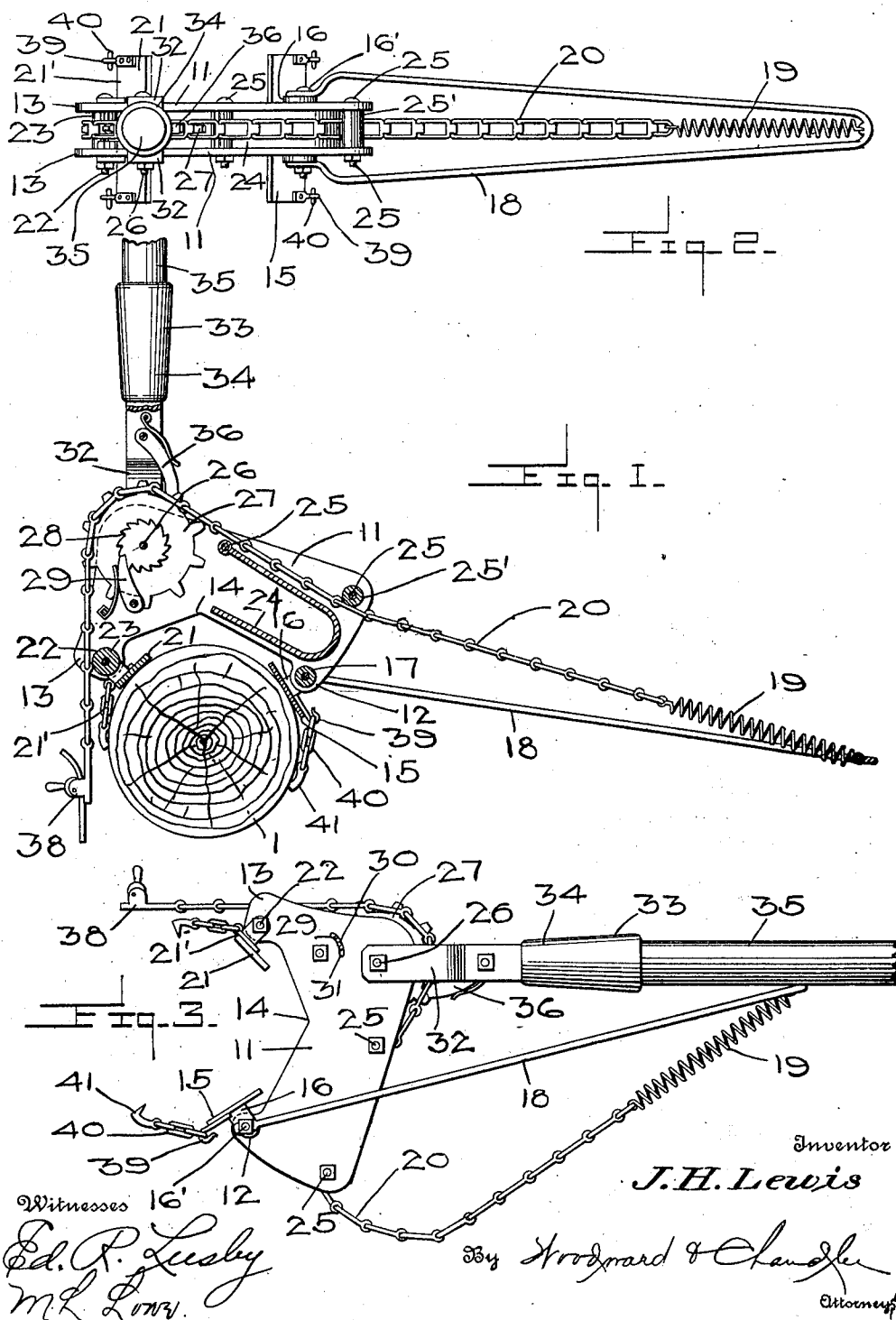


J. H. LEWIS.
WIRE STRETCHER.

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974,403.

Patented Nov. 1, 1910.



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JOHN H. LEWIS, OF MOUNT VERNON, WASHINGTON.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN H. LEWIS, a citizen of the United States, residing at Mount Vernon, in the county of Skagit and State of Washington, have invented certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

This invention relates to devices for stretching wire fences, and has for its object to provide a device of this character which will comprise a small number of parts, and which may be manufactured at a low cost from stock material.

Another object is to provide such a device which may be used for stretching wire in opposite directions from a given point.

A further object is to provide an efficient means for securing the device upon a post.

Another object is to provide such a device which will be light in weight and will occupy a minimum amount of space.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings: Figure 1 is a horizontal sectional view through the stretcher and post, Fig. 2 is a rear view thereof, and Fig. 3 is a side view showing the device folded and out of use.

