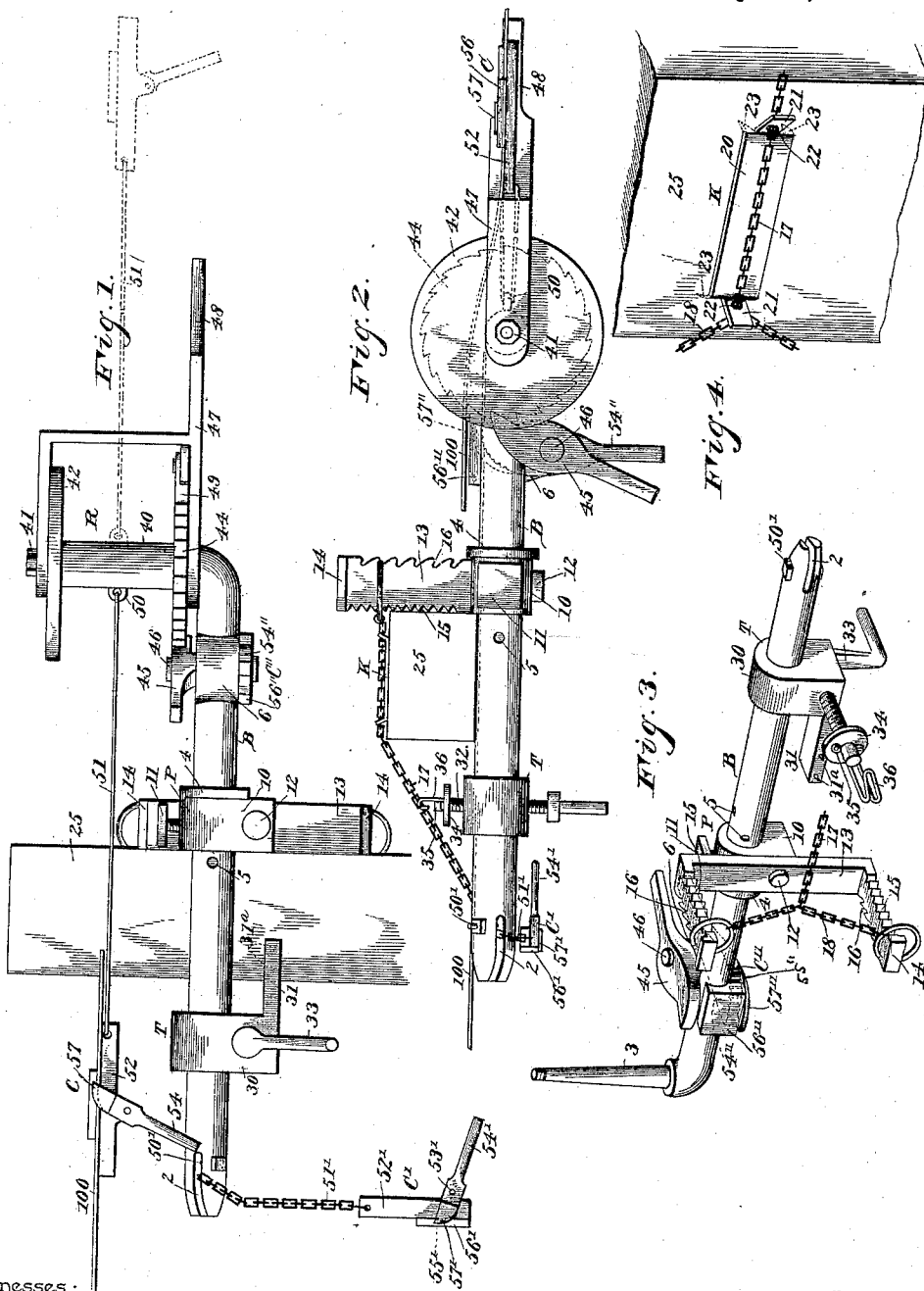


(No Model.)

H. J. ROHR.
WIRE STRETCHER.

No. 475,892.

Patented May 31, 1892.



Witnesses;

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UNITED STATES PATENT OFFICE.

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WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 475,892, dated May 31, 1892.

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To all whom it may concern:

Be it known that I, HERMAN J. ROHR, a citizen of the United States, residing at Alexis, in the county of Warren and State of Illinois, have invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention relates to fences, and more especially to the wire-stretchers adapted to be used on fences to stretch, tighten, or splice the wires thereof; and the object of the same is to provide a device which when secured to a fence-post will stretch the wire on either side thereof and will, if desired, draw the wire across said post, so that it can be stapled thereto.

