

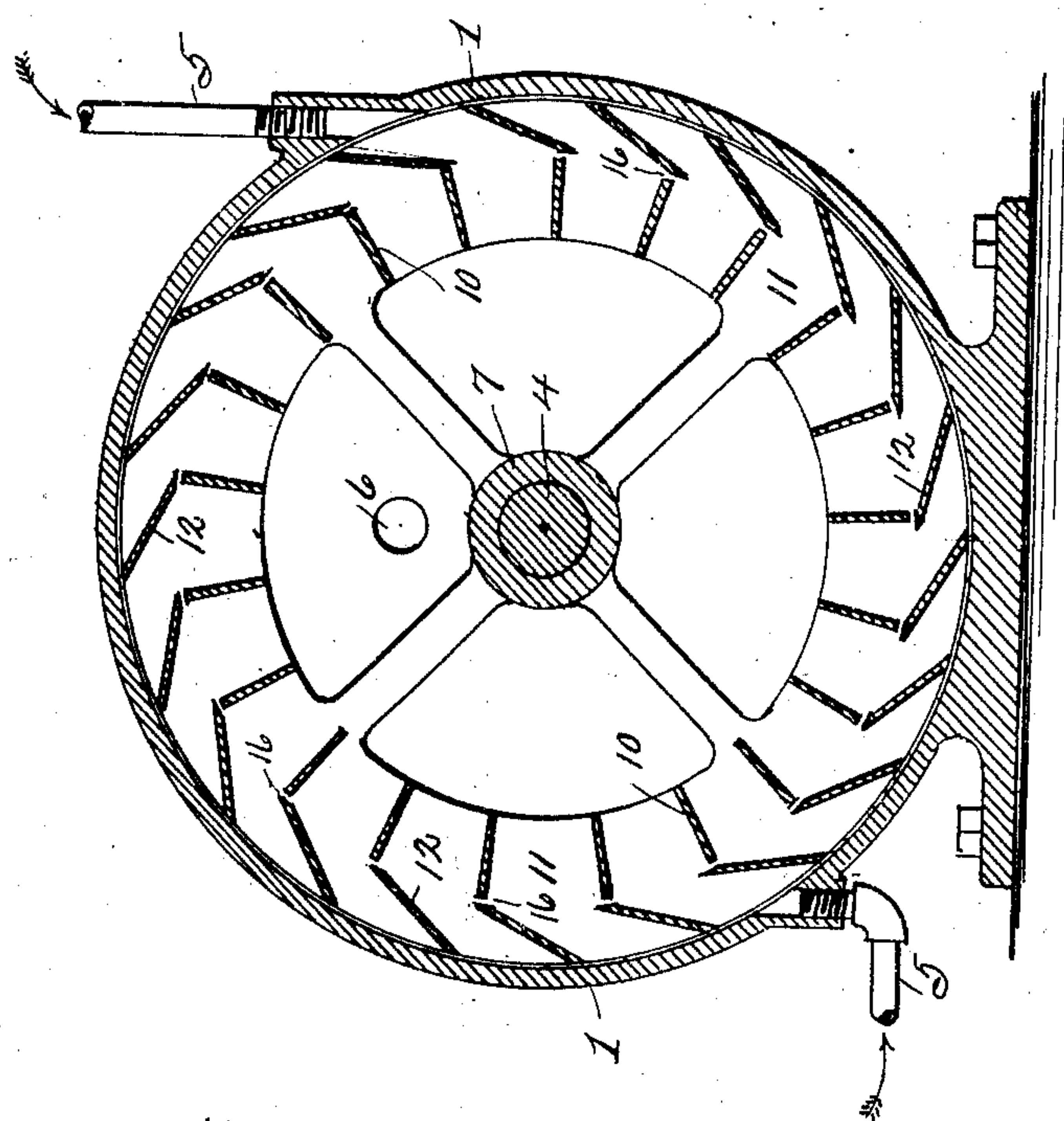
