

No. 890,918.

PATENTED JUNE 16, 1908.

U. G. MAYBERRY.
ROTARY ENGINE.

APPLICATION FILED MAR. 26, 1908.

Fig 1.

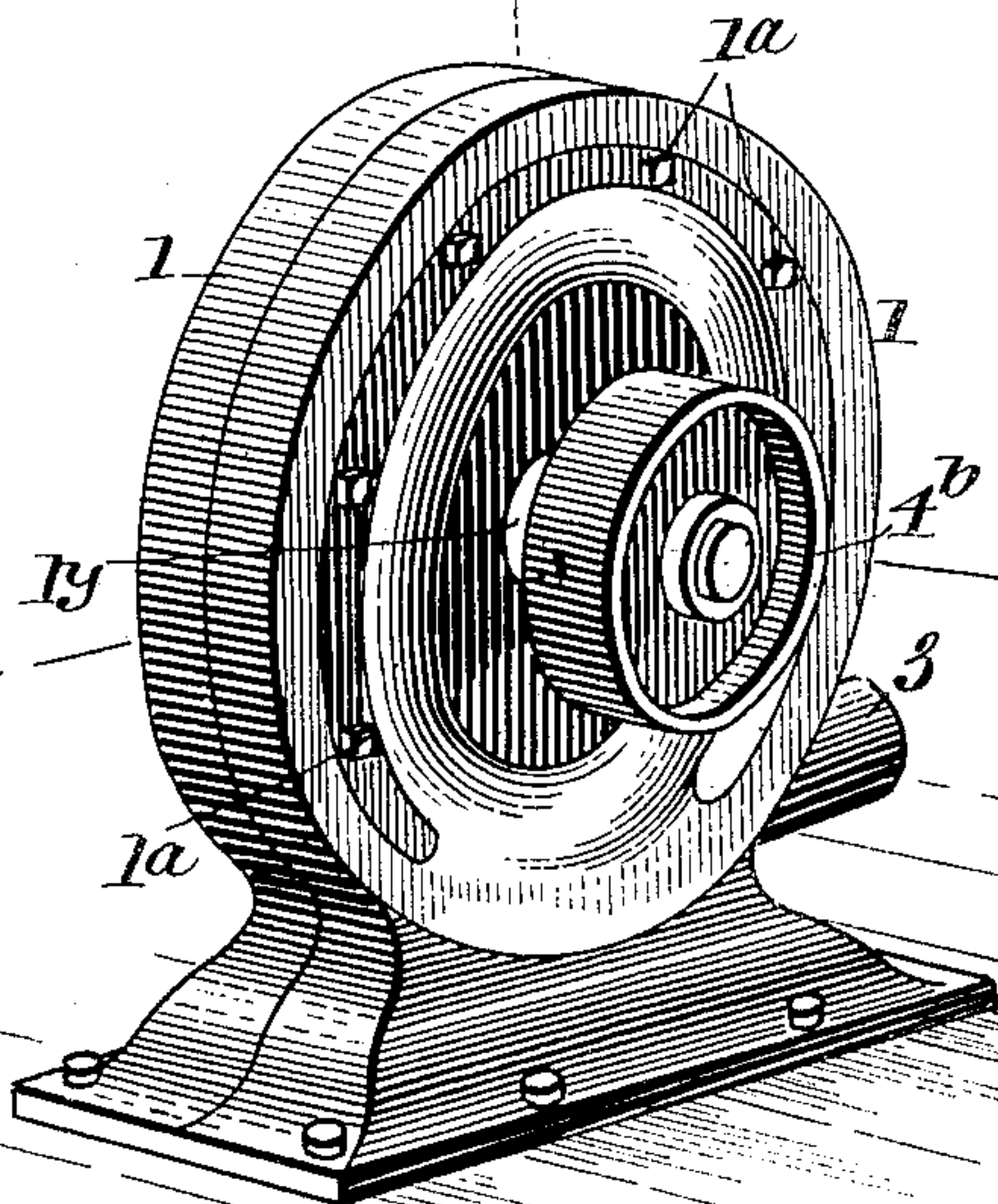


Fig 2.

