

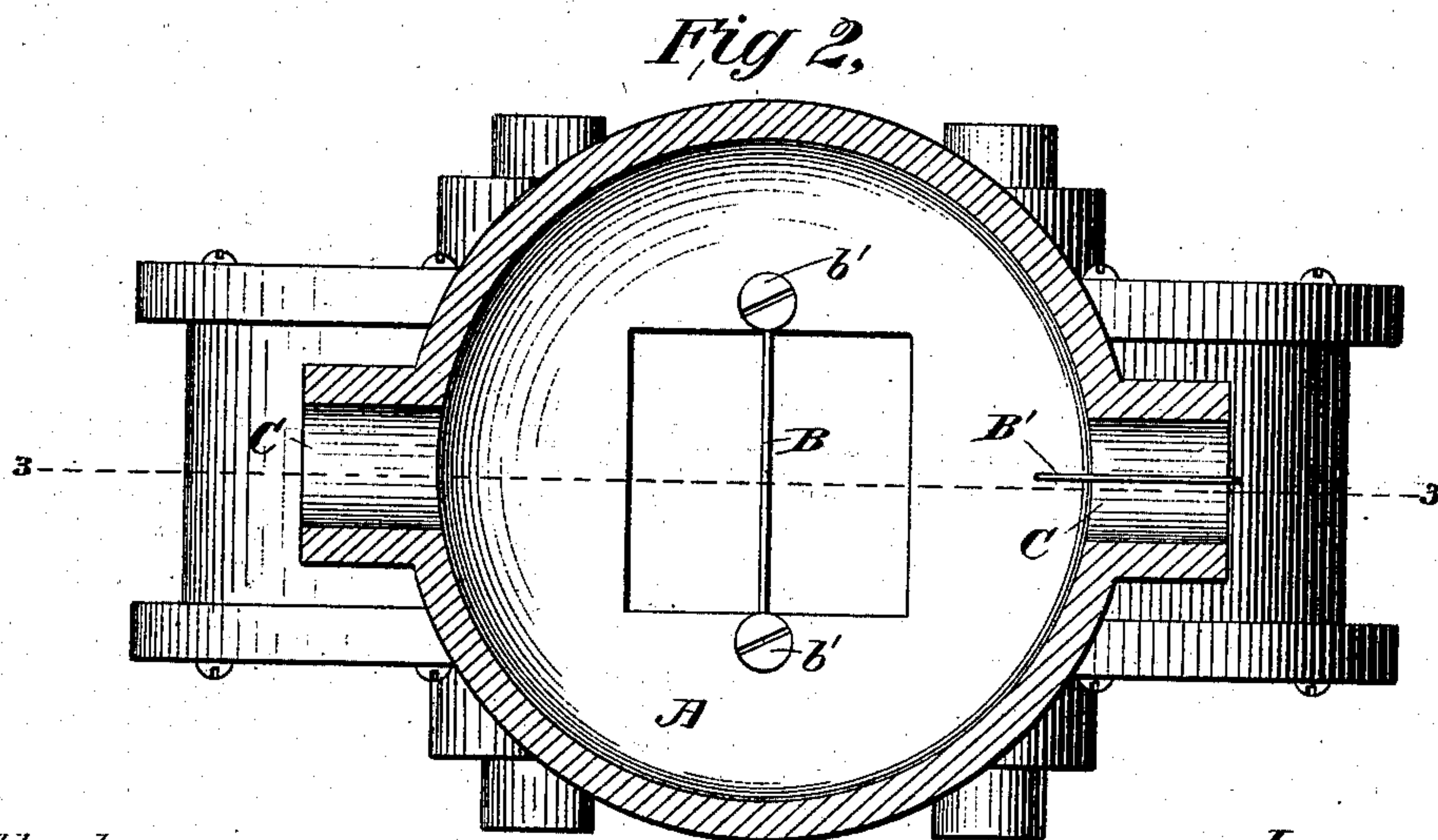
