No. 828,820. PATENTED AUG. 14, 1906.

W. J. LINDLEY.

WIRE STRETCHER.

APPLICATION FILED DEC. 11, 1905.

Fig. 1.

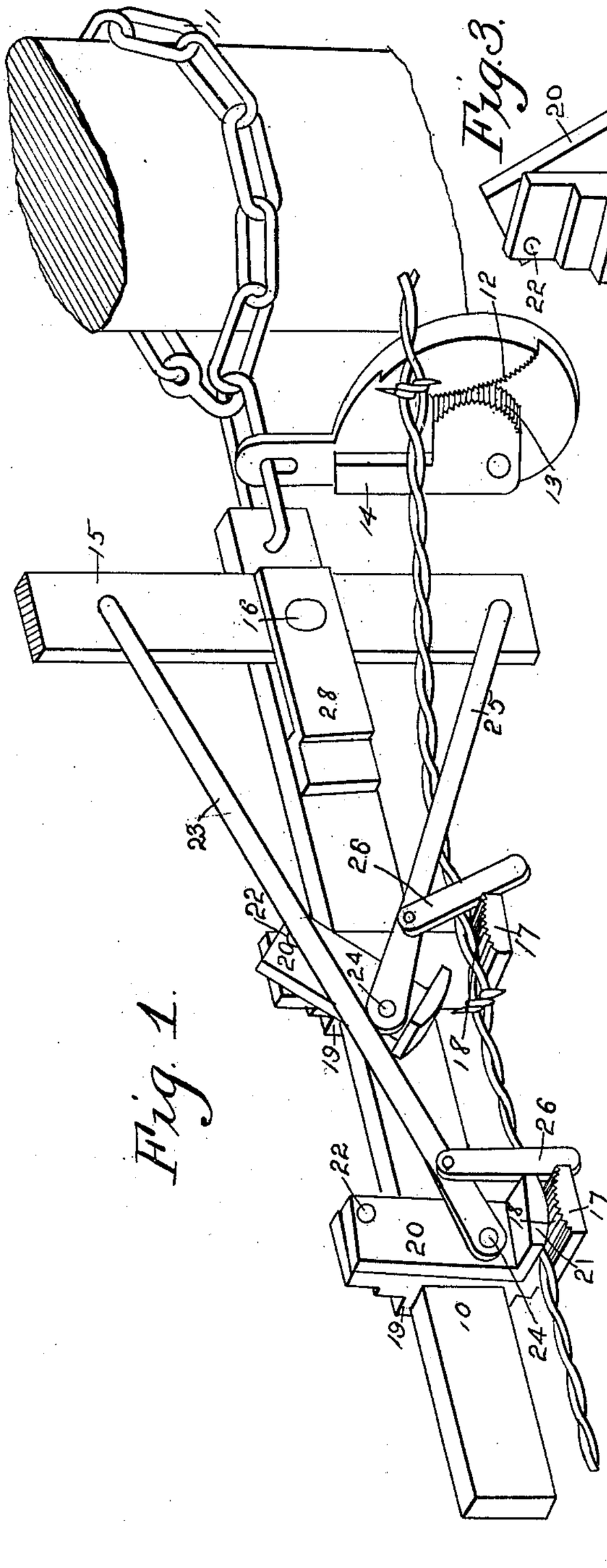

Fig. 2.

