

(No Model.)

2 Sheets—Sheet 1.

A. J. MUNGER.
WIRE FENCE MACHINE.

No. 544,740.

Patented Aug. 20, 1895.

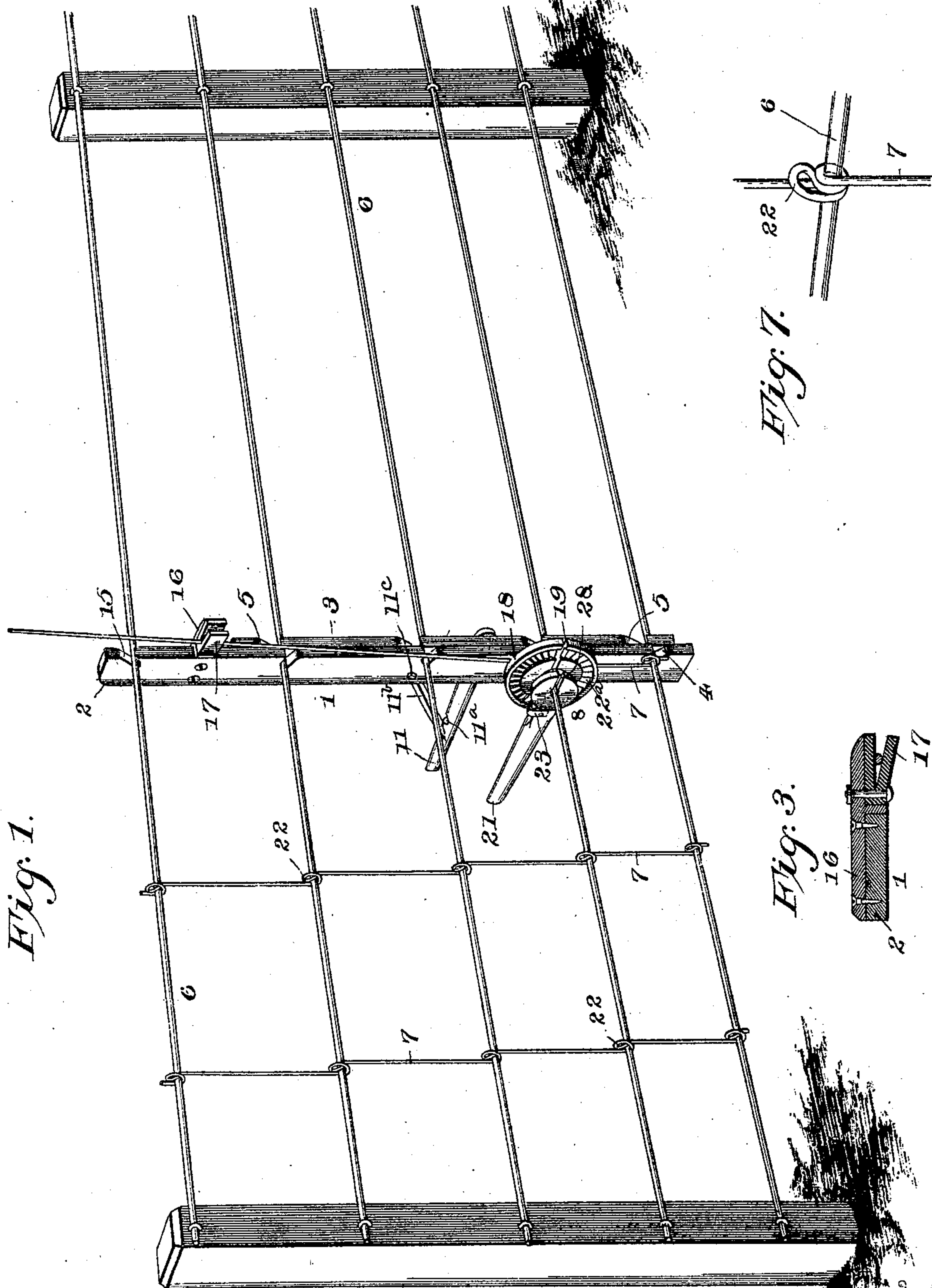


Fig. 1.

Fig. 7.

Fig. 3.

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Witnesses

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J. H. Riley

By his Attorneys.

C. A. Snow & Co.

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2 Sheets—Sheet 2.

