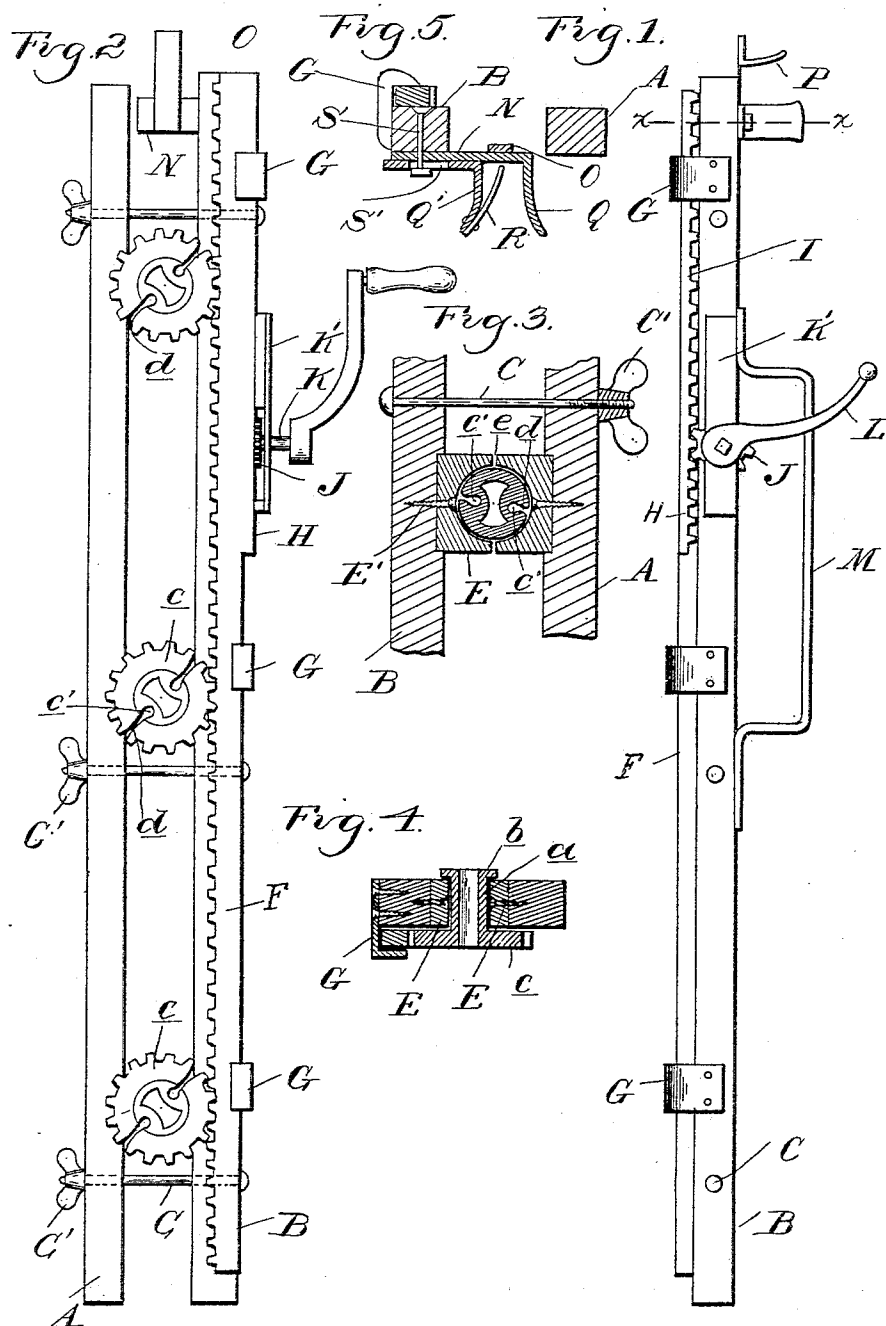


(No Model.)

I. M. WARNER.
FENCE MACHINE.

No. 504,642.

Patented Sept. 5, 1893.



Inventor

Isaac M. Warner

By *Wm. H. Maguire & Co.*
Attys

Witnesses
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UNITED STATES PATENT OFFICE.

ISAAC M. WARNER, OF BRONSON, ASSIGNOR OF ONE-HALF TO JOHN D. HAGERMAN AND CLYDE HAGERMAN, OF OXFORD, MICHIGAN.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 504,642, dated September 5, 1893.

Application filed October 19, 1892. Serial No. 449,376. (No model.)

To all whom it may concern:

Be it known that I, ISAAC M. WARNER, a citizen of the United States, residing at Bronson, in the county of Branch and State of Michigan, have invented certain new and useful Improvements in Fence-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the peculiar construction, arrangement and combination of the various parts all as more fully hereinafter described.

