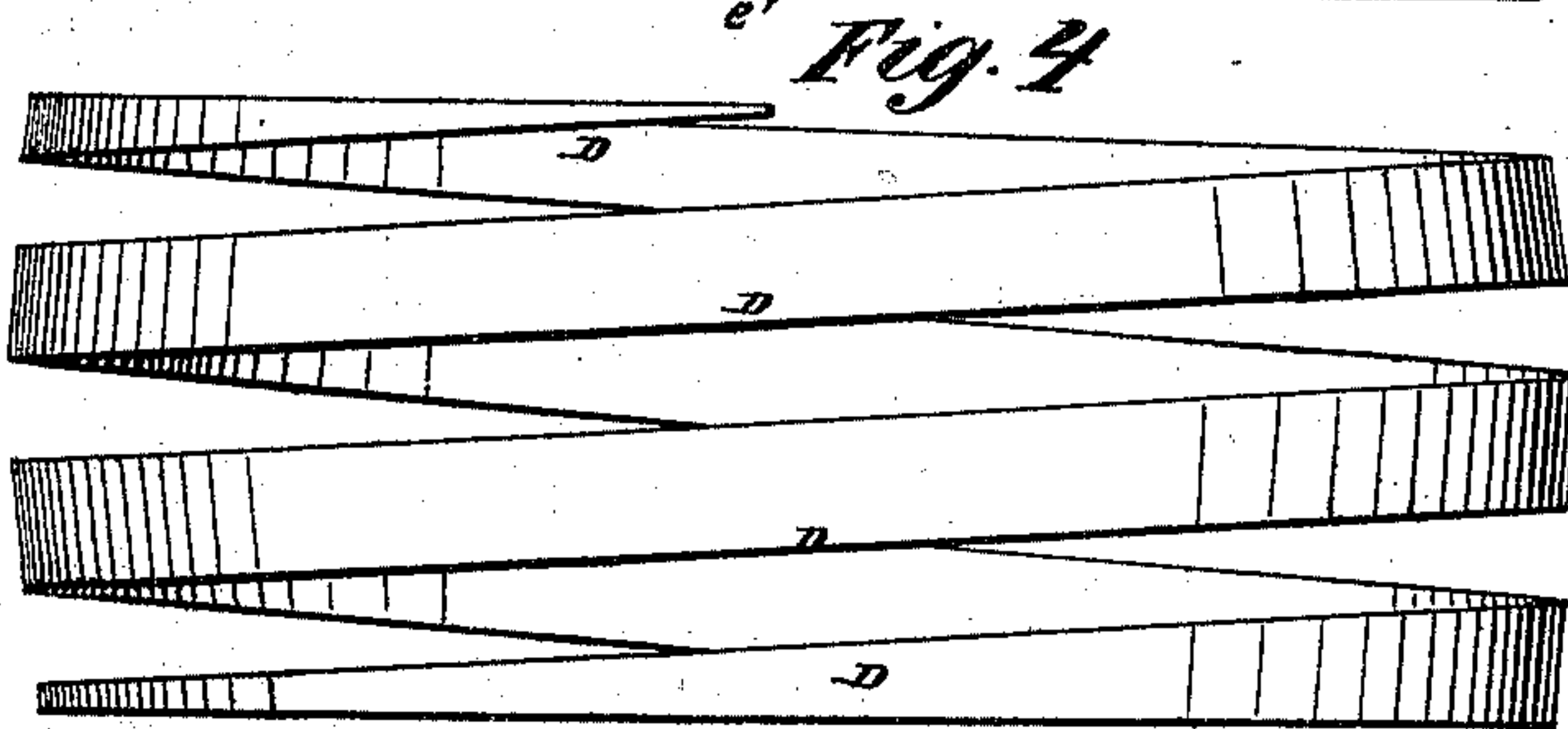
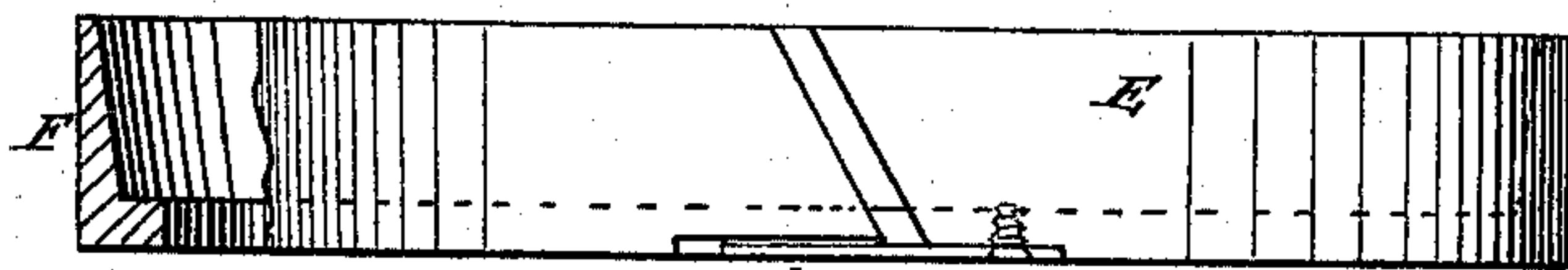
