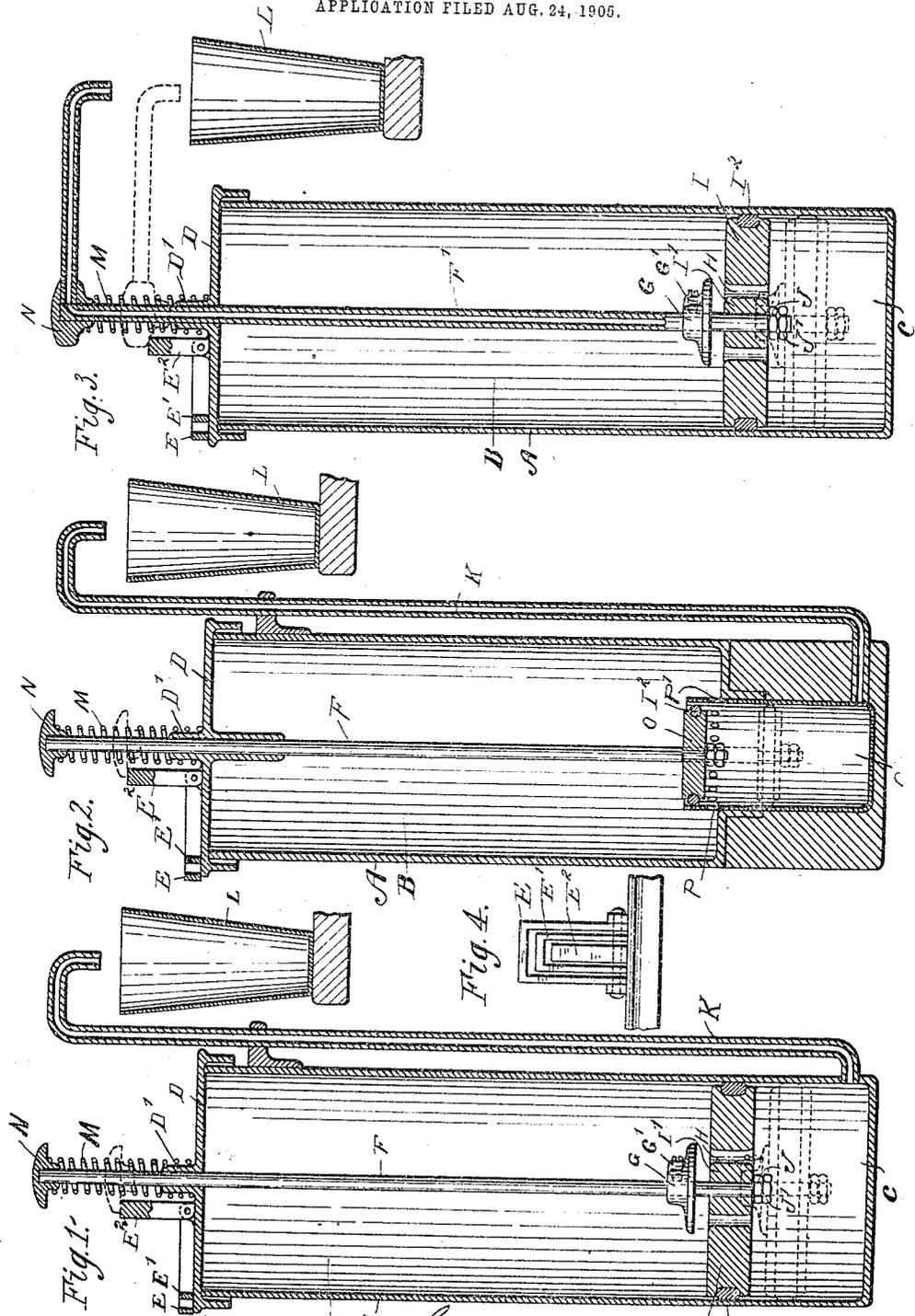


No. 831,758.

PATENTED SEPT. 25, 1906.

G. YANACOPOULO.  
LIQUID MEASURING PUMP.  
APPLICATION FILED AUG. 24, 1905.



Witnesses:  
John H. Lynch  
Fred Veitch

George Yanacopoulos Inventor:

# UNITED STATES PATENT OFFICE.

GEORGE YANACOPOULO, OF NEW YORK, N. Y.

## LIQUID-MEASURING PUMP.

No. 831,753.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed August 24, 1905. Serial No. 275,664.

To all whom it may concern:

Be it known that I, GEORGE YANACOPOULO, a citizen of the United States, residing at New York city, borough of Manhattan, county and State of New York, have invented a new and useful Improvement in Liquid-Measuring Pumps, of which the following is a specification.

The present invention relates to decanters for fluids of that type in which provision is made to draw a measured quantity of fluid and in which all the fluid may be withdrawn by depressing a piston located in the decanter a limited distance.

The object of the invention is to provide a decanter of this character which may be easily operated, simple in construction, and cheap in cost of production.

