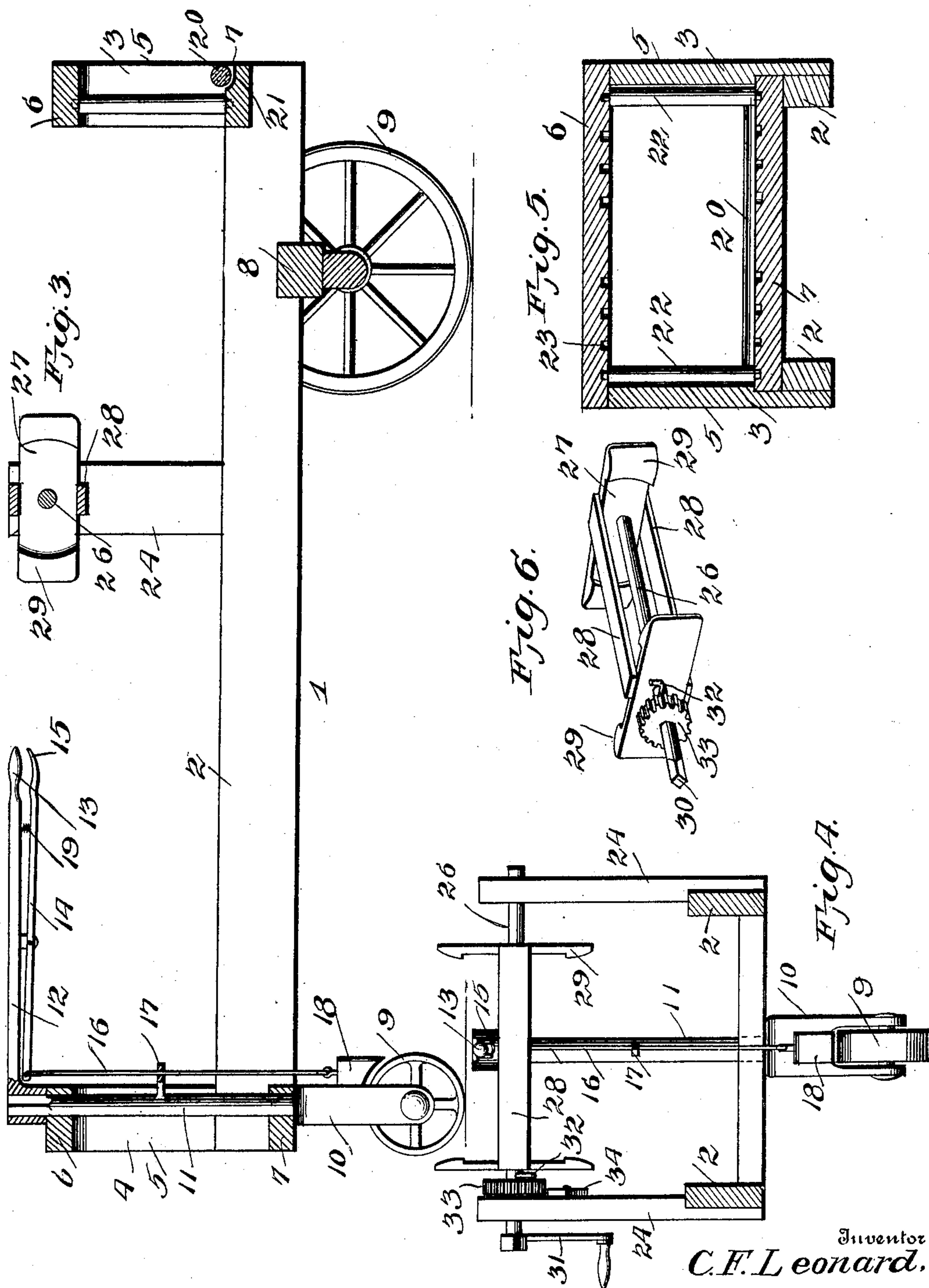
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# UNITED STATES PATENT OFFICE.

CHARLES F. LEONARD, OF WRAY, COLORADO.

## WIRE-FENCE MACHINE.

No. 827,644.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed February 24, 1905. Serial No. 247,179.

