

(No Model.)

E. D. SLOAN.

WISE EQUALIZER.

No. 370,213.

Patented Sept. 20, 1887.

Fig: 1.

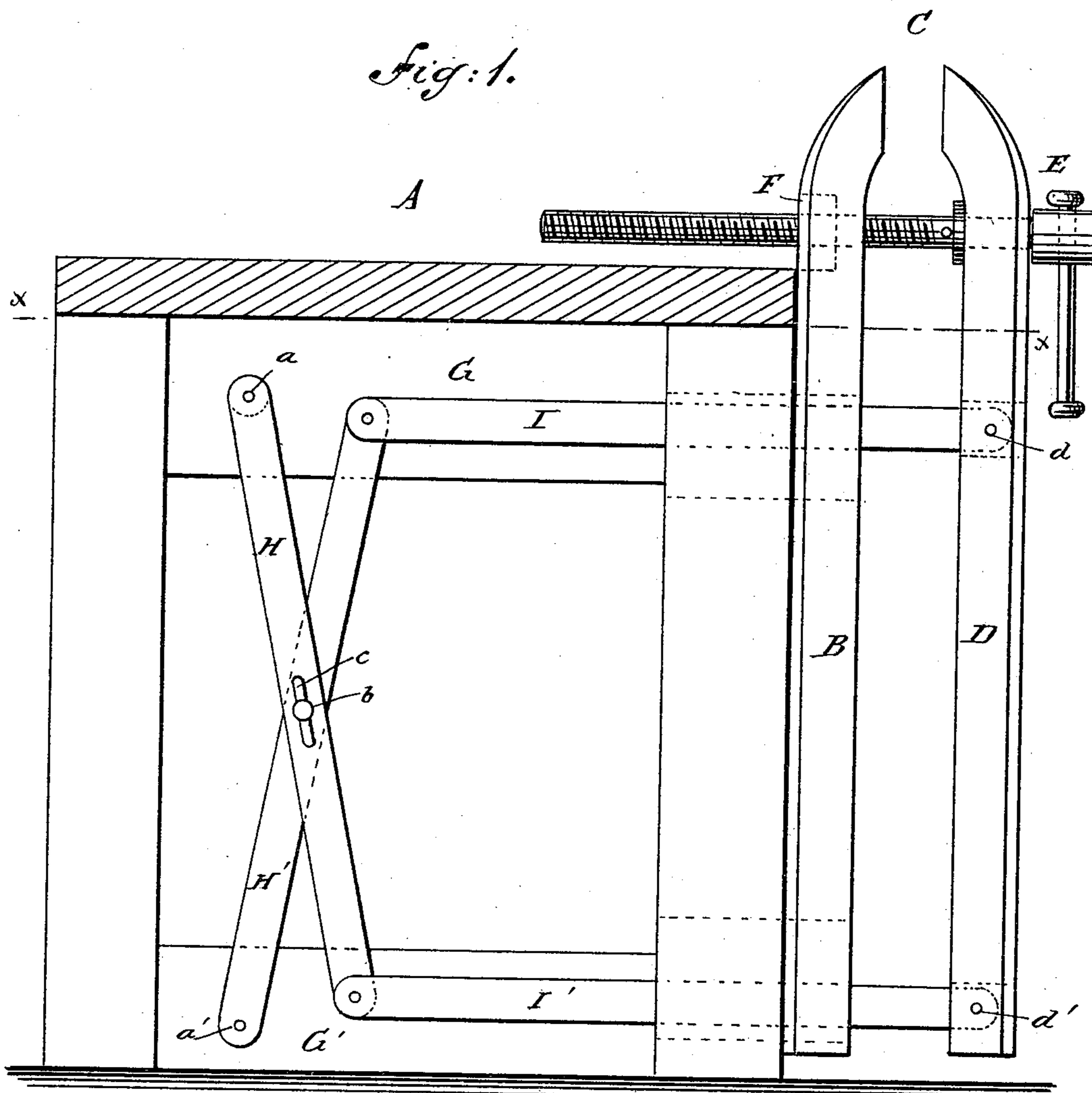
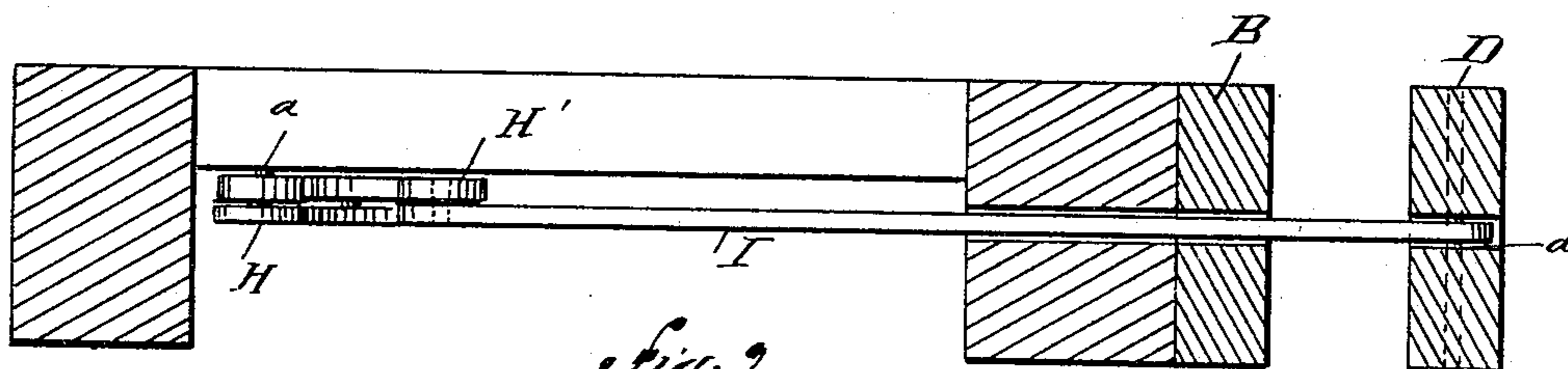


