

(No Model.)

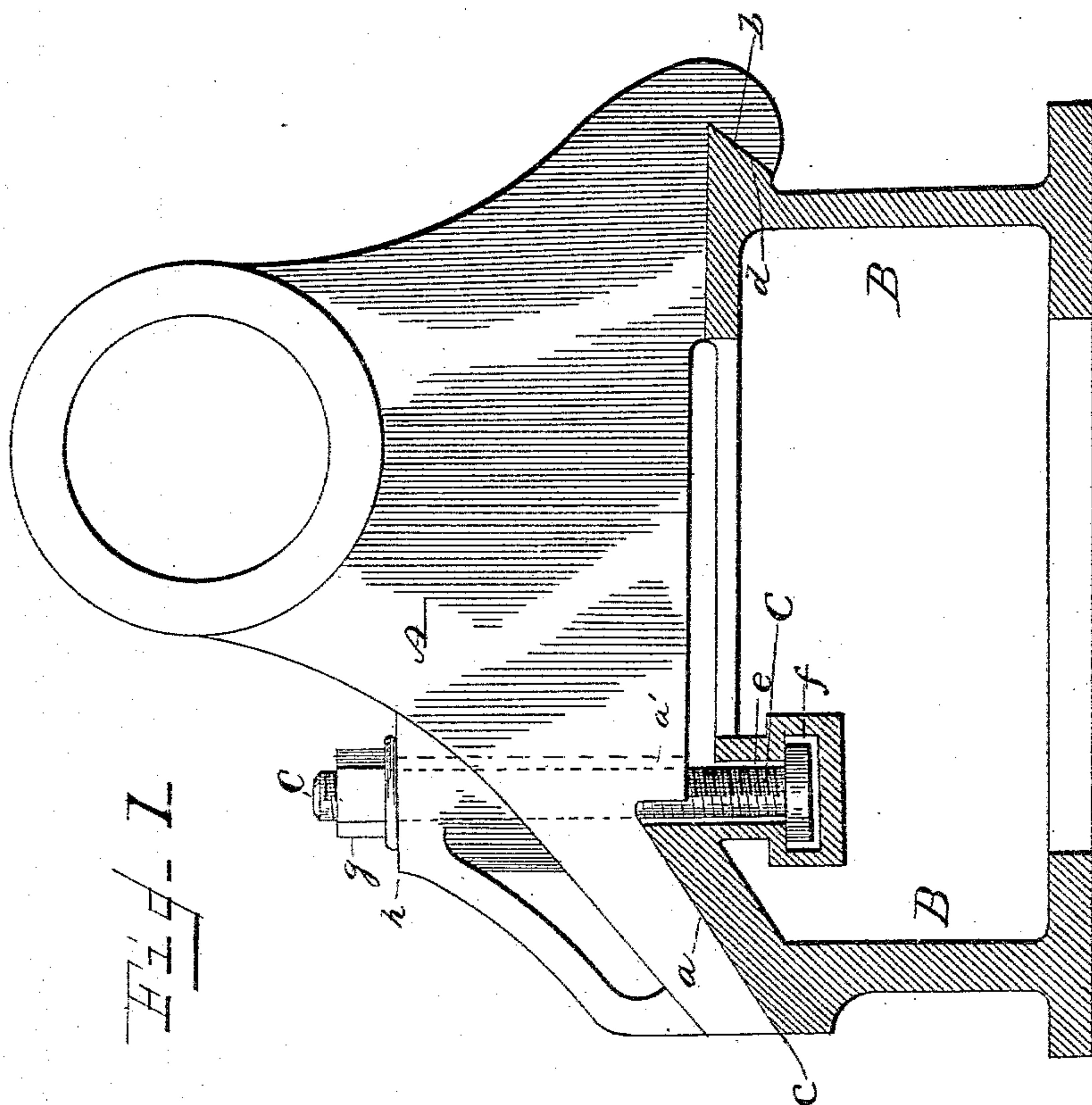
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J. J. BREWIS.

LATHE.

No. 356,678.