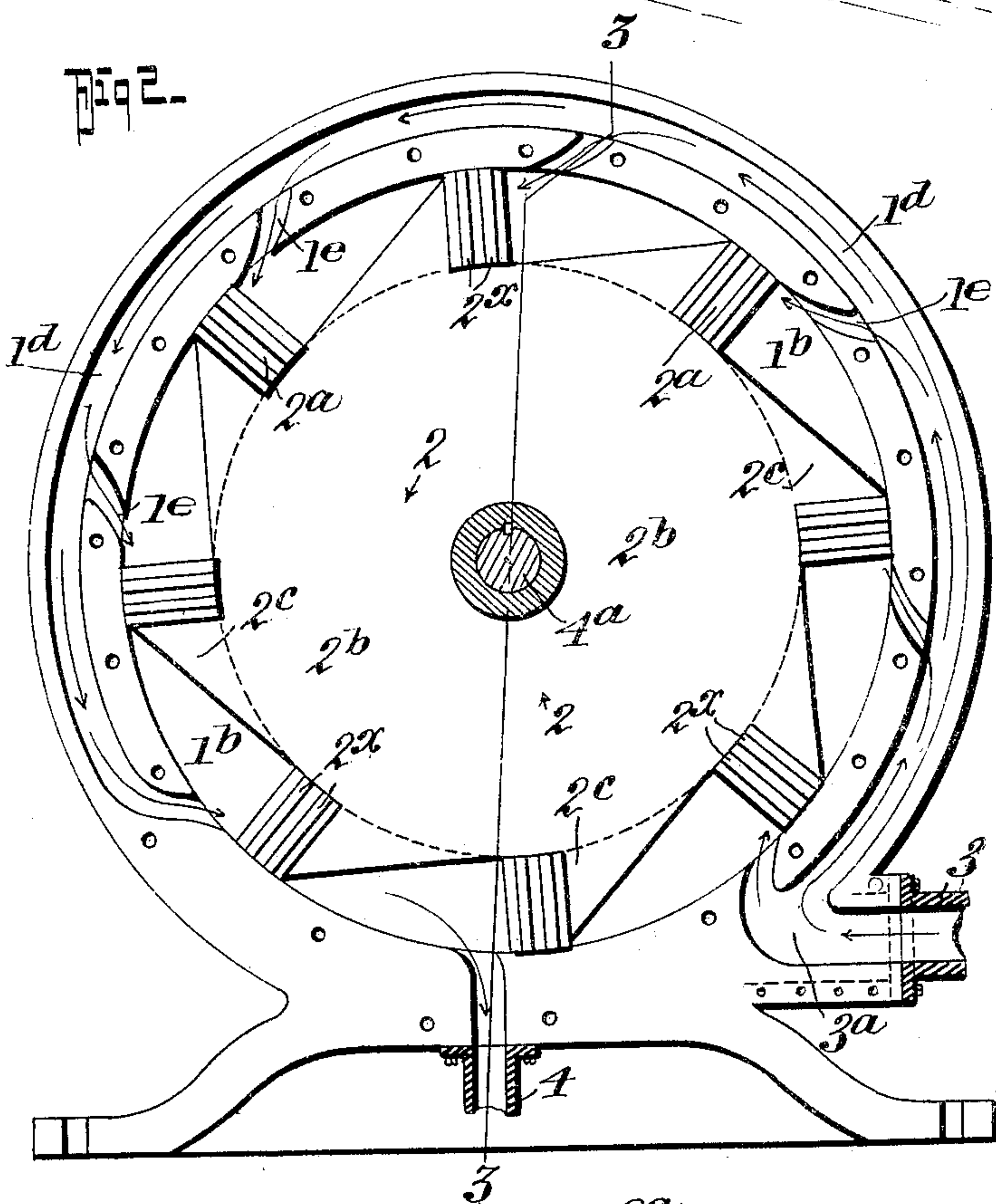


Fig 3.

