S. W. TATE.

WIRE STRETCHER.

APPLICATION FILED SEPT. 5, 1911.

1,049,169.

Patented Dec. 31, 1912.

2 SHEETS—SHEET 1.

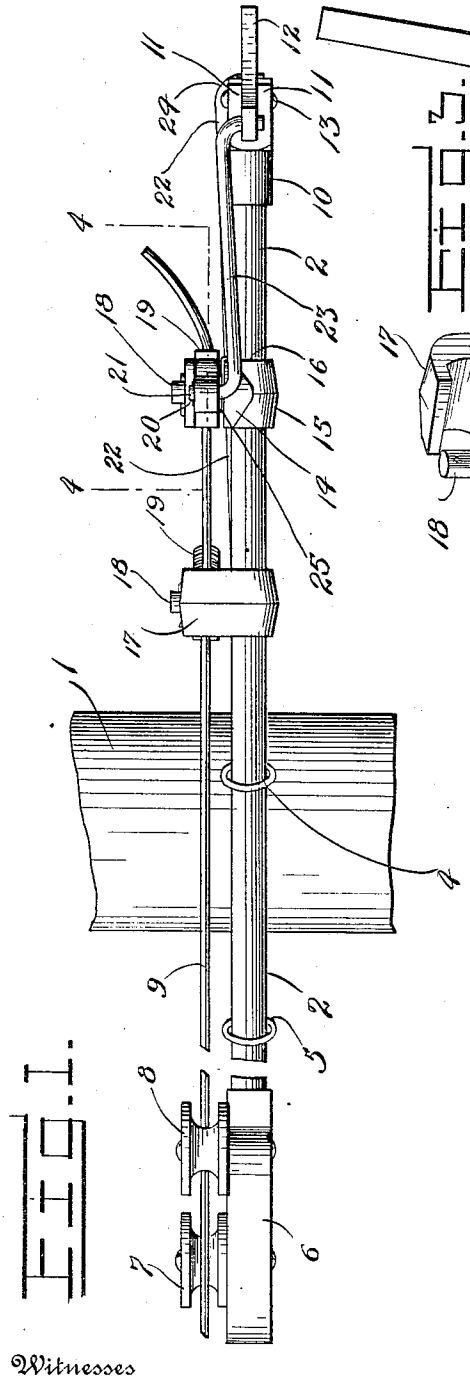

FIG. 1.

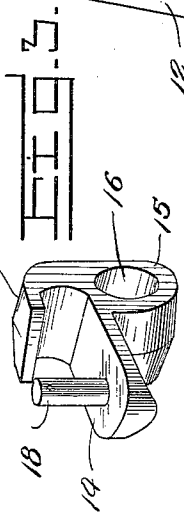

FIG. 3.

