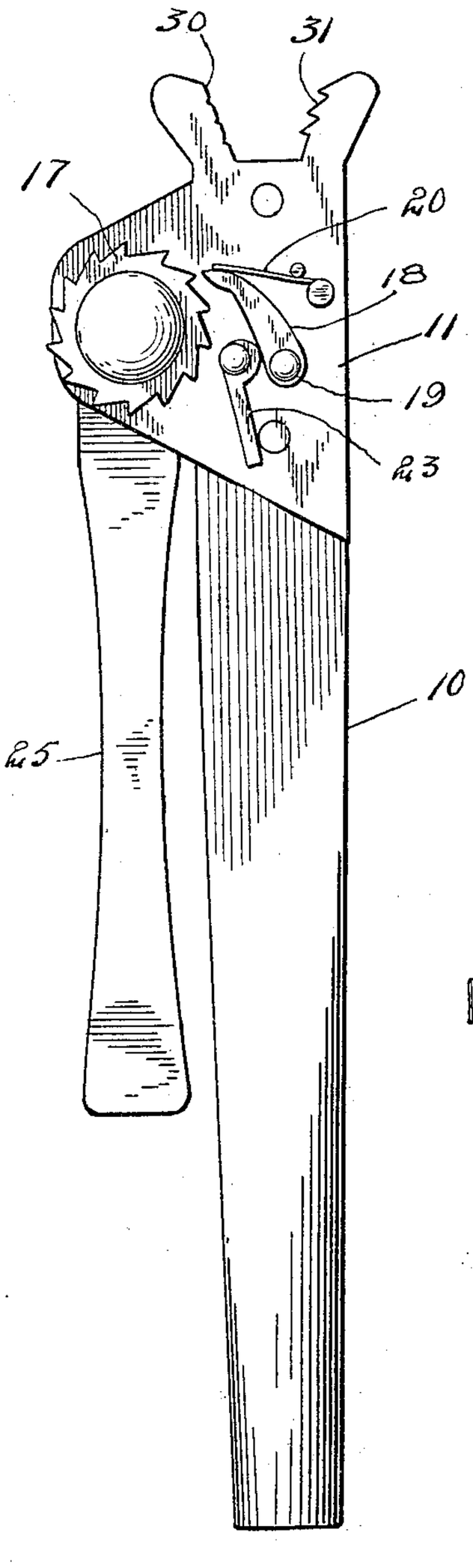
No. 830,797. PATENTED SEPT. 11, 1906.

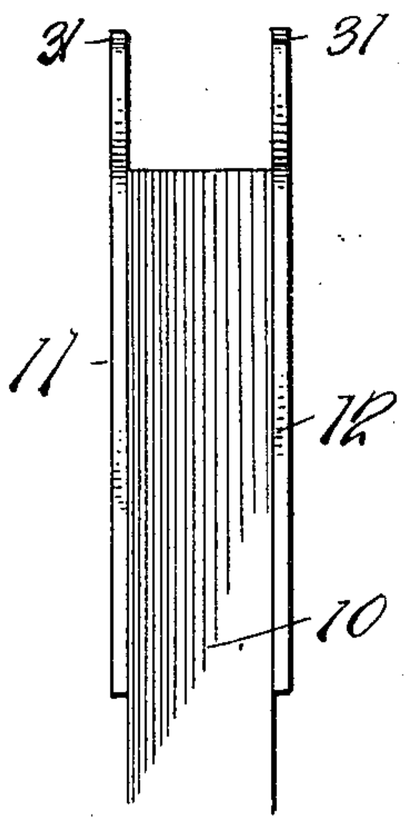
C. A. MILLER.

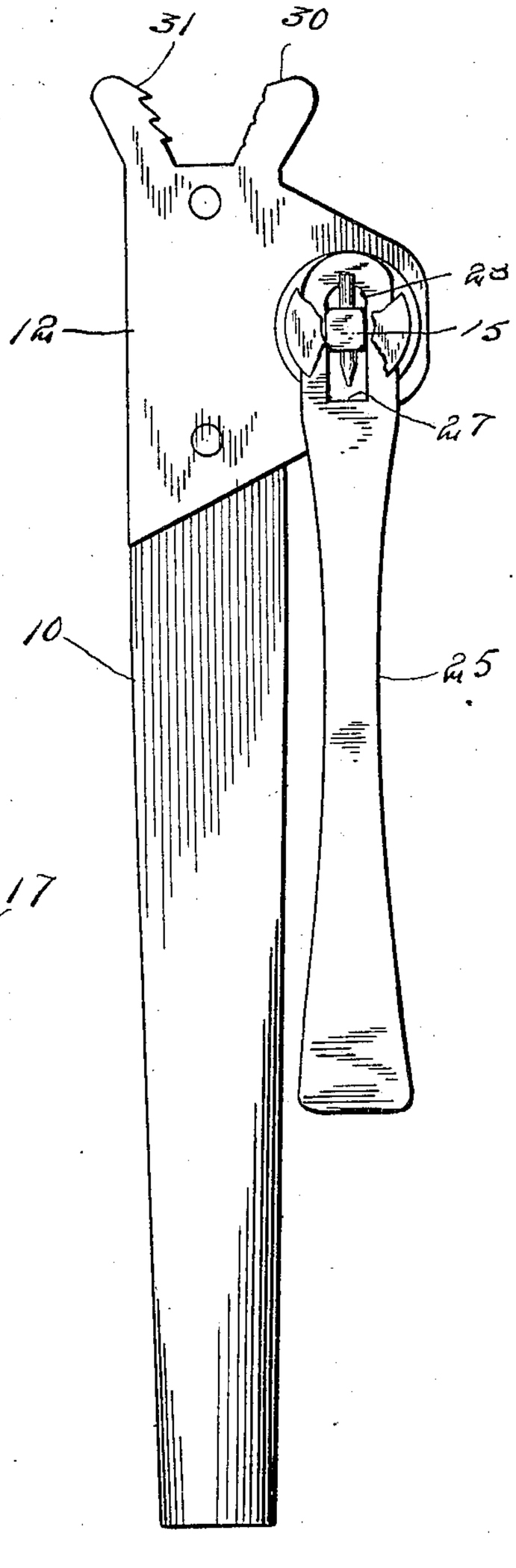
WIRE STRETCHER.

