No. 734,388. PATENTED JULY 21, 1903.

H. S. WORKMAN.

WIRE STRETCHER.

APPLICATION FILED FEB. 14, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

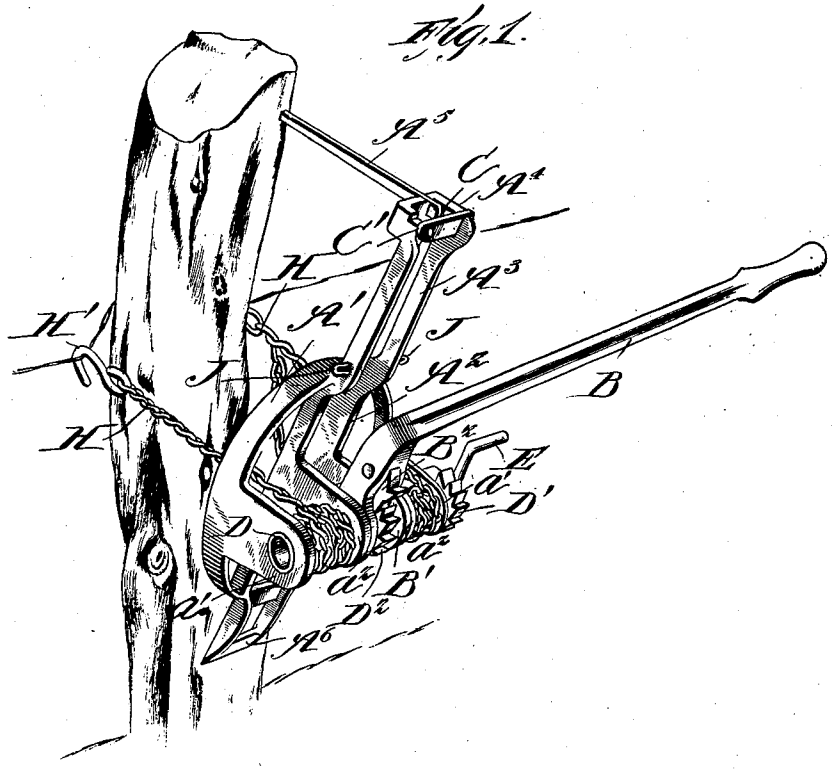
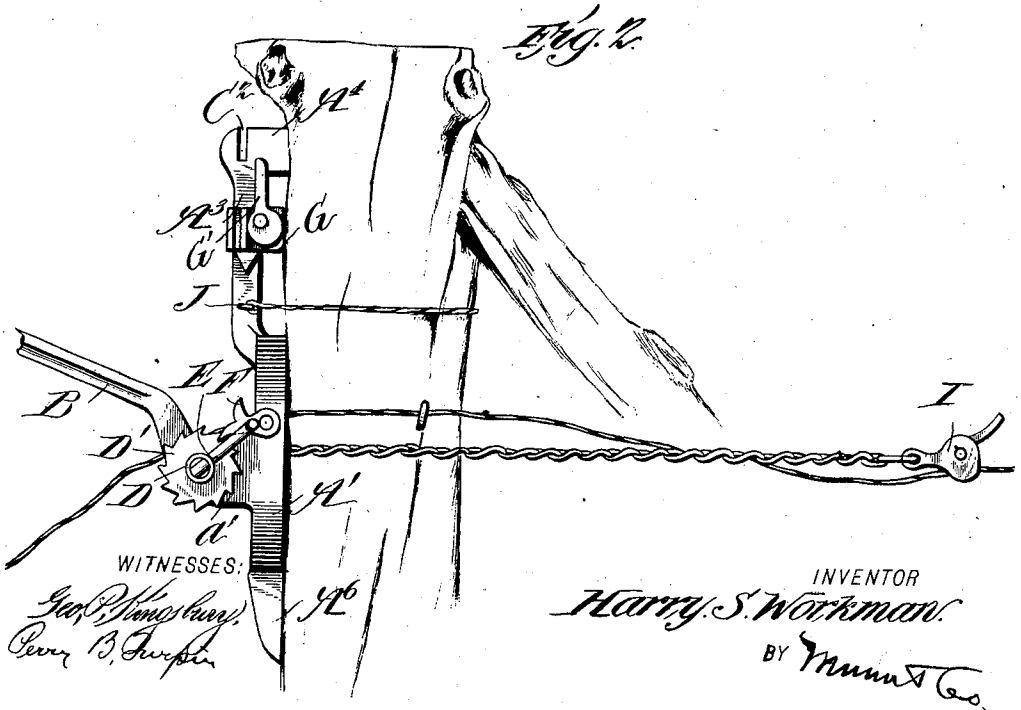


Fig. 2.



