J. Carroll, Die for Screw Cutting

[66.]

No. 119,445. Patented Oct. 3, 1871.

Fig. 1.

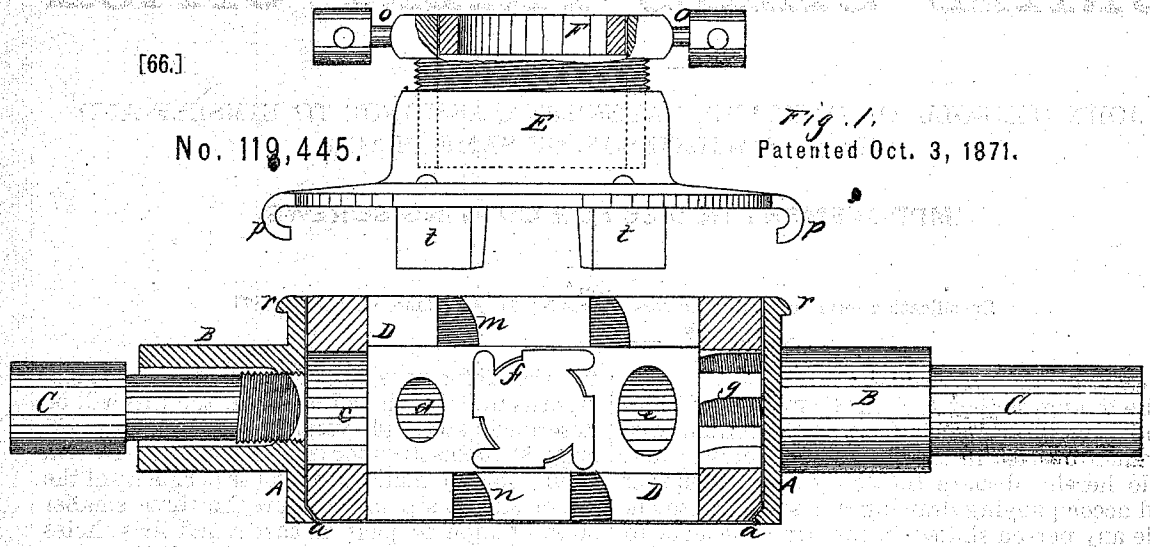
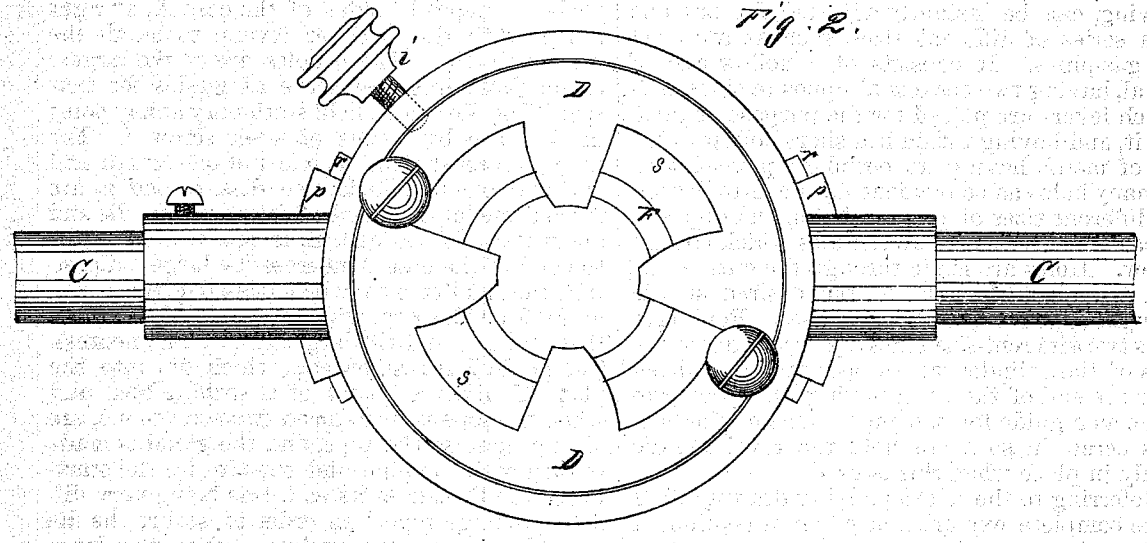


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN CARROLL, OF OAKLAND, CALIFORNIA, ASSIGNOR TO HIMSELF AND CHARLES WILKINSON, OF SAME PLACE.

