No. 611,658. Patented Oct. 4, 1898.

G. W. THORP & A. LEDDY.

WIRE STRETCHER.

(Application filed June 6, 1898.)

(No Model.)

Fig. 2.

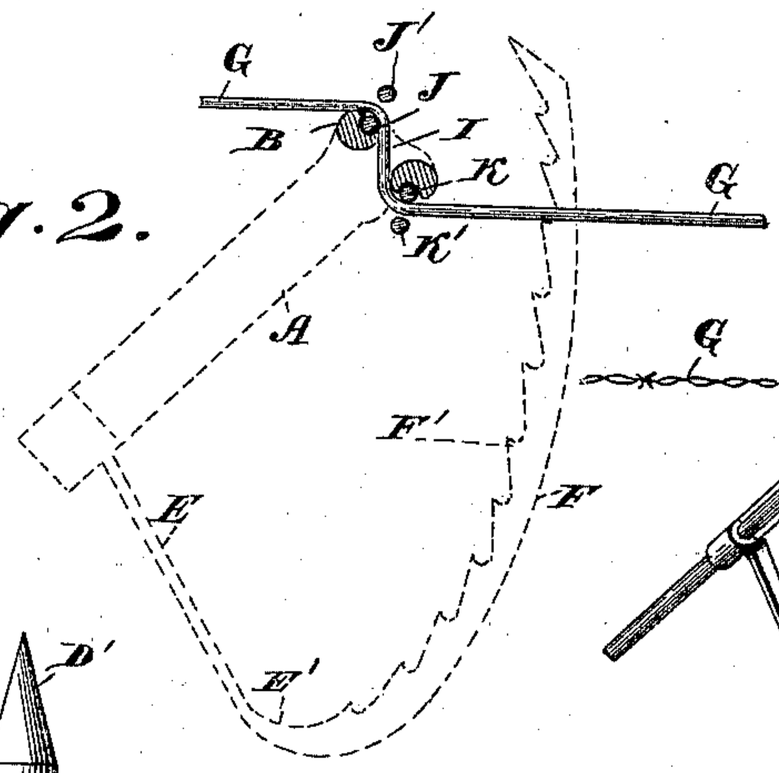


Fig. 1.

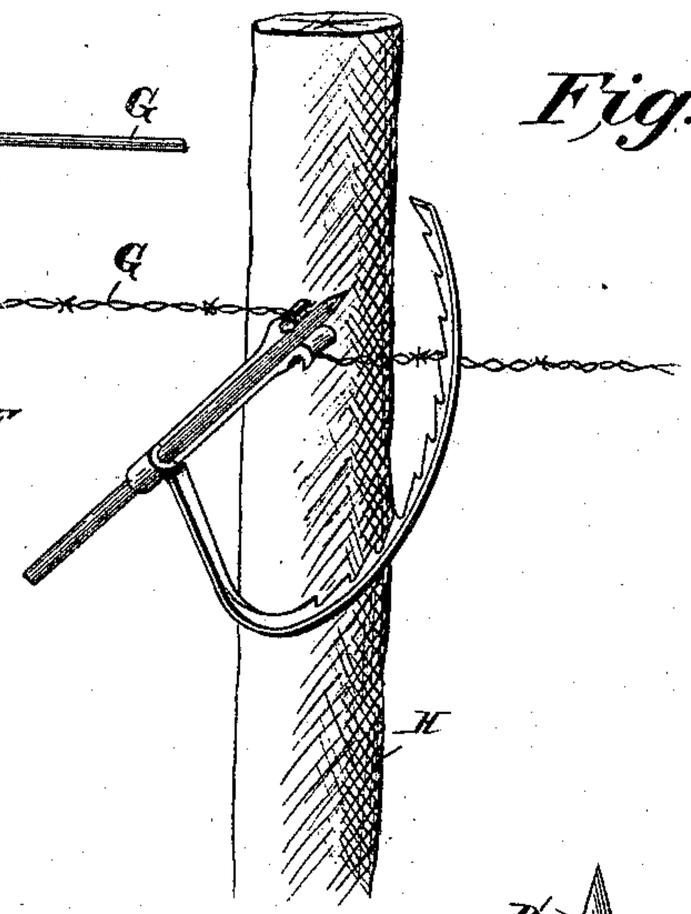


Fig. 3.

