

(No Model.)

H. G. HUBBELL.
TOOL FOR SPLICING WIRE.

No. 396,819.

Patented Jan. 29, 1889.

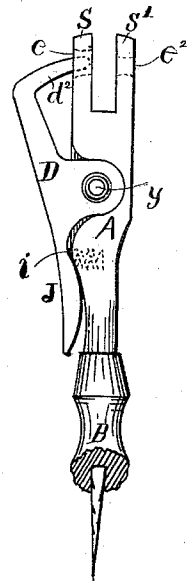
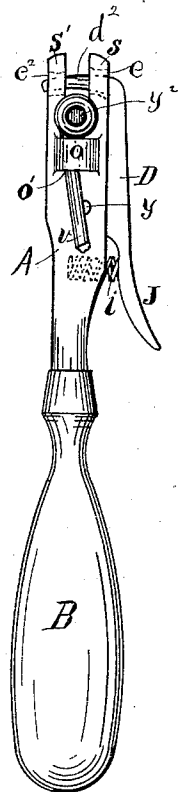
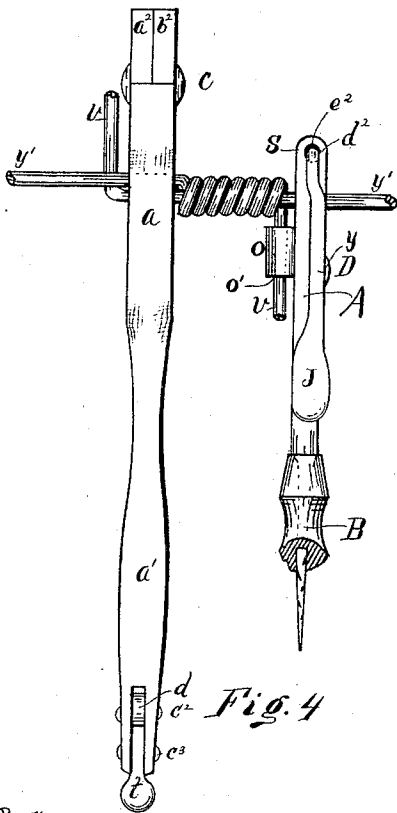
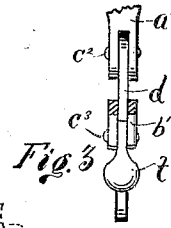
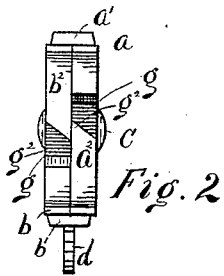
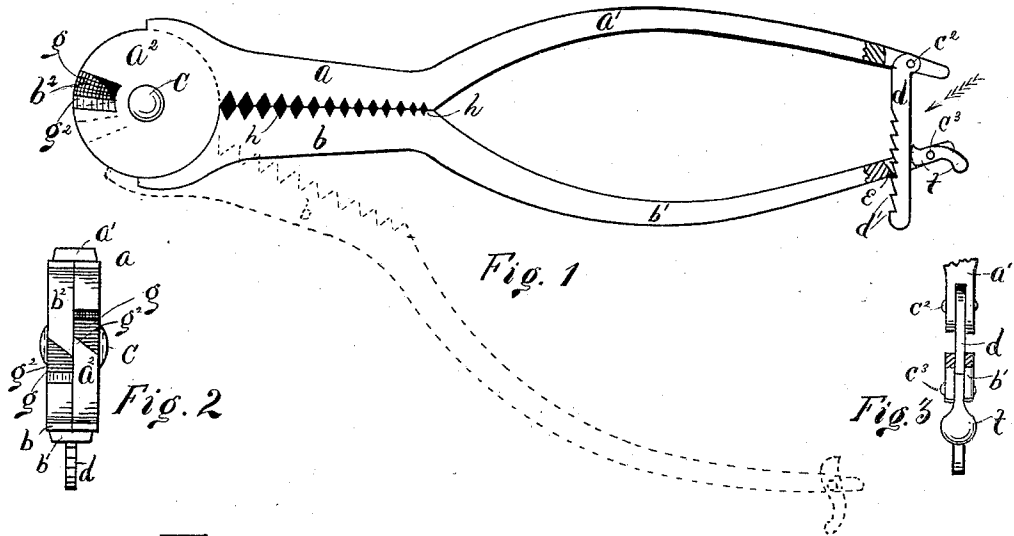


Fig. 5

Fig. 6

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TOOL FOR SPLICING WIRE.

SPECIFICATION forming part of Letters Patent No. 396,819, dated January 29, 1889.

Application filed August 21, 1888. Serial No. 283,389. (No model.)

To all whom it may concern:

Be it known that I, HERBERT G. HUBBELL, a citizen of the United States, and a resident of Havana, in the county of Schuyler and State of New York, have invented certain new and useful Improvements in Tools for Splicing Wires, of which, with reference to the drawings, the following is a full, clear, and exact description.

