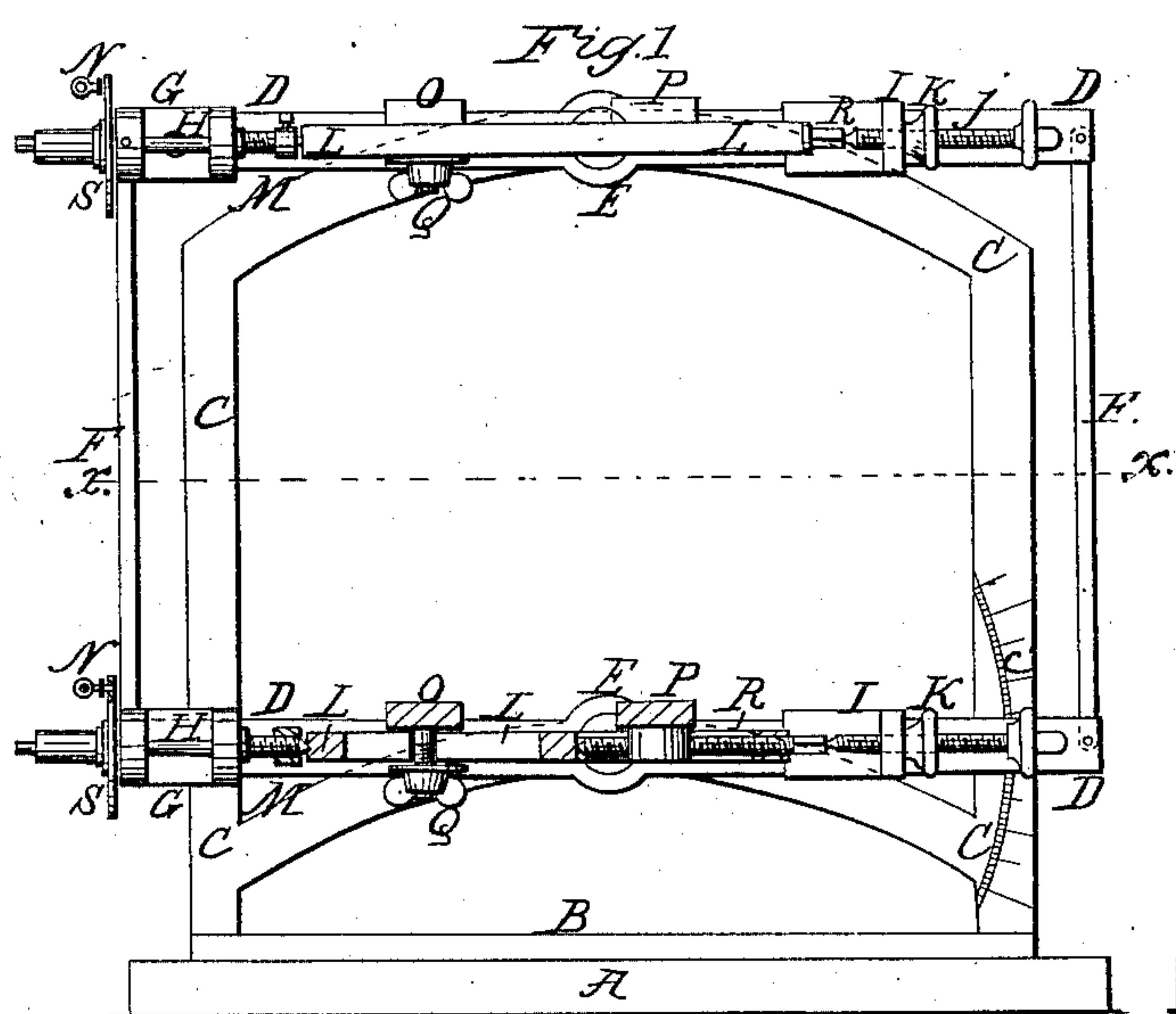