Fig: 2.



WITNESSES:

WITNESSES:
Chas. Vida.
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INVENTOR:

E. D. Sloan

BY

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UNITED STATES PATENT OFFICE.

EDWARD D. SLOAN, OF DENVER, COLORADO.

WISE-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 370,213, dated September 20, 1887.

Application filed April 6, 1887. Serial No. 233,899. (No model.)

To all whom it may concern:

Be it known that I, EDWARD D. SLOAN, of Denver, in the county of Arapahoe and State of Colorado, have invented a new and Improved Vise-Equalizer, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation of a vise with my improvement applied, and Fig. 2 is a horizontal section taken on line *xx* in Fig. 1.

Similar letters of reference indicate corresponding parts in both views.

The object of my invention is to provide a device whereby the jaws of a vise may be made to move parallel with each other, and thus present parallel surfaces to the work held in the vise.

My invention consists in a pair of crossed levers pivoted to fixed supports and connected with bars pivotally attached to the movable jaw of the vise.

While my invention is particularly applicable to vises used by wood-workers, it may be applied with advantage to iron vises.

To the bench A is secured the fixed jaw B of the vise C, which extends from a point near the bottom of the bench upward above the top of the bench, and is curved at the upper end in the usual way. The movable jaw D is similar to the fixed jaw B, and is provided with a screw, E, which is swiveled in the upper portion of the jaw and extends through a nut, F, let into the bottom of the jaw B.

To the upper cross-timber, G, of the bench A is pivoted a lever, H, on the bolt *a*, and to the lower cross-timber, G', is pivoted the lever H' on the bolt *a'*. The levers H H' cross each other, and the lever H' carries a stud, *b*, which extends through a slot, *c*, in the lever H. With the upper end of the lever H is pivotally connected one end of a bar, I. The opposite end of the said bar extends through

a mortise in the jaw B, and is pivoted in a mortise in the jaw D upon the bolt *d*. A bar, I', is pivotally connected with the lower end of the lever H, and extends through a mortise in the lower end of the fixed jaw B, and is pivoted in a mortise in the lower end of the movable jaw D upon a bolt, *d'*.

When the upper end of the movable jaw D is moved in or out by the screw E, motion is transferred through the bar I to the upper end of the lever H', and the said lever transfers the same motion to the lever H through the central connection, consisting of the stud *b* and the slot *c*, and the lower end of the lever H communicates motion to the lower end of the movable jaw D through the bar I'. By this means the perfect parallelism of the jaws is maintained.

By means of my improvement I not only secure perfect accuracy in the movement of the movable jaw, but I avoid the trouble of changing the adjustment by hand.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the movable jaw D of a vise, of the lever H, provided with the slot *c*, the lever H', carrying the stud *b*, extending through the slot *c*, the said levers being pivoted to fixed supports, and the bars I I', pivotally connected with the levers H' H, and pivotally connected with the movable jaw, substantially as described.

2. The combination, with the fixed jaw B, of the movable jaw D, the screw E, adapted to move the movable jaw, the bars I I', and the levers H' H, pivoted to fixed supports and connected with each other, as described.

EDWARD D. SLOAN.

Witnesses:

SAML. ATKINSON,
FRED KERNS.