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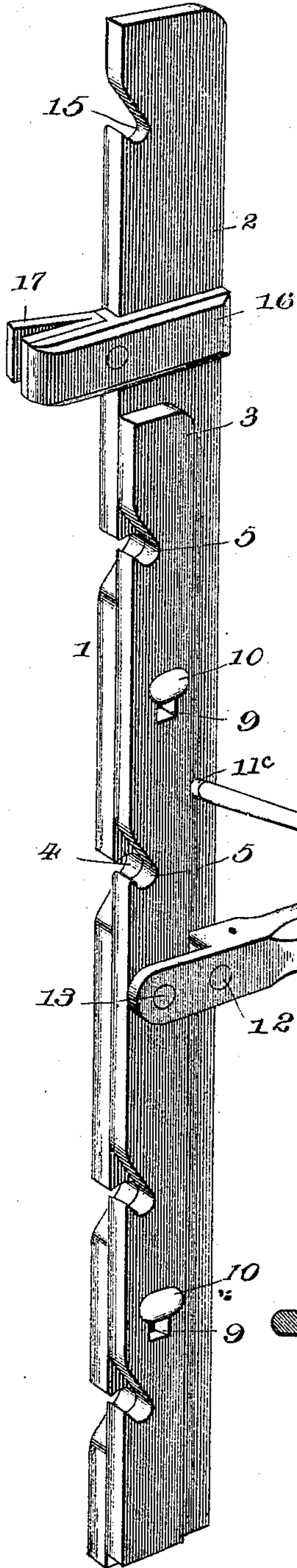


Fig. 2.

Fig. 4.

