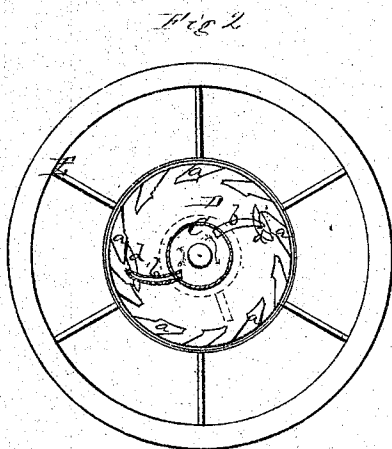
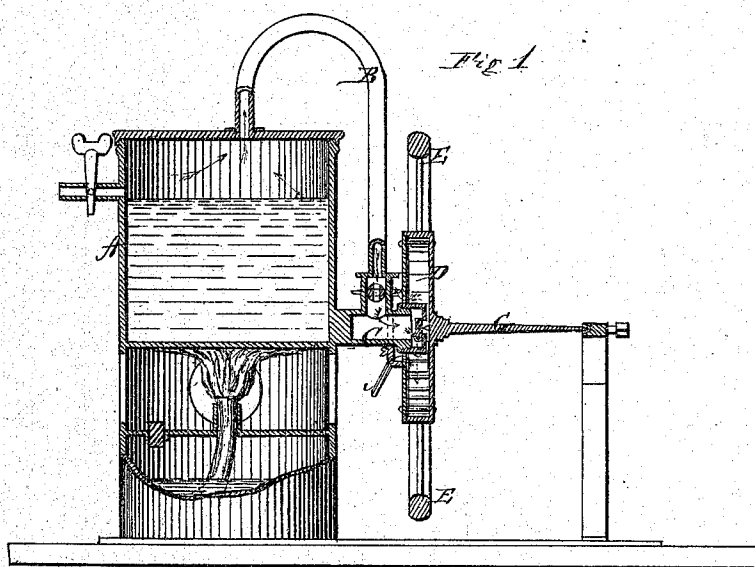


S. GIBSON.
ROTARY ENGINE.

No. 108,016.

Patented Oct. 4, 1870.



Witnesses.
Harry King
C. L. Ewert.

Inventor,
Samuel Gibson
per
Alexander M. Mason
attys.

UNITED STATES PATENT OFFICE.

SAMUEL GIBSON, OF LANCASTER, ASSIGNOR TO HIMSELF AND I. W. G. WIERMAN, OF YORK, PENNSYLVANIA.

IMPROVEMENT IN ROTARY ENGINES.

Specification forming part of Letters Patent No. 108,016, dated October 4, 1870.

To all whom it may concern:

Be it known that I, SAMUEL GIBSON, of Lancaster, in the county of Lancaster, and in the State of Pennsylvania, have invented certain new and useful Improvements in Centrifugal Rotary Engines; and I 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 centrifugal rotary engine, as will be hereinafter 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 drawings, in which—

Figure 1 is a longitudinal vertical section of my engine; and Fig. 2 is an inside view of the wheel in which the steam operates to produce the rotary motion.

A represents a steam-boiler of any suitable construction, from which the steam is conducted through the pipe B into a small hollow cylinder, C. The outer end of this cylinder is inserted into the casing D, which forms the center of the wheel E. This wheel, with its center casing, is secured on a shaft, G, which has one bearing in the center of the end of the cylinder C, and the other bearing at any convenient point.

Around the inner circumference of the casing D are placed a series of buckets, *a a*, con-

structed as shown in Fig. 2, the space or distance between the buckets being the same as the thickness of the buckets.

From the side of the cylinder C, within the casing D, lead two tubes, *b b*, through which the steam passes from the cylinder into the casing to act upon the buckets *a a*. Near the outer ends of these tubes *b b*, and on the same, are placed heads *d*, of such size as to close up the space between two of the buckets. The tubes *b b*, of which there may be two or more, are so arranged that when one is between two of the buckets the other is against one of the buckets, or, in other words, the steam is allowed to escape through one while it is cut off from the other tube. The steam falls to the center of the casing D, and may pass out around the steam chest or cylinder C into a hollow collar or box, *e*, on the same, from whence it is carried off by a pipe, *f*.

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

The combination of the wheel E, with its casing D, and buckets *a a*, stationary steam-tubes *b b* and heads *d d*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of August, 1870.

SAMUEL GIBSON.

Witnesses:

THOMAS J. DAVIS,
HUGH MOORE.