My invention relates to improvements in tools for splicing wires, a clamp and winder, which, although separately constructed, are dependent upon each other in their work and mutually contribute in the result of making a wire-splice that could not be done without such mutual action of the two devices; and the invention consists in the construction and novel combination of parts used for splicing wires, as hereinafter described, and pointed out in the claims.

Figure 1 is an elevation of my wire-clamp in closed adjustment, the dotted lines representing the same turned to open adjustment. Fig. 2 is an end view of the pivoted end of the clamp. Fig. 3 is a view of the handle end of the clamp broken away on the handles back of the locking mechanism. Fig. 4 is a view of the clamp and winder in position for making the splice. Fig. 5 is a view at one side of the winder, showing a section of the spliced wire, the latch closed over it. Fig. 6 is a view of the opposite side of the winder, the latch opened.

Referring by letters to the drawings, *a b* represent the stock parts of the clamp, each part at its forward end terminating in a flattened circular disk, *a² b²*, and united by a fulcrum-pin, *c*, passing centrally through each disk portion and riveted down so that the disks may turn upon the pin, as any ordinary pair of pliers. The rearward termination of the stock parts are provided with handles *a' b'*, each handle at its free end having a bifurcation, within which, in the one handle, is pivoted by the pin *c²* a pendent rack, *d*, having along its inner edge hooked or inclining teeth, *d'*, to hook over and engage a point, *e*, made to correspond with the teeth of the rack in the cutting of the bifurcation of the other handle, and within which the free end of the rack passes. A cam-latch, *t*, is pivoted by

pin *c³* to turn against the rack and lock it upon the point *e* in any adjustment.

The stock parts *a b*, or portions of the clamp between the disks and handles, are made to meet squarely and flatly together when in closed adjustment, each portion having in and across its flattened surface a series of graduated grooves, *h*, beginning with the largest groove nearest the fulcrum-pin *c* of the clamp. In the edge of the disks opposite the stock parts thereof, and from the outside toward their centers, are cut through them openings *g*. The edges *g²* of said openings traverse toward and by each other in closing the clamp, and are beveled to cut wire, as in ordinary wire-cutters.

Having described my clamp, by which within its graduated grooves I am enabled to hold the wire back of the wire ends, I will now give a description of the winder, which I use to wind said ends about the main-line wires in making a splice.

A represents a metal block, partly of curvilinear configuration and tapered at one end to receive thereon the handle B, that may be of any desired form, the other end being branched or bifurcated to straddle the wire and provided with a thumb-latch, D, pivoted within a recess, *e'*, by the pin or screw *y* near the center of the block, and having an angular projecting portion, *d²*, at its free end, moving through holes *e²*, through the lips *s s'* of the block at right angles, and across the slot made in bifurcating the end of the block.

Between the thumb-latch and block, back of their pivoted connection, is seated in the block A a coil-spring, *i*, slightly compressed, so that the turning of the latch on its pivot by thumb-pressure on its flattened end J nearest the handle B of the winder opens the latch *d²* against the action of said spring. Projecting rigidly from the side of the block, near the foot of its bifurcation, is the boss *o*, having through it, in alignment with the handle, a hole, *o'*, through which to insert and retain the wire end *v* while it is being wound around the main-line wire *y'*, as so plainly shown in Figs. 5 and 6 that a further description of the operation is not thought necessary to enable any one skilled in the art to make and use the same.

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

1. A wire-clamp having a graduated series
5 of grooves between the fulcrum-disks and handles of the clamp, each disk having a radially-slotted opening, g , forming a cutting-edge, g^2 , and each handle a bifurcated open end and locking mechanism mounted in the
10 bifurcated ends, substantially as described.

2. The stock parts a b , having a graduated series of grooves and handles, a' b' , in combination with a locking rack and latch, the rack being pivoted within the bifurcated free
15 end of one handle, and the latch pivoted to turn within a like bifurcation of the other handle, substantially as described.

3. A wire-clamp consisting of stock parts united by a fulcrum-pin and having a graduated series of grooves between the fulcrum-
20 disks and handles of the clamp, the largest

groove of the series being nearest the fulcrum-pin, and the disks each having a radially-slotted opening forming cutting-edges, in combination with a locking rack and latch
25 of the handles of the clamp, substantially as set forth.

4. A wire-winder consisting of the block A, having a bifurcated end, a laterally-projecting boss having a hole through it, and a latch
30 pivoted in the side of the block to shut across its bifurcated end, substantially as described.

5. A wire-winder consisting of the block A, having a bifurcated end and a hole at right angles to the plane of bifurcation, in combination with a thumb-latch pivoted to shut
35 across said bifurcation, substantially as described.

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Witnesses:

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