

(No Model.)

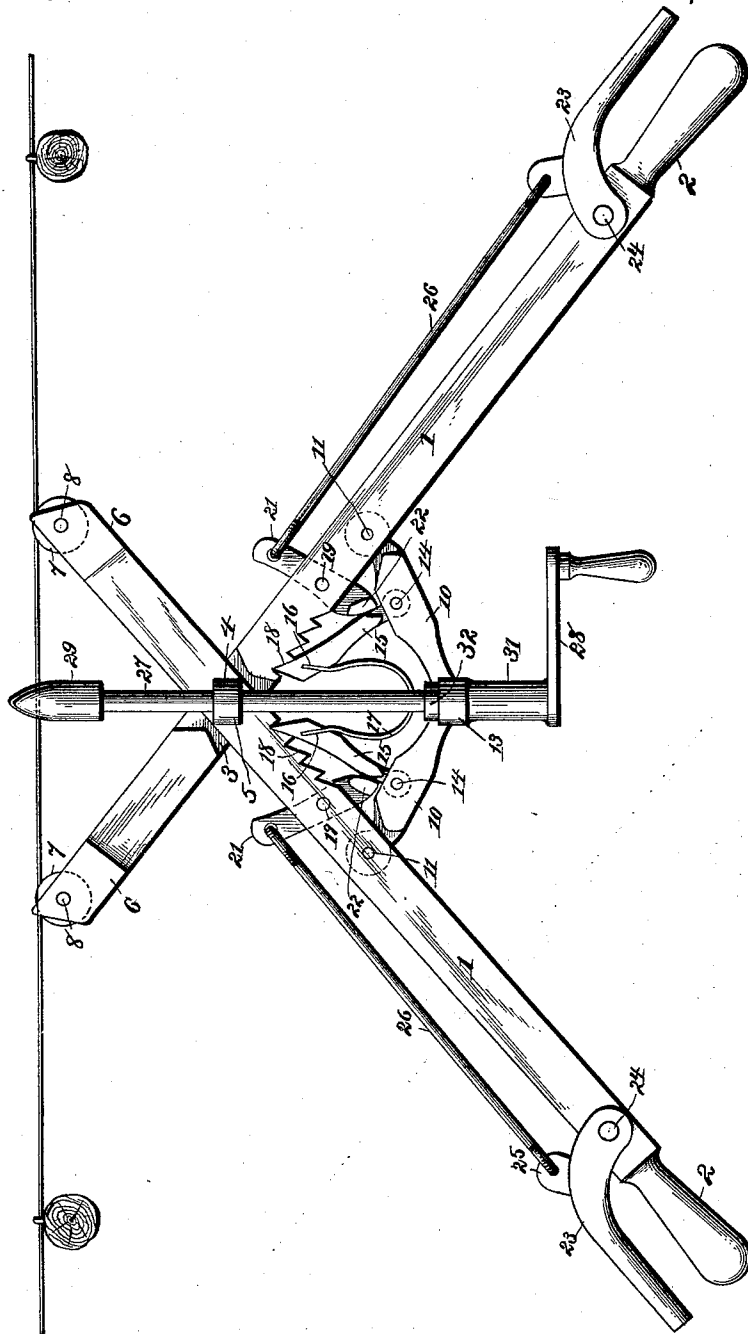
2 Sheets—Sheet 1.

J. H. WILSON.
WIRE STRETCHER.

No. 465,105.

Patented Dec. 15, 1891.

FIG. 1.



Witnesses

E. Wurdeman,

A. J. Collamer,

By *his* Attorneys,

Jesse H. Wilson.

