

No. 830,797.

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C. A. MILLER.
WIRE STRETCHER.
APPLICATION FILED APR. 8, 1905.

Fig. 4.

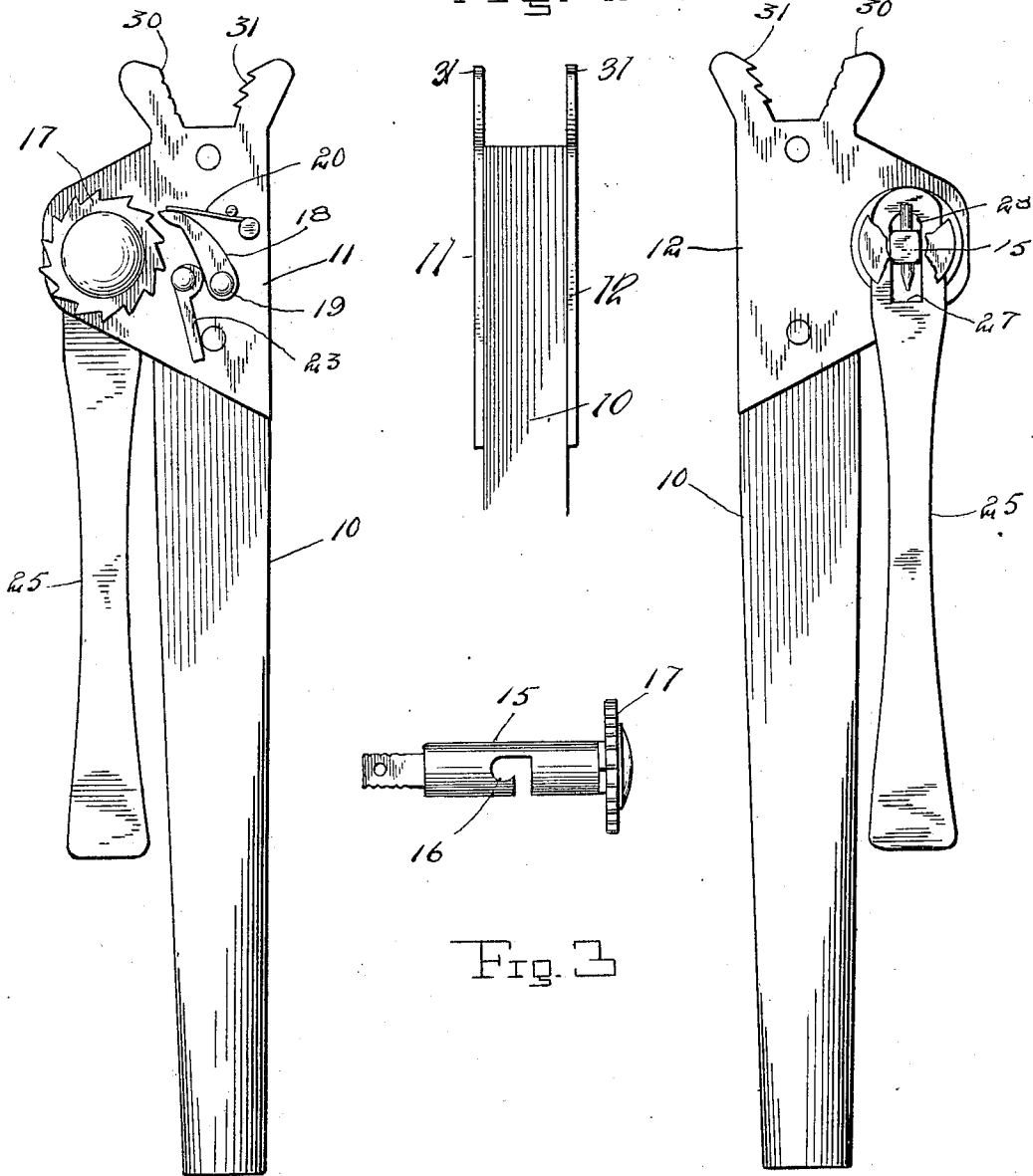


Fig. 2

Fig I

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.

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To all whom it may concern:

Be it known that I, CHARLES A. MILLER, a citizen of the United States, residing at Leaf-river, in the county of Wadena, State of Min-
5 nesota, 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
10 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
15 the wire may be readily disengaged after the stretching operation.

Other objects and advantages of the inven-
tion will be understood from the following de-
scription.

20 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 in-
vention. Fig. 2 is an elevation showing the
25 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
30 shown a wire-stretcher comprising a handle 10, of wood or other suitable material, of suit-
able length, one end of which is squared and against the upper and lower faces of which
35 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
40 15, having a diametrical perforation 16 to re-
ceive 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 re-
taining-pawl 18 is mounted pivotally upon a
45 stud 19 upon the plate 11 and is held nor-
mally 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
50 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 de-
sired to permit of return rotation of the wind-
55 ing-drum to unwind the wire therefrom, the

retaining-pawl is lifted or moved from en-
gagement with the ratchet-wheel, and for
this purpose a cam-lever 23 is pivotally
mounted upon the plate 11 in position to en-
gage and press the pawl rearwardly when the 60
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-
65 lever 25, having a slot to receive the end of
the drum, one end portion 27 of the slot be-
ing 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 70
at 28, to permit of rotation of the lever or
rocking thereof independently of the wind-
ing-drum when the squared portion of the
latter is in this rounded portion of the slot.
The squared end of the winding-drum is 75
caused to lie in either end of the slot by shift-
ing the lever longitudinally. Thus by rock-
ing the lever in the direction of the handle 10,
with the squared end of the drum in the por-
tion 27 of the slot, the drum will be caused to 80
rotate a corresponding angular distance, and
by drawing the rock-lever longitudinally un-
til the squared end of the drum is in the por-
tion 28 of the slot the lever may be rocked
in the opposite direction independently of 85
the drum.

In the use of the stretcher the head is dis-
posed against a post with the handle extend-
ing in the direction in which the wire is to be
stretched, the wire being engaged through 90
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 pro-
vided each with jaws 30 and 31, which di- 95
verge and project beyond the end of the han-
dle, 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 di- 100
verging 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 110

end of the handle and projecting therefrom,
a winding-drum having a diametrical perfor-
ation therein rotatably mounted in the pro-
jecting portions of the plates, a ratchet-
5 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 10
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.