

(No Model.)

R. C. ELLRICH.

PIPE CUTTER.

No. 333,618.

Patented Jan. 5, 1886.

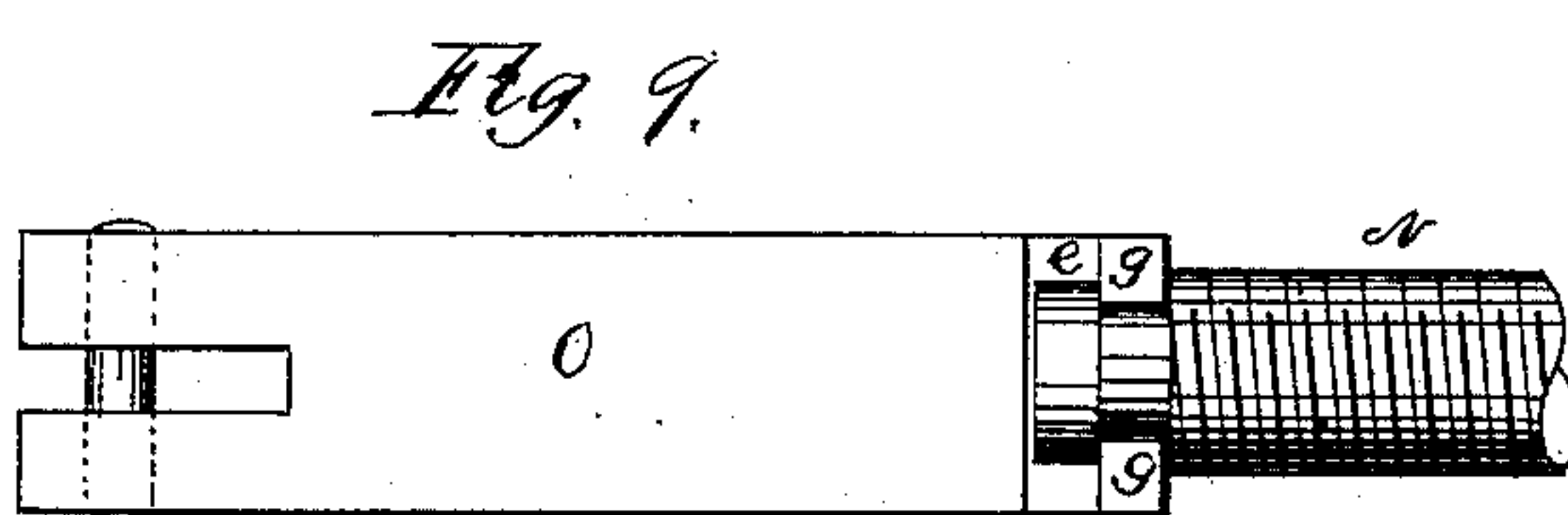
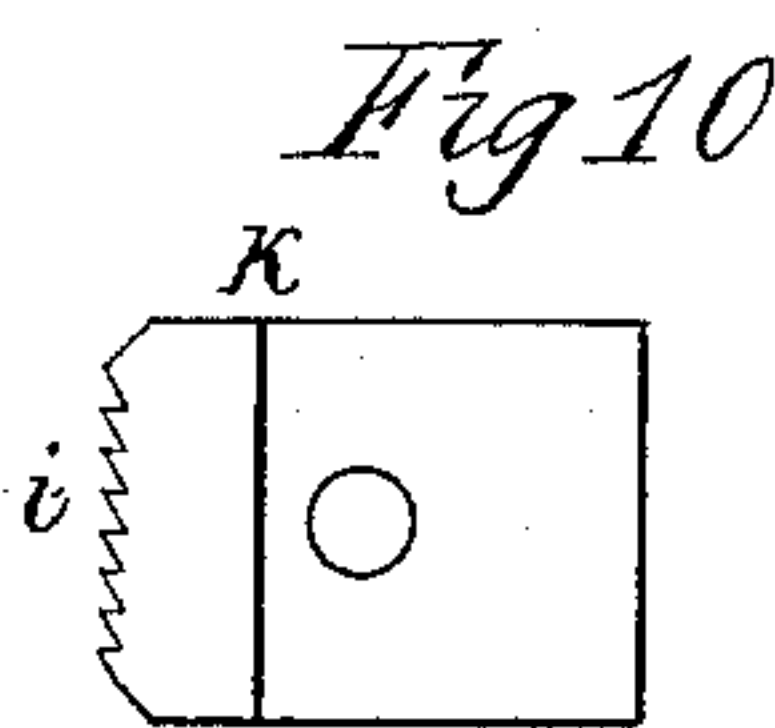