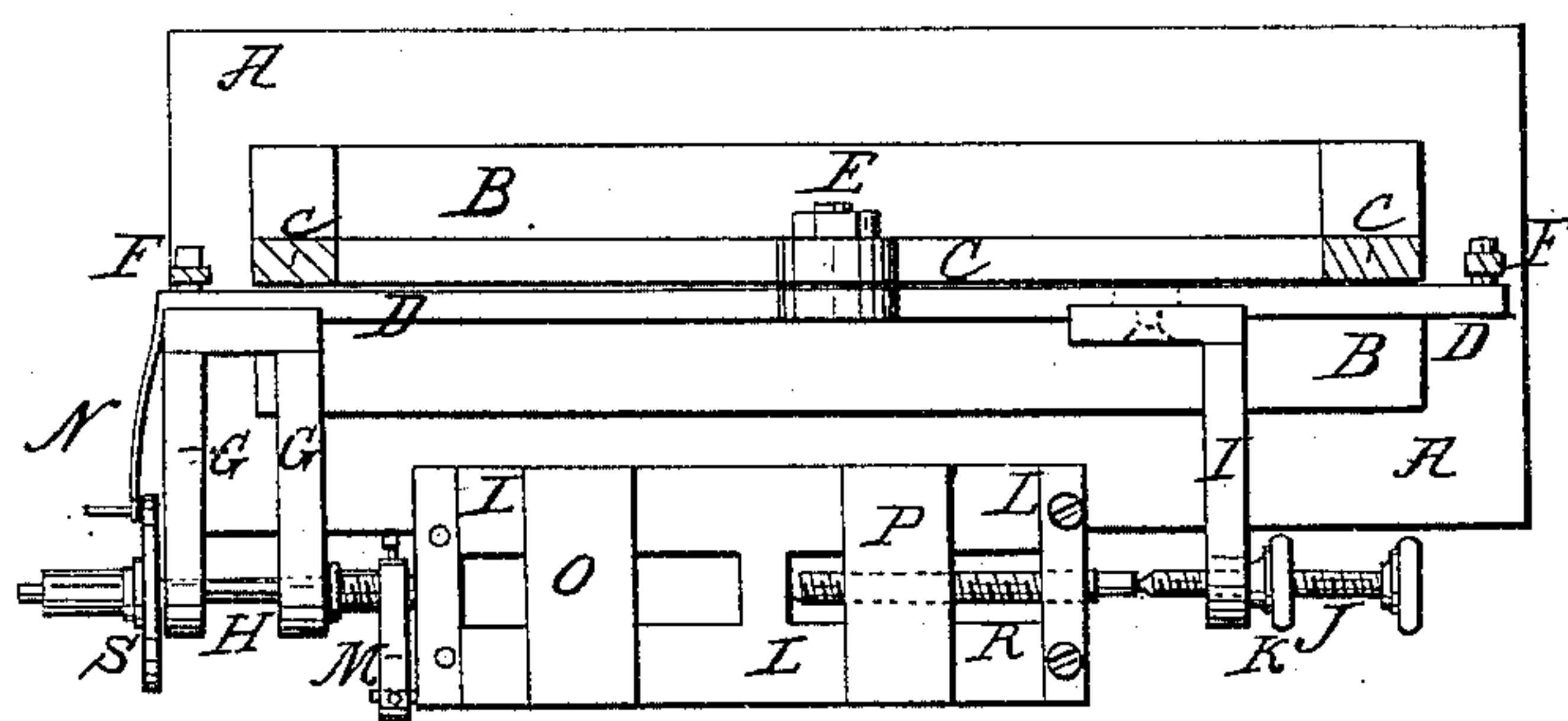