C. A. Snow & Co.

Inventor

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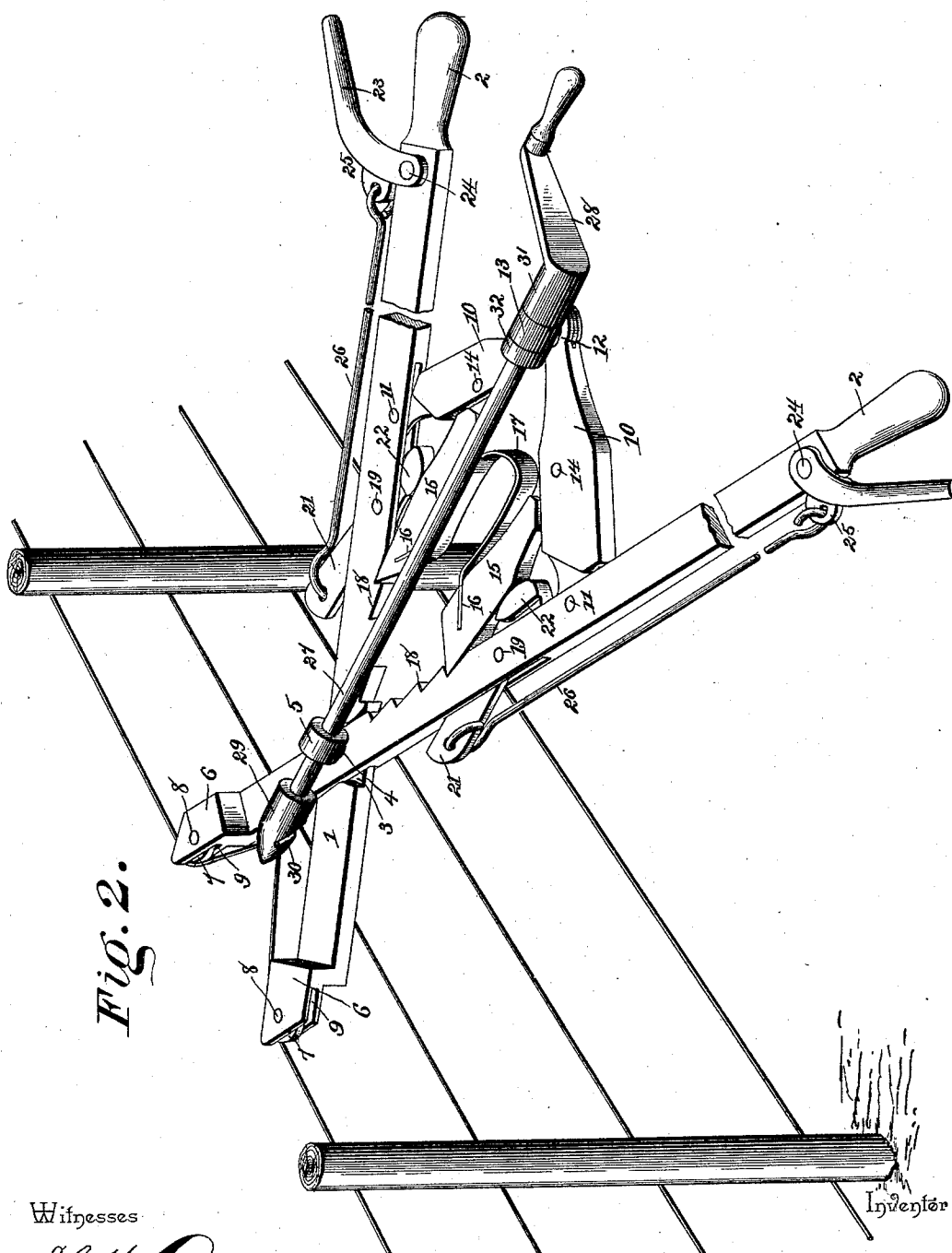


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

JESSE H. WILSON, OF LILAC, TEXAS.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 465,105, dated December 15, 1891.

Application filed August 12, 1891. Serial No. 402,465. (No model.)

To all whom it may concern:

Be it known that I, JESSE H. WILSON, a citizen of the United States, residing at Lilac, in the county of Milam and State of Texas, have
5 invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention relates to improvements in wire-stretchers, the objects in view being to provide a device of cheap and simple construction that is quick in operation and is
10 adapted to take up slack in barbed and other wire fences.

With the above general objects in view the invention consists in certain novel combinations of parts hereinafter specified, and more
15 particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 is a plan view of a wire-stretcher constructed in accordance with my invention, the same being in the act of engaging a wire. Fig. 2 is a perspective view, the wire being engaged preparatory to twisting the slack.

Like numerals of reference indicate like
25 parts in all the figures of the drawings.

In practicing my invention I employ two levers 1, each of which terminates at its inner end in a handle 2. The levers are crossed a short distance from their outer ends and have
30 their adjacent faces recessed, as at 3, or provided with gains, and are pivoted by means of a bolt 4, the upper end of which has formed thereon an eye 5. The outer ends of the levers are offset or bayonet-shaped, as at 6, are
35 bifurcated, and have mounted in each bifurcation a grooved roller 7, the same being pivoted upon a journal-pin 8.

In slots 9, formed in the inner edge of each lever 1 and between the handles and pivot,
40 there are pivoted a pair of short toggle-levers 10, by means of pins 11. The toggle-levers have their adjacent ends pivoted together by means of a pin or bolt 12, which upon its upper side has formed an eye 13, longitudinally
45 opposite the eye 5 of the bolt 4.

In the outer edges of the toggle-levers 10 there is pivoted, as at 14, a pair of pawls 15, each of which is provided with a kerf 16, which
50 kerfs receive the terminals of a bowed spring 17. By means of the spring the pawls are normally thrown into engagement with two series of inclined teeth 18, formed at the in-

ner edges of the levers 1, whereby said levers are locked against closing.

Immediately below the series of teeth 18 of
55 the levers 1, and at the upper ends of the recesses 9, there are pivoted, as at 19, a pair of short levers 21, said levers extending to each side of that lever 1 in which it is pivoted, and each terminating at its inner end in a head
60 22, bearing against its respective pawl 15. Immediately above the handles 2 are pivoted pawl-operating levers 23, by means of pins 24, each of said levers 23 having formed upon
65 its outer side an eye 25, connected to one of the levers 21 at the outer end of the latter by means of a connecting-rod 26.

