

(No Model.)

2 Sheets—Sheet 1.

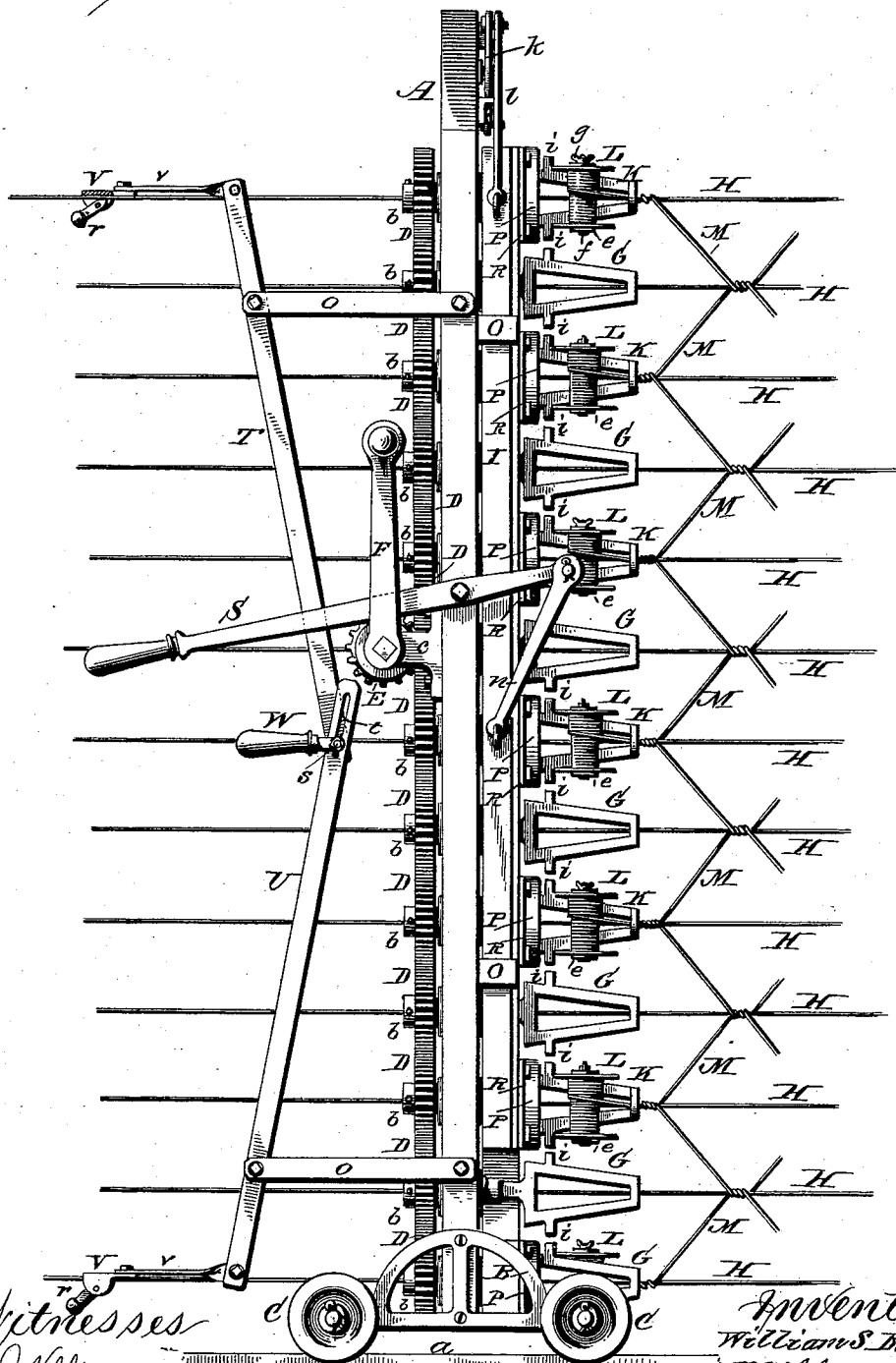
W. S. BARKER.

MACHINE FOR TWISTING FENCE WIRES.

No. 536,061.

Patented Mar. 19, 1895.

Fig. 1.