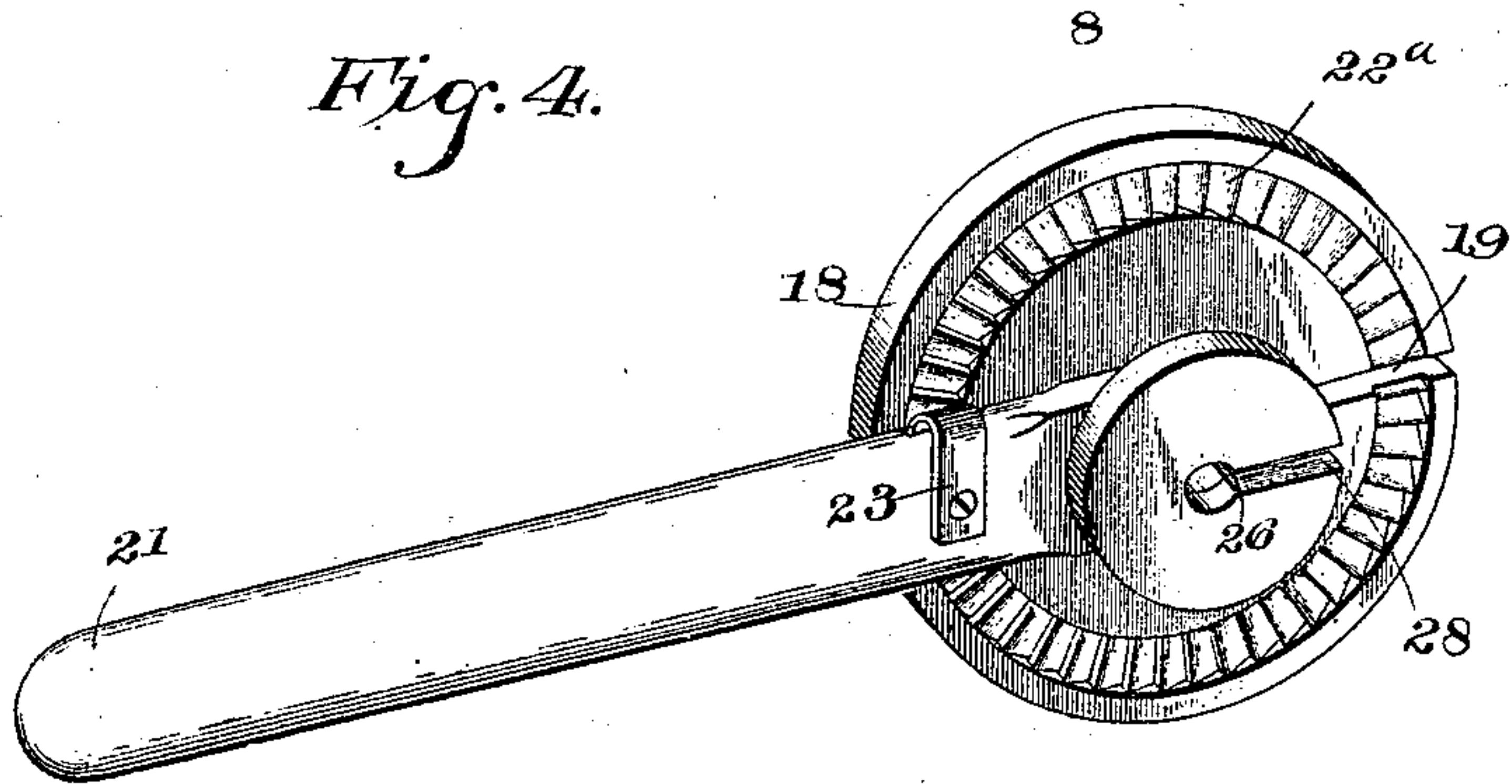


Fig. 6.

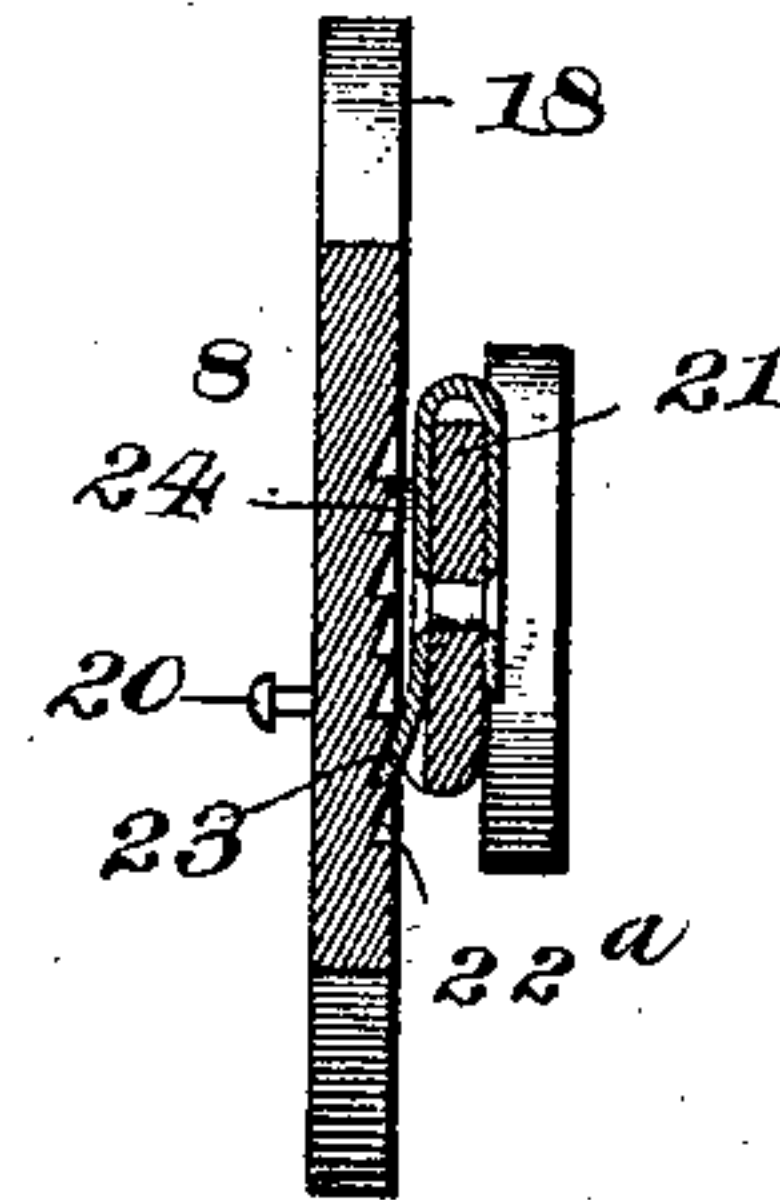
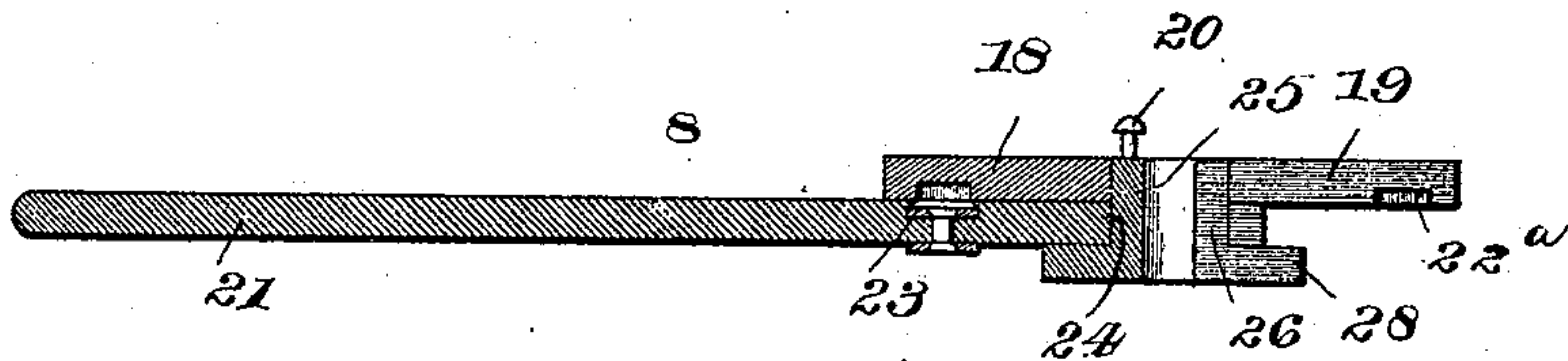


