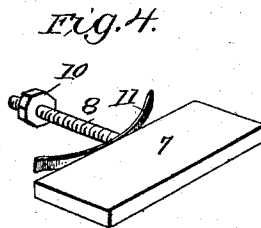
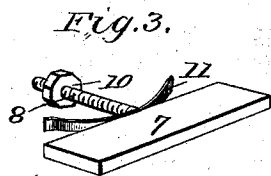
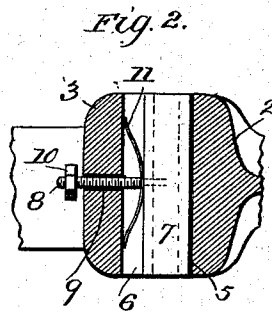
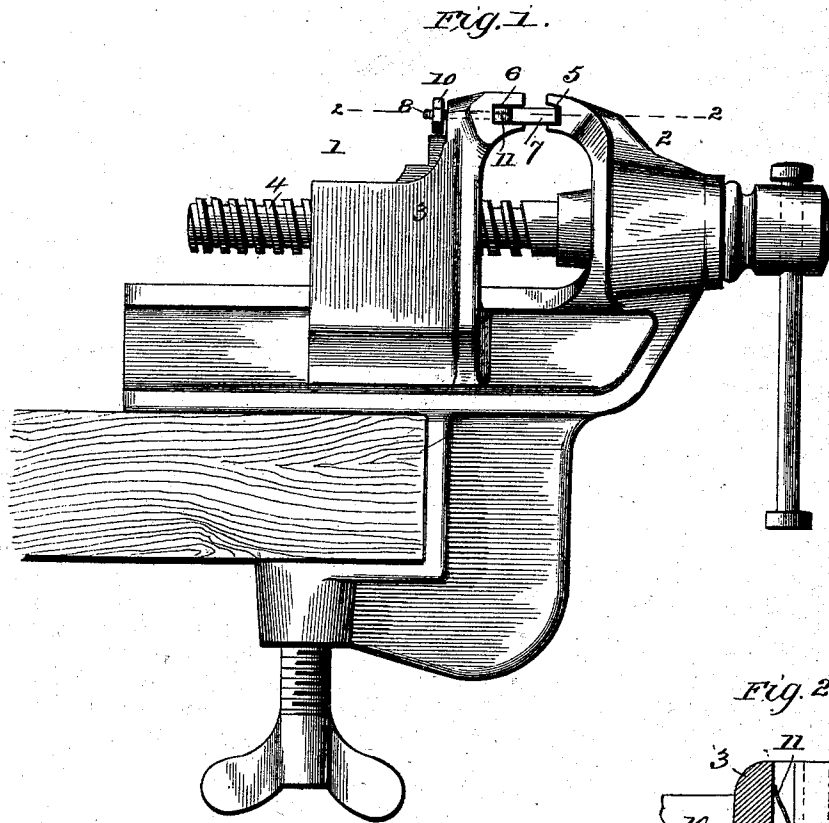


(No Model.)

W. G. SHEPPARD.
VISE.

No. 416,959.

Patented Dec. 10, 1889.



WITNESSES:
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UNITED STATES PATENT OFFICE.

WILLIAM GEORGE SHEPPARD, OF McCOOK, NEBRASKA.

VICE.

SPECIFICATION forming part of Letters Patent No. 416,959, dated December 10, 1889.

Application filed August 29, 1889. Serial No. 322,374. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GEORGE SHEPPARD, of McCook, in the county of Red Willow and State of Nebraska, have invented a new and useful Improvement in Vises, of which the following is a specification.

My invention consists in a new and improved vise, which is more particularly intended for the use of jewelers, and for all other delicate work, and which will be hereinafter fully described and claimed:

Referring to the accompanying drawings, Figure 1 is a side view of my improvement. Fig. 2 is a horizontal section on line 2 2, Fig. 1; and Figs. 3 and 4 are detail views of the seat-plate.

The same numerals of reference indicate corresponding parts in all the figures.

Jewelers, diamond-setters, dentists, mathematical-instrument makers, and the like often find it necessary to fasten delicate articles while undergoing repairs in a vise. In the ordinary vise delicate articles are often defaced and injured by being squeezed too tight in order to secure sufficient hold. I obviate and overcome this difficulty by my invention, which I will now describe.

1 indicates the body of an ordinary vise, which is clamped to the bench and has the jaw 2 formed integral with it.

3 indicates the sliding-jaw, and 4 the ordinary screw for raising the lower jaw. I form both the jaws with a horizontal deep recess 5 6, the recess 6 of the jaw 3 registering with the recess 5 of the jaw 2, as shown. In the recess 6 of the lower jaw fits the metal seat-plate 7, having a threaded rod 8, extending from the center of its inner edge and passing through a horizontal aperture 9 in the lower jaw. On the outer end of this threaded rod 8 a nut 10 is screwed, to hold the seat-plate 7 to the recessed jaw 3. To the inner edge of the seat-plate is secured a curved spring 11, having the curved free ends, which, when the plate 7 is placed in the jaw 3, rest against the bottom of the recess 6.

In operation the jaws are opened, when the spring 11 pushes the plate 7 outward, so that its outer edge will enter the other recessed

jaw 2, while its inner edge rests in the recessed jaw 3. The plate 7 thus forms a seat on which the article to be held in the vice rests, as shown in Fig. 3 of the drawings. The article is then grasped between the upper part of the recessed jaws above the plate 7. It will be seen that as the plate 7 prevents the article from falling down between the jaws, forming a seat on which the article rests, a delicate article can be firmly held by the jaws with a moderate pressure, while in the ordinary vise it is necessary to grasp the article so tightly between the vise-jaws that it is often marred and injured. The plate 7, shown in the vise, will form a perfect seat for any article one-fourth of an inch in width, or less, while for articles one-fourth to one-half of an inch in width this plate is removed by unscrewing the nut 10, and the wider seat-plate shown in Fig. 4 substituted for it.

Other seat-plates of varying widths can be employed for thicker articles; but the two above described will answer for most work.

It is obvious that any style of spring can be placed under the seat-plate and will answer the same purpose without departing from the spirit of my invention, and also that my invention can be applied to any kind of vise—such as vises for blacksmiths, carpenters, cabinet-makers, machinists, &c.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of a vise having one jaw formed with the horizontal recess 5, the jaw formed with the horizontal recess 6, and a seat-plate fitting in said recess 6 and having a spring behind its inner end, substantially as set forth.

2. The combination of a vise having one jaw formed with the horizontal recess 5, the jaw formed with the horizontal recess 6 and the aperture 9, the seat-plate having the threaded rod 8, the spring 11, and the nut 10, substantially as set forth.

WILLIAM GEORGE SHEPPARD.

Witnesses:

JOHN STEINMETZ,
WM. HUBER.