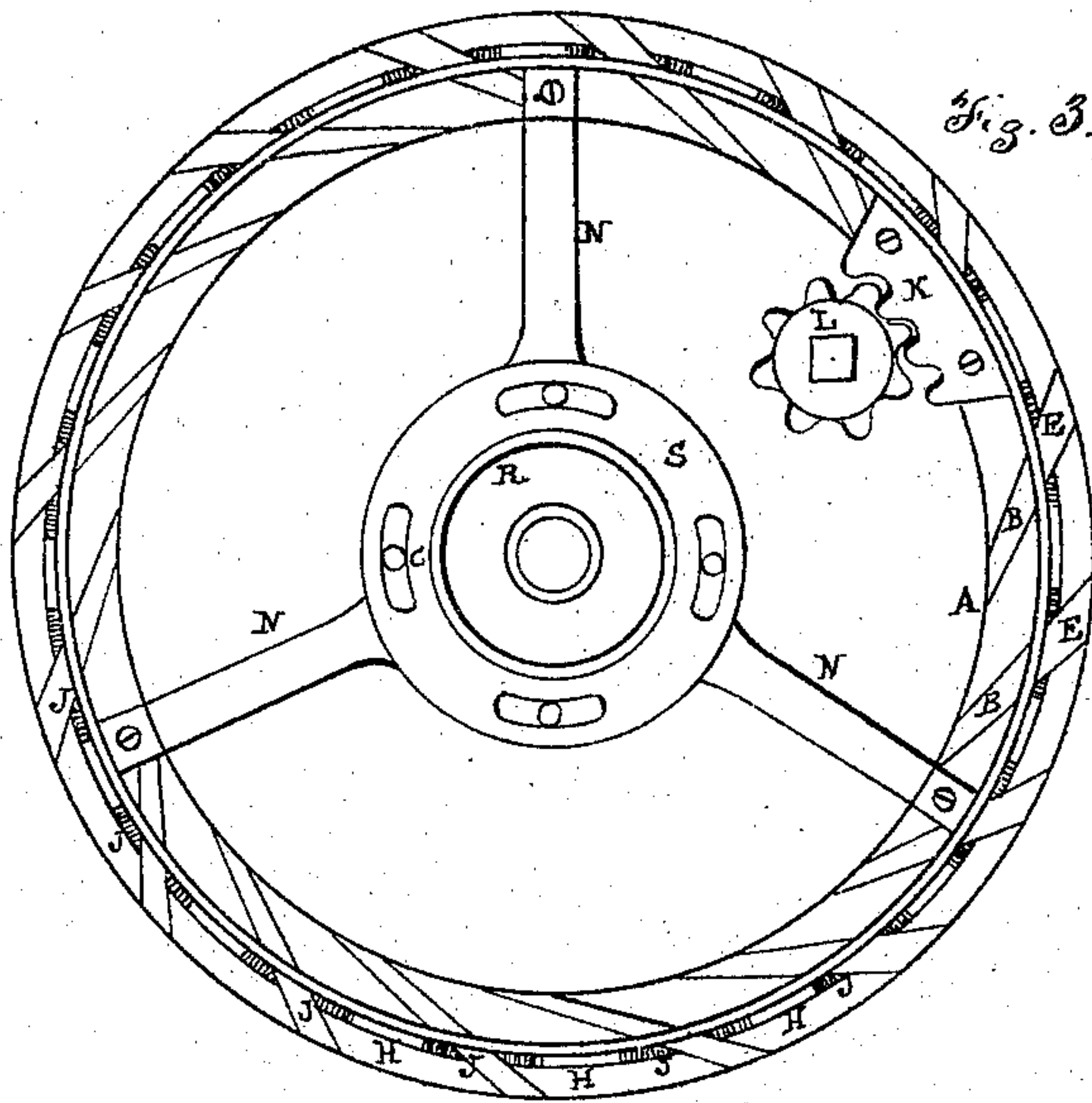
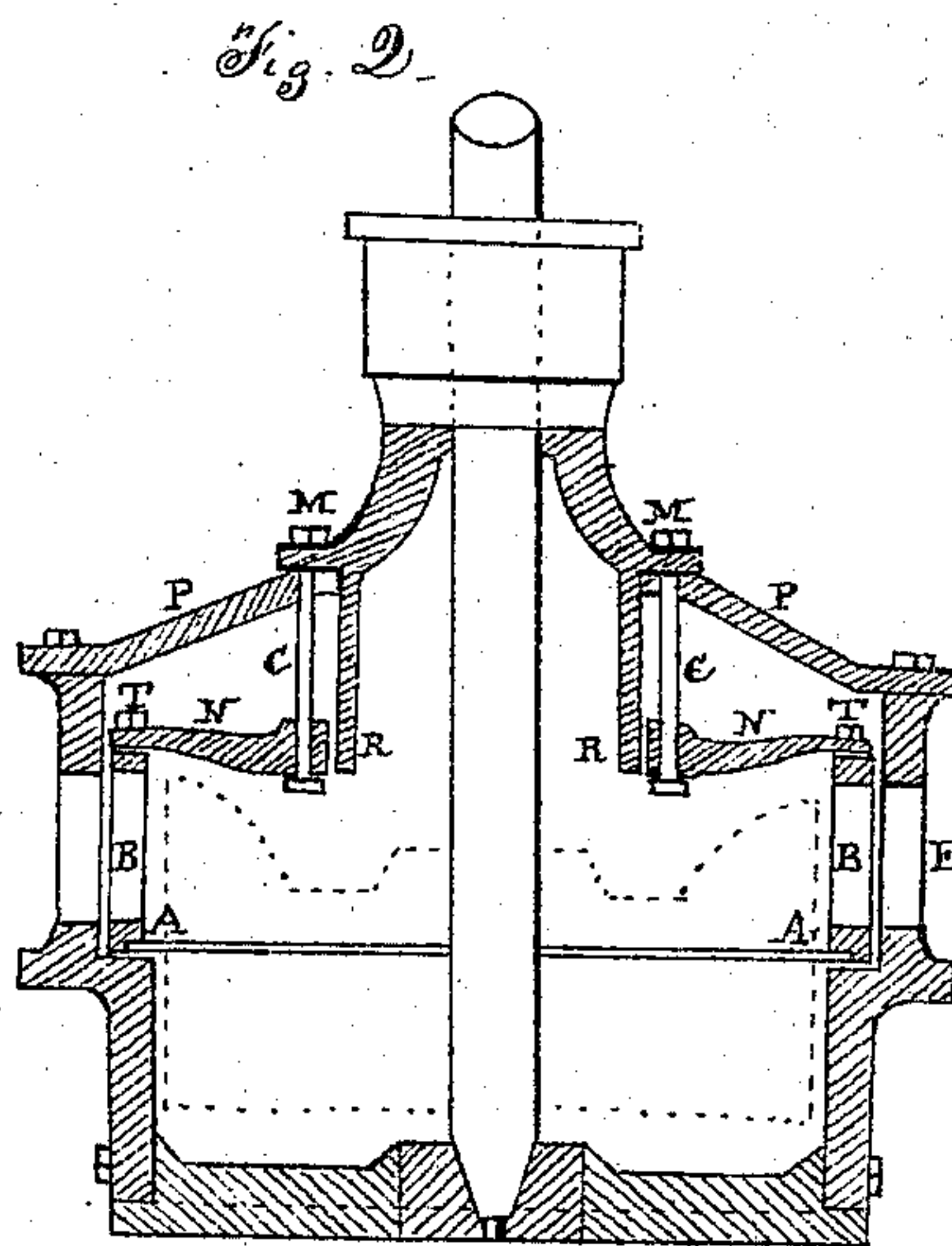