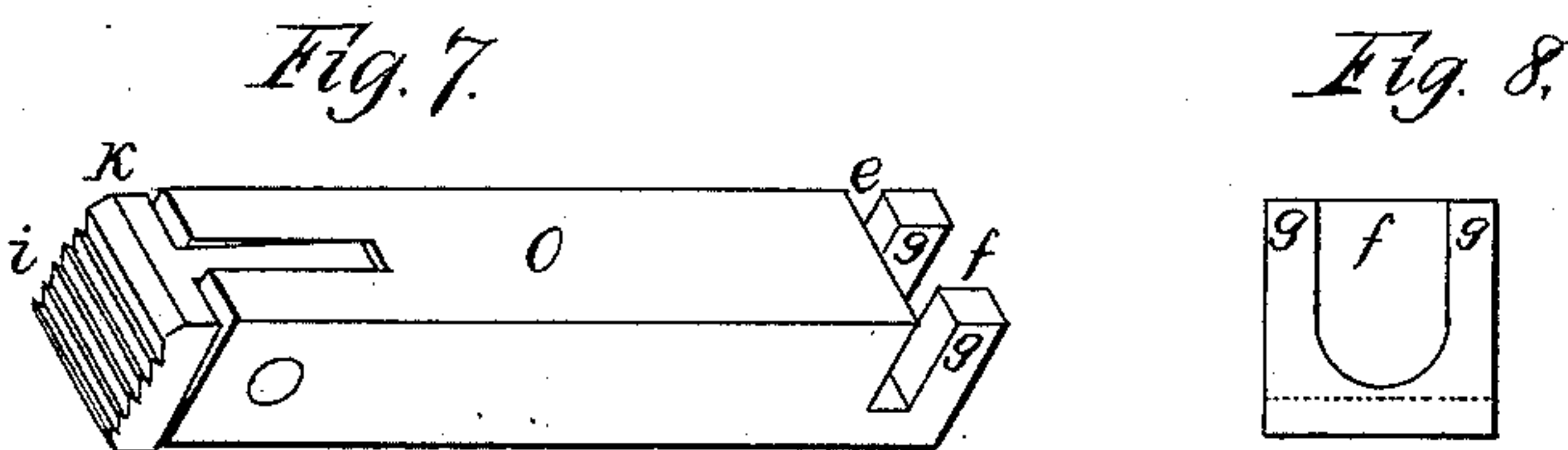
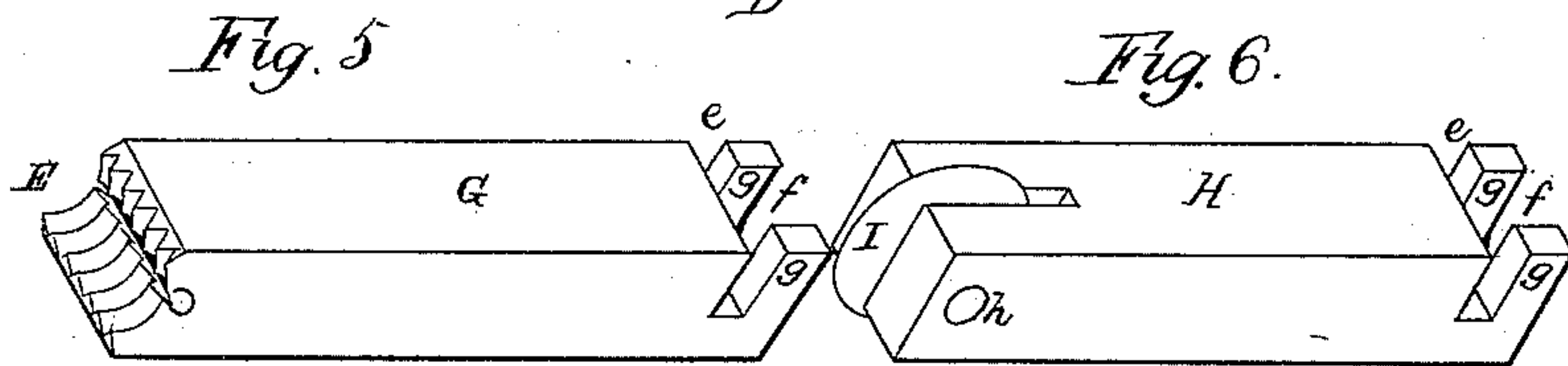