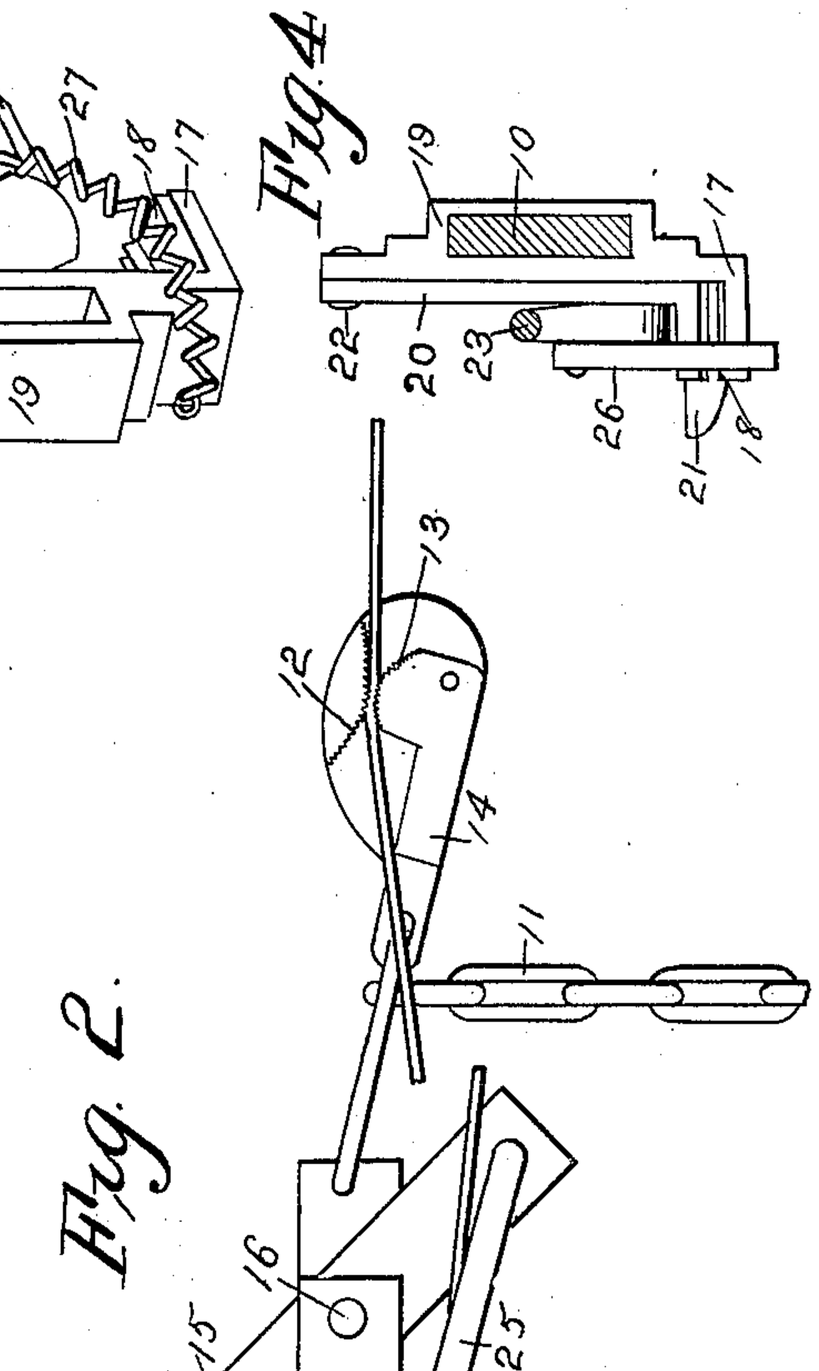

Fig. 3.

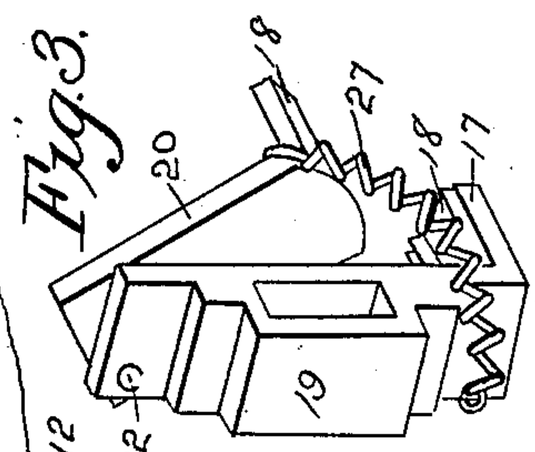

Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM J. LINDLEY, OF CARLISLE, IOWA.

WIRE-STRETCHER.

No. 828,820. Specification of Letters Patent. Patented Aug. 14, 1906.

Application filed December 11, 1905. Serial No. 291,300.

To all whom it may concern:

Be it known that I, WILLIAM J. LINDLEY, a citizen of the United States, residing at Carlisle, county of Polk, and State of Iowa, have invented a certain new and useful Wire-Stretcher, of which the following is a specification.

My object is to provide a wire-stretcher of comparatively small bulk, so that it may be easily and comfortably carried, and of simple, durable, and inexpensive construction.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the stretcher by which the objects above contemplated may be attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows in perspective my complete stretcher attached to a post with a barb-wire held in one of the gripping devices, the handle portion of the operating-lever being removed. Fig. 2 shows a side elevation of the stretcher as required for use in splicing wire. Fig. 3 shows a perspective view of one of the gripping devices, illustrating a spring for throwing the movable jaw toward the stationary jaw; and Fig. 4 shows a transverse sectional view through the line 4 4 of Fig. 2.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate a straight bar which is rectangular in cross-section. At one end of the bar is a chain 11, designed to encircle a post or to be attached to some other stationary support. Connected with this chain is a wire-gripping device having a stationary jaw 12, an eccentrically-pivoted jaw 13, and a handle 14, thus forming a wire-gripping device of ordinary structure. At one end of bar 10 is a lever 15, pivoted to the bar at 16. Mounted on the bar 10 are two wire-gripping devices of ordinary construction, one of which will now be specifically described.

The numeral 17 indicates a stationary jaw member, having at its lower end a laterally-extending jaw, the upper surface of which is convex and corrugated at 18. On the rear surface of the jaw member 17 is a rectangular loop 19, designed to admit bar 10, so that said jaw member may slide freely upon the bar.