Referring to the drawings, Figure 1 is a central vertical sectional view of a decanter which illustrates my invention and in which the piston is perforated, whereby the fluid may pass from the upper chamber to the lower one. Fig. 2 shows another form of construction shown in central vertical section in which the piston is not perforated, but lateral openings are provided in the side walls of the measuring-compartment. Fig. 3 is a central vertical sectional view of a form in which the piston-rod is a tube and serves as a conduit for the fluid. Fig. 4 is an elevational view of the measuring-stops which coact to control the amount of liquid to be discharged when the piston-rod is depressed and also act as abutments for the button which is located on the top end of the piston-rod.

A indicates a casing in which is formed the reservoir B and the measuring-chamber C.

D is a cover for the reservoir B, and located thereon and pivoted thereto are the stops E, E', and E<sup>2</sup>. The cover D is provided with an opening D' in which the piston-rod F is free to slide.

In Figs. 1 and 3 the piston-rod is provided somewhat near its lower end with a flange G, which is secured thereto by a screw G' and is of sufficient diameter to cover the openings H in the piston I when the rod is depressed. The piston I is provided with a central aperture I', which closely fits the rod F in sliding relation thereto, and said rod F is provided with two nuts j and j', which abut against the piston I and by which the piston is raised to its highest position.

Connected to the lower end of the casing is

the pipe K, which conducts the fluid there-through to the receptacle L.

On the top of the cover D and surrounding the rod F is a spring-M, which abuts at one end against the cover and at the upper end against a button N on the upper end of the rod and facilitates the raising of the latter and the piston I to the highest position of the latter.

The piston is provided with a packing-ring I<sup>2</sup> to effect a tight joint between the casing A and the piston.

The only difference between Fig. 1 and Fig. 3 is that in Fig. 1 the rod F is made solid and the pipe K is employed to conduct the fluid to the receptacle, whereas in Fig. 3 the rod F' is made tubular and the fluid is conducted therethrough to the receptacle, as shown.

In Fig. 2 I show a modification in which the measuring-chamber C is of less diameter than the reservoir B and its upper end projects into said reservoir and serves as a guide to the piston O. This projection is provided with openings P P', &c., through which fluid may flow from the reservoir B to the chamber C when the piston is in its upper position.

The dotted lines indicate the relative position of the piston and button when the button is depressed to the stop E<sup>2</sup>.

It is obvious that the stops E E', &c., may be made of a definite length corresponding to the amount of fluid that will be discharged by the depression of the piston a given distance, corresponding to the length of the stop used therefor, so that a measured quantity may be decanted.

To use the device, the cover D is removed and the fluid poured into the reservoir B. The cover is then replaced. The piston, due to the spring M, will normally rest in its upper position, as shown, so that the fluid will flow into the chamber C by way of the openings H or, in Fig. 2, through the openings F' and P'. If it is desired to draw, say, one ounce of fluid, and the stop E<sup>2</sup> correspond to the proper depression of the piston to decant this amount, the stop E<sup>2</sup> is raised in position, as shown, and the piston depressed until the button N comes in contact with said stop. The depression of the rod F will cause its lower end to slide through the piston until the flange C closes the openings H and H', and the further depression of the rod will depress the piston and force the trapped

fluid through the pipe K or tube F', as the case may be.

In Fig. 2 the trapping of the fluid is effected by depressing the piston past the openings P and P'.

It is obvious that the tube used in Fig. 3 could be employed in Fig. 2 without departing from the spirit of the invention.

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

1. A measuring-decanter comprising a casing having a top and forming a reservoir a part of which serves as a measuring-chamber, a piston in operative position with respect to said measuring-chamber, a piston-rod connected to said piston and slidingly guided through and adapted to extend above the cover, said rod having an abutment above said cover, and a series of independently-movable abutments pivoted on the cover and of relatively different lengths, said abutments successively from the shortest one being of open character, whereby each of said abutments can occupy a position within that next external thereto, and the entire series lie compactly flat on the reservoir-top, and a discharge-tube communicating with the measuring-chamber and terminating in a spout.

2. A measuring-decanter comprising a casing having a top and forming a reservoir a part of which serves as a measuring-chamber, a piston in operative position with respect to said measuring-chamber, and containing a port for establishing communication between said chamber and the reservoir above the piston, a piston-rod centrally playing through said piston and having nut provision at its lower end, a flange secured on said rod and designed to closely cover the piston-port when the rod is depressed, and also to effect the depression of the piston, said rod being slidingly guided through and adapted to extend above the reservoir-cover, an abutment on the upper portion of the rod, means comprising members independently movable with respect to each other, for arresting the rod at different degrees of depression, and a discharge-tube communicating with the measuring-chamber and terminating in a spout.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 3d day of August, 1905.

GEORGE YANACOPOULO.

Witnesses:

GEORGE YOEKEES,  
JAMES H. LANCASTER.