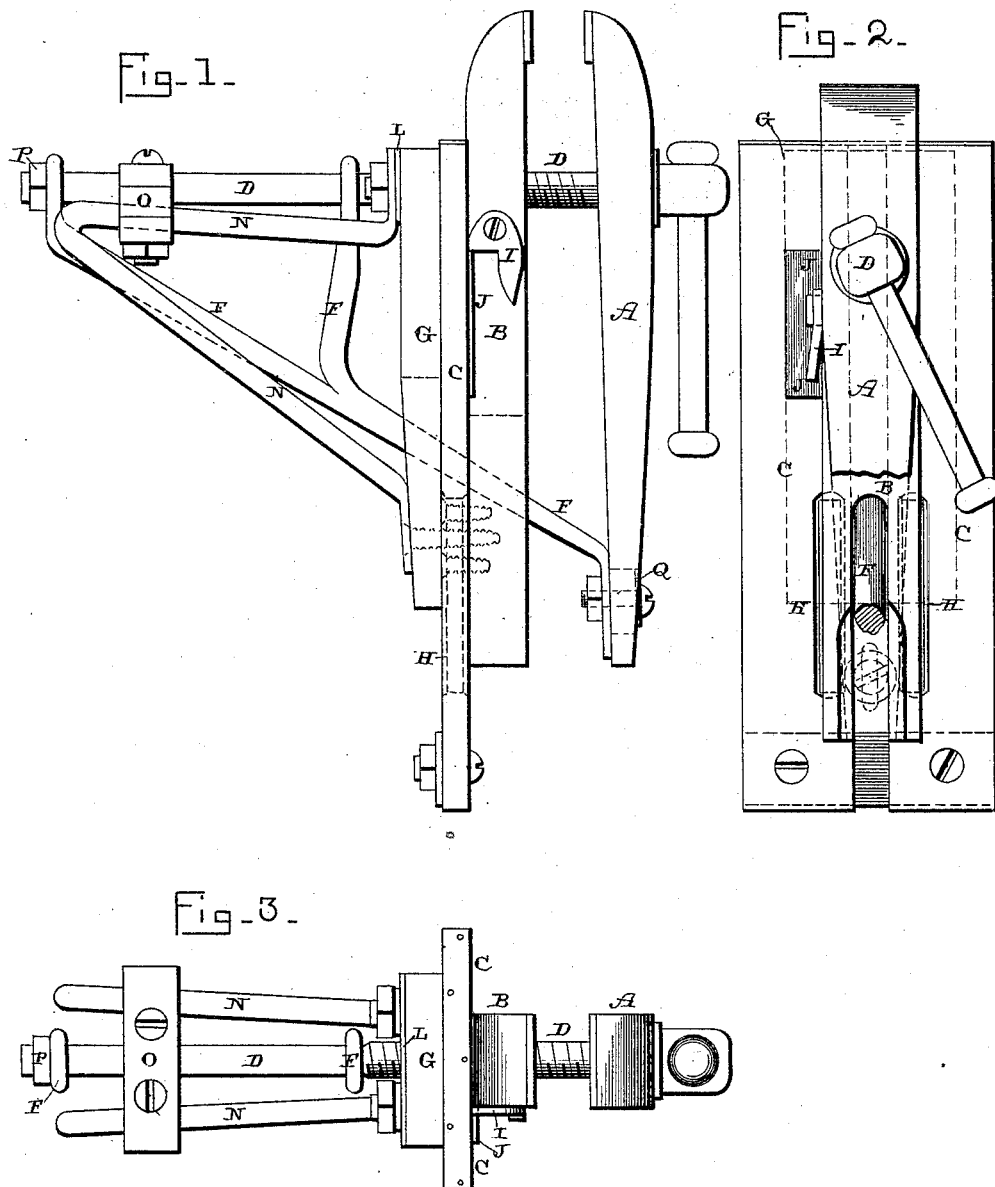


(No Model.)

G. S. BUCK.
VISE.

No. 417,982.

Patented Dec. 24, 1889.