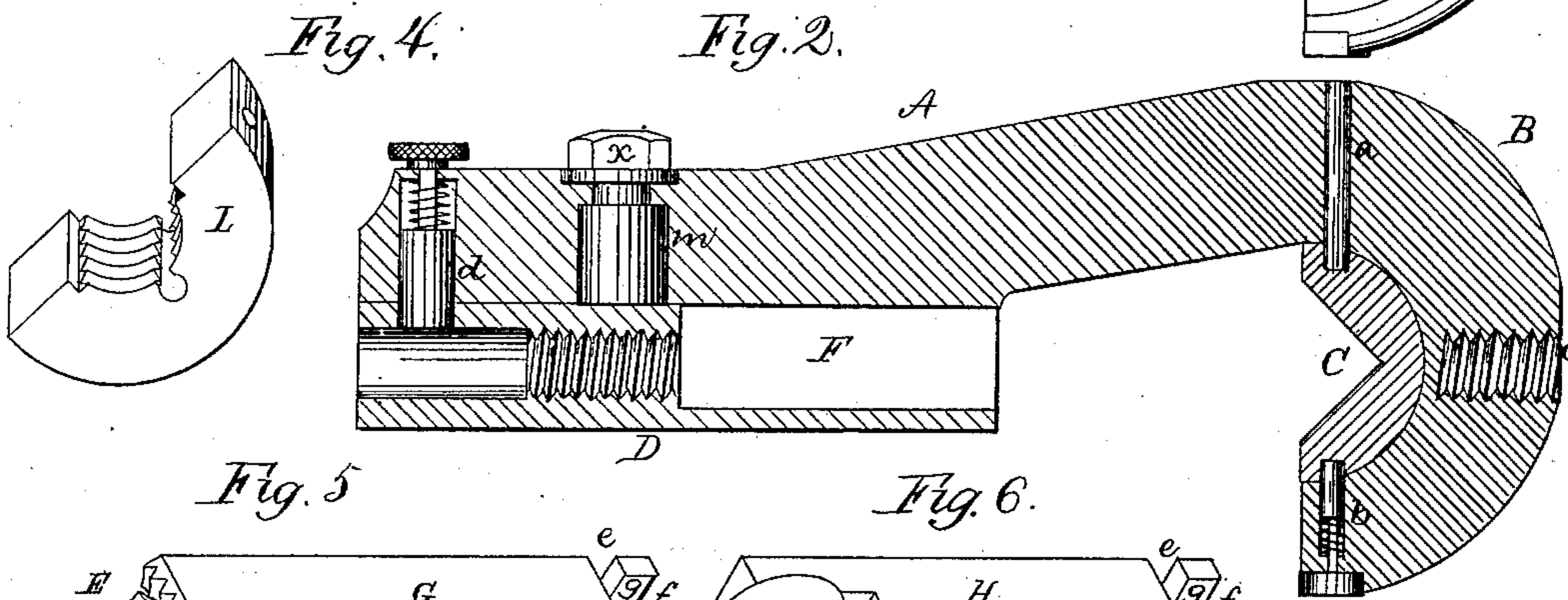
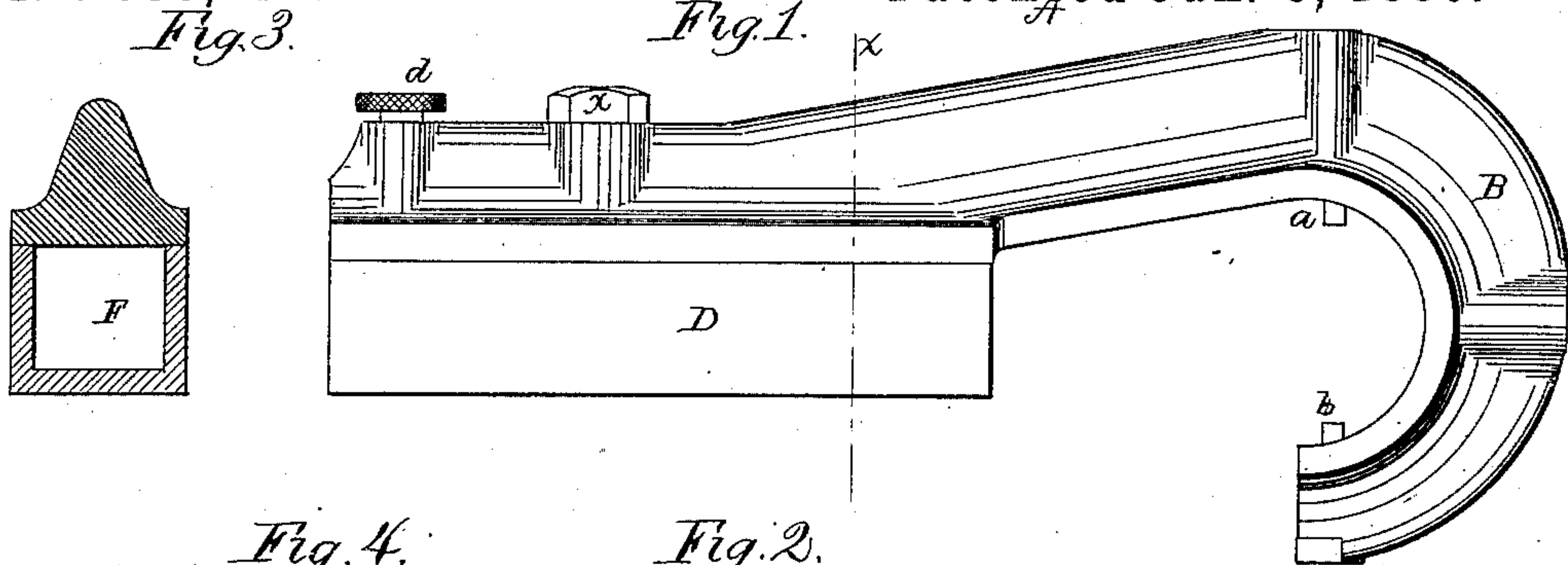


