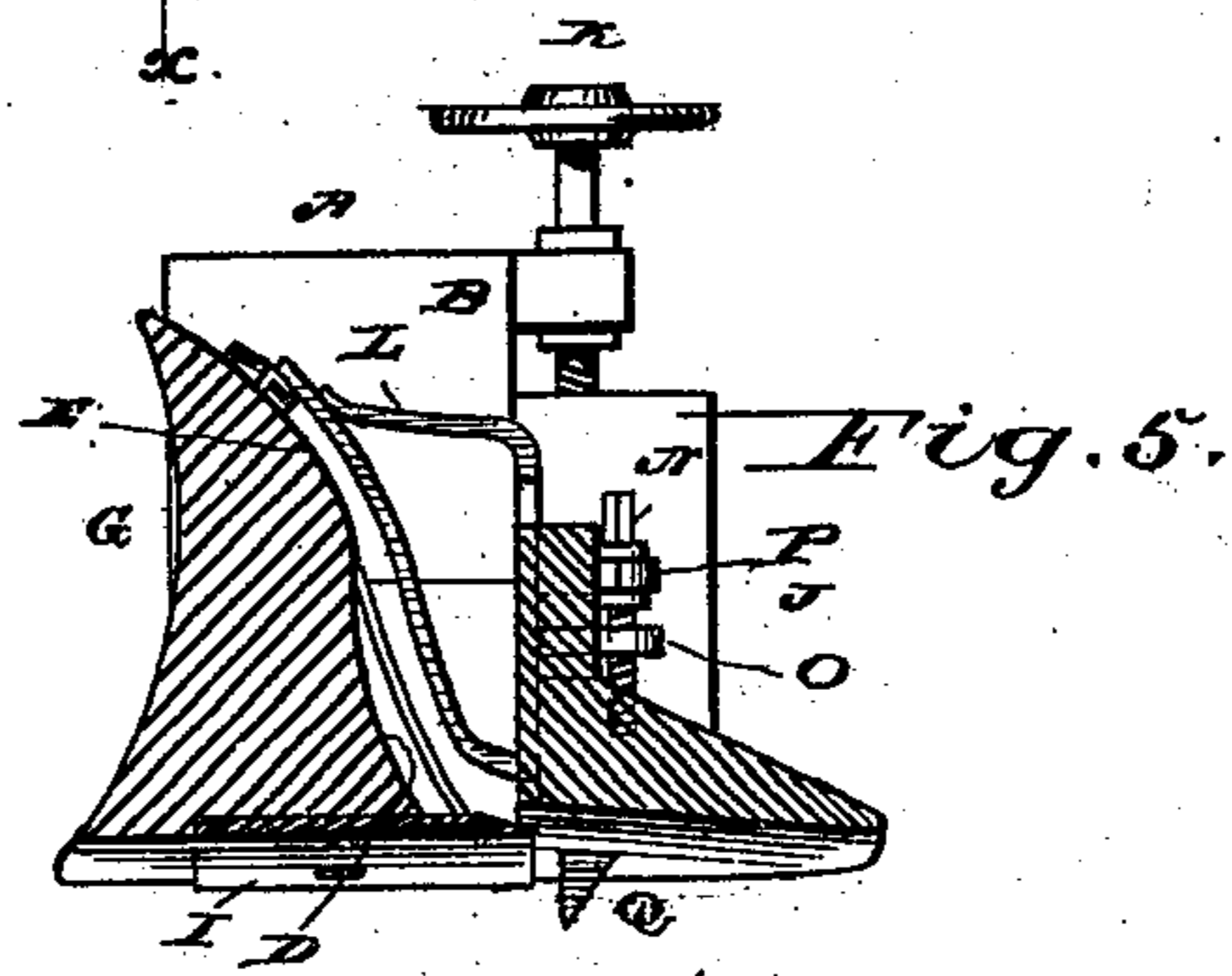
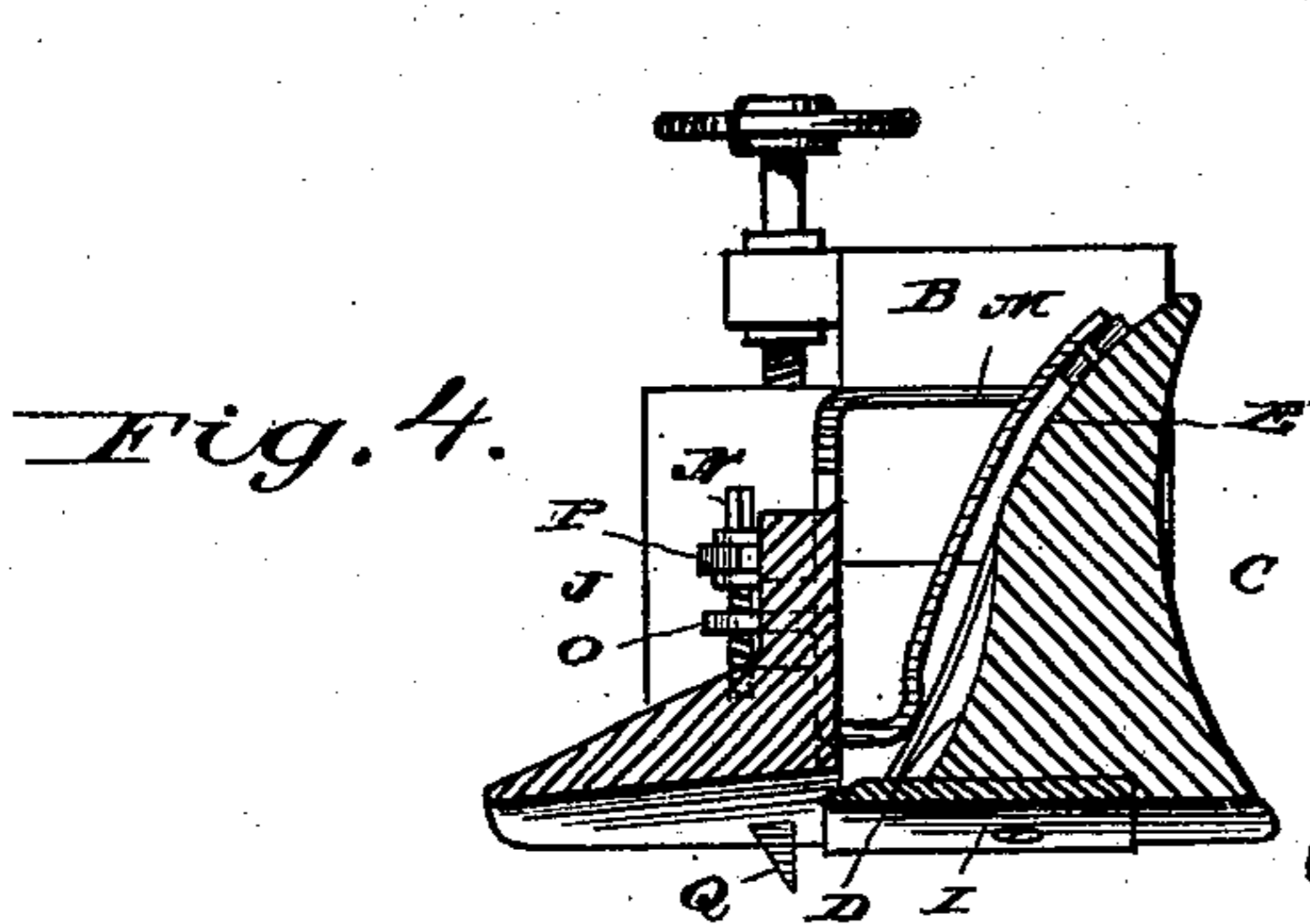
