July 21, 1925. 1,546,997

W. A. RESCHKE

MOTOR DRIVEN PORTABLE OIL TRANSFER PUMP

Filed April 26, 1924

Fig. 1.

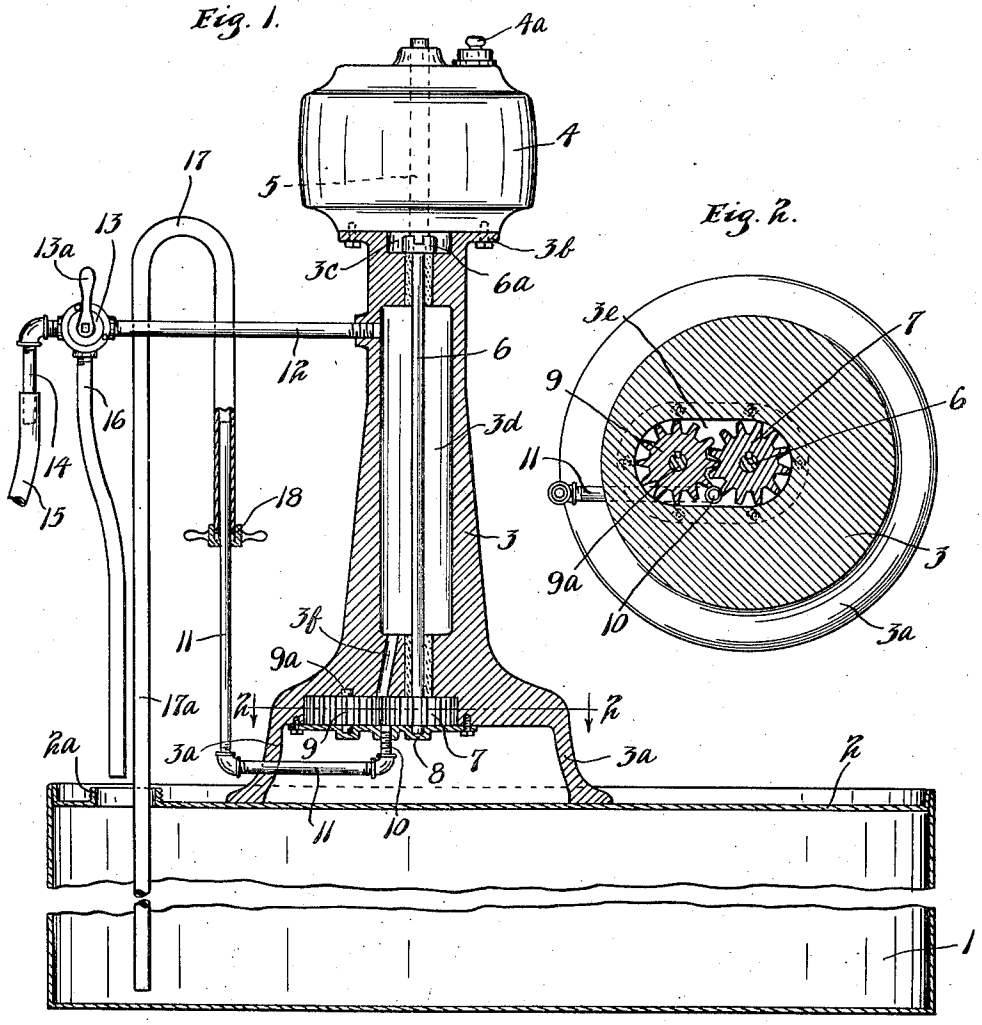


Fig. 2.

Fig. 3.

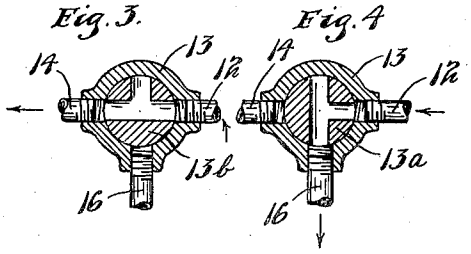


Fig. 4

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Patented July 21, 1925. 1,546,997

UNITED STATES PATENT OFFICE.

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MOTOR-DRIVEN PORTABLE OIL-TRANSFER PUMP.

Application filed April 26, 1924. Serial No. 709,141.

To all whom it may concern:

Be it known that I, WILLIAM A. RESCHKE, a citizen of the United States, residing at Farmington, in the county of Dakota and State of Minnesota, have invented certain new and useful Improvements in Motor-Driven Portable Oil-Transfer Pumps; 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 a dispensing device and particularly to such a device adapted to dispense liquids from barrels or other containers. As is well known, certain oils and other liquids, such as vinegars, are dispensed by retail merchants, such dispensing frequently being from a barrel or similar container.