Fig. 7.

Fig. 8.

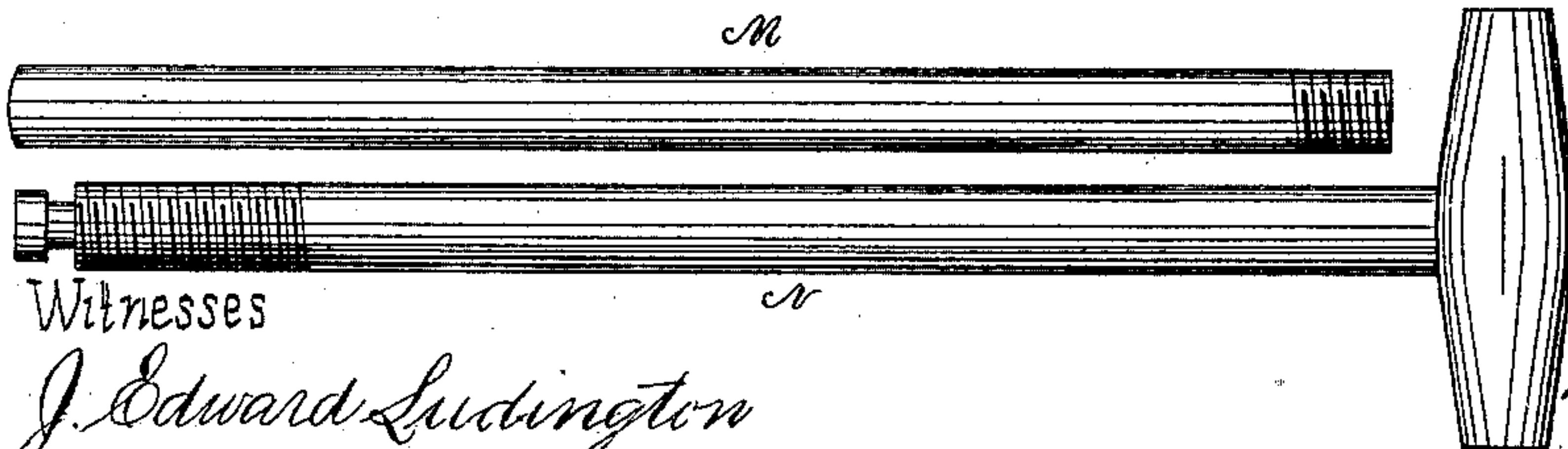
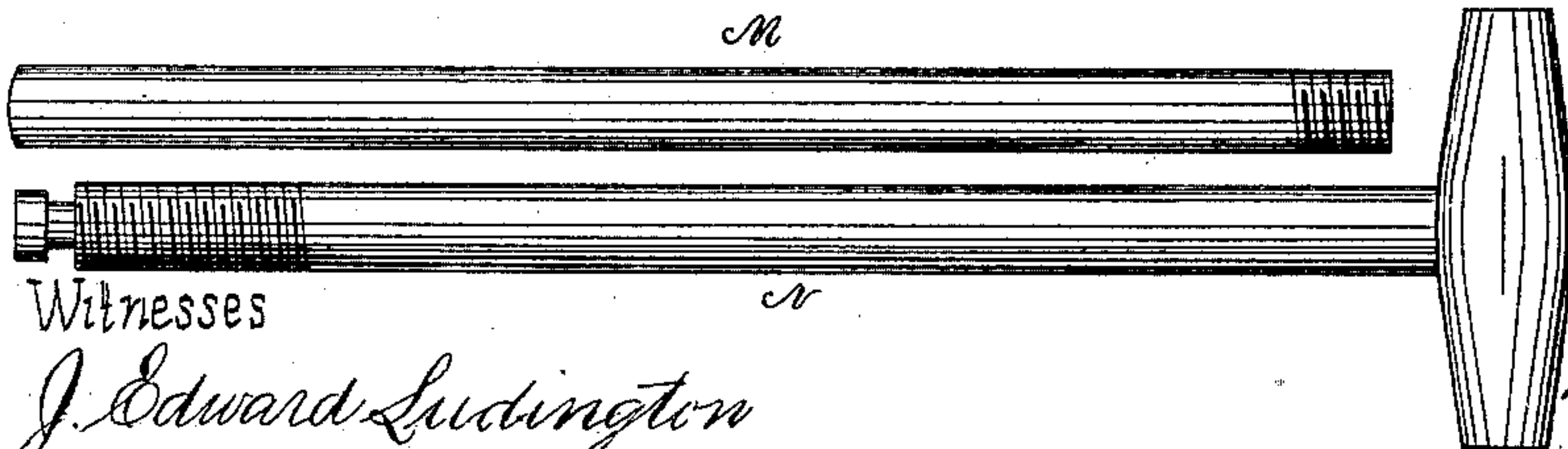


Fig. 10.

Fig. 11.



Witnesses

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PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 333,618, dated January 5, 1886.

Application filed February 4, 1885. Serial No. 154,945. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. ELLRICH, a citizen of the United States, residing at Southington, in the county of Hartford and State of Connecticut, have invented certain new and useful improvements in Combined Tools, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a view of the frame, and Fig. 2 is a longitudinal section of the same and of one of the parts in position in the frame. Fig. 3 is a cross-section of the frame on line *x*, Fig. 1. Figs. 4 and 5 are perspective views of dies for thread-cutting. Fig. 6 is a perspective view of a slide and the cutter. Fig. 7 is a perspective view of a slide and the toothed piece for turning the pipe. Fig. 8 is an end elevation of the slide, and Fig. 9 is a top view of the slide and of one end of the handle. Fig. 10 is an elevation of the toothed piece, and Fig. 11 is a reduced view of the handles.

