

No. 610,514.

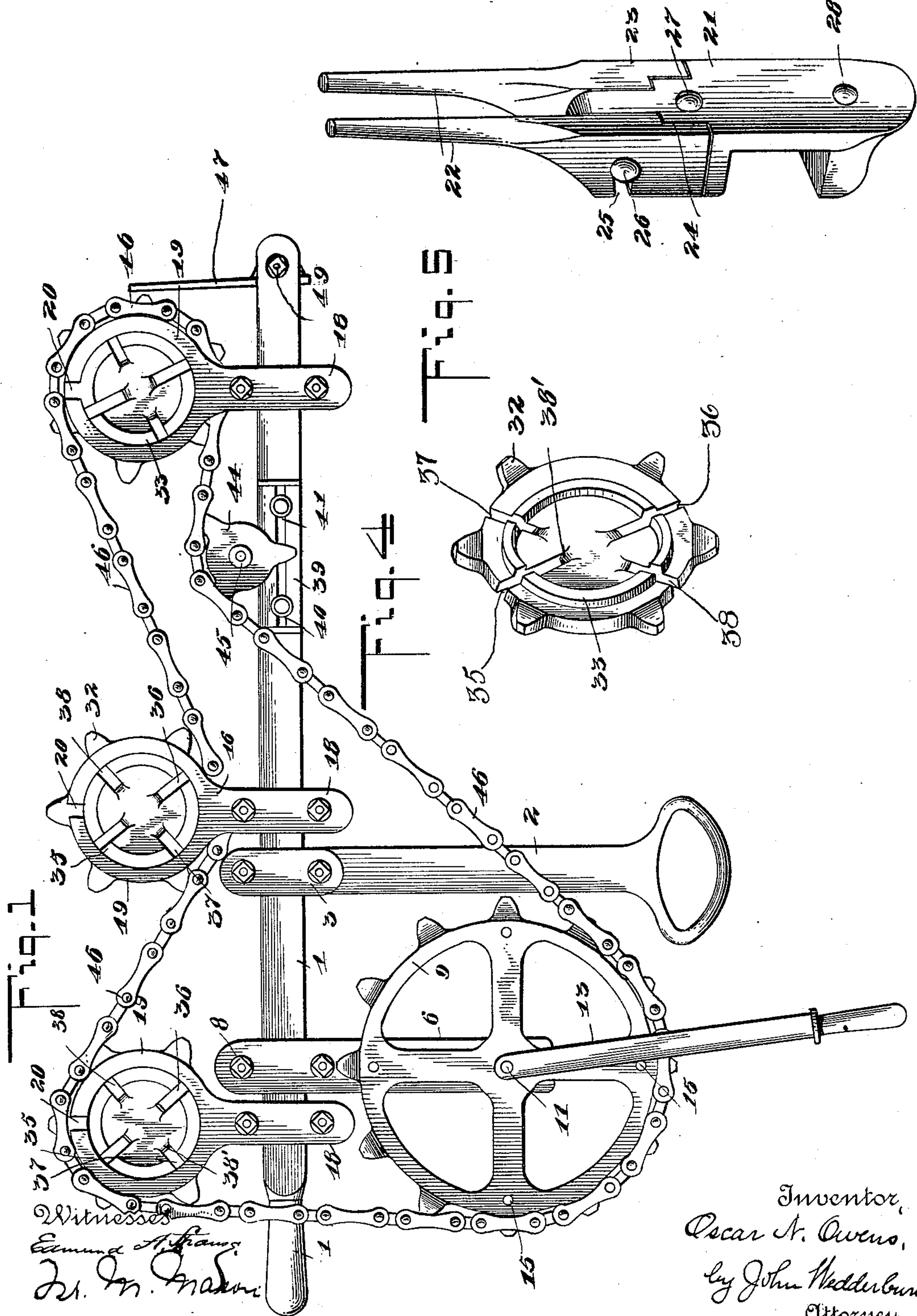
Patented Sept. 6, 1898.