Patented Jan. 25, 1887.



WITNESSES

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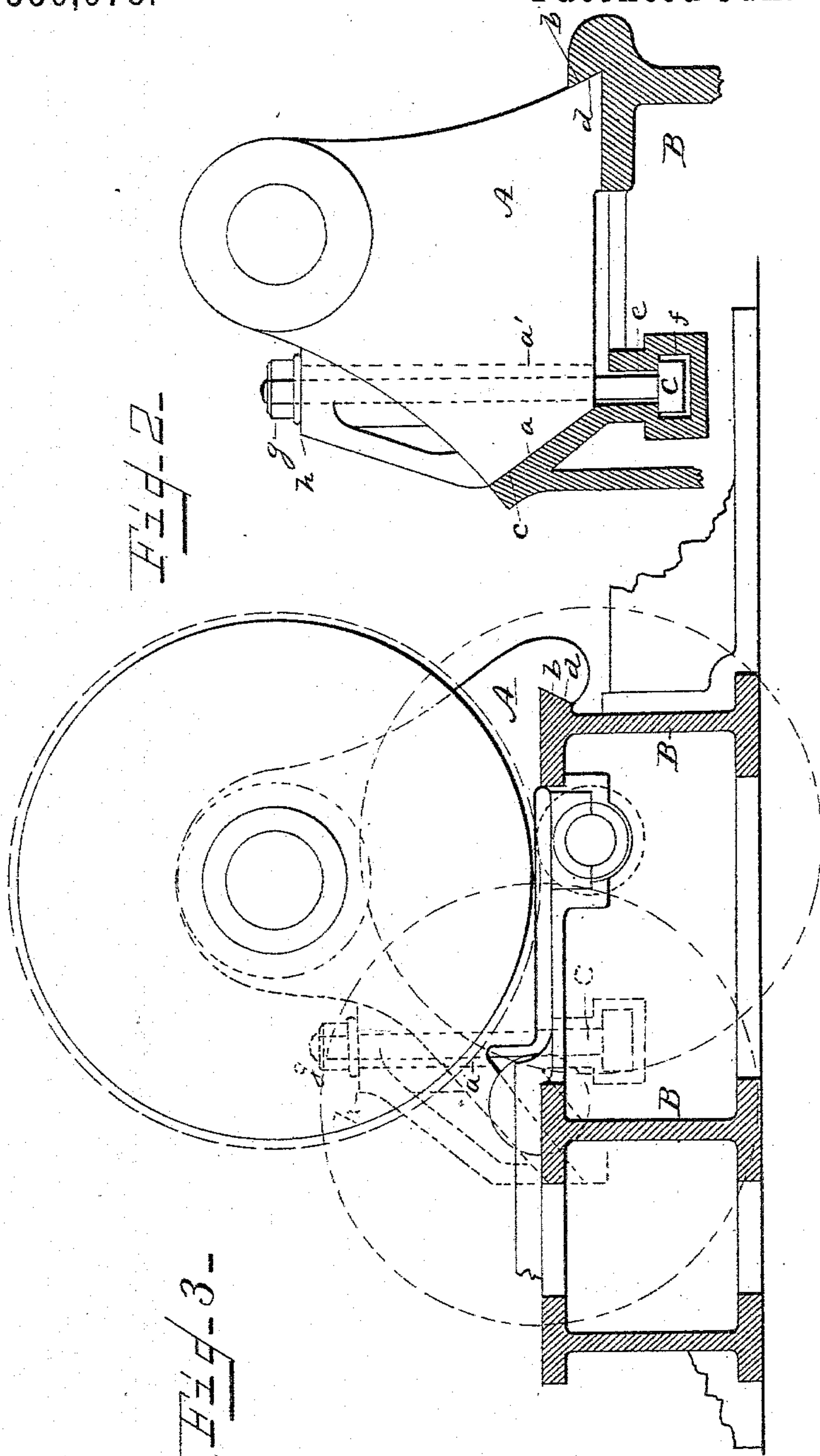
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3 Sheets—Sheet 3.

