

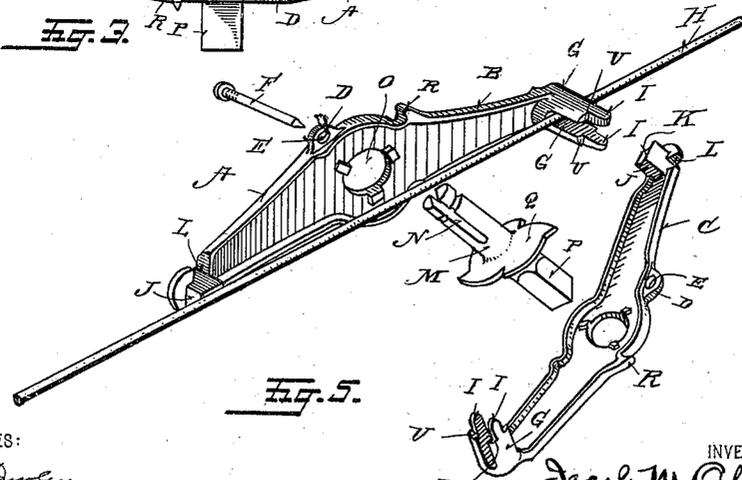
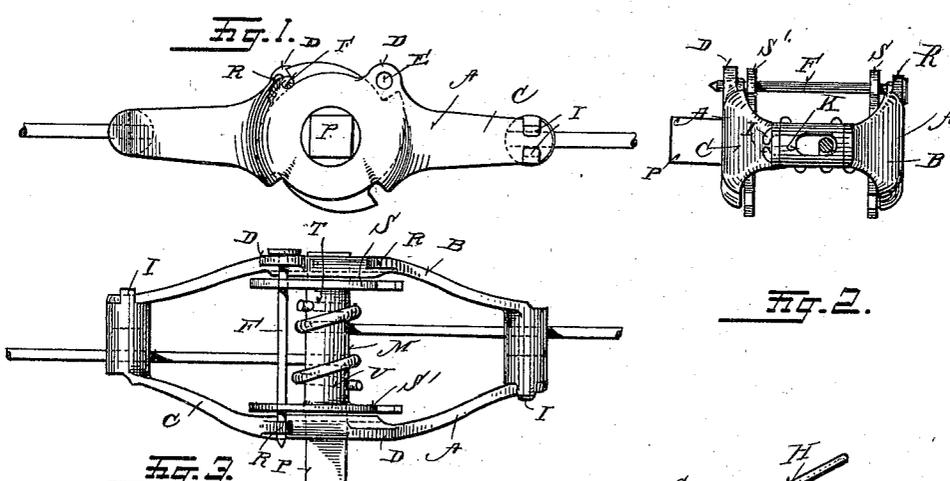
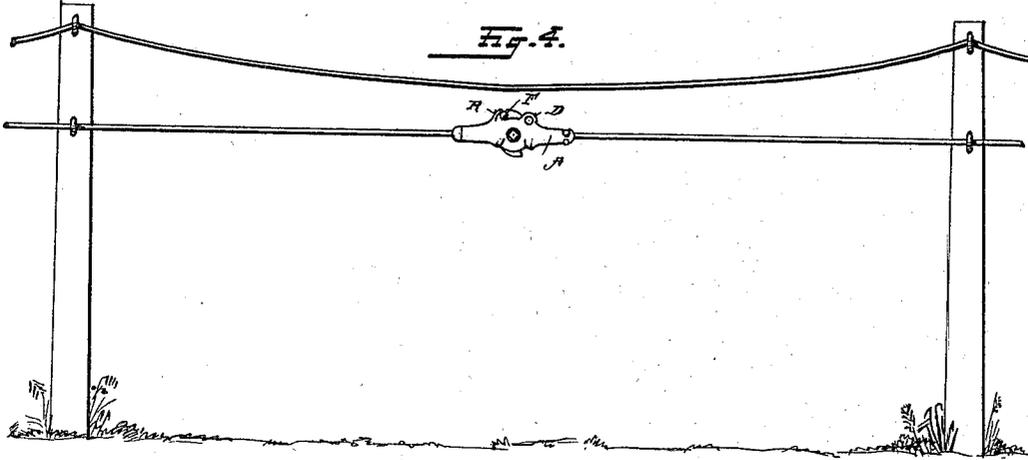
No. 624,524.

Patented May 9, 1899.

J. M. OLINGER.  
WIRE TIGHTENER.

(Application filed Aug. 6, 1898.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

JACOB M. OLINGER, OF VIENNA CROSS ROADS, OHIO.

## WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 624,524, dated May 9, 1899.

Application filed August 6, 1898. Serial No. 687,962. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB M. OLINGER, a citizen of the United States, residing at Vienna Cross Roads, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Wire-Tighteners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in wire-tighteners.

The objects of my invention are to provide a frame forming a portion of my improved tightener which may be made in separate pieces, but which may be readily brought together and formed into a perfectly-rigid frame, and also at the same time will permit of the use of more than one form of winding-drum to be used; to provide a suitable winding-drum by which the more the wire is tightened the nearer the center of the drum will be the tension of said wire, and also to provide a tightener which may be used at any point between the fence-posts to tighten one of the strands of wire composing a wire fence, and at the same time one which will be held in perfect alinement with the wire being tightened no matter what may be the tension of the wire.

This invention also relates to details of construction and arrangement hereinafter appearing, and particularly pointed out in the claims.

