

W. RILEY.
Vise.

No. 227,582.

Patented May 11, 1880.

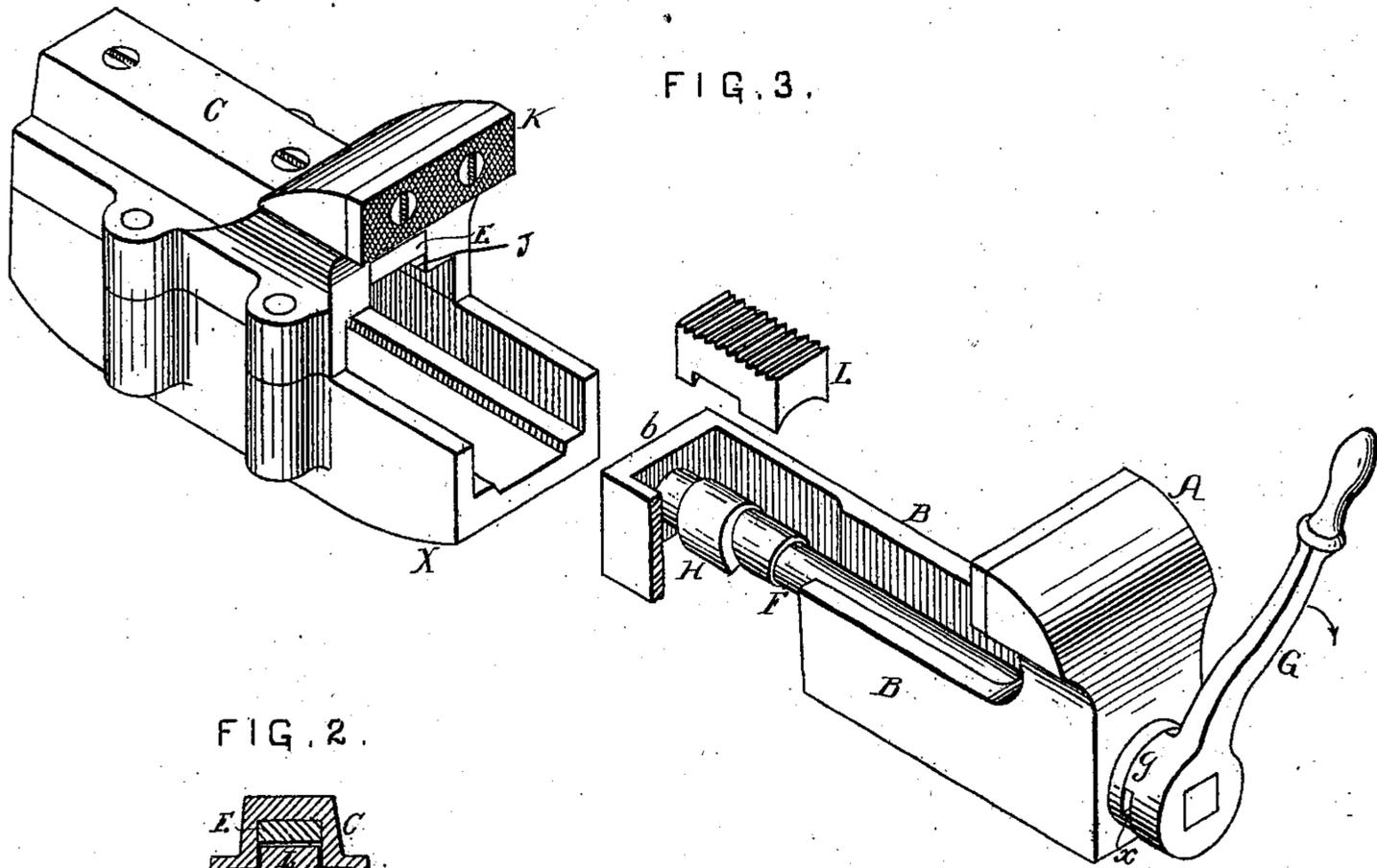


FIG. 2.

