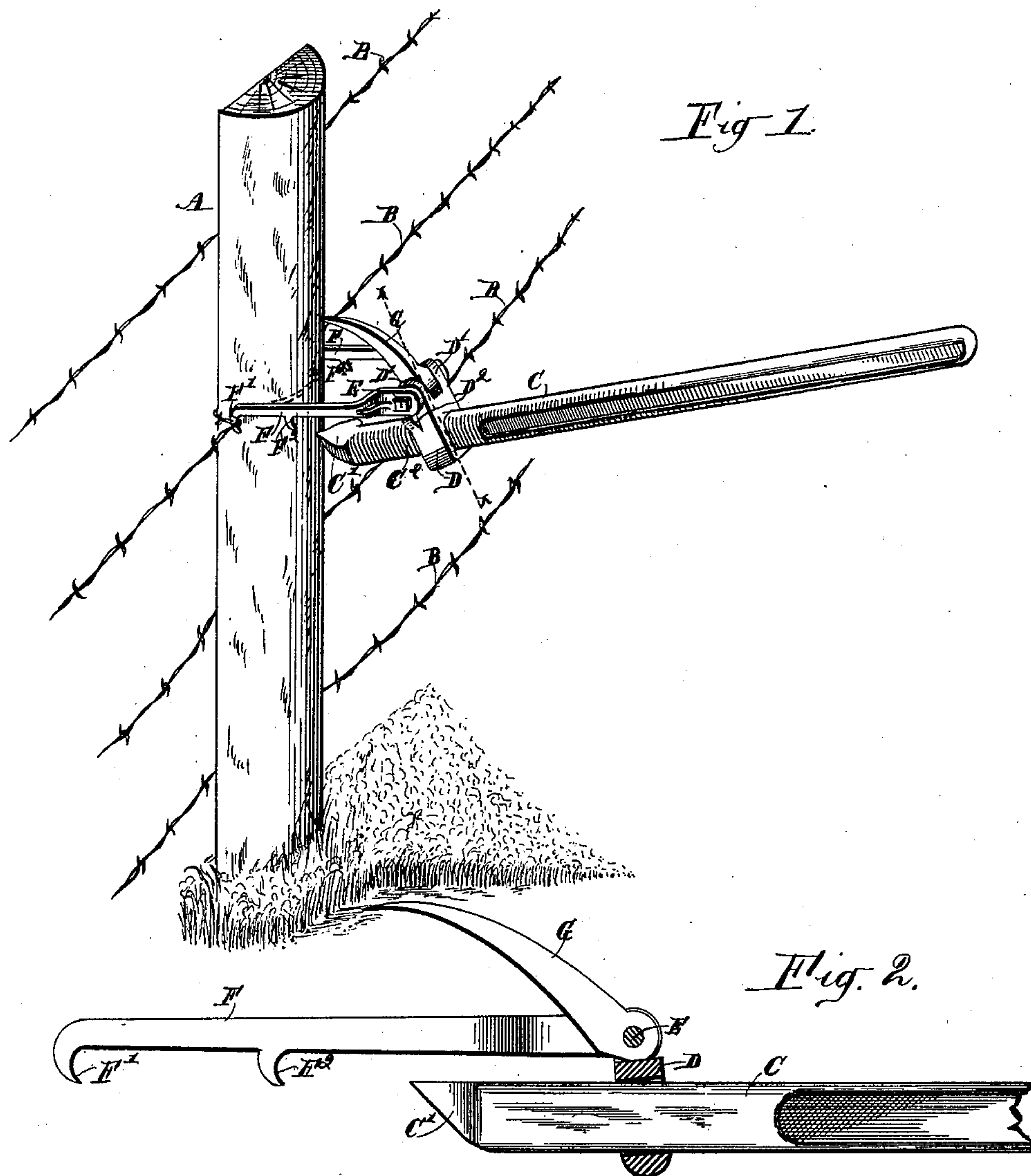


(No Model.)

E. S. JOHNSTON & J. N. KYLE.
WIRE STRETCHER.

No. 594,955.

Patented Dec. 7, 1897.



Witnesses.

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UNITED STATES PATENT OFFICE.

EDWIN STANTON JOHNSTON AND JOHN N. KYLE, OF MOUNT VERNON,
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WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 594,955, dated December 7, 1897.

Application filed September 13, 1897. Serial No. 651,568. (No model.)

To all whom it may concern:

Be it known that we, EDWIN STANTON JOHNSTON and JOHN N. KYLE, citizens of the United States, residing at Mount Vernon, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Wire-Stretchers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to stretchers for taking up the slack in fence-wires; and the object of the invention is to produce a stretcher adapted to conveniently engage the wire each side of the post and draw it more or less around the post to take up the slack.

