T. & J. Keane,

Vise.

No. 889. Patented Aug. 20, 1838.

Fig. 2.

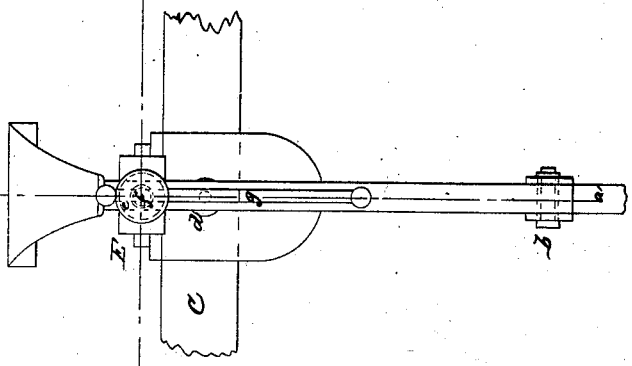

Fig. 1.

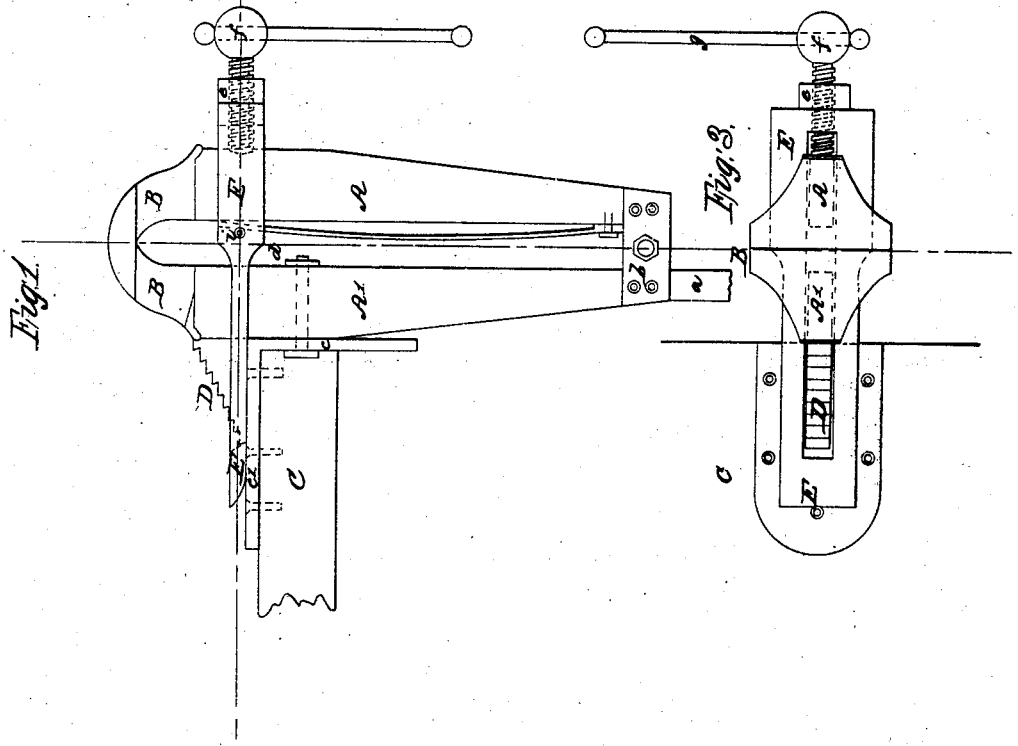

Fig. 3.

Witnesses.

Thomas Keane

James Keane

Inventors.

Thomas Keane

James Keane

UNITED STATES PATENT OFFICE.

THOS. KEANE AND JAS. KEANE, OF HAVERSTRAW, NEW YORK.

MODE OF CONSTRUCTING METAL BENCH-VISES.

Specification of Letters Patent No. 889, dated August 20, 1838.

To all whom it may concern:

Be it known that we, THOMAS KEANE and JAMES KEANE, of Haverstraw, in the county of Rockland and State of New York, machinists, have invented and made certain new and useful Improvements in the Construction of Metal Vises, usually known as "Bench Vises," and used by Smiths and other Workers in Metal, and for which improvements we seek Letters Patent of the United States, and that the said improvements and the method of constructing and using the same are fully set forth and shown in the following description, and in the drawing annexed to and making a part of this specification, wherein—

Figure 1, is a side elevation of a vise as improved and made by us, Fig. 2 is a front elevation and Fig. 3 is a horizontal plane of the same when ready for fixing to a bench for use, and the same letters or marks of reference apply to the same parts in all the several figures.

a, is the standard to the floor.

A, A^1, are the shafts or leg parts of the vise, made straight and solid, and jointed at *b*, by a pin and nut, or a pin and key as usual in common vises; B, B, are the jaws, or chops, also, made as in common vises; *c* is a right angled flanch plate, the horizontal part of which is to be screwed or fastened down on the bench C. The vertical part is secured to the rear of the back leg A^1, by a bolt and nut *d*. Upon and made solid with the flanch plate c^1, is the ratchet toothed rack D, rising to the upper part at the back of the leg A^1. The loop, or band E, incloses both the legs A, and A^1, and the ratchet toothed rack D, and has the back part beveled to fit the bevels of the ratchet teeth, and in front the loop has a boss *e*, with a short screw *f*, fitted to work in it, going through, so as to enter a small depression, in the fore part of the leg A, this screw is worked by the handle *g*, and the curved keeper spring *h*, on the inside of the front leg A, is confined by the pin *i*, at the point, so as to force the leg A, out and keep it in contact with the point of the screw *f*.

When a workman wishes to secure any part of his work in this vise, he lifts the back end of the loop E, upward and forward, which opens the jaws B. He then enters the article within them, then pushing the front jaw up, the back of the loop catches the nearest ratchet tooth, and two or three turns of the short screw *f*, will nip the article firmly in the jaws, which will again release it by reversing the operation.

The advantages intended to be obtained in vises made as above described, are, first, a great increase of strength, by making the legs from bars of metal, whose greatest section is in the direction of the strain, without being weakened by a hole in each for the screw and box, as is needed in the common vises hitherto used; secondly, in saving of time, in work, as the loop can be shifted on the ratchet much quicker than the common screw can be rounded up; thirdly, in the capacity of this vise to receive a long bolt in the middle of the jaws, as the width of the loop will allow a length to pass down between the two sides; lastly, that when the loop, or ratchet need repair, such repairs can be done, in less time and at far less expense, than will be needed, to repair or renew a box and screw of the common make. This mode of forming and attaching a loop and ratchet, is equally applicable to the better sort of articles, known as parallel vises, as to the common jointed vise in general use.

What we claim and desire to secure by Letters Patent, is—

The forming the legs solid, in combination with the application of the loop and ratchet, and keeper, spring and pin, and short screw, to either pointed or parallel vises, of any size, as the same are herein substantially described and set forth, which collectively constitute our new and useful improvements in the mode of constructing metal vises for the use of smiths and other workers in metal.

In witness whereof we have hereunto respectively set our hands at Haverstraw aforesaid this twenty-ninth day of March in the year one thousand eight hundred and thirty-eight and in the sixty second year of the independence of these United States.

THOMAS KEANE.
JAMES KEANE.

Witnesses:
NORMAN SMITH,
STEPHEN KANE.