

(No Model.)

W. ALLDERDICE & N. J. TUBBS.

WIRE STRETCHER.

No. 251,153.

Patented Dec. 20, 1881.

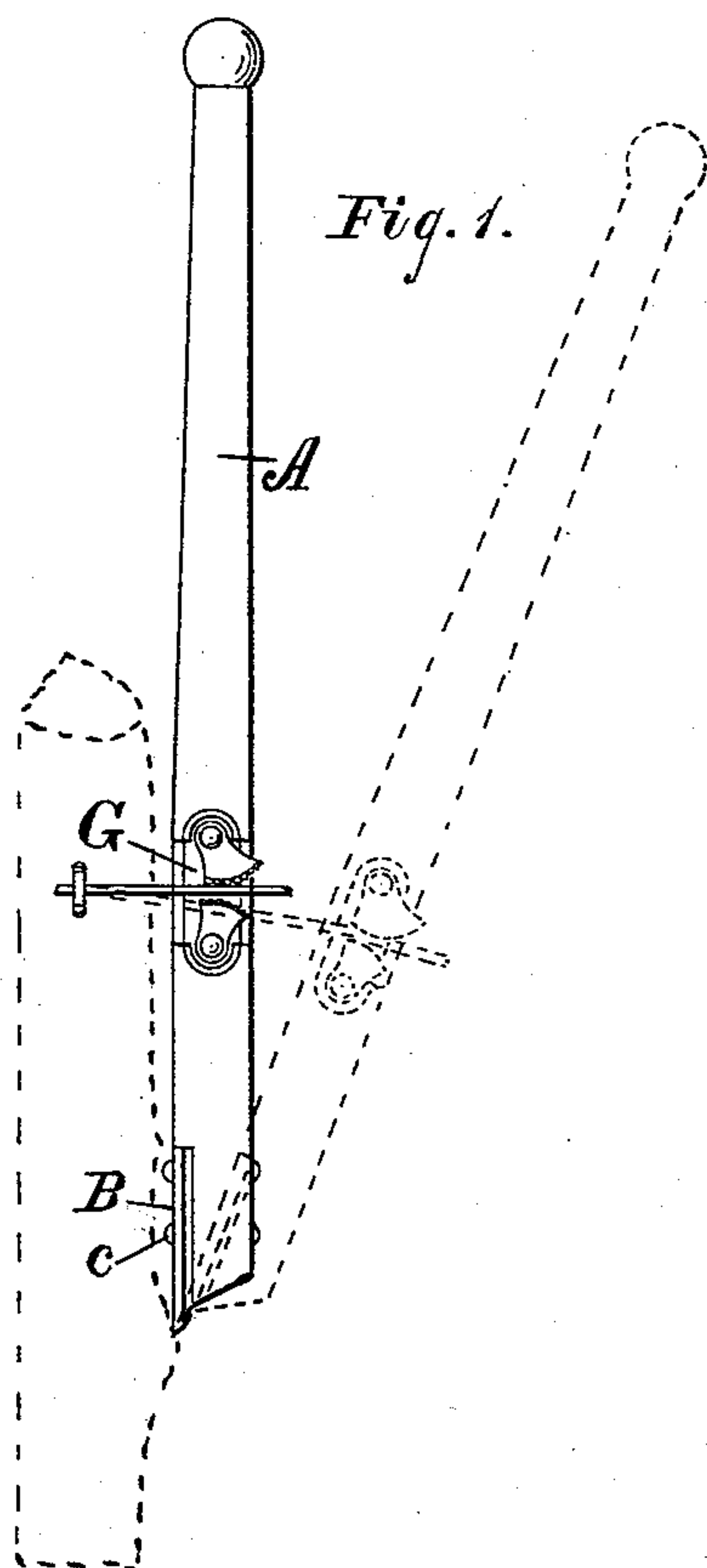


Fig. 1.

