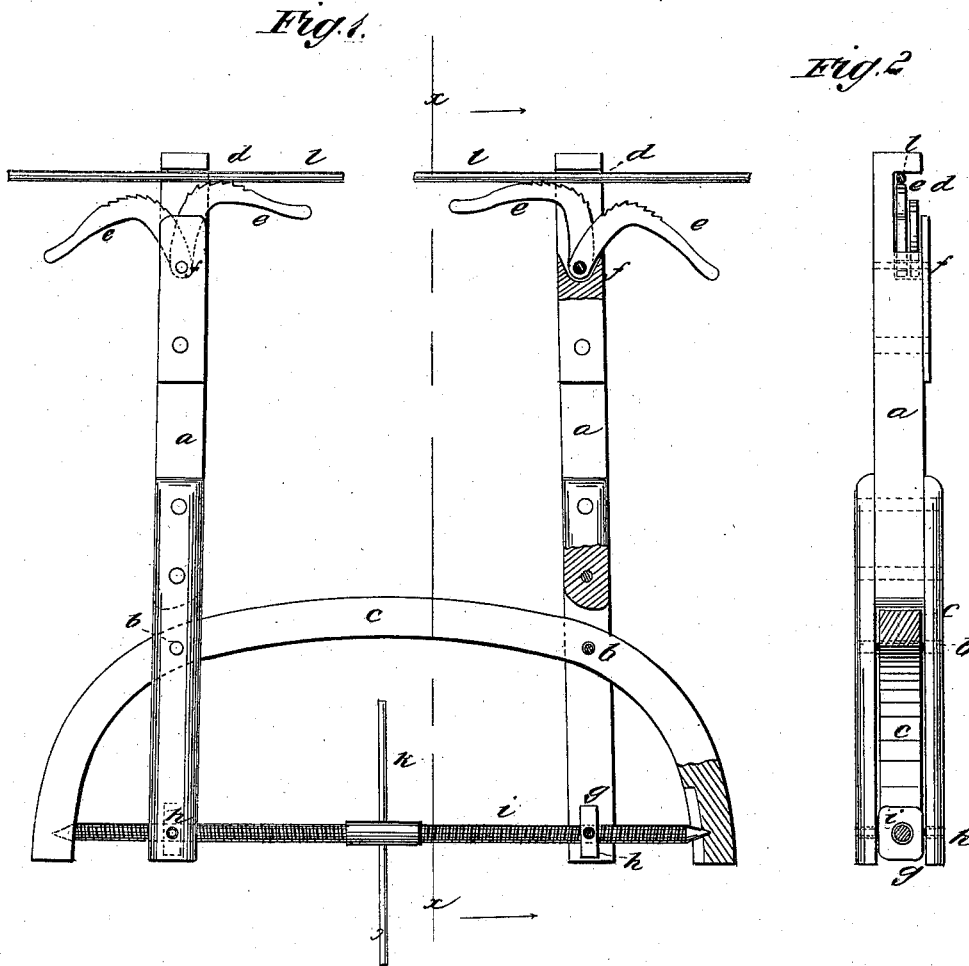


I. G. ERICSON.
Wire-Stretcher.

No. 207,167.

Patented Aug. 20, 1878.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ISAAC G. ERICSON, OF COLORADO SPRINGS, COLORADO.

IMPROVEMENT IN WIRE-STRETCHERS.

Specification forming part of Letters Patent No. **207,167**, dated August 20, 1878; application filed July 11, 1878.

To all whom it may concern:

Be it known that I, ISAAC G. ERICSON, of Colorado Springs, in the county of El Paso and State of Colorado, have invented a new and useful Improvement in Wire-Stretchers, of which the following is a specification:

The object of my invention is to furnish a device for stretching the wires of wire fences either in building the fence new or repairing a broken one, which stretcher may be used to stretch the wires, and removed after the ends of the wires are secured.

My invention consists of two levers pivoted a short distance apart to a bar or carrier near the center of the levers. The levers are provided at one end with grippers to grasp the wire, and the other ends of the levers are operated by a screw-rod to stretch the wires and draw the ends together.

In the drawing, Figure 1 is an elevation of my device attached to a wire, and Fig. 2 is a cross-section of the same, taken at the line *x x*.

Similar letters of reference indicate corresponding parts.

a a are levers, pivoted at *b b* to a cross-bar or carrier, *c*, near the ends of the bar *c*, so that the levers *a* will stand apart a convenient distance for the operation of the device.

I have shown the lower ends of the levers *a* slotted and the bar *c* passing through the slot in each lever. One end of each of the levers *a* is provided with a mortise, *d*, and each lever has in its mortise *d* two clamps or grippers, *e e*, swinging upon a pin, *f*. The position of the pair of clamps *e* in each lever is such that one clamp *e* grips the wire when the lever moves in one direction, and the other clamp *e* grips when the lever moves the other way.

g g are threaded nuts, held in the slots at the ends of the levers *a* opposite to the clamps *e*. There is one of these nuts to each lever, and they are hung upon pivots *h* to permit of their turning in the slots. The nuts *g* are upon a screw-rod, *i*, which has a right-hand thread at one end and a left-hand thread at the other, the nuts *g* being threaded to correspond.

k is a handle midway of the rod *i* for turning the rod. The bar or carrier *c* has its ends bent around adjacent to the ends of the screw-

rod *i*, for the purpose of retaining the levers *a* in position relatively to the bar *c*, and cause the strain to be equal upon both wires held by the grippers.

I have shown the stretcher as attached upon the ends *l l* of adjoining wires.

In making use of the apparatus above described, the ends *l* of the wires to be joined are secured to the stretcher by passing the end of one wire into the mortise *d* of one of the levers *a* and clamping it by the clamp *e*. The end of the other wire is secured to the other lever *a* in a similar manner, the clamping ends of the levers being first moved as far apart as possible by turning the rod *i*. The rod *i* is then turned in the direction to draw the clamping ends of the levers together, which movement stretches the wires. When the levers are closed as far as the size of the device will permit, if it is necessary to stretch the wires still more, the ends thereof which now lap are released from the clamps which hold them, and changed upon the levers and clamps, so that they will be further stretched by reversing the movement of the rod *i* to move the clamps apart. When the wires are sufficiently stretched, the ends are to be twisted or tied together and the stretcher removed.

The pivots *h* of the nuts *g* permit the nuts to retain their proper position without binding on the rod *i* as the levers swing.

This device is especially useful in repairing broken fence-wires, and there is no necessity of leaving the stretcher upon the wires, as is now usually done.

I do not limit myself to the details of construction set forth, as they may be varied without departing from my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The gripping-levers *a*, bar *c*, and screw-rod *i*, combined and arranged substantially as and for the purposes described.

ISAAC G. ERICSON.

Witnesses:

B. F. CROWELL,
IRVING HOWBERT.