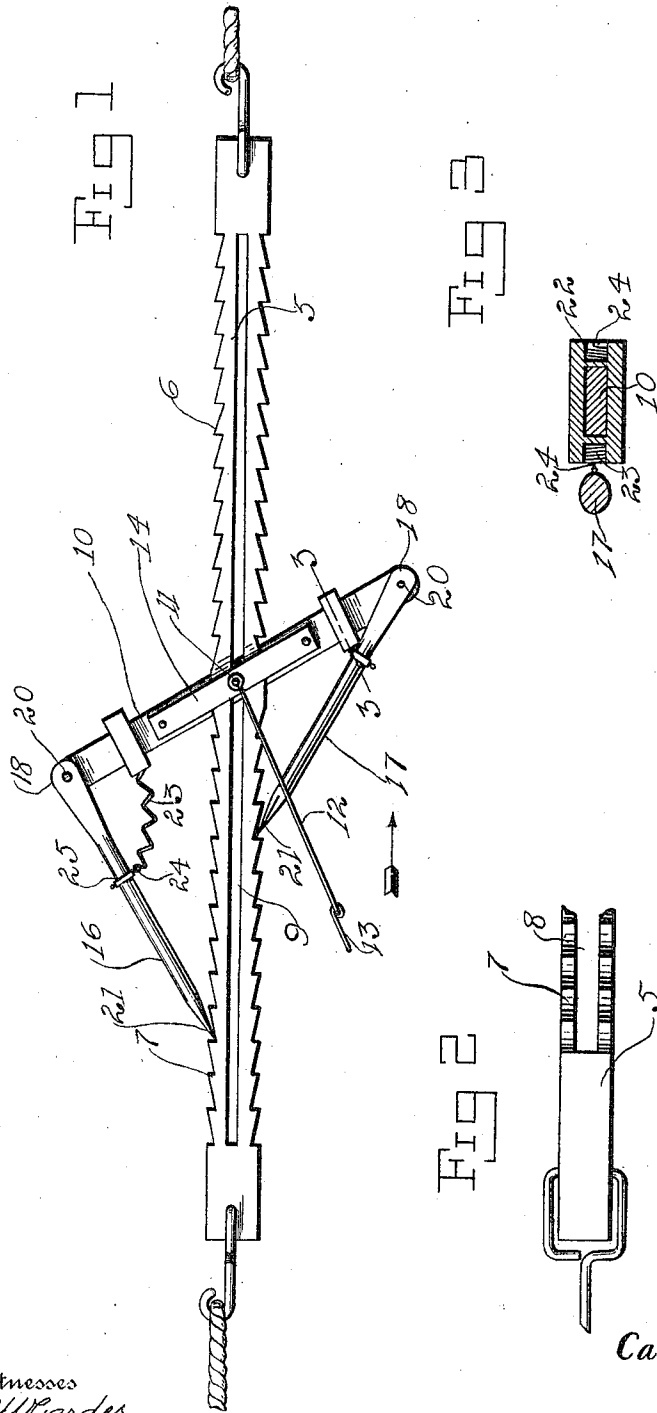


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WIRE STRETCHER.
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972,049.

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CALEB W. BABB, OF WEISER, IDAHO.

WIRE-STRETCHER.

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To all whom it may concern:

Be it known that I, CALEB W. BABB, a citizen of the United States, residing at Weiser, in the county of Washington and State of Idaho, have invented new and useful Improvements in Wire-Stretchers, of which the following is a specification.

This invention relates to improvements in wire stretchers and has for one of its objects the provision of a device of that kind including a frame bar provided with ratchet teeth and an oscillating stretcher arm having means to engage with the wire to be stretched and further provided with means to engage with the ratchet teeth in such manner that when the bar is oscillated it will be moved bodily on the frame bar, whereby the wire connected to the bar will be carried to a post or other means to which it is to be secured.

A further object is the provision of a device which may be operated to stretch the wires of a fence in opposite directions.

With these and other objects in view, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claim, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming part of the specification;—Figure 1 is a plan view of the device showing the parts in operative position. Fig. 2 is a side elevation of a portion of the frame bar. Fig. 3 is a sectional end view on the line 3—3 of Fig. 1.

Similar numerals of reference are employed to designate corresponding parts throughout.

The frame bar is designated in general by the numeral 5 and is oblong in contour and rectangular in cross section. By reference to the drawings it will be seen that the opposite longitudinal sides of the frame bar are each provided with a double series of ratchet teeth designated by the numerals 6 and 7. The teeth of the series 6 lie between the middle and one end of the bar, while the

opposite series 7 lie between the middle and opposite end of the bar and extend in a direction opposite to the teeth 6.