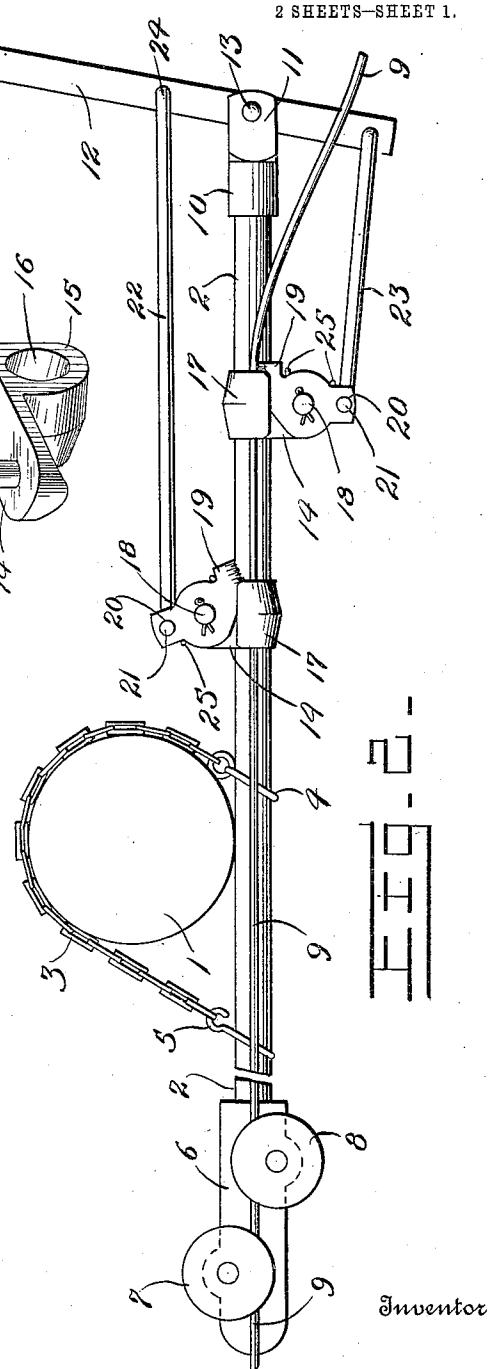

FIG. 2.

Witnesses

Charles J. MacCarter

H. K. Parsons

Inventor

S. W. Tate.

By Harry Ellis Chandler

Attorney

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Fig. 4.

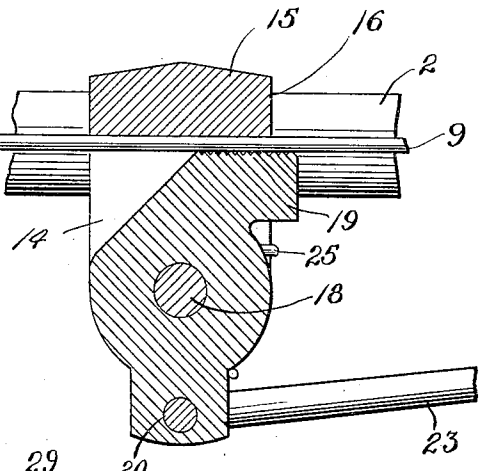


Fig. 5.

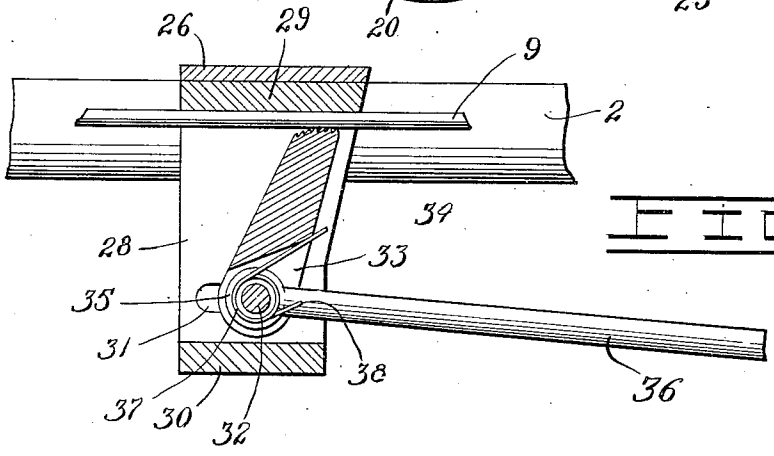
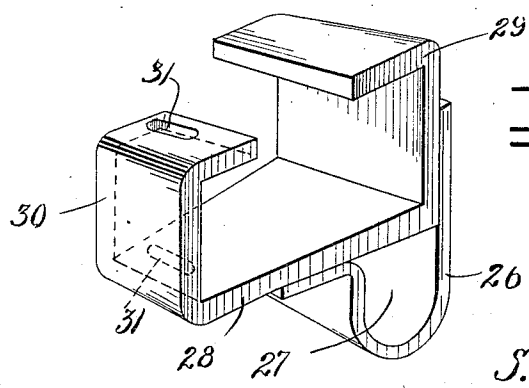


Fig. 6.



Witnesses

Charles J. MacCarthy

H. C. Parsons

Inventor

S. W. Tate,

By Harry Ellis Chandler

Attorney

UNITED STATES PATENT OFFICE.

SAMUEL W. TATE, OF PONTIAC, ILLINOIS.