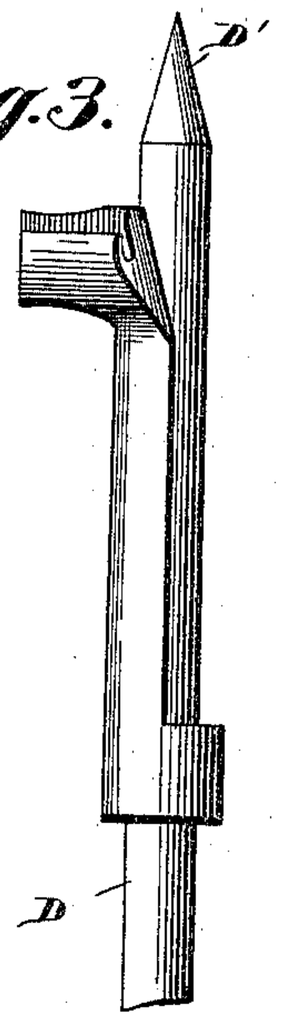


Fig. 4.

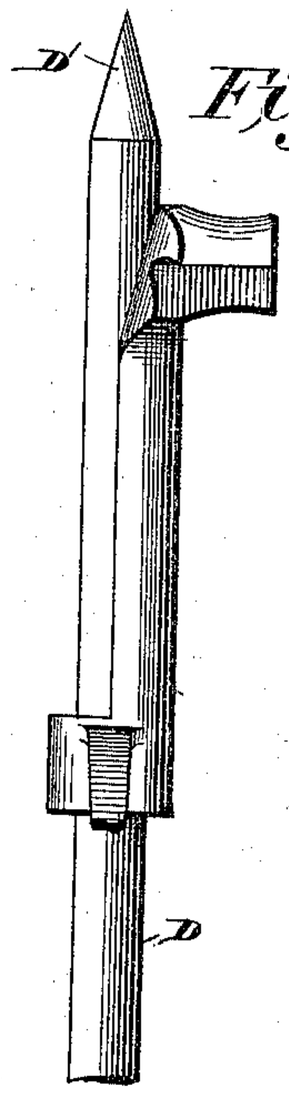
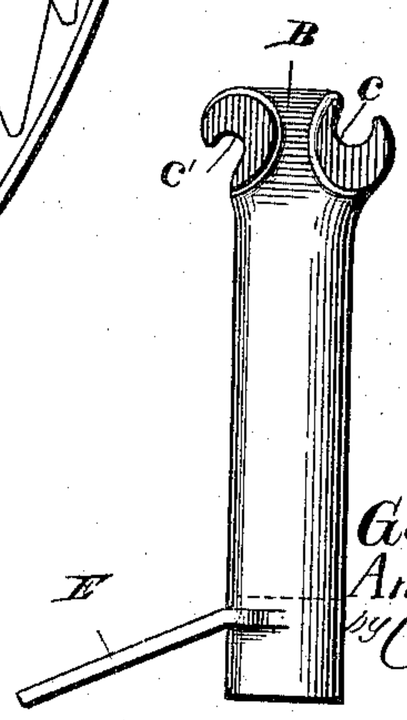


Fig. 6.

Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE W. THORP AND ANDREW LEDDY, OF CONWAY SPRINGS, KANSAS.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 611,658, dated October 4, 1898.

Application filed June 6, 1898. Serial No. 682,730. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. THORP and ANDREW LEDDY, citizens of the United States, residing at Conway Springs, in the county of Sumner and State of Kansas, have invented a new and useful Fence-Wire Tightener, of which the following is a specification.

This invention relates to devices for tightening the wires of fences without removing them from the fences, the object being to provide an improved tool of this class which shall be cheap, simple, strong, durable, and effective, whereby the wire on the fence may be loosened at any particular post, crimped or bent to take up slack, and secured to the post again before removing the tool from the wire.

With this object in view the invention consists in the improved construction, arrangement, and combination of parts hereinafter fully described and afterward particularly pointed out in the claims.

In order to enable others skilled in the art to which the invention most nearly appertains to make and use the same, we will now proceed to describe its construction and operation, having reference to the accompanying drawings, forming part hereof, in which—

Figure 1 is a perspective view illustrating a single post and wire of a fence, a tool constructed in accordance with this invention being engaged on the wire in the position it assumes when the crimp in the wire is completed. Fig. 2 is a vertical sectional view of the same parts, illustrating the staples in position for securing the crimped wire to the post, parts being shown in dotted lines. Fig. 3 is a view in side elevation of the tool. Fig. 4 is a similar view of the opposite side of the tool with the curved toothed arm broken away. Fig. 5 is a rear elevation of the tool with the lever removed and the curved toothed arm broken away. Fig. 6 is a perspective view of the tool, including the curved toothed arm, the lever being removed.

