

(No Model.)

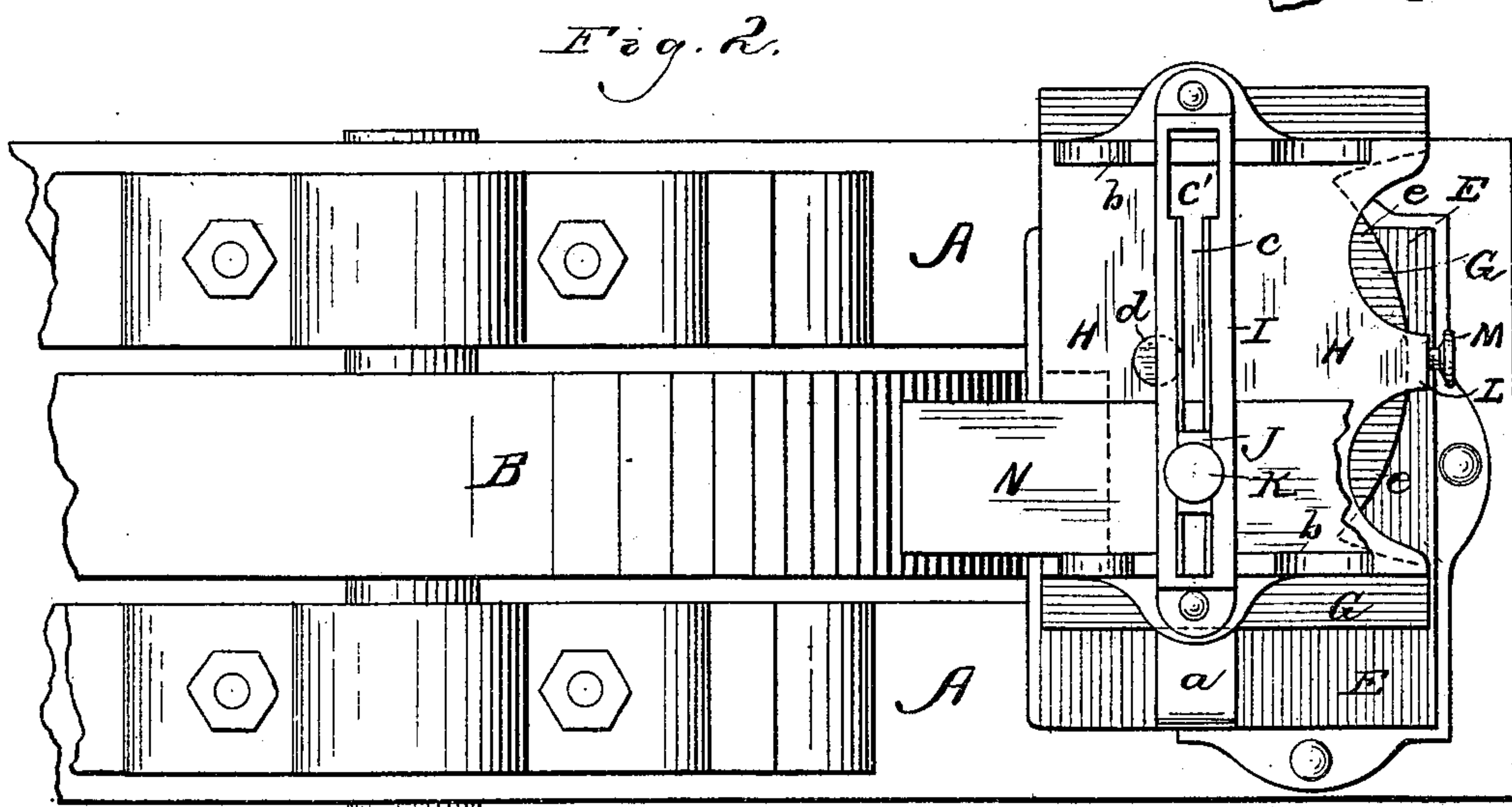