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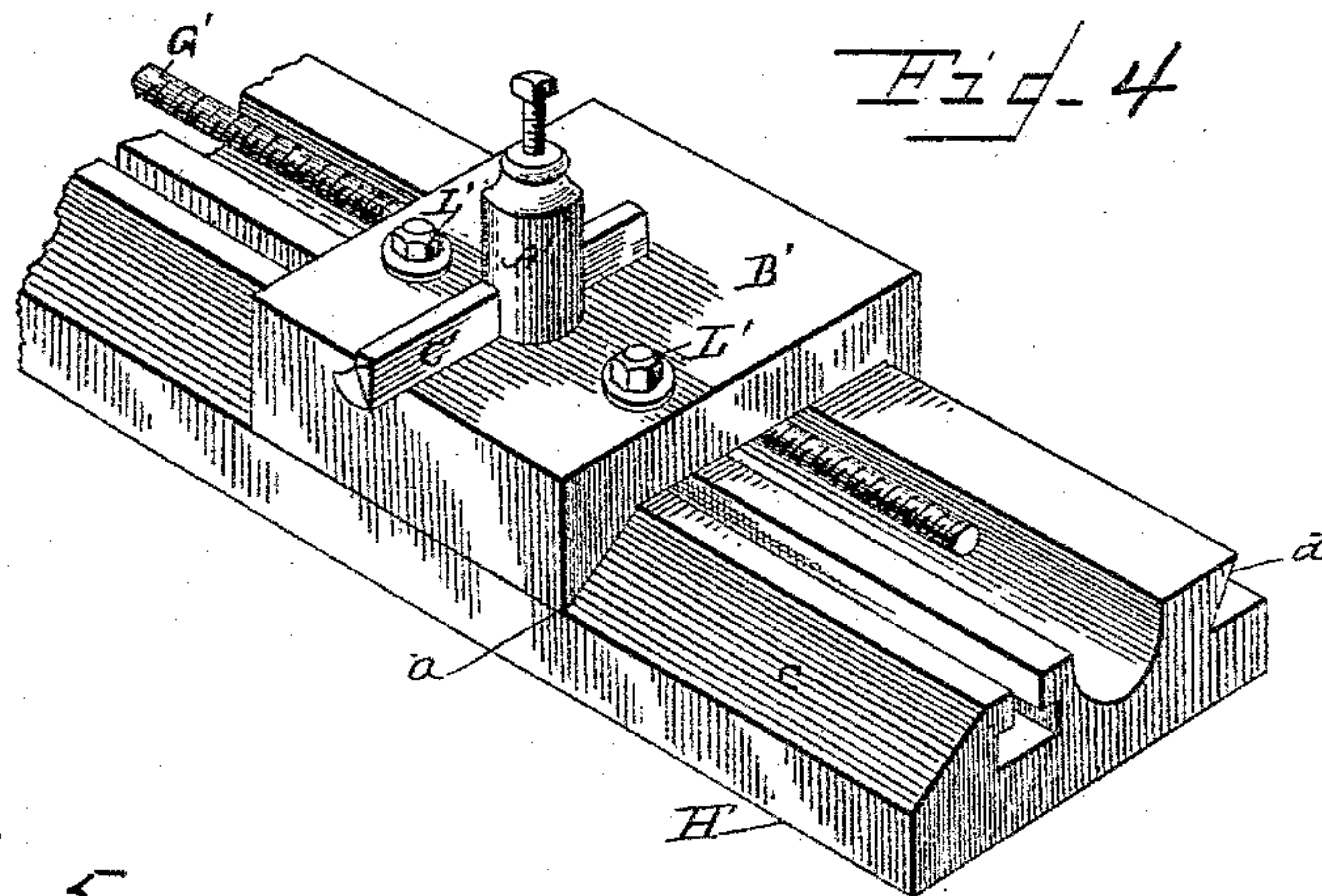


Fig. 5.