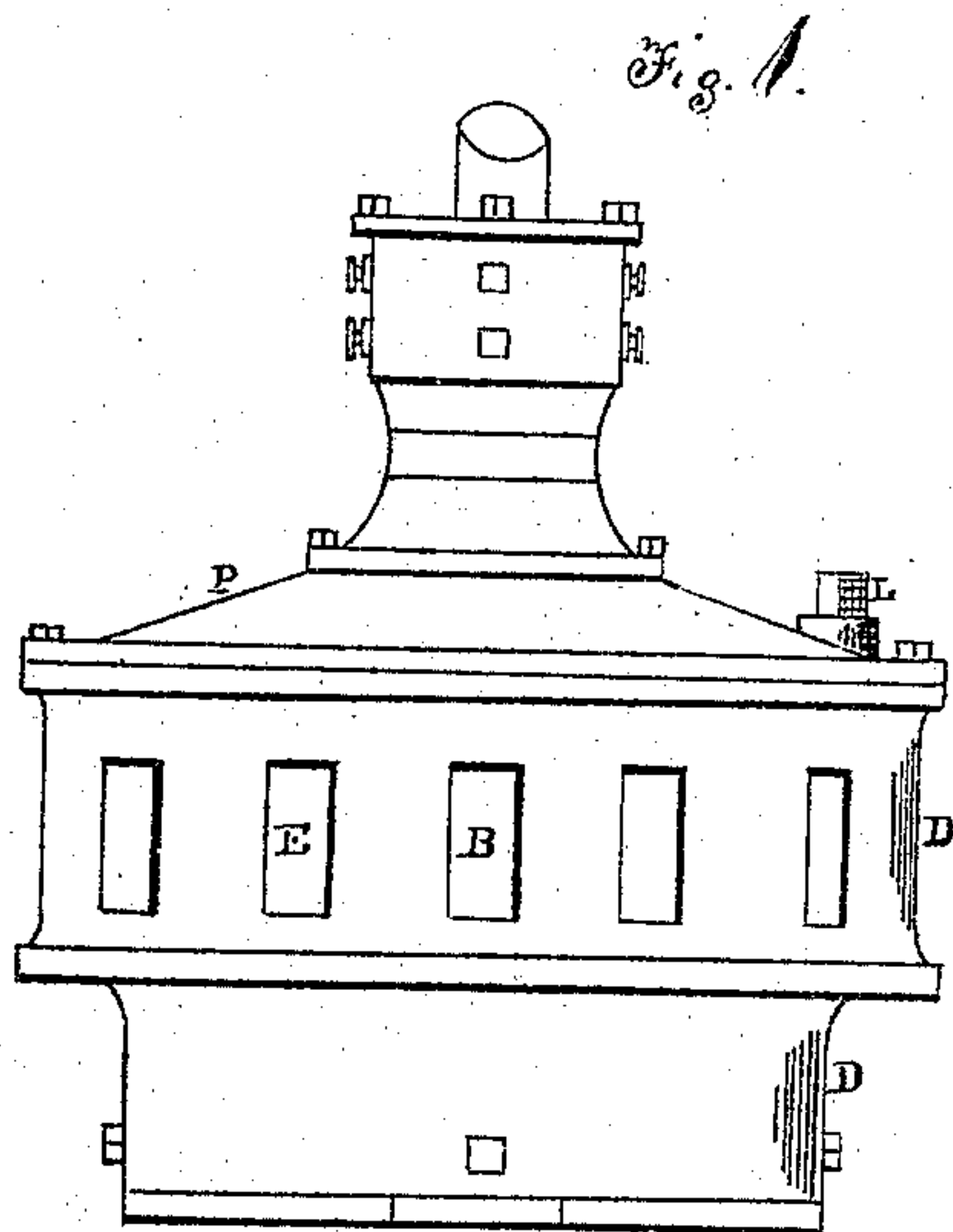


