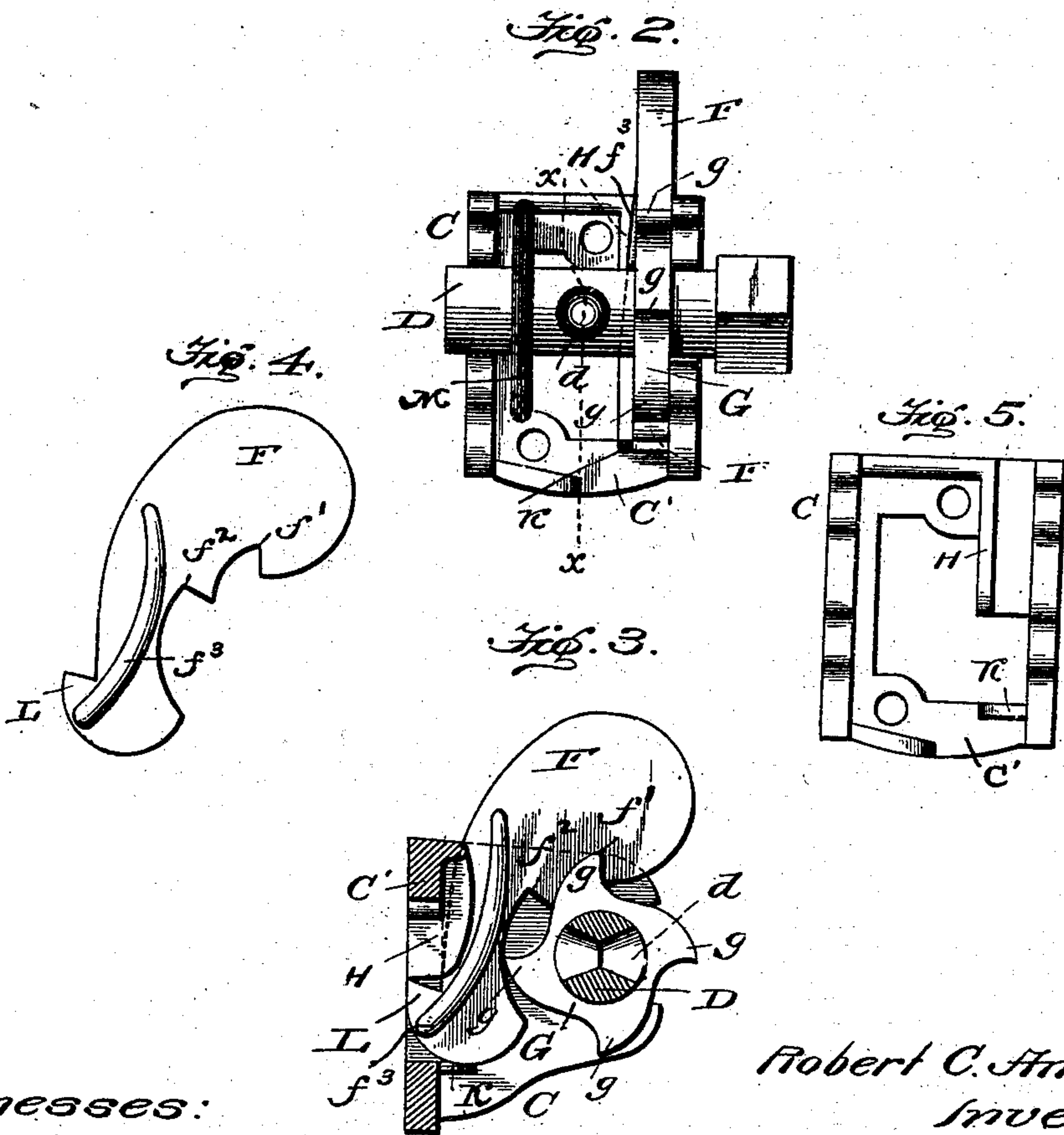
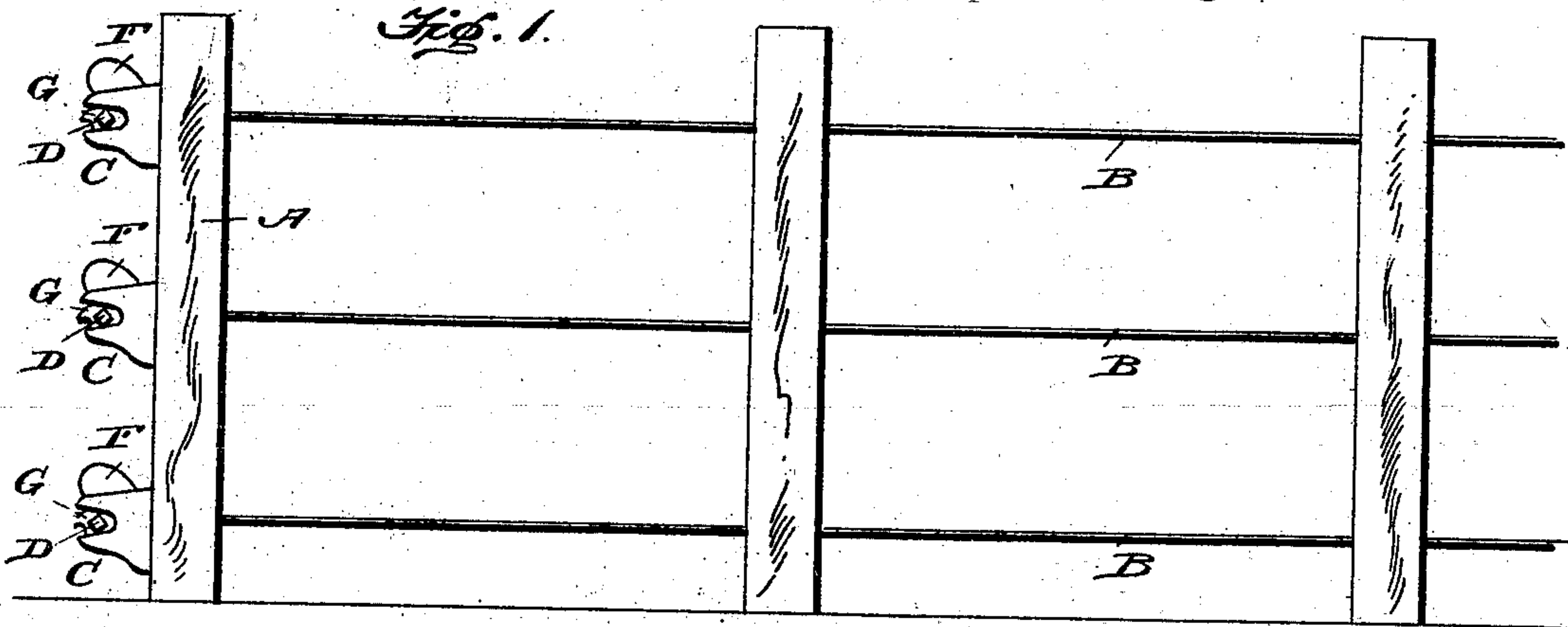