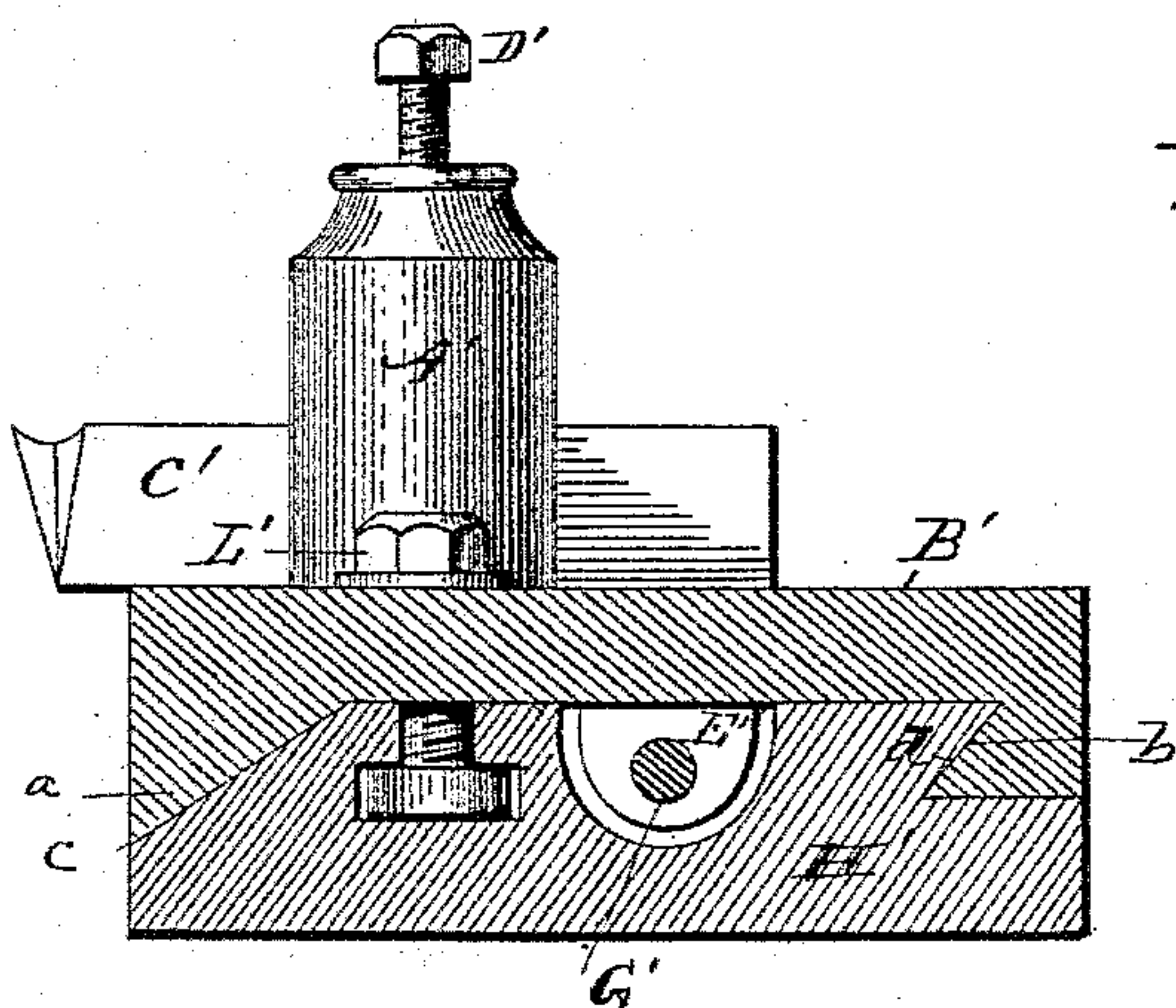
