

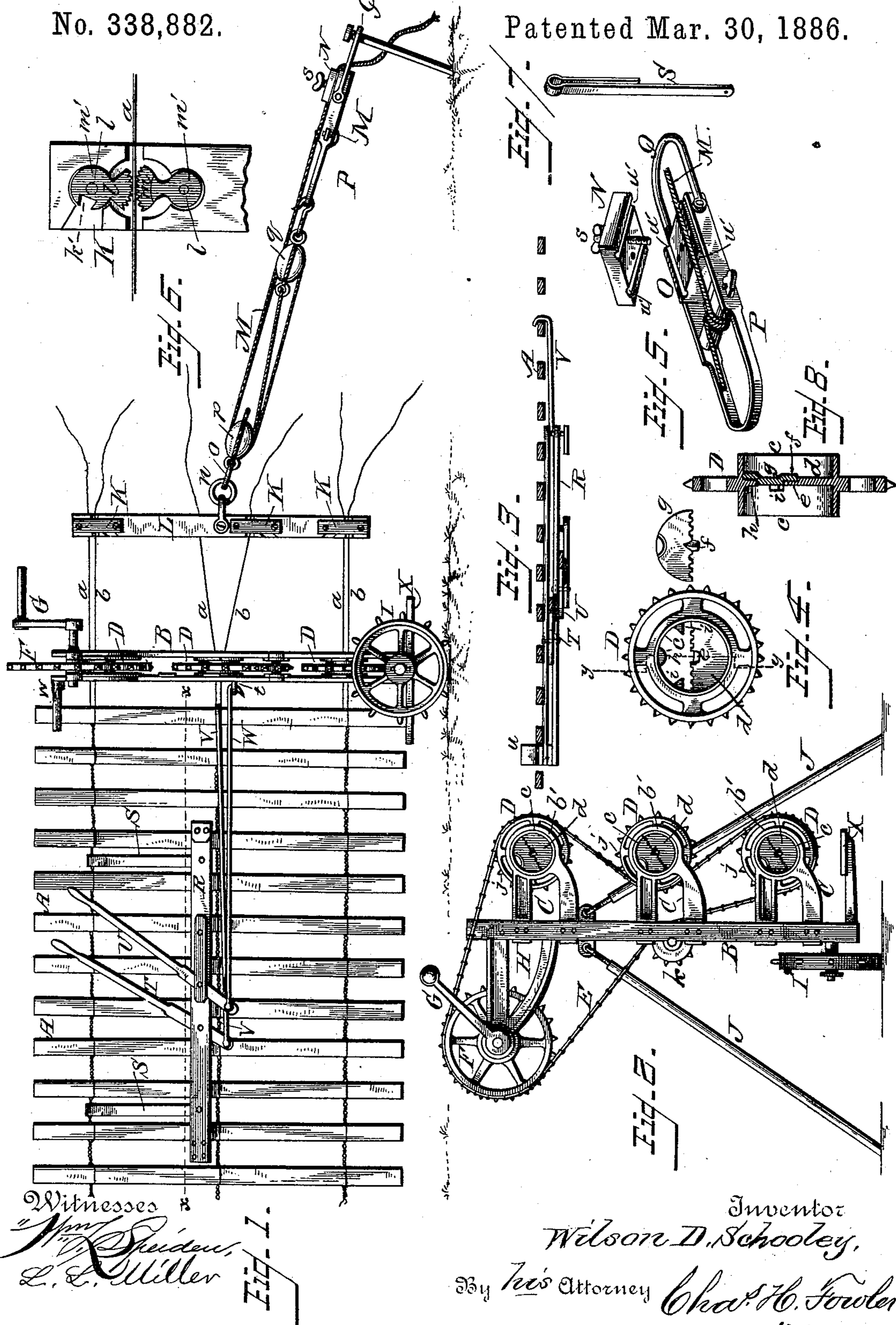
(No Model.)

