

No. 688,746.

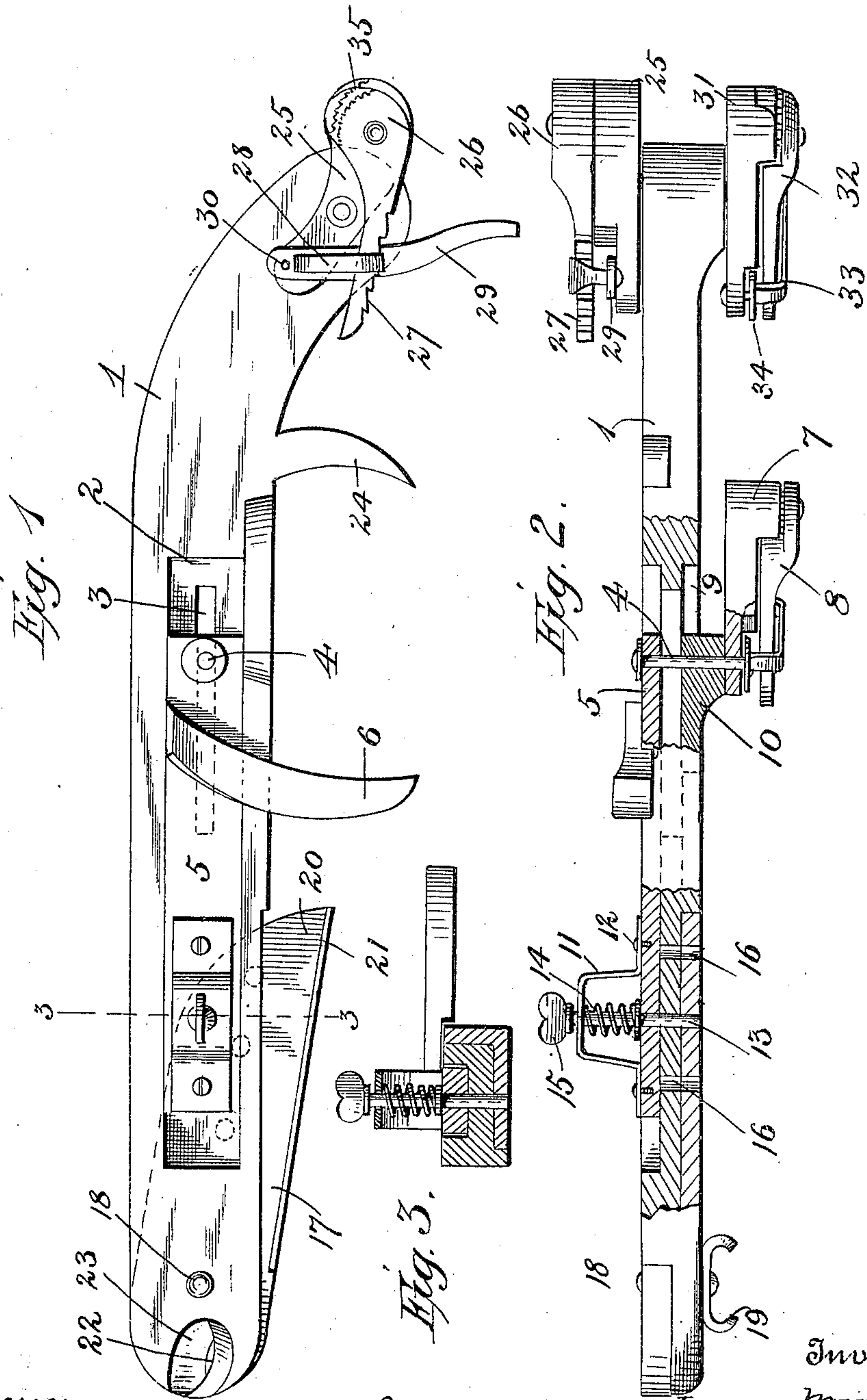
Patented Dec. 10, 1901.

J. MURRAY.

WIRE STRETCHER.

(Application filed Jan. 8, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 688,746, dated December 10, 1901.

Application filed January 8, 1901. Serial No. 42,540. (No model.)

To all whom it may concern:

Be it known that I, JAMES MURRAY, a citizen of the United States, residing at Parachute, in the county of Garfield and State of Colorado, have invented certain new and useful Improvements in Wire-Stretchers; 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 to a wire-stretching apparatus; and my object is to provide reliably efficient means whereby the wire or wires employed in building a fence may be stretched very securely in position at the expense of a minimum amount of time and labor.

A further object of my invention is to provide a wire-mending or splicing tool whereby the ends of a broken wire may be drawn tightly together and interwound or twisted so as to very securely repair the break.

A further object is to enable the operator to readily take up any slack in a wire and restore it to its original taut condition.