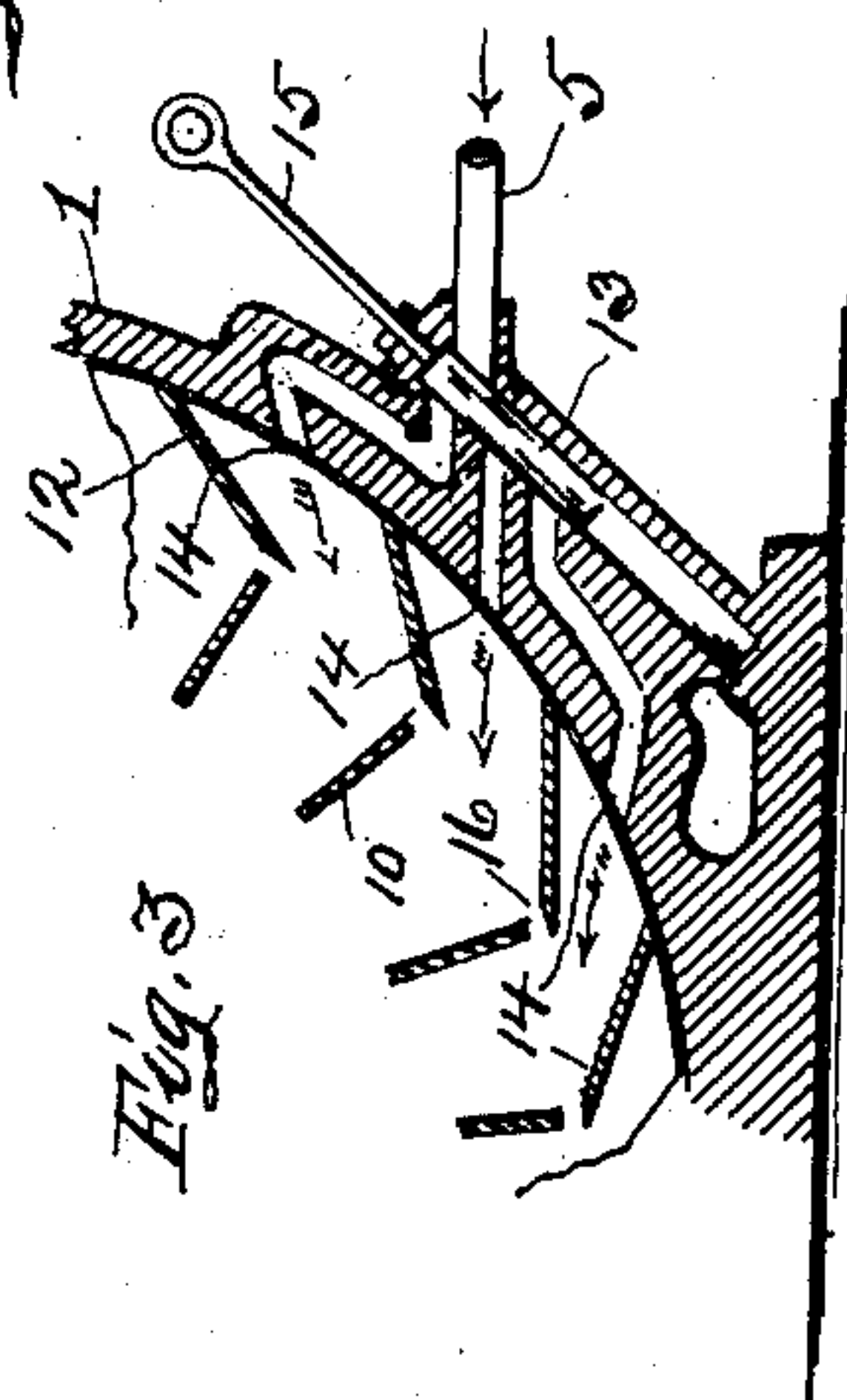