The invention consists in certain improvements in the construction of this type of stretcher whereby the stretcher is readily adjusted to any-sized post, as will more fully hereinafter appear, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the device as in use. Fig. 2 is a side view of the same, partly in section, showing the parts beyond the line $x x$ in Fig. 1.

Similar letters of reference indicate corresponding parts.

In the drawings, A designates a fence-post, and B a number of barbed wires fastened thereto. These wires, as is well known, stretch more or less by reason of the action of heat and cold or otherwise, and it becomes necessary to strain the wires taut again, so as to have a neat and efficient fence. This operation is performed by our stretcher at any post and by simply drawing the fence-wire back each side of the post, as clearly illustrated in Fig. 1, where it is secured by a short piece of wire, as indicated by the dotted lines on the front side of the post in said figure. The apparatus for this purpose is described as follows:

C is a bar or hand-lever provided at one end with a suitable point or spur C', adapted to penetrate the post somewhat and serve as a bearing-point for this end of the lever. For some distance from the head the body of the lever C² is made of a uniform size and preferably oval or oblong in cross-section, as in-

dicated, the longer diameter being vertical, so as to secure strength with lightness. The remainder of the bar C forms the handle, preferably channeled at the sides to reduce the weight.

On the shank portion of the bar C² is mounted a sliding collar D, which fits the bar loosely enough so as to move freely thereon when not in use, but when drawn at an angle to the bar, as shown in both figures, more particularly Fig. 2, grips the handle-bar and holds by friction in any desired position. The upper end of this collar, which may for convenience be designated as the "fulcrum," terminates in a pair of lugs D', and to these are pivoted, as by a bolt E, a pair of hooked arms F F. These are shown provided each with a pair of hooks F' and F², the better to accommodate the stretcher to extreme sizes of posts; but for the most part one hook on each arm is sufficient. The arms are offset laterally from their connection with the fulcrum-lugs, so as to embrace the largest-sized post. They are prevented from hanging down and are held at practically a right angle to the fulcrum-block by lugs D², with which a part of the arms forward of the pivot engages.

Between the main lugs of the fulcrum and on the same bolt that holds the hooks is pivoted a spur G, which serves as a pawl to take up and hold all that is gained by the downward movement of the hand-lever, its upper sharp end penetrating the post sufficiently for this purpose, as shown. This spur is held when not in use from falling below a certain point by engaging the fulcrum-block below it, as indicated in Fig. 2, its ultimate position being about that of the hook-bar in said figure.

The operation of the device is very simple. The operator, with one hand holding the handle and the other grasping the fulcrum and connected arms, places the hooks over the wire to be stretched and setting the handle-bar at the desired angle slides back the fulcrum as far as it will go. A downward movement of the handle now causes the fulcrum to grip it tightly, whereupon the wires each side of the post are drawn back, as shown. The pawl G, which for convenience may at first be turned back, is set in position to engage the post as the lever moves down, and

by this means the take-up is held while the operator fastens the wire in its strained position by a short piece of extra wire, as indicated.

5 It will be apparent that in the case of very loose wire a part of the slack will be taken up in the very act of setting the fulcrum. It is not therefore necessary to take a second grip on the wire, as might otherwise be the
10 case.

The head of the handle-bar is preferably made a little wider than the shank, as shown, so that in carrying the apparatus by the handle the fulcrum and its connected parts do
15 not slip off the bar.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

20 1. In a wire-stretcher, the combination of a hand-lever provided with a head suitably pointed to engage a fence-post, and having a shank portion of uniform size, a fulcrum adapted to slide on said shank and to grip it tightly when turned at a slight angle thereto,
25 and a pair of hooks pivoted to said fulcrum

and adapted to engage the fence-wire each side of the post, as set forth.

2. In a wire-stretcher, the combination of a hand-lever adapted to engage the fence-post at one end, a fulcrum mounted to slide on the shank portion of said lever and to grip it when tilted slightly thereon, a pair of hooks pivotally connected with said fulcrum, and a pivoted pawl to hold the take-up, substantially
30 as and for the purpose set forth.

3. In a wire-stretcher, the combination of a hand-lever having a pointed head a little wider than the shank, a fulcrum mounted to slide on the shank of the lever, and to grip the same when tilted slightly, a pair of hooks
35 and a take-up pawl pivotally connected with said fulcrum and stops to limit the drop of said hooks and pawl, as described.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWIN STANTON JOHNSTON.

JOHN N. KYLE.

Witnesses:

J. F. GROUT,

J. M. ST. JOHN.