*To all whom it may concern:*

Be it known that I, CHARLES F. LEONARD, a citizen of the United States, residing at Wray, in the county of Yuma and State of Colorado, have invented new and useful Improvements in Fence-Wire Machines, of which the following is a specification.

This invention relates to a machine for removing and rewinding fence-wires and performing other analogous work, such as stretching such wires or paying them out from a reel for application to the fence-posts, the machine thus being applicable for use in building, demolishing, removing, or resetting barbed and other wire fences.

The object of the invention is to provide a simple, durable, and efficient machine of this character which can be conveniently handled to regulate the winding of the wire, which obviates the necessity of employing the usual reciprocating guide to wind the wire evenly over the reel, and which embodies improved features increasing the practical efficiency of this class of devices.

With this and other objects in view the invention consists of the features of construction, combination, and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of the machine. Fig. 2 is a side elevation thereof. Fig. 3 is a longitudinal section on line 3 3 of Fig. 1. Fig. 4 is a cross-section on line 4 4 of Fig. 2. Fig. 5 is a cross-section on line 5 5 of Fig. 1, and Fig. 6 is a detail view of the reel.

Referring now more particularly to the drawings, the numeral 1 indicates the main frame or body of the machine, which comprises side bars 2 and rectangular front and rear end frames 3 and 4, rising from said side bars, each of said end frames comprising side pieces or standards 5, connected by upper and lower cross-bars 6 and 7, the lower ends of the standards and the cross-bars 7 being attached to the ends of the side bars and serving to connect the same together. Secured to the side bars at a point immediately in rear of the front frame 3 is a transverse axle 8, provided with terminal spindles on which supporting-wheels 9 are mounted. These wheels, in connection with the rear guide-wheel 9, support the frame 1 and enable it to be conveniently transported from place to place. The wheel 9 is journaled in a yoke 10, arranged upon the lower end of a

steering post or stem 11, extending upwardly through and journaled in the top and bottom cross-bars 6 and 7 of the rear frame-piece 4. The upper end of the stem projects above the cross-bar 6 and is made of polygonal form to fit within a corresponding socket upon one end of a steering-lever 12, which lever projects forwardly and is provided at its free end with a hand-grip 13, by which it may be swung toward either side of the frame to adjust the wheel 9 to guide the machine. Pivoted to the lever 12 is a brake-lever 14, which is provided at its free forward end with a hand-grip 15, disposed below the grip 13, so that the operator may conveniently operate the same without removing his hand from the grip 13. The rear end of the lever 14 is pivoted to a rod 16, which slides vertically in a guide 17, carried by the stem 11, and carries at its lower end a brake block or shoe 18, which is movable into and out of engagement with the periphery of the wheel 9, whereby the machine may be readily brought to a stop and controlled when running down grades. A spring 19 is suitably attached to and interposed between the levers 12 and 14 to depress the handle end of the lever 14 to thereby normally project the rear end thereof upward, thereby holding the brake-block 18 out of engagement with the wheel 9.

The machine is designed to run backward or forward for the purpose of reeling up or paying out the wire in constructing and removing or demolishing fences and to enable the wire to be properly guided and conducted to the reel in either direction of movement of the machine. The end frame 3 is provided with a horizontal guiding-roller 20, which fits partly within a depression 21, formed in the upper outer edge of the cross-bar 7, and is provided with terminal journals or trunnions, which turn in bearing-recesses formed in the side pieces or standards 5. This roller supports and guides the wire to the reel hereinafter described. Disposed also in the frame 3 is a pair of vertical rollers 22, which serve as side guides to allow the wire to have free movement and prevent the same from scraping against the side pieces or standards 5. These rollers are formed at their ends with journals or trunnions, which are respectively adapted to fit and turn within series of bearing-recesses 23, formed in the cross-bars 6 and 7, said series being arranged on opposite sides of the vertical center of said cross-bars, so that the rollers 22 may be ad-



justed relatively to each other to increase or diminish the space between, and thus properly guide the wires for movement to and from reels of different lengths.

