

(Model.)

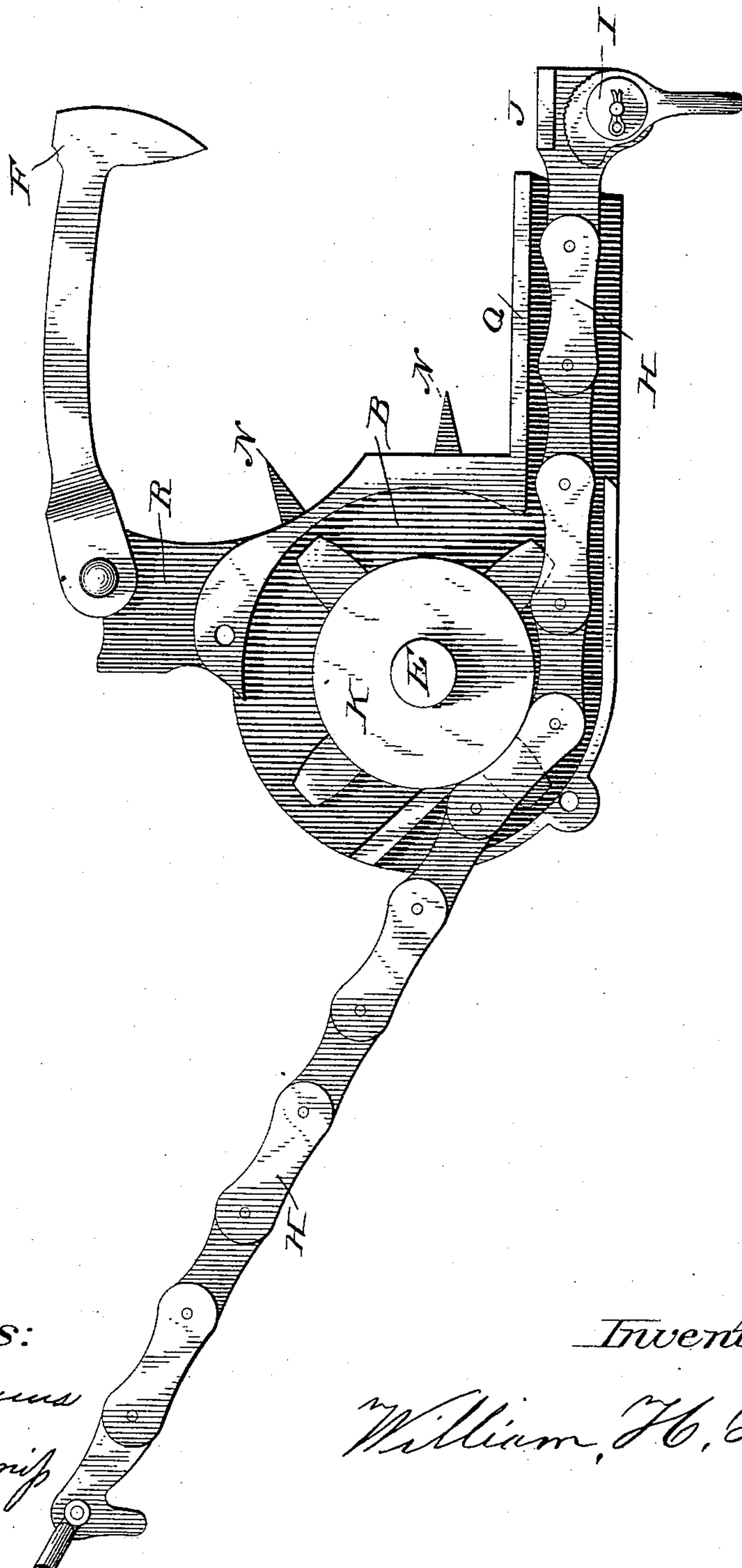
2 Sheets—Sheet 1.

W. H. FORKER.
WIRE STRETCHER.

No. 326,419.

Patented Sept. 15, 1885.

Fig. 1.



Witnesses:
George W. Adams
Thos. S. Minnip

Inventor:
William H. Forker

(Model.)