T. J. ALCOTT.
Turbine Water-Wheel.

No. 133,287.

Patented Nov. 26, 1872.



Witnesses.
J. M. Reigart.
James E. Norris.

Thomas J. Alcott - Inventor
By his Atty. J. E. Reigart.

UNITED STATES PATENT OFFICE.

THOMAS J. ALCOTT, OF MOUNT HOLLY, NEW JERSEY.

IMPROVEMENT IN TURBINE WATER-WHEELS.

Specification forming part of Letters Patent No. 133,287, dated November 26, 1872.

To all whom it may concern:

Be it known that I, THOMAS J. ALCOTT, of Mount Holly, county of Burlington, State of New Jersey, have invented an Improved Turbine Water-Wheel Case; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification, in which—

Figure 1 represents a side elevation and view of the outside stationary case; Fig. 2, a vertical section of the same, exhibiting the inside adjustable cylinder with its chutes or openings corresponding with the openings of the outer case; and Fig. 3 exhibits a cross-section of the case and inside cylinder.

The nature of my invention consists in the construction of the inside cylinder, with its chutes and vertically-adjustable guides, when combined with the outside stationary case that is made of one solid casting.

The object of my invention is to prevent the wear of the cylinder, to cause less friction, and make a perfect water-tight joint.

A represents the inside adjustable cylinder, with its chutes or openings B corresponding with the chutes or openings E of the outer stationary case D; the outer case D being made of one solid casting, and the lower half or curb smaller in circumference than the upper part. The upper part has twelve (more or less) openings, E, and between each opening, and on the inside of the cylindrical case D, there is a recess, H, for the purpose of passing

off any sand or gritty substances that might collect between the cylinders, and causing less friction. On each side of each recess, H, there are brass or Babbitt-metal bearings J to prevent the wear of the cylinders, and making a perfect water-tight joint. The inner cylinder A is adjusted horizontally back and forward, so as to graduate the flow of the water passing through the openings E of the outside cylindrical case D, thus diminishing the size of the openings or closing them perfectly, whenever required, by means of and the use of the common rack K and pinion L above; and the inner cylinder A is also adjusted vertically by the tightening or loosening of the nuts M of the bolts or guides C that pass through the top of the case and the cross-arms N of the top of the inner cylinder A, the arms N being below the cover P of the case; and their central circular plate S works backward and forward against and around the lower part of the dome of the top, as shown at R, and secured to the cylinder A by screw-bolts T.

What I claim as my invention, and desire to secure by Letters Patent, is—

The vertical adjustable guides C C with the cross-arms N below the cover P, circular plate S, recesses H H, and bearings J J, as an air-tight joint, when arranged, constructed, and operating as herein described, and for the purpose set forth.

THOMAS J. ALCOTT.

Witnesses:

J. FRANKLIN REIGART,
EDM. F. BROWN.