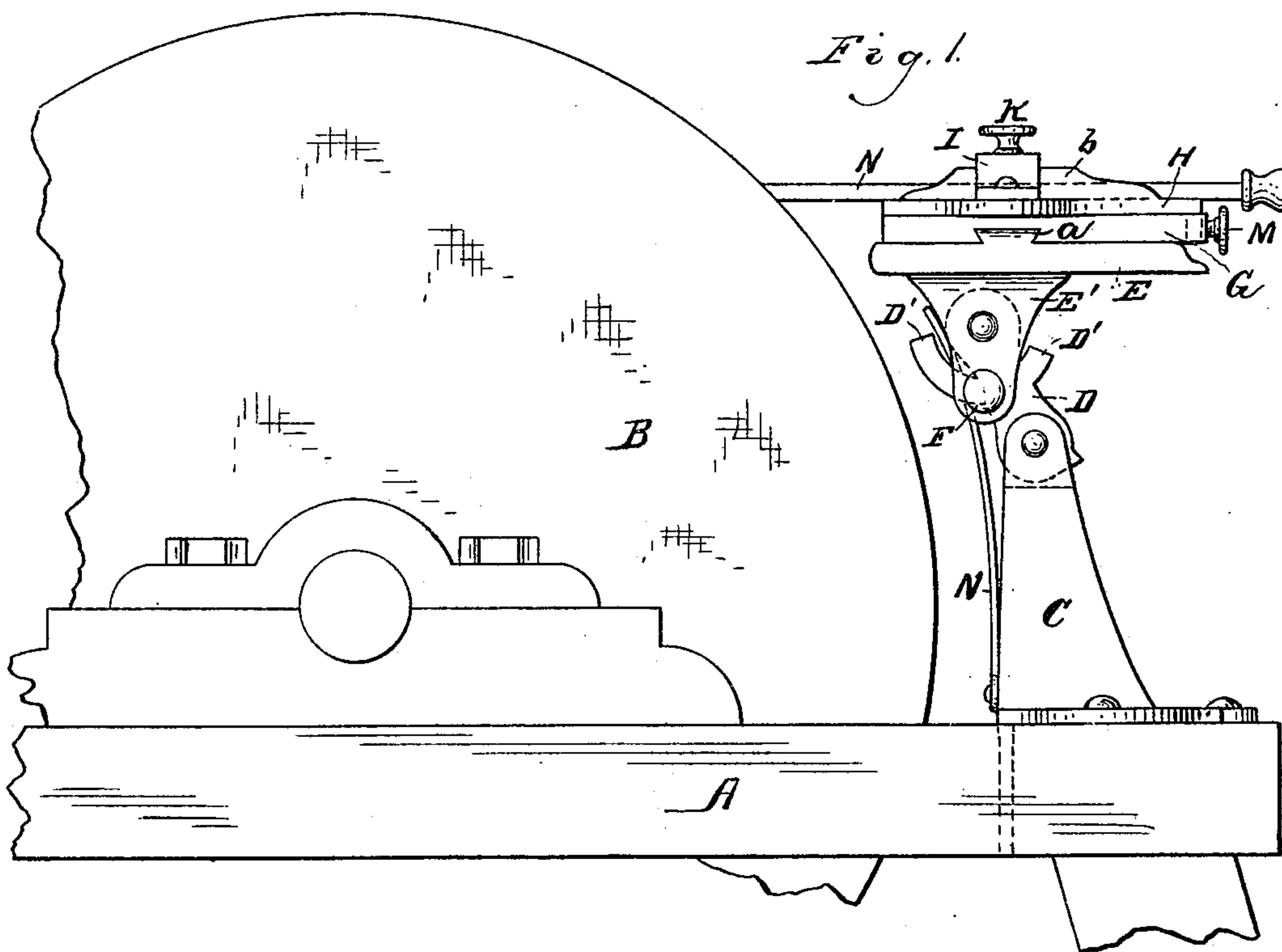
2 Sheets—Sheet 1.

