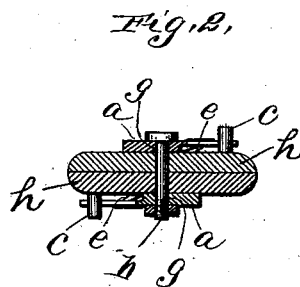
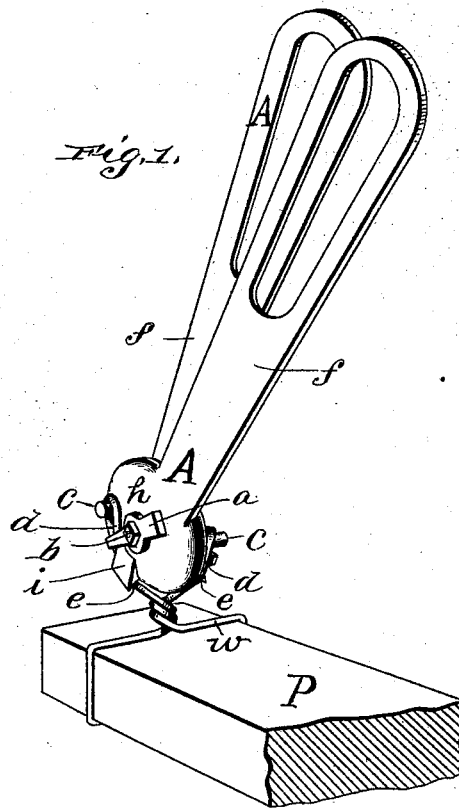


(Model.)

E. T. HOYT.
WIRE STRETCHING AND TWISTING TOOL.

No. 491,111.

Patented Feb. 7, 1893.



Witnesses:
M. M. Brown
D. H. Wood

Eli. T. Hoyt
Inventor:

UNITED STATES PATENT OFFICE.

ELI T. HOYT, OF ALGANSEE, MICHIGAN.

WIRE STRETCHING AND TWISTING TOOL.

SPECIFICATION forming part of Letters Patent No. 491,111, dated February 7, 1893.

Application filed May 27, 1892. Serial No. 434,692. (Model.)

To all whom it may concern:

Be it known that I, ELI T. HOYT, a citizen of the United States, residing at Algansee, in the county of Branch and State of Michigan, have invented a new and useful Wire Stretching and Twisting Tool, of which the following is a specification.

My invention relates to improvements in wire stretching and twisting tools; and its object is to provide a device for this purpose which will draw two ends of the wire together, thus stretching the wire, and then twist the ends tightly together.

In my drawings, in which similar letters refer to similar parts, Figure 1 gives a prospective view of my device, and Fig. 2 shows a cross section through the twisting head at right angles to the length of the tool.

My device consists primarily of two similar parts A, which may be flat on the sides adjacent to each other and are pivoted together by a nutted bolt *g* passing through the disk-like heads *h* on the lower or operating end of these parts. The outsides of these disks may be more or less rounded or convexed. Also pivoted on the bolt *g*, outside of each of the disks *h*, are two locking pieces *a*, one near each end of the bolt and held in tension against the disk by screwing up the nut in the screw-threaded end *b* of the bolt. These locking pieces are made with one end projecting to nearly the circumference of the disk and undercut on the side toward the disk and as far back as desired from the end. Thus a projecting finger is formed between which and the disk is sufficient space for the wire *w* to be operated upon, which wire is thus held in place under more or less frictional tension. From these disks *h*, extend handles *f*, by which the device is operated and these handles may be shaped or cut away as desired. Near one edge of each of these disks at a point nearly opposite the handle projects a lug *i*, slightly undercut at the outer edge so as to form a groove *e* between it and the edge of the disk for the passage of the wire. These grooves *e* are oppositely arranged and are substantially in parallel planes, each groove being preferably at a slight angle with the plane of the disks. These grooves serve as guides for the wires while being stretched and twisted. At one side of this

lug, and also near the edge of the disk, a pin *c* extends at substantially right angles to the plane of the disk and handle. These pins are so arranged that when the handles are together one pin is on one side, and the other on the other, of the axial line through the device, as seen in Fig. 2. Or the lug *i* and pin *c* may be closer together or even merged together, and the groove may extend from under the lug to and around the pin. The part A, with its handle, disk, lug, and pin, is preferably all of one piece of cast iron; but it may obviously be made of other materials, as desired, and the pieces *f*, *h*, *i*, and *c* may be rigidly connected or fastened together.

The operation of the device may be readily understood from the foregoing description, taken in connection with Fig. 1, which shows one of its uses. In this figure the wire *w* is seen passing about some object *P* to be wired, and the free ends *d* of the wire, which overlap or cross each other and extend in opposite directions, are passed along the grooves *e* under the lugs *i*, and around the pins *c*. The free ends *d* are then looped back, to allow the more ready doing of which the fingers of the locking pieces *a* may be swung back or away from the pins *c*, and after looping the wire about the pins the fingers of the locking pieces are swung over these ends of the wire, and the locking pieces may then be tightly held in this position by screwing up the nut on the bolt *g*. When this is done, or before if desired, the disks are rotated on the bolt *g* by means of the handles, thus stretching the ends of the wire by each other and tightening it; after which the ends of the wire are twisted tightly together, as shown, by giving to the device a screw-driver or auger motion. By reversing the rotation of the disks, further slack may be gained in the wire, which may then be taken up by further twisting.

The tool may evidently be used in tightening and twisting the ends of wire about a fence picket or post, in taking up slack in a fence wire, or in tightening wire about a bale or bundle, and for several other analogous purposes.

What I claim is—

A tool for stretching and twisting wires, which consists of two disks having a lug on

the outer face of each, a groove under each
lug extending along the edge of the disk, said
grooves being oppositely arranged, locking
means for holding the wires in engagement
5 with the lugs, means for pivoting the disks
together, and operating handles, substantially
as set forth.

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

ELI T. HOYT.

Witnesses:

M. B. CALDWELL,
M. M. BROWN.