In the drawings, Figure 1 is a side elevation of my improved machine. Fig. 2 is a front elevation thereof. Fig. 3 is a vertical, central section through a part of the frame and one of the twister wheels. Fig. 4 is a horizontal section through one of the twister wheels. Fig. 5 is a horizontal section on line xx in Fig. 1.

The frame of my machine consists of two standards A and B connected together by a series of clamping bolts C which bolts C are provided at their ends with winged nuts C' for drawing the two parts of the frame more or less together. These bars are separated by the twister wheels and their bearings E are bearing blocks arranged in complementary halves on the two standards and secured in position by counter-sunk screws E' extending from centrally of the bearing into the standard, as shown in Fig. 3.

Each twister wheel consists of a cylindrical body portion a and two flanged heads b and c at opposite ends. The head c is provided on its circumference with suitable teeth and this head practically forms a driving gear wheel for the twister wheel. The cylindrical portion forms the bearing or journal and the flange b forms a securing flange at the opposite end. The twister wheel is provided on opposite sides with leading in slots d and twisting apertures c' in which these slots terminate. Any suitable number of these twister wheels may be employed and when engaged between the boxes E and the nut C' are turned up and clamped in position in the frame and practically form the spacing blocks between the standards thereof. The journal boxes are of such a size as to leave a slot e

between their inner faces when clamped in position. This slot enables me to take up the wear of the twister wheel at all times by simply turning up the nut C'. The means which I employ for actuating these gear wheels consist of a rack bar F engaging with the teeth on the gear of the twisting wheels and engaging beneath the hook guide blocks G secured to the side of the standard and overlapping the front face of the rack bars. This rack bar at its upper end is provided with an offset portion H extending beyond the side of the standard and having formed on its inner face a rack bar I.

J is a pinion secured to the drive shaft K journaled through the strap K' on the standard B meshing with the rack bar I and provided with an actuating crank handle L.

The parts so far described operate as follows: Motion being imparted to the crank handle alternately in opposite directions the rack bar will be raised and lowered and the twister wheels will be rotated to twist the wires upon the pickets in the well known manner, the operator meanwhile holding the machine by means of the handle M secured on the rear face of one of the standards. To engage the machine upon the wire the winged nuts C' are removed, allowing the removal of the standard A which enables the operator to either detach the wheels and engage them upon the wires through the slots d , or this may be done while the wheels are still in the half journal boxes E on the standard B.

Besides enabling me to quickly place the machine upon the wires and to dispense with spacing blocks by the use of the clamping bolts C and the employment of the twister wheels as spacing blocks, this construction enables me to mount and dismount the machine in an incredibly short space of time for shipping or repairs or setting it up for use, for when these nuts are removed, the two standards supporting the twister wheels may be taken out, the rack bar removed and the whole machine put into knock-down position.

My picket gage and holder consists of the strap N secured at the top of one of the standards and extending to a point midway between the two.

O is a vertical strap secured to the strap N

and having the gage block P extending from its outer face. On the end of the strap N is the lip Q, which with an adjustable plate Q' and spring R (see Fig. 5) forms a picket holder 5 which may be adjusted to any thickness of picket. This adjustment I accomplish by means of the clamping bolt S engaging through a slot S' in the plate Q'.

What I claim as my invention is—

10 1. In a picket fence machine, the combination of a frame comprising two like standards, complementary half boxes on each, twister wheels journaled in said boxes, forming the spacing blocks between the standards, with a 15 take up between the boxes, and clamping bolts extending across the standards having nuts for clamping the boxes, substantially as described.

2. In a picket fence machine, the combination of a frame comprising two like standards, 20 complementary half boxes on each standard, countersunk screws extending from centrally of the bearing in each box into the standard, twister wheels journaled in said boxes, forming 25 the spacing blocks between the standards,

with a take up between the boxes, and clamping bolts extending across the standards having winged nuts for clamping the boxes upon the wheels, substantially as described.

3. In a picket fence machine, the combination of a frame comprising two like standards, complementary half boxes on each standard twister wheels journaled in said boxes forming spacing blocks between the standards with a take up between the boxes and 35 having drive gear wheels formed thereon, a rack bar engaging all the gear wheels, hook guide plates forming guides for the rack bar, an offset portion on the rack bar, a second rack bar at right angles to the first formed in 40 said offset portion beside the standard, a drive pinion engaging said rack, and a crank for actuating said pinion, substantially as described.

In testimony whereof I affix my signature in 45 presence of two witnesses.

ISAAC M. WARNER.

Witnesses:

M. B. O'DOHERTY,

N. L. LINDOP.