G. H. STRONG.

ADJUSTABLE TOOL HOLDER.

No. 273,632.

Patented Mar. 6, 1883.



Witnesses.
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C. J. Kramlein.

Inventor.
George H. Strong—
per F. F. Warner
his Attorney.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

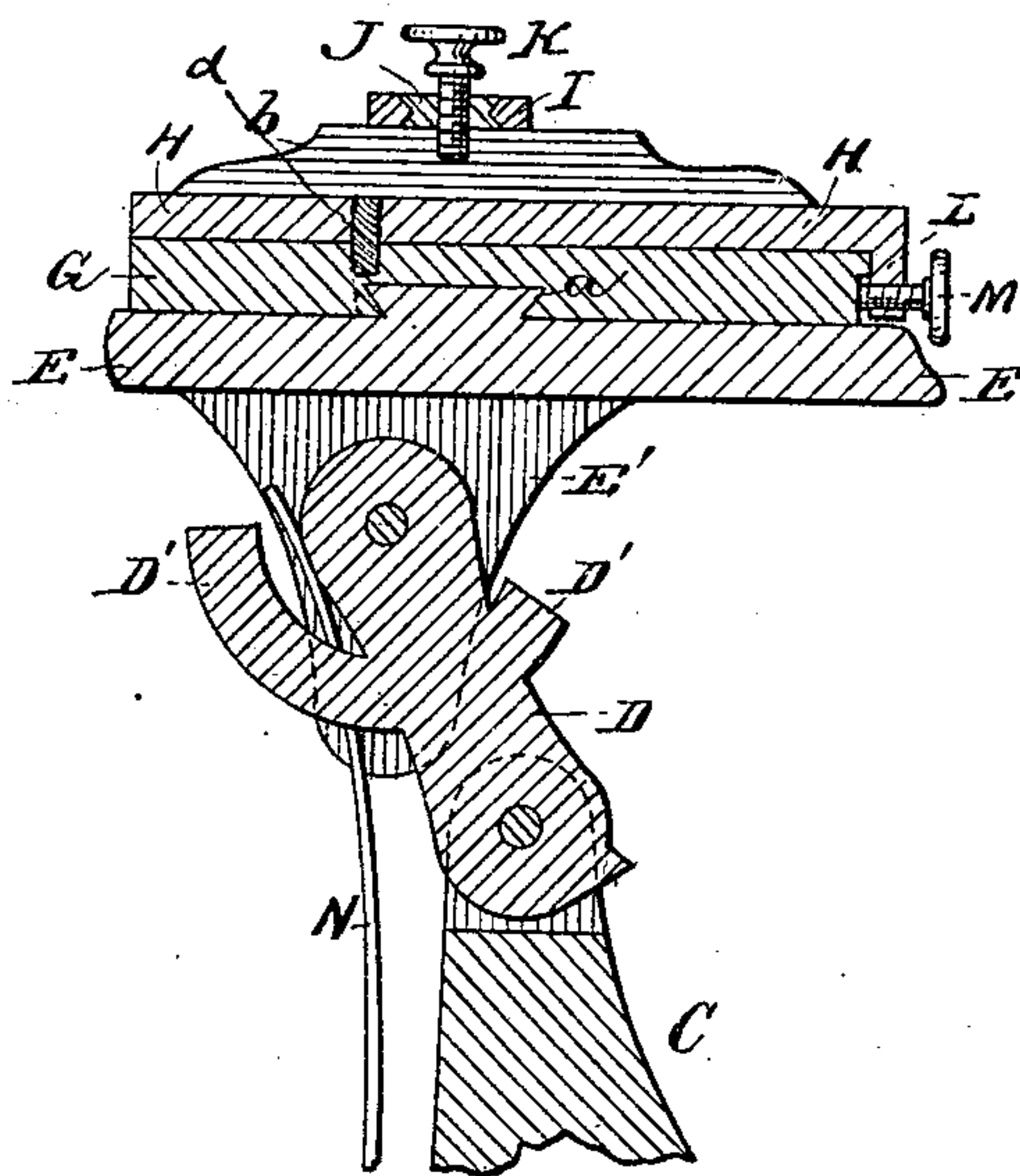


Fig. 4.

