

(No Model.)

2 Sheets—Sheet 1.

J. R. DEEVER.
WIRE STRETCHER.

No. 437,178.

Patented Sept. 30, 1890.

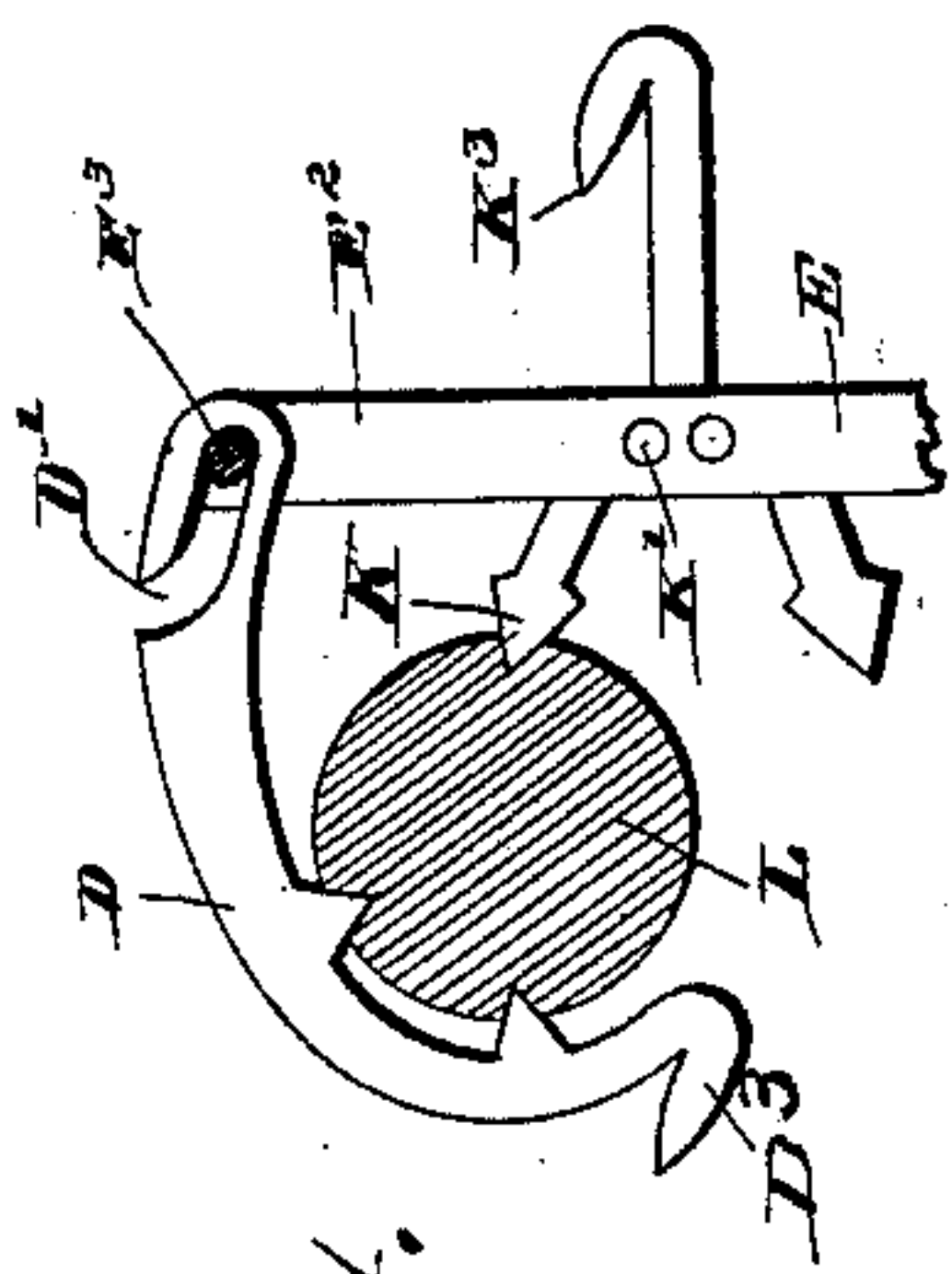


Fig. 4.

Fig. 3.

