

(No Model.)

W. D. FORBES.  
PIPE AND ROD VISE.

No. 356,871.

Patented Feb. 1, 1887.

FIG. 1.

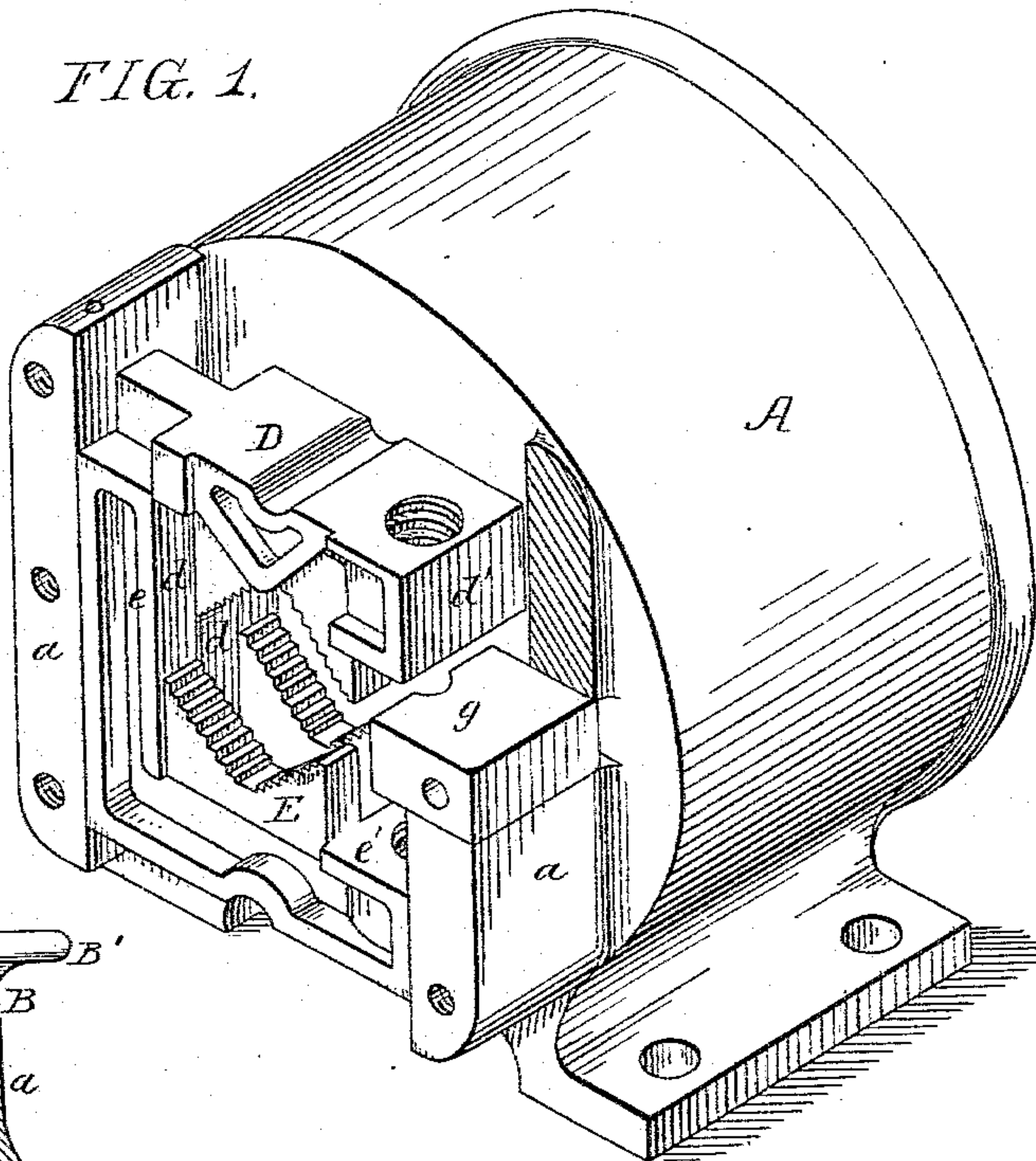


FIG. 4.