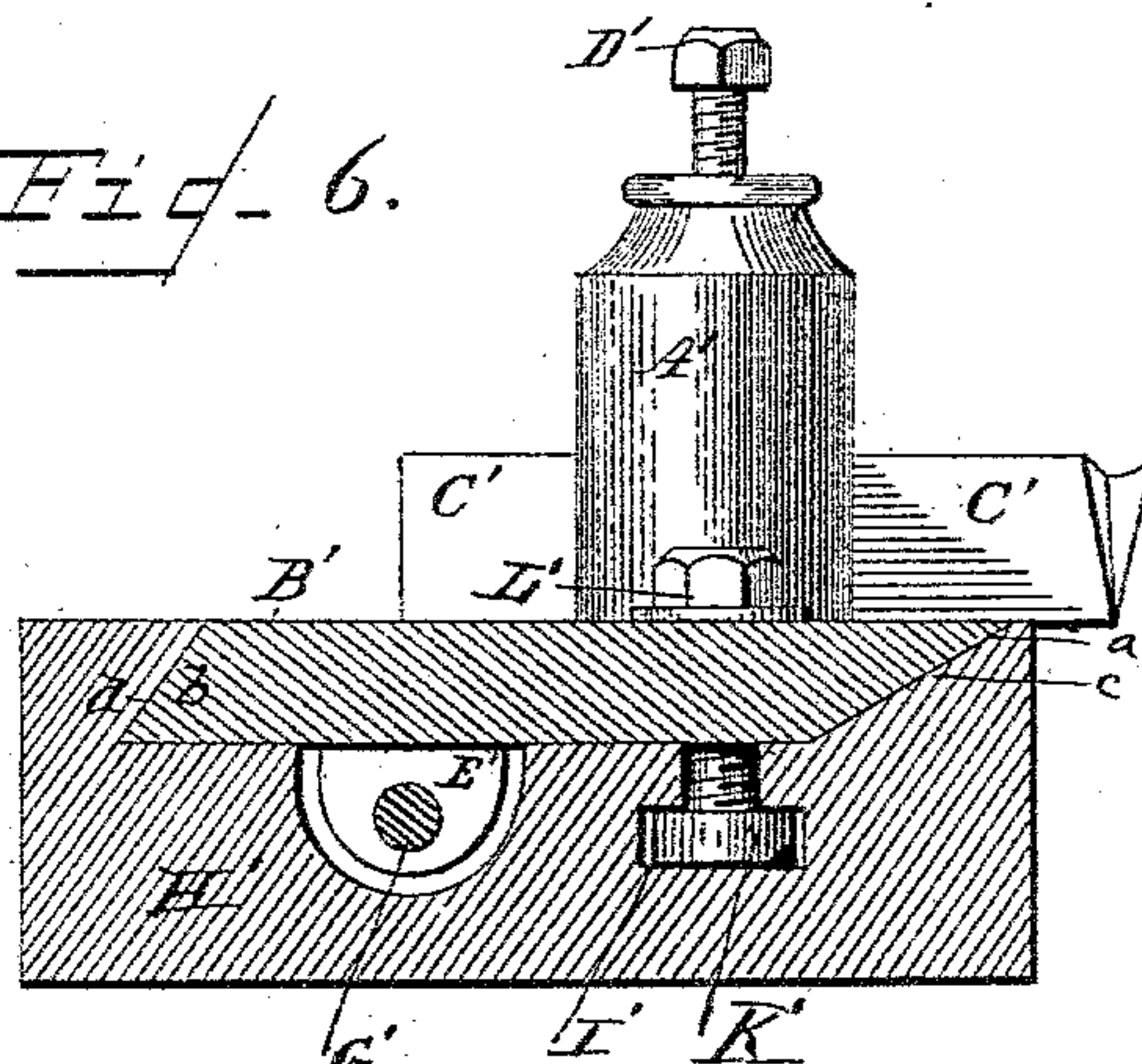