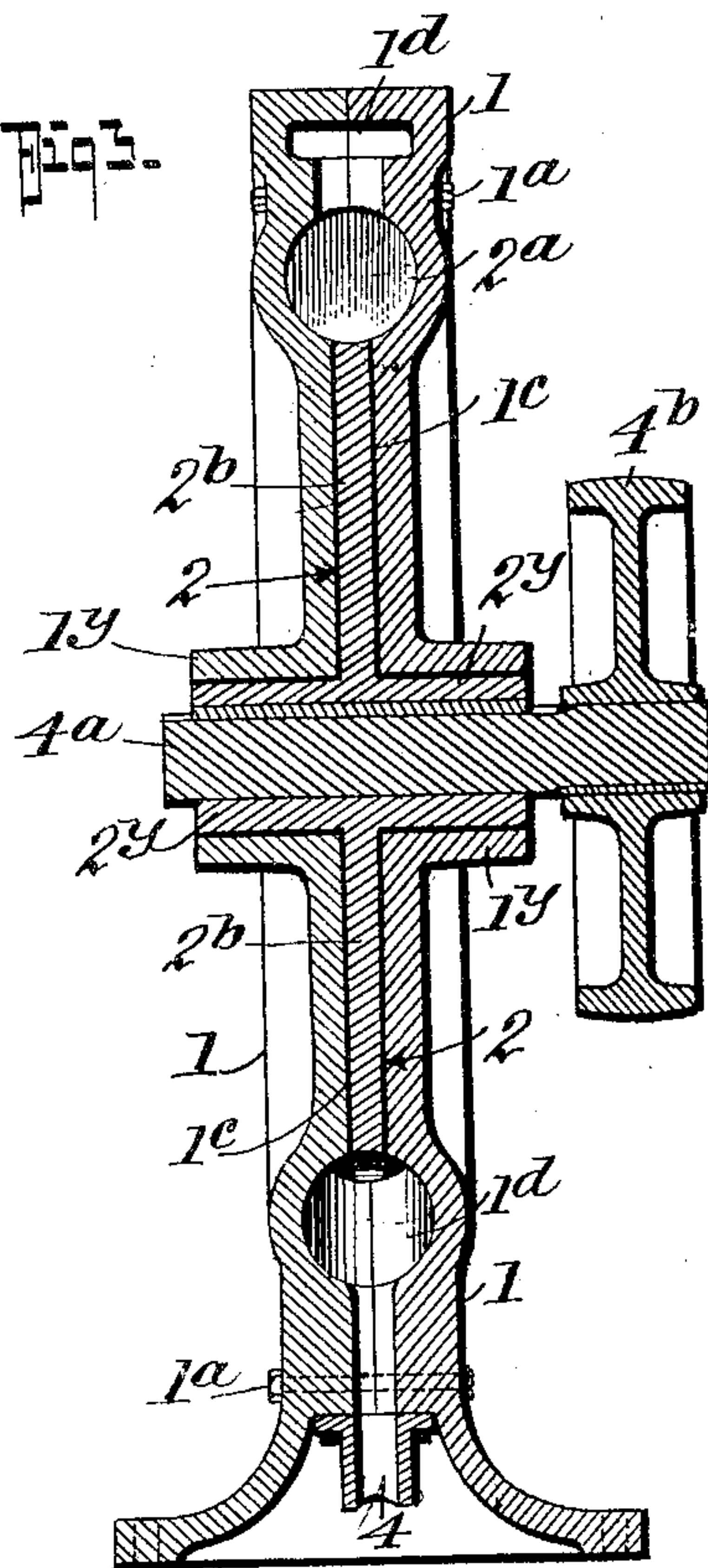