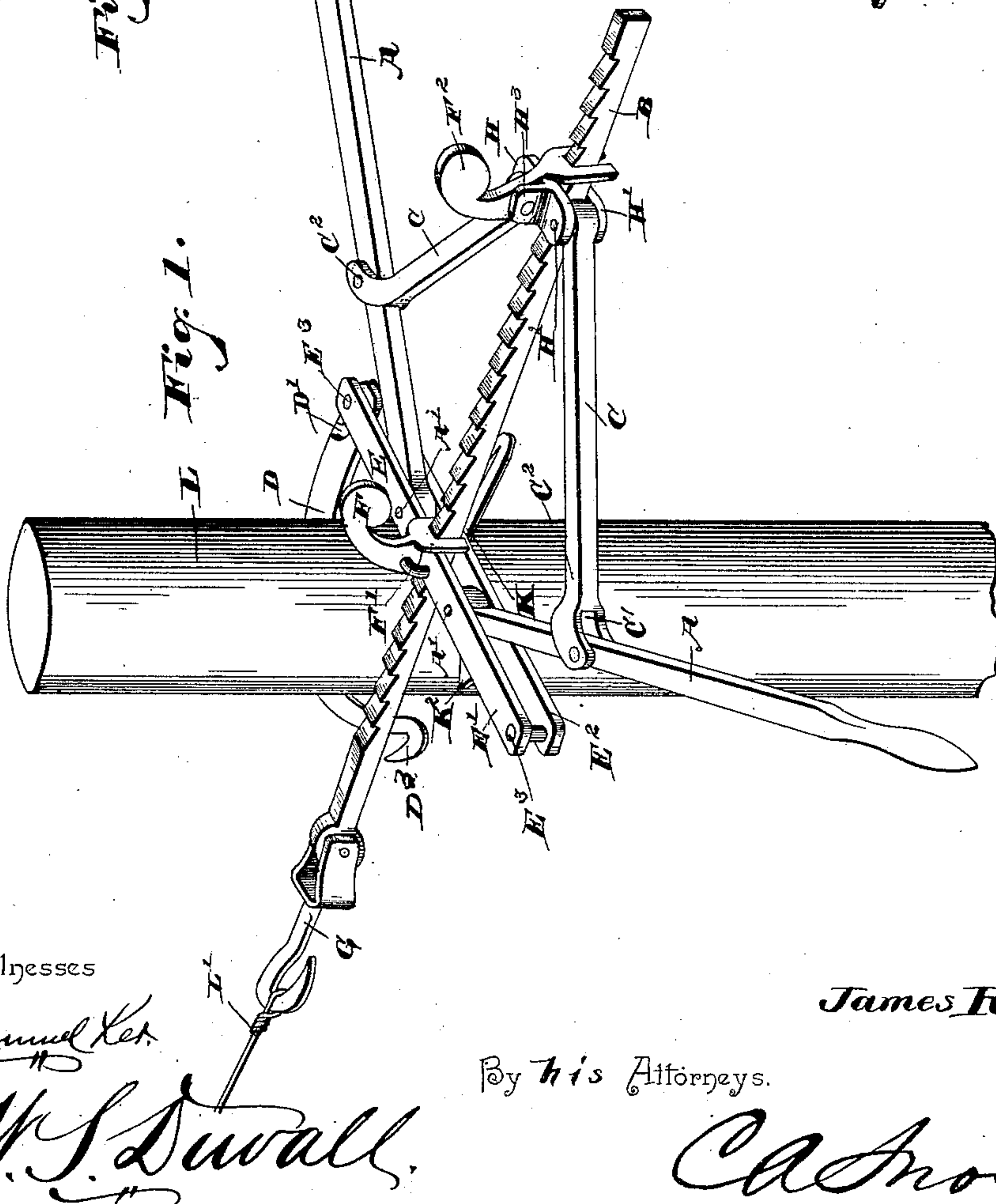
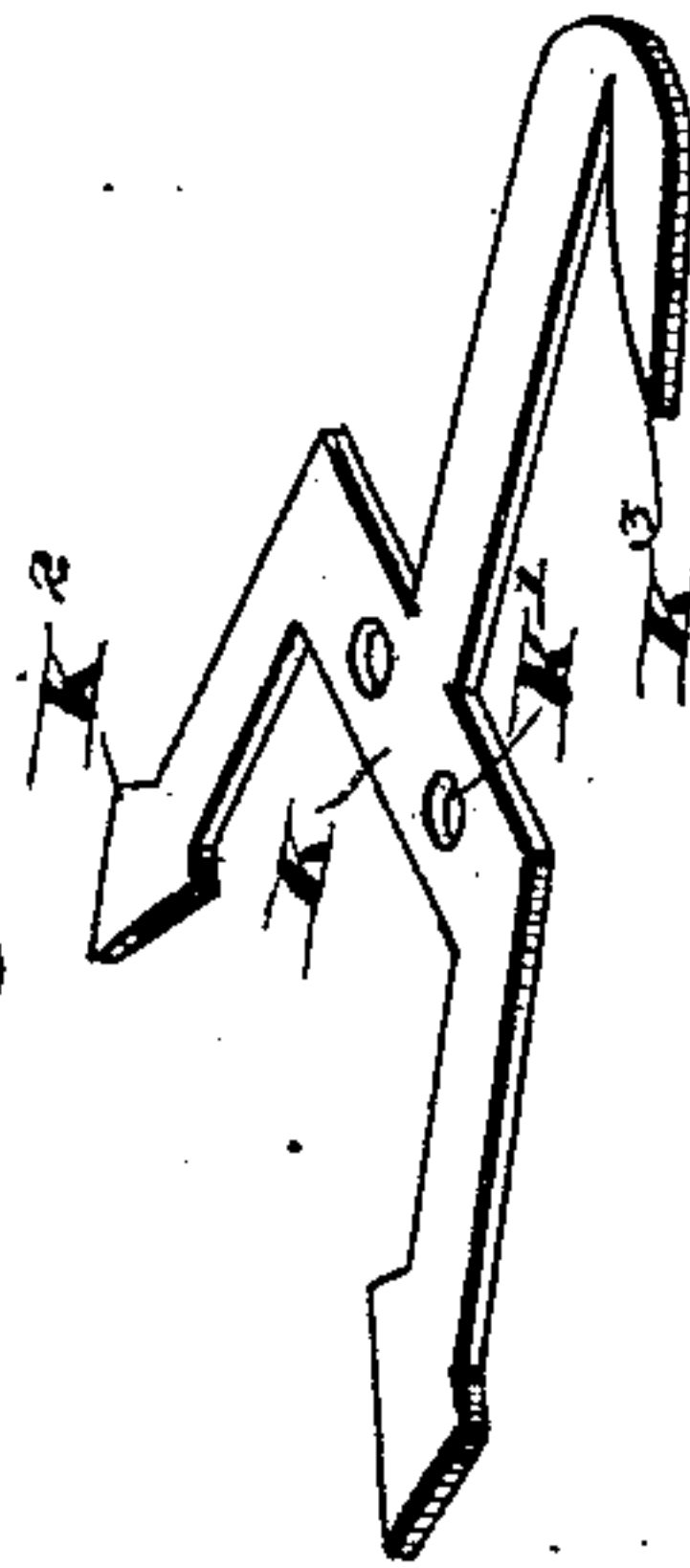


