

E. E. HAUER.
 ROTARY MOTOR.
 APPLICATION FILED JAN. 18, 1912.

1,102,746.

Patented July 7, 1914.

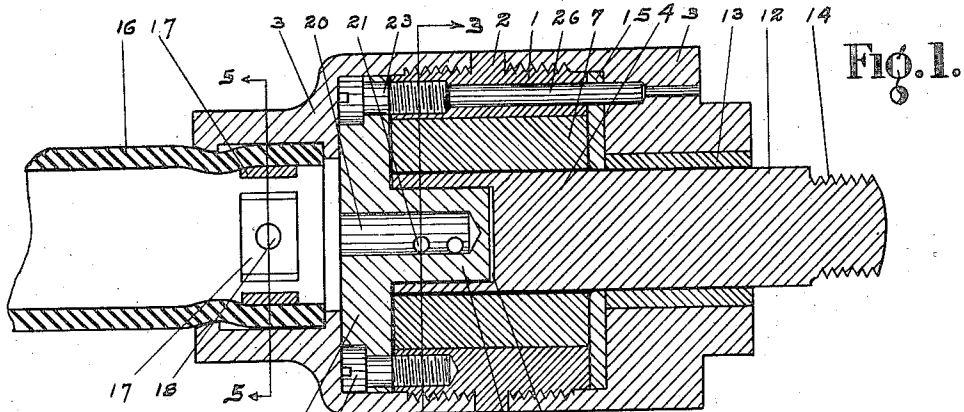


FIG. 1.

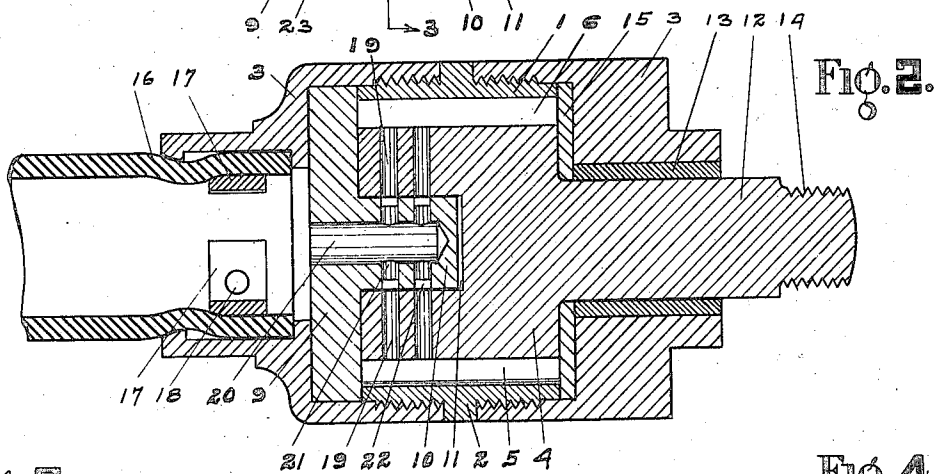


FIG. 2.

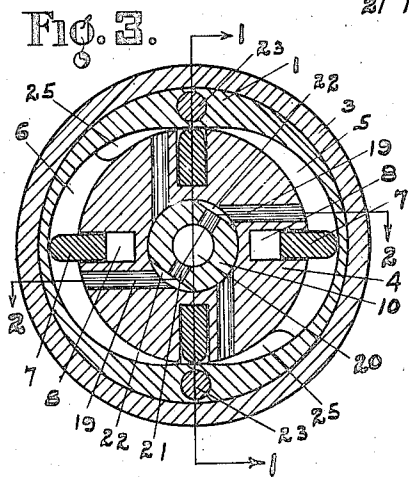


FIG. 3.

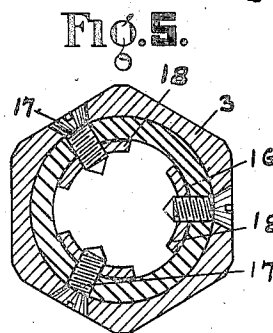


FIG. 5.

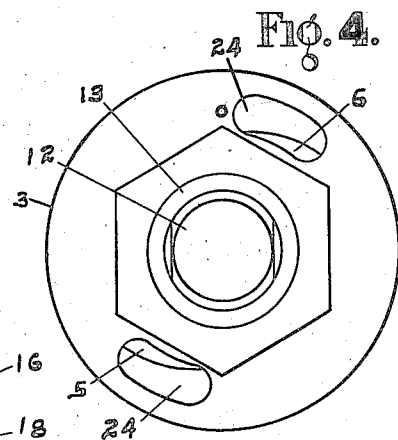


FIG. 4.

Witnesses

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334

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UNITED STATES PATENT OFFICE.

