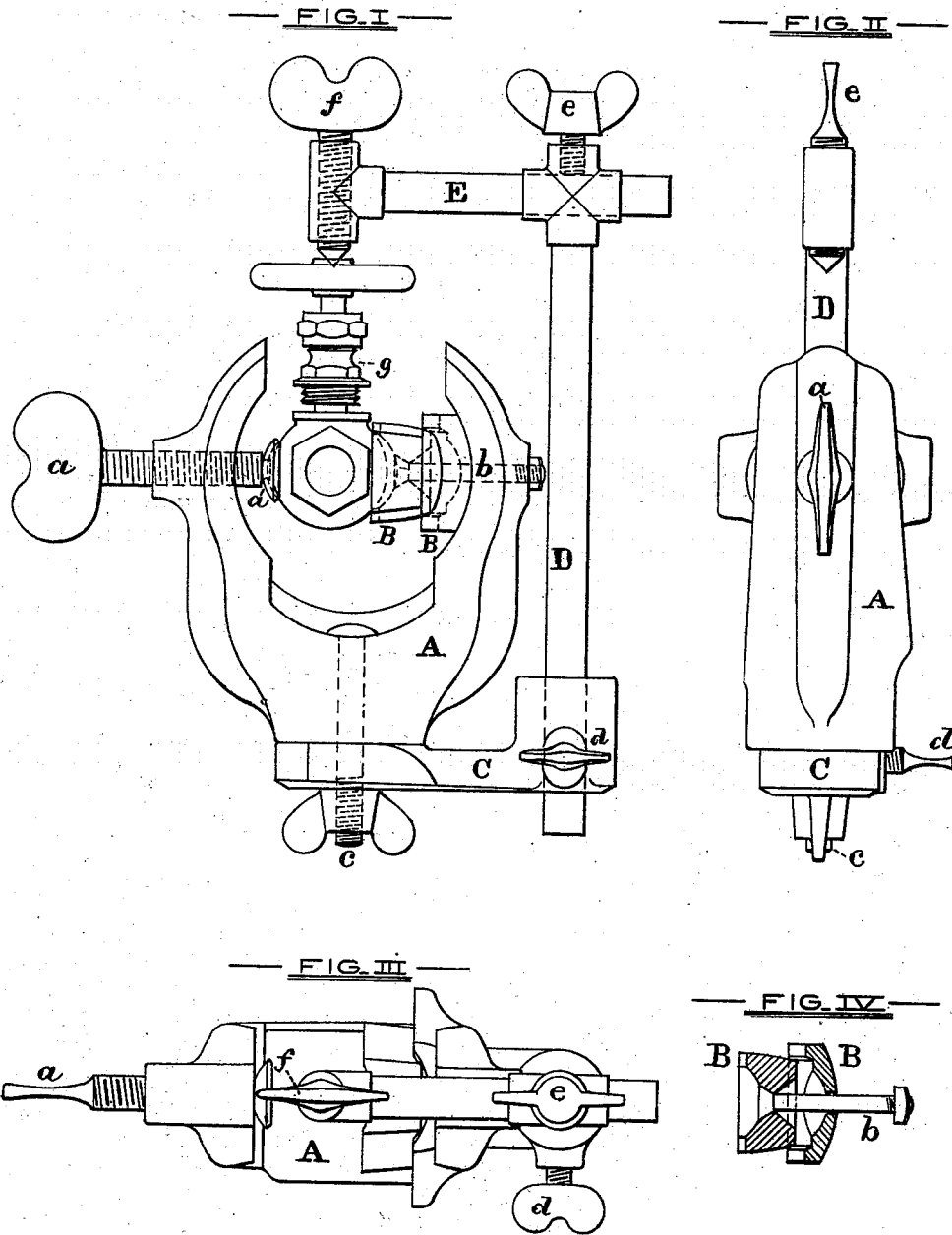


L. P. LAW.  
Valve-Grinder.

No. 168,262.