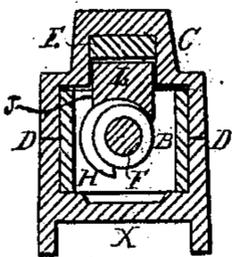
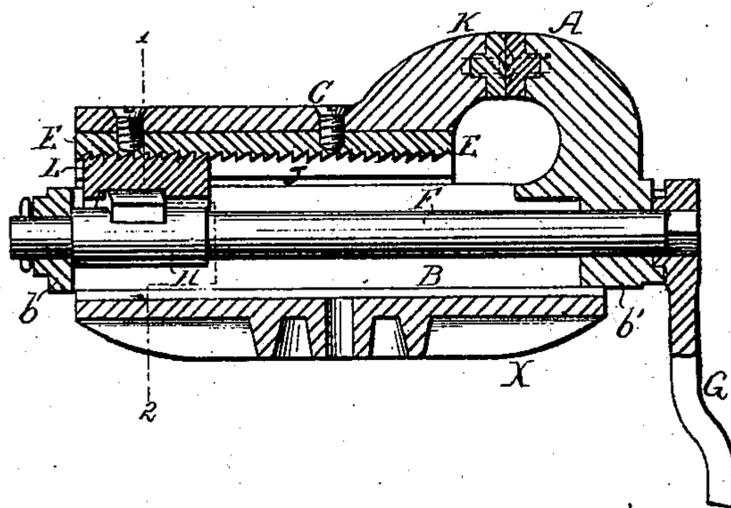


FIG. 1.



WITNESSES

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INVENTOR.

Wilson Riley
by his Attorneys
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UNITED STATES PATENT OFFICE.

WILSON RILEY, OF KEIGHLEY, ASSIGNOR TO JONATHAN BARNES AND RICHARD WALTON KENYON, OF ACCRINGTON, ENGLAND.

WISE.

SPECIFICATION forming part of Letters Patent No. 227,582, dated May 11, 1880.

Application filed January 29, 1880. Patented in England November 21, 1877.

To all whom it may concern:

Be it known that I, WILSON RILEY, a subject of the Queen of Great Britain and Ireland, and a resident of Keighley, in the county of York, England, have invented an Improved Parallel Vise, for which British Letters Patent No. 4,372, dated November 21, 1877, were granted to me, and of which the following is a specification.

My invention relates to that class of parallel vises in which the movable jaw can be freely slid toward or from the fixed jaw to quickly adjust it to any size of material to be held and then secured after adjustment.

The object of my invention is so to construct a vise of this character that when the movable jaw is secured after adjustment it shall by the same movement be drawn toward the fixed jaw, and the gripe on the material thereby be tightened.

In the accompanying drawings, Figure 1 is a longitudinal section of my improved parallel vise; Fig. 2, a transverse section on the line 1 2, Fig. 1, and Fig. 3 a perspective view of the vise with the movable parts detached.

The bed-plate X of the vise may be secured to the bench by a bolt or bolts, or by any other suitable means, and to this bed-plate is bolted or otherwise attached the cap-piece C, carrying the fixed jaw K. The upper face of the bed-plate and the under side of the cap are grooved longitudinally, as indicated at D in Fig. 2, for the reception of the slotted bar B, which carries the movable jaw A, and which can slide on ways in the said groove in the bed-plate and cap-piece.

To bearings *b b'*, in the opposite ends of the slotted bar B, is adapted a spindle, F, to which is secured, at the front outer end, a hand-lever, G, Figs. 1 and 3. This spindle F carries near its opposite end, within the slotted bar B, a scroll-cam, H. On this cam rests a block, L, which has flanges embracing said cam, as indicated in Fig. 1, and which is

guided in a longitudinal groove, J, on the cap-piece C. The upper surface of this block is provided with a series of teeth, which are adapted to fit into corresponding teeth on the under side of a longitudinal plate, E, secured to or forming part of the cap-piece C.

By manipulating the hand-lever G the spindle F with its cam H can be caused to move the block L into or out of contact with the toothed plate E. When the block is not in contact with the plate E the bar carrying the movable jaw A can be slid in the grooved bed-plate and cap-piece to the required position to hold the material to be operated on, when, by turning the handle G in the direction of the arrow, Fig. 3, the cam H will raise the toothed block L into contact with the toothed plate E, and, owing to the spiral or scroll shape of the cam, will draw the bar B and the jaw A closer to the jaw K, and consequently secure the material firmly between the jaws.

In order to limit the throw of the handle G, and consequent movement of the spindle F, stops *x* are formed on the end of the bar B, a shoulder, *g*, on handle coming into contact with one or other of these stops, according to the position to which the handle is moved.

I claim as my invention—

In a parallel vise, the combination of the fixed cap-piece carrying the fixed jaw and toothed plate E with the bar carrying the movable jaw and spindle F, provided with a handle and a spiral or scroll cam, H, and movable toothed block L, all substantially as and for the purpose described.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILSON RILEY.

Witnesses:

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