ELMER E. HAUER, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE LAGONDA MANUFACTURING COMPANY, OF SPRINGFIELD, OHIO, A CORPORATION OF OHIO.

ROTARY MOTOR.

1,102,746.

Specification of Letters Patent.

Patented July 7, 1914.

Application filed January 18, 1912. Serial No. 672,009.

To all whom it may concern:

Be it known that I, ELMER E. HAUER, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Rotary Motors, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to rotary motors and more particularly to a motor of this type adapted to drive boiler tube cleaners, although it may be used for other purposes.

The object of my invention is to provide a compact and efficient motor the parts of which are easily accessible for renewal and repairs.

A further object is to provide improved bearings to carry the rotary motor member.

With these and other objects in view my invention consists of the constructions and combinations hereinafter described and set forth in the claims.

In the drawings Figure 1 is a longitudinal section of a motor embodying my invention, said section being taken on the line 1—1 of Fig. 3. Fig. 2 is a like section taken on the line 2—2 of Fig. 3. Figs. 3 and 5 are cross-sections on the lines 3—3 and 5—5 respectively of Fig. 1 and Fig. 4 is a front end view of the motor.

Like numerals represent the same parts in the several views.

In the drawings 1 represents a motor cylinder having an outwardly projecting ring 2 forming an abutment. A two-part casing 3 having heads at its outer ends extends over and is screw-threaded to said cylinder with its inner ends tightened against said abutment.

In the present instance I have shown the motor cylinder forming a chamber of such dimensions that when the rotary motor member 4 is mounted therein it will contact with the walls of the chamber in two places opposite each other forming two oppositely disposed chambers 5 and 6 as particularly shown in Fig. 3. Piston blades 7 are seated in recesses 8 of the rotary member and are adapted to move radially into the chambers 5 and 6 in a well known manner.

A disk or partition 9 seated in one part of the casing 3 has an inwardly projecting portion 10 which extends into an axial recess 11 of the rotary motor member and

forms a bearing to carry the rear end of said member. Said rotary motor member is provided with a forwardly extending portion or shaft 12 journaled in an opening through the head of the other portion of said casing, said opening being preferably provided with a bushing 13; and said projecting portion or shaft is screw-threaded at 14 to attach the tool to be driven. A wearing plate or ring 15 is interposed between the rotary motor member and the front head of the casing. The rear head of the casing is provided with an opening in which a supply hose 16 is secured by segments 17 held by screws 18 as particularly shown in Fig. 5.

The motive agent is admitted to the chambers 5 and 6 through inlet ports 19 extending from the axial recess 11 through the rotary motor member and open in the rear of the piston blades as shown; and the disk or partition 9 is provided with an inlet 20 having ports 21 through its projecting portion 10 adapted to register with the ports 19 in the rotary motor member, said projection 10 having transverse slots 22 through which the ports 21 open to the ports 19 as particularly shown in Fig. 3. These ports are held in proper relation to each other by screws 23; and the disk or partition is retained in place by said screws when the rear part of the casing 3 is removed.

The front head of the casing is provided with segmental openings 24 to receive and discharge the exhaust from ports 25 in the plate or ring 15; and a dowel-pin 26 holds said ports in proper relation.

The constructions shown but not claimed herein are claimed in my application Serial Number 666,517, filed Dec. 18, 1911.

Having thus described my invention I claim:—

1. In a rotary motor, a casing having a supply head at its rear end and an exhaust head at its front end, a disk or partition having a stationary forwardly extending projection secured in front of said supply head, a rotary motor member having an axial recess into which said projection extends and forms a bearing therefor, said rotary motor member also having a forwardly extending shaft journaled in and projecting through an opening in said exhaust head and adapted to attach the tool to be driven.

2. In a rotary motor, a casing having oppositely disposed supply and exhaust heads, a disk or partition having a stationary projection extending therefrom with ports therethrough secured in front of said supply head, a rotary motor member having an axial recess into which said projection extends forming a bearing therefor, said rotary motor member also having ports adapted to register with the ports in said projection and a forwardly projecting shaft journaled in and extending through an opening in the exhaust head and adapted to attach the tool to be driven.

3. In a rotary motor, a motor cylinder having an abutment, a rotary motor member, a two-part casing having heads at its outer ends, secured over said cylinder

against said abutment, said rotary motor member having a projection journaled in an opening in one of said heads, the other head having a supply opening with a disk or partition seated therein having a projection extending into a recess in said rotary motor member forming a bearing therefor, said disk or partition and its projection having ports therethrough adapted to register with ports extending through said rotary motor member.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

ELMER E. HAUER.

Witnesses:

GROVER ILGEN,
OLIVER H. HAUSE.