Witnesses
Williamson
G. Goddard

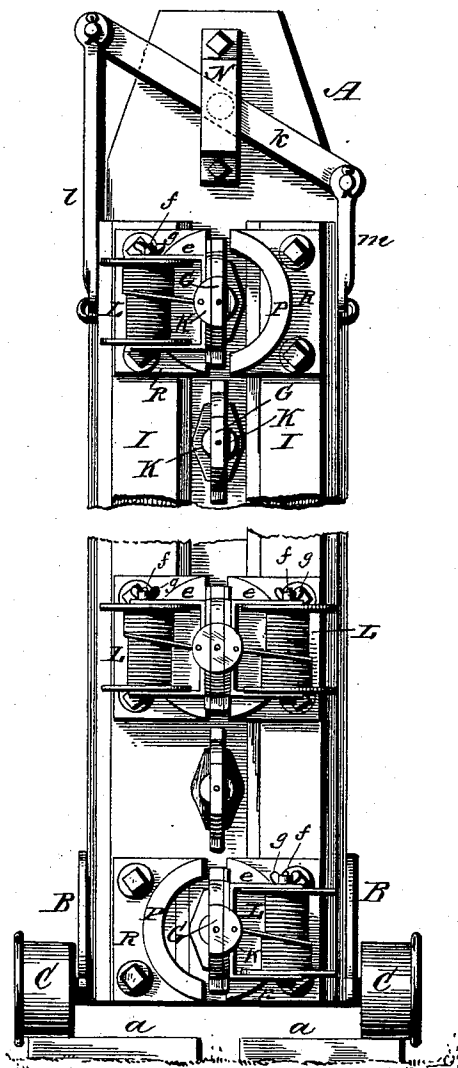
Inventor
William S. Barker.
per *Chas. H. Fowler.*
Attorney.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2



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Fig. 3

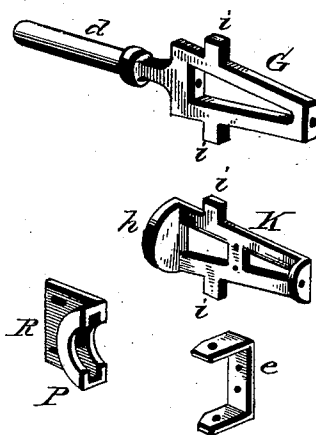


Fig. 4



Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM SEWARD BARKER, OF DAYTON, OHIO, ASSIGNOR OF ONE-HALF
TO JOHN SCOTT, OF SAME PLACE.

MACHINE FOR TWISTING FENCE-WIRES.

SPECIFICATION forming part of Letters Patent No. 536,061, dated March 19, 1895.

Application filed December 13, 1894. Serial No. 531,657. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SEWARD BARKER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Machines for Twisting Fence-Wires; 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 of reference marked thereon.

The present invention has for its object to provide a portable machine for the construction of fences composed wholly of wire, said machine being supported upon wheels or rollers and adapted to be moved along on a suitable track as fast as the twisting of the cross wires upon the horizontal wires is completed.

The invention consists of a machine constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a side elevation of the machine showing the wires of the fence connected therewith. Fig. 2 represents a front elevation of the machine showing it partly in broken section. Fig. 3 gives detail views in perspective of the devices and their connections for holding and twisting the wires. Fig. 4 is a detail view in perspective of the plate to which the rocking-lever is pivoted at the upper end of the machine.

In the accompanying drawings A represents a suitable standard which has connected to its sides the metal brackets B, said brackets having short axles upon which are mounted flanged wheels or rollers C for engaging with suitable tracks or rails *a* along the line of the fence.

The standard A has a vertical line of holes to form bearings for the hollow hubs *b* of gear wheels D, the several gear wheels engaging with each other as shown in Fig. 1. The central one of these gear wheels has bevel gearing upon its face with which engage the teeth of a bevel gear wheel E, said wheel having its shaft suitably connected to plates *c* projecting from the standard. Upon one end of the shaft is a crank-handle F for rotating the bevel gear wheel E which will turn the mid-

dle one of the gear wheels D with which said wheel engages, and through their connections with each other, the entire number of gear wheels will be simultaneously rotated and will rotate the twisting devices with which they are connected. A carrier G supports the main or horizontal wire H of the fence and is adapted to revolve around the same while said wire remains stationary. This carrier may be of any suitable shape and construction and has a hollow shaft *d* which extends through the hollow hub *b* of the gear wheel D and is secured to said hub by a set-screw or by other well known means, so that when the wheel revolves it will carry with it the hollow shank and the carrier hereinbefore described.

The horizontal fence wire H passes through perforations in the carrier as well as through the hollow shank thereof, said shank extending through an elongated opening in vertically movable bars I, the elongated openings in the bars admitting of said bars moving without interfering with the carrier G. These carriers are in number to correspond with the number of gear wheels D and also to the number of horizontal fence wires H used in constructing the fence.

The twisting devices K have suitably connected to them a revolving spool L for the cross wires M which are to be twisted upon the horizontal wires H.

The most preferable manner of connecting the spools to the twisting devices is by connecting to the device a bracket *e* and to this bracket journal the spool by means of a screw rod to form the journal, as shown at *f*, a thumb-nut *g* engaging the screw threaded end of the rod to hold it stationary and in position.