Fig. 5.



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UNITED STATES PATENT OFFICE.

ANDREW JACKSON MUNGER, OF ANTWERP, OHIO.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 544,740, dated August 20, 1895.

Application filed April 5, 1895. Serial No. 544,660. (No model.)

To all whom it may concern:

Be it known that I, ANDREW JACKSON MUNGER, a citizen of the United States, residing at Antwerp, in the county of Paulding and State of Ohio, have invented a new and useful Wire-Fence Machine, of which the following is a specification.

The invention relates to improvements in wire-fence machines.

10 The object of the present invention is to provide a simple, inexpensive, and efficient wire-fence machine which will enable a strong and durable wire fence to be erected with great rapidity, and which will enable the horizontal wires to be properly spaced in their attachment to the stays or vertical wires to preserve their parallelism.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a portion of a fence in process of construction, showing a machine constructed in accordance with this invention. Fig. 2 is a detail perspective view of the gage. Fig. 3 is a detail sectional view of the gage, illustrating the construction of the tension device. 30 Fig. 4 is a detail perspective view of the twisting device. Fig. 5 is a longitudinal sectional view of the same. Fig. 6 is a detail sectional view illustrating the construction of the pawl. Fig. 7 is a detail perspective view illustrating the construction of the loop formed in the stay by the twisting device. 35

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

40 1 designates a gage comprising two bars 2 and 3, arranged flat on each other and disposed longitudinally with relation to each other and provided with oppositely-disposed wire-receiving notches 4 and 5, arranged at a slight inclination and adapted to engage fence-wires 6 and to hold the same properly spaced while a stay 7 is being applied to them by a twisting device 8. The bar 3 is provided with longitudinal slots 9, receiving headed fastening devices 10 of the bar 2, whereby the two bars 2 and 3, which constitute the gage, are slidingly connected. These bars are operated to open

and close the notches 4 and 5 by a lever 11, fulcrumed on a stud 12 of the bar 2 and engaging a similar stud 13 of the other bar 3, 55 and by swinging the lever the wire-receiving notches are opened and closed and the bars are caused to clamp or release the fence-wires. The lever 11 is provided at its upper edge at a point intermediate of its ends with shouldered notches 11^a, adapted to be engaged by a pawl 11^b to hold the lever 11 against upward movement to lock the gage in operative position on the fence-wires. The pawl 11^b is provided at its upper end with a pivot 11^c and is 65 located above the operating-lever 11, the pivot being arranged in a suitable perforation of the bar 2, and the pawl operates automatically in engaging the notches of the lever 11.

Any number of notches may be provided, 70 according to the number of fence-wires designed to be employed in a fence, and the bar 2 is provided at its top with an upward-extending wire-receiving recess or notch 15, adapted for the top wire of a fence, it being 75 unnecessary to clamp that wire.

