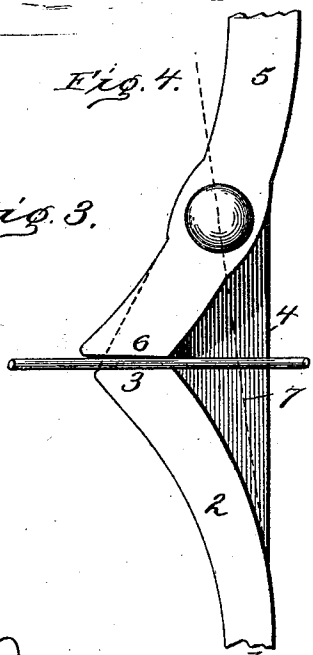
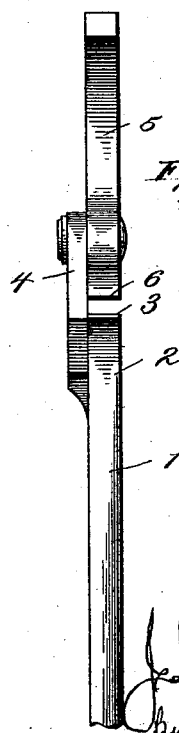
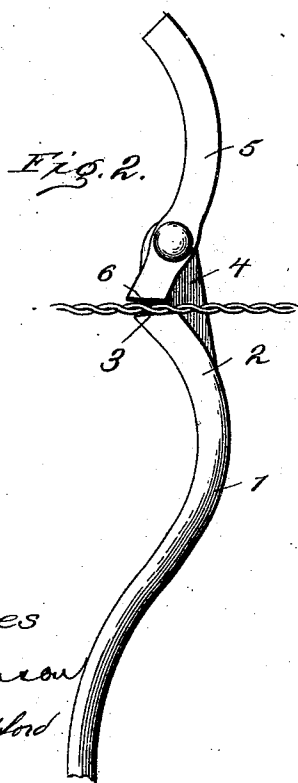
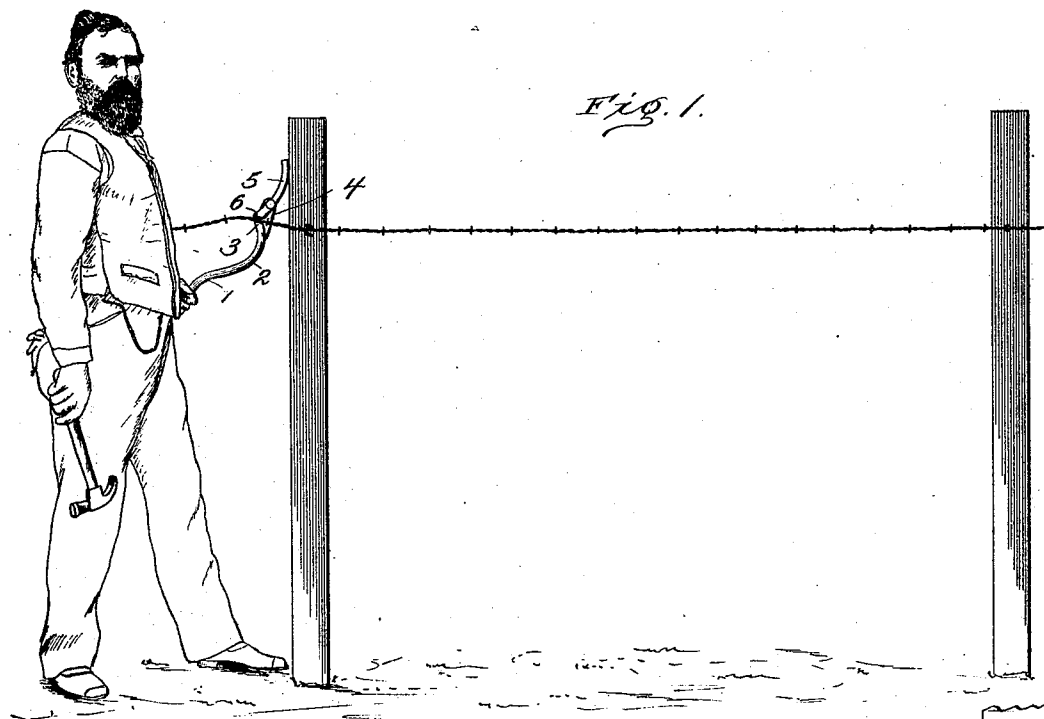


(No Model.)

J. H. GREGORY.
WIRE STRETCHER.

No. 513,778.

Patented Jan. 30, 1894.



Witnesses
Chas. A. Johnson
Edwin L. Bradford

Inventor
John H. Gregory
By John H. Johnson
his Attorneys

UNITED STATES PATENT OFFICE.