Patented Sept. 28, 1875.



WITNESSES.  
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# UNITED STATES PATENT OFFICE.

LEWELLYN P. LAW, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN VALVE-GRINDERS.

Specification forming part of Letters Patent No. 168,262, dated September 28, 1875; application filed August 24, 1875.

*To all whom it may concern:*

Be it known that I, LEWELLYN P. LAW, of the city of Chicago, State of Illinois, have invented certain Improvements in Valve-Grinders, of which the following is a specification, reference being had to the accompanying drawing forming a part hereof.

This invention is applicable to globe, angle, and other valves, and is designed to admit of the grinding of the valve proper upon its seat, while the valve is placed in a line of pipe or otherwise set up, without detaching the valve, or breaking the line of pipe or the connection.

In the drawing referred to, Figure 1 is a side view of my invention as used upon an ordinary globe-valve. Fig. 2 is an end, and Fig. 3 a top, view of the same, the globe-valve being removed. Fig. 4 is a section of certain detached parts.

Similar letters of reference indicate similar parts in all the views.

A is a metallic jaw, having, preferably, a portion of its sides rounded out, as shown in Fig. 1, to receive the globe of a larger size of valve, one of the said sides being provided with a thumb or hand screw, *a*. The inner end of the said screw is fitted with a washer, *a'*, which bears against the globe-valve. The other side of the jaw is furnished with one or more extension-blocks, B, the faces of which are made to conform to the exterior of the valves, whether globe-shaped or otherwise. The said extension-blocks are held to the jaw A, and against each other, when more than one are used, by a bolt, *b*, the nut of which bears against a boss on the exterior of the jaw, as shown. In the drawing, Fig. 1, two of the extension-blocks are shown employed, the valve clamped being of small size. Fig. 4 shows cross-sections of the said blocks. The bottom of the jaw is formed into a large boss, through which passes the bolt *c*, securing an arm, C, to the jaw in such manner that the said arm can be adjusted around the bolt as a pivot. The bolt *c* is provided with an end, allowing it to be conveniently tightened up by hand. The other end of the arm C is formed so as to hold and guide the rod D. This rod,

for purposes of strength and convenience, is made of gas-pipe, and is held within the arm C at any point by the set-screw *d*. The upper end of the rod D is provided with a double-T gas-pipe coupling, through the horizontal part of which passes the rod E, and which is held in the desired relation to the rod D by the screw *e*. The inner end of the horizontal rod E is supplied with a gas-pipe T-coupling, the cross part of which is threaded on its inside, and provided with a thumb-screw, *f*, having a center point, which fits in the center of the valve-stem. The mode of adjustment will be easily understood. The device is taken to the line of pipe and the valve clamped, the center point of the screw *f* being carefully brought to the center line of the valve.

Before commencing to grind, by moving the hand-wheel around in different directions, using emery, &c., it will be understood that the nut *g* of the valve-neck must be screwed up out of contact with the globe, as shown in Fig. 1, else the valve would be moved from its seat. The grinder, it is seen, can, by reason of the movableness of its different parts, be readily adjusted to receive any ordinary-sized valve, and is of great service in taking up leakage of steam, water, &c., where much time would be lost were it necessary to break the pipe or other connection of which the valve to be ground is a part.

I claim as new, and wish to secure by Letters Patent of the United States—

1. The clamp A, having the clamping-screw *a*, adjustable arm C, rods D and E, adapted to be placed and secured as described, and screw *f*, having a center point, all combined substantially as and for the purpose specified.

2. In combination with the clamp A, one or more extension-blocks, B, and attaching-bolt *b*, substantially as and for the purpose named.

In testimony whereof I have hereunto subscribed my name this 16th day of August, in the year of our Lord 1875.

LEWELLYN P. LAW.

Witnesses:

CHARLES PLATNER,  
LOGAN D. WALLACE.