The gage is provided near its upper end with a horizontally-disposed arm 16, to which is attached a block 17, of rubber, which is split vertically to form a pair of resilient horizontally-disposed arms and which receives the stay 7 and holds the same in position while the wire is being twisted. 80

The resilient arms, which are formed by the slit of the block 17, are adapted to clamp a 85 wire sufficiently to hold it, and the wire may be readily sprung out of and into the tension device.

The stay is first attached to the bottom wire by any suitable tool, and it is successively 90 secured to the other wires by a twister or twisting device 8, which consists of a ratchet-wheel 18, having a radial slot 19 for the reception of the fence-wire and provided near its center with a projection or stud 20 for engaging the vertical wire forming the stay and a lever 21 for rotating the ratchet-wheel. The stud or projection 20, by engaging the stay, forms a loop 22, which is twisted around each fence-wire, thereby forming a secure attachment and also enabling the fence to be readily 100 taken down, if desired. The stay may also be attached to the lowermost wire of the fence by the twisting device, if it be anchored below

such wire. The stud 20 is arranged on one face of the wheel 18, and the latter is provided on its other face adjacent to its periphery with a series of shouldered ratchet-teeth or recesses 22^a, adapted to be engaged by a pawl or tooth 23 of the lever 21. The pawl or tooth 23 may be constructed in any suitable manner, but it is preferably a resilient one, to enable the lever to be swung backward, and it may consist of a piece of resilient metal bent transversely around the lever and having its outer end secured to the same and its inner terminal forming a tooth. The lever is provided with a bearing-opening 24, receiving a hub-extension 25 of the ratchet-wheel, and it has a slot 26, communicating with the bearing-opening and adapted to register with the radial slot of the ratchet-wheel, to permit the fence-wire to be placed in a central opening of the wheel. The hub-extension is provided at its outer end with an annular flange or disk, which also has a slot 28 for the passage of a fence-wire. The hub-extension 25 may be constructed in any suitable manner, but the annular flange at the outer end of the hub-extension is preferably formed integral with the latter, and the hub-extension is constructed separate from the ratchet-wheel and suitably secured to the same. This construction will permit the parts to be readily assembled.

By means of the lever and the ratchet-wheel the stay may be rapidly twisted around the fence wires and the necessary power is readily obtained.

It will be seen that the wire-fence machine is exceedingly simple and inexpensive in its construction, that it is capable of enabling a fence to be rapidly erected, and that the fence possesses strength and durability, and may, if desired, be conveniently taken down, the twisted loops of the stays forming a firm attachment, at the same time permitting the parts to be readily disconnected.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a fence machine, a gage comprising a

bar 2 having wire receiving notches and provided near its upper end with an arm, the bar 3 having oppositely disposed wire receiving notches and slidingly mounted on the other bar, an operating lever fulcrumed on one of the bars and engaging the other, and a tension device mounted on said arm and consisting of an elastic block having a wire receiving slit, substantially as described.

2. In a fence machine, a twisting device comprising a wheel having a radial slot, and provided on one face with means for engaging a stay, and having on its other face an annular series of ratchet recesses or teeth, and a lever fulcrumed on the wheel and provided with a pawl or tooth for engaging the recesses or teeth, substantially as described.

3. In a fence machine, a twisting device comprising a wheel provided with a hub extension having a flange, said wheel being provided at one side with a projection, and having a radial wire receiving slot, and provided at its opposite side with an annular series of ratchet teeth, a lever fulcrumed on the hub extension and having a wire receiving opening, and a resilient pawl or tooth carried by the lever and engaging the ratchet teeth, substantially as described.

4. In a fence machine, a gage comprising a bar 2 having wire receiving notches, the bar 3 having oppositely disposed wire receiving notches, and slidingly mounted on the other bar, an operating lever fulcrumed on one of the bars and engaging the other, and provided at its upper edge with shouldered notches, and a pawl pivoted at its upper end to the bar 2 and extending downward and outward, and arranged to engage the notches of the lever, substantially as described.

5. In a fence machine, a tension device consisting of an elastic block having a wire receiving slit forming a pair of resilient clamping arms, substantially as described.

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

ANDREW JACKSON MUNGER.

Witnesses:

B. SNOOK,

JOHN W. ZUBER.