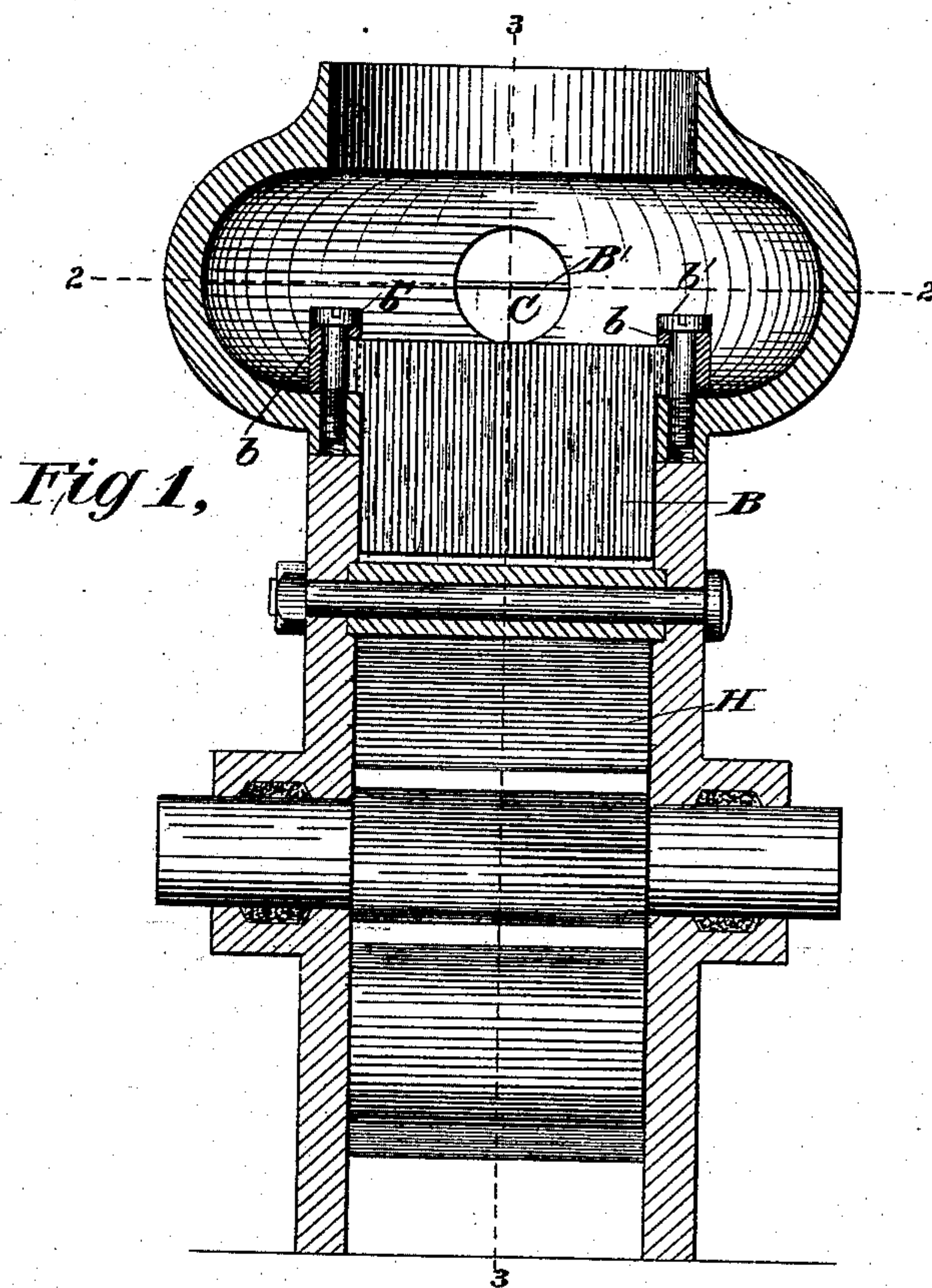
(Model.)