(No Model.)

R. C. ANDERSON.
WIRE STRETCHER.

No. 503,892.

Patented Aug. 22, 1893.



Witnesses:

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Inventor.

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UNITED STATES PATENT OFFICE.

ROBERT C. ANDERSON, OF JEFFERSONVILLE, INDIANA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 503,892, dated August 22, 1893.

Application filed March 11, 1893. Serial No. 465,564. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. ANDERSON, a citizen of the United States, residing at Jeffersonville, in the county of Clark and State of Indiana, 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 others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in stretchers for the line wires of wire fences of that class which are attached to a post of the fence; and the object of the present invention is to provide a simple and automatically operating device whereby when the wire has been stretched to the desired tension it can be held in that position and will not become slack.

My invention consists in the peculiar construction and arrangement of parts as will be hereinafter more fully pointed out and claimed.

In the accompanying drawings—Figure 1 is a side elevation of one section of a wire fence showing a series of wire stretchers, provided with my improved devices, attached to one of the posts. Fig. 2 is a detail front elevation of one of the stretchers. Fig. 3 is a sectional view on the line $x-x$ of Fig. 2. Fig. 4 is a detail view of the locking piece. Fig. 5 is a detail view of the bracket.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A designates a post and B the line wires of a fence. To the post A are rigidly attached bearing plates C adapted to support, in line with the line wires of the fence, short winding shafts D. The bearing plates C of each winding roller are preferably cast integral with a back plate C' which is provided with suitable openings to receive screws or nails by which it and the bearing plates can be firmly secured in position on the post.

