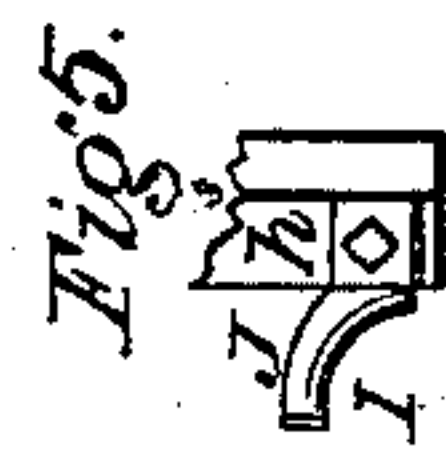
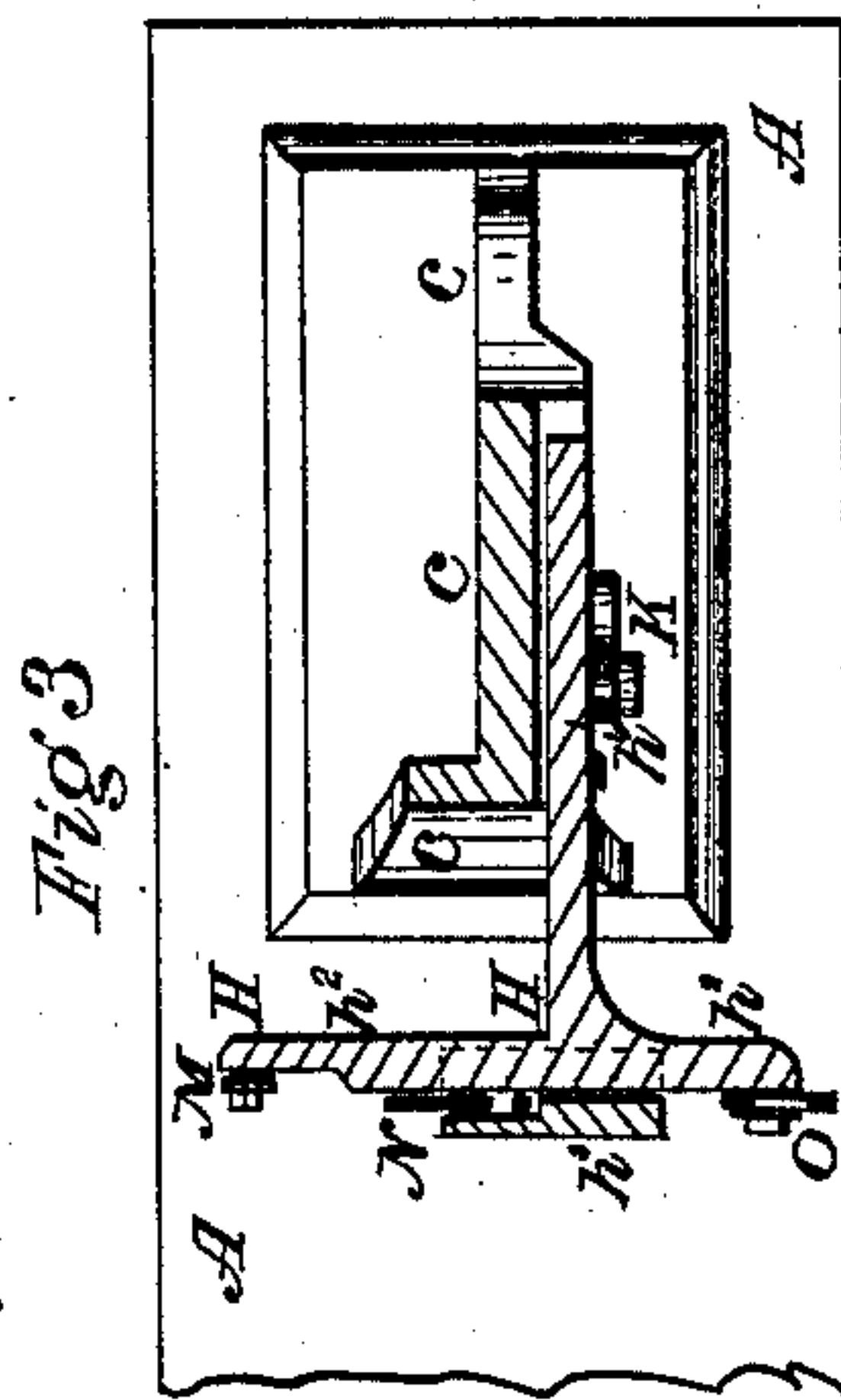
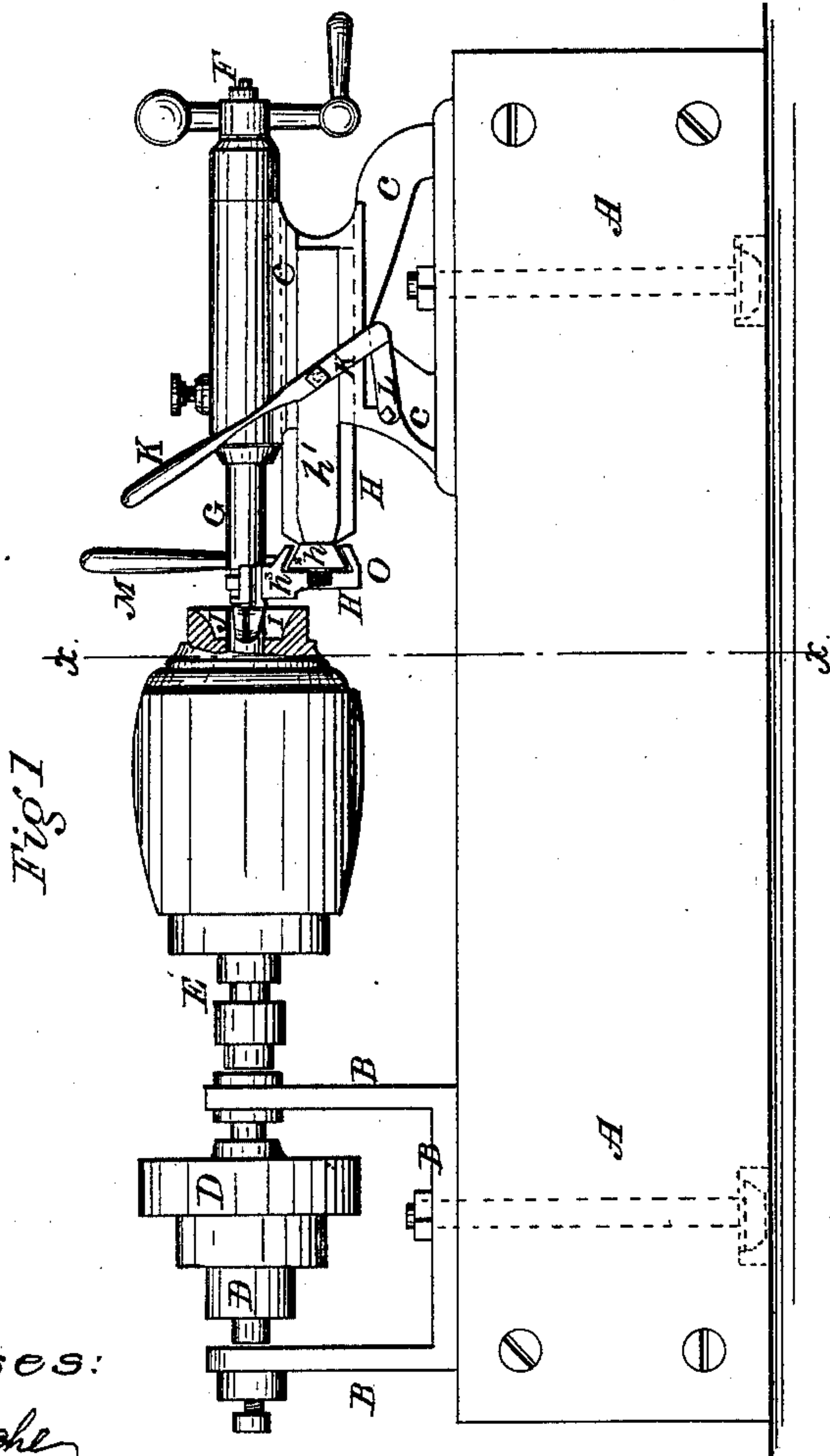
