

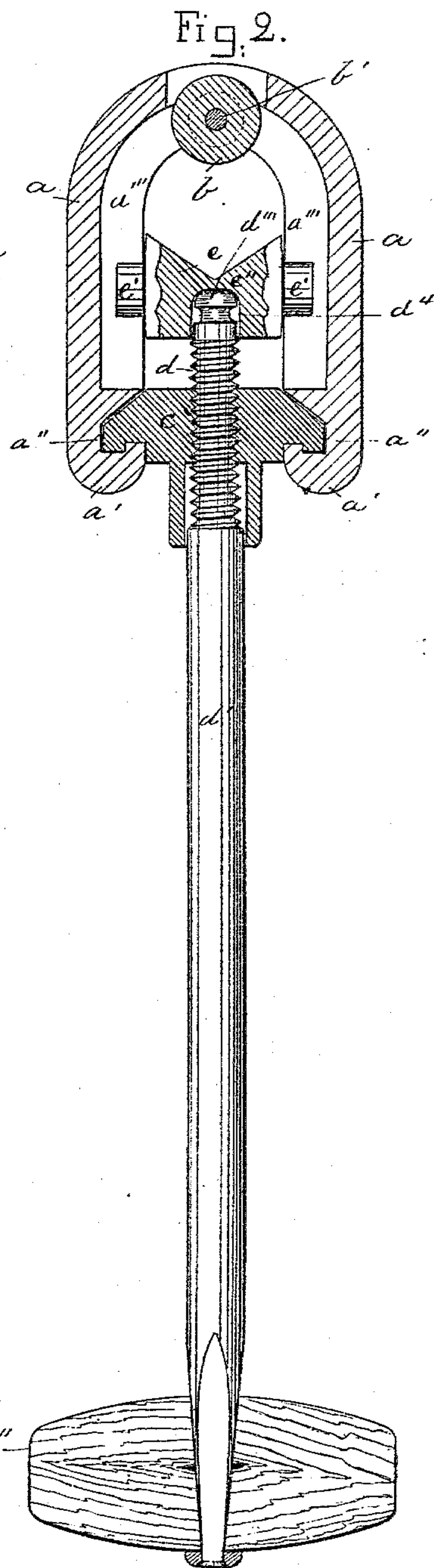
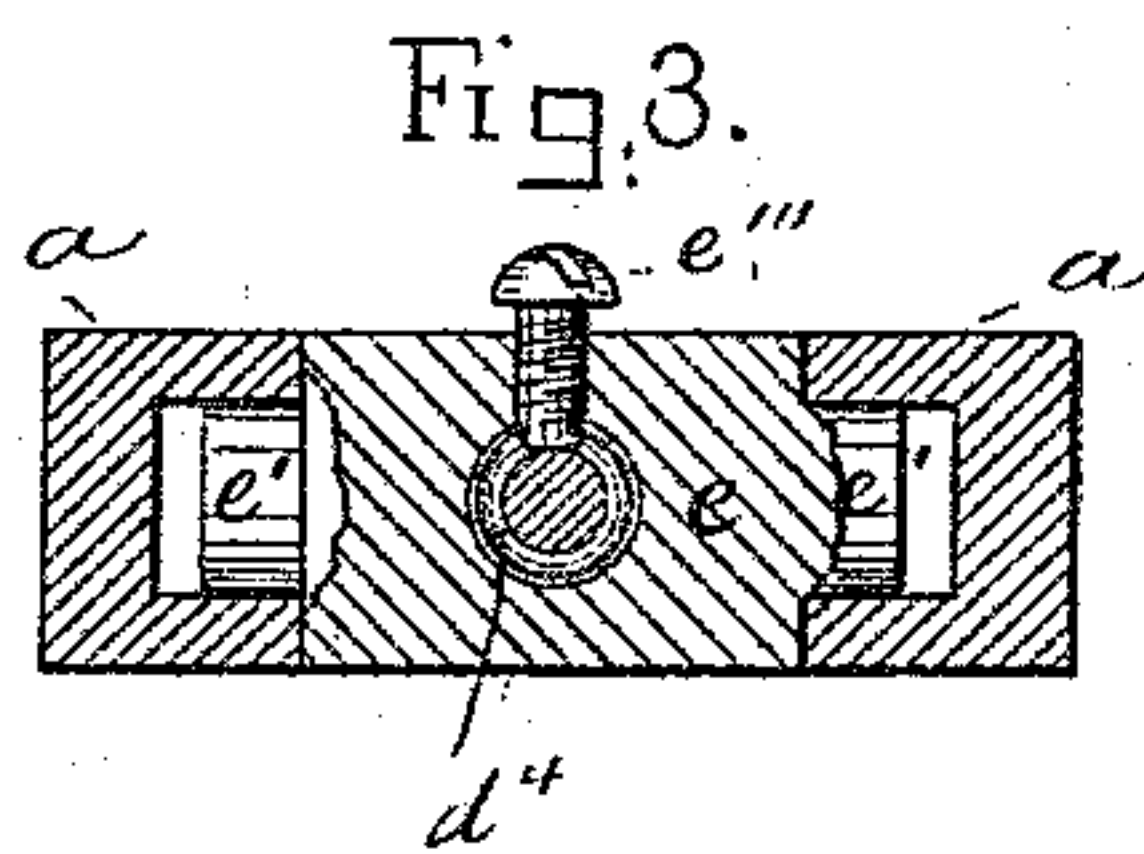
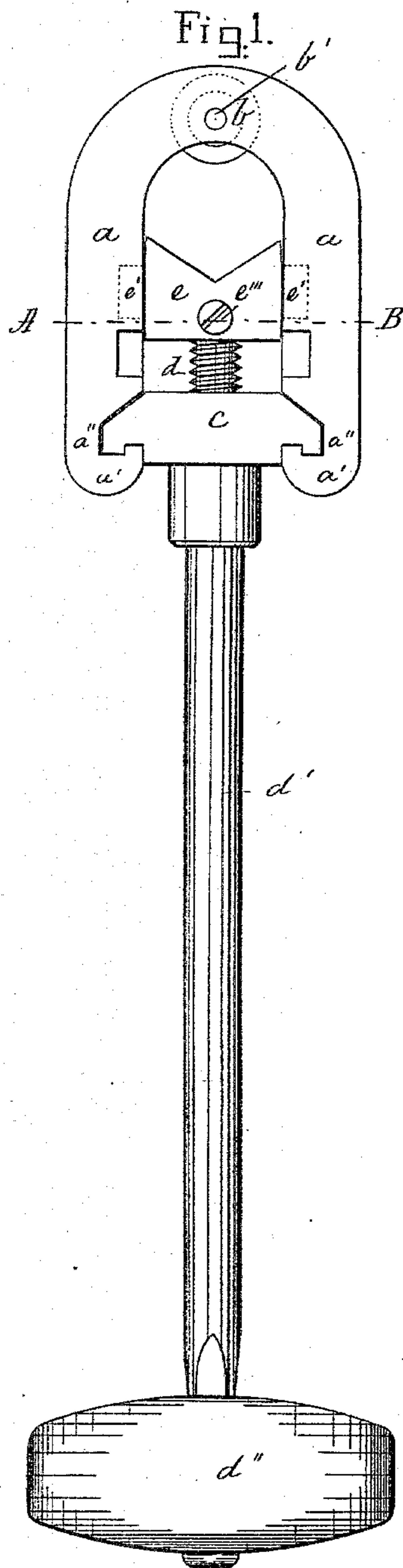
(No Model.)

