

No. 897,185.

PATENTED AUG. 25, 1908.

O. A. ANDERSON.

BENCH VISE.

APPLICATION FILED SEPT. 23, 1907.

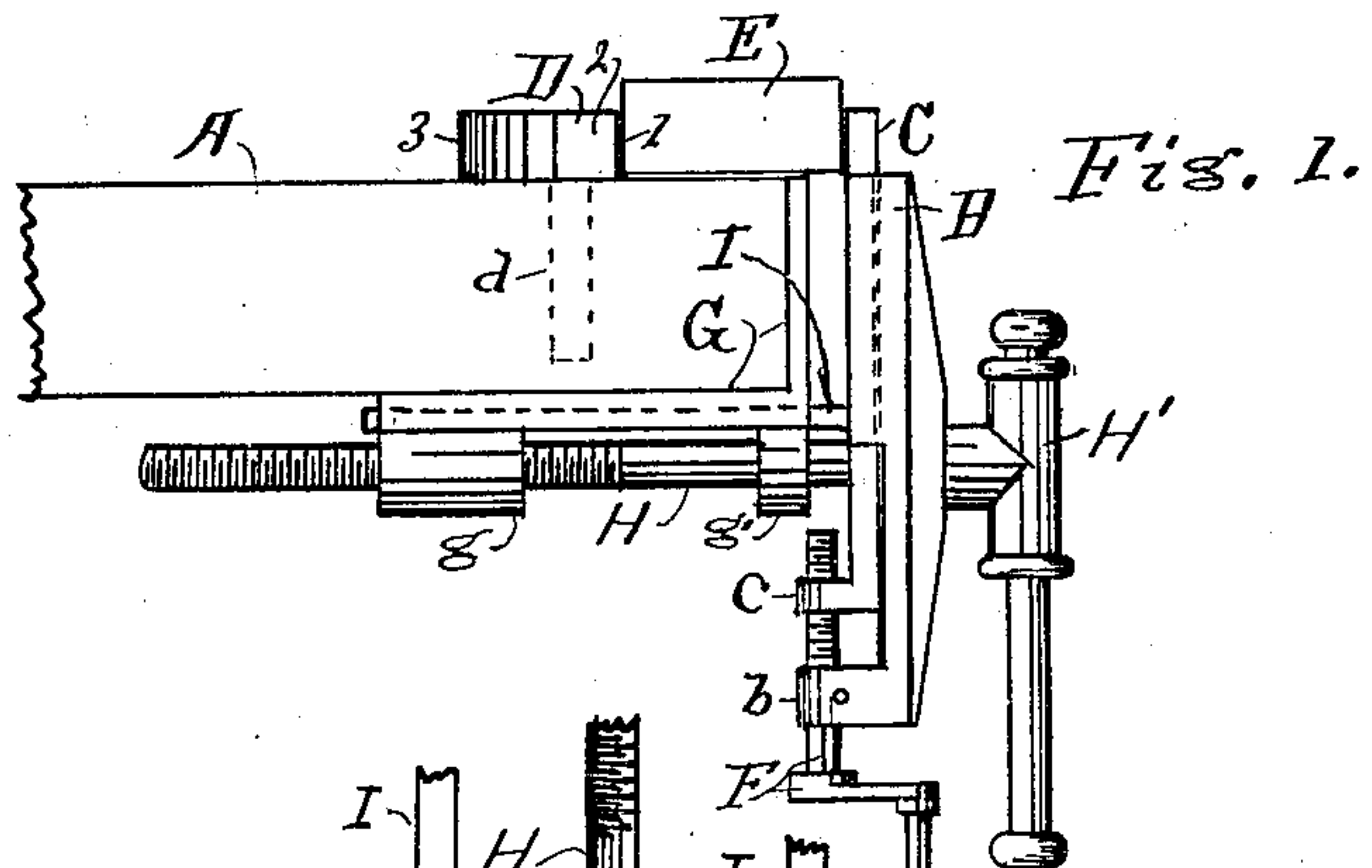


Fig. 1.