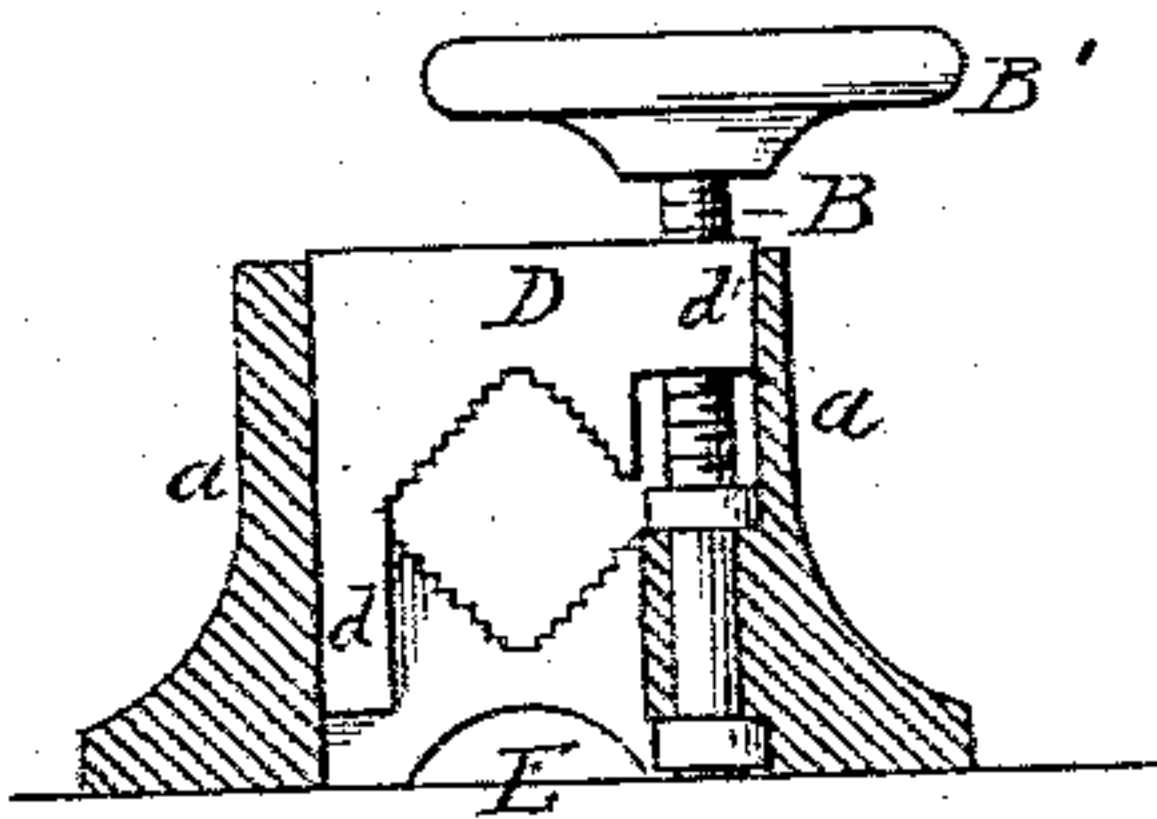


FIG. 2.

