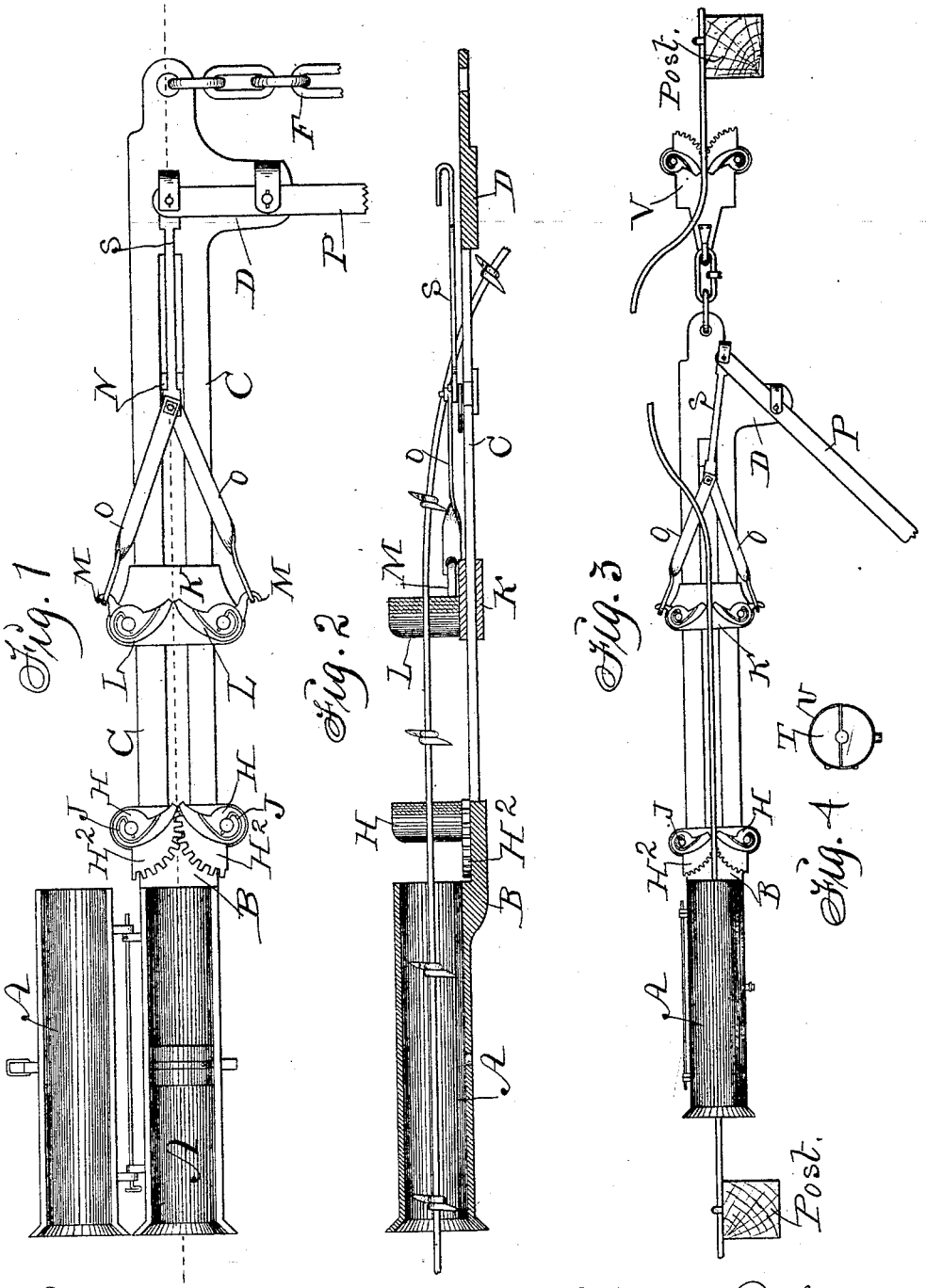
(No Model.)

R. C. BOLON.

WIRE STRETCHER.

No. 459,033. Patented Sept. 8, 1891.



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UNITED STATES PATENT OFFICE.

ROBERT C. BOLON, OF DAVIS CITY, IOWA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 459,033, dated September 8, 1891.

Application filed April 23, 1891. Serial No. 390,198. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. BOLON, a citizen of the United States of America, and a resident of Davis City, in the county of Decatur and State of Iowa, have invented a new and useful Wire-Stretcher, of which the following is a specification.