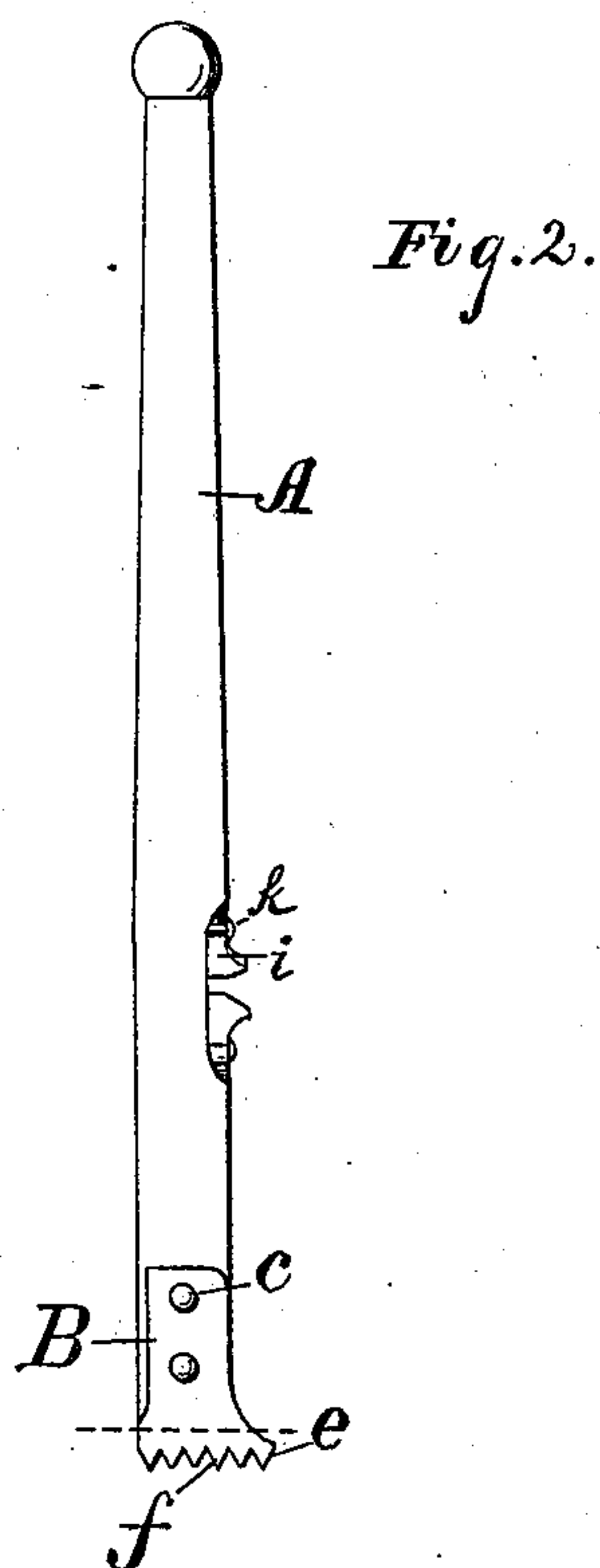


Fig. 2.

Fig. 3.

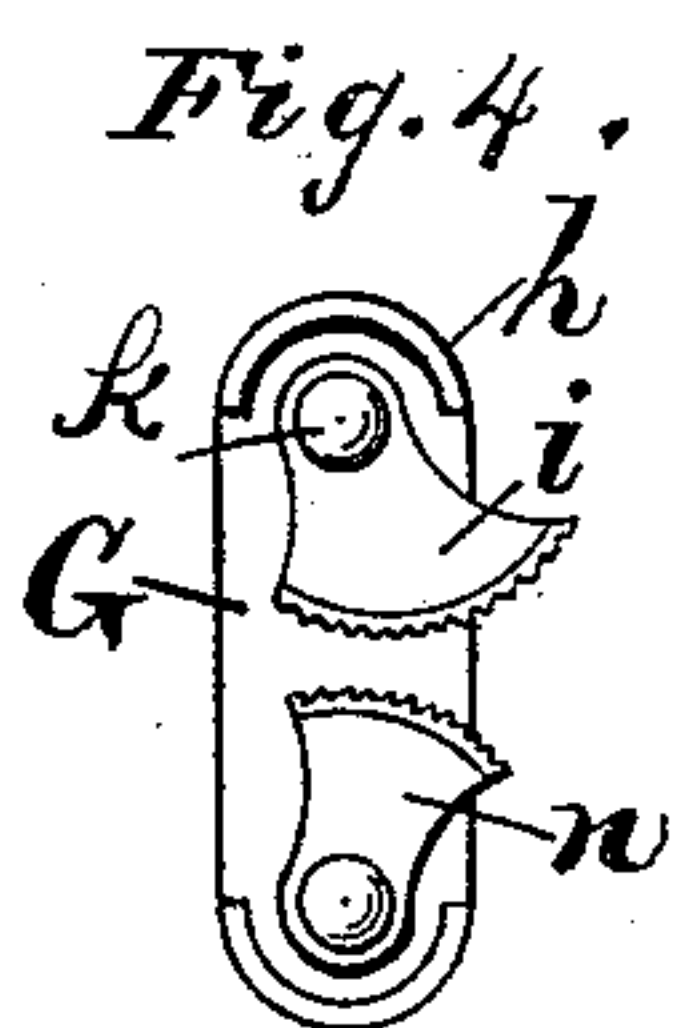
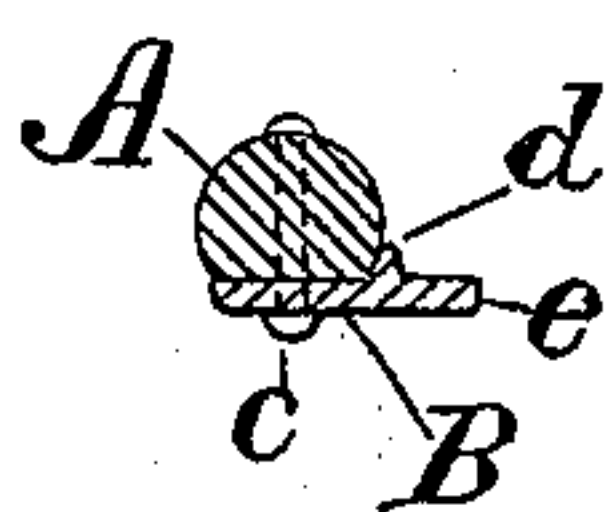