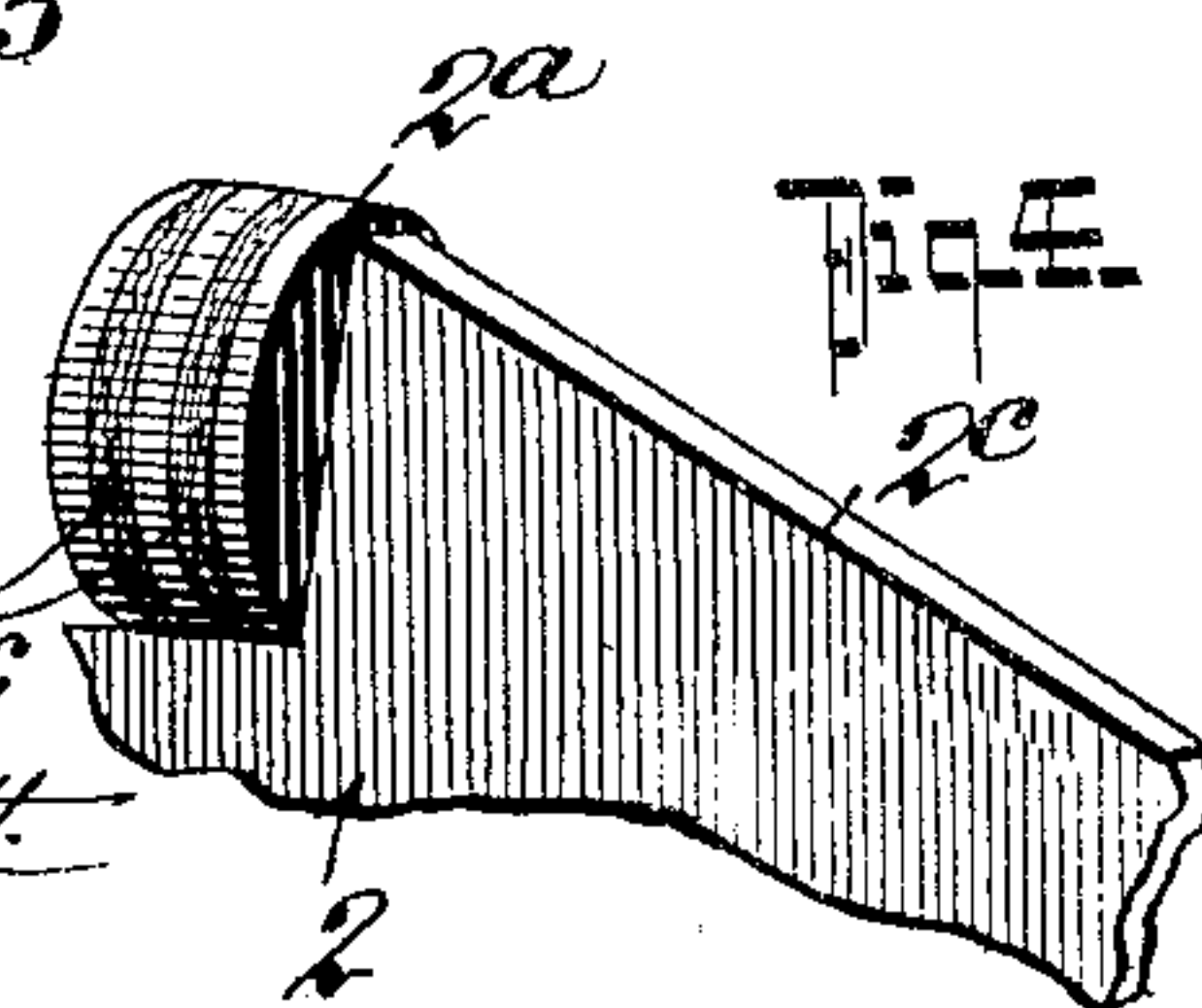