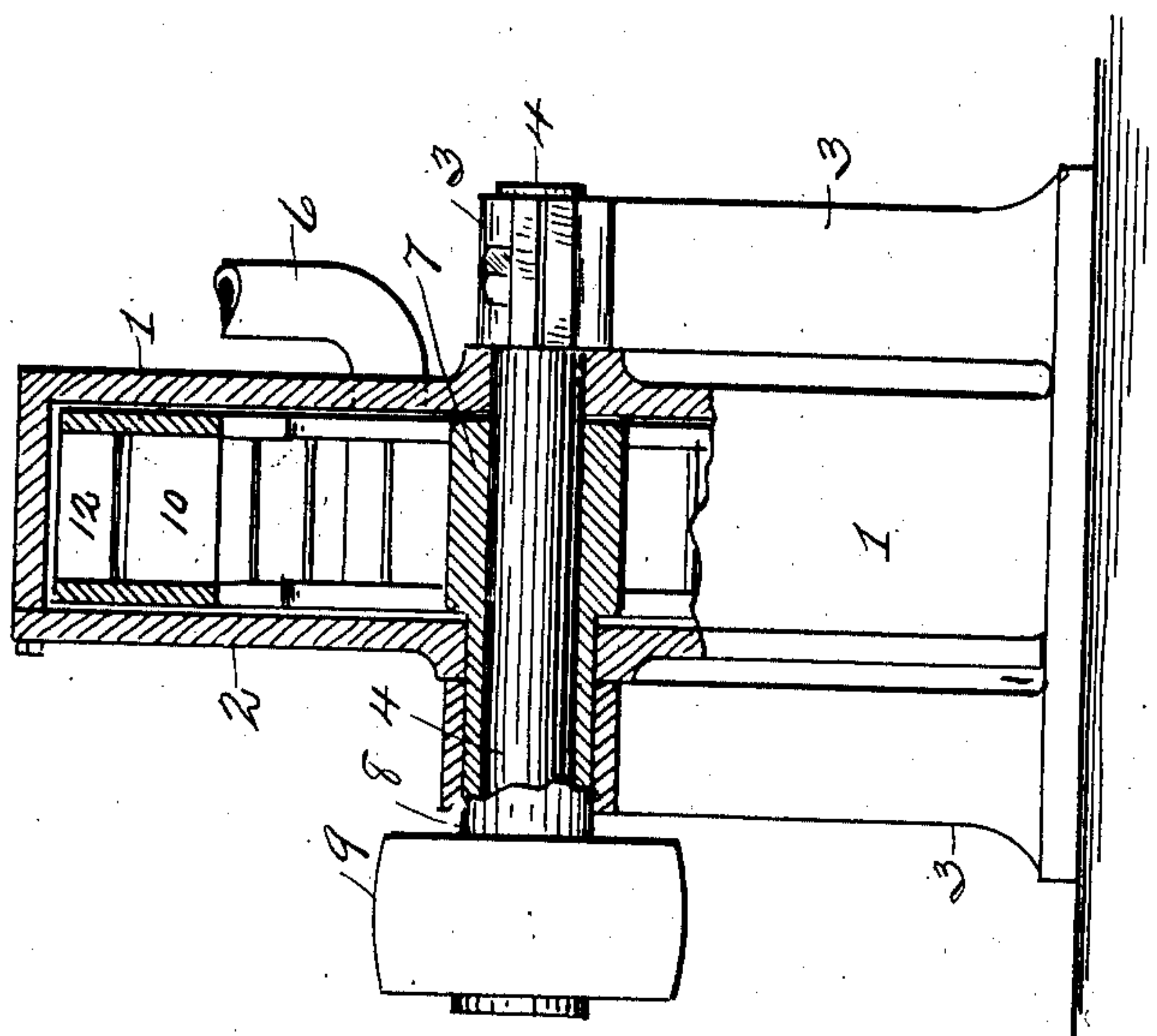
No. 839,967.