Referring to the drawings, there is shown a post 1 upon which the present device is applied, the device comprising essentially the frame plates 11 of which there are two of similar form each having the rear pivot ear 12, and the forward ear 13 somewhat longer than the one 12. The plates 11 are provided with recesses 14 in their edges between the ears 12 and 13, and adapted to allow the partial access of the post therein. Pivoted upon the ears 12 there is a foot plate 15 having upwardly projecting ears 16 apertured and receiving a suitable bolt 16' there-through extended through the ears 12, the bolt carrying on its central portion between the ears 12 a washer block 17 and having pivoted on its opposite ends outwardly of the ears 16, a take-up yoke member 18, the opposite extremities of which are engaged upon the bolt, the right portion of which carries a suitable spring 19 engaged with

the inner extremity of a chain 20, the function of which will be subsequently described.

It will be noted that the ears 16 of the plate 15 are disposed adjacent its center. Similarly pivoted at the extremities of the ears 13, there is a similar foot plate 21, differing only in that the ears are disposed adjacent its front edge 21'. On the bolt 22 by which this plate is secured to the ears 13, there is a suitable roller member 23, disposed between the ears 13 and adapted to support the chain 20 passing into the stretcher, as will be subsequently indicated. If desired, a suitable filling web flange or strip 24 may be interposed between the rear portions of the plates 11 to increase their rigidity and strengthen the device. The plates are secured together at their upper edges by means of bolts 25, as shown, the one adjacent the rear edge thereof having a suitable roller 25' therearound adapted to guide the chain 20 in its rearward movement from the stretcher under action of the springs and yoke, as will be subsequently described.

Passing through the plates 11 adjacent their forward ends, there is a suitable shaft 26, carrying centrally thereof the sprocket 27 having the ratchet 28 on one side thereof and engageable by a spring pressed pawl 29 having a laterally projecting pin 30 projected through a slot 31 in the adjacent plates 11. Pivoted on the opposite extremities of the shaft 26 are the furcations 32 of an operating lever 33 having a socket 34 at its outer end adapted to receive a suitable handle 35. Pivoted in the lever 33, there is a suitable spring pressed dog 36, the outer end of which rests against the teeth of the sprocket 27, and is arranged to travel thereover when rotated, and also to allow passage of the chain 20 thereunder. The chain 20 passes inwardly under the roller 25' over the sprocket 27 between the furcations of the lever 33 and outwardly past the end portion of the frame over the roller 23, carrying at its extremity a wire clamp 38 of any suitable construction. Engaged upon the plates 15 and 21, there are short lengths of chains carried thereon by means of a hook 39, the chains 40 having at their extremities an anchor hook 41 adapted to be driven in the surface of a post.

In use, the device is presented against the side of a post with the plates 15 and 21 seated flat thereagainst as shown, after which

the chains 40 are adjusted to a proper length and the hook 41 carried thereby driven into the post with the chains fully extended, to hold the device securely upon the post. The grip member 38 is then engaged with the wire and the lever 33 oscillated, the dog 36 thus rotating the sprocket 27 and taking up the chain in such a way as to stretch the wire. The slack of the chain 20 is taken up by means of the spring 19 whereby it is prevented from clogging at the back of the device and checking its operation. If it is desired to stretch wire under tension from an opposite direction to that first considered, it is simply necessary to turn the device over, and manipulate it in a similar manner. When not in use, the spring 19 will draw a large part of the chain inwardly over the sprocket 27, after which the yoke member 18 may be folded in against the lever 33 the chain being carried therewith, as illustrated in Fig. 5. The device thus occupies a minimum amount of space when not in use.

It will be seen from the foregoing that the parts described may all be manufactured in an extremely simple manner, and the device is adapted to be sold at a very low cost. The operation also may be effected by the average farm hand without special training.

What is claimed is:

1. A device of the class described comprising two oblong frame plates of similar shapes, post engaging means carried at the opposite ends thereof, a shaft extended through the plates, a sprocket revoluble

thereon between the plates, a ratchet carried by the sprocket and a pawl engaging the ratchet to prevent rotation of the sprocket in one direction, an operating lever bifurcated and having the extremities of its furcations pivoted upon the shaft outwardly of the plates, a chain carried upon the sprocket, a wire gripping member carried at its outer end, a pawl carried between the furcations of the lever and adapted to engage the teeth of the sprocket for rotation of the sprocket and taking up of the chain, and resilient means engaged with the inner end of the chain for take up thereof.

2. A device of the class described comprising a frame, post engaging means carried thereby, a sprocket revoluble therein, a ratchet carried by the sprocket, a pawl engaging the ratchet to prevent rotation of the sprocket in one direction, a chain carried upon the sprocket, an operating lever pivoted adjacent the sprocket, a pawl carried by the lever and adapted to engage the teeth of the sprocket for rotation of the sprocket and taking up of the chain, a U-shaped yoke member having its end pivoted upon the frame, a resilient member carried thereby and connected to the inner end of the chain for take up thereof.

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

JOHN H. LEWIS.

Witnesses:

J. P. HOUSER,
GERTRUDE GAGE.