It is an object of this invention to provide a dispensing device which is easily portable, which may readily be transferred from one barrel or container to another and which can be used conveniently to draw and dispense the liquid from the barrel without being positively attached thereto.

It is a further object of the invention to provide such a device comprising a frame adapted to rest on one end of the container, which frame carries a motor and a pump operated thereby, said pump having an inlet conduit together with a conduit adapted to extend into the barrel or container and which is adjustably connectible with said inlet conduit.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to the same parts throughout the different views, and in which,

Fig. 1 is a view partly in front elevation and partly in vertical section of the device;

Fig. 2 is a horizontal section taken on the line 2—2 of Fig. 1;

Fig. 3 is a vertical central section through the dispensing valve used; and

Fig. 4 is a view similar to Fig. 3 showing the valve in a different position.

Referring to the drawings, a container 1 is illustrated adapted to hold liquid. While this container may be of various forms, in the embodiment of the invention shown it is illustrated as in the form of a barrel or metal cylinderical member having a flanged closing head 2. The head 2 has a threaded nipple or spout 2^a which receives a closing cap and forms the filling and dispensing opening for the container.

In accordance with the present invention, a dispensing device is provided comprising a frame member 3 having a base portion provided with a supporting flange 3^a and a top flanged portion 3^b to which latter portion is bolted a motor 4 preferably of the electrical type. Said motor 4 has a driving shaft 5 connected by a tongue and slot connection to the head 6^a of a shaft 6, which latter shaft is journaled in the upper portion of the frame 3 and which head 6^a is disposed in a recess 3^c in the top of said frame. The shaft 6 is also journaled in the lower portion of the frame 3 and has secured adjacent its lower end a gear 7, the lower end of the shaft 6 being received in a recess or bearing in a step bearing plate 8 suitably bolted to the flat bottom of the base of frame 3. The gear 7 meshes with a similar gear 9 having a stub shaft 9^a, the ends of which are journaled, respectively, in the plate 8 and in frame 3. The gears 7 and 9 constitute a gear pump and are disposed in an oval chamber 3^e in the frame 3, as clearly shown in Fig. 2. The frame 3 also has a central chamber 3^d therein of considerable extent and illustrated as of cylindrical form the bottom of which a passage 3^f leads to the chamber 3^e and which communicates with said chamber at one side of the meshing portions of the gears 7 and 9 and at such side toward which the gears move. A nipple 10 is threaded into the step plate 8 and communicates with the chamber 3^e at the other side of the meshing portions of the gears 7 and 9, namely, the side away from which said gears move. The nipple 10 communicates with a conduit or pipe 11 comprising suitable elbows, which pipe extends horizontally through the flange 3^a and then vertically at one side of the frame 3. The upper portion of the chamber 3^d has a pipe 12 communicating therewith threaded into a boss on the frame 3, which pipe 12 extends horizontally to a valve 13 having a suitable operating handle 13^a, and a dispensing conduit or pipe 14 is connected to the opposite side of said valve. The pipe 14 may be connected to any suitable flexible conduit or hose 15, as desired. The valve 13 is a three-way valve, as illustrated in Figs. 3 and 4 and a pipe or conduit 16 ex-

tends from the lower portion thereof. It will be seen that when the revoluble portion 13[b] of the valve is turned, as shown in Fig. 3, that liquid will flow from the pipe 12 to the pipe 14 but that when the valve is turned, as shown in Fig. 4, the liquid will flow from the pipe 12 to the conduit or pipe 16.

An inverted U-shaped pipe or conduit 17 is provided having one comparatively short arm adapted to fit over the upper end of the cap 11 and is adjustable thereon, the end of said arm being provided with a handle-equipped cap 18 forming a manipulating means for the member and which may also form a stuffing gland to insure a tight fit between the pipes 17 and 11. The member 17 has a long arm 17[a] adapted to extend down through the flange or spout 2[a] into the container 1. It will be noted also that the pipe 16 is arranged so that its lower open end is disposed over the nozzle or spout 2[a].