WIRE-STRETCHER.

1,049,169. Specification of Letters Patent. Patented Dec. 31, 1912.

Application filed September 5, 1911. Serial No. 647,572.

To all whom it may concern:

Be it known that I, SAMUEL W. TATE, a citizen of the United States, residing at Pontiac, in the county of Livingston and State of Illinois, have invented certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

My invention relates to improvements in wire stretchers, and has for its leading object the provision of an improved form of wire stretcher which may readily be secured in position to a fence post and which will firmly grip the wire to stretch the same.

The further object of my invention is the provision of an improved wire stretcher which may be easily secured to the fence post and which will serve to stretch the wire past the post, whereby my improved stretcher may be used with equal facility in stretching wire between the various posts of the line of fence or for stretching the wire into position where it may be secured to the corner post, the stretcher holding the wire tense beyond the said corner post.

Another object is the provision of a wire stretcher provided with a pair of jaw members adapted to alternately automatically grip and draw the wire to stretch the same and to release the said wire and move therealong to secure a new grip on the wire while the other grip is holding and stretching the wire.

Other objects and advantages of my improved wire stretcher will be readily apparent by reference to the following description taken in connection with the accompanying drawings and it will be understood that I may make any modifications in the specific structure shown and described within the scope of my claim without departing from or exceeding the spirit of the invention.

Figure 1 represents a side elevation of my improved stretcher in use. Fig. 2 represents a plan view thereof. Fig. 3 represents a perspective view of one of the reciprocating wire engaging members. Fig. 4 represents a sectional view on the line 4—4 of Fig. 1. Fig. 5 represents a similar sectional view of a modified construction of gripping jaw and member, and Fig. 6 represents a perspective view of the modified reciprocating casting.

In the drawings, the numeral 1 designates a fence post to which is secured the pipe or guide rod 2 of my improved stretcher, a chain 3 having a link 4 surrounding and secured to the pipe, said chain passing around the post and having one of the links near its free end engaged by the hook 5 secured on the rod 2, said hook adjustably securing the chain around the post and thus fastening the rod in position. Said rod has at one end the flattened portion 6 on which are pivoted the grooved pulleys 7 and 8 which are separated and staggered with respect to each other to cause said pulleys to guide the fence wire 9 and allow it to bear against the inner faces of the groove in both pulleys and extend along the rod 2 in a straight line. Secured on the other end of the pipe or rod 2 is the collar 10 having formed integral therewith the furcations 11 which project beyond the end of the pipe or rod 2, an operating lever 12 being pivotally secured between said furcations by the bolt 13.

Slidably mounted upon the member 2 are a pair of castings similar to each other in general construction but oppositely disposed. Said castings comprise a base portion 14 having formed at one side the offset 15 providing a passage 16 in which the member 2 slides, said casting having the upwardly and inwardly curving or hooked shaped member 17 extending upward therefrom and being also formed with the integral upwardly projecting pivot post 18 disposed at the opposite side thereof from that on which the hook shaped member 17 is located.

Pivotally mounted upon the post 18 are the improved gripping jaws of my wire stretcher, said jaws being of L-shape having the posts upward at the angle of the L, and having the arms 19 provided with serrated faces for grippingly engaging the wire and having the apertures 20 formed in their other arms in which are secured the upwardly bent arms 21 of the operating arms 22 and 23, the rod 22 being pivoted to

or having a bent end 24 pivotally engaged in a socket in the handle 12 at its inner portion, and the rod 23 being similarly secured to the outer end of the handle or lever 12 on the opposite side of the pivot 13 from the side or end to which the rod 22 is secured.