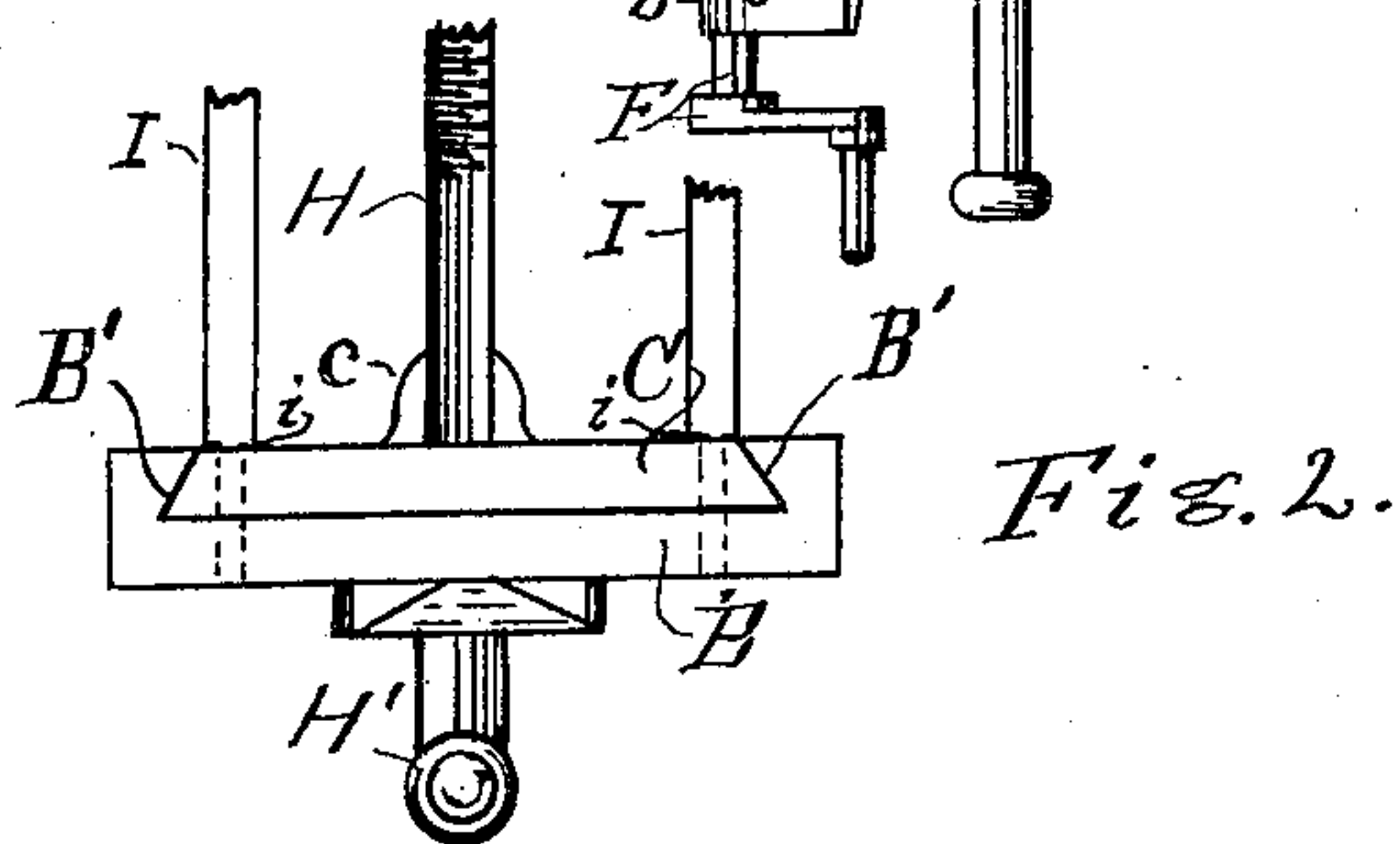


Fig. 2.