Fig. 1.

Witnesses

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W. S. Duwall.

Inventor

James R. Deever.

By his Attorneys.

C. A. Snow & Co.

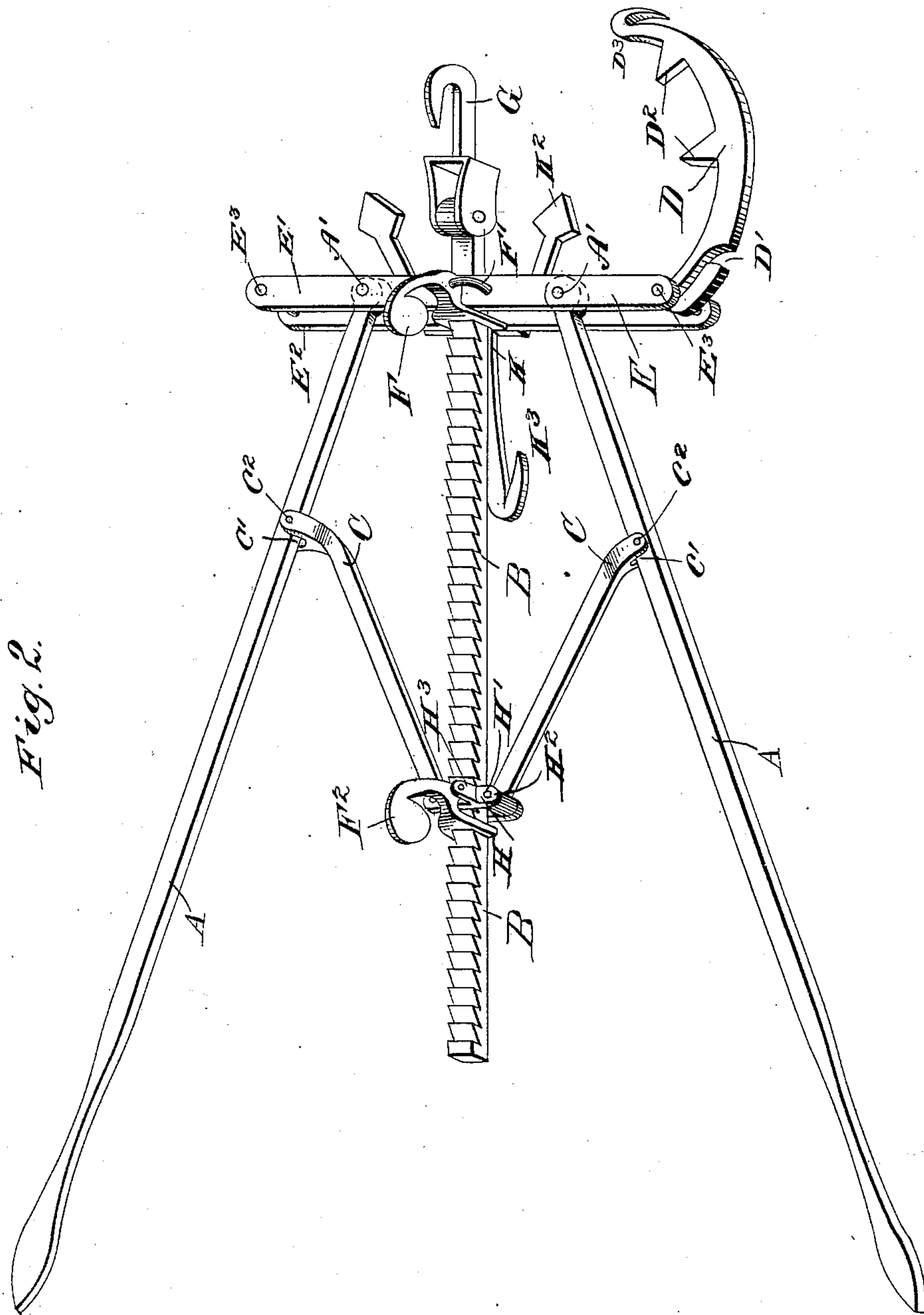
(No Model.)