Mounted for rotation in the bearing-eyes 5 and 13 of the bolts 4 and 12 is a twisting-rod
70 27, which rod terminates at its inner end in a crank 28 and beyond the same at its outer end in a conoid-shaped twisting-head 29, provided at one side with an inclined notch or kerf 30. The shaft 27, while free to rotate in
75 either direction, is prevented from any longitudinal movement by means of the hub 31 of the crank 28, which abuts against the inner side of the eye 13, and a collar 32, mounted
80 on the rod and adapted to abut against the outer face of said eye.

This completes the construction, and the operation of the device in taking up the slack of a wire is as follows: The handles are grasped by the hands of the operator and the
85 levers 23 compressed toward the handles, so as to draw inwardly the outer ends of the short pawl-operating levers 21, which causes a disengagement of the ends of the pawls with the inclined teeth 18. When this has been
90 accomplished, the main levers 1 are spread at their inner ends to their greatest extent. The grooved rollers 7 are now placed under the wire, while the kerf 30 of the twister-head engages the wire between the rollers, which
95 engagement of the rollers and head may be readily accomplished without removing the hands from the handles. The main levers 1 are now closed at their inner ends, and, as will be apparent, as shown in Fig. 2, the slack of the
100 wire has been drawn down between the outer ends of the main levers, which is by reason of the fact that as the main levers are closed the toggle-levers 10 force the twisting-rod 27 to the rear. The bell-crank levers 23 are now

released, so that the pawls 15 are thrown into engagement with the inner notches of the series. The operator now grasps the crank 28 and rotates the same until nearly all of the slack is removed from the wire by reason of the wire being wound about the head of the twister. Regrasping the handles and compressing the bell-cranks 23, so as to disengage the pawls, the main levers are again spread until in their last notches, and what slack remained after the first twisting is removed by a subsequent rotation or rotations given the twister-rod. The device is now disengaged from the wire and moved to the next section and the operation, if necessary, repeated.

It will be observed from the foregoing description that an operator may with great facility and very little labor take up slack in barbed and other fence wires, whereby fences may be kept in good condition, and that I accomplish this by means of a device of exceedingly simple and durable construction.

Having described my invention, what I claim is—

1. In a wire-tightener, the combination, with a pair of levers pivoted together and having their outer ends adapted to engage a wire and provided with bearings, of a twister-rod mounted for rotation in the bearings and adapted at its outer end to take over a wire, substantially as specified.

2. In a wire-tightener, the combination, with the pair of main levers pivoted together and at their outer ends adapted to engage a wire, of bearings located upon the levers, a twister-rod mounted for rotation in the bearings and adapted to engage over a wire, and means for locking the levers against separation at any point thereof, substantially as specified.

3. In a wire-tightener, the combination, with the main levers pivoted together and adapted at their upper ends to engage under a wire, and a rotatable twisting-rod mounted in bearings on the levers and adapted to engage over a wire, of toggle-levers pivoted at their inner ends together and at their outer ends to the main levers in rear of the pivot of the latter, pawls pivoted on the toggle-levers, a spring for pressing the pawls into engagement with teeth formed in the main levers, and means for disengaging the pawls from the teeth, substantially as specified.

4. In a wire-stretcher, the combination, with

the opposite levers 1, terminating at their inner ends in handles 2 and having bifurcated bayonet-shaped ends 6, in which are journaled grooved rollers 7, the eyebolt 4, the toggle-levers pivoted at their inner ends together and at their outer ends to the main levers, the inner pivot being provided with an eye opposite the eyebolt of the main levers, of the twisting-rod mounted loosely in the eyes and having its outer end adapted to engage over a wire, pawls pivoted to the toggle-levers, a spring interposed between the same adapted to engage teeth formed in the main levers, bell-crank levers pivoted to the handles, pawl-operating levers pivoted to the main levers, and rods connecting the bell-cranks with the pawl-operating levers, substantially as specified.

5. In a wire-stretcher, the combination, with the opposite main levers terminating at their inner ends in handles and having their inner faces crossed and recessed to receive each other and having bayonet-shaped outer ends bifurcated to receive and provided with grooved pulleys, an eyebolt passing through and pivoting the levers together, which levers in rear of their eyebolts are provided with inclined notches formed at their inner edges, toggle-levers pivoted to the main levers, and an eyebolt connecting the inner ends of the toggle-levers, of a twisting-rod mounted in the eyebolts terminating at its forward end in a conical head having an inclined wire-engaging notch and at its rear end provided with a crank, and means for locking the levers at any point of their separation, substantially as specified.

6. In a wire-tightener, the combination, with a pair of levers pivoted together and having their outer ends adapted to engage a wire and having rollers and provided with bearings, of a twister-rod mounted for rotation in the bearings and adapted at its outer end to take over a wire, and provided with a crank or hand wheel, and means for holding the pivoted levers extended or allowing their contraction, as desired, substantially as specified.

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

JESSE H. WILSON.

Witnesses:

CHARLES ADAMS,
P. G. PARTAR.