

*J. S. Hoar,
Bench Vise.*

N^o 65,081.

Patented May 28, 1867.

Fig. 2.

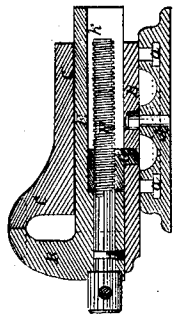


Fig. 4.

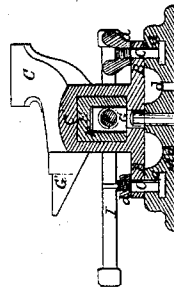


Fig. 5.

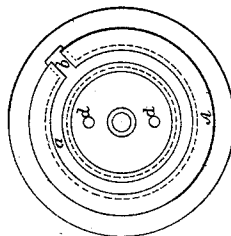


Fig. 1.

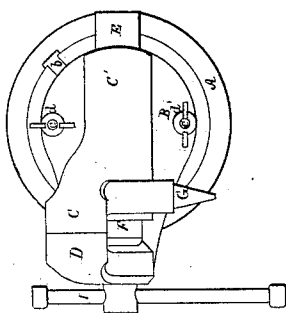
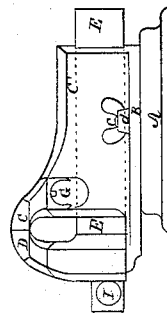


Fig. 3.



*Witnesses
Samuel C. Allen
Geo. H. Andrews.*

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by his atty.
R. H. Eldredge*

United States Patent Office.

JOHN S. HOAR, OF WEST ACTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF, C. HASTINGS, AND N. C. CUTTER, OF SAME PLACE.

Letters Patent No. 65,081, dated May 28, 1867.

IMPROVED VISE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, JOHN S. HOAR, of West Acton, in the county of Middlesex, and State of Massachusetts, have invented an Improved Rotary Bench Vise; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view.

Figure 2, a vertical and longitudinal section.

Figure 3, a side elevation; and

Figure 4, a transverse section of it.

Figure 5 is a top view of its bed-plate.

In this vise the bed-plate is so constructed as to enable the jaws of the vise to be revolved on it through an entire circle. For this purpose the said bed-plate, shown at A, has a circular, and what may be termed a dove-tailed, groove or railway, *a*, extending around it, below and from its upper surface; and it also has a port or opening, *b*, leading laterally out of such groove. This port is to enable clamp-screws *c c*, formed with dove-tailed heads or their equivalents, to be inserted into the groove, which they can be by passing each of them through the port and into the groove. The bed-plate has holes *d d* made through it, to receive screws, when used, for the purpose of fastening the plate upon a bench. The clamp-screws *c c* pass up through a stationary jaw-carrier supporting plate, B, which is circular in form, and rests on the bed-plate A. On each of the screws *c* a clamp-nut, *d'*, is screwed; and, when screwed down upon the plate B, it serves to confine the said plate B to the plate A. There may be a pivot to extend down from the central part of the jaw-carrier plate B, and enter a corresponding step or bearing in the plate A. The stationary jaw C is supported by a tubular carrier, C', which is raised on the plate B, and, with the said jaw and plate, is, or may be, cast in one piece. D is a movable jaw, whose shank E is grooved or channelled lengthwise, as shown at *h*, to receive the screw F and the standard or block G, employed for giving motion to the movable jaw relatively to the stationary jaw. Such standard is tenoned into the plate B, and has a female screw for receiving the male screw F, which is screwed through the said standard. The screw F should be provided with a lever, I, and be so applied to the movable jaw-shank as to be stationary relatively thereto, except in being capable of being revolved so as to effect the necessary movements of the shank to cause the movable jaw either to approach toward or recede from the stationary jaw. The arrangement of the jaws is such that their middles extend beyond a vertical line passing through one side of the jaw-shank E; or, in other words, each jaw is arranged so as to project nearly, if not entirely, beyond such line, as will be seen by examination of fig. 1. The object of this arrangement of the jaws is stated in the specification of a patent recently granted to me, and numbered 55,656. There extends from the stationary jaw-carrier, in manner as represented in the drawings, an anvil or a horn, G', thereof. Such anvil, as well as the horn, is oftentimes useful for enabling a person to hammer or bend down a rod or crooked piece of metal when grasped by the jaws. It will also be found useful in other respects.

I am aware that it is not new to so apply a vise to a bench as to enable the vise to be revolved through an entire circle; but, in such case, the clamping devices of the jaw-plate or carrier of the vise extended beneath the bench, and so as to be more or less difficult of access. I am also aware that clamping devices have been arranged above the jaw-carrier plate, the same being as represented in the drawings and specification of my said patent; therefore I lay no claim to such in the abstract. I have made an improvement by constructing the base-plate with the continuous circular dove-tail groove or railway and its entrance port or passage, and providing such groove with screws to move around in it, and go through the jaw-carrier plate, and receive thumb-nuts, as described, my arrangement enabling me to effect the revolution of the jaws of the vise in a full circle, whereby the vise is rendered more convenient for use than that exhibited in my said patent. Furthermore, by my arrangement of the dove-tail groove in the bed-plate, it becomes covered by the cap-plate B, so that any filings or chips proceeding from an article when held by the jaws will be prevented from getting into and clogging the groove, as they are likely to do when a groove or grooves are arranged in the cap-plate in manner as shown in my said patent.

I do not claim the particular construction as to form, or otherwise, of any of the several parts of the vise; but I do claim—

The combination of the vise with a table or other support by means of the plates A and B, axial pin *e*, bolts *e*, and nuts *d'*, all constructed and arranged substantially as described.

I also claim, in combination with the jaws C and D, the anvil *G'*, attached to the jaw C, and arranged in relation thereto as described.

JOHN S. HOAR.

Witnesses:

R. H. EDDY,
SAMUEL N. PIPER.