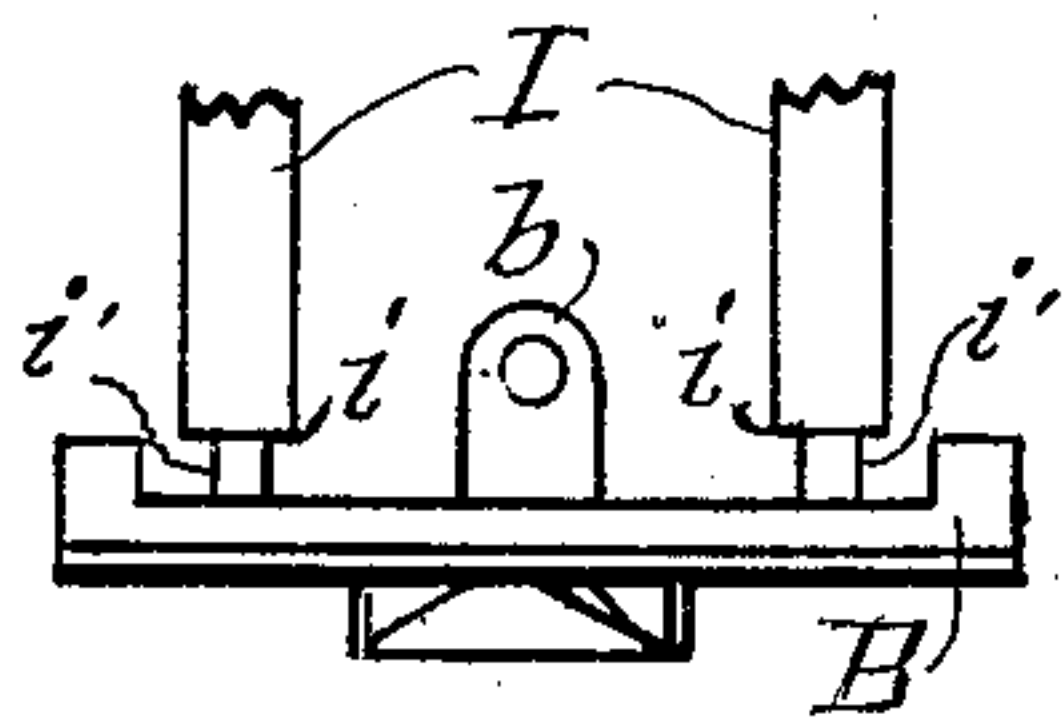


Fig. 5.

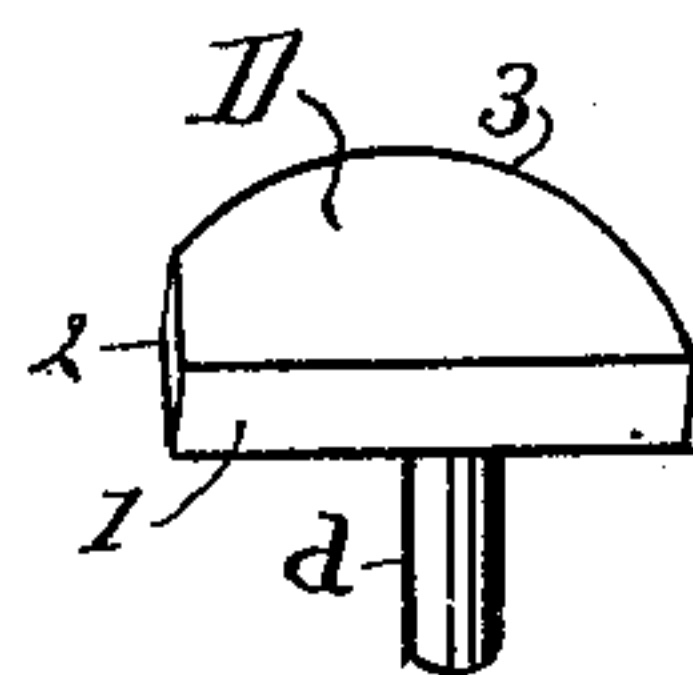


Fig. 3.