2 Sheets—Sheet 1.

E. MEDDEN.
Rotary Pump.

No. 237,988.

Patented Feb. 22, 1881.



Attest:

*Geo. T. Smallwood Jr.
Harry E. Knight*

Inventor:

Edwin Medden

BY

Knight & Co.

Atty.

(Model.)

2 Sheets—Sheet 2.

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Fig 3,

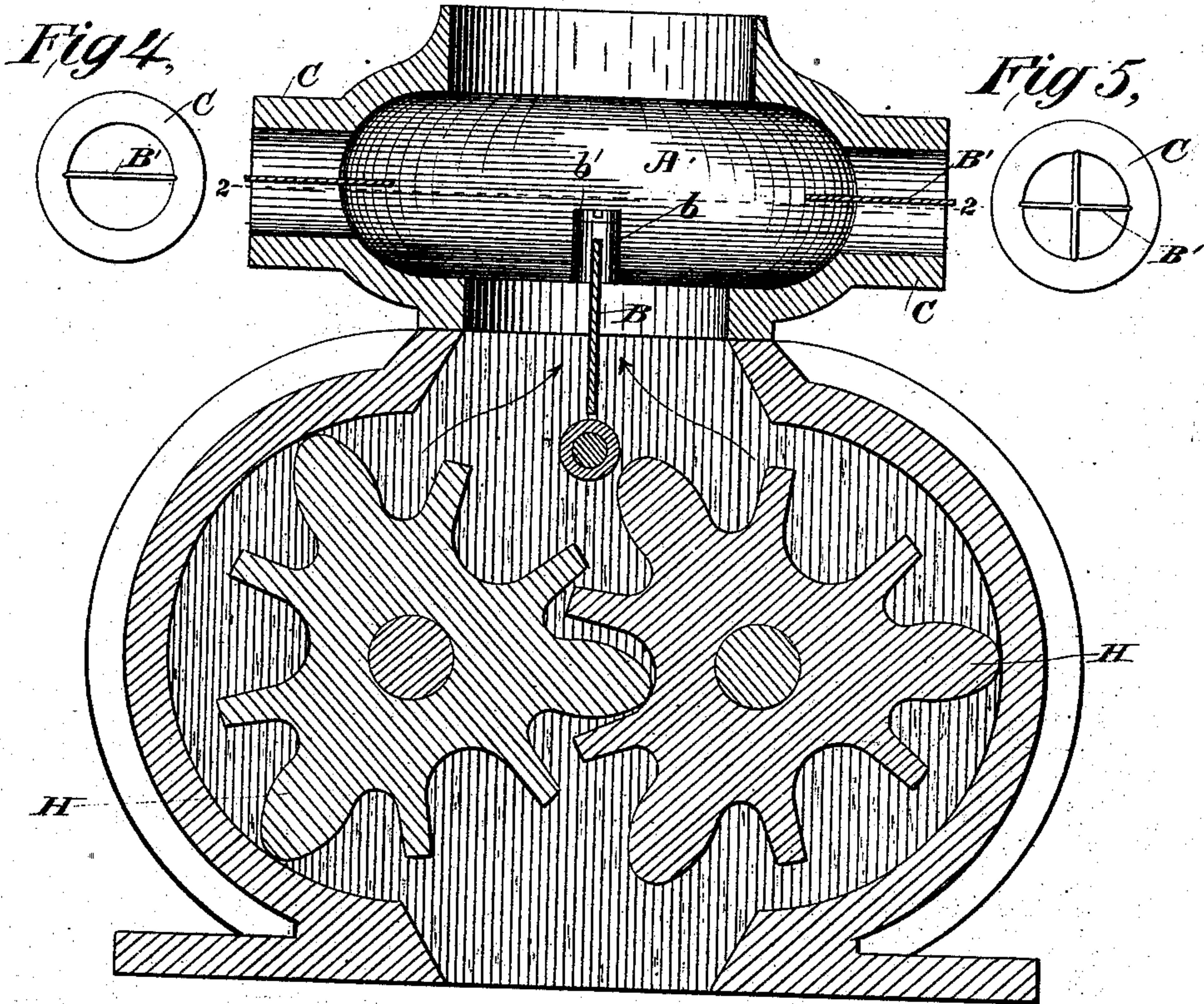
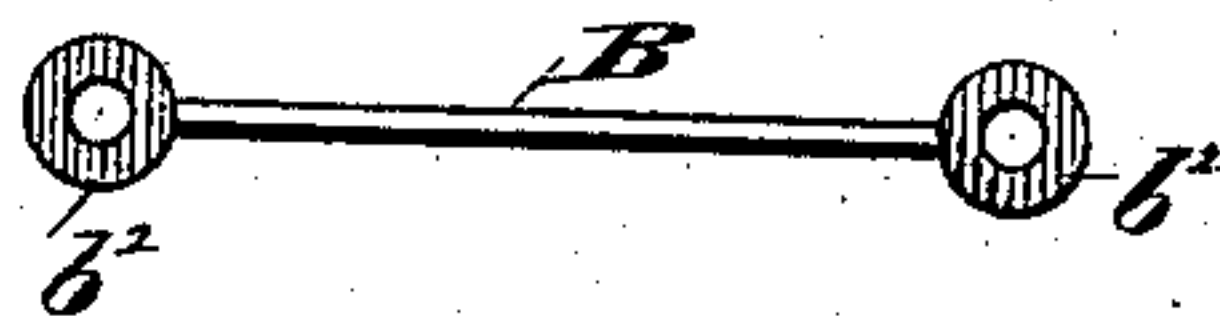


