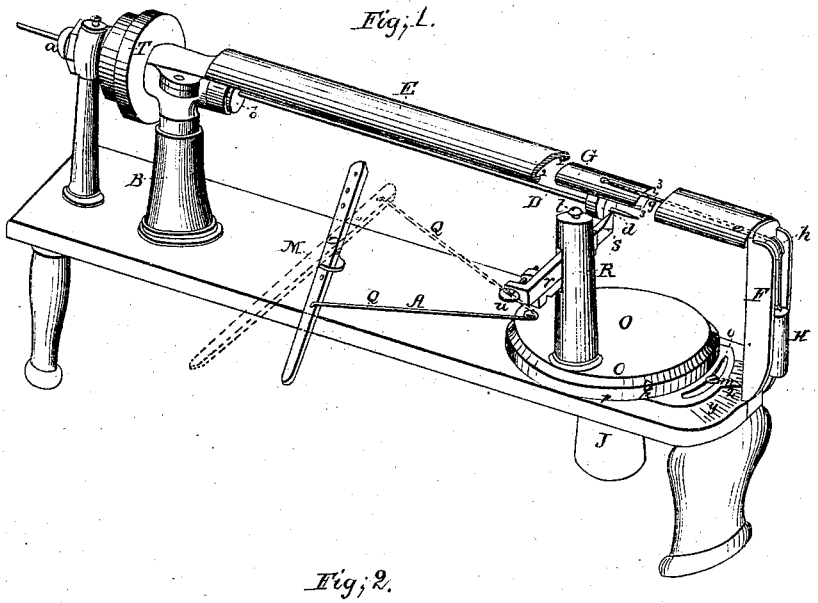
C. Tillson,

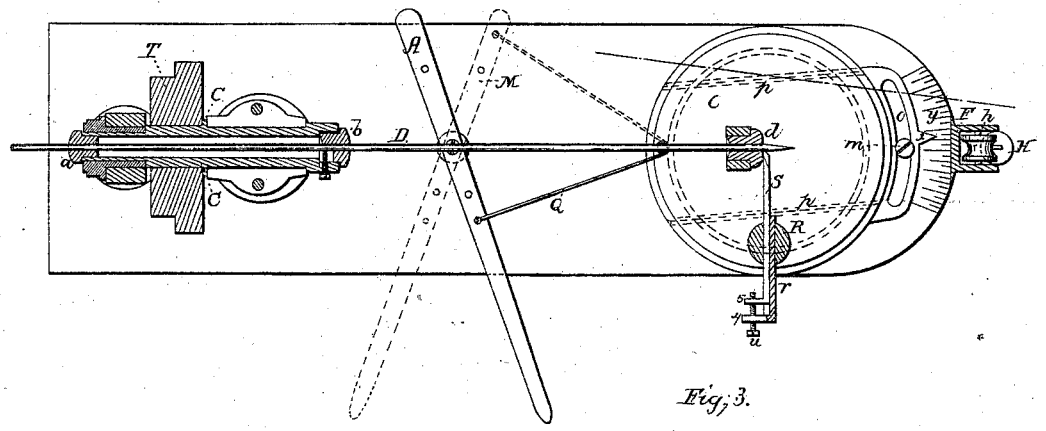
Wire-Pointing Machine,

No. 47,955. Patented May 30, 1865.

Fig; 1.



Fig; 2.



Fig; 3.

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UNITED STATES PATENT OFFICE.

C. JILLSON, OF WORCESTER, MASSACHUSETTS.

IMPROVED MACHINE FOR POINTING WIRE.

Specification forming part of Letters Patent No. **47,955**, dated May 30, 1865.

To all whom it may concern:

Be it known that I, C. JILLSON, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Wire-Pointing Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of said wire-pointing machine with a part of the frame E broken away. Fig. 2 represents a horizontal section through the same.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the bed or table of the machine, which supports the working parts. B represents the stand, which supports the journal-box and bearing of the hollow wire-shaft C, in which the wire D is secured by means of the eyes *a b*. A frame, E, extends from the stand B over the length of the table A, and is supported at its end by standard F. The frame E is concave on its inner side, and is provided with two guideways, 2, on which the block G can slide, it being provided for that purpose with grooves 3, which are fitted over the ways 2. The eye *d*, which supports the end of the wire to be pointed, is secured to the lower side of the guide-block G. A cord, *g*, is secured to the guide-block, passes over a pulley, *h*, within the standard F, and has a weight, H, attached to its end, which latter tends to draw or force the block G and eye *d* toward the standard F, or away from the wire to be pointed.

