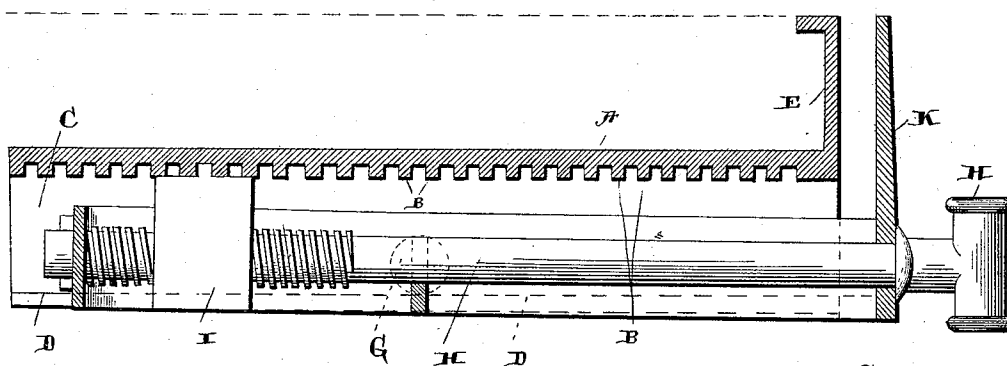
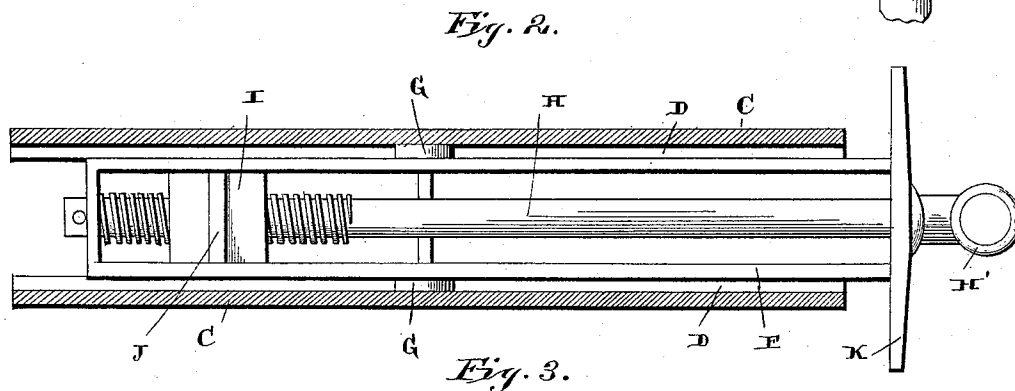
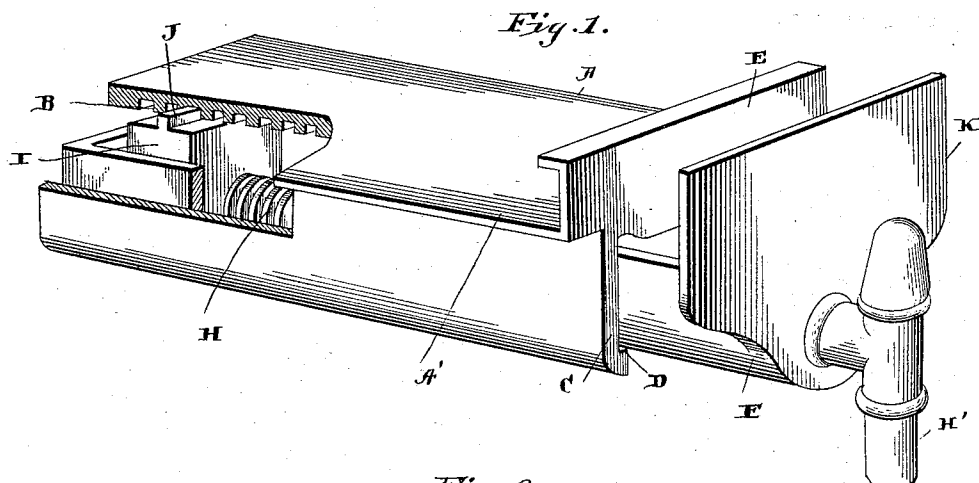


(No Model.)