2 Sheets—Sheet 2.

J. R. DEEVER.
WIRE STRETCHER.

No. 437,178.

Patented Sept. 30, 1890.



Witnesses:

Walter D. Smith
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Inventor:

James R. Leaver

UNITED STATES PATENT OFFICE.

JAMES ROBERT DEEVER, OF LYONS, NEBRASKA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 437,178, dated September 30, 1890.

Application filed June 6, 1889. Serial No. 313,412. (No model.)

To all whom it may concern:

Be it known that I, JAMES ROBERT DEEVER, a citizen of the United States, residing at Lyons, in the county of Burt and State of Nebraska, have invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention has relation to an improvement in wire-stretchers for stretching fence-wires, telegraph and telephone wires, &c.

The objects of the invention are to provide an extremely simple, cheap, and powerful wire-stretcher adapted to be anchored to fence, telephone, or telegraph posts, trees, or other fixed objects, and to stretch the wires efficiently from one point to another, and that with a small amount of power.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a general view of my stretching device, the same being in position upon a post and in the act of stretching the wire. Fig. 2 is a perspective in detail of the device. Fig. 3 is a detail of the Y-shaped plate. Fig. 4 is a transverse section through the post to show more clearly how the anchoring-arm is applied.

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

In practicing my invention I provide a transverse head E, which head is formed by upper and lower plates E' E², respectively, which are spaced apart and connected at their extremities by bearing-pins E³.

Mounted for sliding between the bars E' E² is a toothed rack-bar B, which at its front end beyond the head E is provided with a pivoted hook G. Upon the upper plate E' is mounted a bearing F', upon which is pivoted loosely a gravity-pawl F, the lower end of which is bifurcated to straddle the rack-bar B. The upper end of the pawl is weighted, so that when tilted to the rear the same will remain in an inoperative position.

Upon bearing-pins A', passing through the plates E' E², are pivoted levers A, which levers extend to the rear, as shown.

H represents a yoke consisting of upper and lower plates H', connected at their ends

by bearing-pins H², and upon said pins are loosely mounted the inner ends of connecting-rods C, the outer ends of which are bifurcated, as at C', and pivoted, as at C², to the levers A. The upper plate H' of the yoke H is provided with a pair of bearing-lugs H³, and pivoted between the lugs is a gravity-pawl F², the lower end of which is bifurcated and straddles the rack-bar B, and the upper end of which is weighted, so that when thrown to one side of its pivot the weight acts to maintain the pawl out of operative relation with the teeth of the rack-bar.

