Jan. 16, 1923. 1,442,787

J. SCHEMINGER, JR.
ROTARY PUMP WITH PRIMING CHAMBER,
FILED AUG. 27, 1919.

FIG. 1

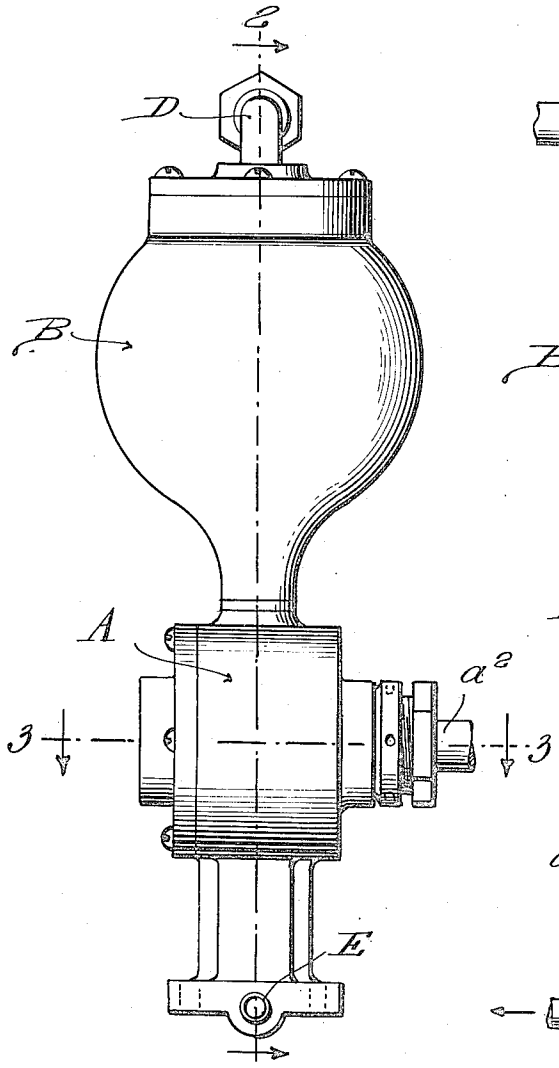


FIG. 2

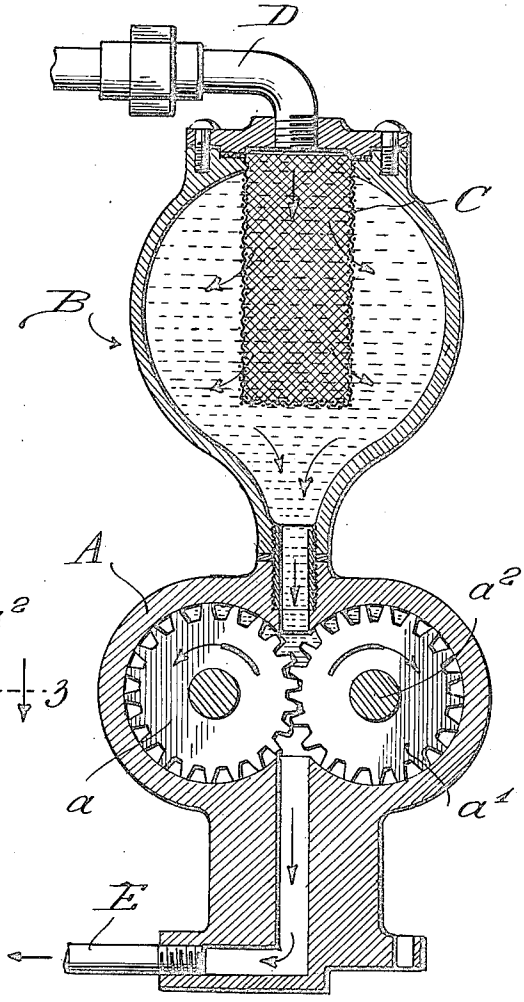
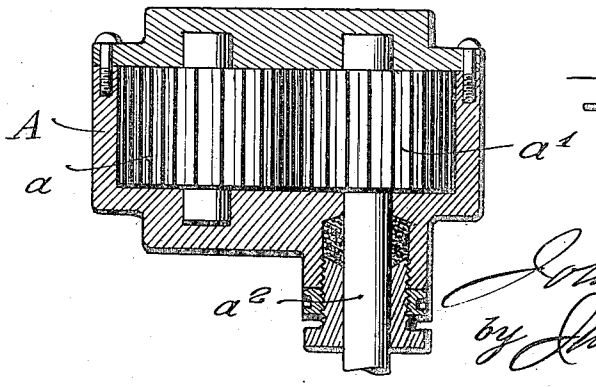


FIG. 3



Inventor
John Scheminger Jr
by Julius A. Dowell
his Attorney

Patented Jan. 16, 1923. 1,442,787

UNITED STATES PATENT OFFICE.

JOHN SCHEMINGER, JR., OF PROVIDENCE, RHODE ISLAND.

ROTARY PUMP WITH PRIMING CHAMBER.

Application filed August 27, 1919. Serial No. 320,211.

