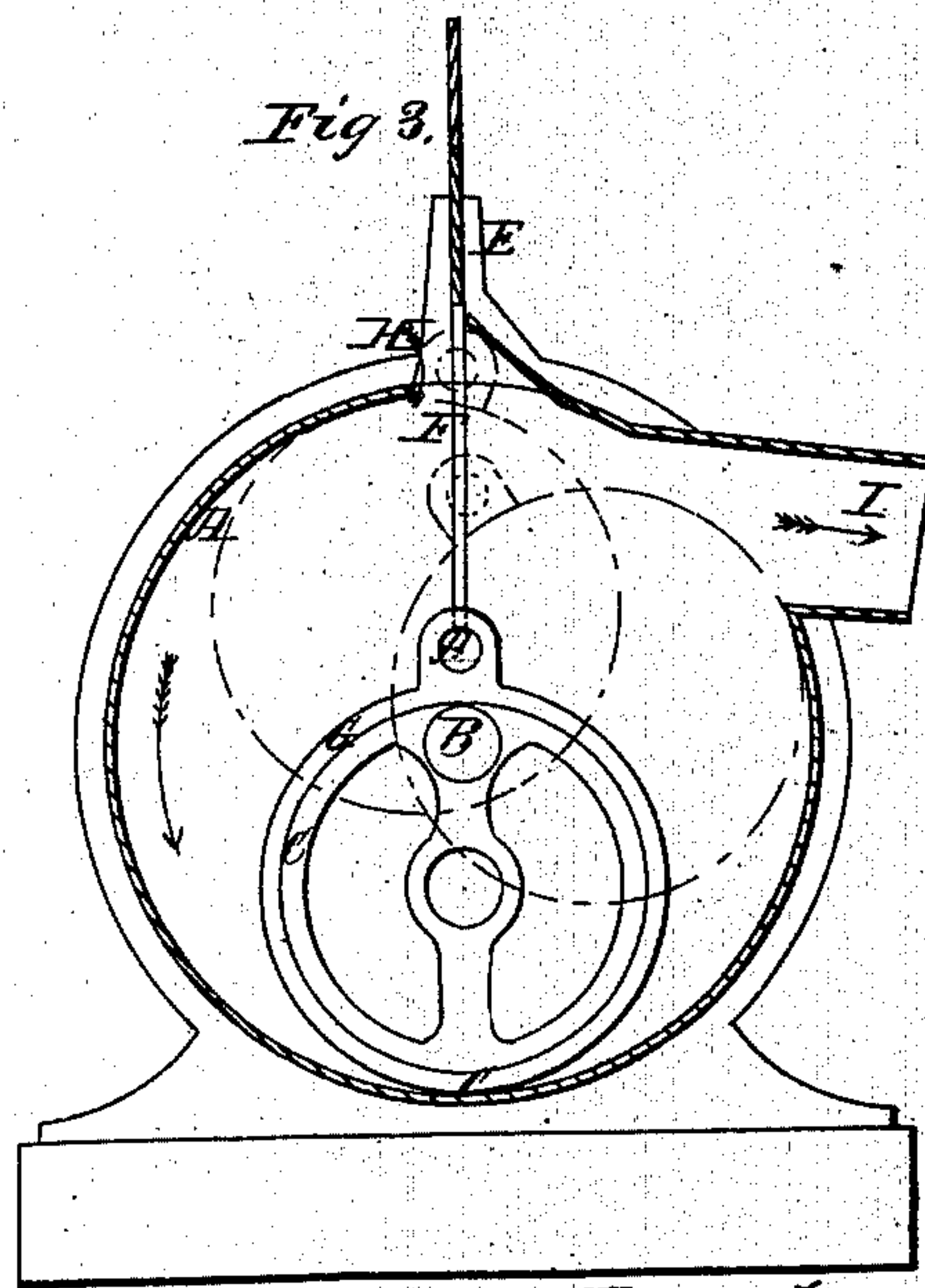
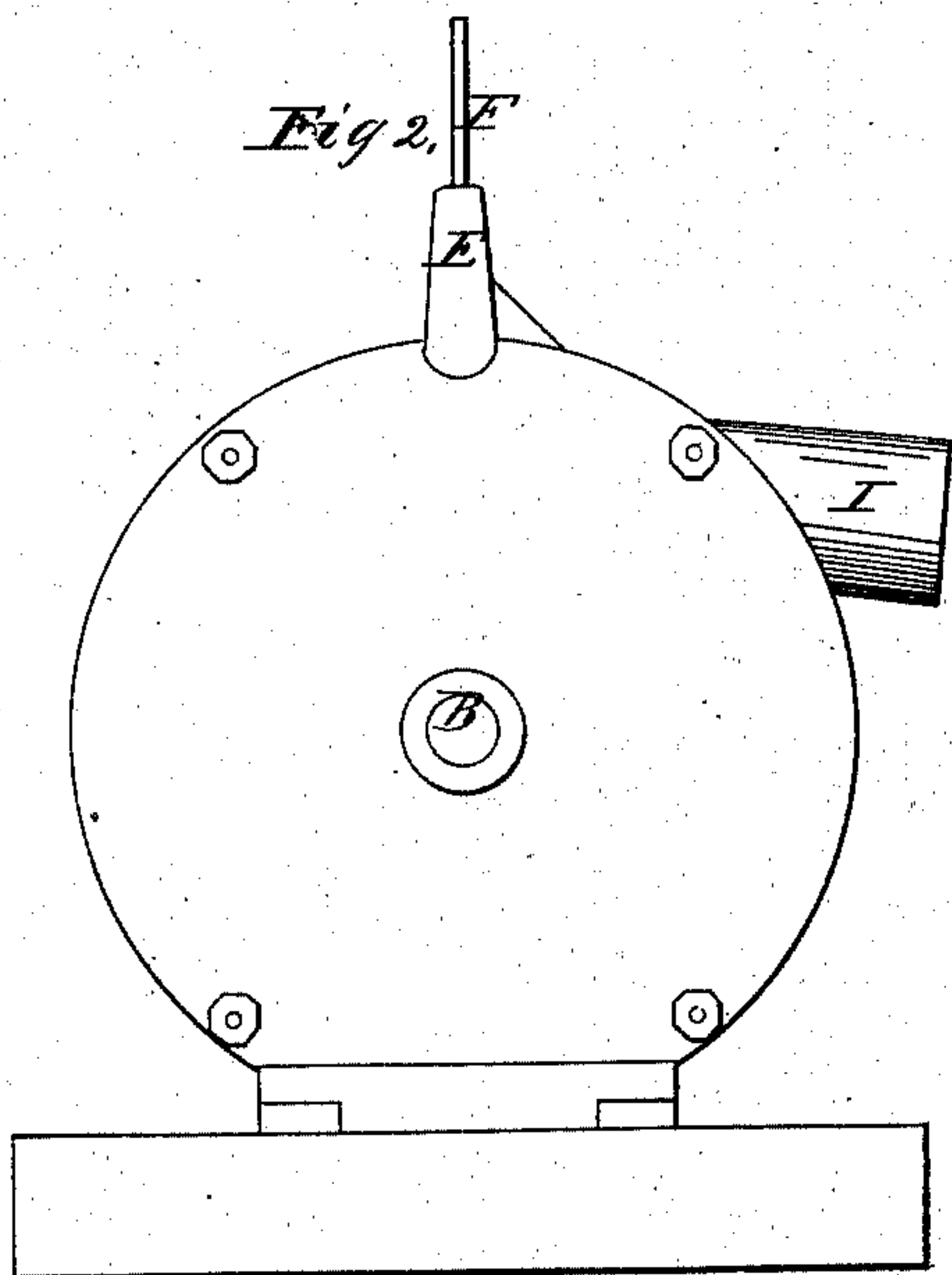
