No. 665,220. Patented Jan. 1, 1901.

L. L. HUGHES.

WIRE STRETCHER.

(Application filed Aug. 7, 1900.)

(No Model.)

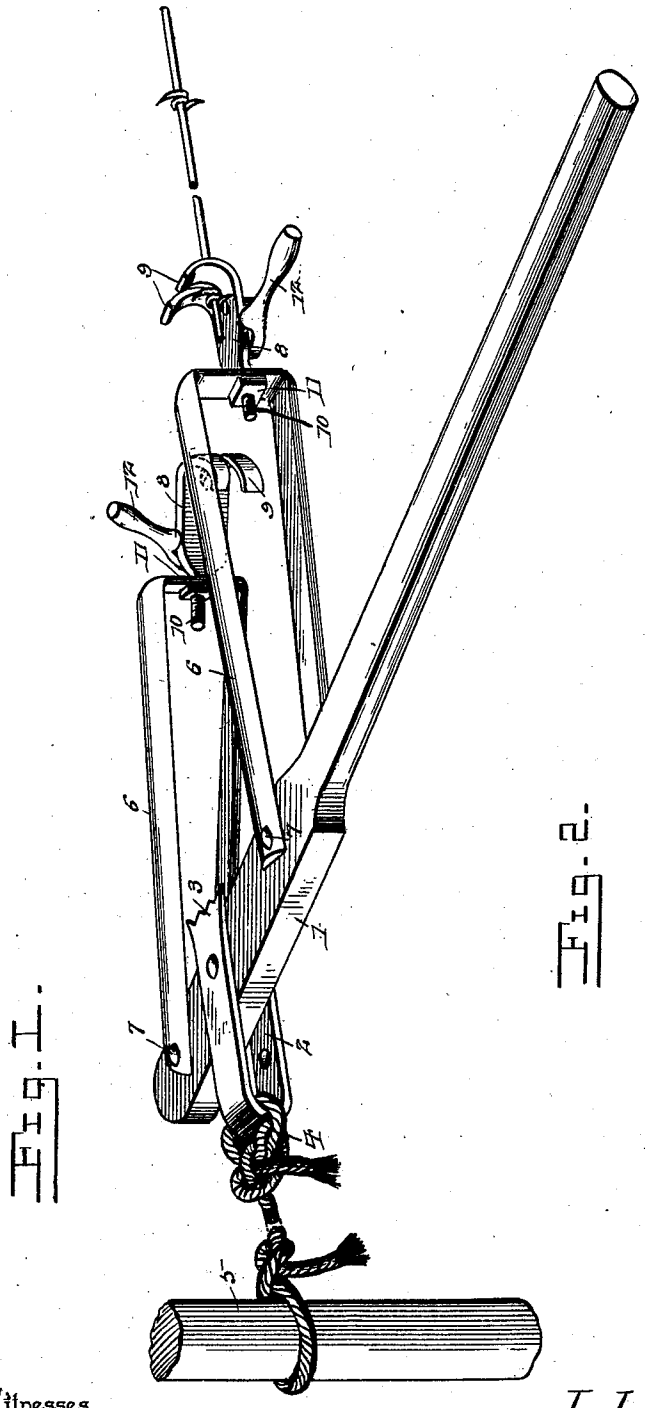


Fig. 1.

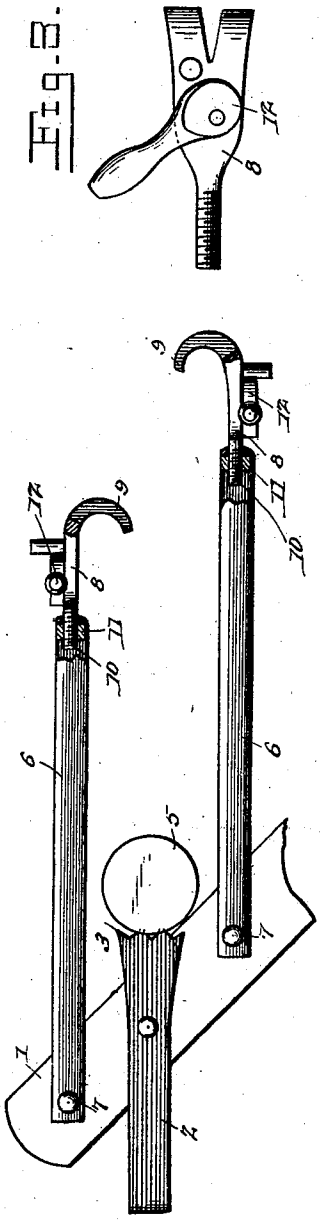


Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

LYMAN L. HUGHES, OF MERCER, MISSOURI.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 665,220, dated January 1, 1901.

Application filed August 7, 1900. Serial No. 26,153. (No model.)