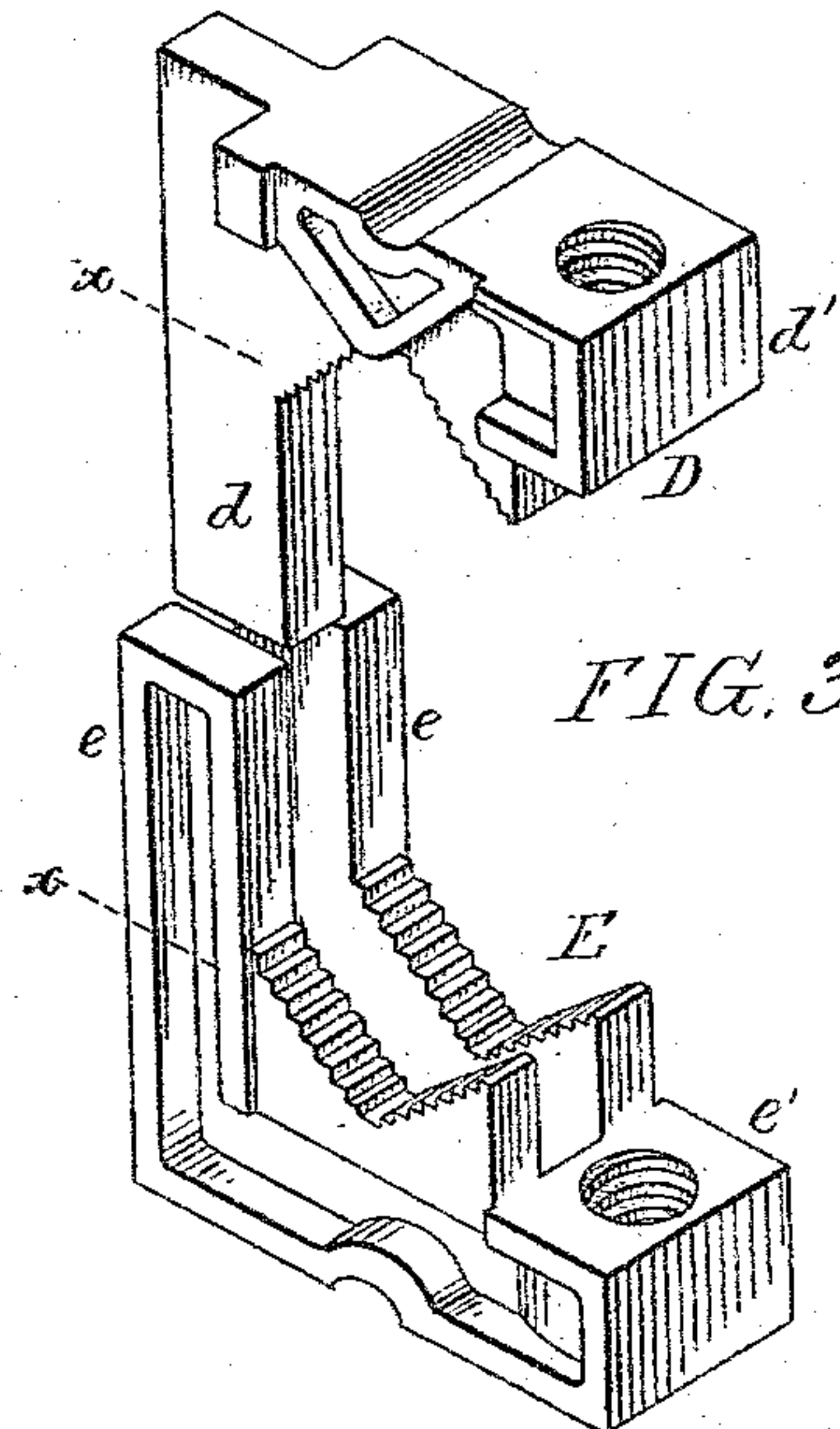
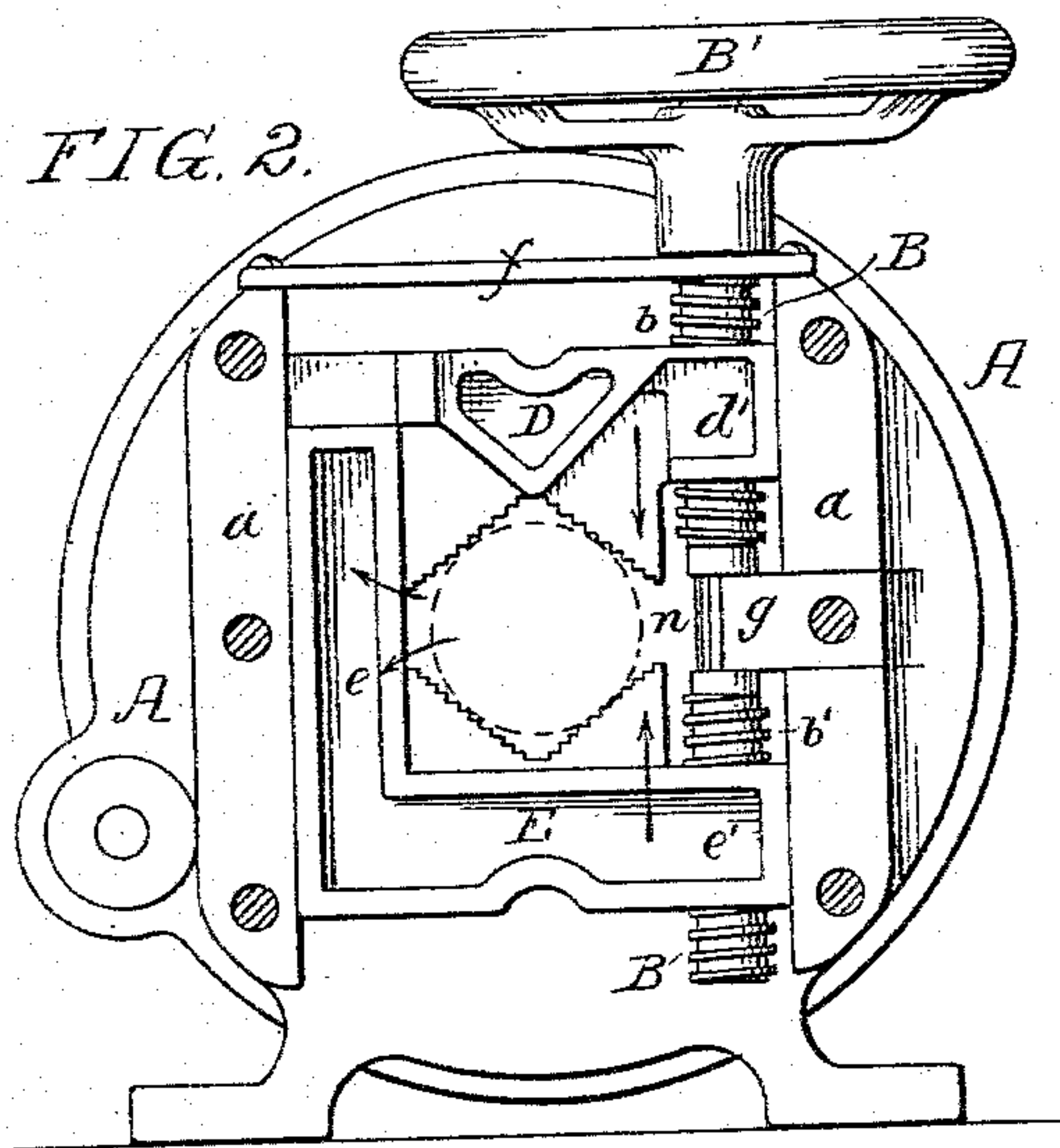