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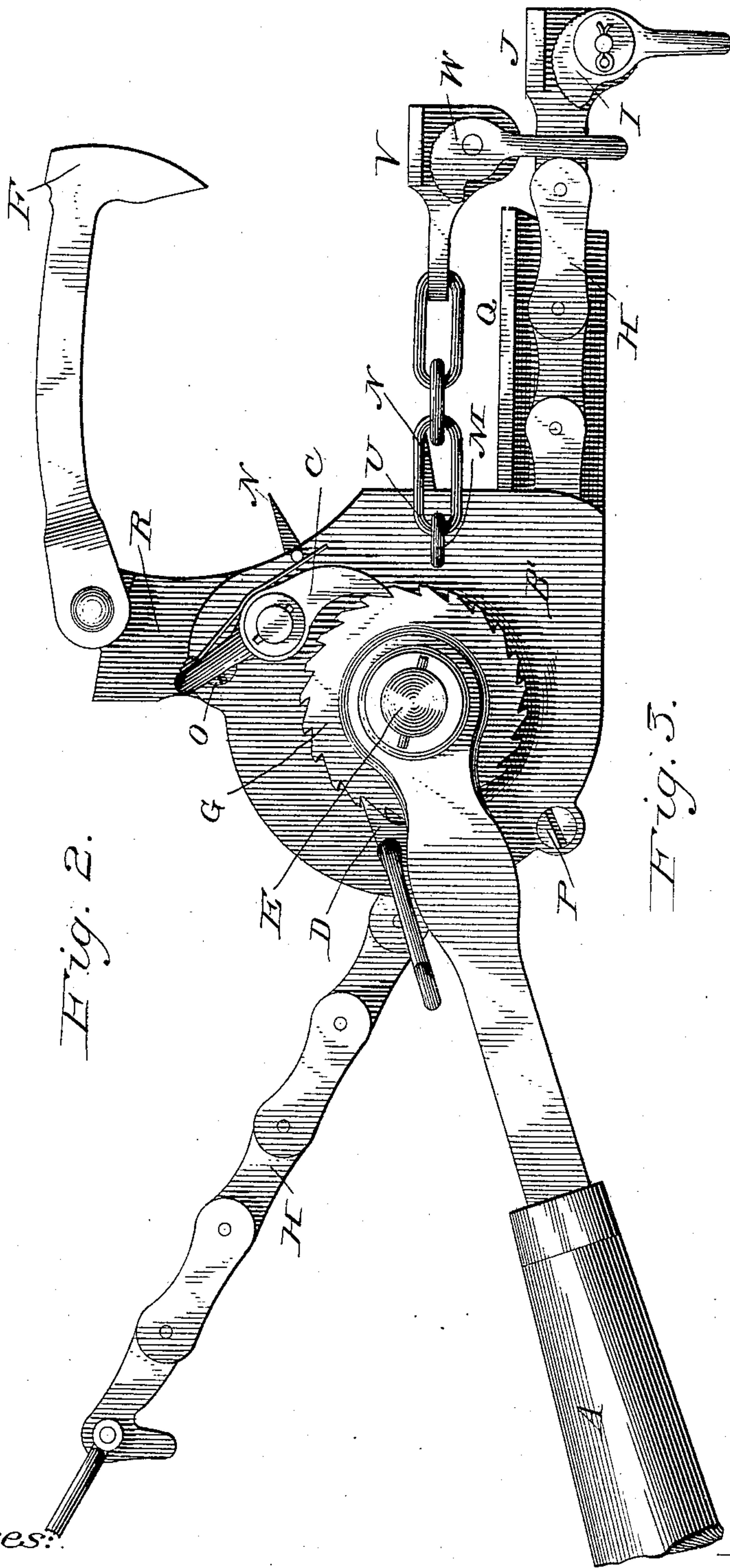


Fig. 2.

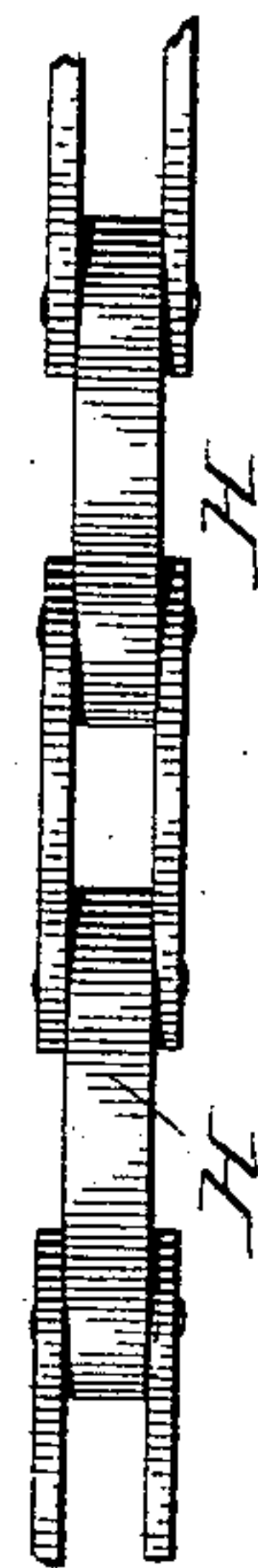


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM H. FORKER, OF MEADVILLE, PENNSYLVANIA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 326,419, dated September 15, 1885.