The line wires B extend through suitable passages formed in the post A and aligned openings in the back plate C', and at one end each of said wires is connected to one of the winding shafts, preferably by being passed

through a passage d formed therein and then bent around the shaft.

One of the trunnions of each winding shaft projects or extends some distance beyond its bearing plate C and the outer end of said trunnion is made polygonal in cross section so as to be readily grasped by a suitable wrench when it is desired to rotate the shaft in its bearings and draw the line wire attached thereto, taut.

Each shaft, D, is provided with an annular flange or disk, M, which, when the shaft is in position for use, lies between the bearing plates, C, and closely adjacent to one of said plates as shown in Fig. 2. To hold the shaft against retrograde movement when the line wire attached thereto has acquired the desired tension I employ a locking piece F which is adapted to engage with the teeth of a ratchet G cast integral with or otherwise rigidly secured to the winding shaft. The locking piece F is arranged between one of the bearing plates C and a parallel flange or rib H preferably formed integral with the back plate C' and the upper portion of said piece is enlarged and extends or projects partially over the ratchet on the winding shaft. In the forward face or edge of the locking piece F are formed two notches f' , f'' , into which the teeth of the ratchet on the winding shaft will take in case said shaft should start to move in a reverse direction from that in which it was turned to stretch the wire B. By reference to Fig. 3 of the drawings it will be seen that the upper surface of the teeth g of the ratchet are curved slightly from their inner toward their outer ends and that they will therefore pass easily under the solid portion of the locking piece F above the notches f' , f'' , therein as the shaft is rotated to stretch the wire, and that the front edge of the locking piece is concaved from the lower notch to near the lower end of said piece so as not to interfere with the revolution of the winding shaft. The lower end of the locking piece F is slightly enlarged and made curving on its outer edge so as to allow the same to freely turn a limited distance over the upper surface of a horizontally projecting lug K on the back plate C'. The lower end of the locking piece extends slightly in rear of the body

thereof so as to form a lug L which fits in an opening in the back plate and thereby prevents the locking piece from being drawn out of the casing formed by the bearing plates and back plate in case the ratchet teeth take
5 into the notches f' , f^2 .

As shown in the drawings the ratchet G is preferably provided with but four teeth and as there are two retaining notches f' , f^2 , each
10 tooth of the ratchet aligns with each of said notches during each revolution and the notches are so spaced apart that as the shaft is rotated by the winding wrench at each eighth of a revolution one of the teeth g is in
15 alignment with one of the notches f' , f^2 .

The locking piece F is strengthened at its thinnest portion by a longitudinally extending rib f^3 .

In using my improved stretcher the wire is
20 attached to the winding shaft and the shaft is then rotated in its bearings to draw the wire through the passage in the post and the opening in the back plate and wind the same around the shaft. When the winding wrench
25 is removed from the shaft the pull exerted by the wire will operate to turn the shaft slightly in the reverse direction and one of the teeth g on the ratchet G will be drawn into one of the notches f' , f^2 , and draw the lower, enlarged
30 end of the locking piece F against the solid portion of the back plate C' and thus effectually lock the shaft against rotation and hold the wire taut.

From the foregoing description and the
35 drawings, it will be seen that I have provided a very simple, strong and durable device whereby the winding shaft can be held against rearward movement and the wire held taut.

The upper larger end of the locking piece

overhangs the ratchet G and the weight there- 40 of operates to draw the locking piece forward slightly, so that it will at all times contact with the ratchet, and that the rearward extending portion of the lower end thereof will be drawn against the solid part of the back 45 plate.

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

1. A wire stretcher consisting of a back 50 plate adapted to be attached to a fence post, a winding shaft journaled in bearings supported by the back plate and having a ratchet rigidly secured thereon, and a locking piece fitted between the back plate and the wind- 55 ing shaft and having its upper enlarged end extending forward over the ratchet on the winding shaft and provided in its under side with two notches, substantially as and for the purpose described. 60

2. A wire stretcher consisting of a back plate, a winding shaft journaled in bearings on the back plate and provided with a ratchet, and a locking piece supported on an inwardly extending flange K on the back plate and 6, provided with a lug L that extends through an aperture in the back plate, the locking piece having its upper end extending across the ratchet on the winding shaft and provided in its under side with notches, substantially 70 as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT C. ANDERSON.

Witnesses:

WILLIAM H. LANG,
JAMES E. TAGGART.