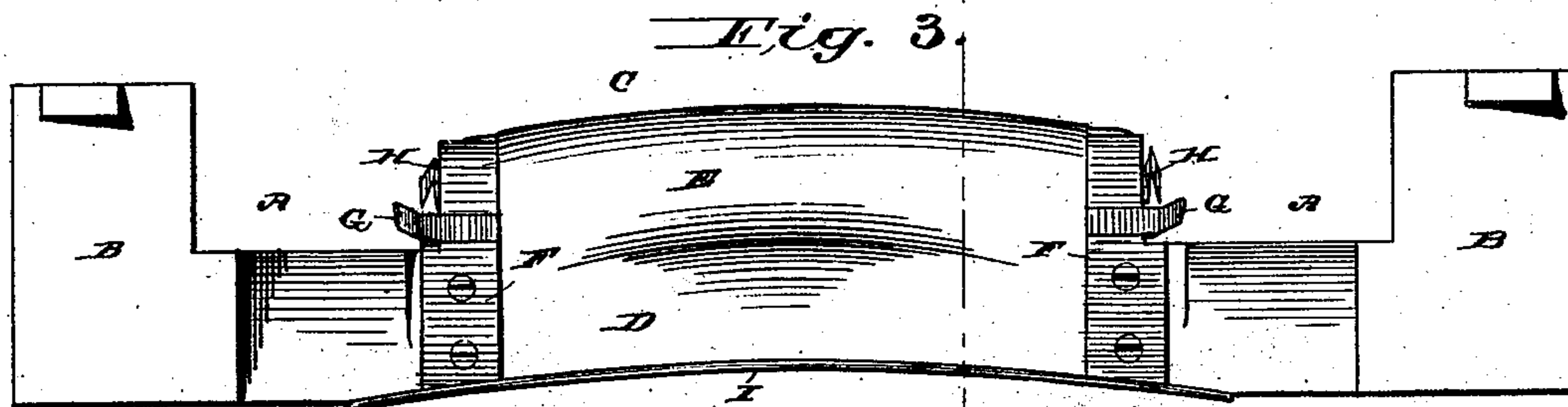
