(No Model.)

M. G. LEWIS.

Pipe Gripe.

No. 231,181. Patented Aug. 17, 1880.

Fig. 1.

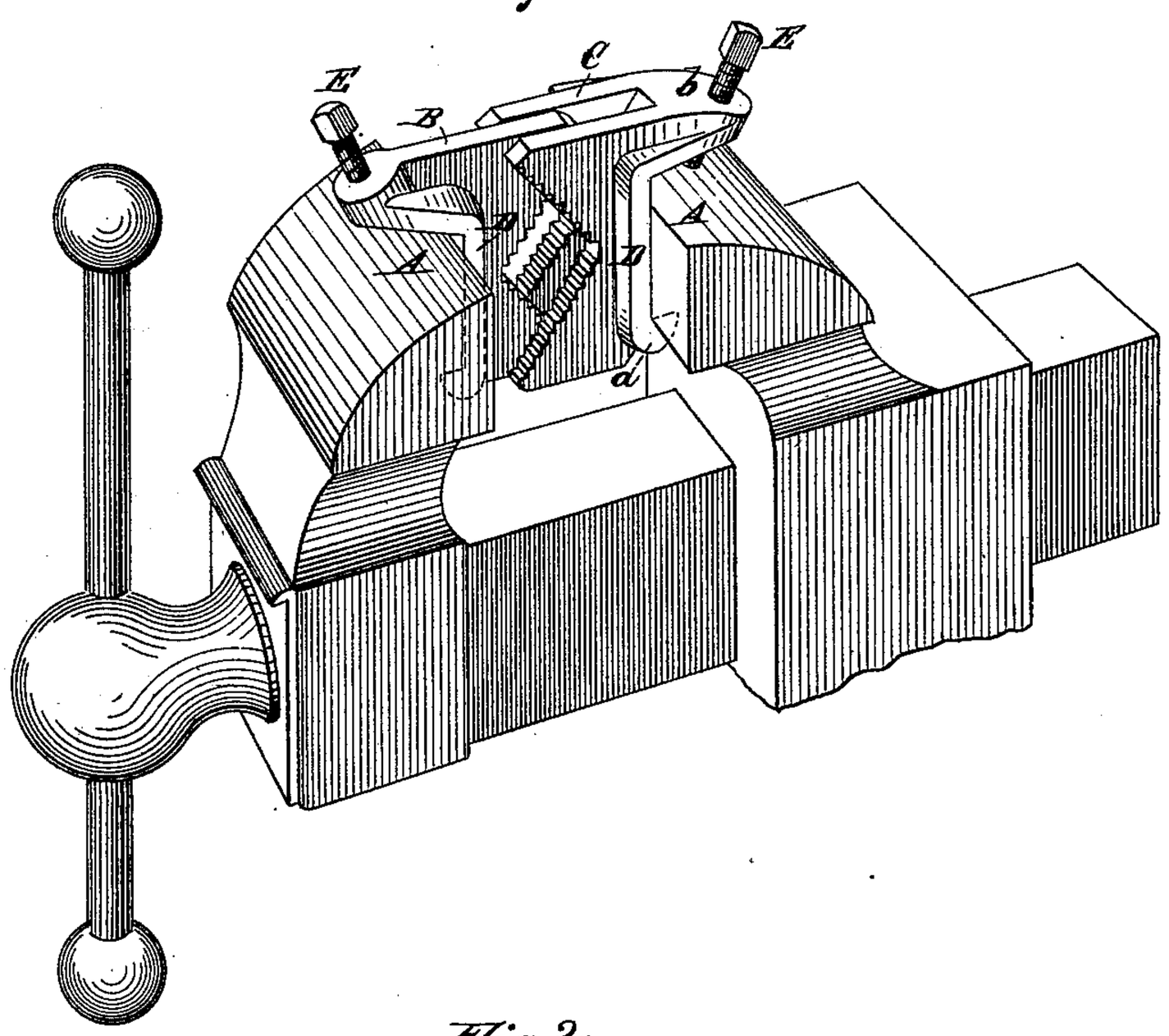
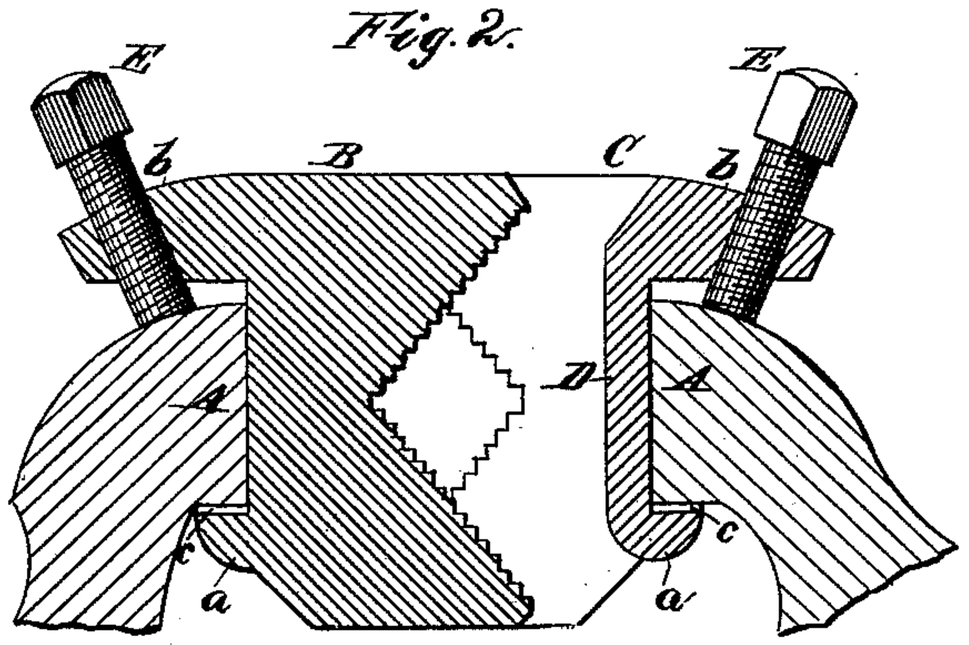


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

MORTIMER G. LEWIS, OF LOWVILLE, ASSIGNOR TO THE HALL MANUFACTURING COMPANY, OF NEW YORK, N. Y.