J. MILLER.

PIPE CUTTER.

No. 274,631.

Patented Mar. 27, 1883.



Witnesses.

Henry Chadbourne.
Sarah M. Goodrich

Inventor

John Miller
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his atty.

UNITED STATES PATENT OFFICE.

JOHN MILLER, OF CAMBRIDGEPORT, MASSACHUSETTS.

PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 274,631, dated March 27, 1883.

Application filed October 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN MILLER, a citizen of the United States, residing at Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Pipe-Cutters; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

This invention relates to improvements in pipe-cutters, and it is carried out as follows, reference being had to the accompanying drawings, in which—

Figure 1 represents a front elevation of the invention, and Fig. 2 represents a longitudinal section. Fig. 3 represents a cross-section on the line A B shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a is the vise, having loosely journaled to it at its upper curved portion the cutter-wheel *b*, that is free to rotate on the pin *b'*, as shown. The lower ends, *a' a'*, of the vise *a* are provided with recesses *a'' a''* for the reception of the detachable nut *c*, as shown in Figs. 1 and 2.

d is the adjustable pressure-screw, working within the nut *c*, which screw is extended outward as a rod or lever, *d'*, provided in its extreme end with a cross-bar or handle, *d''*, by means of which the pressure-screw is operated. On the interior of the vise *a* is a groove, *a'''*, that serves as a guide for the cylindrical projections *e' e'* of the adjustable jaw *e*, as shown in Figs. 2 and 3. The pipes to be cut being often irregular on their exterior surfaces and not perfectly cylindrical, it is essential that the adjustable jaw *e* should be allowed to freely adjust itself to such irregularities to prevent the cutter-wheel *b* from cutting a spiral groove on the outside of the pipe and to insure a true and continuous circular cut, and it is for this

purpose that I make the side projections, *e' e'*, cylindrical, so that the jaw *e* may be allowed to oscillate on the axis of said cylindrical projections, so as to automatically adjust itself to the irregularity of the surface of the pipe that is being cut. To enable the said jaw *e* to automatically adjust itself to the surface of the pipe operated upon, it is also essential that the upper end of the screw *d* should be universally jointed to the jaw *e*, and therefore I make on the under side of it a concave recess, *e''*, somewhat larger in diameter than the convex head *d'''* of the screw *d*, as shown in Figs. 2 and 3, said head *d'''* being provided with an annular groove, *d⁴*, into which fits loosely the set-screw *e'''*, that is screwed through one side of the jaw *e*, as shown in Figs. 1 and 3, and in this manner, by the universal joint at the junction of the jaw *e*, combined with the circular projections *e' e'* on the adjustable jaw *e*, working in the grooves *a'''*, the jaw *e* is allowed to adjust itself automatically to the surface of the pipe that is being cut.

The pipe-cutter may be turned in either direction, to the right or left, for cutting pipes to equal advantage.

What I wish to secure by Letters Patent and claim is—

The herein-described improved pipe-cutter, consisting of the vise *a*, with its inner groove *a'''*, loosely-revolving cutter-wheel *b*, and nut *c*, in combination with the pressure-screw *d d'*, the adjustable jaw *e*, with its cylindrical side projections, *e' e'*, and universal-joint connection to the screw *d*, as and for the purpose set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN MILLER.

Witnesses:

ALBAN ANDRÉN,
HENRY CHADBURN.