Fig 4.



WITNESSES:

Charles H. Wagner.

John T. Schrott.

INVENTOR
U. G. Mayberry.

BY

Fred G. Steiner & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ULISSIS G. MAYBERRY, OF LEXINGTON, OKLAHOMA, ASSIGNOR OF ONE-FOURTH TO JAMES JENKINS, OF LEXINGTON, OKLAHOMA.

ROTARY ENGINE.

No. 890,918.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed March 26, 1908. Serial No. 423,473.

To all whom it may concern:

Be it known that I, ULISSIS G. MAYBERRY, residing at Lexington, in the county of Cleveland and State of Oklahoma, have invented certain new and useful Improvements in Rotary Engines, of which the following is a specification.

My invention relates to certain new and useful improvements in rotary engines and in its generic nature, the invention embodies a casing in which is mounted a rotator having a series of pistons that operate in a piston chamber of the casing, the casing having an annular steam chest from which a series of ports lead the steam to the respective pistons of the piston chamber, a bottom exhaust being provided from said piston chamber for the spent steam and water of condensation, while an inlet pipe serves to convey the steam from the boiler or steam generator to the steam chest.

More specifically my invention resides in those novel details of construction, combination and arrangement of parts which will be first fully described, then specifically pointed out in the appended claims, and illustrated in the accompanying drawings, in which:—

Figure 1, is a perspective view of my invention. Fig. 2, is a central, vertical section thereof. Fig. 3, is a cross section on the line 3—3 of Fig. 2. Fig. 4, is a detail view of one of the pistons.

Referring now to the accompanying drawings, in which like letters and numerals of reference indicate like parts in all of the figures, 1 designates the casing which is made in two parts secured together by bolts 1^a, and provided with a piston chamber 1^b and a rotator disk chamber 1^c as well as an annular steam chest 1^d having ports 1^e to lead the steam into the piston chamber to impact the piston 2^a. The pistons 2^a are carried by a disk 2^b and webs 2^c in the rotator 2, the piston having suitable expansible packing rings 2^x as may be required in practice.

The steam is admitted to the steam chest 1^d from the supply pipe 3, through a port 3^a and is exhausted from the piston chamber 1^b, through the centrally disposed exhaust 4, which also serves as a drain for the chamber 1^b to convey off any water of condensation. The rotator 2 has a hub 2^y keyed to a shaft 4 which carries a pulley 4^a from which power may be taken, the casing 1 being provided

with bearings 1^y for the hub 2^y, as shown in Fig. 2 of the drawings.

In the practical operation of my invention steam is admitted to the steam chest 1^d, through the pipe 3 from any suitable source of steam supply and passes directly through the ports 1^e and impacts the pistons 2^a, thus forcing the rotator to turn with its shaft in the direction of the arrow in Fig. 2. Any desired number of pistons 2^a may be provided (8 being shown in the drawings) and a corresponding number less one of ports 1^e are also provided so that live steam will be admitted to all the pistons excepting that which happens to be located between the exhaust and inlet ports and thereby provide a maximum working piston area under the influence of the live steam to obtain a maximum power effect. The absence of valves and reciprocating parts enables my engine to run with little or no jar of vibration and provides a very high speed to be maintained.

The numerous other advantages of my invention will be readily apparent to those skilled in the art to which the invention appertains, and a further enumeration thereof herein is thought to be unnecessary.

I desire to say that many slight changes in the details of construction, combination and arrangement of parts may be readily made by the skilled mechanic without departing from the spirit of the invention, or the scope of the appended claims.

What I claim is:

1. In a rotary engine, a two-part casing inclosing an annular piston chamber and surrounding steam chest with ports communicating between the steam chest and the piston chamber at intervals, combined with a rotator mounted within the casing and comprising a disk body and a series of peripherally carried pistons operable in said piston chamber, together with means for admitting working agent into the steam chest, means for exhausting the working agent from the steam chamber, said last named means comprising a passage in the casing at the lowermost part of the piston chamber to serve as a working agent exhaust and a drain for the piston chamber said casing being parted in the central vertical longitudinal plane of the engine.
2. A rotary engine comprising a two-part casing, means for securing the parts of the casing together, said casing parts inclosing an

annular steam chest closed throughout a portion of its length, and an annular piston chamber surrounded by the steam chest, together with a rotator disk chamber, combined with a rotator mounted in said casing and comprising a disk mounted in said disk chamber, and a series of pistons at the periphery of said disk and operable in said piston chamber, said casing having ports between the steam chest and the piston chamber to project the steam against the piston and having an exhaust port from the piston chamber, and an inlet port to the steam chest.

15 3. A rotary engine comprising a two-part casing, means for securing the parts of the casing together, said casing parts inclosing an annular steam chest closed through a portion of its length, and an annular piston chamber

surrounded by the steam chest together with 20
a rotator disk chamber, combined with a rotator mounted in said casing, and comprising a disk mounted in said disk chamber, and a series of pistons carried at the periphery of said disk and operable in said piston chamber, said casing having ports between the steam chest and the piston chamber to project the steam against the piston and having an exhaust port from the piston chamber, an inlet port to the steam chest, a shaft upon 25
which said rotator is mounted, said rotator having a hub portion, and said casing having bearings for said hub portion. 30

ULISSIS G. MAYBERRY.

Witnesses:

F. J. HAWK,
JAMES JENKINS.