

GEORGE M. EVANS.
Improvement in Vises.

No. 127,969.

Patented June 18, 1872.

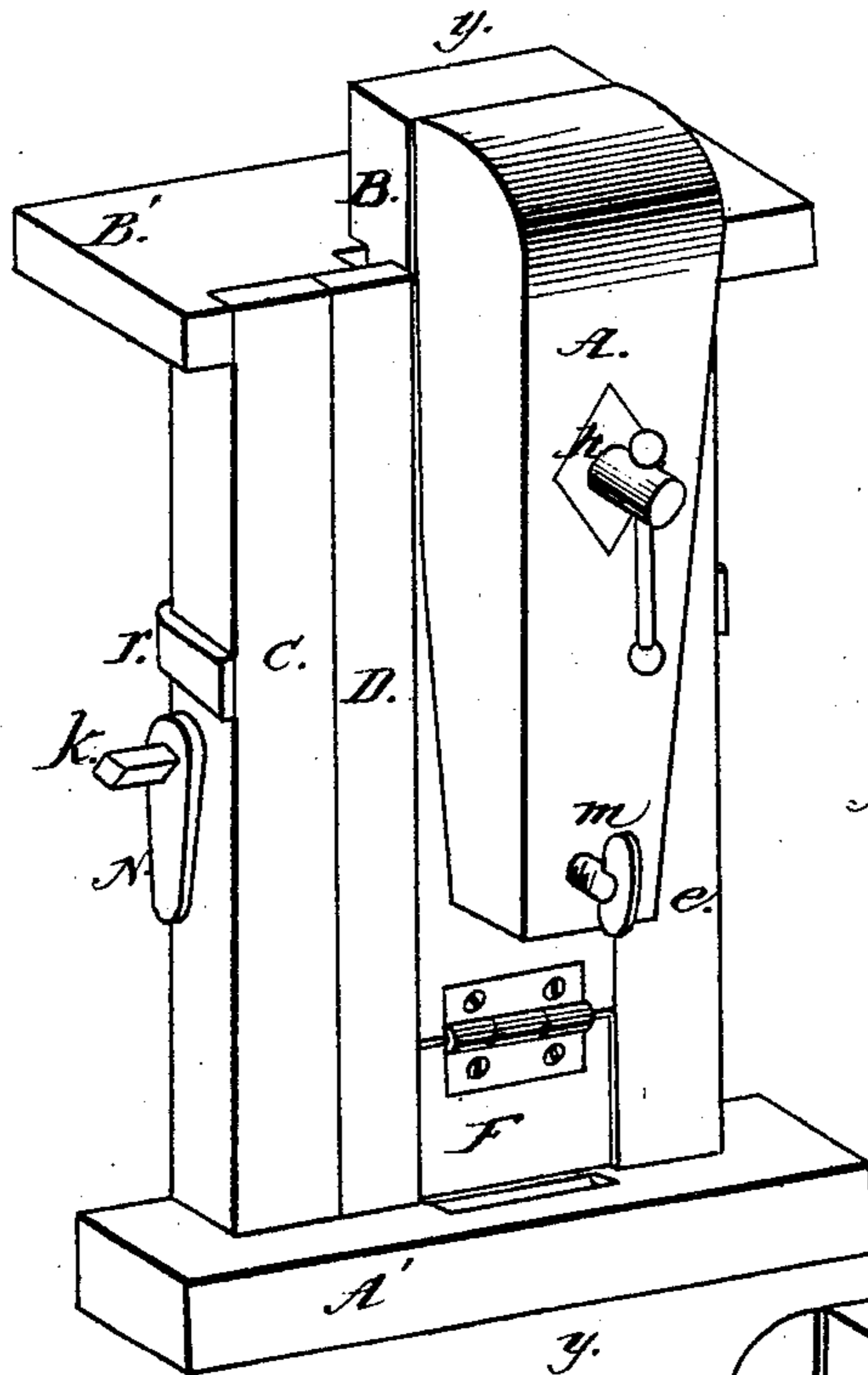


Fig. 1.