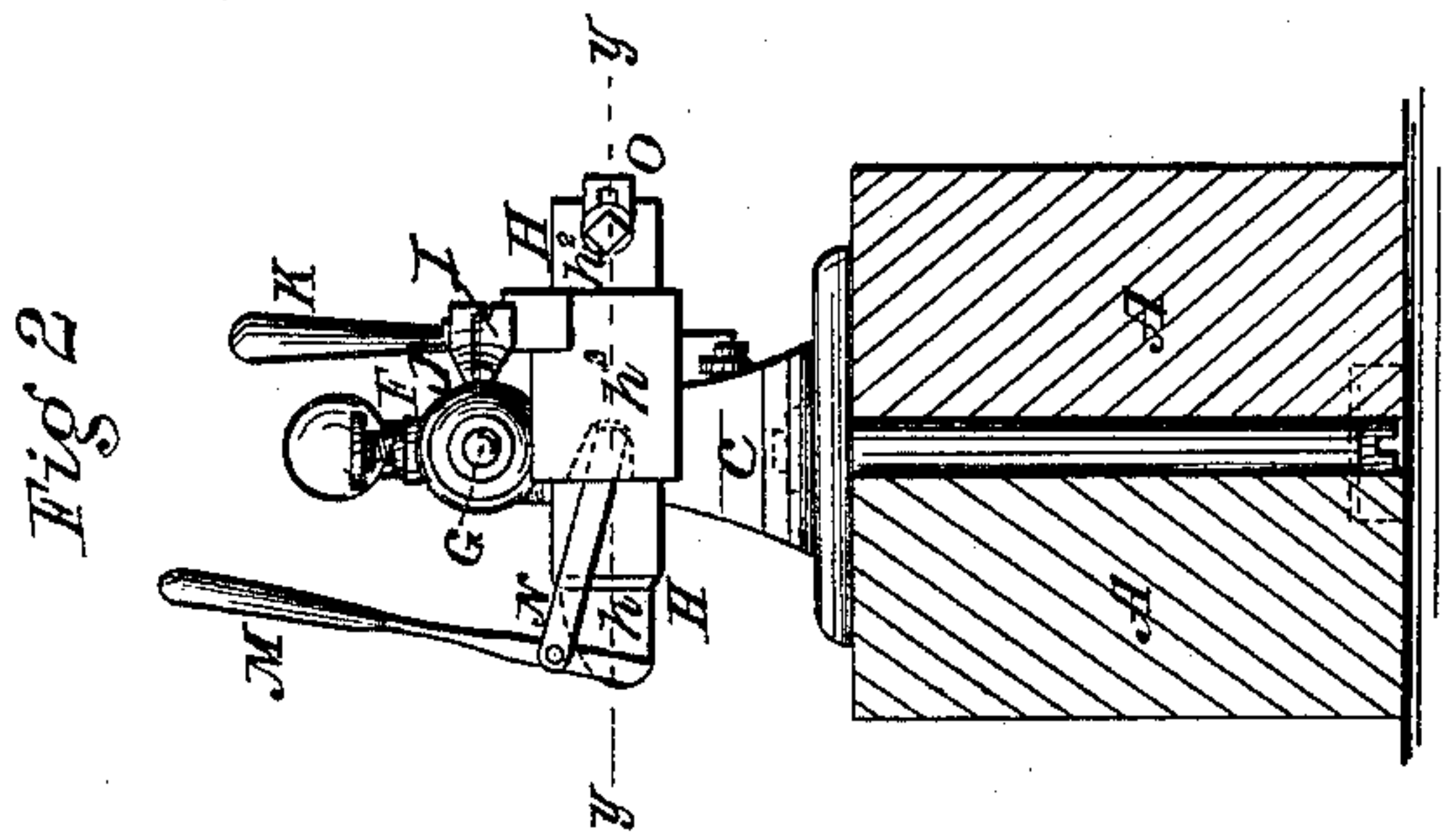


