

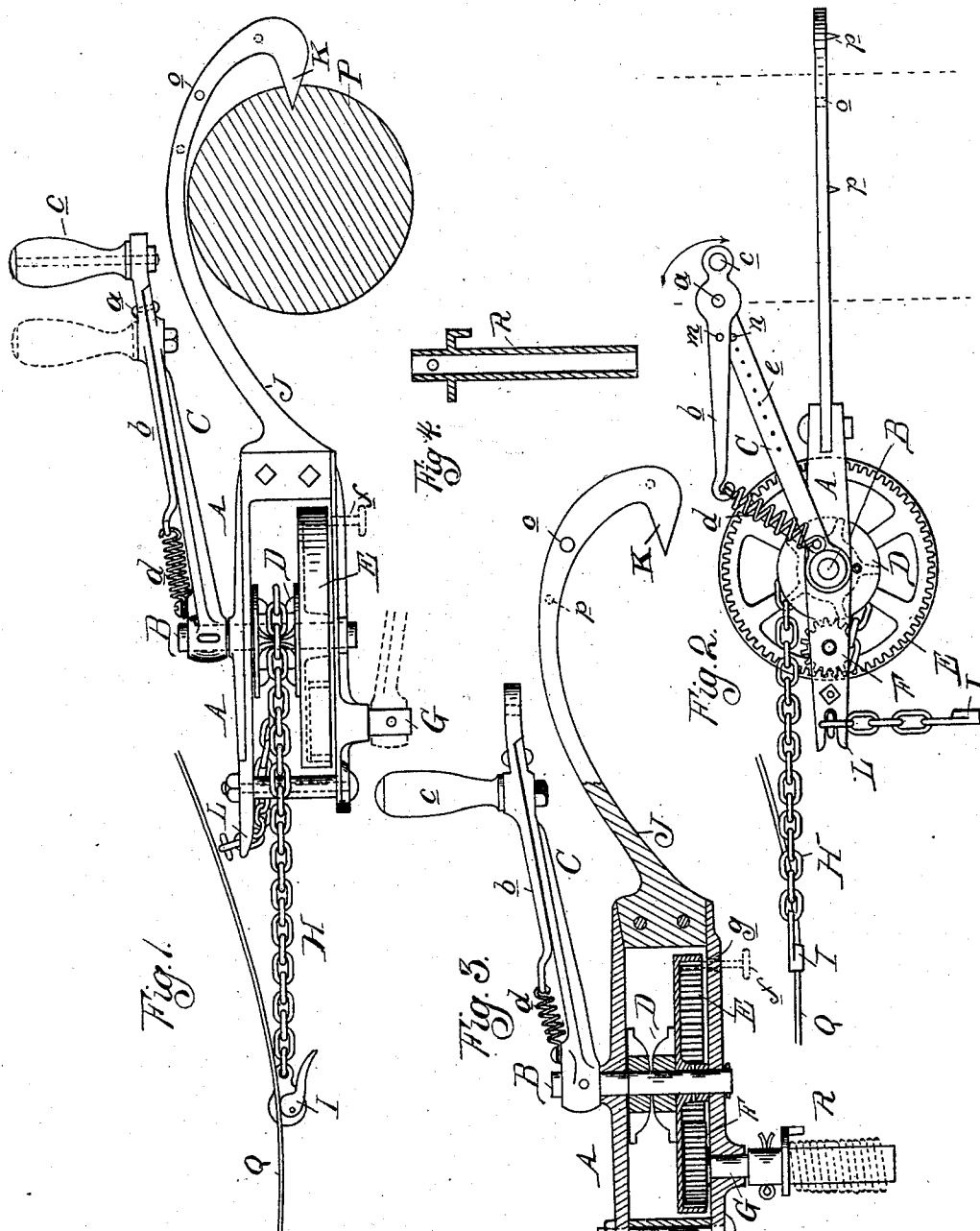
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Patented Aug. 6, 1901.

W. McCLOSKEY.
DEVICE FOR STRETCHING WIRE.

(Application filed Sept. 10, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

WILLIAM McCLOSKEY, OF ESSEX, CANADA.

DEVICE FOR STRETCHING WIRE.

SPECIFICATION forming part of Letters Patent No. 679,856, dated August 6, 1901.

Application filed September 10, 1900. Serial No. 29,561. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McCLOSKEY, a citizen of Canada, residing at Essex, in the county of Essex and Province of Ontario, Canada, have invented certain new and useful Improvements in Devices for Stretching Wire, of which the following is a specification.

My invention, although primarily intended for the stretching of fence-wires, is constructed with the object in view of furnishing a device of more general utility, suited for coiling wire and many other purposes that will readily suggest themselves to an intelligent user.

To this end my invention consists in the novel construction, arrangement, and combination of parts hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a plan of my improved device shown as in operation as a wire-stretcher. Fig. 2 is a side elevation thereof. Fig. 3 is a sectional plan view illustrating the device as in use for coiling wire. Fig. 4 is a detached section of the coiling-tube.

A is a rigid frame formed with two parallel side bars, in which is journaled, transversely thereof, a shaft B, projecting at one end for the attachment of a crank-arm C, having a handle *c*. Upon the shaft B are secured, within the frame, the sprocket or chain pulley D and the internally-gear wheel E, which meshes with the internal pinion F. The pinion F is secured upon a shaft G, journaled in the adjacent side bar of the frame and having a projecting stub for the attachment of the crank-arm C, which latter may be interchangeably secured to either the shaft B or G.