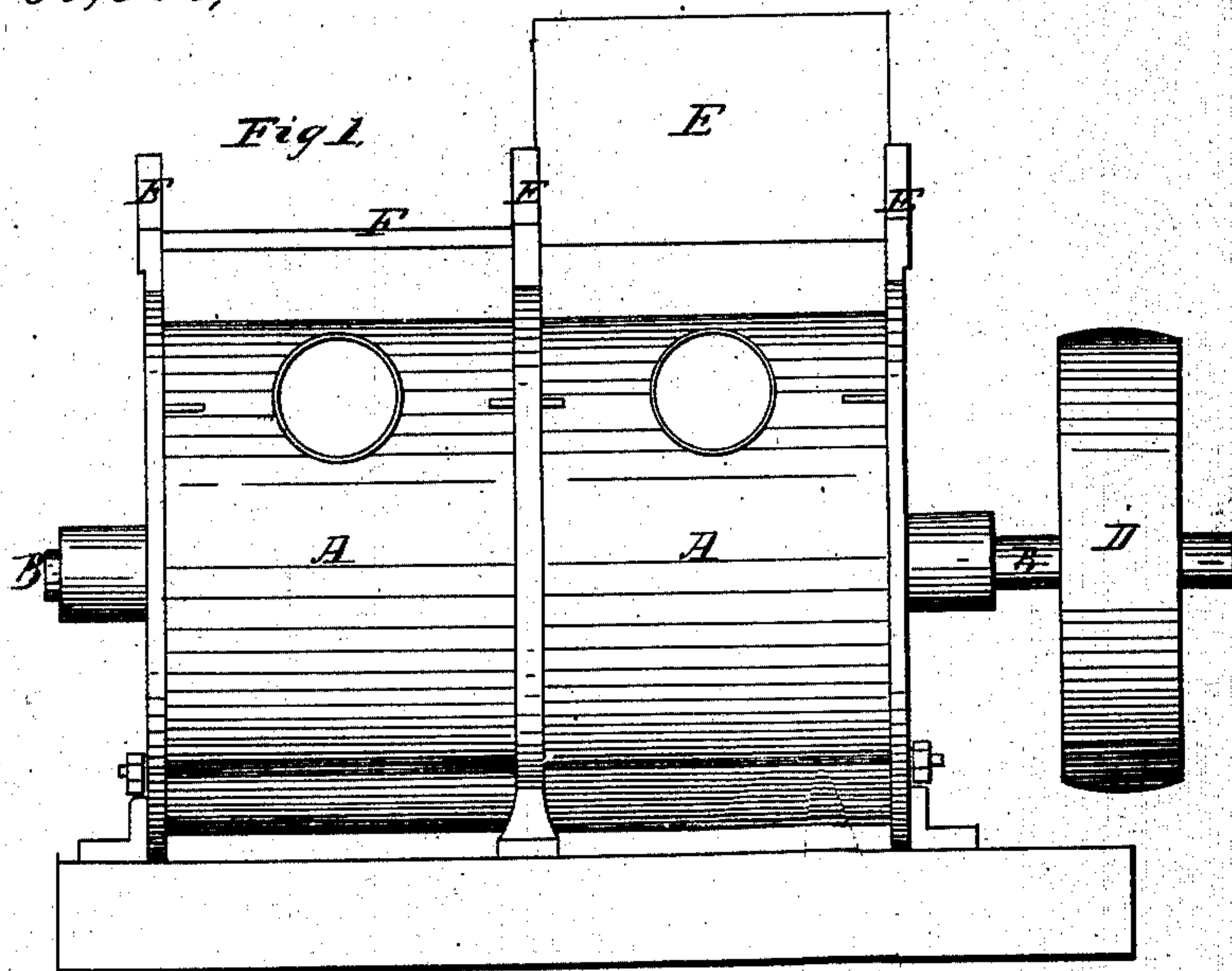


