(No Model.)

C. F. STACKPOLE.

DEVICE FOR CUTTING RODS.

No. 342,712. Patented May 25, 1886.

Fig. 1.

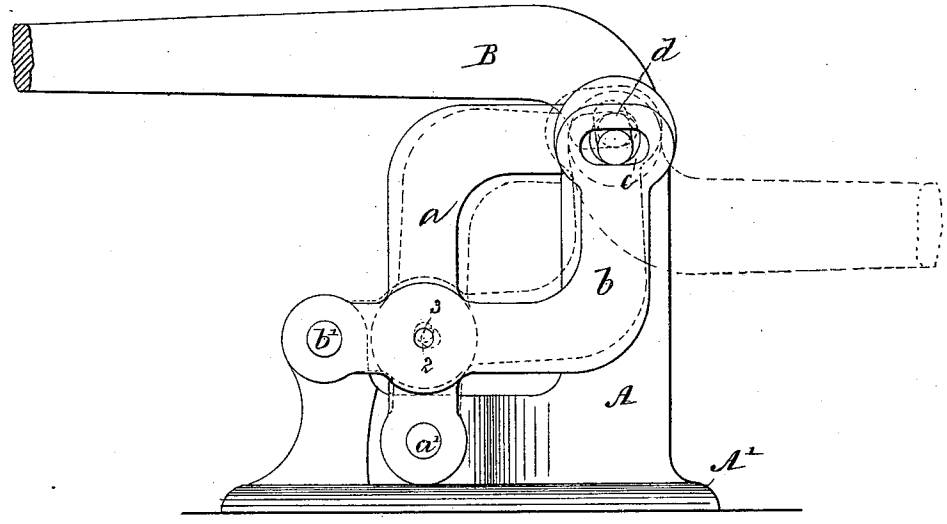
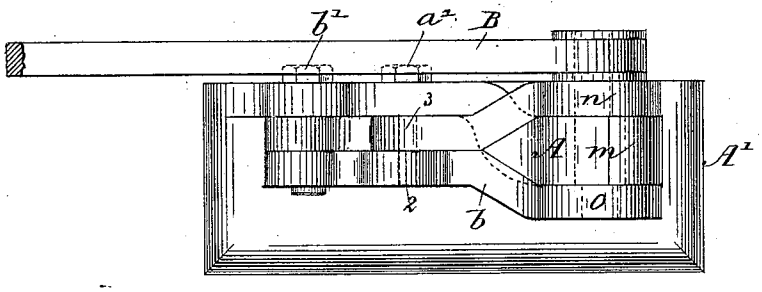


Fig. 2.



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Per:

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UNITED STATES PATENT OFFICE.

CHARLES F. STACKPOLE, OF LYNN, MASSACHUSETTS.

DEVICE FOR CUTTING RODS.

SPECIFICATION forming part of Letters Patent No. 342,712, dated May 25, 1886.

Application filed September 26, 1885. Serial No. 178,213. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. STACKPOLE, of Lynn, county of Essex, and State of Massachusetts, have invented an Improvement in Devices for Cutting Rods, of which the following description, in connection with the accompanying drawings, is a specification—like letters on the drawings representing like parts.

This invention has for its object the production of an apparatus by which to cut off rods or wire, leaving a smooth flat end devoid of ragged edges, and this without at all changing the diameter of the rod or wire.

The invention consists of a pair of bent levers having holes or orifices, through which the rod or wire to be cut is passed, said levers being so pivoted with relation to each other as to allow the holes to register when said levers are in a given position, combined with a rotating shaft having wrist-pins projecting therefrom at opposite ends, which connect with and work in slots cut in the ends of the bent levers opposite their pivotal connections, and means, substantially as will be described, for rotating said shaft. The levers are preferably bent at right angles, and so placed opposite to each other as to allow one each of their corresponding arms to intersect at right angles, and to be pivoted to the frame of the machine beyond such point of intersection. The bent levers at their points of intersection are provided with holes, or it may be dies, through which the rod or wire to be cut passes, said dies registering when the levers are in a given position, and passing each other to sever the rod when the levers are moved. The ends of the bent levers opposite their pivotal connections are provided with slots, in which wrist-pins leading from the rotating shaft work, and an operating-lever is splined to one of the wrist-pins, by means of which motion is imparted to the machine.

