

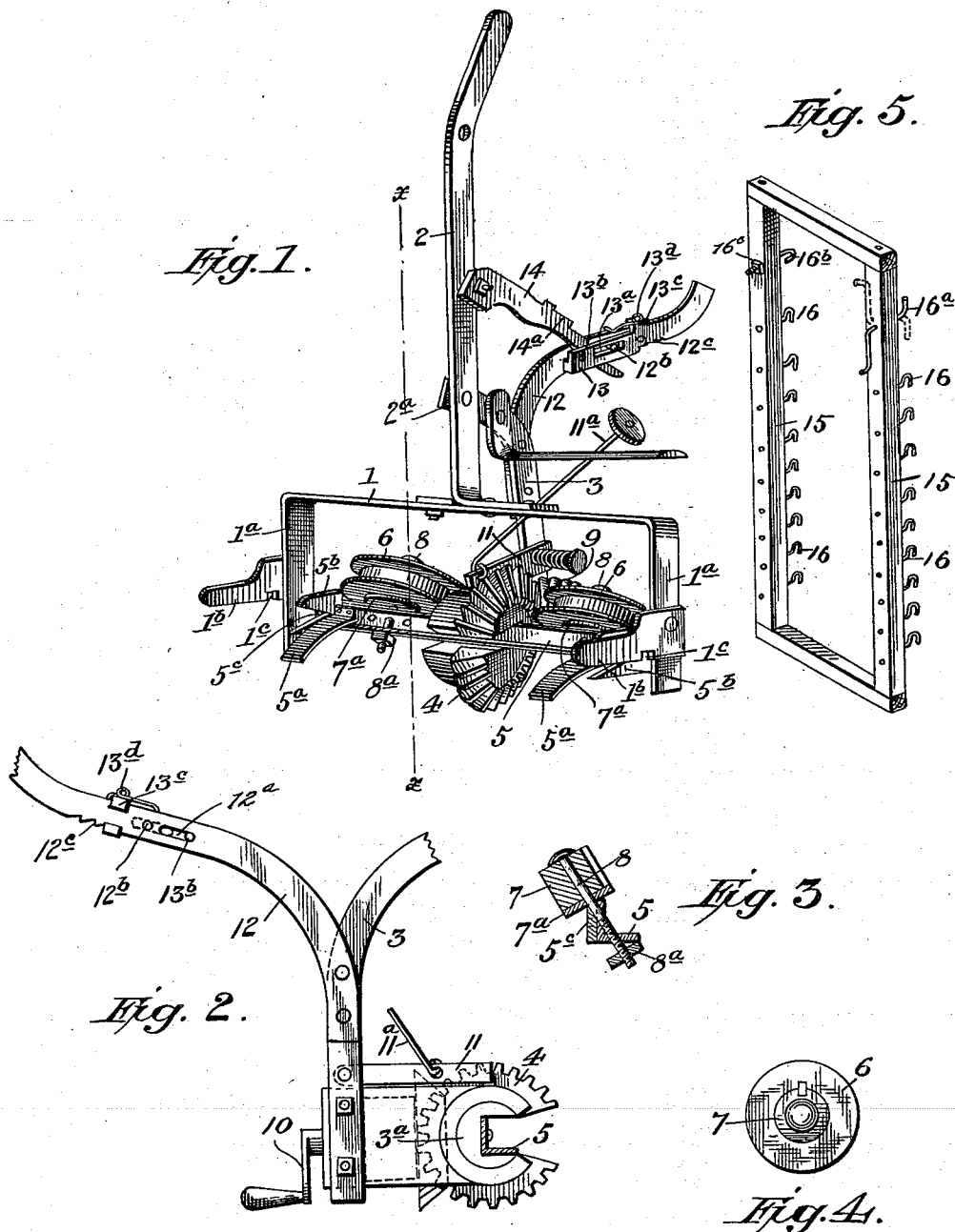
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Patented Apr. 17, 1900.

J. B. EAGLESTON.  
WIRE FENCE MACHINE.

(Application filed Aug. 30, 1899.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 647,819, dated April 17, 1900.