To this end the invention consists in a stretcher substantially as hereinafter more fully described and claimed, and as illustrated on the accompanying sheet of drawings, wherein—

Figure 1 is a front elevation of this device in use on a post as for drawing wires in one direction toward or across the post. Fig. 2 is a plan view of the device applied to a post and also showing the use of the machine for splicing wire, in which case the device may be used independently of the post. Fig. 3 is a perspective detail of a portion of the body, omitting the reel, and of the brace and chain-tightener. Fig. 4 is a perspective detail of the post-claw.

In the said drawings, the letter B designates the body; P, the post-brace; K, the post-claw; T, the chain-tightener; R, the reel or windlass, and C, C', and C'' the wire-clamps, these parts being each preferably of the following specific construction:

The body B consists of a cylindrical metal bar 1, having a notch 2 in one end and having its other end turned up into a tapered journal 3, whereon is mounted the reel R. On the body between its ends is rigidly secured a collar 4, adjacent which is formed a number of holes or depressions 5.

6 is an enlargement on the body, which carries the wire-clamp C'', used for splicing purposes, and one of the pawls of the reel.

The post-brace P consists of a block 10, encircling and loosely fitting the body, through which block passes a set-screw or pin 11, which seats in one of the holes 5, whereby the block can be adjustably set on the body.

Through this block also passes a stout bolt 12, which takes into the head of an approximately U-shaped yoke 13, preferably having feet 14 at its ends, and one side of this yoke is serrated, as at 15, while the other side is notched, as at 16, as shown.

17 is a chain forked at one end, as at 18, and embracing the sides of the yoke, its terminal links fitting removably in the notches 16, and the other extremity of this chain is adapted to be passed into and held by the notch 2 in the body 1.

Between the ends of the chain 17 a post-clamp K is mounted thereon. This clamp comprises a straight and preferably flat body 20, of sheet metal, with ears 21 at its ends, each ear being provided with a hole 22 of a size to receive and slide over the chain, and at each side of each ear is an inturned prong 23, adapted to be embedded in the back of the post 25, as seen in Fig. 4.

The chain-tightener T consists of a block 30, encircling and loosely fitting on the body 1 and having a finger 31, provided with the teeth or prongs 31^a, for a purpose to appear farther on. Through the body turns a screw 32, having a crank-handle 33 at its front end. 34 is a sleeve fitting on the rear end of this screw and held in place by a split pin 35, and 36 is a hook rigidly secured to and projecting rearwardly from the sleeve 34.

The reel R comprises a cylindrical body 40, having a tapering bore, which is journaled on the journal 3 of the body B, whereon it is held by a nut 41, and at the ends of the cylindrical body are heads 42 and 43, the latter having ratchet-teeth 44 in its periphery.

45 is a spring-actuated retaining-pawl pivotally mounted on a bolt 46 through the enlargement 6 and engaging the ratchet-teeth 44 to prevent a retrograde movement of the spool.

47 is a yoke whose ends are pivotally mounted on the journal 3 outside the heads of the spool. 48 is a handle projecting radially from this yoke, and 49 is a spring-actuated pawl carried by the yoke and engaging the ratchet-teeth 44, by which construction when the handle is reciprocated the spool is turned, as will be clear.

Leading from an eye 50 on the cylindrical body 40 of the spool is a small chain or stout cord or rope 51, which extends to the clamp

C. The latter consists of a body 52, to which is pivoted at 53 a lever 54, having an eccentric face 55, adapted to contact with a lip 56, the head of the lever preferably, also, having a flange 57, moving over the edge of the lip, to prevent the fence-wire 100 from slipping off the same. The other clamp C' is of the same construction and bears the same reference-numerals, except that they are primed, (') and 51' is a small chain or rope leading from this clamp to a bolt 50', which passes across the notch 2 in the body B. The clamp C'' consists of a similar lever 54'', journaled on the lower end of the bolt 46 and having an eccentric face 55'', acting in conjunction with a lip 56'', carried by the body B, and also an encircling flange 57'', corresponding to the other clamp-flanges 57' and 57, respectively.

With the above construction of parts the operation of my improved device is as follows: The body B is placed alongside a post, as seen in the drawings, with the serrations 15 of the post-brace P against one edge of the post, and the chain 17 is passed around behind the post and engaged in the notch 2. The screw 32 of the tightener T is then turned in. The sleeve 34 is locked on its inner end by the split pin. The hook 36 is engaged with one of the links of the chain, and the screw is reversed or unscrewed to twist the chain to such an extent that it shall be drawn very tight between the corner of the post and the slot 2, whereby the body B will be tightly clamped to the post. If the wire is to be drawn in both directions, of course the clamp C is employed, though the body B is not connected with the post, as just described; but if the wire is to be drawn in one direction toward or across the post, as shown in Fig. 1, the clamp C is run past the post from the reel R and engaged with the wire 100, after which the reel is turned in the manner described. To draw the wire from the other side toward the post, the device is clamped to the post on the other side thereof, or if it has just been used, as shown in Fig. 1, this same clamp C is moved over and across the reel, which movement its chain 51 will permit, after which the reel is operated to draw on the chain, all as will be readily seen.

