Aug. 16, 1938. T. PETERSEN 2,127,008

VISE

Filed Jan. 14, 1936

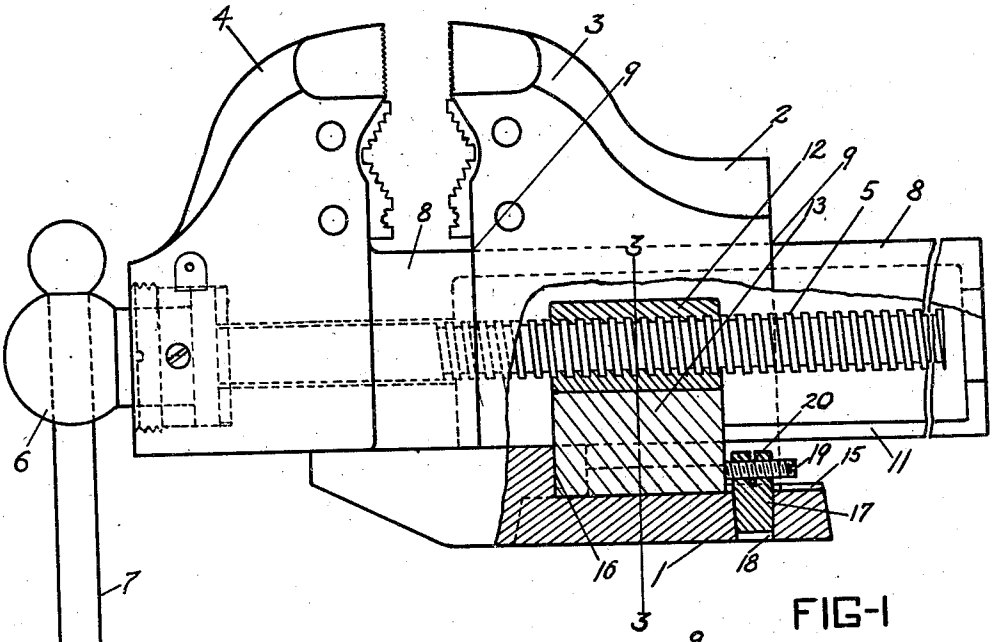


FIG-1

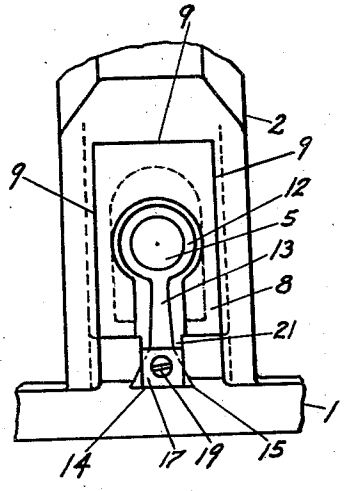


FIG-2

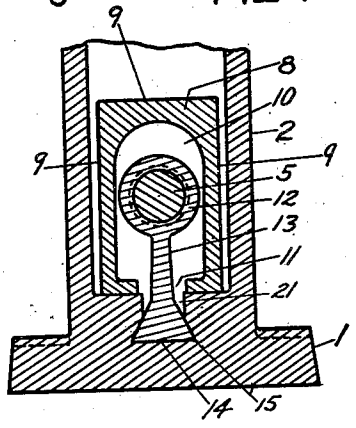


FIG-3

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VISE

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Application January 14, 1936, Serial No. 59,051

1 Claim. (Cl. 81—33)

The present invention is designed to improve vises, and particularly with relation to the slack which in vises as commonly made very materially adds to the effort of the workman in the operation of the vise. In general the ordinary bench vise as now commonly made is provided with a movable jaw, which is slidingly mounted in the body carrying the fixed jaw. A nut is mounted in the body in position to receive the operating screw. In assembling the nut it is connected with the body by sliding the connecting portion of the nut into an under-cut groove against an abutment which receives the working thrust of the vise. It has been common to secure the nut against a backward movement by a pin or insert driven into the body with an initial contact with the nut. This is an unsatisfactory arrangement, allowing, in some instances, initial play in the anchoring of the nut, and in most instances permitting play after the vise has been in use for a period of time. With the present invention this tendency is obviated, and means are provided for taking up or preventing any play initially, or which may arise from continued use of the vise.

Features and details of the invention will appear further in the specification and claim.

A preferred embodiment of the invention is illustrated in the accompanying drawing as follows:

Fig. 1 shows a side elevation of the vise, partly in section to better show construction.

Fig. 2 shows a rear view of the guide portion of the vise.

Fig. 3 shows a section on the line 3—3 in Fig. 1.

1 marks the base of the vise; 2 the body of the vise; 3 the fixed jaw; 4 the movable jaw; 5 the operating screw; 6 the head of the screw, and 7 the operating handle for the vise. These parts are or may be of usual construction.

The movable jaw is provided with a bar 8 which slides in the guide opening 9 in the body. The bar has a cavity 10 which is provided with a slot 11 along the bottom of the bar. A nut 12 is carried on a post 13, the post extending through the slot 11 so as to position the nut 12 in the cavity 10 and in position to receive the screw 5. The base of the post 13 has a dove-tail shaped flange 14 which is arranged in a dove-tail groove 15 in the bottom of the guide slot 21. The front end of the post 13 engages an abutment 16 which takes the working or closing thrust on the nut.

In order to prevent any play of the nut with relation to the abutment, a pin 17 is inserted into an opening 18 in the body, the pin extending up into the opening in the body below the bar. A screw 19 is screwed through the pin against the rear of the post and thus the post is definitely clamped between the abutment and this screw. Should the continued use of the vise create play in the mounting of the nut, the screw 19 may be adjusted to renew the clamping action. The pin 17 is preferably provided with a slot 20. The threads of the opening in the pin are slightly offset at the opposite sides of the slot either by springing the side walls as the threads are cut or by springing the side walls after the threads are cut. This acts to lock the screw in adjustment.

What I claim as new is:

In a vise, the combination of a body carrying a fixed jaw; a movable member including a movable jaw; a screw operating the movable jaw; a nut for the screw; a sliding connection between the nut and the body, terminating in a thrust abutment receiving the thrust exerted on the nut with the closing of the vise; a pin inserted in the body back of the nut; and a screw extending through the pin, and clamping the nut on the abutment, said pin having a cross-slot with the threads at the opposite sides of the slot off-set.

THORVALD PETERSEN.