Other objects and advantages will be made fully apparent from the following specification, considered in connection with the accompanying drawings, in which—

Figure 1 is a top plan view of my invention complete. Fig. 2 is an edge view of Fig. 1, showing portions partly in section. Fig. 3 is a transverse section of Fig. 1 on line 3 3.

In order to conveniently refer to the several features of my invention and the parts deemed necessary to cooperate therewith, numerals will be employed, of which 1 is the body portion of my invention, which is designed to carry or afford a seat for the other parts and also serve as a lever whereby certain parts may be utilized to the best advantage in stretching the wire, as will be hereinafter specifically pointed out.

By reference to Fig. 1 it will be observed that I form in the upper side of the body-section 1 a longitudinally-disposed recess 2, having a slotted opening 3, provided in the middle portion of one end thereof, said slotted portion, as shown in Fig. 2, being designed to receive the bolt or rivet 4 and permit the free movement thereof in order to afford an adjustment of the bed-plate 5, disposed in the

recess 2, though of less extent longitudinally than said recess. The bed-plate 5, being of less extent than the recess 2, is designed to be reciprocated in said recess in order to effect the adjustment of the arm 6, which is securely fastened in any preferred way to said bed-plate, as clearly shown in Fig. 1. The bolt 4 extends entirely through the slot 3 to the under side of the body-section 1 and has pivotally secured to the lower end thereof the wire-engaging clamp 7, provided with the usual gripping-lever 8, as is common.

Upon the under side of the body-section 1, immediately below the recess 2, I locate the recess 9, in which I movably secure the guiding-section 10, to which the wire-gripping device 7 is pivotally secured by means of the lower end of the bolt 4, as above set forth. The guiding-section 10 is designed to more securely hold the bolt 4 in its operative position and prevent lateral movement of the lower end thereof.

On the end of the bed-plate 5 opposite that upon which is located the arm 6 I dispose the bracket 11, secured to the bed-plate in any preferred way, as by the screws 12. A central aperture is provided in the bracket 11, designed to loosely receive the detent or locking-bolt 13, which is normally forced inward by the spring 14, and it is obvious that by pulling upon the outer end 15 of the bolt 13 the tension of the spring 14 may be overcome and the inner end of the bolt be lifted out of the aperture provided in the body-section, thereby permitting the free longitudinal adjustment of the bed-plate. A plurality of apertures, as indicated by the numeral 16, is provided to allow adjustment of the bed-plate.

I prefer to remove the under side of one end of the body-section and to pivotally secure near the extreme outer end of the body the pivoted member 17, held in its operative position by the bolt 18, as clearly shown in Figs. 1 and 2. The under side of the bolt has pivotally secured thereto the reversible hook member 19, designed to temporarily engage a wire during one of the operations of splicing. The member 17 is preferably formed so that its inner edge will be slightly curved, as indicated by the numeral 20, it being understood that the body-section is to be so cut

away as to snugly receive the said member 17 and leave the outer surface thereof substantially flush with the outer surface of the body-section.

5 One edge of the body-section may be entirely removed, in which case a flange 21 should be formed upon the member 17 to compensate for the removed edge, thereby leaving the outer surface of said member flush
10 with the edge of the body. The member 17 is provided with a wire-cutting notch or recess 22, designed to correspond in location and cooperate with the recess provided in the
15 extreme end of the body-section, and it is obvious that a shear-like action is set up between the edges provided for said recesses when the member 17 is swung upon its pivot, thus insuring that a wire will be easily severed.

20 Suitable apertures are provided in the member 17, as indicated in Fig. 2 and by dotted lines in Fig. 1, said apertures corresponding to and registering with the apertures 16, formed in the body portion, and are adapted
25 to receive the protruding end of the locking-bolt 13, and thereby hold the member 17 against casual movement.

Secured near the opposite end of the body or integrally formed therewith is the arm 24,
30 designed to cooperate with the arm 6, carried by the bed-plate 5, while pivotally secured near the extreme outer end of the body, upon the upper side thereof, is the wire-gripping device 25, having the usual lever 26, the latter
35 being preferably provided with the serrated or ratchet edge 27, designed to cooperate with the keeper 28, carried by the lever 29. The lever 29 is pivotally secured to the member 25, as by the rivet or bolt 30, the office of the lever and keeper being to engage the free end
40 of the lever 27, and thus securely lock the same in position, so that it will hold the wire against slipping until the lever 29 is swung around so as to disengage the keeper 28.

45 Upon the under side of the body I also pivotally secure an additional wire-engaging clamp 31, having the usual controlling-lever 32, which is also provided with a keeper or bracket 33, similar to the bracket 28, said
50 keeper 33 being carried by a lever 34, which, like lever 29, is pivotally secured to the wire-engaging member. The wire-engaging members are provided, as is common, with the serrated cooperating edges, (indicated by the numeral 35 in Fig. 1,) this being the common construction employed in wire-stretchers, &c.