In the accompanying drawings, on which like reference-letters indicate corresponding parts, Figure 1 is a side view of my improved tightener; Fig. 2, an end view of the same; Fig. 3, a plan view of what is shown in Fig. 1; Fig. 4, a partial view of a wire fence with my tightener applied to one of the wires, and Fig. 5 a detail view of the parts forming the frame of my tightener and showing another form of winding-drum.

I am aware that there are a great variety of wire-tighteners, but so far as I have observed there are none which may be used at any point between the fence-posts and which will not be twisted out of alinement with the wire when said wire is being tightened. With my invention I have completely overcome this defect, and at the same time have provided a tightener which is composed of a small number of parts adapted to be brought together

to form a complete and rigid tightener and one which may be cheaply constructed and readily applied to wires needing tightening. 55

The letter A represents a suitable frame structure composed of sides B and C, respectively. Each of these sides is similarly constructed, and consequently the description of one will be understood as applying to the other. Preferably from the upper edge of the side B extends a lug or projection D, in which is formed a hole E, through which a pin F is adapted to be inserted for the purpose hereinafter appearing. An extension J projects from one end of the side B and is slightly grooved at its outer end, as shown at K, to conform to the shape of the wire and act as a guide therefor. Above and below this extension J are formed notches L. 60 65 70

When it is desired to tighten the wire a slight amount, the form of drum M, as particularly shown in Fig. 5, is used. It will be seen that this drum is slotted throughout a portion of its length, as shown at N. This slot permits the drum to be placed over the wire and extend through the hole O in the side B. When the drum has been placed in such position, the side C is placed over the squared end P of said drum and brought into engagement with the side B, the lugs I of one side projecting through the notches L of the opposite side and adapted to be bent over to hold the parts in position, as clearly shown in Figs. 1 and 2. The shoulders U, formed on the extensions G, prevent the extensions J from completely closing the slotted openings G'. When in this position, the squared end P projects far enough beyond the side C to permit the use of a wrench for turning the drum. This latter, as shown in Fig. 5, has a ratchet Q, cast or otherwise secured thereto, which is for the purpose of preventing the drum from unwinding when the pin is in engagement with said ratchet. In order that the drum may be rotated without removing the pin F, I have provided a stop R on each of the sides B and C, the stop R of the side C being opposite the extension D of the side B. It will thus be seen that when the pin is in position the drum will be prevented from rotating backward by reason of the teeth of the ratchet Q coming in contact with the pin F and that when the drum is 75 80 85 90 95 100

rotated to wind on the wire the pin will be raised at one end to permit the teeth of the ratchet to pass by said pin, and as soon as a tooth has passed it will again drop to its normal position.

In places where there is considerable slack in the wire and it is desirable to remove short lengths from the strand to be tightened I employ the style of drum shown in plan in Fig. 3. In such form it will be observed that I have a pair of ratchets S and S', respectively. Between these ratchets are formed the holes T and U at each side of the wire to be tightened. Through these respective holes are inserted the respective ends of the wire to be tightened, and consequently as the drum is turned to tighten the wire it will wind from said holes toward the center, whereby the line of strain on the wire-tightener will be practically in line with the wire to be tightened, thus avoiding any twisting strain on the tightener; but even should there be such strain the tightener cannot get out of line, since the wire itself passes directly through the frame. Where a double ratchet is used, such as shown in Figs. 2 and 3, the same pin will act as a stop for each.

In order that the lugs I may be readily bent to their required position to embrace the opposite side, I preferably form them from malleable iron.

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

1. In a wire-tightener, the combination with a frame structure composed of two interchangeable parts adapted to embrace the wire to be tightened and be secured together, a drum therein for engaging with and tightening said wire, and one or more ratchets secured to said drum between said parts, and means to engage with said ratchets substantially as shown and described.

2. In a wire-tightener, the combination with a two-part frame structure of a lug or extension projecting from each end of said parts, one of said extensions from each part being slotted a portion of its length, one or more lugs extending from each of said slotted extensions and adapted to bind the parts together, substantially as shown and described.

3. In a wire-tightener the combination with a two-part frame structure, of a lug or extension projecting from each end of each of said parts, one of said extensions from each part being slotted a portion of its length, one or

more lugs extending from each of said slotted extensions and adapted to bind the parts together, a drum mounted in said frame structure and means to prevent said drum from rotating in one direction, substantially as shown and described.

4. In a wire-tightener, the combination with a two-part frame having extensions projecting from near each end of each of said parts, one extension from each part being slotted throughout a portion of its length and having a pair of lugs for binding the parts together, of a drum, having a hole or opening each side of its center, rotatably mounted in said frame, one or more ratchets connected with said drum between said parts and a pin extending through a hole in one side of said frame and back of a stop on the other side of said frame and adapted to engage with said ratchet to prevent the drum from rotating backward, substantially as shown and described.

5. In a wire-tightener, the combination with a two-part structure having a drum mounted therein, said drum having one or more ratchets secured thereto between said parts, of a slotted extension projecting from one end of each of the said parts, one or more lugs projecting from said slotted extensions, one or more shoulders formed on each of said slotted extensions adapted to come in contact with the opposite side of said frame structure and be held in such a position by said lug or lugs engaging with their respective sides, and a pin projecting through a hole in one of said parts and adapted to engage with said ratchet to prevent their rotation, substantially as shown and described.

6. In a wire-tightener, the combination with a two-part frame structure, each part of which has a hole therein, a drum carrying one or more ratchets and mounted in said holes, of a slotted part between the sides of said two-part frame structure forming a connection between them, and a pin carried by said frame structure for engaging with the teeth on said ratchets, to prevent their rotation in one direction but permit them to pass in the opposite direction, substantially as shown and described.

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

JACOB M. OLINGER.

Witnesses:

W. M. MCNAIR,  
C. L. SNIDER.