Witnesses:

E. P. Ellis,
L. L. Barker,

Inventor:

Geo. S. Buck,
per
J. A. Lehmann,
att'y.

UNITED STATES PATENT OFFICE.

GEORGE S. BUCK, OF SISSETON AGENCY, (DAKOTA TERRITORY,) SOUTH DAKOTA.

WISE.

SPECIFICATION forming part of Letters Patent No. 417,982, dated December 24, 1889.

Application filed July 19, 1889. Serial No. 318,016. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. BUCK, of Sisseton Agency, in the county of Roberts and Territory of Dakota, have invented certain new and useful Improvements in Vises; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in vises; and it consists in the combination of two jaws, an operating screw-threaded rod, which passes through the jaws, and a nut secured to a board inside of two strips, a supporting-frame, which is secured to the board, and a support, which is suspended from the screw-rod and connected to the outer jaw at its lower end, as will be more fully described hereinafter.

The objects of my invention are to make the vise and all of its attachments vertically adjustable to support the outer jaw both at its upper and lower end, so that it moves horizontally, and to make the outer jaw vertically adjustable, so as to compensate for wear of the joints and bearings.

Figure 1 is a side elevation of a vise which embodies my invention. Fig. 2 is a front view of the same. Fig. 3 is a plan view.

A represents the outer jaw of the vise, and B the inner one. Secured to the outer side of the work-bench are the two strips C, of any suitable width, and which are separated from each other a suitable distance, so as to allow the screw-rod D and the support F of the lower end of the outer jaw A to be adjusted up and down freely between them. Placed in direct contact with these strips C on their inner sides is the board G, of suitable width, and to which the inner jaw B is rigidly clamped by bolts or screws, which pass through the slots H in the lower portion of the strips C, as shown. The board G is not connected to the strips C, but is held in direct contact therewith both by the screw-rod D and by the bolts or screws which pass through its lower end into the inner jaw B. The jaws A B and the board G can be freely

adjusted vertically in relation to the strips C and to the work-bench, according to the nature of the work that is to be performed, and the vise is supported by the pivoted catch I upon one side of the inner jaw B, and which engages with a notched plate J, secured to one of the strips C by the side of the jaw B, as shown.

Secured to the upper end of the board G is a nut L, through which the screw-rod D passes, and this rod has its smooth inner end to project a suitable distance beyond the screw-threaded portion. The outer jaw A can only be moved the length of the screw-threaded portion; but the whole rod moves endwise as the jaw is opened and closed. In order to support the inner end of this rod D, suitable triangular frames or bearings N are secured to the upper and lower ends of the board G, and these two frames N are connected together by a box or bearing O, through which the rod D passes. This box serves both to brace the frames N together and as a support for the inner end of the rod, so as to prevent it from sagging down from the weight of the jaw A, which is secured at its lower end to the lower end of the support F. The upper end of the support F is bifurcated or pronged, as shown, and these two prongs are held between the screw-threaded portion of the rod and nut P on its outer end. The lower end of the support F passes through an opening in the lower end of the board G and through a similar opening in the lower end of the inner jaw B, and is clamped to the lower slotted end of the jaw A, as shown. The slot Q in the lower end of the jaw A allows the jaw to be adjusted vertically upon the support F, so as to compensate for the wear of joints and bearings, &c. As the lower end of the jaw A is secured to this rigid support F, which is carried back and forth by the screw-rod D, the entire jaw moves horizontally, and thus is adapted to be used in connection with the finest or coarsest work.

Having thus described my invention, I claim—

The combination of the two jaws A B, the screw-rod which passes horizontally through them, the board G, a nut secured to the board

and through which the screw passes, two bent
rods N, secured to the board G and connected
together by a box or bearing O, and a rigid
support F, which slides freely back and forth
5 upon the smooth portion of the screw-threaded
rod D, and which has its lower end secured
to the lower end of the outer jaw A, substan-
tially as shown.

In testimony whereof I affix my signature
in presence of two witnesses.

GEORGE S. BUCK.

Witnesses:

JOHN S. NOBLE,
WALTER STEERS.