O. N. OWENS.
WIRE FENCE MACHINE.

(Application filed Sept. 16, 1896.)

(No Model.)

2 Sheets—Sheet 1.



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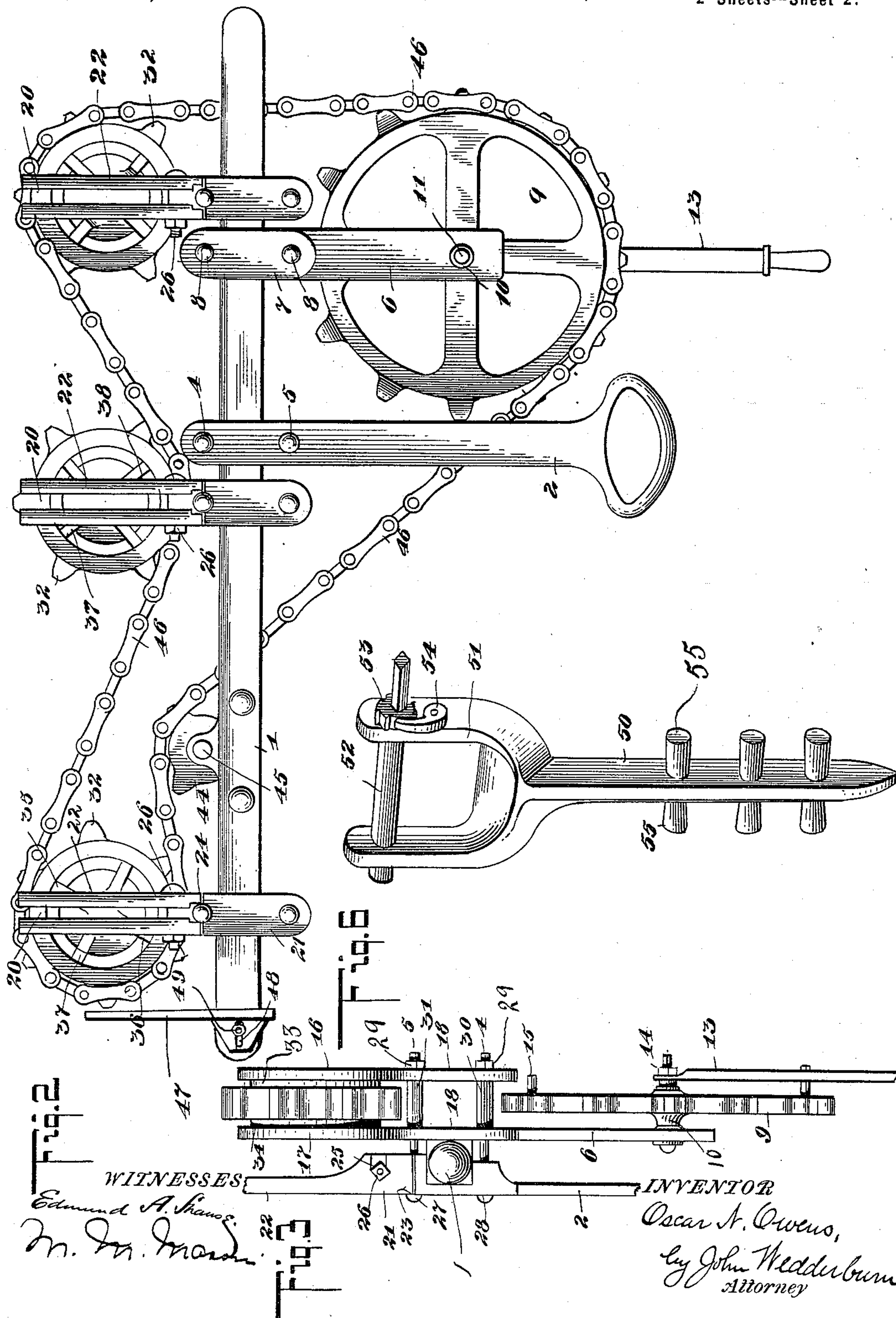
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UNITED STATES PATENT OFFICE.