By the construction just presented it will be seen that I have not only provided means for engaging the ends of wires and drawing
60 the same together, but have also provided means for easily cutting the wire at any point, thus presenting a very useful tool for the use of fence-builders and fence-repairers.

65 Having thus fully described the construction of my improved instrument, the operation or manner of using the same may be stated to be as follows: When it is desired to

stretch a wire into engagement with a post, the end of the wire or any portion thereof may be secured in engagement by one of the
70 members 25 or 31 and the bed-plate 5 properly adjusted by withdrawing the bolt 13, so that the movable arm 6 can be moved away from the stationary arm 24 sufficiently to permit the fence-post to be received between
75 them, when the bolt 13 is released, thus allowing it to take into the contiguous aperture 16, and thereby hold the bed-plate against further movement. By thus disposing an arm upon each side of the fence-post it is obvious
80 that the body-section may be used as a lever, thus permitting the free end or that end having the recesses 22 and 23 to be moved around until the wire is drawn sufficiently tight, when it may be secured by stapling it to the post.
85 In the use of the body-section just described it is obvious that said body portion is utilized as a lever to draw the wire taut, the arms serving as a fulcrum-point for said lever. By providing the serrated or ratchet edge for the
90 lever 27 the free end of said lever may be reliably secured by extending the same through the bracket or keeper 28, when said bracket will engage one of the serrations or ratchet-teeth, and thus enable said lever to be adjust-
95 ably secured, so that it will tightly engage the wire between the teeth or serrations 35 until the lever 29 is moved around sufficiently to carry the bracket 28 out of engagement with the lever 27. By providing an adjustment
100 for the bed-plate 5 I am not only enabled to adjust the arm 6 with respect to the arm 24, but am also able to adjust the gripping member 7 with respect to each end of the body-section. When it is desired to draw together
105 the ends of the severed wire without removing the wire from the fence, I utilize the member 31 upon the lower side of the body in cooperation with the wire-engaging member 7. Since the bed-plate is adjustable, it
110 is obvious that the member 7 is also rendered adjustable with respect to the location of the member 31 and the ends of the wires when respectively placed in the members 7 and may, by properly moving the body-section 1,
115 be caused to approach each other and become crossed, and by continuing the movement of the body-section the wires are securely twisted into such position that they will be very securely fastened together. By the use, there-
120 fore, of my improved instrument all of the various requirements of such an instrument will be fully subserved, and having thus described the construction and operation of my invention further reference thereto is deemed
125 unnecessary.

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

1. The herein-described instrument for building fences, comprising the body portion
130 1 having upon opposite sides of one end wire-engaging members 25 and 31 provided with wire-engaging levers and securing devices for said levers in combination with a movable

bed-plate 5 adapted to fit a recess in said body portion and carrying an arm 6; means to adjust said bed-plate in any desired position; a fixed arm 24 carried by the body portion and designed to cooperate with the arm upon the bed-plate; a bolt 4 extending through a slot in the body-section and through the bed-plate 5; a guiding member 10 attached to the lower end of said bolt and a wire-engaging member 7 pivotally connected to the lower end of said bolt whereby said wire-engaging member may be placed in cooperation with the member 31, all operatively combined substantially as specified and for the purpose set forth.

2. In an instrument for building wire fences, a body portion 1 having upon opposite sides of one end the wire-engaging members 25 and 31, each provided with a wire-engaging lever and a securing device 29 having a loop member 28 adapted to cooperate with said lever and hold it in an adjusted position, substantially as specified and for the purpose set forth.

3. In an instrument for building wire fences an elongated body-section having a pair of wire-engaging members 25 and 31 and gripping-levers 26 and 32 respectively, levers 29 having loop members 28 adapted to engage the free ends of the levers 26 and 32; a rigid arm 24 carried by said body portion and

an adjustable bed-plate 5 having an arm 6 and means to adjust the bed-plate and the arm carried thereby whereby said arm and the rigid arm 24 may be relatively adjusted, all substantially as specified and for the purpose set forth.

4. In an instrument for building wire fences, an elongated body portion having wire-gripping devices at one end and also having a longitudinally-disposed recess; a bed-plate 5 adapted to fit said longitudinally-disposed recess and a spring-controlled member 13 carried by said bed-plate and designed to engage suitable apertures in a contiguous part of the body portion whereby the bed-plate may be adjusted longitudinally upon said body portion, in combination with a gripping device 7, pivotally connected to the bed-plate and movable therewith; a movable arm 6 attached to said bed-plate and a fixed arm 24 carried by the body portion and adapted to cooperate with said movable arm, all substantially as specified and for the purpose set forth.

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

JAMES MURRAY.

Witnesses:

WM. H. TANNEY,
C. B. BROWN.