Application filed August 30, 1899. Serial No. 728,994. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH B. EAGLESTON, a citizen of the United States, residing at Muhlenburg, in the county of Pickaway, State of Ohio, 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 more particularly to machines for putting vertical stay-wires on fences composed primarily of parallel horizontal strands of wire secured at intervals to posts. In fences of this kind the horizontal strands are put closer together toward and near the ground to prevent dogs, sheep, and other small animals from getting through; and one of the chief objects of my invention is to provide means for permitting the paying off of just the right length of wire to tie the space between the horizontal strands.

A second important object of my invention is to provide an adjustable tension for the spools from which the wire is taken to form the stays.

A third feature resides in an improved spacer for use in connection with such a machine.

Other features of importance are described hereinafter and defined in the claims.

In the annexed drawings, showing one embodiment of my improved machine, Figure 1 is a perspective view. Fig. 2 is a sectional view taken on the line *xx* of Fig. 1. Fig. 3 is a sectional view taken through the spool-spindle and tension device. Fig. 4 is a plan view of the spool, showing one way of connecting it to its friction-spindles. Fig. 5 is a perspective view of the spacer.

Like characters of reference in the different views designate corresponding parts.

The frame is composed, essentially, of two parts—to wit, a supporting part and a part carrying the wire-twisting devices.

The supporting part consists of a rectangular yoke-like bar 1, having dependent legs 1<sup>a</sup>, from which extend laterally feet 1<sup>b</sup>. These feet are made with notches 1<sup>c</sup> to catch over a horizontal strand. From the middle of the bar 1 rises a handle-arm 2, and to this handle-arm the frame carrying the twisting device

is pivoted at 2<sup>a</sup>. The arm 3 (which is pivoted to the arm 2 at 2<sup>a</sup>) carries at its lower end a socket-piece 3<sup>a</sup>, open at its front side, and in this socket is journaled the hub of the beveled master-gear 4, having an axial and radial opening. Within the axial opening of the gear 4 is secured axially a bar of angle-iron 5, having at each of its ends a curved wire-guiding toe 5<sup>a</sup>, a bifurcate projection 5<sup>b</sup>, and an eye 5<sup>c</sup>, through which the wire passes from the spools 6. The spindles 7 for the spools are rotated on bolts 8, passed obliquely through the webs of the angle-iron; but said spindles are compressible between the head of the bolt and an elastic washer 7<sup>a</sup> by means of a nut 8<sup>a</sup>, one corner of which pinches against the lower web of the angle-iron. The fact that one corner only of the nut pinches against the angle-iron tends to bind the parts, and therefore lock said nut on the bolt.

The lower portion of the arm 3 carries a journal in which turns a miter-pinion 9, that engages the miter-gear 4, and keyed to the shaft of said miter-pinion is a handled crank-shaft 10, by means of which rotary motion is imparted to the gear 4 and the angle-iron carrying the wire-spools.

The miter-gear 4 is formed with a notch to be engaged by a spring-actuated latch 11, having attached to it a rod 11<sup>a</sup>, passing upward through an arm secured to and extending horizontally from the arm 3, and the upper end of said rod is provided with a thumb-button by means of which the latch may be disengaged from the miter-gear 4. The position of the latching-notch in the gear 4 is such that when engaged by the latch the radial opening of the said gear shall be horizontal and face the fence side of the machine, so that the machine may be conveniently placed onto a horizontal strand-wire of the fence and the said wire lie in the corner of the angle-iron and the axis of the rotation of the gear.

Secured to the arm 3 is a horizontally-extending handled arm 12, having a slot 12<sup>a</sup>, a pin 12<sup>b</sup>, and a series of notches 12<sup>c</sup>, and sliding on this arm at a slight distance therefrom and parallel thereto is a plate 13, having a slot 13<sup>a</sup> and a pin 13<sup>b</sup>, that extends into the slot 12<sup>a</sup> in the arm and receives in its slot the pin 12<sup>b</sup> on the arm 12. By sliding the plate 13 backward toward the end of the handle

the distance between the pins 12<sup>b</sup> and 13<sup>b</sup> may be shortened or lengthened. The sliding plate is furnished with a bent portion 13<sup>c</sup> at its rear end that hooks over and under the bar of the handle in such way as to permit a slight oscillation of the plate on the handle, and the upper portion is furnished with a spring 13<sup>d</sup>, pressing against the handle, that tends to hold the latching edge up into one or the other of notches 12<sup>c</sup>, and thus lock the slide into any of the positions to which it may be adjusted.

