(No Model.)

J. W. WEAR.

WIRE TIGHTENER.

No. 376,694. Patented Jan. 17, 1888.

Fig. 1.

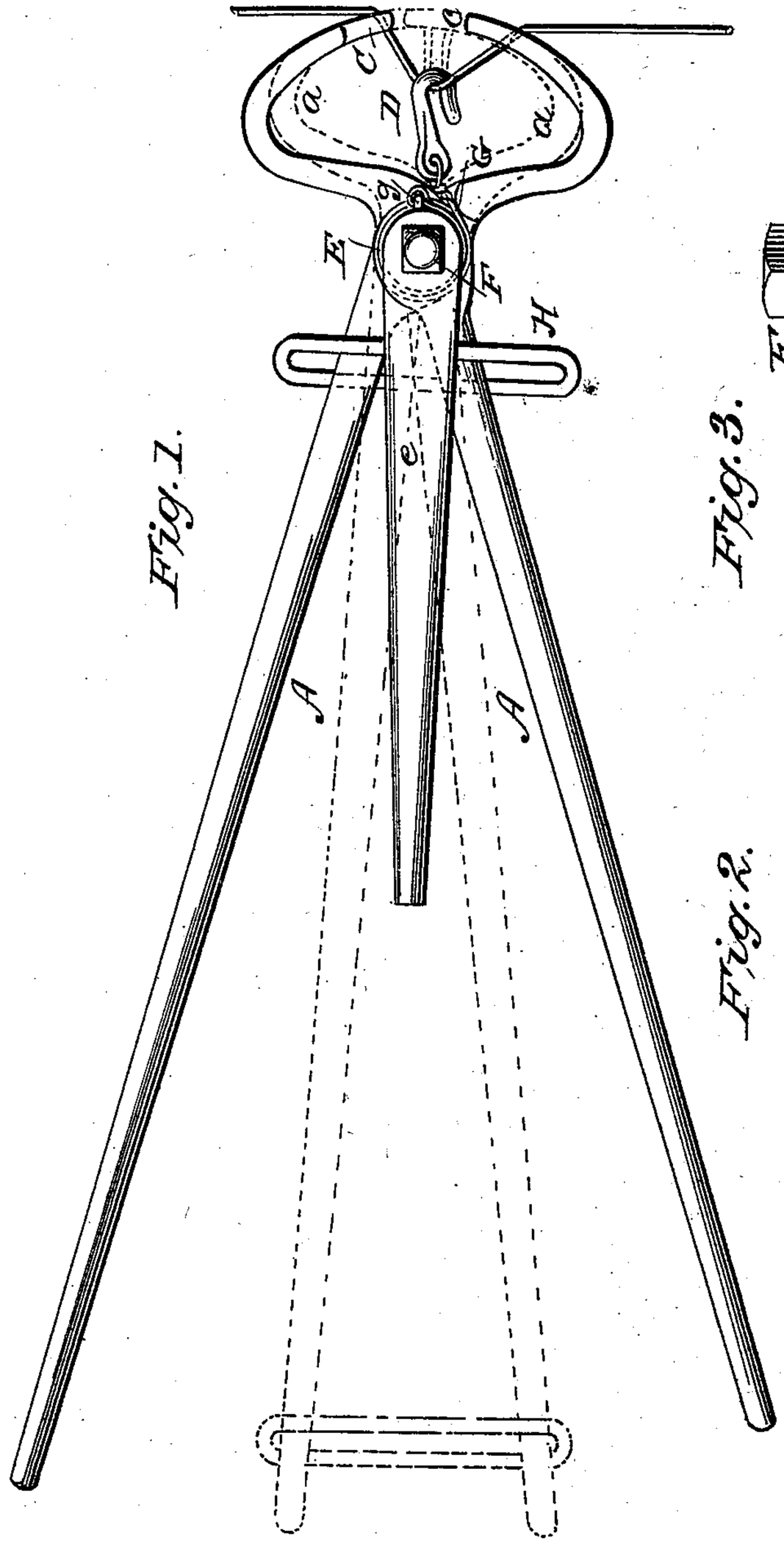


Fig. 3.

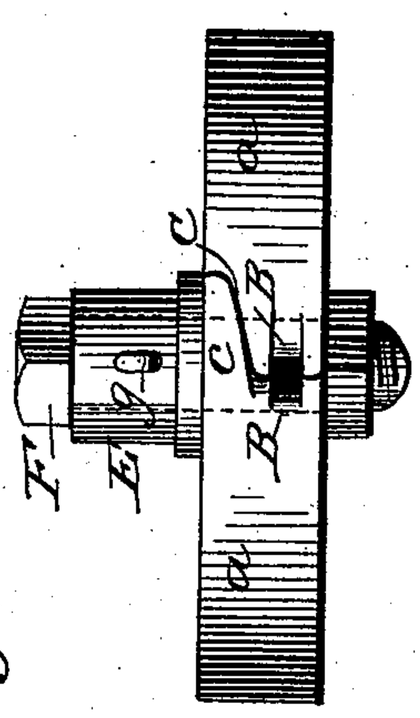
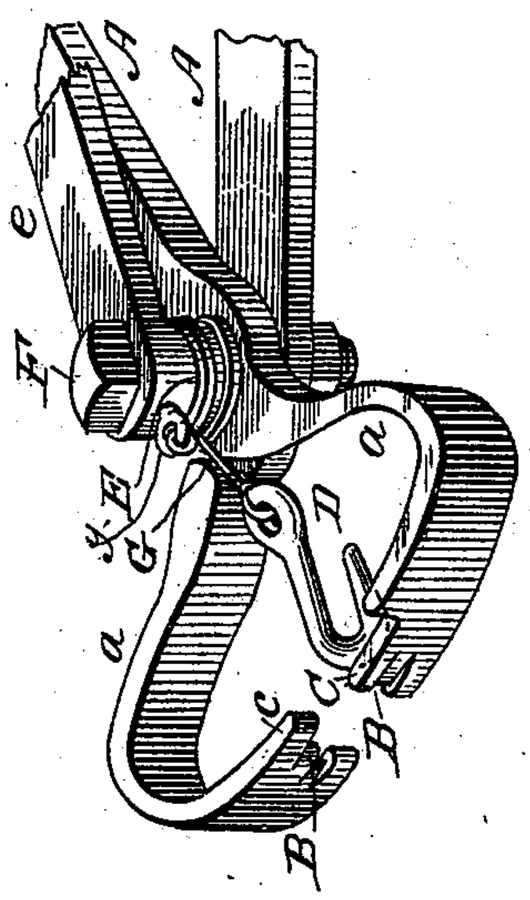