Fig. 4.

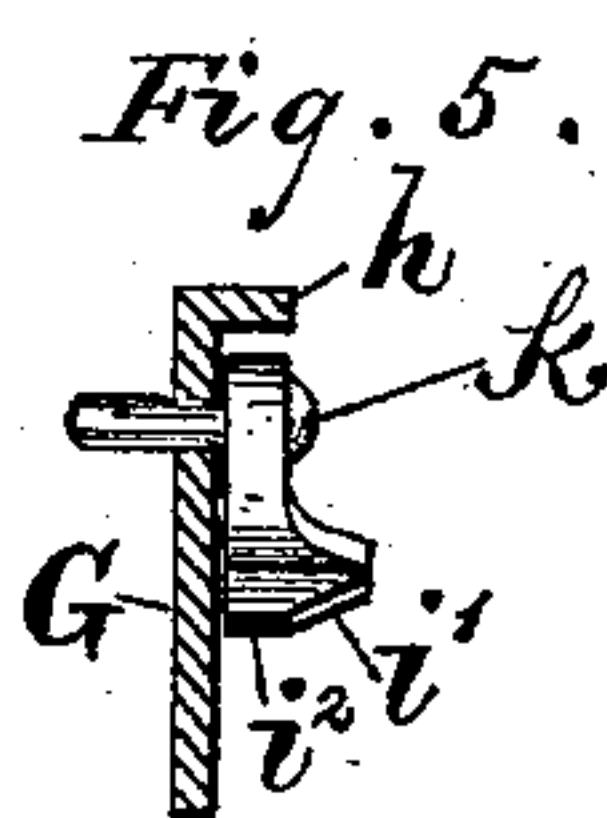


Fig. 5.

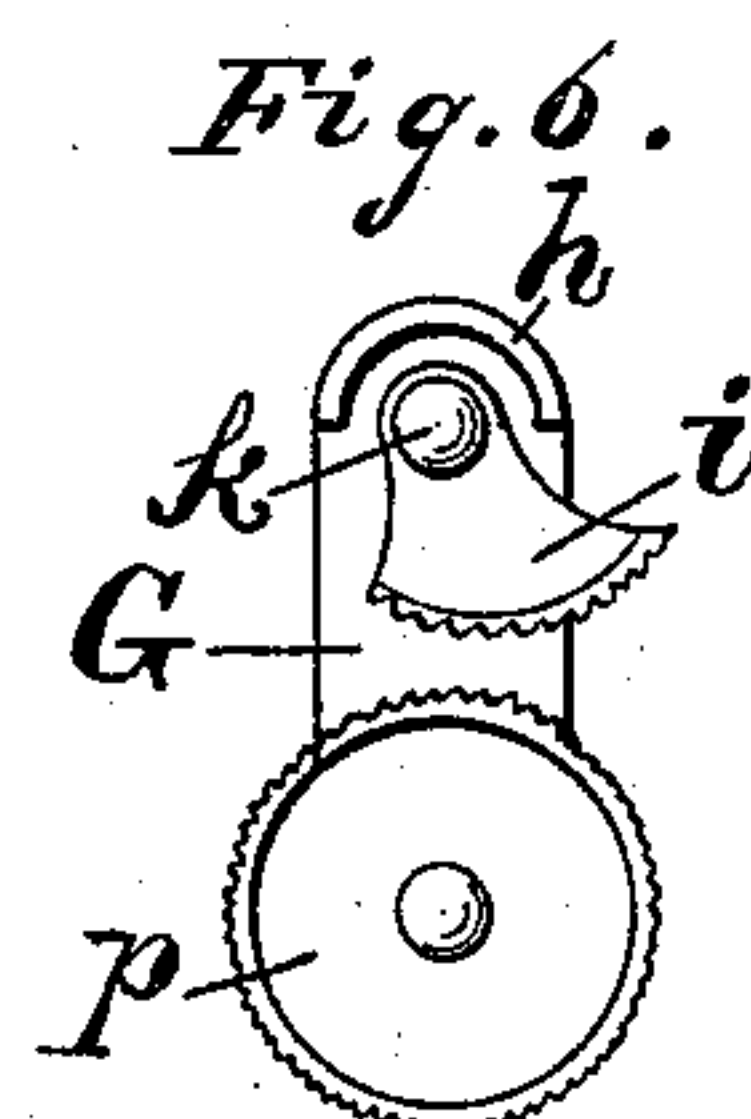


Fig. 6.