W. D. SCHOOLEY.

MACHINE FOR CONSTRUCTING FENCES.

No. 338,882.

Patented Mar. 30, 1886.



UNITED STATES PATENT OFFICE.

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To all whom it may concern:

Be it known that I, WILSON D. SCHOOLEY, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Machines for Constructing Fences; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation of my invention complete and in position for operation. Fig. 2 is an end view of the upright frame, with the exception of the supporting-braces of the frame, which have been removed, provided with the wire-twisting wheels and attachments for operating the same; Fig. 3, a horizontal section taken on line *xx* of Fig. 1; Fig. 4, a plan view of one of the wire-twisting wheels, showing the detachable disk-section removed therefrom; Fig. 5, a detail view in perspective of the rope-clamping mechanism, showing one of the clamp-sections detached therefrom; Fig. 6, a detail view of one of the clamping devices for holding the wire in position while being twisted; Fig. 7, a detail view in perspective of one of the hangers which support the bar and operating-levers; Fig. 8, a vertical section of one of the twisting-wheels, taken on line *yy* of Fig. 4, with the removable disk-section in position.

The present invention has relation to machines for constructing and building picket and wire fences; and it consists in the details of construction substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents the wooden pickets, and *a b* the wires between which the pickets are held. To properly twist the wires between each picket, I provide an upright frame, B, of any preferred construction, having suitable brackets, C, formed with circular bearings *b'*, to receive the hubs *c* of wire-twisting wheels D, said brackets being in pairs to embrace each side or end of the hub, thereby holding the wheels perfectly true while they revolve. The wheels D are each cast with a notched disk-section, *d*, having a sock-

et, *e*, to receive a lug, *f*, on the disk-section *g*, which is also notched to correspond with the notches in the section *d*. The disk-section *g* is removable from the wheel D, and is of such size as to snugly fit within the hub *c*, or sufficiently tight to be held therein by frictional contact of the edge of the disk-section with the interior surface of the hub without additional means of holding it in position, except that the disk-section is supported by a lug, *f*, thereon, seated in a socket, *e*, formed on the disk-section *d*, and resting on or against the lugs *h i*. Any well-known means, however, may be employed for holding the disk-section *g* in position on the wheel, and any number of these wire-twisting wheels may be used, as found necessary, and any well-known mechanism may be employed to impart to the wheels a rotary motion for twisting the wires. I prefer, however, to employ a sprocket-chain, E, fitting over sprocket-teeth *j* on the wheels D, said chain passing around the wheels, as shown, and over a small sprocket-wheel, *k*, and a large sprocket-wheel, F. This last-mentioned wheel is the driving-wheel, and is provided with crank-handle G for turning it, which by means of the endless chain E drives the wire-twisting wheels D, the shaft of the driving-wheel having its bearings in a bracket, H.

The frame B is supported in an upright position by the truck-wheel I and braces J, the latter at their upper end being swiveled to the frame. The braces in connection with the truck-wheel not only support the frame, but allow it to be moved the required distance for securing the next picket without removing them.

The wires *a b*, before passing through the wheels D, pass between serrated and pivoted jaws *l m* of a clamp, K, one clamp connected to each side of a bar, L, as shown in Figs. 1 and 6, thereby holding the wires while being stretched, to prevent them from giving beyond the point of attachment to the serrated clamping-jaws. The serrated jaws *l m* are formed with heads *m*, through which the pivots *l'* pass, and the jaw *l* has a notch, *k'*, for the insertion of a suitable tool to operate the jaw in bringing it tightly down upon the wire or releasing it, as desired.

