

No. 43,386.

PATENTED JULY 5, 1864.

W. H. BARNEY.
REST FOR TURNING LATHES.

Fig. 1.

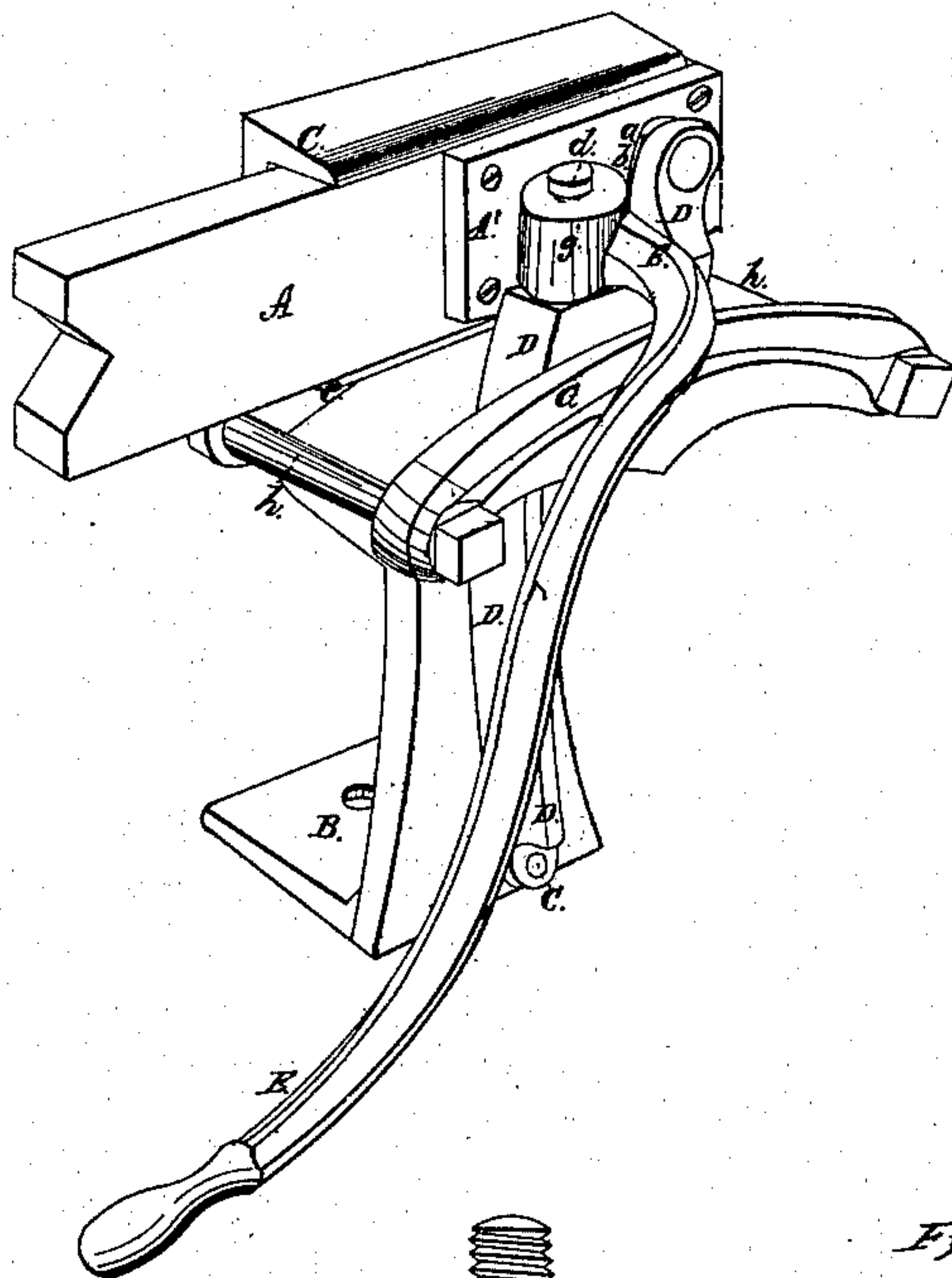


Fig. 2.