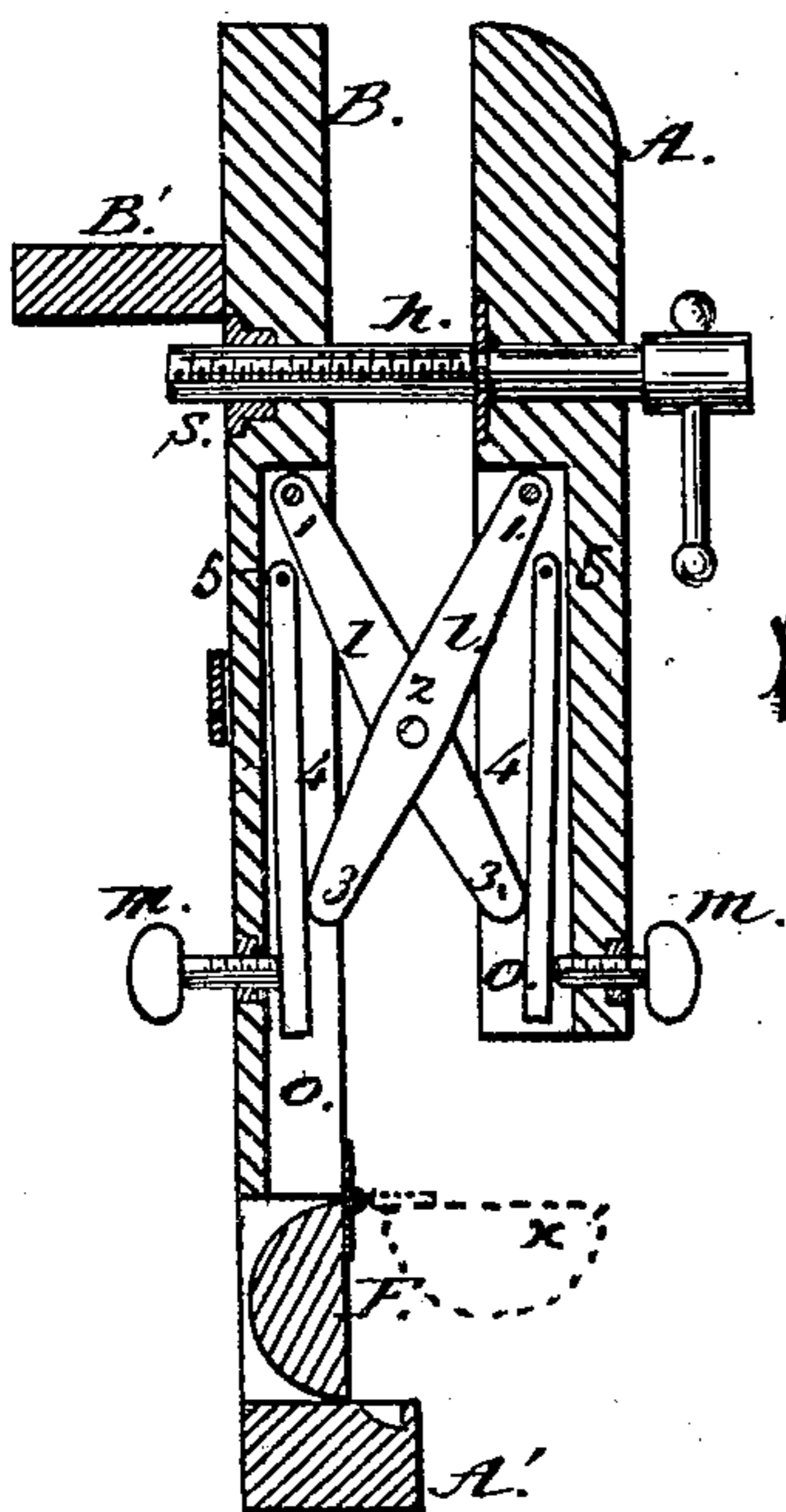


Fig. 2.

