

Patented May 8, 1866.

Fig. 4.

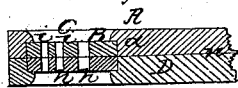


Fig. 3.

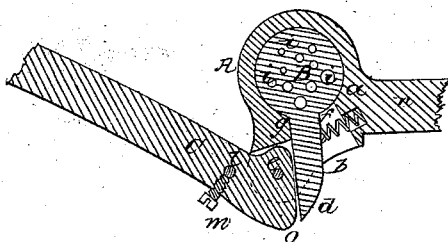


Fig. 2.

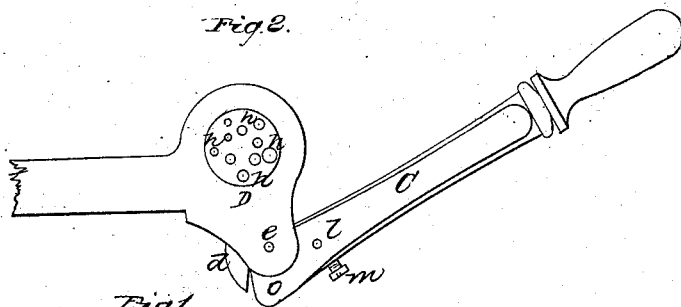


Fig. 1.

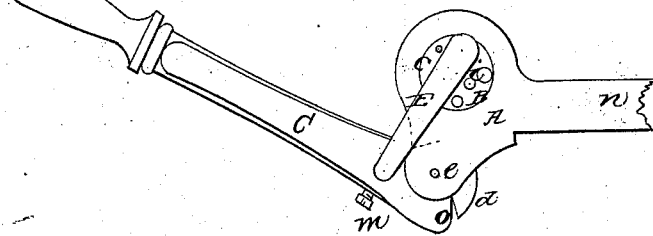
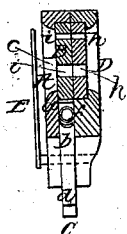


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. FLINN, OF NASHUA, NEW HAMPSHIRE.

IMPROVED MACHINE FOR CUTTING WIRE.

Specification forming part of Letters Patent No. 54,520, dated May 8, 1866.

To all whom it may concern:

Be it known that I, WILLIAM H. FLINN, of Nashua, in the county of Hillsborough and State of New Hampshire, have invented a new and useful Wire or Rod Cutting Machine; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figures 1 and 2 are opposite side elevations of it. Fig. 3 is a longitudinal section of it. Fig. 4 is a horizontal section, and Fig. 5 a transverse section, of it.

In the drawings, A denotes a case provided with a circular chamber, *a*, and a flaring passage, *b*, leading out of such at its circumference. The case also has a circular opening, *c*, leading out of one side of it, and concentrically with the axis of the case. Such case is to contain a circular cutter, or steel plate, or disk, B, provided with an arm, *d*, extending from it and through the opening *b*, in the manner as represented.

A cammed lever, C, supported on a fulcrum-pin, *e*, is applied to the case, and with respect to the arm *d*, in manner as represented. A spring, *f*, arranged between the said arm and the bottom of the opening *b*, serves to move the arm back to a stop or abutment, *g*, and in a direction opposite to that in which it may be moved by the cammed lever.

A cap-plate, D, covers the case A and the movable disk B, and is fastened to the former, and has a series of holes, *h*, bored through it, each of which is in continuation of some one of a like series of holes, *i*, made through the disk B when the arm *d* is against the shoulder *g*. Each hole of the disk B is to correspond in diameter with its fellow of the cap-plate. That part of the cap-plate in which the series of holes are made may be composed of steel. In other words, it may be a steel plate of a square, polygonal, or other suitable shape, inserted in a corresponding recess made in the cap-plate.

A gage, E, fixed to a short rod, *l*, which extends from it at right angles and is inserted in the lever C and held therein by a set-screw, *m*, projects down alongside of the rear part or opening of the case A. This gage moves with the lever, and serves to determine the length of the piece to be severed from a rod or wire by the conjoint action of the disk B and the cap-plate.

In using the machine the foot or part *n* of the case may be supposed to be either held

in a vise or to be properly fastened to a bench or table, so as to enable a person to operate the lever by one hand, while with the other he directs the wire or rod into either hole of the cap-plate and forces it through such cap-plate and the disk and against the gage.

On moving the disk B by the cam *o* of the lever being caused to act against the arm *d*, the wire or rod will be severed at the junction of the disk and cap-plate.

When the arm *d* is against the shoulder *g* the cam *o* should be at a little distance from the arm, in order to allow play enough of the lever on its fulcrum to move the gage high enough to enable the piece cut from the rod to be expelled from the disk B by the rod when next advanced into the disk.

From the above it will be seen that the disk B has no center-pin for it to revolve on, but is supported wholly within and circumferentially by the case A. The advantage of this mode of supporting the disk and dispensing with the center-pin, such as is shown in the wire-cutter which forms the subject of the United States Patent No. 13,570, is that such mode enables a wire or rod having a diameter much larger than that of a center-pin to be cut or severed, for when a center-pin is employed to support the disk or cutter B a wire having a diameter greater than that of the pin cannot be cut by the cutters without great danger of breakage of the center-pin.

I do not claim two perforated shearing-plates applied so that one may revolve against the other, each being constructed with a series of radial slots, as represented in the hereinbefore-mentioned patent. Nor do I claim the combination of a gage therewith.

What I claim as my invention is—

1. The application of the case A and its perforated cutter or cap-plate D to the perforated disk B, substantially in manner as described, the case under such circumstances operating to support the plate B circumferentially.

2. The combination and arrangement of the case A, the cutter-plate B, the cap cutter-plate D, the arm *d*, and the cam-lever C.

3. The arrangement of the gage E with the cam-lever, the perforated case A, and the perforated disk B, provided with an arm, *d*, or the same and a spring, *f*, as specified.

Witnesses: WILLIAM H. FLINN.

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