In operation, when it is desired to dispense the liquid from a barrel or other container, the frame 3, with the member 17, is placed on top of the barrel. The said frame has sufficient weight to remain on the barrel in very stable equilibrium. The member 17 which, preferably will be raised somewhat is now adjusted so that its long arm 17[a] projects down into the liquid in the container. The motor 4 will be equipped with the usual connections, such as a cord and plug so that it conveniently can be connected with a suitable source of power, such as an electric socket. The motor will then be driven, as will the gears 7 and 9, and the oil or other liquid will be pumped up through the member 17 to pipe 11, through the chamber 3[d] and out through the pipe 12. The valve 13 will be turned so as to cause the liquid to flow into the dispensing conduit 15 by which it can be directed to the desired place or container. If it is desired to cease the delivery through the pipe 15 the valve 13 will be turned so that the liquid will flow through the pipe 16 into the nozzle 2[a] and thus back into the container. This is often desirable while the motor is being stopped. The device can be wholly drained by tipping the same so that all of the liquid therein will flow out through the pipes 12 and 16. The member 17 can be adjusted down to the barrel as the level of the liquid is lowered therein and will be of sufficient length to reach the container so that all liquid can be pumped therefrom. The motor is easily controlled by means of the usual switch or rheostat handle 4[a].

From the above description it is seen that applicant has provided a very simple, compact, convenient device which will have great utility and be very convenient for dispensing liquids from a container, or transferring them to another container. The device is readily portable and can easily be transferred from one container to another. With the use of the device it is unnecessary to screw a faucet onto the barrel or container. The liquid is quickly pumped by power and the motor is easily controlled. The device has been amply demonstrated in actual practice and found to be very successful and efficient.

It will, of course, be understood, that various changes may be made in the form, details, arrangement and proportions of the parts without departing from the scope of applicant's invention, which, generally stated, consists in such a device as shown and described and defined in the appended claims.

What is claimed is:

1. A liquid dispensing device for a barrel or similar container comprising a frame having a base with a recess therein adapted to rest on the end of said container, a motor mounted on top of said frame, a pump in the bottom of said frame above said recess driven by said motor, an intake pipe for said pump carried by said frame and extending downwardly from said pump into said recess laterally through said base and vertically at the side of said frame, and means adapted to extend into said container varying distances and to be adjustably connected to said intake pipe.

2. A liquid dispensing device for a barrel or similar container comprising a frame having a supporting base adapted to rest on a barrel head said base having a recess therein, a motor mounted at the top of said frame, a pump in said frame above said recess driven by said motor, an intake pipe for said pump carried by said frame and extending vertically at the side thereof laterally into said recess and connected to said pump, and an inverted U-shaped conduit having one end adapted to extend into said barrel and its other end adapted to be adjustably connected with said intake pipe.

3. The structure set forth in claim 2, said frame having a central chamber therein connected to the outlet of said pump and an outlet pipe from said chamber, a three-way valve connected thereto, a discharge pipe and a drain pipe connected to said valve.

4. A liquid dispensing device for a container comprising a vertically extending frame having a base adapted to rest on a barrel head, said base having a recess therein, a motor carried at the top of said frame, a shaft driven by said motor, a gear on said shaft disposed in a chamber in said frame, another gear meshing with said gear and forming therewith a pump, an inlet pipe connected to said chamber and extending downwardly into said recess, then laterally and vertically at one side of said frame, said frame having an outlet passage for

said pump communicating with said chamber and having an upper chamber in which said passage is connected, a discharge pipe connected to said upper chamber and an adjustable pipe having one portion adapted to extend varying distances into the container and another portion adapted to be adjustably connected to said intake pipe.

5. A liquid dispensing device for a barrel comprising an upstanding frame of generally cylindrical shape having an enlarged base flange adapted to rest upon the end of said barrel and enclosing a space at the bottom of said frame, said frame also having a flange at its top, a motor mounted on said latter flange and disposed above said frame, a shaft journaled centrally in said frame and connected to said motor, said frame having a chamber at its bottom portion, a step plate secured to the bottom portion of said frame forming one side of said chamber, a gear on the lower end of said shaft disposed in said chamber, a second gear meshing therewith to form a pump, an intake pipe extending substantially horizontally through said base flange and upwardly through said plate into said chamber and forming an intake for said pump, said intake pipe extending vertically outwardly of said base flange, said frame having a central cavity therein, a passage connecting the same to said chamber, a pipe connected to said frame communicating with said cavity and forming a discharge pipe for said pump, and an inverted U-shaped pipe having one arm adapted to extend varying distances into said barrel and having another end adapted adjustably to be secured to said intake pipe.

6. A liquid dispensing device for a barrel or similar container having in combination, an upstanding frame having a base adapted to rest on the barrel, a motor mounted on top of said frame, a pump in said frame driven by said motor, an inlet pipe for said pump upstanding at one side of said frame, and an inverted U-shaped conduit having a short leg adapted to fit over and move vertically on said intake pipe and a longer leg adapted to extend downward into said barrel.

In testimony whereof I affix my signature.

WILLIAM A. RESCHKE.