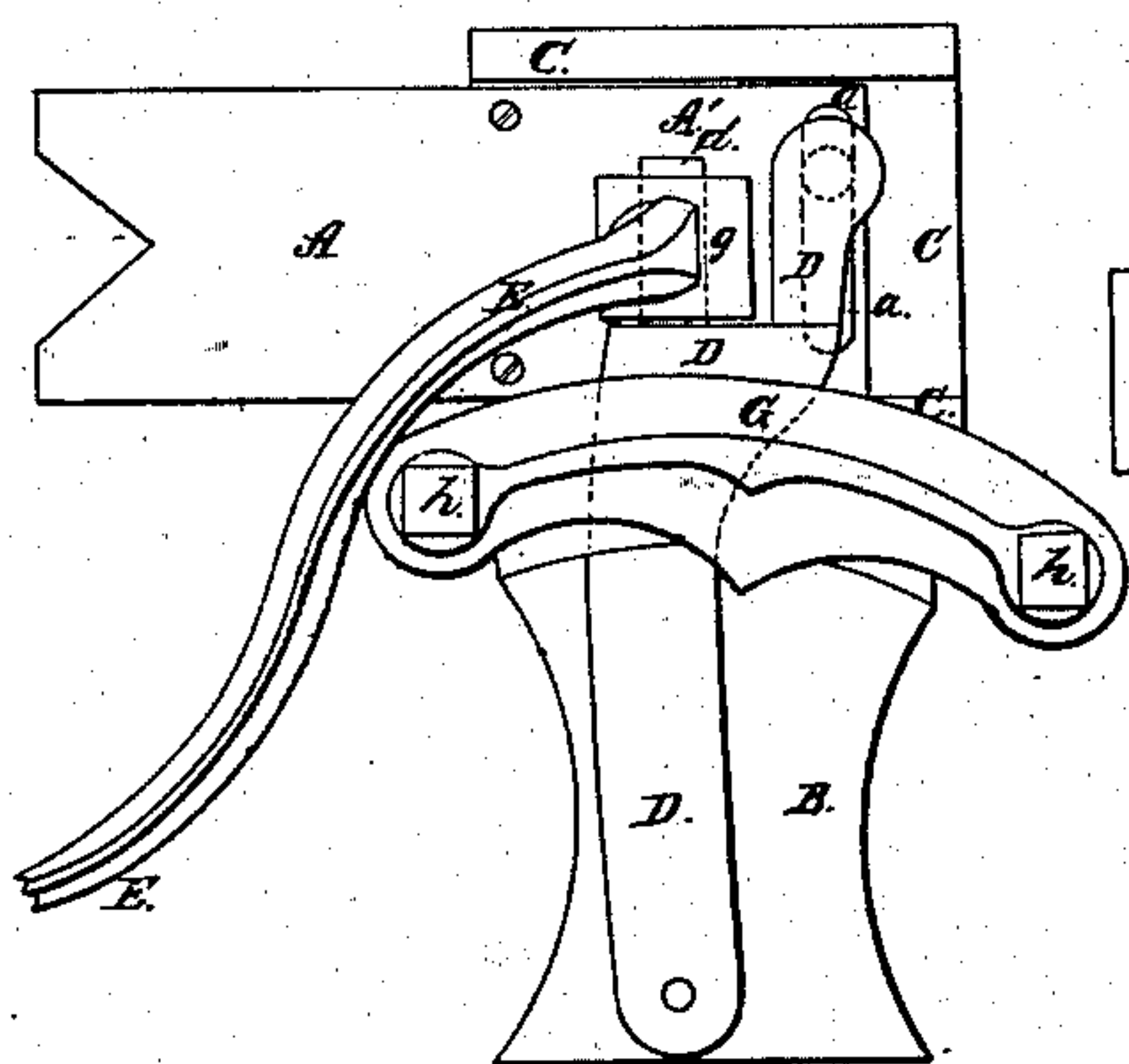
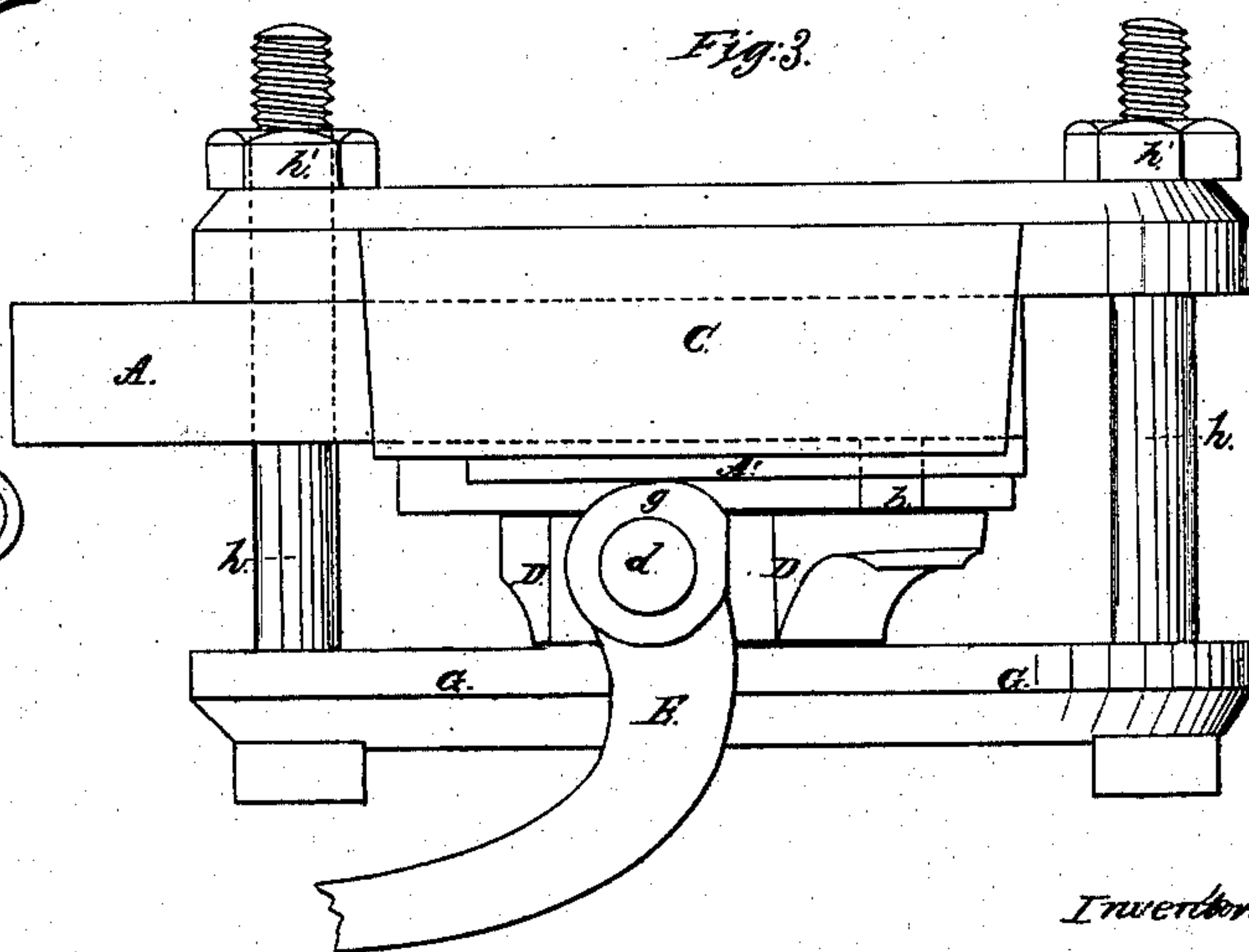


