

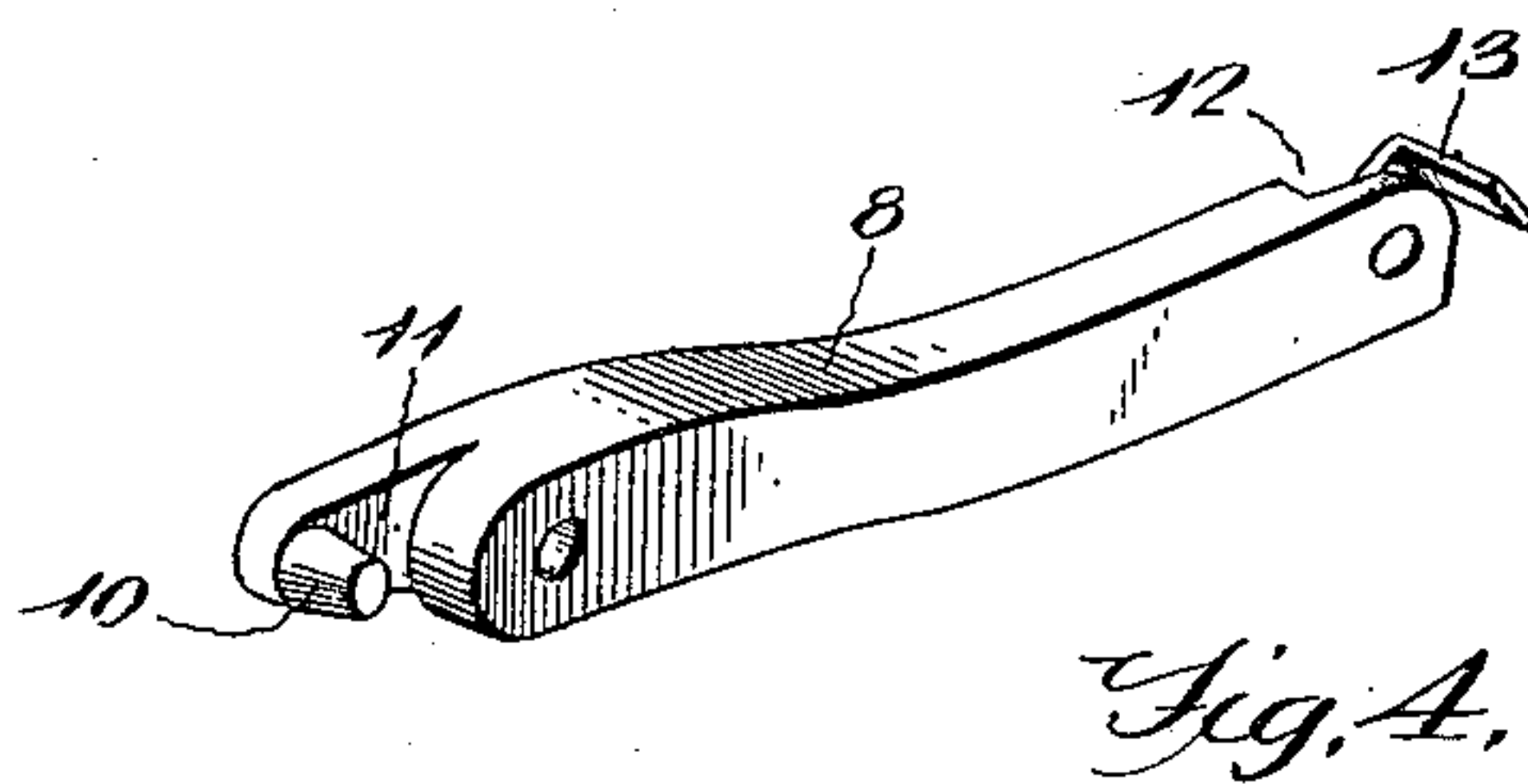