Application filed September 27, 1884. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FORKER, of Meadville, in the county of Crawford and State of Pennsylvania, have invented a new and useful Improvement in Wire-Stretchers, of which the following is a full, clear, and exact specification.

My invention relates to wire-stretchers; and the object of the invention is to provide a simple and efficient device which will be cheap to manufacture and strong in all its parts to withstand the great strain to which it is subjected.

The invention consists in the details of construction hereinafter fully described and particularly claimed.

In the drawings, Figure 1 is a plan view of the stretcher with the top plate of the case removed to show the interior parts. Fig. 2 is a like view of the device with all the parts in place. Fig. 3 is a detail view of the chain.

The case or shell is composed of two parts—the body portion B, and a cap or top plate, B'. The body portion has side walls around a portion of its circumference, as shown, and these side walls support the cap-plate, which is secured to them. The part B of the case has a projection, Q, extending to the right, and the side wall of the case continuing along the upper part of this projection forms a channel open upon one side, as hereinafter fully described. A projection, R, extends from the upper part of the case B, and upon this projection is pivoted a gripping-lever, F. Between the two projections of the case B are spurs N N, (two being shown, but any suitable number being used,) which spurs, in connection with the gripping-lever F, are adapted to hold the stretcher to the post or pole while the wire is being tightened, as hereinafter described. The top and bottom plates of the case have openings which form bearings for the shaft E, to which, within the case B, is secured a sprocket-wheel, K, having any suitable number of teeth. The shaft E extends up through the top plate, B', of the case and supports a ratchet-wheel, G, which is keyed thereto; and above this ratchet-wheel is a handle, A, loosely pivoted on said shaft and held in place by a suitable washer and pin.

The linked chain H, preferably of the form shown, but which may be of any suitable or

well-known construction adapted to work over the teeth of the sprocket-wheel K, passes through the channel formed by the projection Q over the teeth of the sprocket-wheel and out at an opening in the other side of the case B, as shown in Fig. 1.

To the end link of the chain is secured a suitable friction device, such as shown at I, with an opposite bearing-face, J, the cam-face of the part I being serrated in a well-known manner, the wire being grasped between the faces of I and J. When the sprocket-wheel K, therefore, is turned by the handle A, it draws upon the chain H, and consequently upon the wire connected thereto by the clamp I, and thus applies the tension.

The pawl C is pivoted on a stud upon the body of the case, upon one side of the ratchet-wheel, this pawl engaging with the teeth of said wheel and held in place by a leaf or other suitable spring, as shown.

Attached to the handle A is another pawl, D, which also engages with the teeth of the ratchet-wheel, the two pawls acting in an obvious manner, the pawl C holding the ratchet-wheel while the handle and pawl D are sliding over the teeth for a fresh hold, and the pawl D acting to move the said wheel and the sprocket-wheel within the case in the forward movement of the handle.

The wire is tightened by successive movements of the handle A, which, through the pawl and ratchet mechanism on the outside of the case, moves the sprocket-wheel within, operating upon the links of the chain to draw upon them, and consequently upon the wire attached to the clamp at the end. If, after the chain is tightened to the last link, the wire has not been stretched sufficiently, I attach a short section of chain to the case by slipping the link U over the stud M. This chain has a clamping device, V W, similar to that first described, and this is applied to the wire and prevents a relaxation of the tension. While the wire is so held it is released from the clamp I J, the pawls C D are lifted from engagement with the teeth of the ratchet-wheel, and the chain H is drawn back through the case for another hold, after which the wire may be released from the clamp V W and the operation repeated.

The device is so placed upon the post or

pole as to have the projection Q in line with the line of the wire, with the studs N N projecting into the post and the gripping-lever F forced into the back part of the post, thus
5 holding the device firmly in position.

Having thus described my invention, what I claim is—

1. In a wire-stretcher, the combination of the shell or case, a sprocket-wheel within the
10 case mounted on a shaft, a ratchet-wheel fixed to the said shaft without the case, a pawl mechanism adapted to operate upon the ratchet-wheel to turn the sprocket-wheel, a
15 chain having a clamping device upon its end, and a supplemental holding device consisting of a section of chain secured to the plate at one end and having a clamping device upon the other, substantially as described, and for the purposes set forth.

2. In a wire-stretcher, the combination of 20 the shell or case, a sprocket-wheel within the case mounted on a shaft, a ratchet-wheel fixed to the said shaft without the case, a pawl mechanism adapted to operate upon the ratchet-wheel to turn the sprocket-wheel, a 25 chain having a clamping device upon its end for connection with the wire, the said chain engaging with the teeth of the sprocket-wheel and being moved thereby to stretch the wire, and gripping devices consisting of the 30 pivoted lever F and spurs N N, substantially as described.

WM. H. FORKER.

Witnesses:

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