To all whom it may concern:

Be it known that I, LYMAN L. HUGHES, a citizen of the United States, residing at Mercer, in the county of Mercer and State of Missouri, have invented a new and useful Wire-Stretcher, of which the following is a specification.

My invention relates to wire-stretchers of that class adapted for connection with a terminal post provided with means for successively engaging a fence-runner at spaced points to facilitate the step-by-step stretching of the latter to remove slack; and one object in view is to provide a simple, inexpensive, and efficient apparatus capable of engagement with facility with a post or other fixed object and provided with runner-engaging means which are capable of automatic adjustment to suit the direction of draft applied to the runner.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a wire-stretcher constructed in accordance with my invention. Fig. 2 is a plan view of the same, showing a different application thereof to a post or upright. Fig. 3 is a detail view of one of the wire-grabs to show the eccentric or cam clamp.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The stretcher embodying my invention comprises a lever 1, fulcrumed at an intermediate point between the arms of a support or clevis 2, said clevis being of looped construction, with the loop rearwardly disposed and its arms extended to points in advance of the front side of the lever and serrated to form upper and lower bearing-jaws 3. A chain, rope, or similar flexible connection 4 may be engaged with the loop of the clevis to be fastened around an upright or post 5. The stretcher also includes in its construction a pair of looped arms or tension-rods 6, of which the extremities are pivotally mounted, as at 7, upon the lever, and runner-engaging elements 8, swiveled in the outer looped ends of said arms or tension-rods. In the construction illustrated the runner-engaging elements consist of bifurcated plates forming claws 9, the interval between the claws of the runner-engaging element or wire-grab being tapered toward its inner or rear end and said claws being of bent or hook shape. The rear end of each wire-grab is reduced to form a spindle 10, extended through an opening in the outer looped end of the coöperating arm or rod 6 and secured by a nut or other fastening device 11, whereby each wire-grab is swiveled upon its respective arm or tension-rod, the means of attachment, consisting of the securing-nut, being accessible between the sides of the loop forming the arm. Preferably the sides of each looped arm 6 diverge toward the outer closed end of the loop to increase the transverse bracing action of the arm and also to allow sufficient space within which to manipulate said securing device 11. Moreover, this divergence of the sides of the loops gives greater clearance for the lever when it occupies one of its terminal positions and extends for a portion of its length through the loop. Also preferably mounted upon each wire-grab is an eccentric or cam clamp 12 of the ordinary construction, which may be used when smooth wire is being stretched. The cam-clamp 12, which is adapted to engage a smooth wire, coöperates with the lug 12^a, mounted on and projecting from the grab 8. The grabs 8 are especially designed for use in connection with barbed wire, and in operation the lever is oscillated a sufficient distance to cause the claws to successively engage the barbs of the runner.

A further advantage of the peculiar tapered construction of the looped arms or tension-rods 6 is obtained when, as shown in Fig. 2, the bearing-jaws 3, which are located midway between the inner or rear ends of the arms, are in contact with the upright or post, and in practice I have found it desirable to apply the stretcher in this way to the upright or post, for the reason that it allows the runner-wire to pass between the arms 6 and lie in contact with the post for stapling, no chain or rope being in the way to interfere with the operations in this connection.

The swiveling of the wire-grabs provides for the turning thereof to facilitate engagement of the claws with the barbs and an even

bearing of the claws on the barb and also allows the revoluble adjustment of each grab to suit the direction of the strain applied thereto. Moreover, when smooth wire is to be stretched the eccentric or cam clamps may be brought into operative relation with the wire by turning the grabs upon which said clamps are mounted.

Having described my invention, I claim—

1. A wire-stretcher having a clevis, a lever fulcrumed at an intermediate point between the arms of the clevis, and the sides of the latter being extended beyond the front edge of the lever, and roughened to form bearing-jaws, arms fulcrumed upon the lever at opposite sides of the plane of the clevis, and wire-grabs carried by the arms.

2. A wire-stretcher comprising a support designed to be connected at its rear end with a post for anchoring the wire-stretcher, a lever fulcrumed on the support between the ends thereof, said support being extended in advance of the lever and provided at its front end with means for engaging the back of a post and adapted to offset the lever from the latter, whereby the wire-stretcher may be directly engaged with the same, and arms connected with the lever at opposite sides of the support and provided with means for engaging a fence-wire, substantially as described.

3. A wire-stretcher having a lever fulcrumed between its ends provided with means for engagement with a post or upright, looped arms pivotally connected at their extremities to the lever, and having their sides diverged toward the closed ends of the loops, clawed wire-grabs having threaded spindle portions mounted in bearings in the closed extremities of the looped arms, and nuts, detachably engaged with said spindle portions between the sides of the looped arms for securing said grabs in place.

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

LYMAN L. HUGHES.

Witnesses:
C. W. ELSON,
W. H. LOWRY.