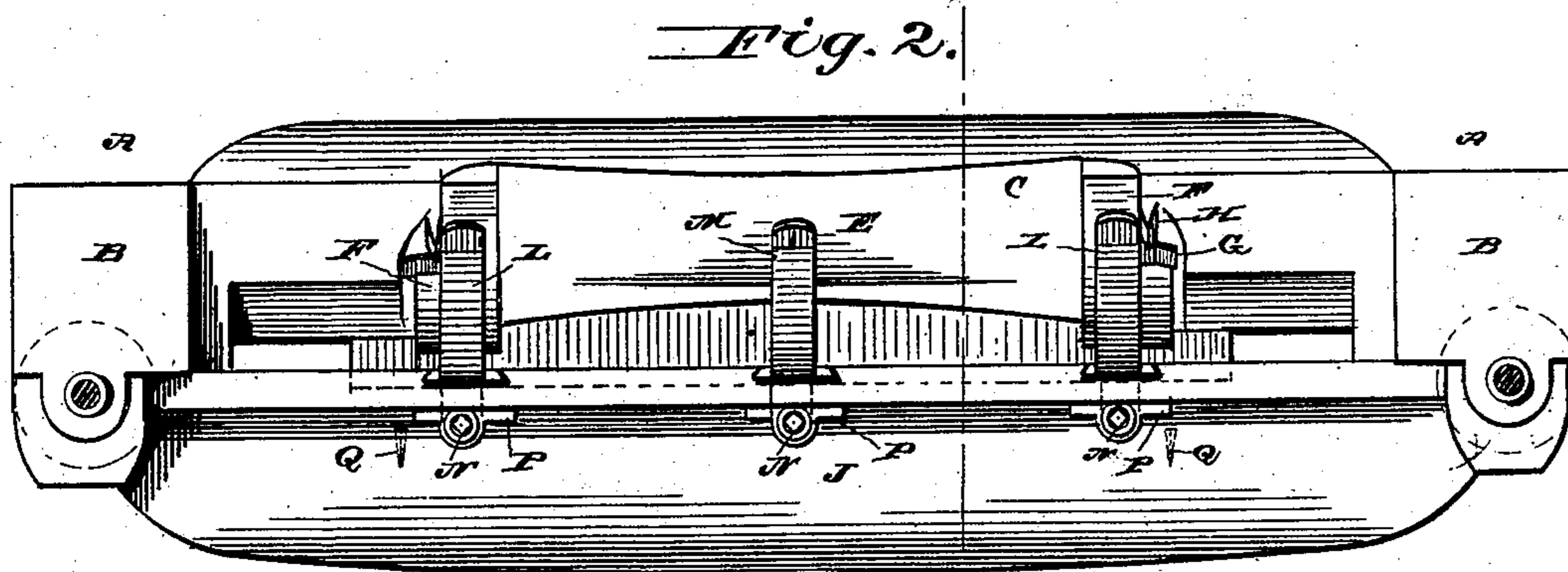
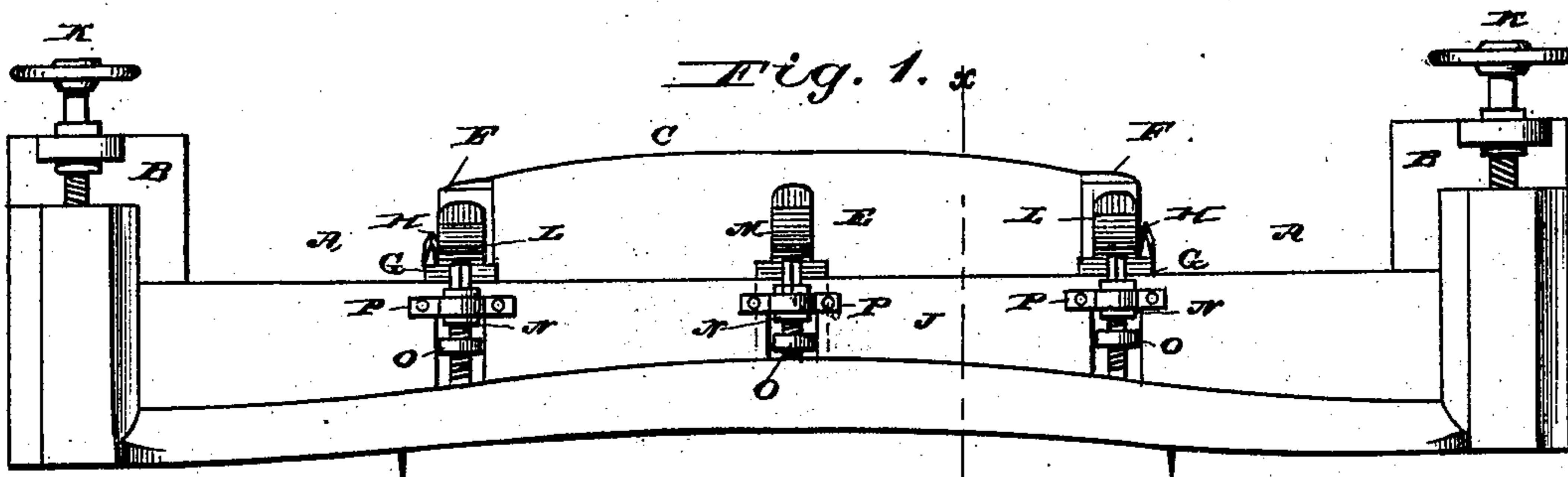