IMPROVEMENT IN DIES FOR CUTTING SCREWS.

Specification forming part of Letters Patent No. 119,445, dated October 3, 1871.

To all whom it may concern:

Be it known that I, JOHN CARROLL, of Oakland county of Alameda, State of California, have invented Revolving Die for Cutting Screws; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The object of my invention is to provide a die for cutting screws, which, by being made revolving, can be instantly adjusted for any one of a series of different sizes, such as are used for gas-pipes. It consists of a hollow case of metal, having two sockets at opposite sides, into which levers are placed for the purpose of turning it, and having within it a short hollow cylinder of metal, having its periphery pierced with as many holes as convenient for the introduction of different sizes of pipe or bolts, and opposite to each of these holes are the dies which cut the screw. Holes are made through the outer case, and the die is turned till the desired size is brought opposite one of these holes. For larger sizes two different-sized dies are formed about the axis of the cylinder, and a peculiar cap is fitted over the end of the case, having an opening to serve as a guide for the pipe. One of the handles screw in so as to hold the revolving die firmly in place when this is used.

Referring to the accompanying drawing for a more complete explanation of my invention, A is the outer case, which is in the form of a short cylinder, and has two sockets, B B, projecting from its periphery at opposite sides. Into these sockets the operating handles C are thrust. One of these handles has a screw cut on its inner end, and it passes through the side of the casing so as to enter one of the openings in the die, as will hereafter be explained. The die D is of steel, and fits into the casing so as to turn easily. It is beveled at one end, and this bevel rests against a similar one at that end of the casing, as at *a*. This prevents the die from passing through, and screws *b* or other suitable device may be employed to prevent its withdrawal. The die here shown is intended more particularly for the different sizes of gas-pipe from, three-eighths to one inch and one-half, and this will be described, although various modifications will suggest themselves for different classes of work. Four holes are made through the periphery of the die of such a size as to allow the three smaller sizes of pipe to pass in easily, and these holes serve as guides to steady the pipe till the screw is cut. The corresponding dies are formed in the rim exactly opposite to the guiding-holes, so that when the pipe is introduced and the die turned the screw will be cut accurately. Two holes are made on opposite sides of the case A, at right angles with the arms or levers, to admit the pipe to the die. These holes are of the largest of the four sizes, and serve as guides for that size. The die can be held stationary at any point in the case by means of a set-screw, *i*. For the two largest sizes, as one and one-fourth and one and one-half inch, two dies, *m* and *n*, are formed, one at each end of the revolving die and about its axis. A cap, E, is made to fit upon the end of the case A nearest the largest die, so that the smaller size, when passed through the guide F on the cap, will be cut by the die furthest from it, and the larger one by that nearest. The guide F is a screw-cap, which fits into the plate E like the gland of a stuffing-box, and when the pipe is introduced two screws, *o o*, are set up against the pipe, and the gland is made to turn with the pipe and thus insure the starting of the thread on its end, this being very difficult in large pipe. In order to secure the die D and prevent its revolving when the large sizes are being cut, the lever C, before mentioned, is turned so as to enter one of the smaller guide-holes, and this effectually holds it. The cap E is made easily removable, or held firmly in place by means of two curved ears, *p*, which, when the die D is turned to the proper point for the holding-lever C to enter the guide-hole *c*, will just hook over the projections *r* on the sides of the case. In order to insure the turning of the cap with the die it is formed with projecting lugs *t* on the inside, which enter the openings *s*.

Having thus described my invention, what I desire to secure by Letters Patent is—

1. The cylinder D, provided with the guide-

holes and the corresponding dies, in combination with the perforated case A, when constructed and operated substantially as described.

2. The holding device E, constructed substantially as shown, in combination with the subject-matter of the first clause of the claim, substantially as shown and described.

In witness that the above-described invention is claimed by me I have hereunto set my hand and seal.

JOHN CARROLL. [L. S.]

Witnesses:
GEO. H. STRONG,
CHARLES WILKINSON.