

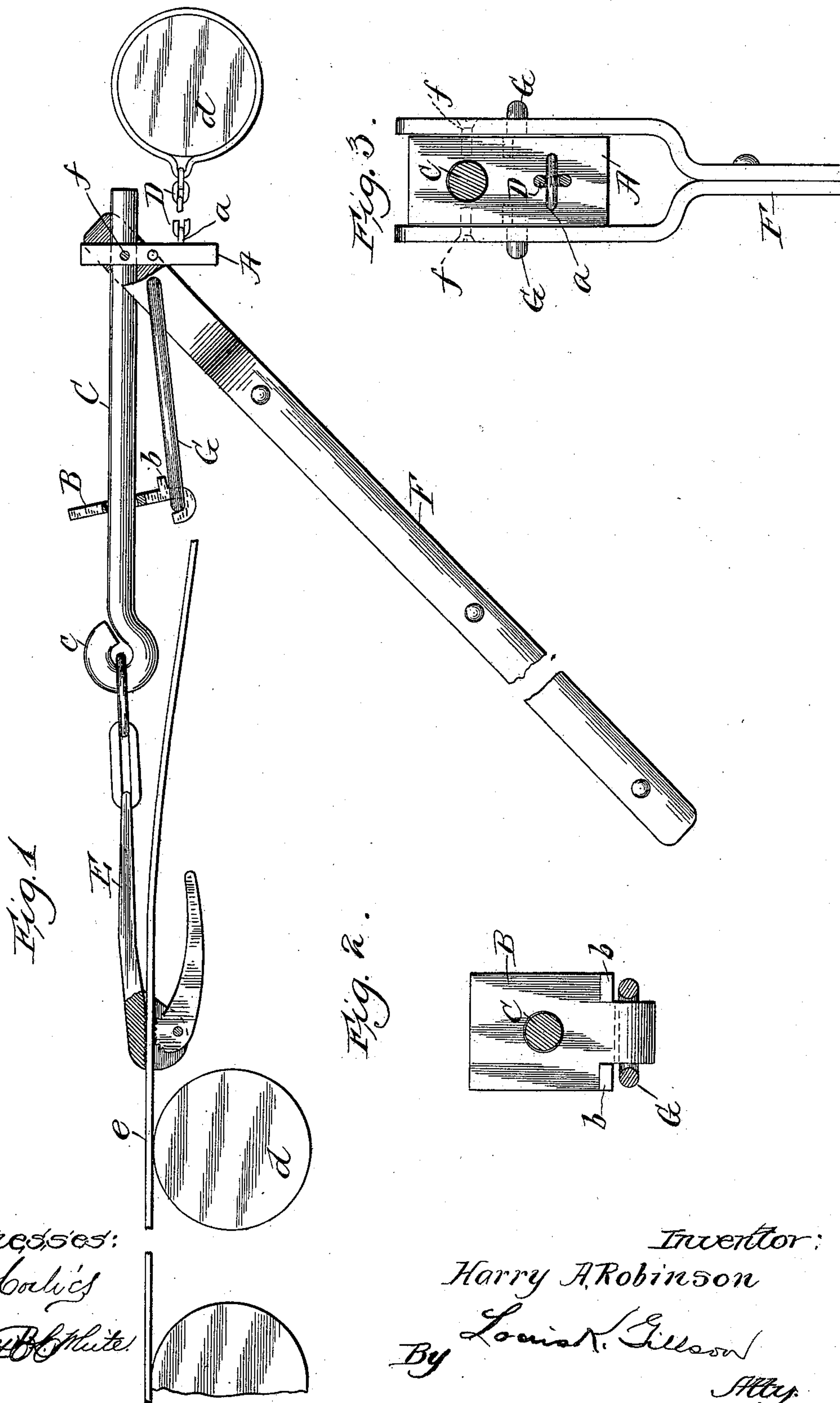
**No. 620,971.**

**Patented Mar. 14, 1899.**

**H. A. ROBINSON.**  
**WIRE STRETCHER.**

(Application filed Oct. 10, 1898.)

(No Model.)