To all whom it may concern:

Be it known that I, JOHN SCHEMINGER, Jr., a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Rotary Pumps with Priming Chambers; and I do hereby 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.

This invention relates to pumps, and more particularly to rotary pumps especially designed for use in feeding rotary oil burners, but capable of general application for various purposes.

In using rotary pumps as heretofore ordinarily constructed, when the pump is stopped and stands idle for a short time any liquid remaining in the pump chamber will gradually escape between the pistons and allow the chamber to be filled with air, and in order to start the pump, it becomes necessary to fill the pump chamber with liquid to a sufficient extent to expel the contained air and enable the pistons to produce the required suction for drawing the liquid from a source of supply into the pump chamber.

The object of my invention is to provide a pump with means to retain sufficient oil or other liquid therein and above the pump chamber when the pump is idle to enable the user to start the pump without priming as is usually necessary in pumps as heretofore ordinarily constructed, together with means to prevent the passage of impurities through the pump and into the burner or other device with which the invention is used.

The invention will first be hereinafter more particularly described, with reference to the accompanying drawings, which are to be taken as a part of this specification, and then pointed out in the claims at the end of the description.

In said drawings

Fig. 1 is a side elevation of a rotary pump embodying my invention;

Fig. 2 is a vertical sectional elevation of the same; and

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1.

Referring to said drawings, in which the same reference letters are used to denote corresponding parts in different views, the letter A denotes the pump casing in which are fitted the rotatable pistons a and a^1; the interior of the casing being recessed to receive and provide bearings for the ends of the shaft on which the piston a is mounted and one end of the driving shaft a^2, which carries the piston a^1. The shaft a^2 protrudes through a stuffing box of any suitable construction to prevent leakage, and may be driven in any suitable manner. On the pump casing is mounted a priming chamber B, which, in the form shown, is of globular construction and has secured thereon a removable cap b. Said priming chamber is constructed with a reduced lower end portion or neck, which is attached to the pump chamber by means of an exteriorly threaded sleeve having one end screwed into said neck and the other end screwed into a socket in the pump casing directly over the inlet thereto, so as to provide a restricted passage for the liquid flowing out of the priming chamber into the pump chamber, and when the pump is stopped and allowed to remain idle for a sufficient length of time to permit the liquid therein to escape, the pump chamber will be gradually replenished by the liquid contained in the priming chamber flowing through such restricted passage into the pump chamber by gravity until its entire contents are emptied, thus insuring a sufficient supply of water for starting the pump when allowed to remain idle for a considerable length of time, without the necessity for priming. A strainer C is suspended within the priming chamber by having a marginal portion of its upper end clamped between said cap and the top of the priming chamber, as shown in Fig. 2, in order that the cap may be removed and the strainer taken out for cleansing or other purposes, or to permit the substitution of a new strainer which may be secured in place when the cap is replaced in the manner described. The cap b has an opening therethrough in which is screwed the threaded end of an elbow D or one terminal of a pipe leading from a tank or other source of supply, from which liquid may be drawn by the pump and forced into a burner or other device through the discharge pipe E at the base of the pump casing.

In operation, liquid will be drawn from the tank or other source of supply into the priming chamber B, through the strainer C, and thence through the pump and out of the pipe E, and when the pump is stopped and allowed to remain idle for a considerable

time the liquid in the chamber B will afford a sufficient supply for starting the pump without the necessity for priming.

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

1. A rotary pump with priming chamber for feeding oil burners, comprising a pump casing having a priming chamber of globular form mounted thereon, said priming chamber having a lower reduced outlet portion secured to the pump casing by means of a threaded sleeve having one end screwed into said lower outlet and its other end screwed into said pump casing so as to form a constricted passage leading from the priming chamber directly into the pump chamber, said priming chamber also having a circular opening in its top, a removable cover-plate for said opening, an inlet pipe threaded to an opening in said cover-plate, a cylindrical strainer having its upper end in open communication with said inlet pipe and suspended in said chamber by an integral marginal flange clamped between the outer edge of the opening in said top and the under face of said cover plate, a chamber in said pump casing having a passage therethrough in direct alignment with said constricted passage through which fuel will gradually discharge into the pump chamber when the pump is idle, and a fuel outlet at the base of the pump chamber in direct vertical alignment with said pump chamber, constricted passage and inlet pipe.

2. A rotary pump for feeding oil burners, comprising a casing having pistons revoluble therein, a priming chamber of globular form mounted on said casing, said chamber having a lower reduced portion or neck, a threaded sleeve having one end screwed into said neck and the other end screwed into said casing in alinement with the inlet to said casing, said sleeve forming a constricted passage leading from the priming chamber directly into the pump chamber; said priming chamber having an opening in its top, a removable cover for said opening, a cylindrical strainer suspended in said chamber by an integral marginal flange clamped between said top and cover-plate and an inlet pipe entering an opening through said cover, whereby the priming chamber is adapted to gradually discharge its contents into said pump chamber when the pump is idle, so that the pump may be started without priming.

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

JOHN SCHEMINGER, JR.

Witnesses:
B. M. OFFUTT,
THOMAS F. BURKE.