The twisting devices are connected to the alternately movable bars I in such manner as will admit of said devices with their spools having a rotary motion imparted to them through the medium of the carriers G and their operating mechanism or gearing. In order to provide for this free movement of the twisting devices, the devices are supported on the bars by means of grooved segmental guides P with which engage the tongues *h* upon the rear ends of the devices. These guides enable the twisting devices to freely rotate when

brought on line and in contact with the carriers by the vertical movement of the bars to which they are connected.

The twisting devices K have bearing lugs *i* as do also the carriers G which are for the purpose of increasing the bearing surface at the outer edges thereof which brings the twisting power as far as possible from the center of the carriers and avoiding the danger of the twisting devices binding or wedging in the grooved guides. The employment of these segmental grooved guides, enables the twisting devices to be steadied and guided in their rotation. The grooved segmental guides P have slotted plates R and through these slots extend the fastening screws for connecting them to the bars I. The slots in these plates enable the segmental grooved guides to be adjusted laterally to adapt them to the twisting devices and also to take up any wear when found necessary. These twisting devices are arranged in pairs and located upon the bars I on a line directly opposite each other, but at the extreme upper and lower end of the bars a single twisting device is used, all arranged as shown in Fig. 2 of the drawings. The rocking-beam *k* has its ends connected respectively with the bars I, by means of hangers *l m*, said bars being operated by means of a hand-lever S pivoted to the standard A and connected with one of the bars by means of arm *n*. Through the medium of the hand-lever S and its connections with the bars, said bars may be alternately moved in a vertical direction by depressing or raising the lever.

In order to properly move the machine along the track as fast as the twisting is completed, there are provided lever-arms T U which are pivoted to supports *o* secured at one end to the standard A. At the upper and lower ends of these lever-arms respectively, are suitable clamps V provided with pivoted clutches *r* which are adapted to bear against the upper and lower horizontal wires H. Upon the inner or lower end of the lever-arm T is a screw-bolt *s* which extends through a slot *t* in the upper end of the lever-arm U and to the extremity of the bolt is suitably connected a hand-grasp W for operating said lever-arms. When this hand-grasp is pushed in the direction of the machine, the lever-arms will be in the position indicated in Fig. 1 of the drawings, in which position the weighted clutches will firmly grip the wires and form a fulcrum for the lever-arms, and when the hand-grasp is pulled upon it will force the lever-arms forward or in an opposite position from which they are shown which will move the machine along the track a sufficient distance to form the next meshes or diamonds of the fence.

When the lever-arms are forced back in the position shown in Fig. 1 of the drawings, the clutches will automatically release themselves to admit of this movement of the lever-arms when the said arms are in a position to be again operated to move the machine.

The bars I in their alternating movement

bring the twisting devices on line with and opposite the carriers whereby the carriers will carry around with them the devices to form the twist in the wires. After the twist is completed, the movement of the bars will carry the twisting wires from one horizontal wire to the other to form the diamond shape mesh of the fence.

The spools are supplied with wire of the required thickness which is fed off the spools as the machine is moved along the track, the horizontal wires serving as guides when the machine is being moved.

The clamps V to which the weighted clutches are pivoted, are pivotally connected to suitable arms *v*, whereby the clamps may have a lateral play necessary to adapt themselves to any unevenness in the wire when the clamps are moved thereon.

The rocking-beam *k* is pivotally connected to a plate N, which plate in turn is secured to the upper end of the standard A. In order to guide the bars I in their movement, suitable guides O are provided, which guides are secured to the standard A and embrace the bars whereby said bars are confined in position to the standard when in motion. These guides however may be dispensed with as the shanks *d* of the several carriers and the elongated openings in the bars I through which the carriers extend will guide the bars in their movement.

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

1. A machine for twisting fence-wire and means for moving it along the line of fence, consisting of lever-arms, one of said arms being slotted, the arms pivoted together at their inner ends and also pivoted to supports projecting from the standard, and pivoted clamps carrying pivoted and weighted clutches, and means for operating the lever-arms, substantially as and for the purpose described.

2. A machine for twisting fence-wire, consisting of a suitable standard, rotatable carriers connecting therewith and having bearing lugs and hollow shanks, vertical bars connecting with the standard and means for imparting to the bars an alternate movement, grooved segmental guides laterally adjustable upon the bars, twisting devices provided with bearing lugs and laterally extending guide tongues, and spools connected to the devices, and means for moving the machine along the line of fence, comprising pivoted lever-arms, pivoted clamps, and weighted clutches pivoted to the clamps, substantially as and for the purpose specified.

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

WILLIAM SEWARD BARKER.

Witnesses:

PRESS FRALICK,
E. K. DABNEY.