

W. P. MAXSON.
Rotary-Engines.

No. 145,671.

Patented Dec. 16, 1873.

Fig. 1.

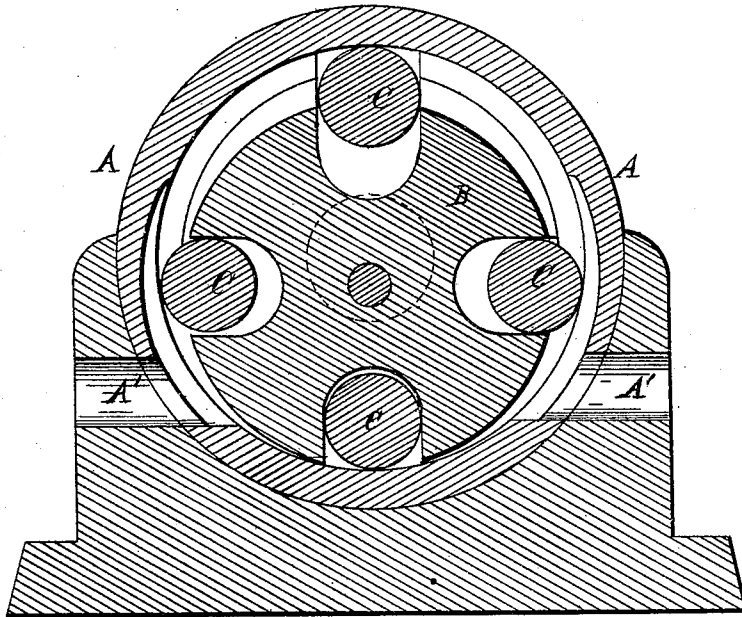


Fig 2

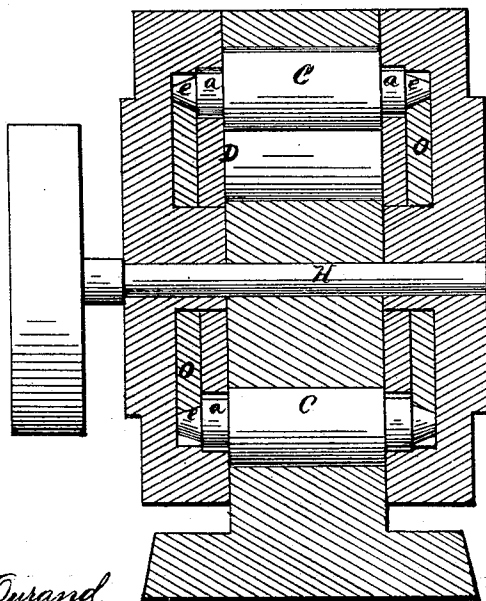
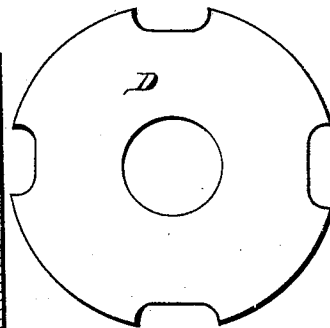


Fig 3



WITNESSES.

Francis L. Quirand
L. H. Harr

INVENTOR

William P. Maxson
per
Alexander Mason

By

Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM P. MAXSON, OF INDEPENDENCE, IOWA.

IMPROVEMENT IN ROTARY ENGINES.

Specification forming part of Letters Patent No. **145,671**, dated December 16, 1873; application filed August 27, 1873.

To all whom it may concern:

Be it known that I, WILLIAM P. MAXSON, of Independence, in the county of Buchanan and in the State of Iowa, have invented certain new and useful Improvements in Rotary Engine and Pump; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the arrangement of a series of rollers, a cylinder, and certain disks or wheels within a case for forming a rotary pump, as will be hereinafter set forth.

In the annexed drawings making part of this specification, Figure 1 is a vertical section at right angles to the pump-shaft. Fig. 2 is a horizontal cross-section in line with the shaft. Fig. 3 is a plan view of one of the wheels.

In the figures, A represents a hollow cylinder or casing, in which is placed eccentrically a solid cylinder, B, which is provided with a shaft, H. The cylinder B is grooved across its periphery, and in these grooves are placed the four rollers C C, equidistant apart. The rollers have at each end two bearings—an annular bearing, *a*, and a conical bearing, *e*. Two wheels, D and O, support these bearings, but are placed on a true circle with the inner periphery of the hollow cylinder or case, the

wheel D supporting the bearings *a*, and the bevel-wheel O supporting the conical bearing *e*. By means of these wheels the cylinder B and its rollers are made to run truly and evenly in the case A, and the cavity is easily made airtight. Set-screws may be used at the back of the wheel O for tightening. The case A is provided with inlet and outlet pipes, as seen at A' A'. The water is received at one of these openings, and, the cylinder B being in motion, it is carried around in the eccentric spaces by means of the rollers C C, which revolve, and thus prevent friction, and is discharged at the other.

By the use of the rollers I have nothing but rolling friction, which is very little, and the pump works, consequently, with great ease and with little noise.

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

The wheel B, rollers C C, and wheels D and O, in combination with the case A, the several parts being constructed as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of August, 1873.

WILLIAM P. MAXSON.

Witnesses:

A. N. MARR,
CHAS. R. PRATT.