W. MANN.
VISE.

No. 484,213.

Patented Oct. 11, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM MANN, OF CLEVELAND, OHIO.

WISE.

SPECIFICATION forming part of Letters Patent No. 484,213, dated October 11, 1892.

Application filed June 3, 1892. Serial No. 435,450. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MANN, of Cleveland, in the county of Cuyahoga and State of Ohio, 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 novel features of construction, which will be fully described hereinafter, and more particularly referred to in the claims.

The object of my invention is to construct a vise in which the movable jaw may be readily adjusted to or from the fixed jaw, according as the object to be held is small or large, without the necessity of running the length of a long screw to obtain the desired position.

Referring to the accompanying drawings, Figure 1 is a perspective view of my improved vise detached from the bench, a portion of the top of the vise-frame being removed. Fig. 2 is a horizontal sectional view. Fig. 3 is a longitudinal sectional view.

A represents the top of the vise casting or frame, having ribs B depending therefrom, forming a rack, and C represents the depending parallel sides, having shoulders D on their adjacent sides, which extend the entire lengths of the same. This frame, as described, is secured to the under side of a bench or other object by means of the side flanges A', through which screws are passed, as will be understood. Projecting vertically from the forward end of the top A is the upright portion E, which forms the stationary jaw of the vise when in position for work.

F represents a frame composed of parallel sides, which moves longitudinally between the depending portions C, and projecting laterally from the opposite sides of this frame F are the trunnions G, which rest on the shoulders D, thus supporting the said frame between the sides C. The trunnions G are situated slightly rearward from the center of the frame F, so that the greater portion of the weight of the frame will be at its forward end, thus throwing its rear end upward.

Journalled in the center of the frame F is the screw-shaft H, and mounted on the said shaft is the head I, located near its rear end, the said head having a free longitudinal movement between the sides of the frame F as the screw-shaft is revolved. Projecting from the upper end of the head I is the rib J, which when the rear end of the frame F is tilted upward engages between the ribs B on the under side of the top A, holding the head stationary. Projecting upward from the outer end of the frame F is the movable jaw K. In operation the shaft H is revolved by means of the handle H'. On its outer end and working in the head I, which is held stationary, as above described, the frame F, and with it the shaft, is moved either in or out of the space between the sides C, the trunnions G sliding on the shoulders D, as will be readily understood. The above-described movement is for clamping the object when the jaws E and K are nearly in the correct adjustment. When it is desired to materially widen or narrow the distance between the said jaws, the front end of the frame F is lightened, thus throwing its rear end down and out of engagement with the rack B. The frame F and head I may then be slid forward or rearward, as desired, until the desired adjustment of the jaws is effected, when upon the support being removed from the outer end of the frame F it will drop, throwing up its rear end and putting the head I in engagement, as before described. The head I being thus rigidly held, the screw shaft may be worked through it at will.

Having thus described my invention, I claim—

1. The combination of a frame having depending sides, flanges on the adjacent walls of the sides, a longitudinally-movable frame within the first-named frame, trunnions projecting from the said movable frame, which rest on said flanges, a screw-shaft in said movable frame, a screw-threaded head adapted to move on said shaft, and an adjustable connection between the said head and the first-named frame, substantially as shown and described.

2. In a vise, the combination, with a top, a rack on the under side thereof, sides depending from the top, and shoulders on the adjacent walls of the said sides, of a frame adapted

to move longitudinally between the said sides
trunnions projecting from opposite sides of
the said frame, which rest on the said shoul-
ders, a screw-shaft journaled in the frame, a
5 head adapted to move longitudinally on the
screw-shaft, which engages the rack of the
said top, and a clamping-jaw on the outer end
of the said frame, substantially as shown and
described.

10 3. The combination, with a frame having
depending sides, shoulders on the said sides,
and a rack formed in the top of the frame, of

a frame F, trunnions projecting from the sides
thereof rearward from its center, which rest
on the said shoulders, a screw-shaft within the
frame F, a movable head on said shaft, and a
15 rib on the upper end of the head, substantially
as shown and described.

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

WILLIAM MANN.

Witnesses:

JOHN C. ANTESBERGER,
F. H. RIEMANN.