My object is to provide a machine specially adapted for stretching barbed wire; and my invention consists in the construction of a frame having a tubular handle and the arrangement and combination of a stationary wire-gripping device and a sliding wire-gripping device and means for operating the sliding device with said frame, as hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a plan view of my device. Fig. 2 is a central longitudinal sectional view of my device showing a wire therein. Fig. 3 is plan view, showing my device applied to connect the ends of a broken wire. Fig. 4 is a detail side view of my guide for smooth wire.

A represents a hollow cylinder formed in two sections, which are hinged together and locked by a ring on one section inclosing and engaging a lug on the other section.

B represents a plate formed integral with and projecting forward from the lower section of the cylinder A.

C represents a bar fixed to and projecting forward from the plate B. This bar C has a longitudinal slot extending nearly its entire length, and a plate D is fixed to the end thereof opposite to the plate B. The forwardly-projecting portion of the plate D is perforated to permit a chain F to be attached thereto, by means of which chain the device is anchored to a post when in practical use.

H represent eccentric jaws pivoted on opposite sides of the top face of the plate B, the inner projecting ends of which meet at the center of the plate B and slightly in advance of the pivotal points thereof. The rear faces of the jaws H are serrated, and a segmental rack or gear H^2 is formed integral with each of said jaws. These gears engage with each other. A spring J is fixed to and coiled about the pivot of each of the jaws H, and extending inward therefrom engages with the front side of the jaw and normally holds said jaw in contact with the other or with an article interposed between them.

K represents a block mounted on the bar C and adapted to slide thereon.

L represent eccentric jaws pivoted on the block K, the inner ends of which meet in the center of said block slightly in advance of the pivotal points of the jaws. The rear faces of these jaws also are serrated, in order that they may bite the wire and obtain a firmer hold thereon. These jaws L are each provided with a hook M, formed integral therewith and projecting in an opposite direction therefrom.

N represents a block mounted on the bar C and adapted to slide thereon. This block is connected with the arms M on the jaws L by means of rods O, and is also connected with a manually-actuated lever P by means of a rod S. The lever P is fulcrumed on a portion of the plate B which projects laterally from the plane of the bar C.

T represents a cylindrical block or guide formed in two sections and having a concentric bore therein. This guide corresponds in size with the interior of the cylinder A, in which it is adapted to be placed to serve as a guide for smooth wire. The two sections of this guide are held together by means of a spring-clasp U, which is secured to the circumference thereof.

In Fig. 3, V represents a pair of jaws of the same construction as those described and designated as H, which are attached to the chain F, and are adapted to grasp one of the ends of a broken wire and assist in approximating the ends of said wire, as required, in repairing broken fences.

In the practical use of my invention the wire which is to be stretched is placed within the two pairs of jaws, they being in juxtaposition to each other, and passes through the cylinder A. The lever is then actuated, causing the jaws L to grasp the wire and draw it forward. The motion of the lever is then reversed, causing the jaws H to grasp the wire and hold the same, while the jaws L travel backward along the wire preparatory to taking a new hold thereon. The operator should grasp and support the stretcher by

means of the cylinder A, which will protect his hand from being injured by the wire. If a smooth wire is being stretched, the block T should be inserted in the cylinder, as shown in Fig. 1, and the wire passed through the bore therein, thereby guiding the wire and keeping it in a plane parallel with the center of the stretcher.

I claim as my invention—

1. An improved wire-stretcher comprising a frame adapted to support wire-gripping devices and consisting of a straight bar having a longitudinal slot in its center, a tubular handle at one end adapted to let barbed wire pass through and a lateral branch at the other end adapted to support a lever, mating wire-gripping jaws having toothed sectors pivoted to the frame at the inner end of the tubular handle, a sliding block fitted in the slot of the frame, wire-gripping eccentrics pivoted to the sliding block, and a lever pivoted to the lateral extension of the frame and connected to the said pivoted eccentrics, arranged and combined to operate in the manner set forth.

2. A tubular handle consisting of a longitudinal section rigidly fixed to the frame of a wire-stretcher and a mating section hinged to the edge of the fixed section, to operate in the manner set forth, for the purposes stated.

3. In a wire-stretcher, the combination, with a straight bar having a chain on one end and a handle adapted to protect the hand in grasping the bar at the other end, of a grip device composed of two eccentric jaws held in engagement with each other by yielding pressure mounted thereon and having meshing segmental racks fixed thereto and a movable grip device actuated by a manually-operated lever, which devices operate alternately with each other to propel the wire along the bar, as and for the purposes stated.

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