Like letters of reference indicate the same parts in all the figures of the drawings.

Referring to the drawings by letters, A indicates the main body of the tool forming the subject of this application, which is provided on its front face with a longitudinal semicircular groove A′ in continuation of an eye A″, formed in its rear end. From the rear side of the front end of the tool A lugs or arms B B′ project rearwardly at about right angles to the main body, leaving a space B″ between them, the lug B being provided with a groove C in its outer face and the lug B′ with a similar groove C′ in its inner face.

A lever D, having a pointed end D′, is adapted to be passed through the eye A″ and to rest in the groove A′ when operating the tool. A lateral arm E projects from one side of the tool A (the right side when looking at the face of the tool, as illustrated in Figs. 1, 2, and 6) and extends substantially at right angles to the main body of the tool for a short distance to a point E′, from whence it is curved outward, upward, and inward substantially in the arc of a circle of which the head of the tool A would be the center, the rear edge of the curved portion F of the tool being provided with teeth F′, pointing upward.

The construction of the invention will be readily understood from the foregoing description, and its operation may be described as follows: With the tool in hand a person proceeding along a wire fence finds a wire, as G, slack or sagging. The point D′ of the lever D is inserted in a staple securing the slack wire G to a post, as at H, and the staple pried out. The tool is now placed upon the wire in front of the post. The tool, lying at an inclination to the right, or perhaps in line with the wire to the right, is slipped over the wire, the wire passing into the space B″ between the lugs B and B′. The lever and tool are now turned to the left, as shown in Figs. 1 and 2, which produces a kink or double bend I in the wire, the teeth F′ of the curved arm passing downward over the wire on the right of the post and the movement to the left being continued until the wire has been made tight in both directions from the post. The last tooth F′, which has passed downward along the wire, as before stated, will engage under the wire and prevent the lever and tool being sprung back toward the right by the stretch of the wire. Two staples are now inserted, the inner leg J of one staple engaging in the groove C inside of the wire G and the other leg J′ being outside of the wire, the staple straddling the wire, as shown in Fig. 2, the legs K and K′ of the other staple bearing the same relation to the groove C′ and

the wire, when each staple will be partially driven into the post. The tool being now removed, which can be readily done by disengaging the tooth F′ from the wire and moving the lever and tool slightly toward the right, the staples may be driven home, thus rigidly securing the kinked or bent wire to the post, the slack having been taken up and the wire tightened. This operation may be repeated as often as necessary on a fence until all the wires have been satisfactorily tightened.

From the foregoing it will be readily seen that a simple, strong, light, cheap, and durable tool has been produced by means of which any person can quickly and easily tighten up the wires of a fence without the use of a heavy, expensive, and cumbersome tool, sometimes used in this operation, without loosening more than a single staple at a time.

While the exact forms, constructions, and arrangements of the various parts of the invention have been minutely and specifically described herein, it will be readily understood that the invention is not limited to such exact forms and constructions and that slight changes or variations from such forms will be clearly included within the limit and scope of the invention.

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. A tool for tightening fence-wires comprising a main body, having two rearwardly-projecting lugs at its head or outer end forming a space between to straddle the wire, and a lateral curved toothed arm projecting from the main body and adapted to engage the wire and hold the tool in position thereon, substantially as described.

2. A tool for tightening fence-wires comprising a main body, and two rearwardly-projecting lugs at its head or outer end, leaving a space between said lugs to receive the fence-wire, one of said lugs being provided with a groove in its outer face and the other with a groove in its inner face, said grooves being adapted to receive the inner legs of staples when the wire is crimped about the lugs, substantially as described.

3. A tool for tightening fence-wires comprising the main body A provided with the longitudinal groove A′ in its front face terminating in the eye A″ in its inner end, the rearwardly-projecting lugs B and B′ at the head or forward end leaving a space B″ between them, the lug B being provided with a groove C in its outer face, and the lug B″ with the groove C′ in its inner face, and the laterally-projecting arm E curved upward from the point E′ and provided on its rear edge with outwardly-pointing teeth F′, substantially as described.

4. A tool for tightening fence-wires comprising the main body A provided with a longitudinal groove A′ and eye A″, grooved lugs B and B′ at its head end and the pointed lever D passing through the eye A″, seated in the groove A′ and extending beyond the head or outer end of the tool, substantially as described.

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