By reference to Figs. 1 to 4 inclusive, the construction and operation of this form of my wire stretcher will be readily understood and it will be seen that the wire 9 passes between the serrated face 19 of one of the jaw members and the curved portion 17 of the casting and then between the curved portion and jaw member of the other casting. To operate the stretcher it is then merely necessary to rock the lever 12, said rocking movement through the rods 22 and 23 drawing one of the castings toward the end of the pipe 2 and forcing the other casting toward the center of said pipe. As one of the castings is drawn toward the end of the pipe, the drawing force of its rod 23 will tend to first swing the jaw on its pivot to cause the serrated face 19 of the jaw to clampingly secure the wire between the jaw and the curved portion 17 of the casting to cause the wire 9 to move toward the end of the pipe with the said casting, a spring 25 mounted on the pivot post 18 and having one end bearing against the casting and the other end against the jaw, aiding in swinging the jaw into said clamping engagement with the wire. At the same time the other rod will be pressed to move its jaw into position to disengage the wire and the casting will move forward along the wire, the reverse rocking of the lever reversing the movement of the castings and causing the opposite casting to be moved outward by its rod 22 while the other casting moves forward to secure a new grip.

In Figs. 5 and 6 I have illustrated a modified construction of sliding member and gripping jaw for acting in connection therewith, said member comprising a base portion formed with a depending offset 26 providing an aperture 27 in which the pipe 2 fits, while rising from the base 28 at one side is the L-shaped member 29 corresponding to the curved member 17 of the form of my casting, a second L-shaped arm 30 of less height than the arm 29 rising from the opposite side of the base 28.

Formed in the base 28 and in alinement therewith in the parallel portion of the arm 30 are the slots 31 in which is slidably engaged the pivot pin 32, while pivotally engaged upon said pin are the furcations or ears 33 of the gripping jaw having the serrated portions 34 bearing against the inner face of the arm 29. Engaged upon the pivot pin 32 intermediate the ears 33 of the jaw member is the eyed portion 35 of the operating rod 36 corresponding to the rods 22 and 23, a spring 37 being coiled around the pin and bearing at one end against the jaw and at the other end fitting into a socket 38 formed in the rod 36, said spring tending to force the jaw member automatically into gripping engagement with the wire.

The operation of this form of the jaw is practically the same as the operation of the other form of my invention, the only difference being that the leverage of the rod instead of being exerted against the arm of the jaw to swing the jaw into disengaging position is exerted against the pivot pin and the jaw rides over the wire, the spring allowing the same to yield. The purpose of the slots 31 which are formed in the base and in the arm 30 are to allow of slight independent movement of the pivot pin as the rod 36 is shifted in opposite directions, when the rod is tensed the pin being drawn slightly forward to rock the gripping jaw down against the wire while when the rod is pressed backward, the pin moves backward in the slot and thus slightly loosens the jaw from engagement with the wire.

From the foregoing description taken in connection with the drawings, the construction of my improved wire stretcher will be readily understood, and it will be seen that I have provided an improved device of this character in which the gripping jaws alternately grasp and draw in the wire and reach forward and secure a new grip on the wire to stretch the same in much the same manner that a rope of wire is drawn in by hand, the stretcher thus exerting a constant tension against the wire and steadily stretching the same as the lever is rocked.

I claim:

A wire stretcher, comprising a guide rod, means for securing the same to a fence post, a lever pivoted to one end of the rod, a pair of similar members slidably mounted on the rod, said members each comprising a casting having a depending offset in which the rod is slidably engaged, a base portion projecting at one side from the offset and terminating in an upwardly and inwardly extending L-shaped arm, a similarly shaped arm rising from the base above the offset higher than the arm at the other side of the base, said first named arm and the base having alined slots formed therein, a pivot pin slidably engaged in said slots, a jaw member having ears pivotally engaged on the pin, and having a serrated end bearing against the inner face of the other upstanding L-shaped arm to clampingly engage the wire against said arm, and a rod pivotally mounted upon the pin between the ears of the jaw member and a spring having one end secured to the rod and wound around the pin and having its other end bearing against the jaw member to shift the same into clamping engagement with the wire to be stretched, the ends of the

rods carried by the two members being secured to the operating lever at opposite sides of the pivot thereof, whereby when the lever is rocked one of said members will be shifted to pass idly along the wire while the jaw of the other member clampingly engages the wire.

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

SAMUEL W. TATE.

Witnesses:
EVERETTE L. TATE,
ROSCOE A. HEATH.