PIPE-GRIPE.

SPECIFICATION forming part of Letters Patent No. 231,181, dated August 17, 1880.

Application filed June 30, 1880. (No model.)

To all whom it may concern:

Be it known that I, MORTIMER G. LEWIS, of Lowville, county of Lewis, and State of New York, have invented certain new and useful Improvements in Pipe-Gripes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention has relation to that class of devices intended to be applied to ordinary bench-vises for the purpose of clamping pipes and rods or bars therein, thus making the bench-vise capable of operating as a pipe-vise. These separable attachments are ordinarily denominated "pipe-gripes," and are so made as to be readily attached and detached at pleasure.

Among the objects of my invention are the production of a simple, cheap, and effective pipe-gripe, which may be applied to any ordinary vise and securely held against the flat faces of the lips of the vise, thus throwing the griping strain against the ordinary clamping-surfaces, and holding the work in the most advantageous position, and the production of an implement with a minimum number of parts, strong, durable, easily applied, and not likely to get out of order.

To accomplish all of this the invention involves certain novel and useful combinations or arrangements of parts and details of construction, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the two sections composing the pipe-gripe which embodies the essential features of my invention, the sections being separable from each other and indicated as applied against the flat faces of the vise-lips. Fig. 2 is a vertical section upon a plane passing through the attaching-bolts.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

Heretofore in this class of appliances for vises it has been customary to construct them in such manner as to be applied in the throat of the vise, one section on each side, and both secured in place by top screws through ears or lugs on each side of the vise-jaws. Such construction adds to the cost of manufacture, throws the work down to an abnormal position between the two jaws, and brings the strain against the interior of the throat of the vise; and such appliances are capable of use only in connection with vises in which the throat is of peculiar shape, size, and construction.

To make my improved gripe applicable to all forms of vises and to all sizes within reasonable limits, I attach the sections directly against the lips, and secure them by a simple inclined screw-bolt, as will appear from the following explanation.

A A are the lips of an ordinary vise. These are usually faced with steel, and the metal of the jaw made to recede below the lips, forming the throat, and from the back forming an inclined surface gradually extending downwardly.

My improved gripe is composed of the sections B and C, male and female, the projecting parts of each being notched and serrated for holding the pipes, &c., the single jaw B being made to pass between the two jaws on the notching-section C. Each section is cast with a back plate, D, intended to bear against the facing of the vise-lips, and each back plate is provided with a narrow projecting ledge, *a*, at bottom and a somewhat wider ledge, *b*, at top. The ledge *a* may have two or more lugs, as at *c c*, to insure an accurate bearing against the under side of the lips.

The bracket *b* at top is perforated in an inclined direction, screw-threaded, and provided with a clamping-bolt, E, the axis of which should preferably point toward the line of union between the back plate and the lug *a*, as plainly indicated. The two sections being applied to the lips of the vise, they are clamped in position, as shown, the ledge *a* or lugs *c c* bearing against the under surface of the lips, and the bolts E against the inclined position of the jaws.

The inclination given the clamping-bolts is such that when the sections are locked in place upon the faces of the lips the distance between the abutting end of the bolt and the outer edge of ledge *a*, or of the lugs *c c* thereon, is

less than between the bolt and the inner lower edge of the face of the jaw.

When properly clamped in place, any strain tending to displace the sections tends to revolve the bolt about a line passing through the outer edge of *a* or of *c c;* and since the distance between this line and the end of the bolt is greater than between the line of union and the bolt, as above explained, it is apparent that the strain will be effectually resisted.

The two sections are cast of any suitable metal. The clamp is simple and effective, and is applicable to any style of vise having projecting lips.

The distance between the upper and lower ledges is made great enough to admit the lips of any ordinary-sized vise, and the clamping-screw made long enough to bear against the smaller sizes, so that all may be accurately adjusted.

If desired, the notched jaws may be swiveled upon the back plates, so that any desired inclination may be given the work.

When constructed substantially as shown in the drawings each section is of one piece, with the exception of the set-screw or bolt, and being thus made solid and durable recommends the improvement for adoption in situations where a number of parts would be objectionable. The holding strain being brought against the lips and the work capable of being held in its proper position between the jaws are features likewise advantageous in my improvement.

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

1. In a detachable pipe-gripe of the character herein set forth, the combination of a bearing-plate adapted to rest against the face of the vise-lip, projections located at top and bottom of said plate adapted to fit over and under the vise-lip, a clamping-screw passing through one of the projections, and a pipe-jaw connected with the bearing-plate, substantially as shown and described.

2. The combination, with the pipe-jaw, of a bearing-plate provided with ledges or projections which fit over and under the vise-lip, and a set-screw or bolt located in the upper ledge and inclined, in the manner and for the purposes set forth.

3. As an improved attachment for bench-vises, the herein-described pipe-gripe, composed of two sections, each adapted to bear against the face of one of the vise-lips, and both carrying inclined set-screws or bolts, whereby they are clamped in position for use, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

MORTIMER G. LEWIS.

Witnesses:
WORTH OSGOOD,
A. M. PIERCE.