5 Arranged somewhat forward of the center of the main frame 1 and in rear of the axle 8 are reel-supporting standards 24, which rise vertically from the side bars 2 and are provided in their upper ends with open bearings  
10 25 to receive a reel-shaft 26, which is fitted at its ends to turn therein and is readily detachable therefrom to permit of the convenient connection and disconnection of the reel. The reel is rigidly mounted on the shaft 26  
15 between the standards 24 and comprises a pair of end heads or pieces 27 and connecting cross bars or pieces 28, secured at their ends to said end pieces, the latter being centrally apertured for the passage of the shaft 26 and  
20 suitably secured thereto. As shown, the ends of the heads or end pieces 27 are beveled or outwardly flared, as indicated at 29, to allow the wire winding on and unwinding from the reel to move freely without interference.  
25 One of the projecting ends of the shaft 26 is made polygonal in form, as indicated at 30, to receive a crank-handle 31, by which the shaft may be operated, and between this  
30 polygonal portion 30 and the adjacent end piece or head 27 of the reel the shaft is provided with a hook or projection 32, to which one end of the wire which is to be wound upon the reel is connected. Also rigidly  
35 mounted upon the shaft adjacent the said hook is a ratchet-wheel 33, adapted to be engaged by a pawl 34 on the adjacent standard 24 to hold the shaft and reel against retrograde rotation.  
40 In employing the device for rewinding the wires of fences which are to be rewired or subjected to other operations required for removal of the line-wires therefrom the end of the wire to be removed is passed rearwardly  
45 over the roller 20 and then engaged with the hook 32 on the reel, after which the machine is drawn or pushed forwardly and the crank 31 operated to turn the reel and wind the wire thereon. It will be observed that the  
50 handle 13 of the steering-lever 12 projects forwardly a sufficient distance to enable the operator to grasp the same in the left hand while the right is being employed to turn the reel-crank 31, thus enabling the operator to  
55 take up the wire and steer the machine at the same time, this ability of the operator to perform both functions enabling him to so guide or control the machine as to cause the wire to wind clear over and along the surface of the  
60 reel, thus rendering the use of the ordinary movable wire-guide unnecessary. Also by depressing the handle of the brake-lever in proximity to the handle of the steering-lever the operator may further stop the machine  
65 whenever desired and control the descent of

the same down grades. Provision is thus made whereby the machine may be readily controlled without the use of any auxiliary elements. When it is desired to swing or pay out wire from the reel, a draft-animal may be  
70 suitably hitched to the rear end of the main frame and the machine run backward, as will be readily understood. The device may also be employed for stretching wire in an obvious  
75 manner.

It will be understood that the mode of mounting the shaft 26 permits of the ready removal of a filled reel and the substitution of an empty one therefor when occasion requires and that by adjusting the side guide-  
80 rollers 22 at the forward end of the frame a wire running to or from the machine from either side will be properly guided to suit the length of the reel employed.

From the foregoing description, taken in  
85 connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without a further extended description.

Changes in the form, proportions, and  
90 minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described the invention, what  
95 is claimed as new is—

A wire-fence machine comprising a main frame, upright end frames rising from said main frame, each end frame being composed of side standards and top and bottom cross-  
100 bars, the bottom cross-bar of the front end frame being formed at its forward edge with a concavity and said bar and the cooperating upper cross-bar with bearing-recesses arranged in rear of the plane of said concavity  
105 and in series on opposite sides of the vertical center of the end frame, a reel mounted upon the main frame between the front and rear end frames and provided with operating means, wheeled supports for the forward end  
110 of the main frame arranged between the front end frame and reel, a roller at the rear of the main frame having supporting and steering means supported by the rear end frame, a horizontal guide-roller disposed in the con-  
115 caved portion of the bottom cross-bar of the front end frame and journaled at its ends in the standards of said frame, and a pair of vertical guide-rollers on the front end frame and adapted to be journaled in any cooperating  
120 pairs of the aforesaid sets of bearing-recesses, whereby said vertical rolls may be relatively adjusted to cooperate with the reels of different lengths, substantially as described.

In testimony whereof I affix my signature  
125 in presence of two witnesses.

CHARLES F. LEONARD.

Witnesses:

VERA BARTON,  
VEVA LEONARD.