The numeral 20 indicates the movable jaw member having at its lower end a lateral extension 21, projecting over the extension of the stationary jaw member and having its under surface convex and smooth. This movable jaw member is pivoted at one corner of its upper end to the stationary jaw member by means of the pin 22.

As before stated, there are two gripping devices slidingly mounted upon the bar 10, and these gripping devices are operated by means of two rods. The first one (indicated by the numeral 23) is pivoted to the lever 15 above its fulcrum at one end, and the other end of the rod is pivoted at 24 to the lower corner of the part 20 diametrically opposite from the pivotal point 22. The other gripping device is actuated by rod 25, pivoted to lever 15 below its fulcrum and pivoted to the movable jaw member of the remaining gripping device in the same way as is the rod 23.

I have provided means whereby a wire is prevented from moving laterally from between the jaws, as follows: Pivoted to each of the rods 23 and 25 is a guiding-arm 26 to hang downwardly adjacent to the forward edge of the gripping-jaws. These arms are pivoted, so that should they be caught by a barb on the wire they would readily swing to position parallel with the rod, thus permitting the barb to pass longitudinally, but firmly holding the wire from sliding outwardly between the jaws.

In Fig. 3 I have illustrated a device for normally drawing the jaws to their closed position, said device comprising a contractible coil-spring 27, fixed at one end to the edge of the movable jaw and passed in the rear of the fixed jaw, and attached at its other end to the opposite edge of the fixed jaw. In using my improved gripping device on ordinary fence-wire the spring is unnecessary. In some instances, however, the jaws may not grip the wire without some such means of drawing them together.

I have also provided means for limiting the longitudinal movement of the gripping device on the bar 10 by providing a strap 28, secured to bar 10 and overlapping the lever, a shoulder being provided in the strap to limit the movement of the lever.

In practical use and assuming the chain 11 to be attached to a fence-post, the operator then places a wire in the two gripping devices. This may be done by either threading the end of the wire through between the jaws successively, or else the arms 26 may be elevated and the wire placed in the gripping device

from the side, after which it is only necessary to operate the lever, and when this is done it has the effect of moving one gripping device away from the post and drawing the other gripping device toward the post. As previously explained, the movable members of the gripping devices are pivoted at one corner to the stationary member and the operating-rod is pivoted to the movable member at the diametrically opposite corner, so that the gripping device that is moving toward the posts will firmly grasp the wire and advance it, while the gripping device moving away from the post will have its movable jaw elevated from the stationary jaw, and the gripping device will not begin to move longitudinally of bar 10 until the said movable jaw is partly elevated. On account of the stationary jaw of the gripping device being corrugated and the movable jaw being smooth it is obvious that as the gripping device is moving backwardly over a barb-wire and in the event that a barb should engage the jaws the barb will be engaged more firmly by the corrugated jaw than by the smooth one. Hence a pressure by the operating-rod upon the movable jaw will have the tendency to elevate it to its limit, because the stationary jaw is detained in its movement along the bar by engagement with said barb, and obviously when the jaws are so widely separated a barb may freely pass through between them. Assuming that it is desired to splice a broken wire, the operator first connects the wire-clutching device on the chain 11 with one end of the broken wire, and he then places the other end of the broken wire between the gripping devices on the bar 10. Then the lever is manipulated and the ends of the wire are brought together. Obviously in stretching the wire the loose end of the wire is placed in the gripping device, and after that the operator need only oscillate lever 15 and the wire may be stretched to any desirable distance or any amount of wire may be advanced through and past the gripping devices, and the operator need not touch the wire after it has been placed in the gripping device. Furthermore, the device may be made of comparative small size, because the length of stroke of each gripping device is quite limited, so that a wire-stretcher constructed in accordance with my invention can readily be made small enough to be conveniently and easily carried.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. An improved wire-stretcher, comprising a bar, a lever fulcrumed to the bar, two rods pivoted to the lever on opposite sides of its fulcrum and two gripping devices each comprising a straight jaw member, slidingly mounted on the bar and having a laterally-extending jaw and a movable jaw member pivoted at one end to the stationary jaw member, and having at its other end a lateral projection coacting with the stationary jaw, said rods being attached at their opposite ends, to the movable jaw member above the jaws and a guiding-arm pivoted to each rod adjacent to the gripping device.

2. An improved wire-stretcher, comprising a bar, a chain attached to one end of the bar, a wire-clamp attached to the chain, a lever fulcrumed to the bar, two rods pivoted to the bars on opposite sides of its fulcrum, guiding-arms pivoted to said rods near their other ends, two wire-gripping devices, comprising a stationary jaw member slidingly mounted on the bar and having a laterally-projecting jaw having a roughened convex upper surface and a movable jaw member pivoted at one corner of its upper end to the stationary member and having a laterally-projecting jaw at its lower end provided with a convex smooth surface coacting with the other jaw, said rods being pivoted to the movable jaw members, at the diametrically opposite corners from the points where said jaw members are pivoted, and means for limiting the movement of the operating-lever, substantially as and for the purpose stated.

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Witnesses:
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