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. BARNEY, OF COLUMBUS, OHIO.

IMPROVEMENT IN RESTS FOR TURNING-LATHES.

Specification forming part of Letters Patent No. 43,386, dated July 5, 1864.

To all whom it may concern:

Be it known that I, WILLIAM H. BARNEY, of Columbus, Franklin county, and State of Ohio, have invented a new and Improved Rest for Turning-Lathes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my improved rest for lathes. Fig. 2 is a front view of the same, and Fig. 3 is an enlarged top view.

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

This invention relates to an improvement on what are known by turners as "back-rests," which are adjustable devices applied to the work being turned at an intermediate point between the "back center" and "chuck," for the purpose of preventing wobbling or vibration of the work during the operation of turning.

By my invention I obtain greater facilities than hitherto for rapidly adjusting the sliding support up to and from the work and securing said slide in place, as will be hereinafter described.

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

The standard which is used to sustain the devices for adjusting the slide A up to and from the work and then securing this slide in place consists of a perpendicular portion, B, on the upper end of which is formed a jaw, C, in which works the slide A. To this slide a plate, A', having a vertical slot or groove, *a*, formed in it, is rigidly secured, and in the slot *a* a pin, *b*, plays loosely as the slide is moved back and forth, which pin is fixed to a projection formed on the upper end of a vibrating arm, D, that is pivoted at its lowermost end to the perpendicular face of the standard, as shown at *c*, Figs. 1 and 2. This vibrating arm also carries on its upper end a large pin, *d*, which is the pivot for the vibrating lever-handle E and receives the enlarged eccentric or cam head *g*, which is formed on said handle, as clearly shown in the three figures. The surface of the cam *g* is held up in close proximity to the surface of the plate A' by means of an adjustable curved guide, G, and screw-bolts *h h*, which pass through the ends of said guide and through ears formed on the

standard at the base of the slide-holding jaw C and receive nuts *h' h'* on their ends, by which the guide G can be set up or adjusted in such manner as to resist the outward thrust of the cam *g* when the handle E is turned in the act of clamping the sliding board A rigidly to its jaw. The sliding support A has its projecting end notched to receive the work to be turned, and the standard is constructed with a foot-piece, B', through which a bolt passes that secures the device down rigidly in place on the lathe-bed in a proper position for operation.

In using my improved back-rest it is secured to the bed of the lathe in a suitable position for operation, and by giving a horizontal and then a vertical movement to the lever-handle E the end of the slide A which is notched is brought up to the work so as to press slightly against it. By giving a similar movement to the lever-handle E the slide A can be moved back out of the way of the work.

It will be seen that the single lever-handle serves two purposes in the operation of the back-rest, it being used as a lever to adjust the slide back and forth, and also as a means for fixing said slide rigidly in any desired position, two motions of this lever being all that is required to accomplish the desired end.

When the back-rest is fixed to the lathe-bed in the proper position, the handle E is so formed that it passes forward under the main rest, and is thus brought into close proximity to the turner's hand.

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

1. A back-rest for turning-lathes so constructed that the operator can adjust and set the same in the desired position by the manipulation of a single lever operating substantially as described.

2. The combination of the vibrating support D, cam-levers E *g*, guide-piece G, and adjusting-bolts *h*, substantially in the manner and for the purpose described.

3. The combination of the vibrating arm D and vibrating lever E with the reciprocating support A, substantially as described.

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Witnesses:

C. H. GLEDHILL,
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