

1,052,655.

Fig. 1.

Witnesses
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UNITED STATES PATENT OFFICE.

HARRY CUNNINGHAM, OF ILLIOPOLIS, ILLINOIS.

PAWL MECHANISM FOR WIRE-STRETCHERS.

1,052,655.

Specification of Letters Patent.

Patented Feb. 11, 1913.

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To all whom it may concern:

Be it known that I, HARRY CUNNINGHAM, a citizen of the United States, residing at Illiopolis, in the county of Sangamon, State of Illinois, have invented certain new and useful Improvements in Pawl Mechanism for Wire-Stretchers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain novel and useful improvements in pawl mechanism for wire stretchers.

In carrying out my invention it is my purpose to provide a mechanism of the class described which will embody in its construction the desired features of simplicity, efficiency and utility.

With this and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claim, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a plan view of the improved device applied. Fig. 2 is a side elevation of the same. Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a perspective view of one of the straining pawls detached.

The improved device comprises a main stock or straining bar 10 having ratchet teeth 11—12 extending along the side edges. Suitable wire gripping devices are coupled at 13 to the stock 10 at one end. A plurality of the wire gripping devices may be employed to enable the implement to be connected at numerous points to the wire structure which is to be strained, when the wire structure is of the web or woven wire form. The implement is thus adapted to be employed in straining any of the numerous woven wire structures employed in fences. If the implement is to be employed for stretching a single strand wire, one of the wire stretching devices will be employed as will be understood.

A straining lever 14 constitutes a portion of the improved device and is provided with a transverse aperture 15 through which the stock 10 is slidably engaged. The lever 14 is coupled by a chain or other suitable fastening device 16 to a stationary support, as for instance a fence post as shown at 17. Pivoted to the lever 14 at opposite sides of the stock are two straining pawls adapted to

be engaged alternately with the ratchet teeth 11—12, and as these pawls are substantially alike except that one is right handed and the other is left handed, a description of one will suffice for both. Each of the pawls is formed from a relatively heavy rod bent into U shape whereby spaced sides 18—19 are produced with eyes 20—21 formed in the side members and with the "bend" portion 22 curving laterally of the side members, as shown. One of the side members of each of the pawls, for instance the side member 18, is extended at 23 and terminates in an eye 24 to which a spring 25 is coupled at one end, the opposite end of the spring being coupled to the lever 14, as shown. The eyes 20—21 are utilized to receive pivot bolts 26 extending through the lever 14 and likewise through the eyes to pivotally unite the pawls to the lever. The sides 18—19 thus bear upon opposite sides of the lever with the bend 22 in position to engage with the ratchet teeth 11—12. By this simple means the pawls are maintained yieldably in engagement with the ratchet teeth as shown in Fig. 1.

A wire gripping device for holding the grip which may have been obtained with the implement forms an important feature of the improved device, and consists of a block 27 provided with an arm 28 by which the block is pivotally united at 29 to the lever 14, preferably opposite the center of the aperture 15 through which the stock extends. The block 27 is provided with a wire engaging stop 30 and a wire engaging cam lever 31, the object to be hereafter explained.

In operating the device the grip pawls are released by pressing the spring supported ends toward each other and moving the lever manually to the end of the stock farthest from the coupling member 13. The lever is then coupled to the stationary support by the element 16 and the wire structure which is to be strained gripped or engaged by the device 13. The lever 14 is then oscillated to cause the straining pawls to be alternately engaged with the ratchet teeth and thus produce the requisite strain upon the wire structure by a step by step movement. When the stock has been caused to move its full length through the lever, the grip device 30—31 is coupled to the strained wire structure and the straining pawls released and the stock 10 moved to its new position and the grip device 13 again coupled

to the wire structure and the operation repeated. By this means the strain may be applied as often as may be required to stretch the wire structure to any required
5 extent. The stock 10 will preferably be of metal of sufficient strength to withstand the strains to which it will be subjected, while the lever 14 may be of wood, or metal as may be preferred.

10 The improved device is simple in construction, can be inexpensively manufactured and in various sizes to adapt it to the work required, and to the structures to which it may be applied.

15 What is claimed is:—

The combination with a lever and a toothed bar, of a pawl comprising a pair of side bars one of greater length than the

other, said bars having curved end portions, an integral end bar connecting the curved
20 ends of the side bars and adapted to engage the toothed bar, an eye formed on the free end of the shorter bar, and an eye formed upon the intermediate portion of the longer
25 bar and registering with the eye of the shorter bar, said eyes being adapted for the reception of a pin passing through the lever, for pivotally connecting the pawl thereto, and an eye formed upon the free terminal of
30 the longer bar.

In testimony whereof, I affix my signature, in presence of two witnesses.

HARRY CUNNINGHAM.

Witnesses:

EDWIN MYERS,

EDWIN SIMPSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
