(No Model.)

E. McG. TURNER.

PUMP.

No. 305,982. Patented Sept. 30, 1884.

Fig. 1.

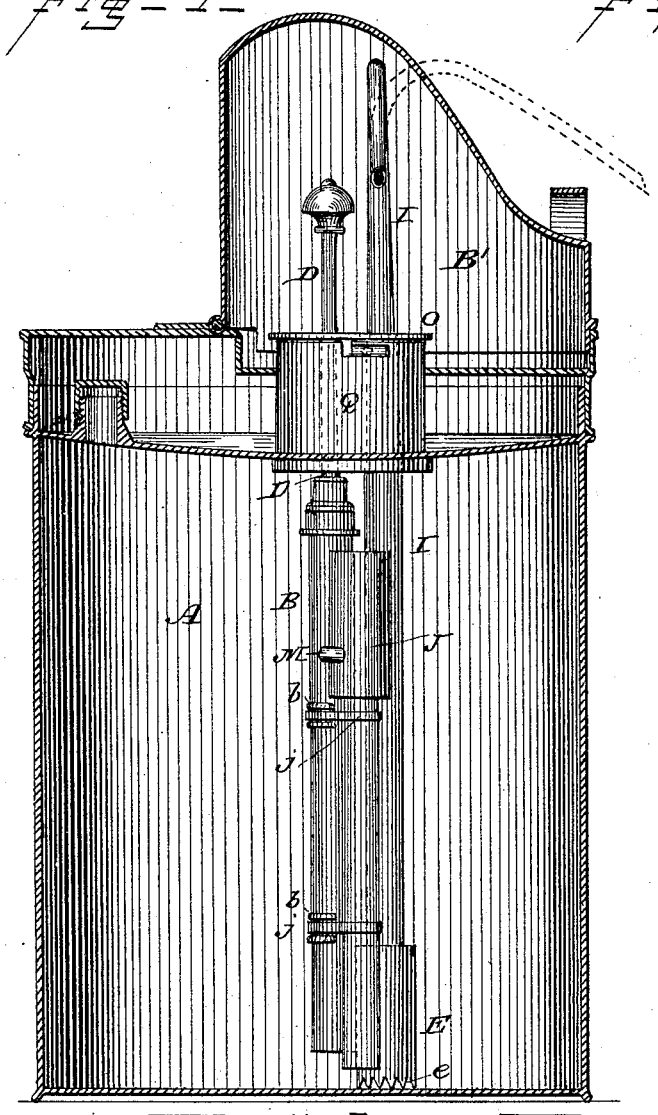


Fig. 2.

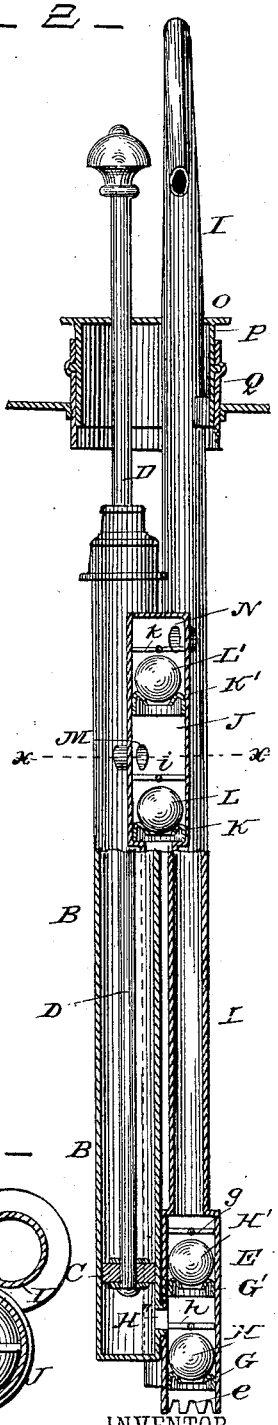


Fig. 4.

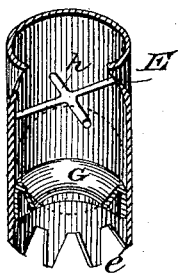
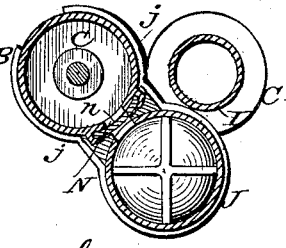


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD McG. TURNER, OF KNOXVILLE, TENNESSEE, ASSIGNOR TO ALVIN A. YEAGER AND SQUIRE S. HEATH, BOTH OF SAME PLACE.