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NO MODEL. 2 SHEETS—SHEET 2.

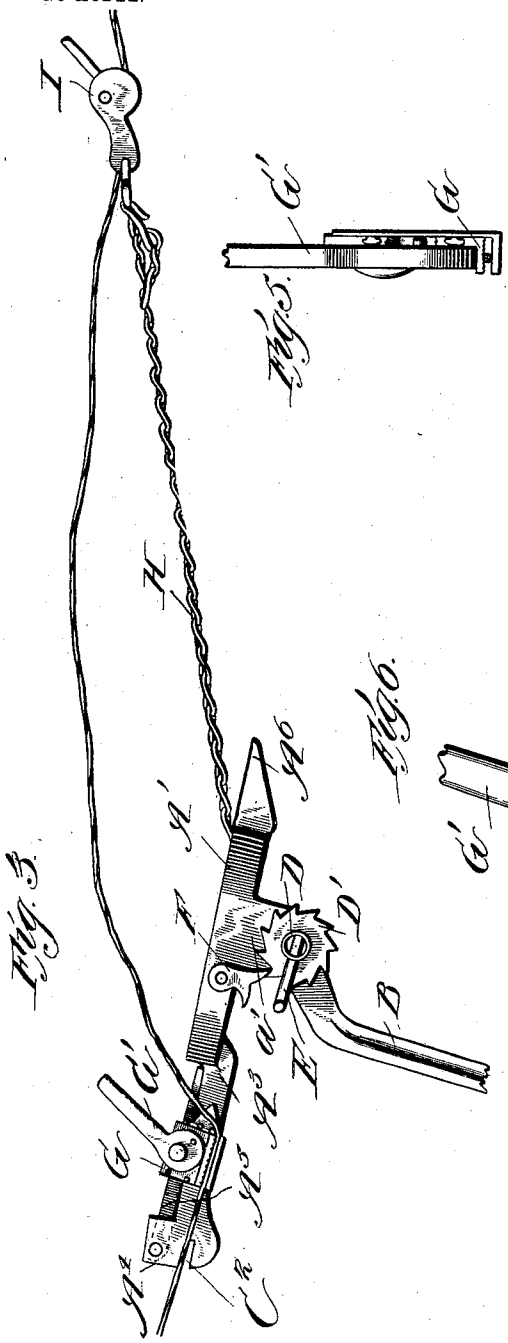

Fig. 3.

Fig. 5.

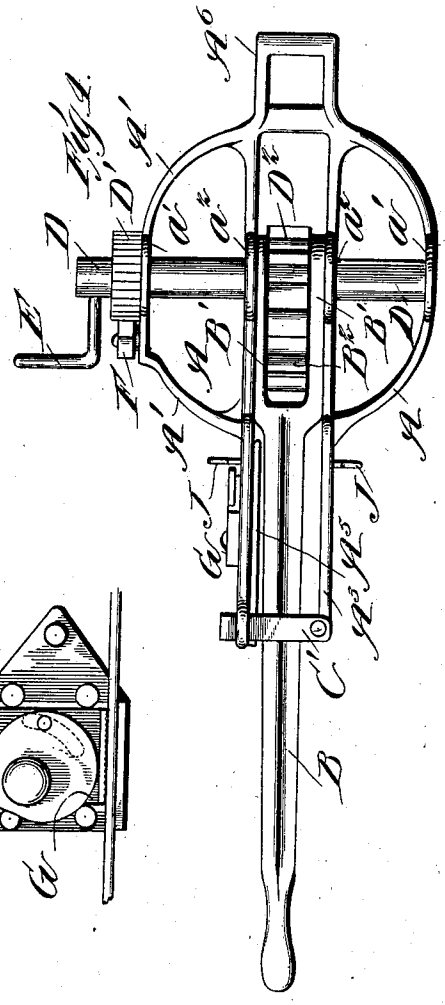

Fig. 4.