Witnesses:

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# UNITED STATES PATENT OFFICE.

WINSLOW ALLDERDICE AND NELSON J. TUBBS, OF BALTIMORE, MARYLAND.

## WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 251,153, dated December 20, 1881.

Application filed September 5, 1881. (No model.)

To all whom it may concern:

Be it known that we, WINSLOW ALLDERDICE and NELSON J. TUBBS, citizens of the United States of America, residing at Baltimore, in the county of Baltimore and State of Maryland, 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Our invention relates to an improved device for stretching wire, and is particularly useful in stretching wire for fences.

The construction of a device embodying our invention will first be described, and the invention will then be designated in the claim.

In the drawings hereto annexed, Figure 1 is a side view of the wire-stretcher, illustrating the manner of its operation. Fig. 2 is a transverse side view of the device. Fig. 3 is a cross-section of same on line *x*, Fig. 2. Fig. 4 is a front view of the clutch of the stretching device on a larger scale. Fig. 5 is a transverse side view of same, partly in section. Fig. 6 is a front view of the device, showing a modification of the clutch.

The letter A designates a rod or lever of any suitable material, preferably of wood. One end of the rod is provided with a metal plate, B, which is firmly secured to the rod by bolts *c*. The rod at the point of contact of the plate is flattened to secure rigidity.

A flange, *d*, on one side of the plate serves, by resting against the rod, to insure still greater rigidity.

From one edge, at the extremity of the plate, there is a side projection, *e*, which serves to widen the plate, the projection extending beyond the line of the rod and serving a purpose hereinafter described.

The wide end of the plate is serrated or provided with teeth, as shown at *f* in Fig. 2. This feature serves to prevent the stretcher device from slipping when the serrated or toothed part is applied to a post, as indicated by broken lines in Fig. 1.

The letter G designates a metal plate hav-

ing its upper end provided with a segment-shaped flange, *h*, which projects from the face of the plate. Upon the face of the plate a cam-jaw, *i*, is pivoted by a bolt, *k*, the bolt having a position concentric within the segment-shaped flange. The curved face of the jaw has a beveled flange, *i'*, and a part, *i''*, which extends parallel with the bolt *k*, as seen in Fig. 5. The segment shaped flange serves to circumscribe the movement of the cam-jaw, and by reason of its outer edge being flush with the jaw it serves to prevent the wire from catching on the jaw or the bolt by which the jaw is pivoted.

The part *i''* of the curved face of the jaw is roughened or serrated to prevent it from slipping on the wire.

A movable counterpart of the cam-jaw is provided and is secured to the plate G below the cam-jaw, so that when the wire is in position between the curved face of the cam-jaw and its movable counterpart, as shown in Fig. 1, the partial rotation of the cam-jaw and the movement of the counterpart will effect a gripping or clutching of the wire, which will enable the lever to be employed with great advantage as a stretcher.

It is immaterial whether the movable counterpart, which, with the cam-jaw, constitutes a clutch, be a mere segment, as shown at *n* in Fig. 4, or be a roller, as shown at *p* in Fig. 6. The effect of each is substantially the same.

Inasmuch as the curved face of the cam-jaw and its counterpart, which comprise the clutch, each have a beveled flange, *i'*, it makes no difference, when operating with the tool, whether the clutch be open or closed. If closed, it is only necessary to bring the tool and wire in such relative position that the V formed by the beveled flanges will be against the wire, and then a slight lateral move will cause the wire to press between the two beveled parts and force them open. Thus the beveled flanges on the face of the clutch device enable the tool to be used in such way that the wire will open the clutch.

On that side of the wooden rod or lever from which extends the projection *e* of the toothed plate a cavity or recess is formed to receive the metal plate G and clutch. As the latter by this arrangement is prevented from extending



beyond the line of the rod, the liability of the rod to turn or twist when stretching the wire is partly obviated; but this tendency of the rod to turn or twist is effectually prevented by  
5 the side or lateral projection, *e*, which widens the toothed plate beyond the line of the rod.

Having described our invention, we claim and desire to secure by Letters Patent of the United States—

10 In a wire-stretcher, a clutch device consist-

ing of a cam jaw and its counterpart, each having a beveled flange, *i'*, as shown and described.

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

WINSLOW ALLDERDICE.  
NELSON J. TUBBS.

Witnesses:

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