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN J. BREWIS, OF MINNEAPOLIS, MINNESOTA.

LATHE.

SPECIFICATION forming part of Letters Patent No. 356,678, dated January 25, 1887.

Application filed June 1, 1886. Serial No. 203,764. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. BREWIS, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Metal-Turning Lathes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in devices for securing head and tail stocks and cutter-carrying frames to the bed plates or frames of lathes, and is specially applicable to lathes for turning car-wheels and other bodies, such as is described and claimed in my patent of February 24, 1885, No. 312,961.

The object of my invention is to provide a simple and effective means for securing head and tail stocks, and also cutter-carrying plates or frames, to the bed or frame of the lathe in such a manner that by the manipulation of the bolt or bolts on one side of the lathe the stock or frame can be loosened, moved to the desired point, and rigidly secured to the bed of the machine.

Referring to the drawings, Figure 1 is an end view of a tail-stock in position for use, with sectional view of the bed or frame of the machine. Fig. 2 is an end view of a modification. Fig. 3 is an end view of the devices shown in Fig. 1, with the gear-wheels and face-plate shown in outline. Fig. 4 is a perspective view showing a slide-rest or cutter-carrier. Figs. 5 and 6 are sectional end views of the device shown in Fig. 4.

A indicates the tail-stock, provided with the outwardly-inclined surface *a*, and the dovetailed or inwardly-inclined surface *b*, adapted to fit in correspondingly-inclined surfaces *c d*, formed on the bed or frame B of the machine.

The bed or frame B is provided with a slot or cavity, *e*, which terminates in an enlarged portion, *f*, adapted to receive the head of the bolt C, which passes up through an elongated opening, *a'*, in the tail-stock, on the upper end of which is secured the nut *g*, which impinges on the shoulder *h*, formed on the tail-stock, so that by unscrewing the nut *g* the tail-stock can be slid back and forth on the bed B until brought to the desired position, when the nut *g* is screwed down. This forces the inclined

portion *a* down on the inclined portion *c* of the bed, and draws the inclined or dovetailed portion *b* against the inclined surface *d* of the bed, thus securely locking the tail-stock in position. The same principle is shown in the modification illustrated in Fig. 2, and in which the inclines in both the stock and bed-plate are placed in a reverse direction from that shown in Fig. 1.

In Figs. 4, 5, and 6 I have shown a slide-rest for planers, shapers, cutters, and lathe-tools generally, the principle of my invention being equally applicable to tools or devices of this kind.

A' indicates the tool-holder mounted on the sliding block B', and in which the cutter or other tool C' is secured by the screw-bolt D'. The block B' is adapted to slide on the inclined surfaces of the bed, as in the case of the tail-stock just described, and is provided with a screw-threaded lug, E', on the under side, adapted to receive the feed-screw G', and by which means the block B' is moved back and forth on the bed-plate H'.

The bed-plate H' is provided with a T-shaped groove, I', adapted to receive the T-headed bolts K', which pass up through the block B', the upper ends of said bolts being screw-threaded and adapted to receive the screw-nuts L', and by which means the block B' is readily secured at any desired point on the bed-plate H'.

It is obvious that other devices for holding tools, emery-wheels, &c., may be secured to the sliding block B' at much less expense than now practiced, as I am enabled to dispense with gibs, keys, &c.

It will be apparent to those skilled in this art that by having the fastening device on one side only of the machine the operator can readily set the tail-stock or tool-carrying slide at any desired point without having to go around to the other side of the lathe to manipulate the nuts and bolts, as is the case in machines of this class as now constructed.

Having described my invention, I claim—

1. The combination of a tail-stock or tool-carrying frame for lathes, having the outwardly and inwardly inclined surfaces, a base or frame provided with corresponding faces and with the groove or recess, and the screw bolt and

nut to engage the groove or recess, and the tail-stock or tool-carrier, substantially as set forth.

2. The combination of the base or frame provided with the T-shaped groove or recess, and the outwardly and inwardly inclined faces, the tail-stock or tool-carrier provided with corresponding faces, and the bolt having its head engage with the groove or recess, and the nut
5
10 for clamping said parts together, substantially as set forth.

3. A tail-stock or tool-holder for lathes, having the shoulder *h*, and the inclined surfaces *a b*, adapted to engage the inclined surfaces *c d* of the base or frame, in combination with the bolt *C* and nut *g*, as set forth. 15

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. BREWIS.

Witnesses:

JOSEF F. KOHMT,
CHARLES CHURAN.