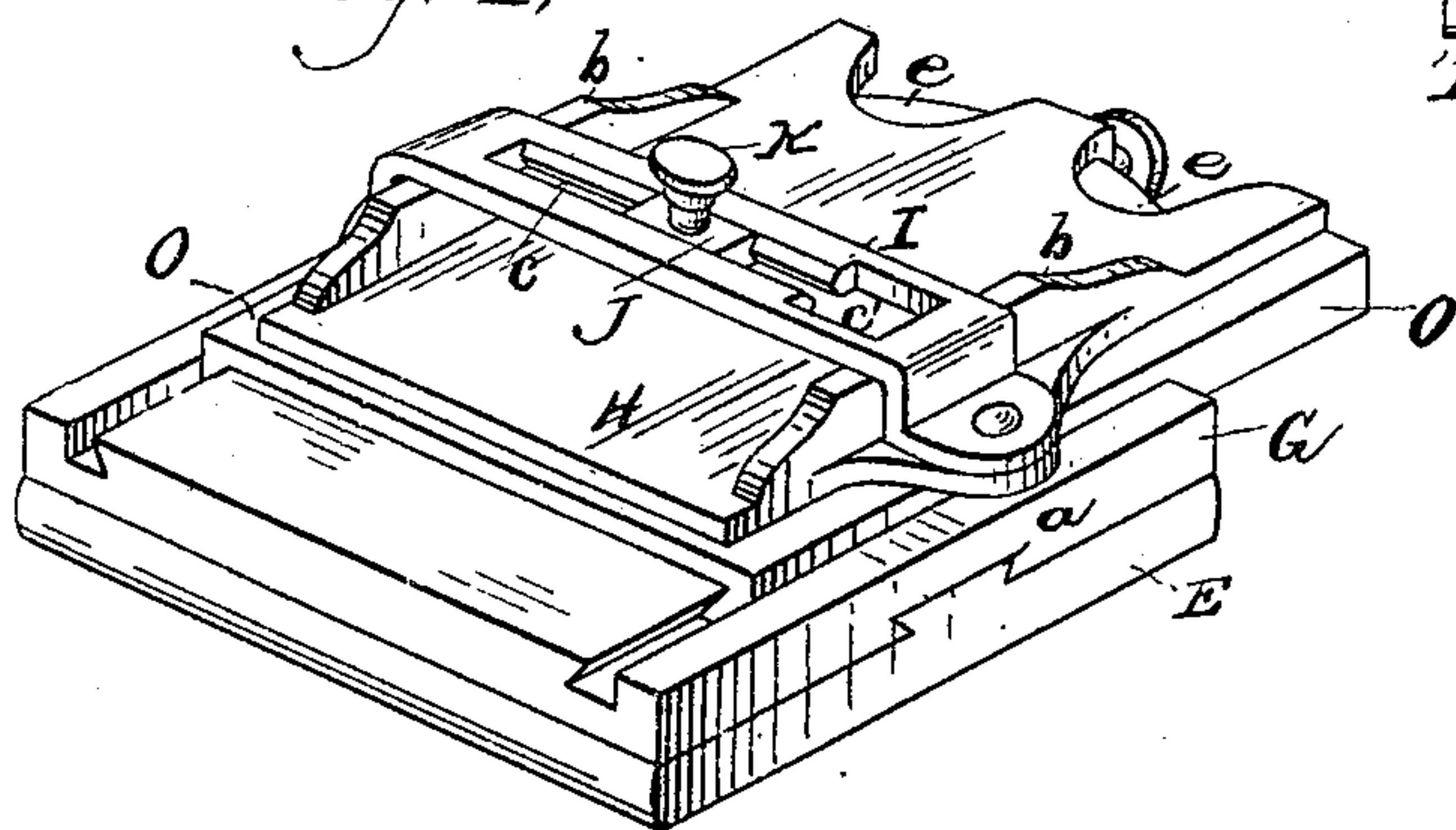