The frame bar is transversely recessed as shown at 8, the said recess extending for the major portion of the length of the bar and opening through the opposite sides thereof. The bar is further provided with a recess 9, arranged perpendicular to the recess 8 and opening through the opposite flat faces of the bar, and extending to points adjacent the opposite ends of the bar.

A stretcher arm is designated by the numeral 10 and is somewhat less in length than the length of the frame bar and is slidably fitted in the recess 8. Passing through the center of the stretcher arm 10 is a pin 11, the pin extending through the recess 9 and serving as a means to prevent lateral displacement of the arm. A clevis or wire holder is designated by the numeral 12 and has its opposite ends fixedly secured to the portions of the pin 11 extending beyond the opposite flat faces of the bar, the outer end of said wire holder being provided with a clip 13 to engage with one end of the wire to be stretched. A pair of bow-shaped straps, one of which is shown in Fig. 1 and designated by the numeral 14 have their medial portions provided with openings for the reception of the opposite ends of the pin extending beyond the opposite flat faces of the frame bar, while their opposite ends are fixedly secured to the opposite flat faces of the stretcher arm 10, the said straps serving to strengthen the stretcher arm.

A pair of pawl levers are designated by the numerals 16 and 17. These members have cylindrical body portions, which are divided at one end to provide jaws 18 which bear on the opposite faces of the stretcher arm and on the opposite ends thereof, the said jaws being provided with openings which aline with similar openings formed in the opposite end portion of the stretcher arm, these alining openings receiving pivot pins 20, which connect the pawl levers with the stretcher arm. The opposite end portions of the bodies are wedge-shaped as shown at 21 and adapted to engage either series of the ratchet teeth. Owing to the construction at the pivoted ends of the pawl levers, it will be evident that the said levers may be moved to opposite sides of the stretcher arms so as to engage with either series of the ratchet teeth as before stated.

In order that the levers may be yieldingly held in engagement with the ratchet teeth, the following construction is employed: By reference now to the drawings it will be seen that formed in the opposite sides and adjacent to the opposite ends of the stretcher arms are sockets 22, and arranged within these sockets are helical retractile springs 23, the inner ends of said springs being fixedly secured to the inner ends of the sockets, while the outer ends are provided with hooks 24. When the springs are in normal position the hooks 24 will lie well within the sockets. When, however, it is desired to move the hooks into engagement with the pawl levers, the springs on that side of the stretcher arm over which the pawl levers are then arranged are pulled outwardly until the hooks 24 engage with loops 25 arranged on the body portion of said pawl levers.

In the operation of the device and assuming that the parts are in position as shown in Fig. 1 that is, when one end of the frame bar is connected with a suitable support, and one end of the wire to be stretched is connected with the clip 13, it will be manifest that the wire held by the clip will be moved in the direction of the arrow when the stretcher arm is manually oscillated, since it will be evident when one end of the stretcher arm is moved in the direction of the arrow, the opposite end will move in the opposite direction, the pawl lever of said opposite end acting as a fulcrum. It will be observed when the inner end of the stretcher arm is moved to the required distance in the direction of the arrow shown in Fig. 1 and the opposite end then moved in the same direction, that the stretcher arm will be moved bodily in the direction of the length of the frame bar. When it is

desired to stretch the wire in a direction opposite to that indicated in Fig. 1 the pawl levers are turned so as to engage with the opposite series of ratchet teeth and after the frame bar is secured in the manner before described by oscillating the stretcher arm the wire will be stretched as before described.

From the foregoing, it is evident that I have provided a device which is comparatively simple in structure and inexpensive in manufacture, embodying few parts and these so arranged that the danger of derangement will be reduced to a minimum.

I claim:—

In a wire stretcher the combination with an oblong frame bar having on each of its longitudinal sides a double series of oppositely extending ratchet teeth, a stretcher arm slidably fitted on said bar and extending transverse the latter, a pair of pawl levers pivoted to the opposite ends of said arm, a pair of helical retractile springs arranged on one side of the arm and adjacent to the opposite ends thereof and adapted to be detachably secured to said levers to hold the same in engagement with one series of the ratchet teeth, and a second pair of springs arranged on the opposite side of the arm adapted to be detachably secured to the opposite sides of the levers after the latter have been disengaged from the first-named springs and serving to hold said levers in engagement with the other series of teeth.

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

CALEB W. BABB.

Witnesses:

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