Figure 1 represents in front elevation an apparatus for cutting rods or wire constructed in accordance with this invention, and Fig. 2 a top view thereof.

The frame A, having the base A′, is of suitable shape to support the working parts.

The cutting mechanism consists of the pair of levers *a b* bent, as herein shown, at right angles, and so located opposite to each other as to allow one each of their corresponding arms to intersect at right angles and be pivoted to the frame A by the pins *a′ b′* a short distance beyond such point of intersection, while the ends of the levers opposite their pivotal connections so come together as to be joined to the operating mechanism. The bent levers at their point of intersection are provided with holes or orifices 2 3, of suitable diameter, through which the rod or wire to be cut is passed, so that as the levers are moved on their pivots and in a given position the holes will register, and on further movement of the levers will move by each other.

Suitable dies, which may be removed at will, and through which the rod or wire to be cut passes, may be employed, if desired.

The bent levers *a b* are moved on their pivots as follows: A shaft, *m*, (see dotted lines, Fig. 2,) has its bearings in the frame A. Two wrist-pins, *n o*, (shown by dotted lines, Fig. 2,) project from opposite ends of the shaft *m* and enter slots *c d*, cut in the ends of the bent levers *a b*. An operating-lever, B, is splined to the wrist-pin *n*, movement of which rotates the shaft *m*. As the operating-lever B is moved, the shaft *m* is rotated, and by the wrist-pins *n o* the bent levers *a b* are moved on their pivots. Normally the holes 2 3 register when the operating-lever B lies in the position shown in Fig. 1, and at such time the rod or wire to be severed will be moved. The lever *a* bears upon one side of the rod and presses at its opposite side against the lever *b*, while the lever *b* bears upon the under side of the rod and presses the upper side against the lever *a*, so that the rod is acted upon by the levers, or by dies, if dies are employed, on four sides at or about the same time.

It has been found to be advantageous to locate the wrist-pins *n o* eccentrically to the circle described by the said wrist-pins as the shaft *m* is rotated, so that one may act to move its lever prior to the other, although such arrangement is not essential.

By the employment of the operating-lever B only a partial rotation is imparted to the shaft *m;* but as only a limited movement is required said lever has been considered adequate, although, if desired, the shaft *m* may be rotated

by power or in any other suitable manner without departing from this invention.

By acting upon four sides of the rod at or about the same time a very smooth square surface is given to the severed end and its diameter remains unchanged, thereby obviating the necessity of finishing the end of the rod after cutting.

I claim—

1. In a machine for cutting rods or wire, a frame and pair of intersecting bent levers pivoted thereto with their pivots out of line and intersecting each other, said bent levers having holes 2 3 at their point of intersection, which register when the levers are in a given position, and which, when the said levers are moved on their pivots, act upon four sides of the rod or wire to be cut, as set forth.

2. The frame and intersecting bent levers pivoted thereto with pivots out of line, combined with means, substantially as described, for moving the said levers on their pivots, as set forth.

3. The frame and bent levers pivoted thereto and intersecting each other, combined with the rotating shaft *m* and wrist-pins *o*, operatively joined with the said levers to move them, substantially as described.

4. The frame and bent levers pivoted thereto and intersecting each other, combined with the rotating shaft *m*, its wrist-pins *o*, to engage the said bent levers, and the operating-lever B, to move the said shaft, all substantially as described.

5. The frame and bent levers pivoted thereto and intersecting each other, combined with the rotating shaft *m* and wrist-pins *o*, connected with the said bent levers, said wrist-pins being located at different points in the circumference of a circle which they describe as the shaft *m* is rotated, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHAS. F. STACKPOLE.

Witnesses:

F. CUTTER,

C. M. CONE.