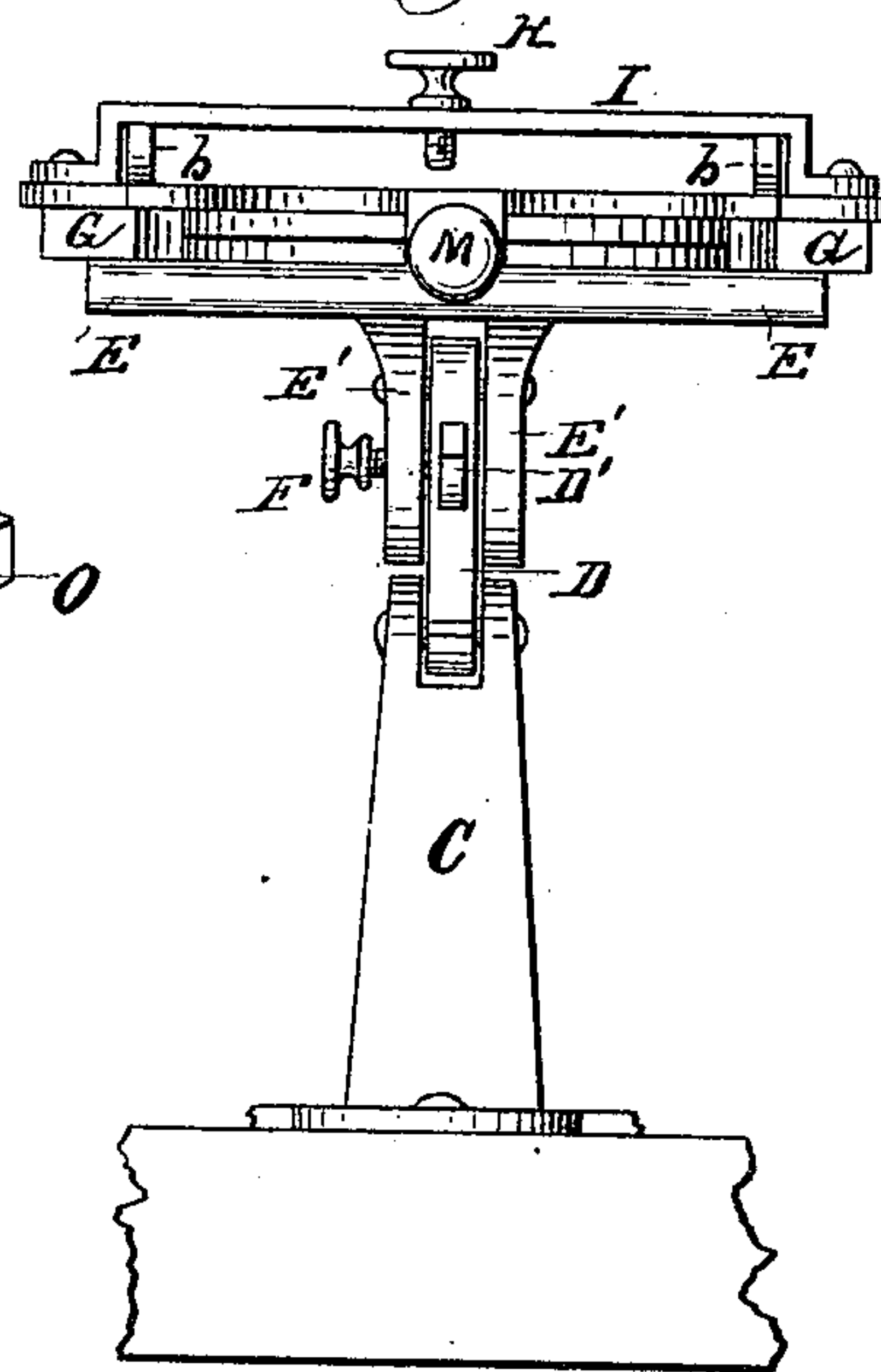