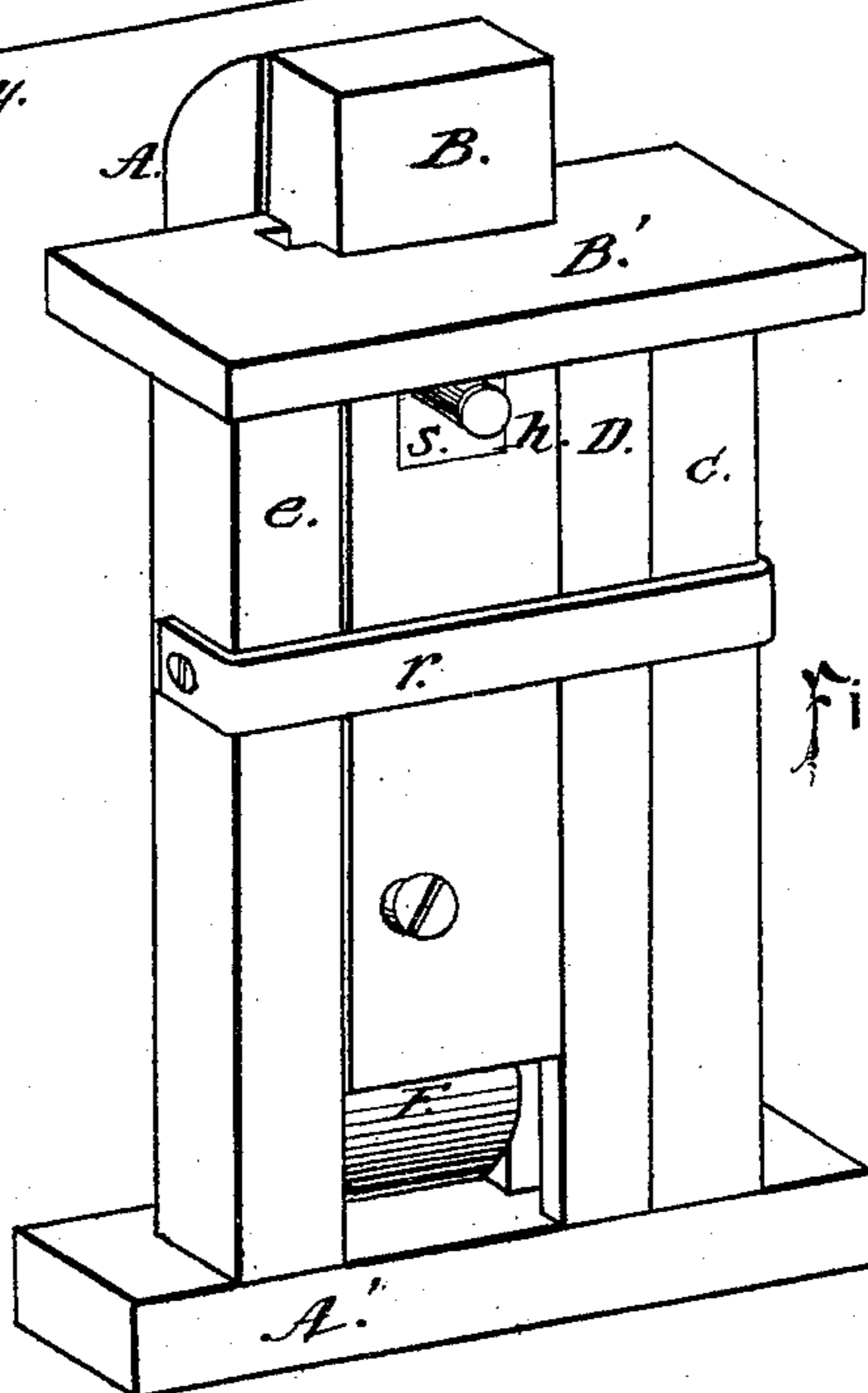


Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGE M. EVANS, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN VISES.

Specification forming part of Letters Patent No. 127,969, dated June 18, 1872.

To all whom it may concern:

Be it known that I, GEORGE M. EVANS, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Bench-Vises, the same being an improvement upon the bench-vise for which Letters Patent were granted me, bearing date of August 16, 1870; and I do hereby declare that the following is a full, clear, and exact description of my present improvement, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my present invention consists in constructing a vise for carpenters' benches so as to have a parallel movement of the outer jaw with relation to the inner jaw, the said jaws being susceptible of elevation and depression, whereby a "high" or "low" vise may be obtained.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawing, which forms part of my specification, Figure 1 is a front view in perspective of my improvement in bench-vises. Fig. 2 is a vertical section of the same at line *y* of Fig. 1. Fig. 3 is a back view in perspective of my improved bench-vise.

In the accompanying drawing, A' represents the base block; B', the top block. To these blocks are secured vertical pieces C, D, and *e*, which are braced transversely by an iron band, *r*, which has its ends secured by the means of screws or bolts in the vertical pieces C and *e*. In the vertical piece C is placed a screw-bolt, *k*, which is provided with a lever, N, for operating it. The inner end of the bolt *k* presses against the side of the vertical piece D next to it, and is used for the purpose of forcing the piece D against the inner jaw B for clamping

and holding it in a fixed position between the vertical pieces D and *e*. On the lower end of the jaw B is hinged an extension piece, F, which is thrown into the position indicated by the dotted lines *x* when used for a "low vise," and is held in the position shown in the accompanying drawing when used as a "high vise." The jaws A and B are provided with the ordinary screw *h* and nut *s* used in bench-vises, and are furnished with recesses *o* for the reception of toggle-bars *l* and regulating-bars 4. The toggle-bars *l* are hinged in the center at the point marked 2, their upper ends being pivoted at the points marked 1, and their lower ends 3 furnished with grooves, so as to partially straddle the regulating-bars 4, which are pivoted at their upper ends at the point marked 5, their lower ends being adjusted through the medium of the set-screws *m* for the purpose of taking up any loss of motion which may occur by the wear of the toggle-bars *l* or other parts of the vise.

The skillful mechanic, from the foregoing description, and by reference to the accompanying drawing, will readily understand the construction of my improved bench-vise and comprehend its operation and advantages without further description.

What I claim as being of my invention is—

1. The combination and arrangement of the vertical pieces C, D, and *e*, band *r*, and screw *k* with the jaw B, substantially as herein described, and for the purpose set forth.

2. The combination of the jaws A and B, toggle-bars *l*, regulating-bars 4, and set-screws *m*, constructed, arranged, and operating with relation to each other substantially as herein described, and for the purpose set forth.

GEORGE M. EVANS.

Witnesses:

JOHN A. CAROTHERS,
JAMES K. MORANGE.