

B. HAWORTH.

Bench Vise.

No. 32,913.

Patented July 23, 1861.

Fig: 2.

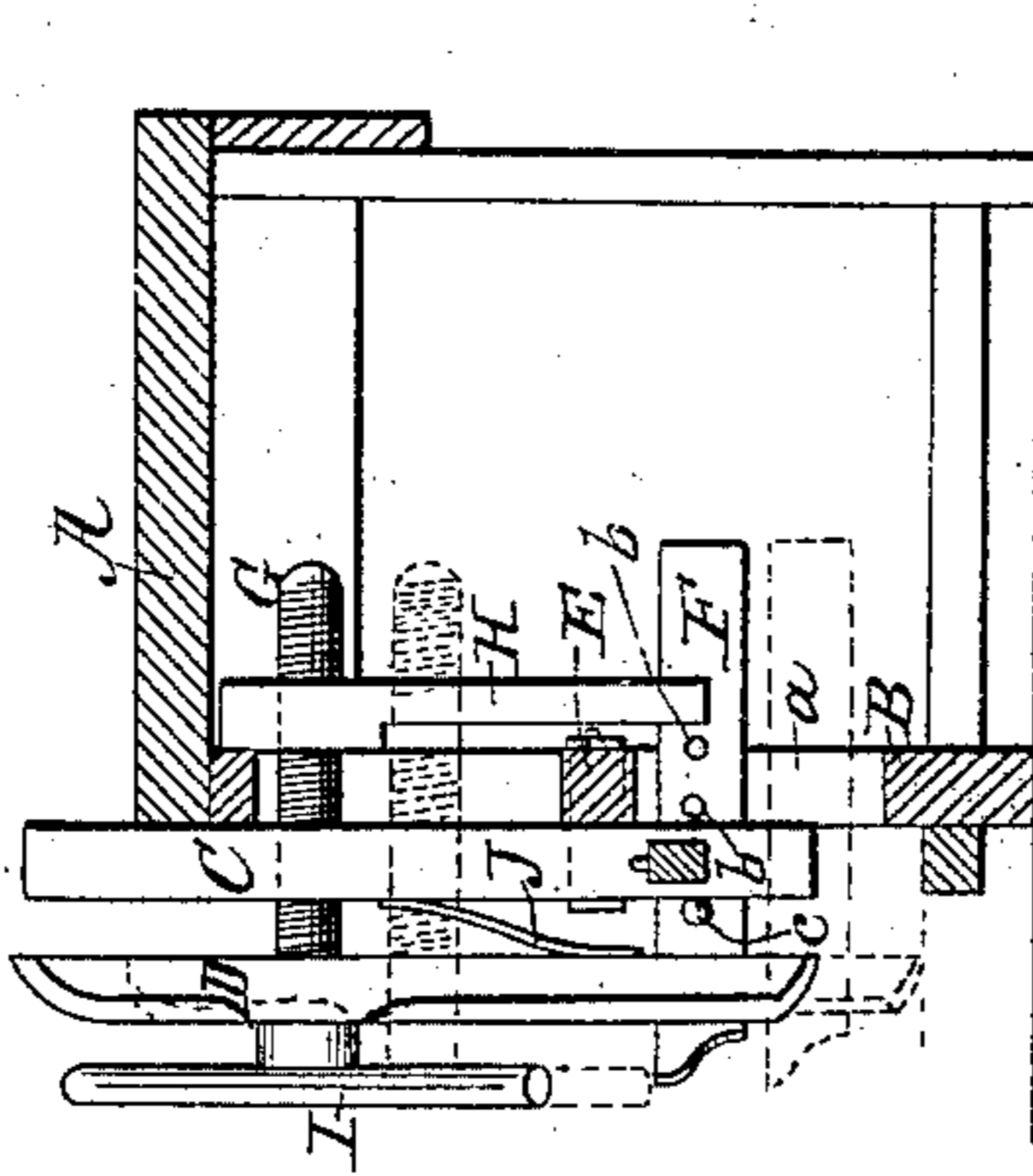
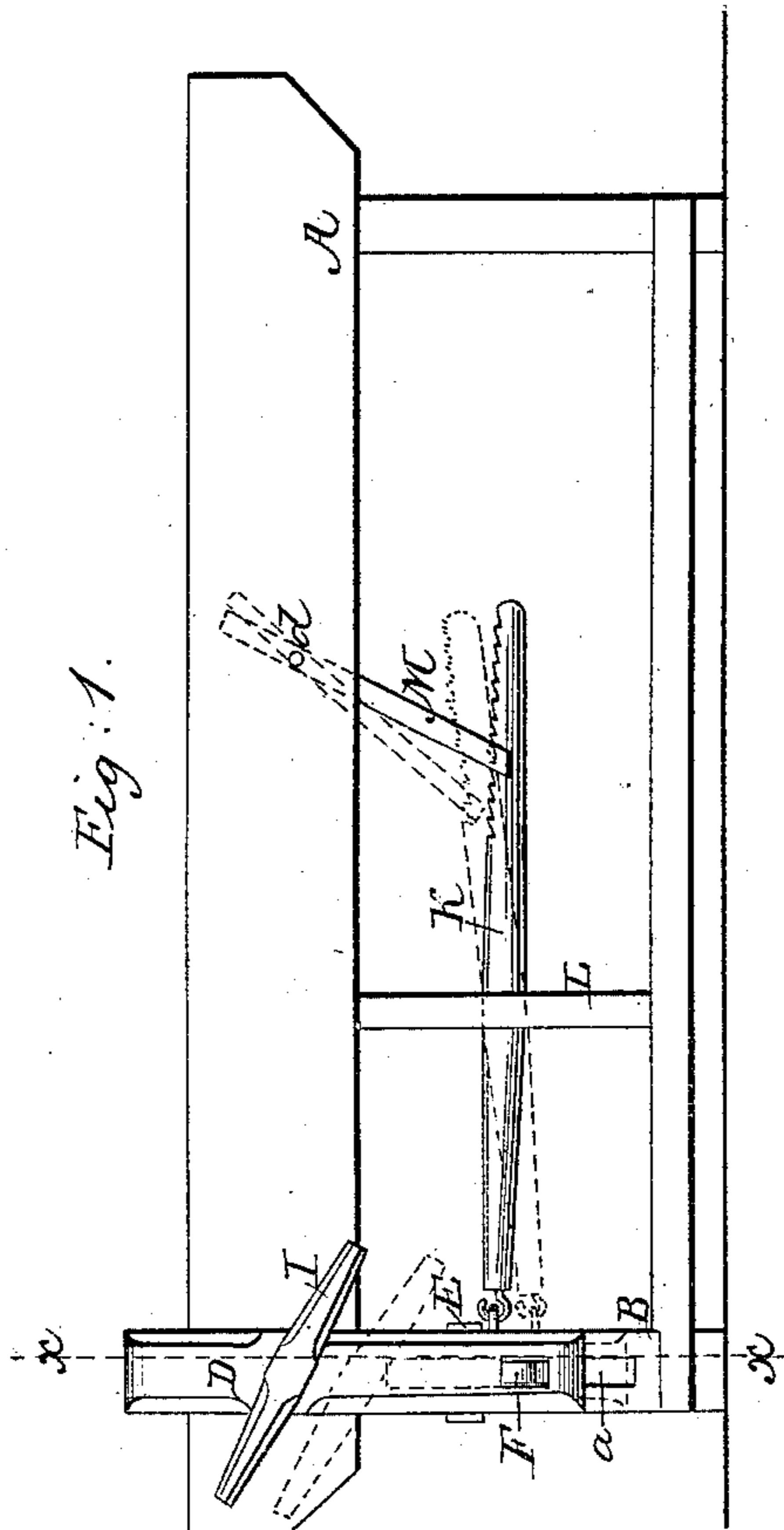