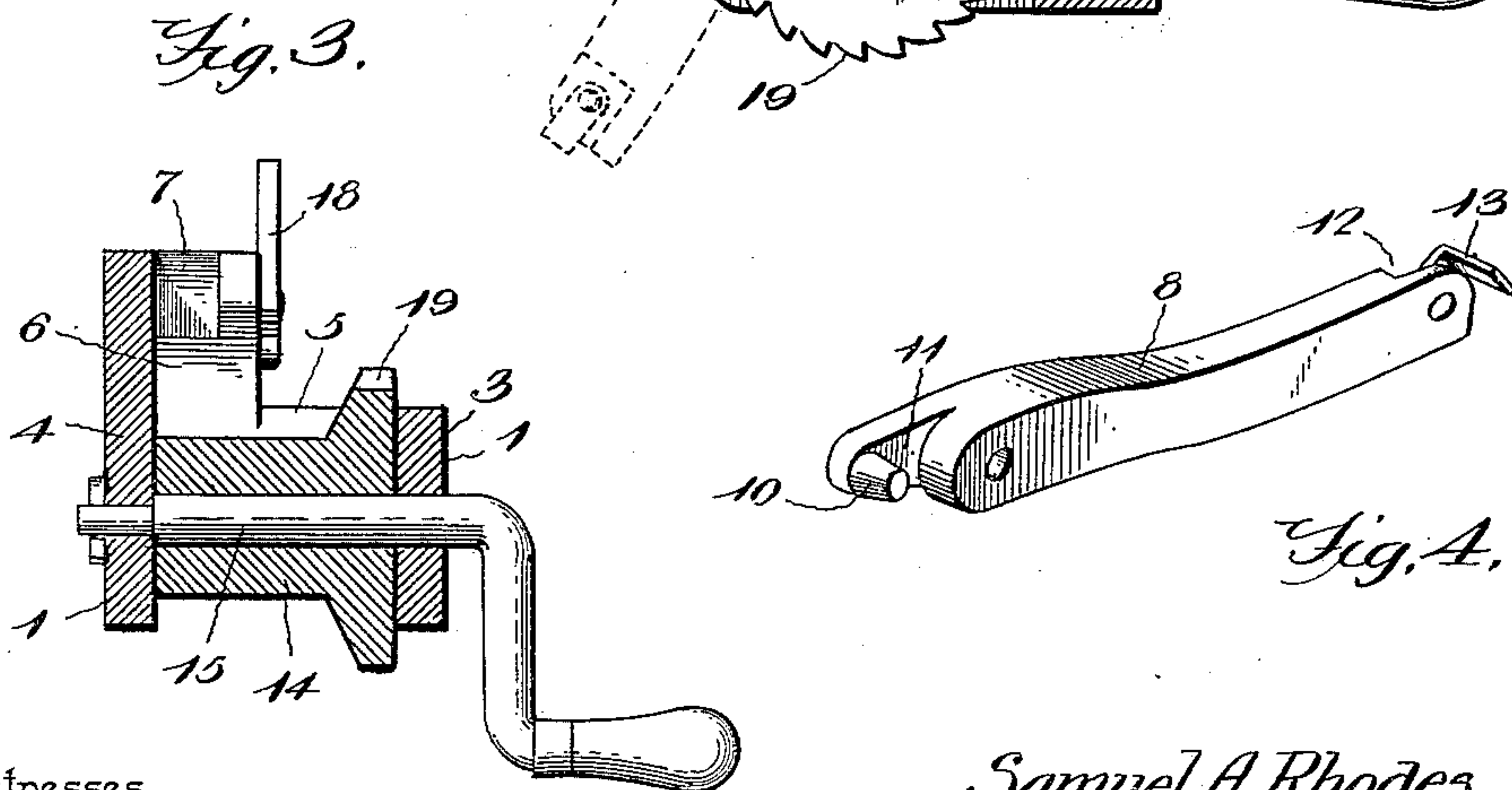