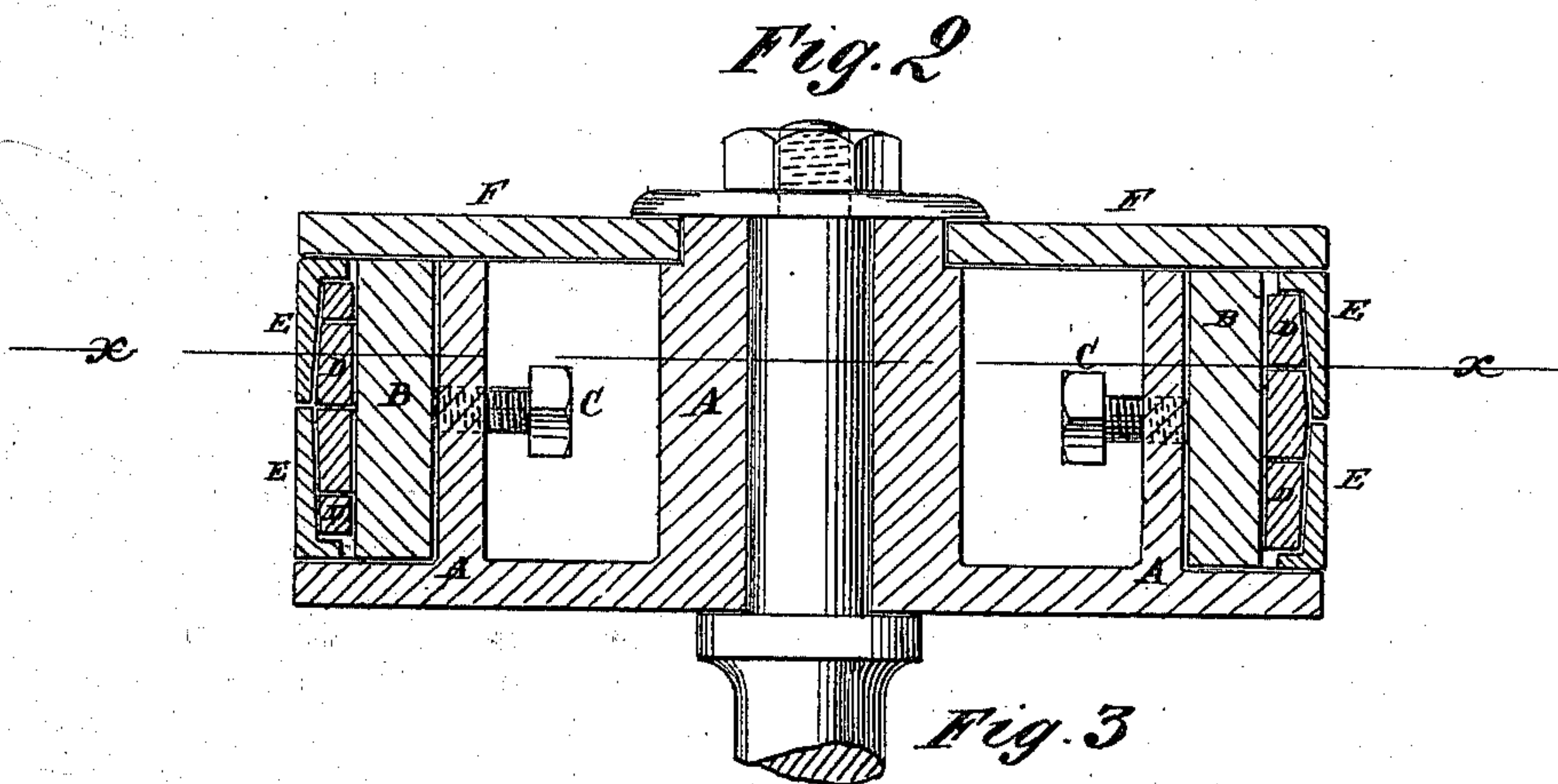
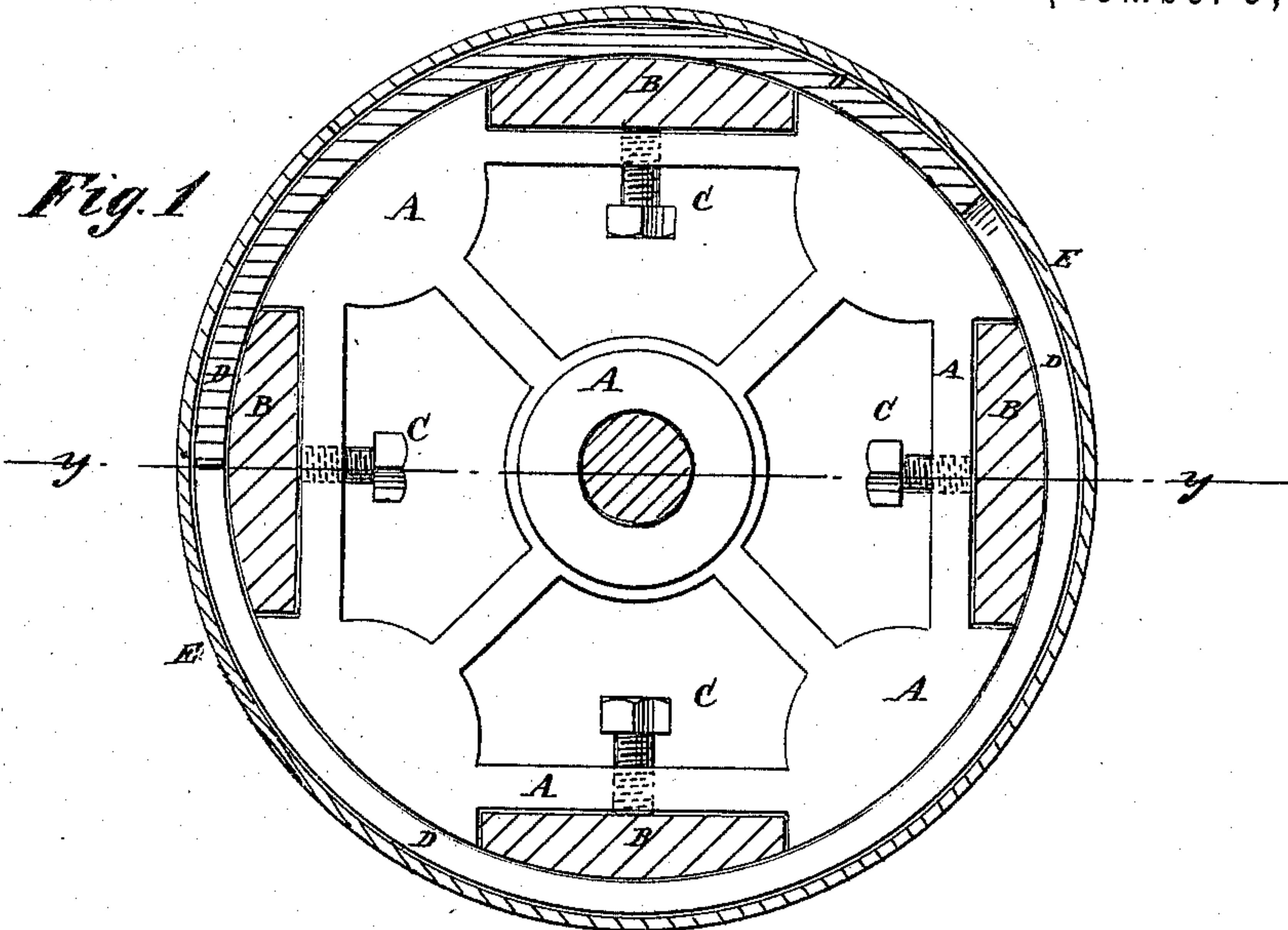