OSCAR N. OWENS, OF CHERRYVALE, KANSAS.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 610,514, dated September 6, 1898.

Application filed September 16, 1896. Serial No. 606,028. (No model.)

To all whom it may concern:

Be it known that I, OSCAR N. OWENS, a citizen of the United States, residing at Cherryvale, in the county of Montgomery and State of Kansas, have invented certain new and useful Improvements in Wire-Fence Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to wire-fence machines.

My object is to provide an improved machine of the class described which will be more perfectly adapted for use in making both woven and picket fences and one wherein means are provided so that the length of the twist made can be varied to suit the requirements of the occasion.

A further object is to provide a novel fence-machine which will be provided with improved twisting-wheels and novel means for journaling them so that they can be adjusted as desirable to vary the distances between the horizontally-extending wire strands.

A still further object is to provide an improved fence-machine of novel construction the parts of which will be adapted for all necessary adjustments and one which can be quickly and easily manipulated and will be adapted for making the fence in a highly-superior manner.

Having these objects in view, my invention consists of a fence-machine comprising certain novel features and combinations appearing more fully hereinafter.

In the accompanying drawings, Figures 1 and 2 are front and rear elevations, respectively, of my improved fence-machine. Fig. 3 is a top view showing the twisting mechanism. Fig. 4 is a detail of one of the twisting-wheels. Fig. 5 is a detail view of one set of the fingers which regulate the amount of twist, and Fig. 6 is a perspective detail view of the tension device of the fence-wire.

The numeral 1 designates an adjustment-bar which is preferably provided with a handle at its upper end and is square in cross-section. The numeral 2 designates a handle, 3 a clamping-plate, and 4 and 5 adjusting-bolts provided with nuts and which pass

through the handle and the clamping-plate. Thus it will be seen that the handle can be shifted along the adjustment-bar and brought to the desired height and clamped in position.

An arm is designated by the numeral 6. A clamping-plate 7 is located on the opposite side of the adjustment-bar from this arm, and adjustment-bolts 8 pass through the arm and clamping-plate and are the means whereby after the arm has been adjusted to proper position on the bar it may be clamped in place. A large drive-sprocket 9 has a hub 10, which is journaled in the arm. A bolt 11, provided with suitable washers, passes through the hub, and a nut may be screwed tight against the face of the sprocket to prevent the latter from coming loose.

The numeral 13 designates a hand-lever which is pivoted on the outer edge of the bolt and is prevented from coming off by a nut 14. It will be observed that from the face of the sprocket project a series of pins or lugs 15. When the hand-lever is moved, it comes into engagement with one of these pins, and hence the sprocket may be rotated about one revolution, and then to further rotate the sprocket it is necessary to draw back the hand-lever and swing it over into engagement with the succeeding pin. This operation can be carried on until the twisting-wheels, to be described later, have been suitably rotated.

There are a series of twisting-wheels, which are all similar, brackets in which the twisting-wheels are journaled, which are also alike, and sets of fingers which determine the amount of twist of the wires. These sets of fingers are also alike. I will describe but one twisting-wheel, its bracket, and its set of fingers.

The numerals 16 and 17 designate duplicate members of the bracket. Each is provided with a shank 18 and a head made in the shape of a ring 19, which is slotted at 20 for the introduction of the wire.