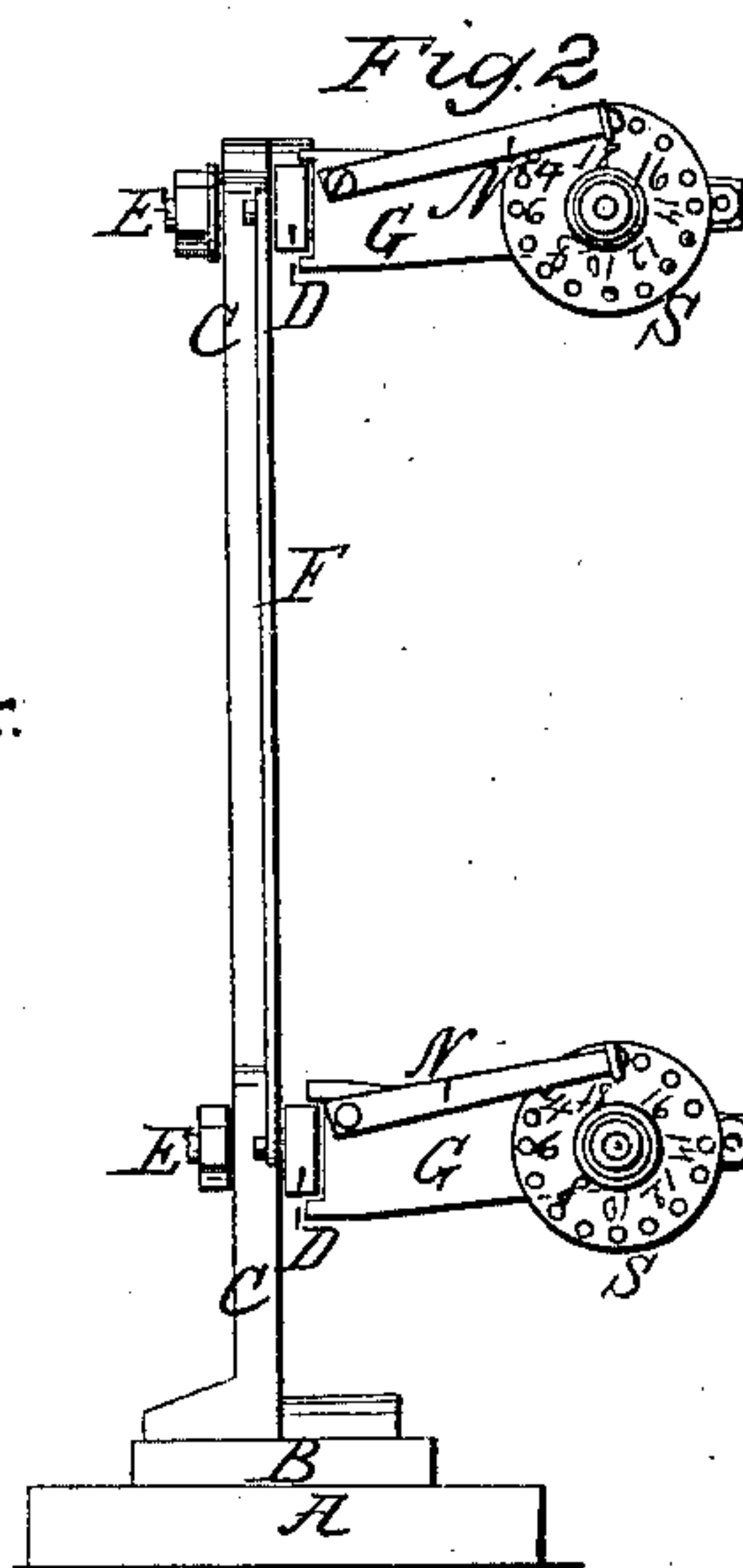
*I. Hall,  
Carving Wood.*