To use the machine for splicing a broken wire, the ends of the wire near their extremities are engaged in the clamps C C'', and they are drawn together by manipulating the reel until they lap each other, when they are twisted or otherwise connected, as illustrated in Fig. 2. The clamp C'' is therefore used when splicing the wires, and in such instance, as will be apparent, as the two clamps C C'' bite the ends of the wires the device supports itself and need not be attached to the post. When it is desired to stretch the wire along the opposite side of the post from that on which the body B stands, the set-screw 11 is removed and the entire body 1 is turned in the blocks 10 and 30 of the post-brace and chain-tightener to bring the reel into a horizontal position, as will be clear, after which the set-screw is re-

engaged with another of the holes 5, which latter are so placed as to permit this, as seen in Fig. 3. In any event the finger 31 and its engaging-prongs 31^a on the chain-tightener T may be passed along and rested against one face of the post to prevent said tightener from turning axially on the body 1.

The parts of this improved stretcher are preferably of metal, and their sizes and shapes are such as will give the complete machine the desired strength and relative proportions of its members. It is thought that the use of the clamp C' will be also apparent. The same is used to hold the wire when it is desired to disengage the clamp C and run it out on the wire to get a new bite when the latter is very slack or the clamp has reached its limit of movement.

What is claimed as new is—

1. In a wire-stretcher, the combination of the body having a right-angularly-disposed and tapered journal at one end, means for removably securing said body to a fence-post, a reel journaled on said tapered journal at one end of the body and provided with a ratchet-head, a yoke embracing said reel and having its ends pivotally mounted on the journal outside of the heads of the reel and having a handle projecting radially therefrom, and a spring-actuated pawl carried by the yoke and engaging the ratchet-head of the reel, substantially as set forth.

2. In a wire-stretcher, the combination, with a cylindrical body having a collar thereon and a number of holes adjacent to the collar, one end of the body being notched, and a windlass journaled on and at right angles to the other end of the body, of a post-brace comprising a block mounted on the body, a set-screw passing therethrough into one of said holes, a yoke secured to the block with one edge serrated and the other edge notched, and a chain detachably engaging the notch in the body, one end being forked and having its terminal links embracing the sides of the yoke and resting in certain of the notches therein, substantially as set forth.

3. In a wire-stretcher, the combination, with a cylindrical body having a number of holes therein, one end of the body being notched, and a windlass connected with the other end of the body, of a post-brace comprising a block mounted loosely on the body, a set-screw passing therethrough into one of said holes, a yoke secured to the block, and a chain detachably engaging the notch in the body, one end being forked and having its terminal links respectively embracing the sides of the yoke, substantially as described.

4. In a wire-stretcher, the combination, with a body and a windlass connected with one end thereof, of a chain adapted to be led around a post, connections between the ends of the chain and one end and the center of the body, and a chain-tightener consisting of a block mounted on the body, a screw passing through the block and having a crank-handle on its

front end, a detachable sleeve on the screw having a hook engaging one of the links of said chain, and means for holding this sleeve on the screw, substantially as described.

5 5. In a wire-stretcher, the combination, with a body and a windlass connected with one end thereof, of a chain adapted to be led around the post, connections between the ends of the chain and one end and the center of the body, means for tightening the chain, and a post-claw consisting of a flat body having at each end an ear with a perforation of a size to slide over the chain and at each side of said ear an inturned prong adapted to engage the post, substantially as described.

10 6. In a wire-stretcher, the combination, with a body and a windlass connected with one end thereof, of a post-brace adjustably mounted on the body, a chain leading therefrom and detachably seated in a notch in one end of the body, and a chain-tightener consisting of a block mounted on the body between its notched end and said brace, a screw taking through said block and having a crank-handle at its front end, and a hook on the rear end of the screw adapted to engage the chain, as and for the purpose set forth.

20 7. In a wire-stretcher, the combination, with a body and a windlass connected with one end thereof, of a chain connected with the other

end of the body, a post-brace adjustably mounted on the body between its ends, the other end of the chain being connected with this brace, a chain-tightener, substantially as described, mounted on the body between that end thereof to which the chain is connected and said brace, and a post-claw longitudinally adjustable on the chain and having prongs adapted to engage the post, as and for the purpose set forth.

40 8. In a wire-stretcher, the combination, with a cylindrical body having a slot in one end and a windlass connected with the other end thereof, of a post-brace adjustably longitudinally and axially on said body, a chain leading from said brace and adapted to be detachably engaged with the notch in the body, and a chain-tightener between the notch and the post-brace and also longitudinally and axially mounted on said body, the tightener having a finger, all substantially as and for the purpose hereinbefore set forth.

50 In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HERMAN J. ROHR.

Witnesses:

RICHARD B. CHURCHILL,
FRANK. M. ROHR.