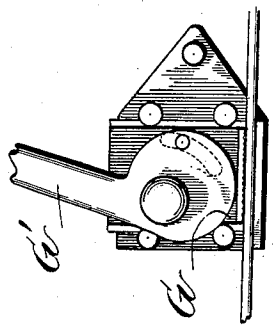

Fig. 6.

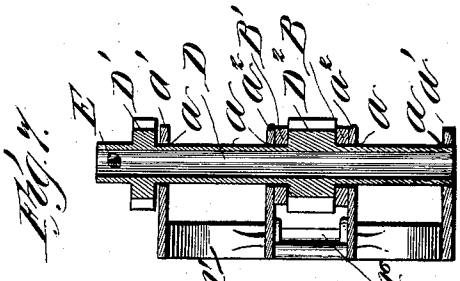

Fig. 7.

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No. 734,388. Patented July 21, 1903.

UNITED STATES PATENT OFFICE.

HARRY SUTTON WORKMAN, OF BASIN, WYOMING.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 734,388, dated July 21, 1903.

Application filed February 14, 1903. Serial No. 143,301. (No model.)

To all whom it may concern:

Be it known that I, HARRY SUTTON WORKMAN, a citizen of the United States, residing at Basin, in the county of Bighorn and State of Wyoming, have made certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

My invention is an improvement in wire-stretchers, and has for an object, among others, to provide a construction which can be readily utilized for taking out the slack of wires stretched along posts, can be used in stretching wires in erecting a fence, and can be used in taking out the slack at any point between posts; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my stretcher applied to a post in position to take out the slack at the post. Fig. 2 is a side elevation of the stretcher adjusted to tighten the wire of the line of fence. Fig. 3 is a side elevation showing the wire-tightener applied for taking out the slack between posts. Fig. 4 is a front elevation of a stretcher. Figs. 5 and 6 are detail views of the wire-clamp, and Fig. 7 is a detail cross-section through the drum.

In carrying out my invention I provide a main frame A, having the middle portion A′ in the form of a ring crossed by the longitudinal bars A^2, which extend at one end beyond the intermediate portion or ring A′ at A^3 and provided at their outer ends with a box A^4, in which is pivoted a prop A^5, which may be adjusted, as shown in Fig. 1, to hold the main frame of the stretcher away from the post, and a foot portion A^6 projects from the opposite side of the intermediate portion or ring A′ and may bear against the post in the adjustment of parts shown in Fig. 1. The box A^4 at the upper ends of the bars A^3 may receive the lever B in the adjustment shown in Fig. 4, and when the lever is so arranged it is held by the latch C, which is pivoted at one end at C′ and fits in a notch C^2 when applied as shown in Figs. 1 and 4. The intermediate portion A′ of the frame A is provided at its opposite sides with lugs a', and the bars A^2 are provided centrally within the portion A′ of the frame with lugs a^2, and said lugs a' and a^2 are provided in line with each other with bearings at a for the drum D, the said drum being journaled in the bearings a and having at one end a ratchet-wheel D′ and midway between its ends a ratchet-wheel D^2, the latter operating between the lugs a^2 and being spaced apart therefrom sufficiently to receive the arms B′ of the lever B, the said arms B′ journaling on the drum alongside the ratchet-wheel D^2, and the hand-lever B being provided with a pawl B^2 to engage with the ratchet-wheel D^2, so the said wheel and the drum, to which it is attached, can be operated by manipulation of the lever B, as desired. The drum is also provided adjacent to the ratchet-wheel D′ with a crank-handle E, and a detent-pawl F is supported to engage the ratchet-wheel D′ to hold the drum when turned to any desired position. It will be noticed the drum can be turned quickly by the crank E to take up any considerable slack in the wire, and when great force is desired the pawl F can be applied to the ratchet-wheel D′ and the hand-lever B be worked to take up the last of the slack with great force.

I provide on the frame of the machine a clamp G, having a jaw which can be forced by a lever G′ to secure the wire, and I may provide the chains H with a clamp I to secure the wire whenever desired, as shown in Figs. 2 and 3.