*N<sup>o</sup> 78,279.*

*Patented May 26, 1868.*



*Fig. 3*



*Witnesses:  
H. C. Ashkett  
J. A. Morgan*

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per M. W. H.  
Attorneys*

# United States Patent Office.

ISAAC HALL, OF NEW YORK, N. Y.

*Letters Patent No. 78,279, dated May 26, 1868.*

## IMPROVEMENT IN WOOD-CARVING MACHINES.

*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, ISAAC HALL, of the city, county, and State of New York, have invented a new and improved Universal Holder for Carving-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those 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 my improved holder, part being broken away to show the construction.

Figure 2 is an end view of the same.

Figure 3 is a horizontal section of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved holder for holding the pattern and work for carving-machines, designed especially to be used with my improved carving-machine, patented March 10, 1868, and numbered 75,413, but equally applicable for use with other machines for similar purposes; and it consists in the construction and combination of the various parts, as hereinafter more fully described.

A represents a part of the table to which the carving-machine is attached.

B is the bed-plate of the holder, which is securely but adjustably and removably attached to the table A, so that its position may be adjusted to correspond with the adjustment of the carving-machine, in connection with which said holder is used.

C is the vertical holder-frame, which is securely attached to the bed-plate B, and which consists of two upright side-bars, connected to each other by two arched bars, as shown in fig. 1.

D are two horizontal bars, which are pivoted at their centres to the centres of the arched bars of the frame C by bolts and nuts, E, as shown in the drawings, so that the said bars D may be set horizontal, or at any desired inclination, as the character or progress of the work may render necessary.

The two bars D are connected to each other by the connecting-bars F, the upper ends of which are pivoted to the ends of the upper bar, D, and the lower ends of which are pivoted to the ends of the lower bar, D, as shown in fig. 1, so that the said bars D may always be exactly parallel, however their position may be adjusted.

*c'* is a circular scale formed upon the frame C, by means of which the said bars D may be adjusted accurately to the desired position.

G are double or U-shaped arms, which are secured to the bars D at one end of said bars, and through the ends of which pass the centres H.

I are arms, adjustably secured to the other ends of the bars D, by a bolt and nut passing through a slot in the said bars D, as shown in the drawings, so that the said arms I may be adjusted at any desired distance from the arms G, according to the size and character of the work to be done.

Through the outer ends of the arms I pass the screw-centres J, which, when adjusted in position, are secured in place by the binding-nuts K, as shown in figs. 1 and 3.

L are the plates or frames to which the pattern and work are clamped, and which are pivoted to and between the centres H and J, upon which they are prevented from turning by the dogs M, as shown in fig. 3.

The frames or plates L are inclined longitudinally to any desired angle, by means of the pivoted bars D, and are inclined laterally to any desired angle, by means of the small hand-wheels S, attached to the centres H, and which are held in place in any position to which they may be adjusted, by the spring-catches N, attached to the side of the arms G, and the catch-pins of which enter one or the other of the circle of holes formed in the said hand-wheels S, said holes being at exactly the same distance apart, and numbered alike upon both wheels, so that the said plates or frames L may be conveniently adjusted at exactly the same angle.

The pattern and the work to be operated upon are secured to the plates or frames L by the adjustable blocks O and P.

The blocks O are adjustably secured to the plates or frames L by the hand-nut Q, screwing upon bolts attached to the said blocks O, and passing through slots in the frames L.



The blocks P have nuts formed upon their lower sides, which pass into slots in the said frames or plates L, and through which pass the swivelled screws R, so that by turning the said swivelled screws in one or the other direction, the blocks P will be moved forward or back.

The swivelled screws R have sockets or depressions formed in their heads, into which the centres J enter, to support the plates or frames L.

The pattern and work are placed upon the plates or frames L, in the desired position, the blocks O are moved up and secured by the nuts Q, and the blocks P are then moved up, securing the objects to be held with any desired firmness, by operating the swivelled screws R.

By means of the holder thus constructed and arranged, the work and pattern are held securely, and at all times exactly parallel with each other, and may be inclined in any direction, as the character of the work may require, or so that the raised parts of the work may be under-cut, as may be desired.

It should be observed that when the work and pattern are of such a character that they cannot be conveniently secured to the holder-frames L, said frames or plates may be laid aside, and the work held and secured to and between the centres H and J.

Or the work and pattern may be secured to any suitable chuck, by any of the well-known means, said chucks being then screwed upon or otherwise connected with the centres H, which have screw-threads cut upon their forward ends, for convenience in doing this.

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

The combination of the parallel pivoted bars D, pivoted connecting-bars F, double arms G, adjustable arms I, and centres H and J, with each other, and with the frame C, substantially as herein shown and described and for the purpose set forth.

The above specification of my invention signed by me, this 18th day of March, 1868.

ISAAC HALL.

Witnesses:

WM. F. McNAMARA,  
JAMES T. GRAHAM.