

J. C. TITUS.
ROTARY-ENGINE.

No. 173,744.

Patented Feb. 22, 1876.

Fig. 1.

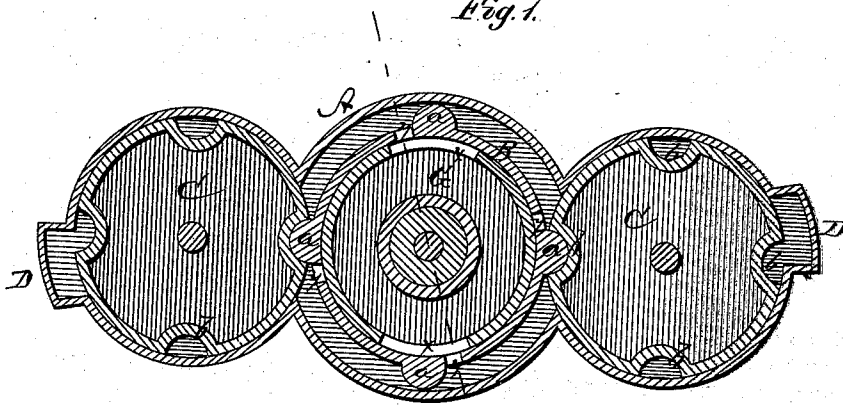
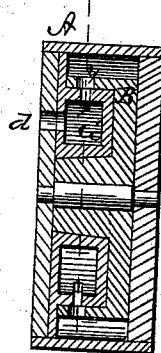


Fig. 2.



WITNESSES

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IMPROVEMENT IN ROTARY ENGINES.

Specification forming part of Letters Patent No. **173,744**, dated February 22, 1876; application filed
July 22, 1875.

To all whom it may concern:

Be it known that I, JOHN C. TITUS, of the village of Marion, in the county of Marion and in the State of Ohio, have invented certain new and useful Improvements in Rotary Steam-Engines; 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 construction and arrangement of a rotary engine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal section of my rotary engine. Fig. 2 is a transverse section of the same through the center of the wheel.

A represents the casing of my rotary engine, constructed to receive the center wheel B and the two side wheels C C. The center wheel B is formed or provided with four lugs, *a a*, on its periphery, at equal distances apart, to fit in corresponding recesses *b b* on the wheels C C as the wheels revolve. These parts are all constructed in the same manner as in other engines of this class.

The casing A is, at each end, formed with a pocket, D, which becomes filled with steam, carried into it by the recesses *b* in the wheels C C. The steam in the pockets D D serves to balance the wheels C C by exerting a counter-pressure at a point opposite the point where the steam strikes the face of the wheel.

The center wheel B is formed with an annular recess on one side, which fits snugly over an annular steam-chest, G, secured to the head of the casing. This steam-chest is, in its periphery, provided with two elongated ports, *x x*, opposite each other, and in the wheel B, behind each lug *a*, is a steam-port, *y*, for the admission of steam. The steam enters the steam-chest through an aperture, *y*, in Fig. 2.

The length of time the steam acts direct is regulated by the length of the port *x*.

When the ports have passed so that there is no communication between the steam chest and cylinder, the steam works on expansion until the next port, *y*, comes around to the port *x*.

I do not broadly claim a cylinder of a rotary engine constructed to form a steam-space around a portion of the periphery of the revolving abutment, whereby the latter is nearly balanced by the pressure of steam, as such is not my invention.

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

In a rotary engine having the casing A and wheels B and C C, the pockets D D, formed in the ends of the casing, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of July, 1875.

JOHN C. TITUS.

Witnesses:

JOHN F. MCNEAL,
FRANCIS M. SCRIBNER.