Hinged to the handle-arm is an arm 14, having on its upper edge, near the free end thereof, a series of step-like shoulders 14<sup>a</sup>. This arm 14 extends through the opening between the pins 12<sup>b</sup> and 13<sup>b</sup>. In putting on the stay-wire the spool-frame is swung backward and upward, while the feet 1<sup>b</sup> remain on the strand-wire, and when so swung backward and upward the wire is paid off from the spools. To determine the exact quantity to be paid off is the function of the stepped arm 14 and the openings between the pins 12<sup>b</sup> and 13<sup>b</sup>, for if a short length is to be paid off the distance between the pins 12<sup>b</sup> and 13<sup>b</sup> is made short, so that the lowermost shoulder shall afford an abutment for the pin 12<sup>b</sup>, and by increasing the distance between the pins the spool-frame may be swung farther up on the arm 14, and so increase the length paid off. This is an important improvement, because it promotes the expeditious and neat performance of the work of putting on the stay-wires.

The wire-spools are shown to have their bores provided with a pin to enter a groove in the spindle to prevent rotation of the spool independently of the spindle; but any suitable means may be employed to prevent the spools from rotating independently of their spindles.

As shown in the drawings, my machine is designed to twist on two stay-wires at the same time, and in Fig. 5 I have shown in perspective a form of spacer specially adapted for use in connection with such a machine. This spacer consists of a rectangular frame, in the vertical or side bars 15 of which are a series of downwardly-turned hooks 16 for hooking over all the horizontal wires except the uppermost, and for this wire there is provided at the right-hand side (as used) a rotatable hook 16<sup>a</sup> and at the left-hand side a hook 16<sup>b</sup>, that may be entirely inclosed by drawing it with a nut 16<sup>c</sup> against the bar. This last hook is designed to remain on the strand until the work between posts is finished. The machine for twisting on the stay-wires works downward between the side bars

of the spacer, and after a pair of wires has been twisted on the rotatable hook 16<sup>a</sup> is turned down, when its side of the spacer may be lifted off the wires and moved laterally to its new position. By turning the rotatable hook up all the hooks below are locked from movement vertically on the wires.

With my machine the work of putting on the stay-wires is rapidly and neatly executed, as no time is lost by paying off too much or too little wire in moving the machine from one horizontal strand to another, and just the right length of wire is used to span the spaces between the said strands and to make a neat job.

What I claim, and desire to secure by Letters Patent, is—

1. In a fence-machine including an angle-bar 5, tension device for a wire-spool comprising a spindle 7, washer 7<sup>a</sup>, and a bolt 8 passed through the spindle and obliquely through the angle-bar, said bolt having a nut 8<sup>a</sup> adapted to pinch at one corner against the angle-bar, substantially as described.

2. A fence-stay-twisting machine composed essentially of two parts, to wit: a frame to rest upon and engage a horizontal strand, and a frame carrying a wire-spool, means for twisting the wire from said spool about the horizontal strand adapted to be swung away from the first-mentioned part, and means between the two parts for limiting the distance the swinging part may be moved for the purpose explained.

3. A fence-stay-twisting machine composed essentially of two parts, to wit: a frame to rest upon and engage a horizontal strand, and a frame carrying a wire-spool, means for twisting the wire from said spool about the horizontal strand adapted to be swung away from the first-mentioned part, means between the two parts for limiting the distance the swinging part may be moved, and means for varying the limit to which the swinging part may be swung, for the purpose set forth.

4. A spacer for use in connection with a stay-wire-twisting machine of the kind described comprising a rectangular frame having a series of fixed downwardly-turned hooks, a rotatable hook in one side of the frame, and a hook at the opposite side of the frame adapted to be secured to a strand-wire, substantially as described.

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

JOSEPH B. EAGLESTON.

Witnesses:

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