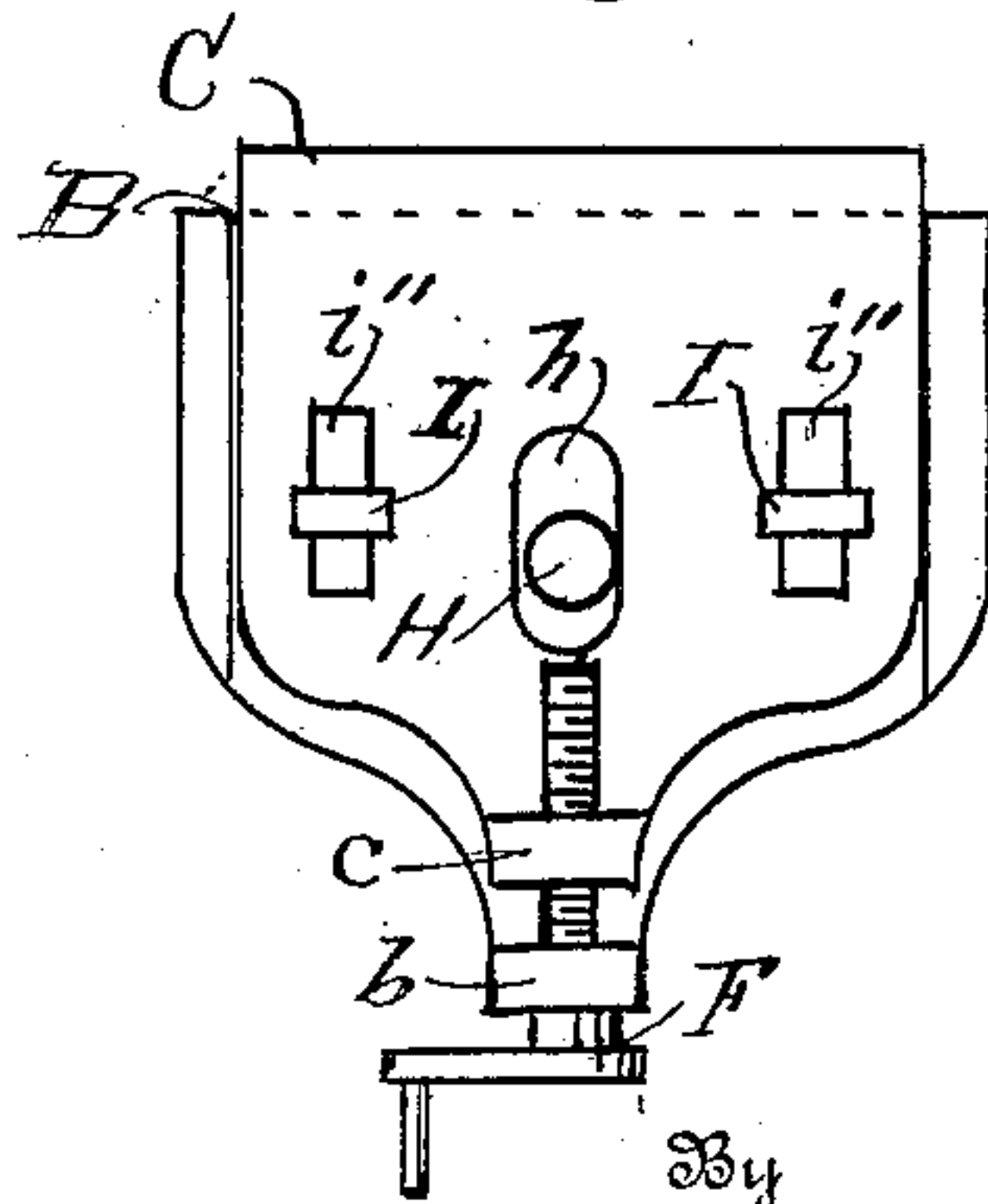


Fig. 4.

Witnesses

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# UNITED STATES PATENT OFFICE.

OLA A. ANDERSON, OF GRAND RAPIDS, MICHIGAN.

## BENCH-VISE.

No. 897,185.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed September 23, 1907. Serial No. 394,241.

*To all whom it may concern:*

Be it known that I, OLA A. ANDERSON, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Bench-Vises, of which the following is a specification.