APPLICATION FILED APR. 8, 1905.

Fig. 4.







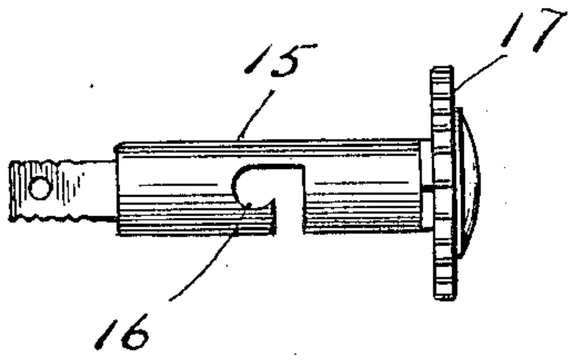


Fig. 3

Fig. 1

Fig. 2

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES A. MILLER, OF LEAFRIVER, MINNESOTA.

WIRE-STRETCHER.

No. 830,797. Specification of Letters Patent. Patented Sept. 11, 1906.

Application filed April 8, 1905. Serial No. 254,558.

To all whom it may concern:

Be it known that I, CHARLES A. MILLER, a citizen of the United States, residing at Leafriver, in the county of Wadena, State of Minnesota, have invented certain new and useful Improvements in Wire-Stretchers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable other skilled in the art to which it appertains to make and use the same.

This invention relates to wire-stretchers; and it has for its object to provide a simple and efficient tool which may be quickly put into place and manipulated and from which the wire may be readily disengaged after the stretching operation.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the invention. Fig. 2 is an elevation showing the opposite side of the invention. Fig. 3 is an elevation of the winding-drum. Fig. 4 is a detail view of one end of the tool, the handle being broken away.

Referring now to the drawings, there is shown a wire-stretcher comprising a handle 10, of wood or other suitable material, of suitable length, one end of which is squared and against the upper and lower faces of which are secured the triangular plates 11 and 12, which project beyond one side of the handle in spaced relation and parallel and form what may be termed the "head" of the stretcher.

In the laterally-projecting portions of the plates 11 and 12 is journaled a winding-drum 15, having a diametrical perforation 16 to receive an end of a wire to be stretched. At the upper end of the winding-drum above the plate 11 there is a ratchet-wheel 17, and a retaining-pawl 18 is mounted pivotally upon a stud 19 upon the plate 11 and is held normally and yieldably in engagement with the ratchet-wheel by means of a spring-finger 20, which is secured at one end to the plate 11 and presses with its opposite end against the pawl. This pawl permits of rotation of the drum in one direction to wind thereon a wire to be stretched and holds the drum normally against return movement. When it is desired to permit of return rotation of the winding-drum to unwind the wire therefrom, the retaining-pawl is lifted or moved from engagement with the ratchet-wheel, and for this purpose a cam-lever 23 is pivotally mounted upon the plate 11 in position to engage and press the pawl rearwardly when the lever is operated.

To rotate the winding-drum, the lower end thereof is squared below the plate 12, and upon this squared portion is disposed a rock-lever 25, having a slot to receive the end of the drum, one end portion 27 of the slot being rectangular, having its side walls parallel to receive the squared portion of the drum snugly therebetween, while the opposite end portion of the slot is rounded, as illustrated at 28, to permit of rotation of the lever or rocking thereof independently of the winding-drum when the squared portion of the latter is in this rounded portion of the slot. The squared end of the winding-drum is caused to lie in either end of the slot by shifting the lever longitudinally. Thus by rocking the lever in the direction of the handle 10, with the squared end of the drum in the portion 27 of the slot, the drum will be caused to rotate a corresponding angular distance, and by drawing the rock-lever longitudinally until the squared end of the drum is in the portion 28 of the slot the lever may be rocked in the opposite direction independently of the drum.

In the use of the stretcher the head is disposed against a post with the handle extending in the direction in which the wire is to be stretched, the wire being engaged through the perforation of the winding-drum and the latter rotated with a step-by-step movement, as above described. To hold the stretcher from slipping, the plates 11 and 12 are provided each with jaws 30 and 31, which diverge and project beyond the end of the handle, the jaws 31 being serrated, as illustrated, to prevent rotation of the stretcher on the post.

What is claimed is—

1. A wire-stretcher comprising a handle and a head, the head consisting of two plates disposed on opposite sides of one end of the handle and extending beyond the sides of the handle, serrated jaws integral with and diverging and projecting from the said plates beyond the said handle and a winding-drum rotatably mounted in the said plates.

2. A wire-stretcher comprising a handle, two plates disposed on opposite sides of one

end of the handle and projecting therefrom, a winding-drum having a diametrical perforation therein rotatably mounted in the projecting portions of the plates, a ratchet-wheel disposed on one end of the winding-drum, a retaining-pawl pivotally mounted upon one of the plates and adjacent to the said ratchet, and a cam-lever pivotally mounted upon one of the plates in a position to engage and press the pawl from the ratchet when the lever is operated.

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

CHARLES A. MILLER.

Witnesses:
JOHN DOWER,
E. M. IRWIN.