The bar L is provided with a ring, *n*, for

attaching thereto a hook, *o*, of the wire-tightening device, consisting of the pulleys *p q*, around which passes a rope, *M*. This rope at one end is suitably connected to the block of the pulley *q*, and its opposite end is wound around a bar, *r*, and thence passes between clamping-blocks *N O*, grooved as shown, to form a seat for the rope, the upper grooved block, *N*, being brought down on the rope with any degree of pressure by the set-screw *s*. The lower grooved section or block, *O*, is rigidly secured to a frame, *P*, as is also the bar *r*, over which the rope *M* is coiled, said frame having a clevis, *Q*, for looping over a stake driven in the ground, as shown in Fig. 1. The grooves *u'* in the clamping-blocks *N O* are preferably two in number, so that either can be used, as found desirable; but a single groove will answer the purpose, the object of which is to form a guide for the rope and prevent it from moving laterally between the blocks or sidewise. This tightening device above described perfectly stretches and tightens the wires, and as the wires are being twisted the bar *L* will give as they are taken up by the twisting, this being attained through the medium of the clamping-blocks, between which one end of the rope is held, said rope slipping or "giving off" in proportion to the pressure with which it is held.

To the fence is detachably connected a longitudinal bar, *R*, by means of hooked hangers *S* engaging with the upper pair of wires between the pickets, the construction of the hangers being shown in detail, Fig. 7.

Pivoted to the bar *R* are two hand-levers, *T U*, the lower ends of which have connected to them one end of rods *V W*, respectively, the opposite ends of the rods having hooks. The hooked end of the rod *V* engages or hooks over the edge of the picket last placed between the wires, and the hooked end of the rod *W* hooks into an eye or staple, *t*, on the upright frame *B*.

By means of the lever *T* and hooked rod *V* the last picket is drawn close up to the twist in the wires, and the lever *U* and hooked rod *W* bring the frame *B*, with its attachments, nearer to the picket, so that the wire will twist close, and afterward is forced back by said lever and rod, ready for another slat.

The bar *R* at one end has a short arm, *u*, which is located between the pickets, and acts as a fulcrum for the bar when the levers *T U* are operated, the arm bearing against the edge of the picket.

This device can be removed when not required for use or when necessary to change its position, the hangers *S* being first detached from the wires and the hooked ends of the rods released.

The braces *J*, which assist in supporting the

frame *B*, allow the frame to oscillate or sway back and forth, such movement being facilitated by the truck-wheel *I* and controlled by the lever *U* and rod *W*.

A great advantage is attained by forming the disk of the wheels *D* in two independent sections, *e g*, the latter removable, thus enabling a spliced wire to be more conveniently connected to the wheel.

The frame *B* at its lower end is provided with a step, *X*, for supporting the fence-picket which is being wired, the lower end of the picket resting on the step, as shown in Fig. 1, and the upper end resting against a support, *w*, extending horizontally from the side of the frame.

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

1. In a machine for constructing picket and wire fences, a suitable upright frame carrying rotary twisting-wheels for the wire, in combination with a truck-wheel and swivel-braces for supporting the frame and allowing it to be moved back and forth, substantially as and for the purpose specified.

2. In a machine for constructing picket and wire fences, the combination, with a suitable upright frame provided with wire-twisting wheels and means for rotating them, of a longitudinal bar provided with hangers for suspending it from the fence, two levers, and means for attaching one of said rods to the frame pivoted to the bar, and hooked rods connected to the levers, substantially as and for the purpose set forth.

3. In a machine for constructing picket and wire fences, the combination, with wheels for twisting the wire, of disks located in the hubs of the wheels, each consisting of one stationary and one removable section, notched as shown, to receive the wire, substantially as and for the purpose described.

4. A machine for constructing picket and wire fences, consisting of a device for twisting the wires, provided with rotary twisting-wheels, means for tightening the wires, consisting of a grooved clamp, rope tackle and anchor, a bar provided with clamps for holding the wires and connected to the wire-tightening device, and two pivoted hand-levers and hooked rods adapted to engage with the last one of the pickets and the frame of the wire-twisting device, respectively, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILSON D. SCHOOLEY.

Witnesses:

JOSIAH T. ELLIOTT,

WILLIAM T. SCHOOLEY.