JOHN H. GREGORY, OF IONE, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
JACOB NEWMAN, OF SAME PLACE.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 513,778, dated January 30, 1894.

Application filed July 24, 1893. Serial No. 481,312. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GREGORY, a citizen of the United States, and a resident of Ione, in the county of Amador and State of California, have invented certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

For stretching wire in building wire fences I have produced an improved lever grip-device having a construction which adapts it to be used in any position on a support, or on the post to stretch and hold the wire while it is being secured by the staple. The gripping jaws have straight surfaces and the parts on which the jaws are formed are so curved and arranged relatively with each other as to cause their gripping surfaces to close upon the wire in straight lines so that they will afford a comparatively large area of flat gripping surfaces to hold the wire firm and hard without being liable to cut it or to flatten and weaken it, as is the tendency of grips having comparatively small convex or cam biting surfaces. It is the precise form and arrangement of the jaw-parts which gives the advantage stated and provides a convex rolling action of the supporting jaw-part upon the post, whereby the device can be used in a vertical position up or down against the post and thereby render it much more convenient for the manipulator to stretch and secure the wire.

The accompanying drawings illustrate my wire stretcher and it is the precise construction therein shown which constitutes my improvement, as I shall set out in the claim concluding this specification.

In the drawings Figure 1 shows the stretcher device as it is used by the nailer. Fig. 2 is a side enlarged view; and Fig. 3 is an edge view of the same. Fig. 4 is an enlarged detail of the gripping jaws.

The device consists of a handle part 1, formed with a goose-neck end 2, which terminates in a flat end jaw 3, the surface of which stands obliquely to the curve of the neck part. A flat part 4, extends from the end of the neck at one side of the flat jaw 3 and at right angles to the gripping surface thereof,

and forms the bearing for a pivoted curved part 5, which is formed with a flat end jaw surface 6, standing obliquely to its curve, and corresponding exactly to the flat jaw 3, of the neck-part, so that the two jaws when brought together will, by the arrangement of the parts, form straight flat gripping surfaces adapted to give equal gripping surface upon both sides of the wire. For this purpose the bearing part 4, extends to one side of the neck-jaw 3, so as to overlap the convex side of the neck-part to permit the curved supporting part to be pivoted to the bearing part on a line drawn from the convex side of the neck and thereby bring the gripping ends together like the corner of a right angle, with the convex sides of both parts joining at said angle, so that the flat gripping surfaces will have equal bearing upon the wire to hold it firm and prevent biting it so as to break or weaken it. This construction allows the pivoted jaw part to rest with its convex side against the post and thereby forms a rolling bearing for the lever part while stretching the wire and increases the leverage as the handle is pulled away from the post and the rolling bearing is brought nearer the end of the pivoted jaw. This gives the advantage of increasing the pulling force and allows the device to be better and more firmly held by one hand, while securing the wire by staple, when the wire is brought to its greatest tautness. The curves of the neck and pivoted parts are about equal, and it is their relative arrangement with their convex sides contiguous that gives the reversed curved position of the parts and the flat gripping surfaces, which I find so much better and so much more effective for the work, than similar devices in which the handle and pivoted parts are formed with eccentric or cam gripping surfaces liable to slip and to sever or weaken the wire by reason of having curved and comparatively small gripping surfaces.

The important feature of my invention is the construction of the handle-bar and the pivoted fulcrum-bar of similarly curved parts, so related that their convex sides will meet at the gripping point, whereby the pivoted ful-

crum-bar is made to form a convex bearing upon the support in using the tool, and the gripping surfaces are adapted to close upon the wire in parallel relation to each other to
5 give the advantages stated.

The convenience of using my device in vertical position with the convex bearing part standing upward or downward or horizontal, is an advantage due to providing a convex
10 bearing upon the post and the diverging relation of the gripping parts from the gripping surfaces.

In using the stretcher device, fasten the wire at the point of starting and run it along the
15 posts upon which it is to be nailed. The workman then facing the starting point, with the posts say at his left, lays the wire over his left knee, and placing the wire between the jaws grips it and drawing it in line then

places the convex bearing part against the 20 post and pulls and stretches the wire.

I claim as my improvement—

A wire stretcher consisting of a handle-bar and a pivoted fulcrum-bar each formed of similarly curved parts so related that their 25 convex sides will meet at the gripping point, the handle-bar having a connecting part for the fulcrum-bar, whereby the latter forms a convex bearing, and the gripping surfaces are adapted to close upon the wire in parallel rela- 30 tion to each other, substantially as described.

In testimony whereof I have hereunto signed this specification in the presence of witnesses.

JOHN H. GREGORY.

Witnesses:

M. HEFFREN,
D. SCOTT.