FIG. 3.

Witnesses:  
John E. Parker  
William D. Conner

Inventor:  
William D. Forbes  
by his Attorneys  
Howson and Co.



# UNITED STATES PATENT OFFICE.

WILLIAM D. FORBES, OF BRIDGEPORT, CONNECTICUT.

## PIPE AND ROD VISE.

SPECIFICATION forming part of Letters Patent No. 356,871, dated February 1, 1887.

Application filed June 7, 1886. Serial No. 204,309. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM D. FORBES, a citizen of the United States, residing in Bridgeport, Connecticut, have invented certain Improvements in Vises and Chucks, of which the following is a specification.

The object of my invention is to so construct a pipe or rod vise or chuck as to avoid the cutting or wearing out of the ways for the sliding jaws, and also to lessen to a great extent the friction on the screw. These objects I attain as hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of a screw-cutting die-stock with my vise attached, the back plate and the feed-screw being removed and part being broken away to more clearly illustrate the invention. Fig. 2 is a rear view of the die-stock with the back plate removed and showing my improved vise. Fig. 3 is a detached perspective view of the jaws, and Fig. 4 a view of a modification.

A is the casing of a screw-cutting die-stock, to the rear of which is attached the vise for holding the pipe or rod while it is being cut. The jaws D E of the vise slide in ways *a a* on the casing A. The acting faces of the jaws are V-shaped and serrated, the jaw D being single and the jaw E double, as shown in the perspective view, to allow for the passage of part of one jaw past the other in grasping very small rods.

A right-and-left handed screw, B, having an operating-handle, B', is adapted to threaded openings in lugs *d'* and *e'* on the jaws D E. This feed-screw B is guided at the upper end by a plate, *f*, secured to the two ways *a*, and below by a block, *g*, in a groove in one of the ways *a*, and which fits into an annular groove, *n*, in the screw. The portion *b* of the screw is cut right-handed and the portion *b'* left-handed, so that by turning the handle B' of the screw in one direction or the other the jaws will be forced together or moved apart.

On the sides of the jaws opposite to the lugs *d'* and *e'* are long extensions *d* and *e e* of each jaw, providing a long bearing-surface for each jaw, the extension *d* passing between the extensions *e e*, by which it is guided.

In vises as heretofore made the jaws have terminated at about the points *x x*, so that if a pipe or rod is held by the vise, as shown by dotted lines in Fig. 2, and pressure is exerted by the screw B, the pipe becomes the fulcrum for the jaws as levers, tending to force the points *x x* into the guide *a* and so cut the latter; but by providing the jaws with the extensions *d* and *e* this cutting of the ways is avoided, owing to the long bearing-surface, and, further, by providing the jaws with the long bearing-surface the screw B is more easily manipulated, the friction being to a certain degree lessened.

In the modification shown in Fig. 4 only one of the jaws, D, is movable, and is provided with an extension, *d*, while the jaw E is stationary.

The jaws D and E may form the jaws for a drill-chuck, the handle B' being in that case removable.

I claim as my invention—

1. A pipe or rod vise or chuck provided with guideways and jaws D E, one of which has an extension, *d*, on one side and devices for closing the jaws at the opposite side, substantially as described.

2. A pipe-vise provided with jaws D E, having extensions *d e* on one side and devices for closing the jaws at the opposite side, substantially as set forth.

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

WILLIAM D. FORBES.

Witnesses:

HENRY COWD,  
CHAS. E. WILMOT.