Fig 6,



Fig 7,



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UNITED STATES PATENT OFFICE.

EDWIN MEDDEN, OF SENECA FALLS, NEW YORK, ASSIGNOR TO THE SILSBY MANUFACTURING COMPANY, OF SAME PLACE.

ROTARY PUMP.

SPECIFICATION forming part of Letters Patent No. 237,988, dated February 22, 1881.

Application filed January 4, 1881. (Model.)

To all whom it may concern:

Be it known that I, EDWIN MEDDEN, a citizen of the United States, residing at Seneca Falls, in the county of Seneca and State of New York, have invented Improvements in Rotary Pumps, of which the following is a specification.

This invention consists in the provision within the discharge port or chamber of a rotary pump of one or more deflecting-plates of thin metal, for the purpose of preventing the vortical or surging motion of the water, thereby causing the water to maintain a solid compact condition after it leaves the pump, preventing the spraying of the stream, and causing the water to be forced a greater distance and a larger quantity of water to be delivered at the end of the stream.

The stream or streams from a rotary pump, as heretofore constructed, break more or less into spray, preventing it from being projected as far as may be required and from being delivered in as great quantity at the end of the stream as may be necessary. My mode of obviating this difficulty will be fully understood from the following description in connection with the accompanying drawings, in which—

Figure 1 is a transverse section of a rotary pump illustrating the invention. Fig. 2 is a horizontal section of the same on the line 2 2, Figs. 1 and 3. Fig. 3 is a vertical longitudinal section thereof on the line 3 3, Figs. 1 and 2. Figs. 4 and 5 are end views of the discharge-port under two modifications. Figs. 6 and 7 are detached views of the internal deflecting-plate, Fig. 6 being a face view and Fig. 7 a top view.

The working parts or cams H H of a rotary pump revolve in opposite directions, working inward at the top, and force the water into the discharge-chamber A crosswise, as shown by the arrows in Fig. 3, causing the water to leave

the pump in a spiral current, which produces the spray already referred to and lessens the power and effectiveness of the stream. To prevent this injurious effect I apply deflecting-plates of thin metal placed in the discharge-chamber A, as shown at B, or in the discharge-outlets C, as shown at B', or in both.

One mode of fixing the plate B in position is illustrated in Figs. 1 and 3, where the said plate is shown as formed with a shoulder to rest on the casing, and is inserted in slotted sleeves *b b*, fastened by screws *b' b'*.

A modification is represented in the detached views, Figs. 6 and 7, where the plate is shown with eyes or perforated lugs *b² b²* projecting from its edges in proper position to rest on the top of the casing and secured by screws.

A single plate may be applied in the outlet, as in Fig. 4, or crossed plates, as in Fig. 5.

This invention refers more particularly to rotary pumps as used for fire protection, and as employed on the portable steam fire-engines, although it may be applied to a stationary rotary pump, such as is used for fire protection in mills and factories. In the portable steam fire-engine the water is forced, under heavy pressure, into flexible hose, which is attached to the discharge-outlets C, and in the stationary rotary pump it is forced, under great pressure, into either hose or one or more pipes.

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

A rotary pump provided with plates or wings B in its discharge-chamber or discharge-orifice, to prevent the vortical or spiral motion of the water, as described.

EDWIN MEDDEN.

Witnesses:

R. DENNE,
CHAS. W. RIEGEL.