PUMP.

SPECIFICATION forming part of Letters Patent No. 305,982, dated September 30, 1884.

Application filed March 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD McG. TURNER, a citizen of the United States, and a resident of Knoxville, in the county of Knox and State of Tennessee, have invented certain new and useful Improvements in Oil-Can Pumps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical sectional view of an oil-can provided with my improved pump. Fig. 2 is a vertical sectional view of the pump removed from the can, and showing it on an enlarged scale. Fig. 3 is a cross-section through line *x x* in Fig. 2, and Fig. 4 is a detail view of a portion of one of the valve-chambers with its dished valve-seat.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to pumps for oil tanks or cans of that class which are used for dispensing oils of any kind—such as kerosene-oil or coal-oil in grocery-stores, or for dispensing castor-oil or other oils for medicinal use in drug-stores; and it consists in certain improvements in the construction of the same, which will be hereinafter more fully described and claimed.

In the accompanying drawings, A denotes the can, and B′ the hinged hood or top of the same.

I prefer to use in connection with my improved pump the improved can invented by me, which forms the subject of a separate application for patent; but my pump may be used with any other can, if desired.

B is the plunger-cylinder, in which works the plunger or piston C, which is operated by the piston-rod D, having a suitable handle at its upper end.

Affixed to one side of the plunger-cylinder, near its lower end, is the valve-chamber E, which consists of a cylinder suitably fastened to that part of the plunger-cylinder B, and extending down to the bottom of the can, where it is provided with slots or notches *e*, forming inlets to the chamber. In the bottom of this valve-chamber is fixed an annular dished seat, G, adapted to fit the ball-valve H. Valve-chamber E communicates with pump-cylinder B through an opening, H″, in one side of the same, and in the upper part of the valve-chamber is placed an additional ball-valve, H′, adapted to fit upon the annular dished seat G′. The upward play of the valves H′ and H in the valve-chamber is limited by the cross-bars *g* and *h*, and the top of the valve-chamber communicates with the discharge-tube I, which extends up through the top of the can.

Near the upper end of the plunger-cylinder B is fastened another valve-chamber, J, having, like the lower valve-chamber, E, two dished inside valve-seats, K and K′, and two ball-valves, L and L′, which are confined between their respective seats and the cross-bars *i* and *k*. This upper valve-chamber, J, communicates with pump-cylinder B through an aperture, M, in one side of the same, and with the discharge-tube I through an aperture, N, in the upper part of valve-chamber J, above its upper valve, L′.

Upon discharge-tube I is fixed horizontally a circular plate or cap, O, having a downward-projecting rim or collar, P, adapted to fit into the fixed sleeve Q, which projects upwardly from the top of the oil-can tray. Suitable means are provided for attaching collar P to the sleeve Q, into which it is inserted.

I have found in practice that where the can and pump are to be used for dispensing heavy oils—such as castor-oil—the upper valve-chamber, J, may be advantageously omitted, using the pump with the lower valve-chamber, E, only, and thus forming a single-acting pump. This is for the reason that heavy oils of a viscid nature flow too slowly to fill both chambers between the reciprocations of the plunger, so that better results will be obtained with that class of oils with a single-acting pump. To this end I may construct the upper valve-chamber, J, in such a manner that it may either be removed from the plunger-cylinder B altogether, or it may be hinged to one side of the same, so as to be swung to one side when not in use. In that case the aper-

ture or inlet M between the plunger-cylinder and the upper valve-chamber is closed by a slide, *n*, as shown in Fig. 3.

If it is desired to make the upper chamber, J, detachable from the plunger-cylinder, I construct it with spring-arms *j j*, adapted to clamp around cylinder B, so as to hold the chamber properly in its position when in use.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In an oil-can pump, the combination of the plunger-cylinder B, closed at its lower end and having side apertures, H″ and M, lower valve-chamber, E, fastened to one side of the plunger-cylinder and projecting below the bottom of the same, having inlets *e*, dished valve-seats G G′, and ball-valves H and H′ on opposite sides of the inlet or aperture H″, discharge-tube I, connecting at its lower end with the top of valve-chamber E, and upper valve-chamber, J, attached to one side of the plunger-cylinder, and having dished valve-seats K K′, and ball-valves L and L′ on opposite sides of the inlet or aperture M, and communicating with the discharge-tube I through the aperture N in the upper part of the valve-chamber, substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

EDWARD McG. TURNER.

Witnesses:

AUGUST PETERSON,

LOUIS BAGGER.