T. P. HARDY.

VISE.

No. 189,731. Patented April 17, 1877.

Fig. 1.

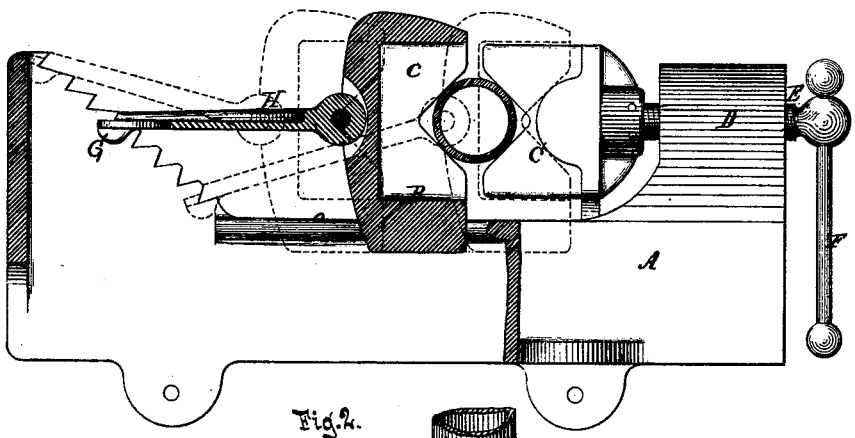


Fig. 2.

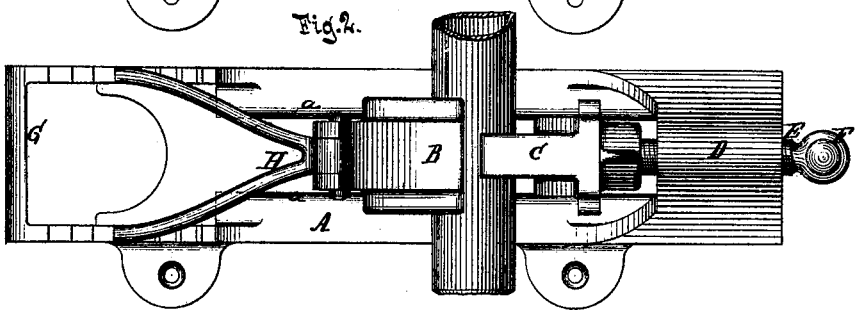
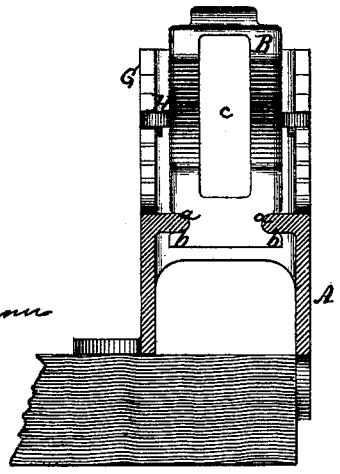


Fig. 3.



Witnesses.

Otto Hyldahl.

Hugo Bruggemann

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by

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UNITED STATES PATENT OFFICE.

THOMAS P. HARDY, OF MARION, NEW JERSEY.

IMPROVEMENT IN VISES.

Specification forming part of Letters Patent No. **189,731**, dated April 17, 1877; application filed February 14, 1877.

To all whom it may concern:

Be it known that I, THOMAS P. HARDY, of Marion, in the county of Hudson and State of New Jersey, have invented a new and Improved Vise, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view, partly in section. Fig. 2 is a plan or top view. Fig. 3 is a transverse vertical section.

Similar letters indicate corresponding parts.

This invention consists in the combination of two jaws with a frame which supports and guides said jaws, and which is provided at one end with a standard, which is tapped to receive a screw-spindle that connects with and serves to move one of the jaws, while from the opposite end of the vise-frame rises a step-shaped abutment to co-operate with a brace which is hinged to the second jaw, so that, by means of this brace and step-shaped abutment, the second jaw can be adjusted at any desired distance from the standard which carries the screw-spindle of the first jaw, and the vise can thus be adjusted for articles of different thickness, and particularly for bars or pipes of different diameter. One of the jaws is provided with a socket to admit the other jaw, so that the two jaws can be made to grasp bars or pipes of a very small diameter.

In the drawing, the letter A designates a frame, which forms the support and guide for two jaws, B C, said frame being constructed with two guideways, *a a*, on which the jaws slide. In the example shown in the drawing, the jaw B is provided with lips *b b*, which catch under the guideways of the frame, (see Fig. 3,) so as to prevent said jaw from rising up or from tipping over.

If desired, both jaws may be provided with such lips.

From one end of the frame A rises a standard, D, which is tapped to receive a screw-spindle, E, the inner end of which is connected to the jaw C, so that when said screw-spindle is turned round it will cause the jaw to slide back and forth on the guideways of the frame A. A handle, F, serves to turn the spindle E. From the opposite end of the frame A rises an abutment, G, the inner surface of which is step-shaped, and the jaw B is provided with a hinged brace, H, which can be thrown in gear with either of the steps of the abutment G. By means of this step-shaped abutment, and of the hinged brace, the jaw B can be adjusted in the frame A at any desired distance from the standard D, so that articles of various thickness or diameter can be introduced between the two jaws B C.

My vise is intended particularly for grasping round bars or pipes, and for this reason, in the example shown in the drawing, the clamping-faces of the jaws B C are made V-shaped, and the jaw B is provided with a socket, *c*, large enough to admit the jaw C, so that bars or pipes of very small diameter can be grasped between the two jaws.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of two sliding jaws, B C, with a stationary frame, which supports and guides the same, a screw-spindle, which is tapped in a standard rising from said frame, and which carries one of the jaws, a brace hinged to the other jaw, and a vertically-inclined stepped abutment rising from the frame, all constructed and operating substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 12th day of February, 1877.

THOMAS P. HARDY. [L. S.]

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.