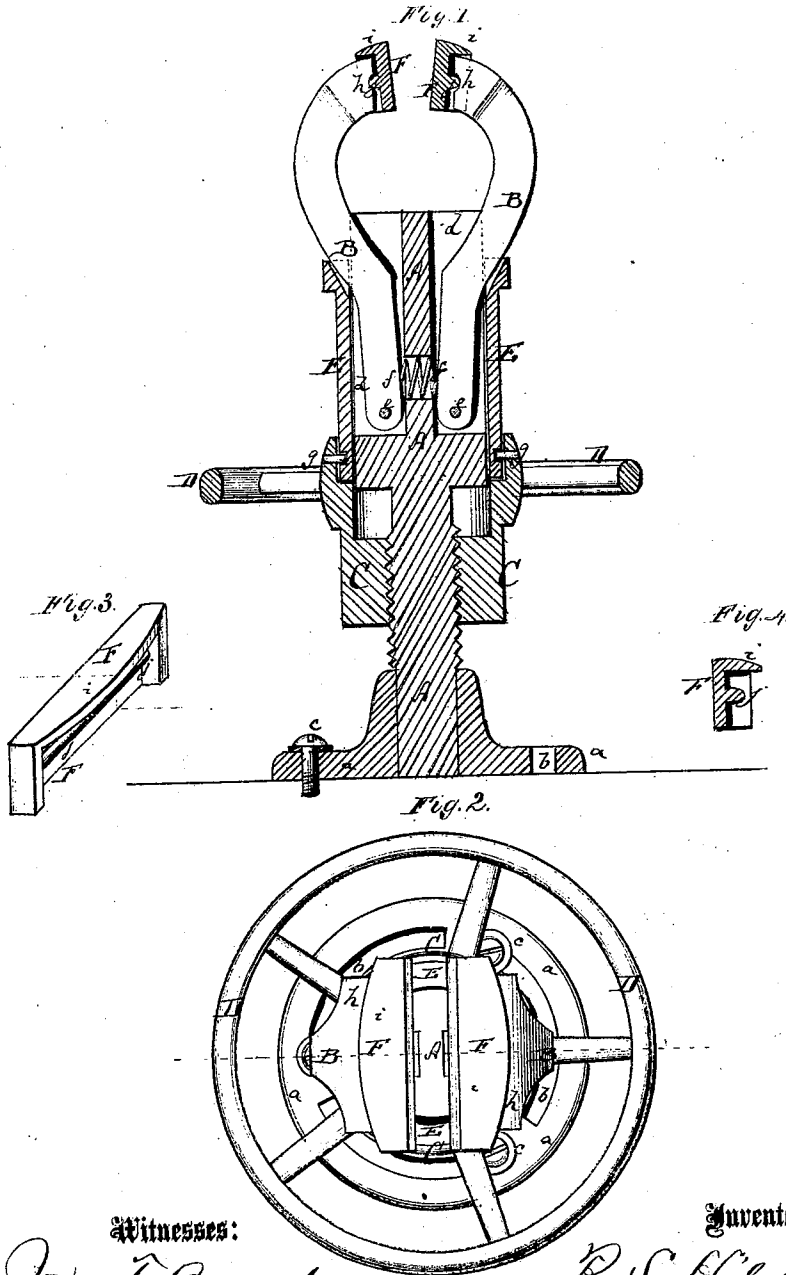


R. S. Hildreth,

Vise.

No. 108784.

Patented Nov. 1. 1870.



Witnesses:

Wm. Brooks
Edgar Tate

Inventor:

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United States Patent Office.

ROYALL S. HILDRETH, OF SOUTH ADAMS, MASSACHUSETTS.

Letters Patent No. 108,784, dated November 1, 1870.

IMPROVEMENT IN VISES.

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

To all whom it may concern:

Be it known that I, ROYALL S. HILDRETH, of South Adams, in the county of Berkshire and State of Massachusetts, have invented a new and improved Vise; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a vertical central section of my improved vise.

Figure 2 is a plan or top view of the same.

Figure 3 is a perspective view of one of the additional jaws.

Figure 4 is a detail transverse section of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to produce an improved vise, which shall be simple in construction, and efficient in operation; and

The invention consists in the combination of a grooved sleeve, clamping jaws, a vertically-moving screw-nut, as hereinafter described.

A in the drawing represents the stem or standard of the vise. Its base or foot *a* is made in the form of a flange, with circular slots *b b*. Bolts or screws *c c*, fitted through the said slots serve to secure the whole standard and its appendages to the side or top of a table, or other support. The slots serve to permit a horizontal adjustment of the standard.

To ears *d d*, that project from the standard, are, by means of pins *e e*, pivoted the levers *B B*, which, at their upper ends, carry the jaws *h h* of the vise. A spring, *f*, serves to hold the jaws apart.

Around the standard is fitted a nut, *C*, working on a proper screw-thread, as shown.

The nut carries a hand-wheel, *D*, and is, by pins *g g*, or their equivalents, swiveled to a cylindrical sleeve, *E*, which partly embraces the levers *B*.

The sleeve will, by turning, and thereby vertically adjusting the nut, also be vertically adjusted to thereby set the levers *B* more or less far apart, the outer edges of the levers being curved and inclined, as shown.

F F are additional jaws, which are placed upon the jaws *h*, by being suspended from the same, as shown.

For this purpose each jaw *F* has an outward projecting flange or head, *i*, which rests upon the jaw *h*.

Furthermore, there is on the outer face of each jaw *F* a rib, *j*, which fits into a corresponding groove of the jaw *h*.

The rib *j* is sufficiently large to allow the jaw *F* to rock on it, and to be thereby adjusted to different positions.

The jaws *F* can thus be used to clamp wedge-shaped articles with the thick ends either up or down.

The sleeve *E* has guide-grooves for the backs of the levers *B*, to prevent their lateral displacement.

When the sleeve is so turned as to bring its grooves out of line with the levers, the levers can play sufficient on their pivots to set the jaws at an angle, whereby they are enabled to hold wedges horizontally.

Having thus described my invention,

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

1. The combination of the longitudinally and annularly-grooved sleeve, levers *B*, nut *C*, and pins *g*, substantially as described.

2. The improved vise, consisting of the slotted base *a*, standard *A*, levers *B*, jaws *F*, nut *C*, sleeve *E*, pins *g*, and hand-wheel *D*, constructed and arranged substantially as described.

ROYALL S. HILDRETH.

Witnesses:

R. B. RICHMOND,
ALLEN J. FIELD.