D represents a curved anchoring-arm, the outer edge of which, near its inner end, is provided with a curved slot D', while the inner edge of the arm is provided with two or a series of inwardly-disposed anchoring-teeth D². The slot D' is to receive either of the pins E³, and is therefore designed to embrace a fence or other post at either side of the same, the rack-bar B extending along the post at the opposite side thereof. The free end of the anchoring-arm terminates in a hook D, which may be connected to the adjacent end of a wire, and thus hold the same while drawing the opposite wire thereto for the purpose of making a splice.

K represents a Y-shaped plate, the same being secured to the under side of the lower plate E² of the head E at the center of the head by rivets K'. The branches of the Y-shaped plate extend forwardly at an angle to the rack-bar B and terminate in arrow-shaped points K², which points are adapted to coact with the teeth D² of the curved anchoring-arm E by taking into the post at points opposite said teeth. The front end or stem of the Y-shaped plate terminates in a hook K³, which extends under the rack-bar B and is designed for use in splicing wires.

Referring more particularly to Fig. 1, L represents the fence-post, and L' a wire, the end of which is connected to the hook G, and upon which the device operates.

To operate the device, the pawls F F² are first thrown to the rear, so as to disengage their lower ends from the teeth of the rack-bar, after which said rack-bar is slid forward as far as possible or as necessary, the levers A being spread to their fullest extent. The

end of the wire is then connected to the hook G and the pawls F and F² thrown into operative position, as shown. It now simply remains to operate the levers back and forth simultaneously, during which operation the yoke H is moved to the rear, and the rear pawl F², being in engagement with the rack-bar, carries the bar and the wire with the head. When the levers have been moved rearwardly as far as permitted or a desired distance, they are moved in the opposite direction or to the front, the forward pawl F acting as an anchoring or holding pawl to prevent slipping of the rack-bar and the rear or feed-pawl riding over the teeth and taking connection farther along said bar. In this manner it will be observed that by a small amount of power a most powerful leverage is obtained and exerted upon the wire, which wire may be strained as tightly as desired. The curved anchoring-arm D, it will be observed, may be applied to either of the pins E³, so that the rack-bar B may pass and the machine be operated at either side of the post, as may be most convenient to the operator. In splicing wires the adjacent ends thereof are connected to the hooks G and K³.

Having thus described my invention, what I claim is—

1. In a wire-stretcher, the combination, with a head provided with opposite bearing-pins, a rack-bar passing through the head, and means for operating the same, of a curved anchoring-bar adapted for removable connection with either of the pins and provided with a series of holding-teeth adapted to engage a post, substantially as specified.

2. In a wire-stretcher, the combination, with a transverse head having a bearing-pin, of a pivoted curved anchoring-bar engaging with the pin and having post-engaging teeth, a rack-bar mounted in the head, and means for operating the same, substantially as specified.

3. In a wire-stretcher, the combination, with a transverse head having an angularly-disposed anchoring-point and a bearing-pin, of a curved tooth-holding arm pivoted to the bearing-pin at one side of the head and adapted to coact with the anchoring-point for binding upon the post, a rack-bar mounted for sliding

in the head, and means for operating the same, substantially as specified.

4. In a wire-stretcher, the combination, with a transverse head and a pair of diverging anchoring-points extending at an angle to the head, of a curved anchoring-arm provided with teeth upon its inner edge and adapted for pivotal connection to either side of the head and to coact with either one of the anchoring-points, a rack-bar mounted in the head, and means for operating the bar, substantially as specified.

5. The combination, with a head and means for connecting the same to a post, of a rack-bar mounted for sliding in the head and terminating at one end in a hook, a holding-pawl mounted on the rack-bar, a yoke mounted for sliding on the rack-bar and provided with a feed-pawl, a pair of operating-levers pivotally mounted in the head, and connecting-rods pivoted to the levers and to the yoke, substantially as specified.

6. In a wire-stretcher, the combination, with the upper and lower plates E' E², forming the head E, the bearing-pins E³, connecting the ends of the plates, the bearing F', mounted upon the upper plate and provided with a bifurcated and weighted holding-pawl, the curved anchoring-arm D, having the points D² and curved slot D' for engagement with the pins E³, and the Y-shaped plate K, riveted to the lower plate E² of the head and terminating in the arrow-shaped points K², projecting forwardly from the head and at its opposite end in the hook K³, of the levers A, pivoted as at A', between the plates E' E², the yoke H, formed of the upper and lower plates H', the pins H², passing through the plates H', the connecting-rods C, pivoted to the pins and to the levers A, and the gravity feed-pawl F², pivotally mounted on the yoke H, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES ROBBERT DEAVER.

Witnesses:

W. D. SMITH,
P. O. LANDON.