J. A. Everts,
Rotary Blower,

Nº 60,350,

Patented Dec. 11, 1866.



Witnesses,
Wm A. Kline
John H. Shumway

Inventor,
John A. Everts
Witness, John E. Earl

United States Patent Office.

IMPROVEMENT IN BLOWERS.

JOHN A. EVARTS, OF MERIDEN, CONNECTICUT.

Letters Patent No. 60,350, dated December 11, 1866.

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, JOHN A. EVARTS, of Meriden, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Blowers; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent in—

Figure 1, a side view.

Figure 2, an end view; and in—

Figure 3, an end view, the head removed to show the internal arrangement.

My invention relates to an improvement in blowers, such as are employed for creating a blast for furnaces, forges, &c. And consists in the arrangement of a cylinder within a cylinder, the inner cylinder eccentrically hung so that while its centre of motion is the centre of the outer cylinder, its extreme point will sweep the inner surface of the said outer cylinder, and the arrangement in combination therewith of a sliding plate, which rests in a fixed position upon the surface of the inner cylinder, and rises and falls by the movement of the inner cylinder acting as a stop to discharge the air received into the outer cylinder in advance of the inner cylinder. To enable others skilled in the art to construct and use my improvement, I will proceed to describe the same as illustrated in the accompanying drawings.

A is the outer cylinder, of length and diameter in proportion to the capacity of the blower required. Centrally within the said cylinder A, and upon a revolving shaft, B, I place a cylinder, C, of such diameter that while it is fixed to the shaft, B, as near as possible to its periphery, the opposite point, c, will extend to the inner surfaces of the cylinder A, so that when the shaft, B, is revolved by the application of power to the pulley, D; the point c of the cylinder C, will sweep the inner surface of the cylinder A, as seen in fig. 3. In proper guides, E, I place a sliding plate, F, extending down to the surface of the cylinder C, so that as the cylinder, C, revolves from the position in black, fig. 3, in the direction denoted by the arrow; the plate, F, riding upon the surface of the said cylinder, will gradually rise until at its full height as denoted in red, continuing the revolution, the plate descends again to its first position. To reduce the friction which would be occasioned by the plate thus riding upon the cylinder, C, I arrange upon each end of said cylinder, eccentric straps, G, attached to the plate F, at f, which eccentric straps being operated by the cylinder raises and falls the plate, F. H is the inlet; I, the outlet. The air is received in advance of the cylinder and before the plate, F, as denoted by the arrow at H, filling the space in advance of the cylinder, when in the position denoted in red, the cylinder advances, the air thus received forcing the air before it which being stopped by the plate, F, passes out at the outlet, I, as denoted by the arrow, the advance position being denoted in blue. As the blast given by a single cylinder would tend to be spasmodic, I unite two cylinders of the same construction as seen in fig. 1; the inner cylinders set at opposite points, by which arrangement a constant and steady blast is maintained.

I do not broadly claim a cylinder within, and eccentric to another cylinder and arranged with a valve or stop, moving up and down upon the said inner cylinder, as such is not new.

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

The combination of the outer cylinder A, the inner cylinder C, and the plate F, when the said plate F, is connected by a strap or straps G, to, and so as to be operated by the inner cylinder, and the whole constructed and arranged substantially in the manner and for the purpose specified.

JOHN A. EVARTS.

Witnesses:

M. A. HINE,

JOHN E. EARLE.