H is a chain adapted to engage with the chain-pulley D and provided at both ends with suitable wire-grips I.

J is a rigid curved arm or hook secured to the rear end of the frame or formed integrally with it and terminating in a tooth K.

L is a fork at the front end of the frame, preferably integrally formed with one of the side bars thereof and adapted to engage and hold one end of the chain.

To the crank-arm is pivotally secured at a lever *b*, to the outer end or short arm of which the handle *c* of the crank is detachably se-

cured, while the inner end of the long arm is connected by a tension-spring *d* to the crank-arm, all so arranged that in applying the power to the crank-handle it will cause the lever *b* to assume more or less of an angle to the crank-arm, and by means of a scale *e* in the median line of the arm the arm *b* serves as an indicator of the degree of power applied to the crank.

In practice, the parts being constructed as shown and described, the device is intended to operate as follows: Suppose P to be one of the posts of the fence and Q the fence-wire to be stretched. The latter is secured by means of the grip I to one end of the chain, which is thence passed around the chain-wheel of the device, which latter is anchored to the post by the arm J, all as shown in Fig. 1. By turning the crank-arm in the direction to take up the chain the wire is stretched, and when sufficient tension is thus obtained on the wire the operator slips the loose end of the chain into the fork, as shown in Figs. 1 and 2, which permits him to release the handle and secure the wire to the fence-posts. Should one operation of the chain not be sufficient to stretch the wire, the operator takes a new grip on the wire with the loose end of the chain and by turning the handle now in the opposite direction again stretches the wire, and in this manner he may continue as long as necessary. The operator in this operation may either be making use of the fork to temporarily hold the chain while he takes a new grip on the wire or he may use a pin *f*, which he places in a hole *g*, provided for in the frame in such position that it engages between two cogs in the gear-wheel, and thereby prevents the same from revolving. Instead of applying the crank-arm directly to the shaft B the operator, if he desires, can secure it to the stub of the shaft G of the gear-pinion, and thereby use greater power, as may be necessary for stretching heavy wire.

In making wire fences it is desirable that all line-wires be stretched alike, and with my construction this is easily accomplished, as the lever *b* on the crank-arm forms an indicator which by the angle of deflection indicates the tension of the wire on the scale. As, however, an experienced fence-builder

can dispense with such aid, as he can trust to his feeling, I make the handle *c* detachable from the lever *b* and provide coincident holes *m n* in the crank-arm and lever for securing the handle thereto, and thereby rigidly holding the parts together, as shown in Fig. 3. While my construction provides thus an efficient device for stretching fence-wire, it is a general-utility tool, in that it can be adapted for various purposes on a farm, as it is of the general nature of a tackle. One particular use more nearly related to fence-building is that for coiling wire. Thus by providing a coiling-tube, as *R*, which can be attached to the stub *G*, the coiling of the stay-wires used for certain kinds of wire fences may be readily accomplished with it. In like manner a small grindstone, having means for attaching it upon the stub *G*, may be readily operated with it. To adapt it for these various purposes, I provide the arm *J* with one or more bolt-holes *o* and with some spurs *p* on the under side, so that it may be readily fastened down on top of a bench.

What I claim as my invention is—

1. In a wire-stretcher, the combination of the supporting-frame having means at the rear end for anchoring it to the fence-post and provided at the front end with a fork forming a chain-stop, a chain-pulley journaled in the frame and provided with means for revolving it in either direction, and a loose chain coacting with said fork and adapted to form with said chain-pulley a chain-gear and provided with wire-grips at both of its ends, whereby it may be used alternately at each end of the chain, substantially as specified.

2. In a wire-stretcher, the combination of the supporting-frame having means at the rear end for anchoring it to a fence-post and provided at the front end with a fork forming a chain-stop, a shaft journaled transversely of said frame, a chain-pulley secured

on said shaft, an internally-gear wheel on said shaft, a gear-pinion engaging with said gear-wheel, a loose chain adapted to form a chain-gear with said chain-wheel and provided with wire-grips at both ends and a crank-handle adapted to be interchangeably secured to the shaft of the chain-pulley or to the shaft of the gear-pinion for imparting motion thereto in either direction.

3. In a wire-stretcher, the combination of the supporting-frame having means at the rear end for anchoring it to a fence-post and provided at the front end with a fork forming a chain-stop, a shaft journaled transversely of said frame, a chain-pulley secured on said shaft, an internally-gear wheel on said shaft, a gear-pinion engaging with said gear-wheel, a loose chain adapted to form a chain-gear with said chain-wheel and a crank-handle adapted to be interchangeably secured to the shaft of the chain-pulley or to the shaft of the gear-pinion for imparting motion thereto in either direction.

4. In a wire-stretcher, the combination of the supporting-frame having means at the rear end for anchoring it to the fence-post and provided at the front end with a fork forming a chain-stop, a chain-pulley journaled in the frame and provided with a crank-arm for revolving it in either direction, and a loose chain coacting with said fork and adapted to form with said chain-pulley a chain-gear and provided with wire-grips at both its ends whereby it may be used alternately at each end of the chain, the aforesaid crank-arm having a lever *b* pivotally secured thereto and arranged to form a tension-indicator for the stretcher.

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

WILLIAM McCLOSKEY.

Witnesses:

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