P represents a circular bed-piece, which is supported on the table A, and which can be turned and secured to any desired angle with the wire to be pointed by means of the set-screw *m*, which passes through the circular slot *o*. It has the guides *p*, on which the table O of the cutter-stand can be moved in a longitudinal direction, which latter operation may be performed by means of the lever M, which turns upon the stud N, and is connected with the table O by the rod Q.

The cutter S, by which the wire is pointed, is not secured directly to its stand R, but rests within a sleeve, *r*, which is secured to the stand by means of the set-screw *t*, the sleeve having been secured therein. The point of the cutter *s* can be adjusted with great accuracy by turning the set-screw *u*, which passes through the lug 4 of the sleeve *r* and through the lug 5 of the cutter *s*. The point of the cutter being properly adjusted, the weight H forces the eye *d* against the side of the cutter, as represented at Figs. 1 and 2. Motion being given to the pulley T, the wire-shaft C and wire D are turned, and by operating the lever M so as to move the table O and its cutter-stand in the direction of the arrow, the wire is pointed in a manner shown at Figs. 1 and 2, the tapering of the point being in conformity with the angle at which the table P was previously set, which is done by means of the point *z* and the index-plate *y* on the bed-plate A.

The screw *u*, by which the cutter *s* can be moved toward the wire, can be used also for cutting off the points after they have been tapered. In this case, the lever M is released, so as to stop the feed-motion of the wire, and as the wire is turned and the cutter *s* is forced towards the wire it cuts off the points.

When it is desired to cut off short pointed pieces, as indicated at Fig. 3, the table P is turned so that the ways *p* come into the position indicated in red lines in Fig. 2. When the cutter-stand is drawn toward stand B by lever M, the cutter will be moved toward the wire, and as the operation proceeds the wire will be pointed in an opposite direction from that shown in Figs. 1 and 2, since the cutter commences to act upon the periphery of the wire and moves toward the center, instead of commencing at the center and then receding toward the periphery, as first above described.

In case it is desired to have some part of the wire of the full size, then the wire should be passed by the cutter the desired distance before the latter commences to act upon it. Lever M is provided with a series of holes on each side of the fulcrum N, so that the connecting-rod Q can be changed to draw on a line as nearly parallel with the ways *p* as practicable. The motion of the cutter-stand is always back in the direction of the arrow when pointing the wire, and when pointing wire as indicated in Fig. 3, the rod Q would be connected to lever M, as indicated in red in Figs. 1 and 2; but when pointing wire as shown in Figs. 1 and 2, then rod Q would be

connected with lever M on the opposite side of its fulcrum, or as shown in black lines, same figures, for the purposes heretofore described.

The inner surface of the circular table P is indicated in dotted lines at Fig. 2. It has a circular flange, which fits down into a corresponding opening cut in the table or bed A.

A weight, J, is attached to the cutter-stand O, to retain it in place upon the ways *p p* when the machine is in operation.

By the use of the arched or concave frame E, the guideways 2 and grooves 3 are well protected from dirt or dust.

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

1. In combination with the hollow wire-shaft, the extension guide-frame E, sliding block G, and self-adjusting supporting-eye *d*, substantially as and for the purposes specified.

2. The combination, with the cutter *s*, of the supporting-sleeve *r*, for adjusting and feeding the cutter, as and for the purposes specified.

3. The combination, with the guide-block G and supporting-eye *d*, of the yielding and self-adjusting weight H, substantially as set forth.

4. The combination, with the arched frame E, of the guide-block G and supporting-eye *d*, as and for the purposes set forth.

5. The combination of the circular bed-piece P and table O, for supporting the cutter-stand R, substantially as and for the purposes set forth.

6. The combination, with the table A, of the bed-piece P, table O, and operating-lever M, substantially as and for the purposes described.

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Witnesses:
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