My invention relates to improvements in bench vises for use upon cabinet maker's, carpenter's, wagon maker's and other like benches, and its objects are: first, to provide a vise with which an auxiliary jaw may be adjusted vertically for the purpose of clamping objects above the surface of the bench; second, to provide a means by which the necessity of providing dovetailed or overlapping ways for the auxiliary jaw to slide in, may be averted; and, third, to provide a bench block or pin for use especially with this auxiliary vise. I attain these objects by the mechanism illustrated in the accompanying drawing in which

Figure 1 is an elevation of one end of one edge of a bench with my vise in place; Fig. 2 is a top plan of the vise jaw showing the usual dovetail ways for the auxiliary jaw; Fig. 3 is a perspective of the bench block; Fig. 4 is a back face elevation of the vise jaw showing the slots in the auxiliary jaw and the guides adapted to hold the auxiliary jaw to place without the necessity of forming dovetailed ways in the main jaw; and Fig. 5 is a top plan of the same with the auxiliary jaw removed to show the form of the guides.

Similar letters refer to similar parts throughout the several views.

A represents a portion of the top of the bench and B represents the movable jaw of the vise.

My invention relates to the vertically adjustable auxiliary jaw C and its necessary adjuncts, the bench block or pin, and the means for holding the auxiliary jaw C to place.

The vise jaw B may be dovetailed, as shown at B' in Fig. 2, to form ways for supporting the auxiliary jaw C so that this jaw may be adjusted vertically to any position from the top of this jaw being level with the top of the bench A to any desired position above this, as indicated at C in Fig. 1, or higher, if desired, and when this jaw is raised above the top of the bench it is for the purpose of securing an article lying on the bench and it is necessary to provide a suit-

able bench block or pin that may be used for various purposes and for this purpose I have provided a bench block consisting of the body D having one long plain surface, as 1, with which any plain surfaced article, as a parallelogram, a wedge &c., may be clamped; one short plain surface, as 2, with which special forms may be clamped, and one convex surface, as 3, with which concave articles, as wagon fellies &c., may be clamped. This bench block is applied to the bench by means of a downwardly projecting pin or stem *d* that passes into a suitable opening in the top of the bench, and in which it may be readily turned to any position desired.

Returning now to the auxiliary jaw C, this jaw is made vertically adjustable in the jaw B, as hereinbefore stated, by means of the hand screw F which is supported in the bearing *b* at the lower end of the jaw B, and passes through the nut *c* at the lower end of the jaw C so that the jaw C will be raised or lowered as the hand screw F is turned to the right or to the left.

E represents an object secured between the auxiliary jaw C and the bench block D to illustrate the desirability of these adjuncts to a cabinet bench, and the manner of applying them. When the auxiliary jaw is down to position so that its upper end is exactly level with the upper end of the top of the jaw B, the bearing or inner face of the two should form a perfect bearing surface the whole breadth of both jaws, as indicated in Fig. 2.

In the construction of this vise I greatly prefer that the auxiliary jaw C be held in place by means of shoulders *i i* formed on the guides I so that the neck *i' i'* will pass through the slots *i'' i''* in the auxiliary jaw C with the shoulders *i i* bearing upon the surface of the jaw, as it enables me to properly secure the jaw C without the necessity of making dovetail or overlapping bearings at the ends of the jaw C and, thus, greatly lessens the cost of manufacturing the jaw, and at the same time insures the perfect action of the auxiliary jaw.

G represents a metal reinforcement that is secured to the bench top and forms a metallic surface for the stationary jaw of the vise, and, at the same time, it forms a supporting base for the nut *g* and the bearing *g'*, both of which are made integral therewith, to insure the perfect working of the vise screw H when being manipulated by the lever H'; and *h* represents a slot in the jaw C to allow said



jaw to be raised and lowered as desired, regardless of the screw H.

Having thus fully described my invention, what I claim as new and desire to secure by  
5 Letters Patent of the United States, is:

In combination with the movable jaw of a bench vise, a vertically adjustable auxiliary jaw secured to the face of the movable jaw, a  
10 lug upon the movable jaw, a hand screw passing through said lug and engaging the auxil-

iary jaw for adjusting the same, and an adjustable bench block having a long plain surface, a short plain surface and a convex surface.

Signed at Grand Rapids Michigan September 17, 1907.

OLA A. ANDERSON.

In presence of—

ITHIEL J. CILLEY,  
E. J. NOBLE.