PATENTED JAN. 1, 1907.

W. SNEE.

ROTARY ENGINE.

APPLICATION FILED APR. 3, 1906. RENEWED DEC. 3, 1906.



Wishes:

Henry F. Weaver
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Unreklar.

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UNITED STATES PATENT OFFICE.

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ROTARY ENGINE.

No. 839,967.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed April 3, 1906. Renewed December 3, 1906. Serial No. 346,164.

To all whom it may concern:

Be it known that I, WILLIAM SNEE, a citizen of the United States, residing at West Elizabeth, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rotary Engines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to an improved rotary engine, the object being to provide an engine of this type that will be simple in construction, durable, and of small initial cost; and with these ends in view the invention consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a side central sectional elevation of my improved rotary engine, the same being constructed and arranged in accordance with my invention. Fig. 2 is an end elevation of the same, a part of the view being shown in vertical section the better to show the inner working parts. Fig. 3 is a side sectional elevation of a portion of the engine, showing a means whereby a series in multiple of steam-jets may be entered to give greater power to the engine.

To put my invention into practice, and thereby provide a rotary steam-engine, I form from cast metal an annular shell 1, fitted with a removable head 2, the said shell being of suitable diameter and width and having one or more steam-inlets 5 and an exhaust-port 6. Operating within this shell 1 and supported upon a stout shaft 4 is a rotatable head or piston, comprising a hub 7, rigidly attached to said shaft, and two annular parallel-arranged plates or rings 11, connected with said hub by integral arms. This hub 7 is formed with an extension 8 and supported in a bearing 3 and fitted with a power-wheel 9. Intermediate of the two parallel rings 11 are two sets of propeller-blades arranged at different angles, the one set 10 being in radial lines with the center of the engine and the other set 12 tangent with an inscribed circle. The outer or peripheral set

of propeller-blades 12 are arranged directly in front of the inner or radial set 10 in such manner that obtuse angles are formed between each pair of blades, as will be best seen at Fig. 2 of the drawings. These blades 10 and 12 are separated the one from the other, leaving an intervening space 16, which permits a partial flow of steam from one angle to the other ahead.

The operation is as follows: Steam or compressed air under pressure is admitted through the medium of the pipe or pipes 5, striking the outer propeller-blades at a deflecting angle, and is deflected to the inner or radial blades, meeting the same at a right angle to the axis of the engine, thereby obtaining the full forward or traveling pressure of the steam or air as each pair of propellers is presented by the rotatable motion thus imparted.

At Fig. 3 of the drawings I have shown a modified form of entering the steam-pressure which consists in arranging a slide or other valve 13 over a series of inlet-ports 14, each of said ports entering the cylinder at angles approximately at right angles to each propeller-blade presented. This valve may be manipulated by means of a lever 15 to open one or all of the ports at the same time.

It is obvious that various modifications and changes may be made in the details of construction without departing from the spirit of the invention. Therefore I do not wish to confine myself to the exact construction shown and described, but wish to claim all such modified forms as would come properly within the general scope of the invention.

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

1. A rotary engine, comprising an annular shell with inlet and outlet ports, a rotatable piston mounted within said shell, said piston being provided with two sets of propeller-blades, the inner set being arranged in radial lines and the outer set in lines tangent to an inscribed circle.

2. A rotary engine, comprising an annular shell with inlet and outlet ports, a rotatable piston mounted therein, said piston being provided with a plurality of series of propeller-blades arranged in radial and lines tangent to an inscribed circle, whereby each

pair of blades form an obtuse angle, the one with the other, as described.

3. A rotary engine, comprising an annular shell with inlet and outlet ports, a rotatable
5 piston mounted therein, said piston being provided with two sets of propellers, the inner set being arranged in radial lines and the outer set in lines tangent to an inscribed circle, said propeller-blades forming obtuse

angular lines, the one with the other, leaving to an intervening space between each pair of blades, as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM SNEE.

Witnesses:

HENRY F. WEAVER,
F. J. KERRIGAN.