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN W. WEAR, OF WALKER, MISSOURI.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 376,694, dated January 17, 1888.

Application filed January 22, 1887. Serial No. 225,171. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. WEAR, of Walker, in the county of Vernon and State of Missouri, have invented a new and useful Improvement in Wire-Tighteners, of which the following is a specification.

My invention is an improved wire-tightener for taking up the slack of wire; and it is intended especially for use in connection with telephone and telegraph wires; but it is also useful in fences and like constructions, and is adapted for tightening up the wires of fences already built, as well as for use in the building of wire fences.

The invention consists in certain features of construction and novel combinations of parts, as will be described and claimed.

In the drawings, Figure 1 is a top plan of my improvement as in use. Fig. 2 is a perspective view thereof, parts of the handles being broken away; and Fig. 3 is an end elevation of the improvement.

A pair of tongs, A A, have their jaws *a* provided with openings forming guides B for the wire being stretched, and adjacent to these guides I form the jaws with interlocking portions, one of said jaws having a notch or recess, C, and the other a projection, *c*, to enter the said recess, these interlocking portions engaging when the tongs are closed and serving to bear all what may be termed "lateral strain" consequent on the tension of the wires when the tongs are being rotated to twist the wires after the same have been tightened.

In connection with these tongs I use a hook, D, movable between the jaws to draw the wire therethrough, and also a straining device for drawing on said wire. In the construction shown, the straining device consists of a drum or wheel, E, supported on the tongs and preferably journaled on the pivot-bolt F thereof, as shown. This drum or wheel E has a handle, *e*, and is in practice joined with the wire to be stretched by a suitable connection. I have shown this connection as a wire, G, secured at one end to the hook D and having its other end fastened to the drum, which latter may have an eye, *g*, to facilitate such fastening.

It will be understood that the drum and its immediately-connected parts form what may be broadly termed a "looper," the function thereof being to form a loop or bend between the edges of the jaws of the tongs for said jaws to grasp and twist, in the manner presently described.

The operation is simple and will be readily understood. In Fig. 1 the tightener is shown in full lines as when applied to the wire it is desired to tighten. Now, by turning the wheel or drum the wire will be drawn in between the jaws *a* to any suitable extent, forming a loop, and when the wire has been drawn to the desired extent by pressing the jaws together and rotating the tongs the wire will be twisted and the slack will be secured in ring form. This will be understood from the dotted lines, Fig. 1. By my invention it will be seen that a small or a considerable portion of the wire may be taken up; or, if the wire is very slack, two or more loops may be formed therein to draw it to the proper tension.

The device is simple, strong, and can be furnished at a small cost.

Manifestly, the tightener might be made and sold independent of the connection for joining the drum or wheel with the wire and the said connection be supplied by the user; but it may be preferred, for convenience, to furnish the same complete for use.

By means of the link H, which embraces the handles of tongs A and is movable longitudinally along the same, such handles may be held closed while twisting the wire by the adjustment of the link to the dotted position shown in Fig. 1.

I have not in this application sought to cover specifically a wire-tightener comprising a pair of tongs having their jaws provided with guides for the wire, a lever pivotally supported on said tongs, and a connection for joining said lever with the wire to be tightened, as such subject-matter is claimed in a separate application for patent filed by me August 24, 1887, Serial No. 247,787.

Having thus described my invention, what I claim as new is—

1. A wire-tightener consisting of the tongs having their jaws provided with guides for the wire, a drum supported on said tongs, and a connection for joining said drum with the wire to be tightened, substantially as set forth.

2. The improved wire-stretching device hereinbefore described, consisting of the tongs

having their jaws provided with guides for the wire and provided adjacent to said guides with interlocking portions, whereby to sustain the lateral strain, a drum or wheel journaled to the tongs, and a wire connected with said drum or wheel, substantially as set forth.

3. In a wire-tightener, substantially as described, a pair of tongs having their jaws provided with guides B, one of said jaws being formed laterally to its guide B with a notch, C, and the other with a projection, *c*, fitted to enter said notch, substantially as and for the purposes specified.

4. In a wire-tightener, the combination, with the tongs, of a looper thereon to engage the wire at a point intermediate of the edges of the jaws of the tongs and form a loop or bend for the said jaws to grasp and twist, substantially as set forth.

JOHN W. WEAR.

Witnesses:
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