The object of my invention is to make tools, which may be arranged in a common frame, whereby the functions of pipe-cutters, pipe-tongs, and dies for cutting threads on the ends of pipes may be performed, as is hereinafter more fully described and explained.

The frame A, Figs. 1 and 2, has the curved head B, and is made in two parts, B and D, which are pivoted together. The curved head B is circular on the inside to receive the V-shaped part C, Fig. 2, and the die L, Fig. 4. In one side of the head B is the stationary pin *a*, and opposite is the movable pin *b*, which has a spring and head for operating the pin. The pins *a* and *b* hold the part C, Fig. 2, and the die L, Fig. 4, in place. In the end of the head B is a threaded hole, *c*, into which the handle M, Fig. 11, is screwed when the tool is used for cutting threads. The part D is pivoted in the part of the frame opposite the head B, and is made in one piece with the pivot *m*. It is rectangular, and has the rectangular groove F, Fig. 3, in one end to receive the slides, Figs. 5, 6, and 7, and in the other end the hole and screw-thread to insert the handle N, Fig. 11. The pivot *m* has a shoulder which bears on a corresponding shoulder in the hole, and has a nut, *x*, with a circular base on the end to hold the two parts

together. The part D may be turned at any angle with the frame A to allow the slides to be placed in the groove F, and is held in position by the pin *d*, inserted in the frame, and which enters the part D. The pin *d* has a knurled head, by which it is drawn back, and has a spring to force it into the part D. The part C fits into the head of the frame, and has a V-shaped surface on the inside, against which the pipe comes, and is used in connection with the cutter I and the toothed part K, Fig. 7.

The die L, Fig. 4, is semicircular, and fits into the curved head of the frame. It has two small holes in its circular surface, one only of which is shown, into which the pins *a* and *b* enter to keep it in place.

The slide G, Fig. 5, is rectangular, and is made into a die, E, at one end. The die E and the die L, Fig. 4, are for cutting threads on the pipe. In the other end of this slide two deep slots are made, one at right angles with the other, making the forks *g* and *g*, Figs. 8 and 9. Between the forks the grooved end of the handle N, Fig. 11, is placed, and is the means for moving and retaining the slides. This form of the end of the slide is common to all the slides.

The slide H, Fig. 6, is slotted in place of the die E in the slide G to receive the cutter I, which is of the usual form, and turns on a pin, *h*, in the slide.

The part K, Fig. 10, attached to the slide O, Fig. 7, has the toothed face *i*, and is pivoted in the slide O, so that it is free to turn slightly. The teeth on the face *i* are inclined on one side and cut to the center of motion on the other side.

The handle N, Fig. 11, screws into the part D of the frame, and is grooved at one end and has a hand-piece for turning at the other end. The grooved end fits into the forks *g* on the several slides. (See Fig. 9.)

The handle M, Fig. 11, is threaded on one end and screws into the head B.

It is obvious from the above construction that the several parts may be arranged in the frame as desired to perform the functions of pipe-cutters, pipe-tongs, and dies for threading pipe.

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

1. The tool-frame comprising the portion A, having the curved head B, and the tool and handle receiving part D, pivoted to the portion A, and the spring-held locking-pin *d* for
5 holding said part D fixed with relation to the portion A, substantially as described.

2. In a tool substantially as described, the combination, with the curved head B, of the fixed pin *a*, at one side of said curved head, and
10 a spring-held pin, *b*, at the opposite side of said head, for locking a tool, C, in said head, as set forth.

3. The portion A, having the curved head

B, combined with the tool and handle receiving block D, having a pivot-pin, *m*, whereby 15 it is removably secured to the frame A, and a locking device, substantially as described, for retaining said block D fixed with relation to the portion A, as set forth.

In testimony whereof I affix my signature in 20 presence of two witnesses.

ROBERT C. ELLRICH.

Witnesses:

GEORGE TERRY,

J. EDWARD LUDINGTON.