H. S. KUHN.

VISE.

APPLICATION FILED AUG. 23, 1909.

965,470. Patented July 26, 1910.

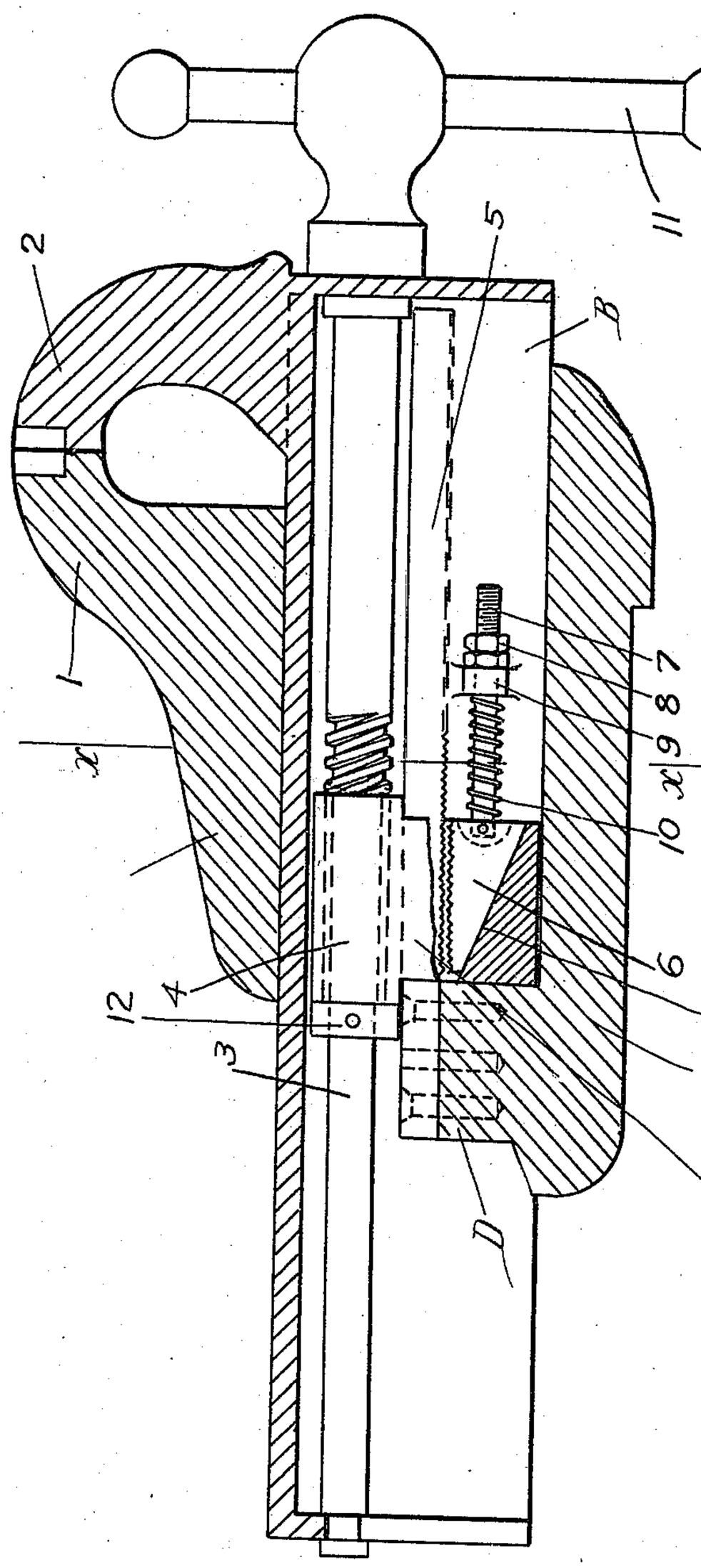

FIG. 1.