J. A. WATERMAN.
Veneer-Cutter.

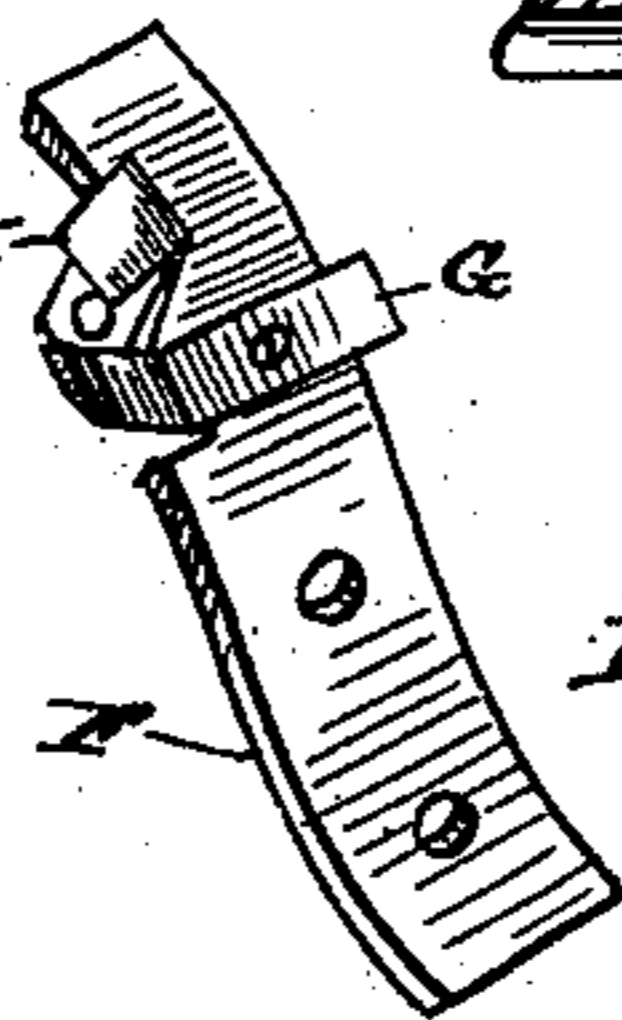
No. 210,171.