Chains H are secured at one end to the drum D between the lugs a' and a^2 and may be supplied at their free ends with hooks H′ for engagement with the wire when the stretcher is applied as shown in Fig. 1 or for connection with the clamp I when the parts are used as shown in Fig. 3.

In Fig. 1 the wire-stretcher is shown applied to take up slack by drawing the slack around the post, and in this operation the foot of the stretcher-frame bears at A^6 against the post, and the upper end of the frame is propped away from the post by the prop A^5, so the drum can be operated to draw the wire from one side of the post entirely to the opposite side or beyond the post in such manner as to take up considerable slack, the latter being secured by staples or in any other suitable manner after it has been taken up by the stretcher. In Fig. 2 the frame is shown

resting flat against the post for drawing up the wires in erecting a fence or in taking up the slack at one end. When so applied, the prop A^5 may be turned from the position shown in Fig. 1 to that indicated in dotted lines in Fig. 2 and the stretcher-frame may be secured to the post by wires, chains, or other fastenings engaging with eyes J on the stretcher-frame, as shown in Fig. 2.

In Fig. 3 the stretcher is shown as in use in taking up slack between posts. In this use of the stretcher the wire may be secured with the clamp G and the clamp I be secured to the wire and the drum operated to draw up the slack between the clamps G and I, when it may be secured in any suitable manner.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The wire-stretcher herein described, comprising the main frame having the intermediate frame and the bars crossing the same and extending at one end beyond the intermediate frame, and provided at their free ends with a box adapted to receive the hand-lever and with a latch for securing the hand-lever in said box, the prop secured to said end of the bars, such bars crossing the intermediate portion of the frame, and having projecting lugs, lugs on the intermediate frame, parallel with those of the crossing bars, said lugs having bearings in line with each other, the drum journaled in said bearings and provided with a hand-crank and between the intermediate lugs with a ratchet-wheel and the handle journaled on the drum between the intermediate lugs and having a pawl engaging the ratchet of the drum, said handle being arranged for adjustment between the projecting ends of the bars in position to be secured by the latch, and the chains secured to the drum and between the intermediate and side lugs and arranged to operate upon the wires, substantially as set forth.

2. In a wire-stretcher, the combination of the framing having a ring-like portion provided at its opposite sides with the projecting lugs and the bars crossing said ring-like frame and having lugs parallel with those at the sides thereof, and having said lugs provided with bearings in line with each other, the drum journaled in said bearings and having a rigid wheel between the intermediate lugs, the hand-lever having a pawl engaging said ratchet, and the chains connected with drums between the intermediate and side lugs, substantially as set forth.

3. A wire-stretcher provided with a drum and having a main frame arranged to bear at one end against a post and provided with bearings for said drum and a prop pivoted at one end to the other end of the main frame and movable at its free end to position to prop the said end of the main frame away from a post substantially as described.

4. A wire-stretcher comprising the frame, having an intermediate portion provided with bearings for the drum, and a projecting portion having at its free end a box-like receptacle for the hand-lever, the drum, the hand-lever arranged to operate the drum and to be placed into the box-like portion of the frame, the latch for securing the hand-lever in such box-like portion, and the prop by which to hold one end of the frame away from a post or the like, substantially as set forth.

5. A wire-stretcher comprising the frame having an intermediate portion provided with bearings for the drum, and having a foot extending from one side of the intermediate portion, bars projecting from the opposite side of the intermediate portion, and provided with a prop and with a latch for securing a hand-lever, the drum and the hand-lever for operating the drum and arranged to be secured by the latch, substantially as set forth.

6. A wire-stretcher comprising the drum, means for operating the drum, and the framing having an intermediate portion in approximately ring form and provided at one side with the projecting lugs and the bars crossing the ring-frame and having lugs parallel with those of said frame, the intermediate and side lugs being provided with bearings for the drum, substantially as set forth.

7. A wire-stretcher comprising the framing having bearings for the drum and projecting bars spaced apart to receive the hand-lever between them, the drum, the hand-lever arranged to operate the drum, and to be placed between the said bars and means for securing the hand-lever when placed between the bars, substantially as set forth.

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Witnesses:
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