*S. L. Hart*  
*Turning Regular Forms.*  
*No. 67,757.* *Patented Aug. 13, 1867.*



*Witnesses:*  
*Theo. Tusche*  
*Wm. Frewin*

*Inventor:*  
*S. L. Hart*  
*Per. Munro*  
*Attorney*

# United States Patent Office.

S. L. HART, OF MILWAUKEE, WISCONSIN

*Letters Patent No. 67,757, dated August 13, 1867.*

## IMPROVEMENT IN WOOD-TURNING LATHES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, S. L. HART, of Milwaukee, Milwaukee county, Wisconsin, have invented a new and useful Improvement in Lathes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a lathe, showing my improvements attached.

Figure 2 is a vertical cross-section of the same, taken through the line *x x*, fig. 1.

Figure 3 is a detail horizontal section, taken through the line *y y*, fig. 2.

Figure 4 is a detail view of the knife or cutter, and

Figure 5 is a detail view, showing the gauge or cap attached to the cutter.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved device for attachment to lathes for the purpose of cupping the ends of wagon-hubs, turning the interior of hollow wooden-ware, and for similar uses; and it consists in the double slide by which the cutter is held and fed forward to its work; in the combination and arrangement of the operating levers with the double slide and frame of the lathe; in the combination of an adjustable stop-gauge with the double slide, and in the combination of the cutter and stop-gauge or cap with each other and with the double slide; the whole being constructed and arranged as hereinafter more fully described.

A is the bed of the lathe. B and C are the supports. D is the pulley. E is the mandrel. F is the screw by which the centre G is moved forward and back. In the side of the support C is formed a dove-tailed groove, in which the longitudinal arm or part  $h^1$  of the double slide H slides back and forth. Upon the ends of the arms  $h^1$  is formed, or to it is securely attached, a cross-head,  $h^2$ , the upper and lower edges of which are bevelled so as to fit into a dove-tailed groove formed in the side of the sliding-bar  $h^3$  that carries the cutter. I is the knife or cutter, which is secured to the upper edge of the sliding-bar  $h^3$  by a screw-bolt. The cutting edge of the cutter I should have a suitable shape to give the desired form to the cup or cavity to be turned out. J is the adjustable gauge or cap by which the thickness of the shaving or depth of the cut is regulated, and by which the cutter is prevented from cutting deeper than the length of the cutting edge of said cutter I. The gauge or guard J and cutter I are secured to each other and to the bar  $h^3$  by a screw-bolt passing through the said cutter and gauge, and screwing into the said arm  $h^3$ . The double slide H is moved back and forth in a direction parallel to the axis of the lathe by the lever K, which is pivoted to the side of the arm  $h^1$  of said slide, and the lower end of which is connected to the support C by the link or bar L; and a lateral movement is given to the cutter by the lever M, the lower end of which is pivoted to the cross-head  $h^2$  of the double slide H, and which is connected to the sliding-bar  $h^3$  of said double slide by the link or bar N, as shown in figs. 2 and 3. The extent of the side movement of the cutter is regulated by the adjustable stop O attached to the cross-head  $h^2$  of the double slide H, by means of a screw-bolt passing through a slot in the said stop O, and screwing into the said cross-head  $h^2$ , as shown in the drawings.

I claim as new, and desire to secure by Letters Patent—

The double slide, consisting of the dove-tail longitudinal arm  $h^1$ , having bevelled cross-head  $h^2$ , carrying the adjustable stop O and dove-tail sliding-bar  $h^3$ , and the operating levers K and M, when constructed substantially as represented and described.

The above specification of my invention signed by me this 15th day of January, 1867.

Witnesses:

CHAS. C. RATTINGER,  
GEO. Z. GOODWIN.

S. L. HART.