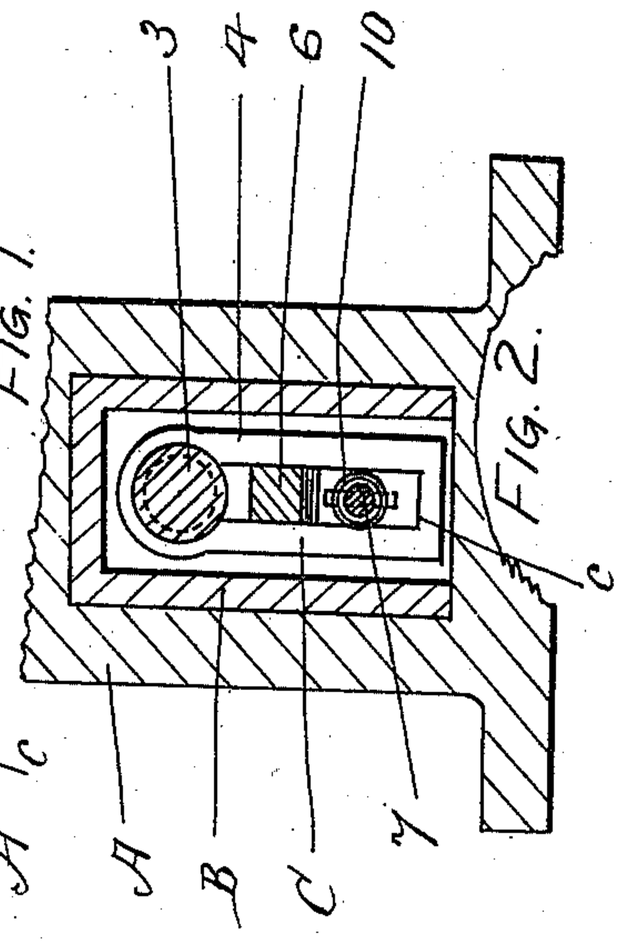

FIG. 2.

Harry S. Kuhn

INVENTOR.

WITNESSES:

A. G. Fahrney

H. F. Noyes

UNITED STATES PATENT OFFICE.

HARRY S. KUHN, OF WAYNESBORO, PENNSYLVANIA, ASSIGNOR TO EMMERT MANUFACTURING COMPANY, OF WAYNESBORO, PENNSYLVANIA.

VISE.

965,470. Specification of Letters Patent. Patented July 26, 1910.

Application filed August 23, 1909. Serial No. 514,286.

To all whom it may concern:

Be it known that I, HARRY S. KUHN, a citizen of the United States, residing at Waynesboro, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Vises, of which the following is a specification.

This invention relates to quick-acting vises; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a longitudinal section through the vise. Fig. 2 is a cross-section, taken on the line *x*—*x* in Fig. 1.

A is a guide adapted to be secured to a work-bench, and provided with a stationary vise-jaw 1.

B is a hollow bar, channel-shaped in cross-section, which is slidable horizontally in the guide A, and which is provided with a movable vise-jaw 2. A screw 3 is arranged longitudinally and is journaled in the bar B, and is provided with a handle 11 for revolving it. A nut 4 is arranged in engagement with the screw 3, and is provided with a loop C on its lower side.

The lower part of the loop C is provided with an inclined surface *c* which is arranged at an acute angle to the axis of the screw. A serrated clamping-bar 5 is secured at one end to a post D which projects upwardly from the guide A into the hollow bar B. This clamping-bar is arranged parallel to the screw, and it projects through the loop C. A serrated wedge 6 is arranged in the loop C between the bar 5 and the inclined surface *c*, so that the serrations of the wedge and bar may be placed in engagement with each other. A pin 7 projects from the thicker end of the wedge, and is slidable loosely in a hole in a lug 9 which projects laterally from one side of the hollow bar B. A spring 10 is arranged between the lug 9 and the wedge, and operates normally to hold the wedge in engagement with the clamping-bar.

A stop or collar 12 is secured in a prearranged position on the screw 3; and a nut or nuts 8 are screwed upon the free end portion of the pin 7. The collar 12 and the nuts 8 are adjusted so that when the screw 3 is revolved so as to press the nut rearwardly against the collar 12, the bar B is moved forwardly so that its lug and the pin 7 draw the wedge forwardly in the loop, and the wedge descends by gravity out of engagement with the clamping-bar to the position shown in Fig. 1 of the drawings. When the parts are in this position, the bar B and the movable vise-jaw can be slid forward by hand, and the vise-jaw B can be arranged in any desired position. When the screw is turned to move the nut away from the collar, the spring forces the wedge against the inclined surface *c*, so that it moves upwardly, so that its serrations engage with the serrations of the clamping-bar. This clamps or locks the nut 4 to the stationary vise-jaw, and the movable vise-jaw can then be operated by means of the operating screw in the usual manner.

As the loop on the nut encircles or incloses the wedge and the clamping-bar, these parts are locked together positively so that they cannot slip or spring apart in working the vise, and so that the vise is not liable to get out of order.

What I claim is;

In a vise, the combination, with a stationary guide provided with a vise-jaw, of a guide-bar slidable in the said guide and provided with a vise-jaw, an operating screw journaled in the said guide-bar and provided with a stop-collar, a nut engaging with the said screw and adapted to strike the said stop-collar to release the clamping devices, said nut being provided with a loop having an inclined surface, a clamping-bar secured to the said guide and projecting through the said loop, a clamping-wedge arranged in the said loop between the inclined surface and the clamping-bar, a lug projecting from the said guide-bar on the opposite side of the said nut from the said stop-collar, a pin connected to the thicker end of the said wedge and operatively connected with the said lug, and a spring encircling the said pin and interposed between the said lug and clamping-wedge.

HARRY S. KUHN.

Witnesses:
H. F. NOYES,
G. R. ROLLMAN.