# UNITED STATES PATENT OFFICE.

HARRY A. ROBINSON, OF EVANSTON, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AMERICAN STEEL AND WIRE COMPANY, OF ILLINOIS.

## WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 620,971, dated March 14, 1899.

Application filed October 10, 1898. Serial No. 693,115. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY A. ROBINSON, a citizen of the United States of America, and a resident of Evanston, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Wire or Wire-Fence Stretchers, of which the following is a specification, and which are fully illustrated in the accompanying drawings, forming a part thereof.

The objects of the invention are to provide a cheap and efficient device for stretching wire and wire fencing; and these objects are attained in the construction hereinafter fully described and which is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the stretcher in service, and Figs. 2 and 3 are detail sectional views of the clutch mechanism.

Two reciprocating clutch-blocks A B are mounted upon a pull-rod C in such manner as to alternately engage the same. The forward or holding block A is provided with a loop or other suitable device *a*, to which there is attached a chain or cable D, adapted for engagement with a post *d* or other fixed object. The pull-rod C is provided at its rearward end with a hook or loop *c*, to which may be attached a gripping device, as E, of any desired construction, which is adapted to engage or grip the wire or fence selvage *e*.

The hand-lever F, by means of which power is applied, is bifurcated, so as to inclose the clutch-block A, to which it is pivotally secured at *ff*. A rigid link G connects the lever F with the clutch-block B, the attachment of the link to the lever and to the clutch-block being out of alinement with the axes of the apertures of the two clutch-blocks. The clutch-block B is provided with a shoulder or with shoulders *b*, adapted to contact with the link-bar G when the clutch-block assumes a position perpendicular to the axis of the rod C, thereby preventing the clutch-block from being tilted in its backward movement, so as to bite upon the rod.

The operation of the device is as follows: The chain D having been secured to a fixed object, such as the post *d*, and the gripper E having been attached to the wire or to the

selvage of the fence to be stretched and the latter having been drawn up taut, so that its backward pull will cause the tilting of the clutch-block A and a consequent grip of the latter upon the rod C, the lever F is thrown backwardly, the rigid link-bar G releasing the bite of the clutch-block B upon the rod C and causing it to slide backwardly, and the shoulders *b* preventing this block from being tilted in the opposite direction, so that it is free to slide upon the rod. The hand-lever F is now forced in the opposite direction, at once tilting the block B, so as to secure a firm bite upon the rod C, and thereby drawing this rod toward the post *d*. The pressure communicated from the lever F to the rod C through the link G and clutch B counterbalances the backward strain of the rod C upon the clutch-block A and permits it to slide therethrough. As soon as the pressure upon the rod through the block B is relieved the bite of the block A upon the rod C is renewed and the latter is prevented from sliding backwardly.

I have found in practice that the pivotal point of the hand-lever F upon the block A may be shifted from the position shown in the drawings; but the most satisfactory results are secured by locating it approximately in line with the axis of the draft-rod.

While I have shown a pair of grip-clutches in which the bite or grip upon the draft-rod is secured by tilting the clutch-block, it is obvious that other forms of clutch-blocks may be used, the invention not relating to the particular form of clutch, but to the manner of combining the clutch blocks or devices with the other parts of the mechanism.

I claim as my invention—

1. The combination in a wire-stretcher or the like, of a pair of reciprocating clutch-blocks, as A, B, a draft-rod passing through both blocks, a hand-lever pivoted to one of the blocks, as A, means for securing such block, A, to an anchorage, and link connection between the lever and the block B.

2. In a wire-stretcher or the like, a pair of reciprocating clutch-blocks, as A, B, a draft-rod passing through both blocks, a hand-lever pivoted to one of the blocks, as A, means

for securing such block, A, to an anchorage, and rigid link connection between the lever and the block B.

3. In a wire-stretcher or the like, the combination with a draft-rod, a retaining-clutch and a drawing-clutch both engaging such rod, and a lever for applying power to the draw-

ing-clutch and being pivoted to the retaining-clutch, of flexible means for attaching the retaining-clutch to an anchorage.

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Witnesses:

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