

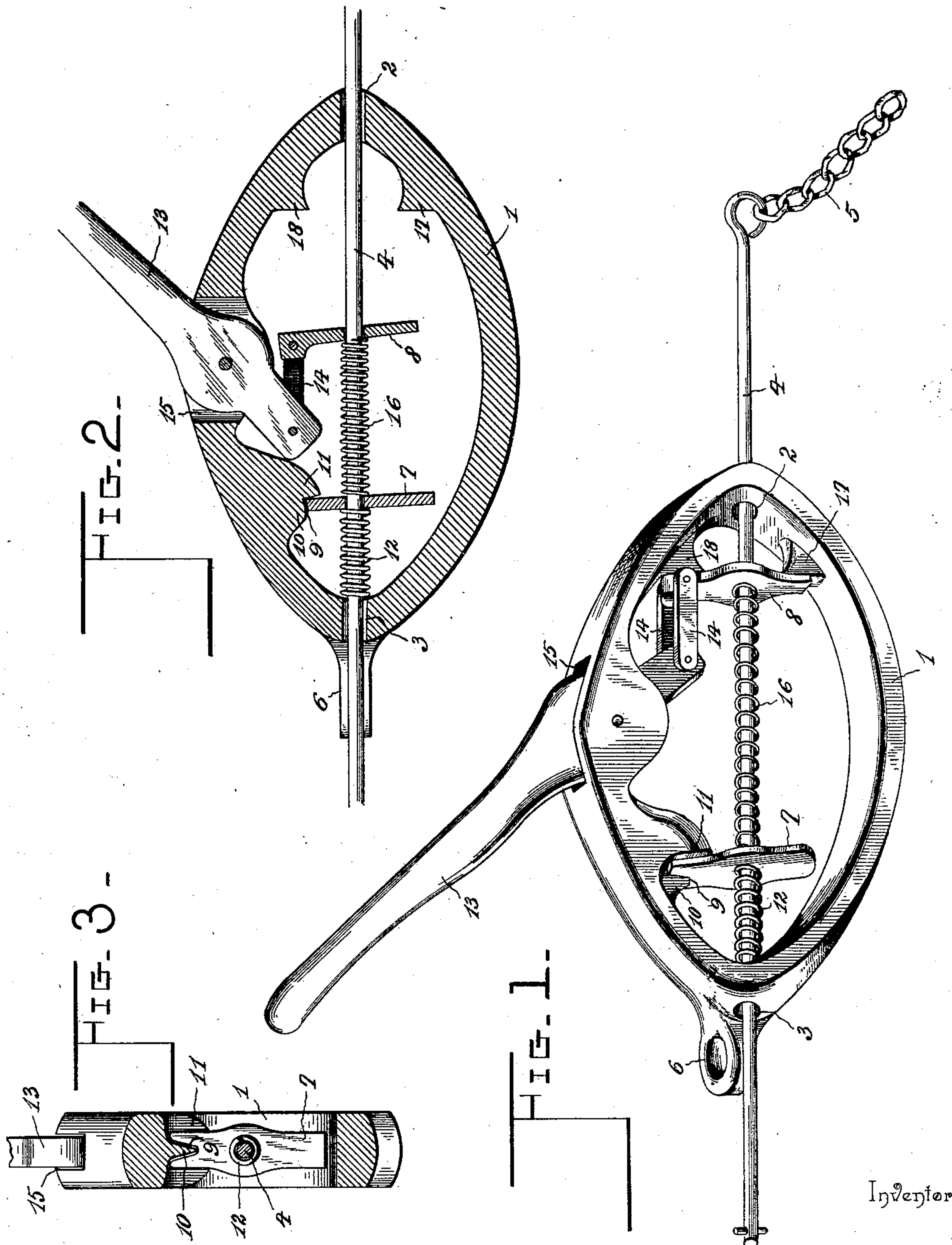
No. 608,536.

Patented Aug. 2, 1898.

P. WARNE.
WIRE STRETCHER.

(Application filed Dec. 31, 1897.)

(No Model.)



Inventor

Perry Warne.

Witnesses

John F. Seufferwid
J. F. Riley

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

PERRY WARNE, OF MORENCI, MICHIGAN, ASSIGNOR TO FRANK H. WARNE,
OF SAME PLACE.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 608,536, dated August 2, 1898.

Application filed December 31, 1897. Serial No. 664,927. (No model.)

To all whom it may concern:

Be it known that I, PERRY WARNE, a citizen of the United States, residing at Morenci, in the county of Lenawee and State of Michigan, have invented a new and useful Wire-Stretcher, of which the following is a specification.

The invention relates to improvements in wire-stretchers.

10 The object of the present invention is to improve the construction of wire-stretchers and to provide a simple, strong, and durable one, adapted to exert successive stretching actions on a fence-wire without any lost motion and without employing pawls and ratchets.

20 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a wire-stretcher constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view, the actuating-clutch being drawn inward by the operating-lever. Fig. 3 is a transverse sectional view.