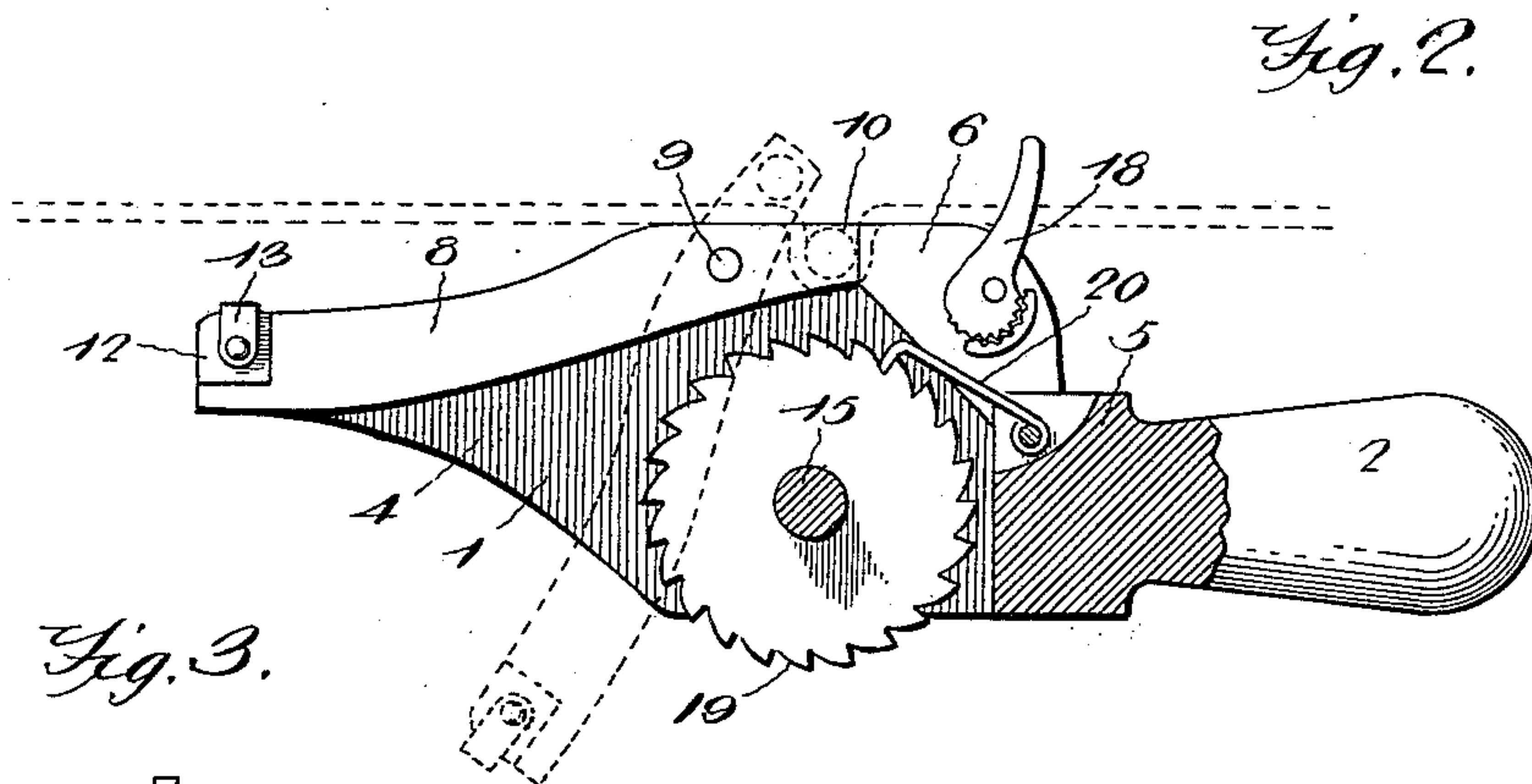