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE H. STRONG, OF CHICAGO, ILLINOIS.

ADJUSTABLE TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 273,632, dated March 6, 1883.

Application filed November 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. STRONG, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Adjustable Tool-Holders, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1, Sheet 1, is a side view of a tool-holder embodying my invention. Fig. 2, Sheet 1, is a top view of the same. Fig. 3, Sheet 2, is a vertical central section from front to rear. Fig. 4, Sheet 2, is a perspective, and Fig. 5, Sheet 2, is a rear, view of the holder.

Like letters of reference indicate like parts.

A represents the frame or support of a grindstone, and B the grindstone.

C is a standard applied to the frame A.

D is a link or connecting-bar, so jointed to the upper end of the standard C as to render the upper end of the said link capable of being swung back and forth.

D' D' are curved arms extending from the link D.

E is the under plate of the attachment, and E' E' are ears depending from the said plate. The upper end of the said link is jointed to the said ears.

F is a set-screw passing through one of the ears E' E', and is so located that its point or inner end may be brought in contact with the arms D' D', the function of the said screw being to lock the ears of plate E temporarily after it has been adjusted or inclined, as permitted by reason of its being jointed to the link D in the manner indicated.

G is a laterally sliding plate on the plate E, and is connected thereto by means of a dove-tail rib, *a*, on one of the said plates entering a corresponding groove in the other.

H is the top plate of the holder, and *b b* are vertical flanges or sides extending above the upper face of the said plate.

I is a bridge-piece or bar extending across the plate H, and *c* is a longitudinal slot therein.

J is a slide in the groove of the bar I. To prevent this slide from accidentally leaving its slot, I make a V-notch both in the front and in the rear edge of the slide, and the corresponding edges of the slot *c* are beveled to enter these grooves, as shown in Fig. 3. To permit the slide J to be placed in its position

with facility, I make near one end of the bar I a hole or opening, *c'*, large enough for that purpose.

The plate H is pivotally connected to the plate G by means of a pin or rivet, *d*, so as to allow the top plate to swing around to any angle.

K is a set-screw passing vertically through the slide J.

L is a depending lip or flange on the rear edge of the plate H, and M is a set-screw entering the said lip.

The rear edge of the plate G is curved between its corners, as shown at *ee* in Figs. 2 and 5, and this curve has the pin *d* for a center.

N is a spring to prevent the holder from falling forward when not in use.

M is a tool-blade.

To use this attachment for the purpose for which it is intended, I attach it to the frame A, as indicated in Figs. 1 and 2. The tool to be sharpened is placed on top plate, underneath the screw K, one side of the tool being against a side piece of the plate H, and the edge to be sharpened being presented toward the grindstone, as shown in Figs. 1 and 2. I then tilt the plate E as may be required, and fasten it in that position by means of the screw F. The plate H may be turned on the pin *d* when necessary, and secured or fastened by means of the screw M. I hold the tool in place on the plate H by means of the screw K.

Having thus properly set the attachment and fastened the tool therein, the grindstone may be rotated as usual, it being understood that the edge of the tool is then in contact therewith. The edge of the tool may be moved back and forth across the stone to prevent wearing the stone away unevenly, as the plate G is capable of a free sliding movement on the plate E. The tool may be held as firmly as need be against the stone, owing to the fact that the link D is jointed to the standard or support C in the manner described, and for the same the tool may be tilted away from the stone, so as to be examined from time to time.

To adapt this holder to permit the tool to be moved back and forth without being tilted, I interpose a supplemental plate, O, capable of being moved in such direction, as shown in Fig. 4; but such a plate will be seldom, if ever,

required in connection with the other parts of this device.

It will be perceived that the tool-holder now described may be employed with very great advantage, as it not only permits the tool to be held properly against the stone, but also permits the tool to be moved laterally thereon, and to be examined from time to time, and yet occupy its original position with relation to the stone, and each time being returned thereto after examination. A tool having an edge extending much more than across the edge of the stone may be sharpened along its whole edge, owing to the provision for lateral movement. One operator can hold the tool and also turn the grindstone. The tool being always held in the same position, will be ground slightly concave, which is of importance for many reasons. The top plate, by being adapted to be turned around on its pivot, permits the tool to be ground diagonally, as many carvers'

tools are ground. The holder cannot fall too far back, as will be perceived on reference to Figs. 1 and 3.

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

The combination, in an adjustable tool-holder, of the fixed standard C, the under plate, E, the link D, hinged to the said standard and plate, and provided with a curved arm or extension, the screw F, the laterally-sliding plate G, the top plate, H, pivoted to the plate G, the set-screw M, the bridge-piece I, the slide or gage J, and the set-screw K, all adapted and arranged for operation together, for the purposes set forth.

GEORGE H. STRONG.

Witnesses:

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