30 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an oppositely-tapered substantially diamond-shaped frame provided at its inner and outer ends with openings 2 and 3 to receive a rod 4, provided at its inner end with a chain 5, adapted to encircle and anchor the rod to a fence-post; but any other suitable means may be employed for securing the device to the post. The rod is constructed of suitable metal, preferably of steel, and the frame, which is provided at its outer end with an eye 6, is designed to be constructed of malleable metal. The eye is adapted to be connected with a clamp or other suitable device for connecting a fence-wire with the wire-stretcher. The frame is designed to be moved inward longitudinally of the rod to stretch a fence-wire, and to accomplish this result the rod is engaged by a pair of clutches 7 and 8.

50 The clutch 7, which is located near the outer end of the frame 1, is provided with a smooth

central opening of slightly greater diameter than the rod, and it is adapted to bind against the same when arranged at a slight angle thereto. One end of the clutch 7 is provided with a notch 9 to receive a web or flange 10 of the frame, and the notched end bears against a stop 11, formed integral with one side of the frame and projecting inward therefrom. The holding-clutch 7 is held in engagement with the rod to lock the latter against movement in one direction by a coiled spring 12, disposed on the rod and interposed between the outer end of the frame and the adjacent face of the clutch.

65 The other clutch 8, which is adapted to actuate the frame and move it inward on the rod, is provided with a central opening, and it is connected at one end with an operating-lever 13 by a pair of links 14, arranged at opposite sides of the inner end of the lever and pivoted to the same and to the actuating-clutch. The lever 13 is fulcrumed near its inner end on one side of the frame 1 in a slot 15 thereof, and when the lever is oscillated and moved in the direction of the inner end of the frame the actuating-clutch is caused to bind against the rod and enable the frame to move inward thereon. The actuating-clutch is returned to its initial position at the inner end of the frame by a coiled spring 16, lighter than the spring 12, and interposed between the clutches.

85 The frame is provided on the inner faces of its sides near its inner end with lugs or projections 17 and 18. The lug or projection 17 operates as a trip to disengage the actuating-clutch from the rod when the operating-lever is swung backward, and the other stop, 18, assists in holding the actuating-clutch normally at right angles to the rod, so that the latter may be drawn through the frame when the holding-clutch is depressed and held at right angles to the rod by the operator. The holding-clutch may be readily depressed by the thumb when it is desired to slide the frame to the outer end of the rod.

95 The invention has the following advantages: The wire-stretcher is simple and comparatively inexpensive in construction and possesses great strength and durability. It enables a fence-wire to be readily stretched 100

to the desired tension and held at any adjustment while stapling or otherwise securing the wire to a fence-post, and there is no lost motion in the device, as the holding-clutch grips
 5 the rod as soon as the actuating-clutch changes the direction of its movement. The line of draft is practically at the center of the frame, and there is no liability of the rod bending or binding in the openings 2 and 3.

10 Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

15 1. In a wire-stretcher, the combination of a frame designed to be connected with a fence-wire, a rod slidingly connected with the frame and adapted to be attached to a fence-post, a holding-clutch having one end bearing against
 20 the frame and provided with an opening receiving the rod, a spring interposed between the clutch and the frame, an actuating-clutch having an opening receiving the rod, a lever fulcrumed on the frame and connected with
 25 the actuating-clutch, a spring interposed between the clutches, and a stop mounted on the frame and arranged to be engaged by the actuating-clutch, substantially as described.

30 2. In a wire-stretcher, the combination of a frame, a rod slidingly connected with the frame, a holding-clutch having an opening to receive the rod and having one end interlocked with the frame, an actuating-clutch having
 35 an opening receiving the rod, springs interposed between the clutches and between the holding-clutch and the frame, and a pair of stops mounted on the frame at opposite sides thereof, and adapted to receive and hold the
 40 actuating-clutch out of engagement with the rod, substantially as described.

3. In a wire-stretcher, the combination of a substantially diamond-shaped frame provided with openings, a rod arranged in said openings, holding and actuating clutches having openings receiving the rod, springs inter- 45 posed between the clutches and between the holding-clutch and the frame, an operating-lever fulcrumed on the frame at one side thereof and connected at its inner end to one end of the actuating-clutch, substantially as 50 described.

4. In a wire-stretcher, the combination of a frame provided at one side with a stop and having a web or flange adjacent to the stop, a rod, a holding-clutch engaging the rod and 55 provided at one end with a notch receiving the web or flange, a spring engaging the clutch and holding the same against said stop, and an actuating-clutch, substantially as described. 60

5. In a wire-stretcher, the combination of a rod, a frame slidingly connected with the rod, provided at one end with opposite stops 17 and 18 and having near its other end a stop and a flange, a holding-clutch interlocked with 65 the flange and bearing against the adjacent stop, an actuating-clutch arranged to bear against the stops 17 and 18 and engaging the rod, springs bearing against the clutches, and an operating-lever fulcrumed on one side of 70 the frame and connected with the actuating-clutch, substantially as described.

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

PERRY WARNE.

Witnesses:

BURTON L. HART,
 JAMES H. TURNER.