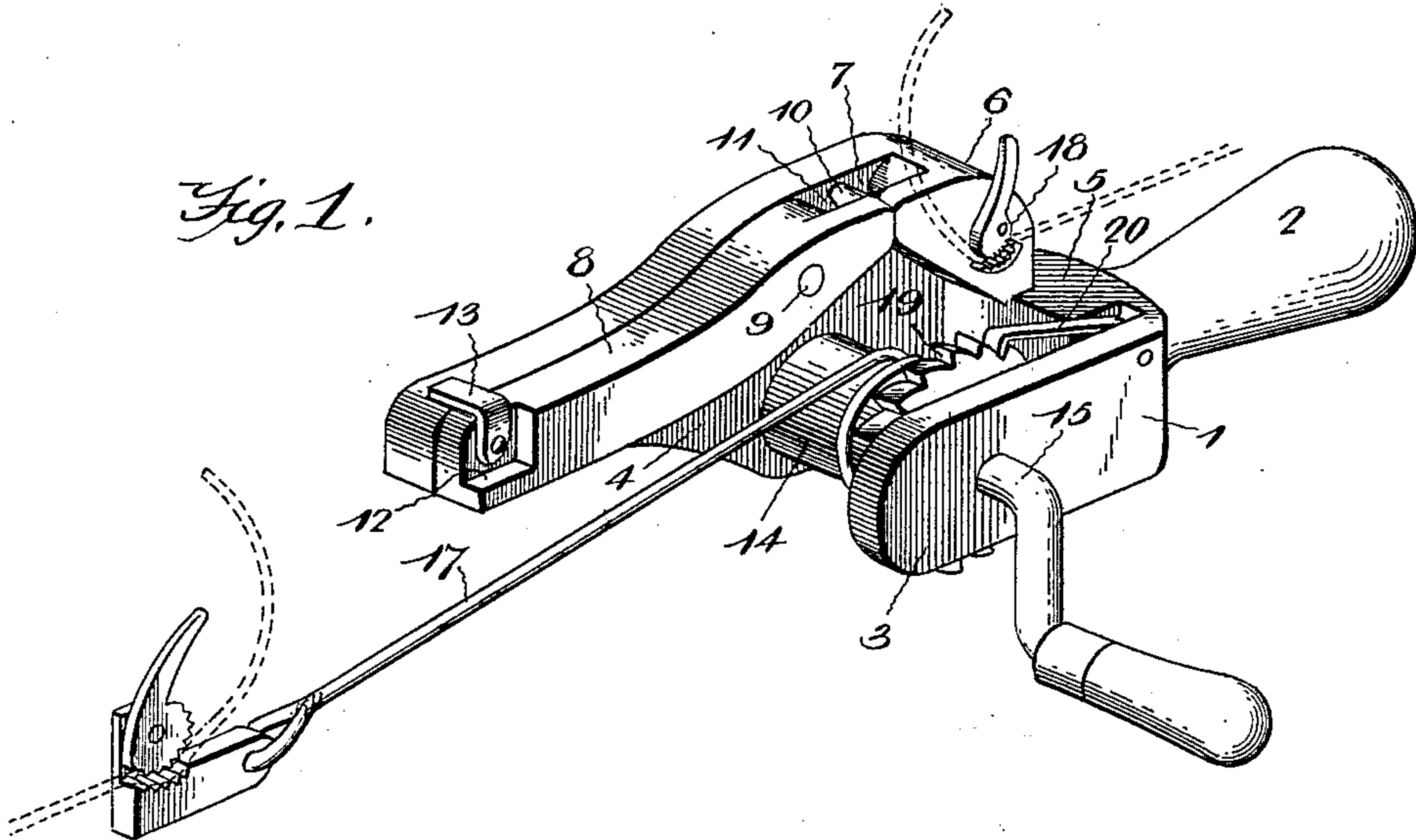
No. 618,187.