Fig: 1.



Witnesses.
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B. HAWORTH, OF RIDGE FARM, ILLINOIS, ASSIGNOR TO HIMSELF AND B. F. CANADAY,
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JOINER'S BENCH-VISE.

Specification of Letters Patent No. 32,913, dated July 23, 1861.

To all whom it may concern:

Be it known that I, B. HAWORTH, of Ridge Farm, in the county of Vermilion and State of Illinois, have invented a new and useful Improvement in Joiners' Bench-Vises; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of a joiner's work bench with my improvement applied to it. Fig. 2, a transverse vertical section of the same taken in the line x, x , Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to attach an ordinary bench vise to the bench in such a manner that its jaws may be elevated above the top of the bench when necessary or thus required for use, and also lowered so that the jaws may be out of the way, and below the upper surface of the bench, leaving the latter wholly unobstructed when required.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A. represents a joiner's bench, which may be constructed in the usual manner, and B. is one leg of the bench against which the vise is placed. This vise is formed as usual of two jaws C. D. The jaw C. is the inner one and it is fitted in a guide E. which is secured to the leg B. said guide being simply a metal band which is permanently secured to the leg.

The leg B. is slotted vertically nearly its whole length or height as shown at a , and to the lower part of the outer jaw D. there is secured at right angles a bar F. which passes loosely through a mortise in the lower part of jaw C. and also through the slot a , of the leg B. This bar F. is perforated with holes b , through any of which a pin c , passes. The bar F. is the usual foot brace of the ordinary bench vise, performing precisely the same function.

G. is a screw which passes horizontally through both jaws C. D. of the vise and into a nut in the upper end of a vertical bar H. at the back of the leg B. The lower end of bar H. is slotted vertically and is fitted loosely on the bar F. The outer end of screw G. has a handle I. attached, and to the

inner side of the jaw D. there is secured a spring J. which bears against the jaw C. said spring having a tendency to keep the jaw D. forced outward from jaw C. see Fig. 2.

K. is a lever which has its fulcrum in an upright L. at the side of the bench. The front end of this lever is connected to the lower part of the jaw C. and the back part of the lever is notched at its upper side to receive a stop M. the upper end of which is connected by a pin or pivot d . to the side of the bench.

From the above description it will be seen that the vise may be raised and lowered as occasion may require; the foot brace F. and screw G. being allowed to rise and fall in slot a . of the leg B. When the vise is fully down the lower end of the inner jaw C. rests on a longitudinal bar N. which connects the lower parts of the two front legs of the bench and when the vise is thus down the upper surfaces of the two jaws C. D. are flush with the upper surface of the bench. The vise it will be seen may be used at any point of its adjustment.

This invention does not involve any material additional cost in the construction of the bench, while it possesses the great advantage of allowing the vise to be adjusted as the work requires.

If an unobstructed surface is required for the purpose of "laying off" work, drafting, etc., the vise is lowered. If the vise requires to be elevated in order to grasp certain articles above the surface of the table, the lever K. is adjusted in a moment of time and the vise placed in the desired position.

Having thus described my invention what I claim as new and desire to secure by Letters Patent; is—

Having the foot brace F. and screw G. of the vise passing through the slotted leg B. of the bench the screw working in the bar H. and the latter resting on or fitted over the foot brace, when said parts are used in connection with a lever K. and a guide E. or their equivalents and all arranged and applied to a joiners' bench, to operate as and for the purpose set forth.

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Witnesses:

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