J. MASSEY.
Metallic Piston-Packing.

No. 142,640.

Patented September 9, 1873.



Witnesses:

A. W. Almqvist
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Inventor:

Per

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UNITED STATES PATENT OFFICE.

JAMES MASSEY, OF CHESTER, PENNSYLVANIA.

IMPROVEMENT IN METALLIC PISTON-PACKINGS.

Specification forming part of Letters Patent No. **142,640**, dated September 9, 1873; application filed June 14, 1873.

To all whom it may concern:

Be it known that I, JAMES MASSEY, of Chester, in the county of Delaware and State of Pennsylvania, have invented a new and useful Improvement in Elastic Metallic Piston, of which the following is a specification:

Figure 1 is a detail sectional view of my improved piston taken through the line *xx*, Fig. 2. Fig. 2 is a detail sectional view of the same taken through the line *yy*, Fig. 1. Fig. 3 is a side view of one of the rings, part being broken away to show the construction. Fig. 4 is a side view of the spring.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved piston, which shall be so constructed as to adjust itself to take up the wear, and thus be always steam-tight, and which shall at the same time be simple in construction and reliable in use. The invention consists in the peculiar relative construction and arrangement of parts in a piston-packing, as herein-after described and pointed out in the claim.

A represents the piston-head, in the face of which are cut recesses to receive the blocks B, by adjusting which the piston is centered in the cylinder. The blocks B are adjusted by

set-screws C, as shown in Figs. 1 and 2. D is a cast-iron spring or coil placed upon the piston-head A, and by the elasticity of which the open rings E are held out against the cylinder. The open rings E have inwardly-projecting flanges formed upon their outer edges, which rest upon the edges of the spring D. The rings E taper, or are beveled upon their inner sides, from their outer to their inner edges, as shown in Figs. 2 and 3, to allow the spring D to be made heavier in its middle part. F is the follower or movable head of the piston, by which the spring D and open rings E are held down upon the stationary head of said piston. *e'* is a stop-piece attached to one end of the open rings E to overlap the other end and keep it in place.

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

A piston-packing formed of head A, centering-block B, set-screws C, coil D, open rings E, and follower F, constructed and arranged as described.

JAMES MASSEY.

Witnesses:

JOSEPH HOLT,
THOMAS S. HALL.