Patented Jan. 24, 1899.

S. A. RHODES.
WIRE TIGHTENER.

(Application filed Mar. 31, 1898.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL A. RHODES, OF McCLEAN, NEBRASKA.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 618,187, dated January 24, 1899.

Application filed March 31, 1898. Serial No. 675,931. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL A. RHODES, a citizen of the United States, residing at McClean, in the county of Keyapaha and State of Nebraska, have invented a new and useful Wire-Tightener, of which the following is a specification.

The invention relates to improvements in wire-tighteners.

10 The objects of the present invention are to improve the construction of that class of wire-tighteners known as "mid-wire take-ups" and to provide a simple, inexpensive, and efficient device capable of enabling any slack
15 in wires between posts to be readily taken up.

A further object of the invention is to provide a wire-tightener adapted to be employed for mending broken fence-wires and capable of drawing the two portions of a broken wire
20 to the desired tension and of holding the ends so that they may be readily connected.

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

In the drawings, Figure 1 is a perspective view of a wire-tightener constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a detail
30 perspective view of the wire-engaging lever.

Like numerals of reference designate corresponding parts in all the figures of the drawings.
35

1 designates a substantially U-shaped frame provided with a handle 2 and composed of sides 3 and 4 and a connecting back-piece 5, the handle being extended centrally of the
40 latter and disposed longitudinally of the frame. The side 3 of the frame is shorter than the side 4, which is enlarged and provided adjacent to the connecting cross-piece 5 with a laterally-disposed enlargement or boss 6, having a recess 7 at its top at the inner face of
45 the side 4 of the frame for the reception of a wire and cooperating with a pivoted lever 8 to form a loop in the fence-wire to be stretched, as clearly illustrated in dotted lines
50 in Fig. 2 of the accompanying drawings.

The lever 8, which is fulcrumed on the in-

ner face of the side 4 of the frame near its inner end by a pin or bolt 9, has its said inner end provided with a lug 10, preferably formed integral with the lever, and a wire-receiving recess 11 is located at the inner side
55 of the lug. The inner end of the lever is adapted to abut against the adjacent portion of the inwardly-extending laterally-disposed enlargement or boss 6, which forms a stop
60 for the lever. When it is desired to tighten a wire between fence-posts, the lever is raised at its inner end, as illustrated in dotted lines in Fig. 2 of the drawings, and the wire is introduced in the recess, after which the lever
65 is returned to its position at the upper edge of the side 4 and is securely held thereat. By this operation a loop is formed in the wire, which loop is adapted to be twisted by rotating the device. After the loop has been twisted
70 sufficiently it is disengaged from the device by dropping the outer end of the lever 8. Any number of loops may be made in a fence-wire, so that the latter can be tightened to the desired extent.
75

The outer end of the lever 8 is recessed at its outer face at 12 and carries a pivoted L-shaped locking piece or latch 13, having one arm arranged in the recess 12 and having its other arm adapted to engage the upper edge
80 of the side 4 of the frame to retain the lever in engagement with the fence-wire. The latch is adapted to be turned down or outward to permit the lever to release the loop formed in a fence-wire by rotating the device.
85

In order to enable the device to be employed for connecting broken fence-wires, a drum or windlass 14 is journaled between the sides of the frame on a horizontal shaft 15, which is provided with a suitable crank-handle for
90 rotating the windlass. The drum or windlass receives a chain, cable, or other suitable flexible connection 17, adapted to be wound around the same and carrying a wire-engaging clamp which is adapted to grip one portion
95 of a broken fence-wire. The other portion of the fence-wire is engaged by a clamp 18, mounted on the enlargement of the side 4 of the frame, and by rotating the drum or windlass the broken ends of the wire are drawn
100 together and held at the desired tension while they are being mended. The clamps, which

may be constructed in any suitable manner, are preferably provided with cam-levers for engaging the wires.

The drum or windlass is provided with a ratchet consisting of ratchet-teeth 19, preferably formed integral with the drum; but a separate ratchet-wheel may be employed, if desired. These ratchet-teeth are engaged by a pivoted pawl 20, mounted on the frame adjacent to the side 3 in a recess of the connecting back portion.

The invention has the following advantages: The wire-stretcher, which is simple and comparatively inexpensive in construction, is adapted to be employed as a mid-wire take-up, and it is also capable of being used for mending broken fence-wires. The device when used as a mid-wire take-up is adapted to form a loop in a fence-wire at any point between two fence-posts, and any number of loops may be made until the wire has been stretched to the desired tension. The device is capable of drawing the two portions of a broken wire together and of holding the ends in a convenient position, so that they may be readily connected.

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—

1. A device of the class described, compris-

ing a frame provided with a laterally-disposed boss provided with a recess, a lever fulcrumed on the frame and provided at its inner end opposite the said recess with a wire-engaging lug, the inner end of said lever being arranged to abut against the boss, and a catch for holding the outer end of the lever, substantially as described.

2. A device of the class described comprising a frame, a wire-engaging lever fulcrumed on the frame and adapted to form a loop in a wire, and a substantially L-shaped catch pivoted to the lever at the outer end thereof and arranged to engage the adjacent side of the frame to lock the lever in engagement with a fence-wire, substantially as described.

3. A device of the class described comprising a frame provided at one side with a recess, a lever extending along the same side of the frame and pivoted between its ends to the latter, said lever being provided adjacent to the recess of the frame with a lug, and a catch for holding the outer end of the lever, 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.

SAMUEL A. RHODES.

Witnesses:

MORT GILL,

CHAS. W. ALLMAN.