The numeral 21 designates a clamp member which is located on the opposite side of the adjustment-bar from the members of the bracket and this clamp member is cut away on opposite sides for the reception of the ends of the two fingers. Each finger is provided with a rounding somewhat tapering portion

22 and an enlarged end 23, which is cut away, as at 24, to properly fit the clamp member, and the enlarged portion of the finger is also provided with an elongated slot 25. These 5 fingers are located on each side of the clamp member in parallel relation, so that they extend on opposite sides of the horizontal diameter of the twisting-wheel. A bolt 26 passes through the reduced end of the clamp member 10 and has its shank lying in the slots of the fingers, said bolt being provided with a nut, so that the latter can be loosened, and after the fingers slide on the clamp member toward or away from the twisting-wheel they may be 15 clamped in position at the desired distance from the latter. Bolts 27 and 28 pass through the clamping member 21 and the shanks of the members of the brackets, being provided with suitable nuts 29. Sleeves 30 and 31 encircle the bolts between the members of the bracket, so that the members are kept separated and in parallel relation. My improved twisting-wheel is provided with sprocket-teeth 32 and two oppositely-extending journals 33 and 34, which are of such size that 25 they are easily received within the rings of the members of the bracket, so that the twisting-wheel may readily rotate. Two long diametrically-extending slots 35 and 36 are made in the twisting-wheel, and two short and diametrically opposite slots 37 and 38 are also made in the wheel, but these slots are somewhat inclined to the long slots. The slots are beveled at 38', so that the zinc coating of 35 the fence-wires will not be scraped off. The long slots are used in weaving ornamental fences and the short slots in making slat or picket fences.

The numeral 39 designates a slide which 40 is provided with slots 40 and 41, and through these slots there pass two clamping-bolts, which extend through the adjustment-bar, so that after the slide has been adjusted it can be clamped in position.

The numeral 44 designates a slack-take-up sprocket-pinion which is journaled on a bolt 45, that passes through an ear of the slide.

The numeral 46 designates a sprocket-chain which passes around the drive-sprocket, the 50 slack-take-up sprocket, and the respective twisting-wheels, so that all are set simultaneously in rotation when the main sprocket is operated. At the lower end of the adjustment-bar is a finger 47, which is provided 55 with a slot 48. A bolt 49 passes through this slot and the bar. The lower end of the picket is rested on the finger, which is previously clamped in position, so that the tops of the pickets will lie on the same level. By adjusting the finger the height of the pickets from 60 the ground can be varied as desirable.

In Fig. 6 is shown the tension device for

the wires, which allows them to be paid out as the fence is made. This tension device 65 consists of a shank 50 and a U-shaped head 51. A spindle 52 is journaled in the arm of the U-shaped head and is provided with a ratchet-wheel 53, adapted for engagement with a dog 54, pivoted to the head. Circular friction-knobs 55 project out on opposite sides 70 of the shank. A wire is connected to the spindle and fastened to a post or tree, and the wires of the fence are passed over the friction-knobs in alternate arrangement, so that some resistance is offered to the paying 75 out of the wires as the fence is made.

It is obvious that many slight and immaterial changes of construction might be resorted to without detracting from the advantages of my invention, and it is to be understood that I do not therefore limit myself to 80 the precise construction herein shown and described, but consider that I am entitled to all such variations as come within the spirit and scope of my invention. 85

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fence-machine, the combination with a wire-twister, of a regulator adapted for 90 movement toward and away from the wire-twister and which regulates the length of the twist.

2. In a fence-machine, the combination with a wire-twister, of fingers adjustable toward 95 and away from the twister for regulating the length of the twist.

3. In a fence-machine, the combination with an adjustment-bar, of a wire-twister connected to the adjustment-bar, and fingers which 100 are adjustably connected to the adjustment-bar by a slot-and-bolt connection and adapted for movement toward and away from the twister.

4. In a fence-machine, the combination with 105 an adjustment-bar, of a wire-twister connected thereto, and parallel fingers adjustably connected to the adjustment-bar and which regulate the amount of twist, said fingers being movable toward and away from the twister. 110

5. In a fence-machine, the combination with an adjustment-bar, of a twisting-wheel, and parallel fingers adjustably connected to the adjustment-bar and movable toward and away from the twister and adapted to regulate 115 the amount of twist.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

OSCAR N. OWENS.

Witnesses:

W. S. GRASS,
S. O. HOWARD.