Patented Nov. 19, 1878.



Attest:
H. L. Perrine,
Albion, N. Y.

Fig. 6.



J. A. Waterman.
Inventor.

By H. S. Abbott.
Atty.

UNITED STATES PATENT OFFICE.

JASPER A. WATERMAN, OF READING, MICHIGAN.

IMPROVEMENT IN VENEER-CUTTERS.

Specification forming part of Letters Patent No. **210,171**, dated November 19, 1878; application filed August 12, 1878.

To all whom it may concern:

Be it known that I, JASPER A. WATERMAN, of Reading, in the county of Hillsdale and State of Michigan, have invented certain new and useful Improvements in Machines for Cutting Veneers for the Manufacture of Barrels; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to certain improvements in machines for cutting veneers for the manufacture of barrels; and the invention consists in the cutting and bending mechanism, which will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a front view. Fig. 2 is a top view. Fig. 3 is a view of the stock, with the front piece removed. Figs. 4 and 5 are sections taken on line *x x* of Fig. 1, the parts being turned to show cross-sections; and Fig. 6 is a view of one end plate, with the croze and chine cutters secured thereto.

In the drawing, A denotes the stock, constructed with vertical end pieces B and a back, C, the face of which is formed at D, near the knife, concave, and at E, near the top, convex, as shown in Figs. 4 and 5 of drawing.

To each end of the back C is secured a plate, F, having secured thereto a chine-cutter, G, and a croze-cutter, H, as shown in Figs. 3 and 6 of drawing.

The bottom of the stock A is provided with a curved knife, I, (shown in Figs. 3, 4, and 5 of drawing,) for cutting the veneers.

The front piece, J, is held to the stock A by end adjusting-screws K. To the back of this front piece, J, are secured two outer pressure-bars, L, and a center pressure-bar, M. These

pressure-bars are held by adjusting-screws N, which pass down through projecting pieces O of said pressure-bars, as shown. The adjusting-screws are held by brackets P on the face of the front piece, J, as shown.

This cutting and bending mechanism may be used in connection with any suitable machinery, and arranged to operate either as a stationary or sliding cutter-head upon a revolving log.

As the veneer is cut from the log the lower end of the center pressure-bar, M, forces the middle or bilge part of the veneer down in the concave part D of the back C, thus reversing the bilge of the veneer as it is being cut from the log. This reversing of the bilge produces a wave in the middle of the veneer, that allows it to be bent away from the log without splitting the ends. As the veneer passes over the convex part E of the back C it is bent back by the outer pressure-bars, L, the croze and chine being cut by the knives G and H as the veneer passes off.

The knives Q, arranged on the under side of the front piece, J, cut off or give the veneer the proper width to form a barrel-stave.

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

1. The combination of the pressure-bars L, M, the back C, and curved knife I, as set forth.
2. The combination of the pressure-bars L, M and curved knife I with the back C, having a concave and a convex face, as set forth.
3. The combination of the pressure-bars L, M, front J, and back C, as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JASPER A. WATERMAN.

Witnesses:

CORVIS M. BARRE,
W. H. STOUGHTON.