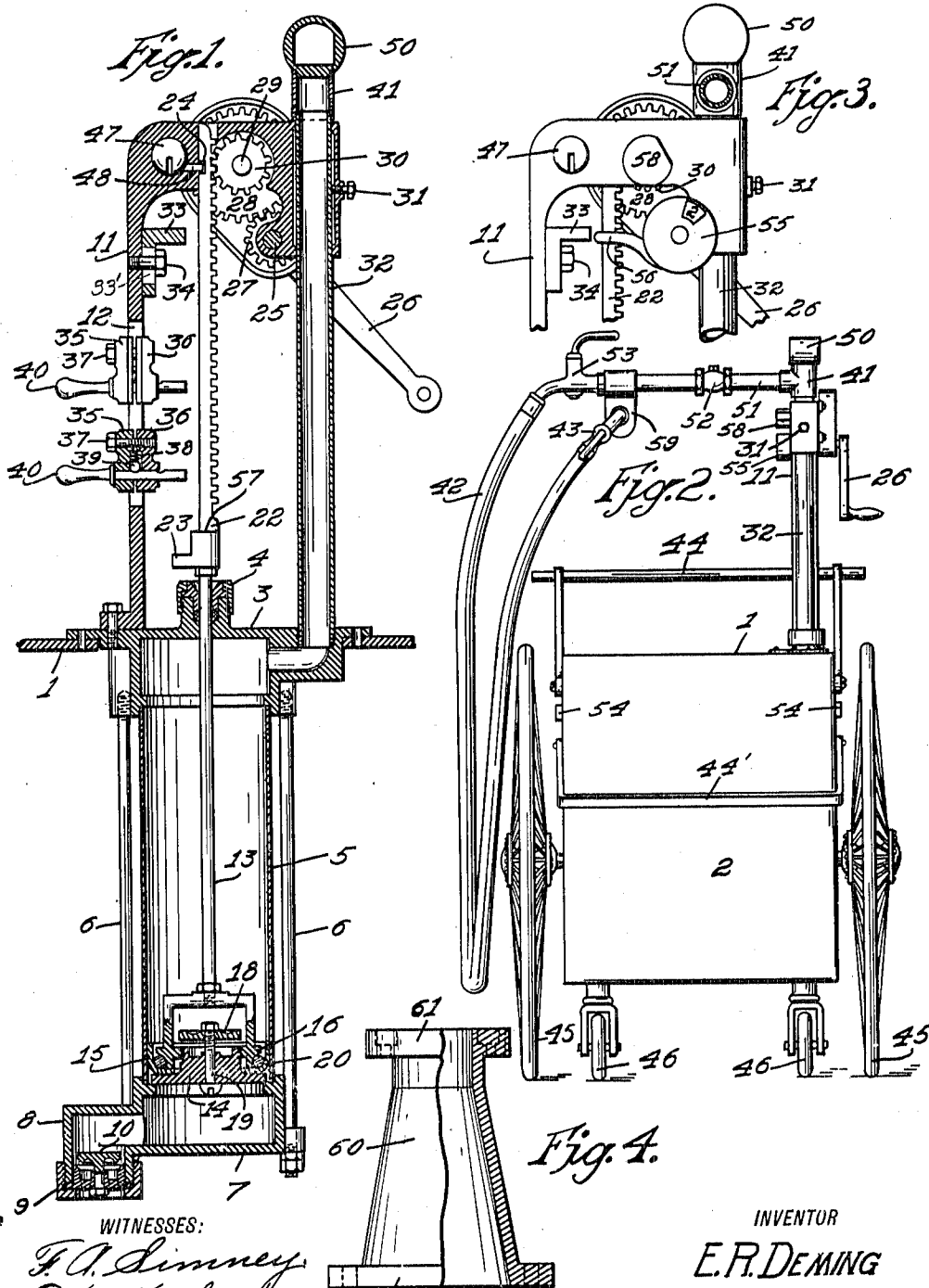


E. R. DEMING.
MEASURING PUMP.
APPLICATION FILED DEC. 30, 1912.

1,081,817.

Patented Dec. 16, 1913.



WITNESSES:

F. A. Dimney
A. H. Kephart

INVENTOR

E. R. DEMING

BY

Carlos P. Griffin
ATTORNEY

UNITED STATES PATENT OFFICE.

ELI ROGERS DEMING, OF SAN FRANCISCO, CALIFORNIA.

MEASURING-PUMP.

1,081,817.

Specification of Letters Patent.

Patented Dec. 16, 1913.

Application filed December 30, 1912. Serial No. 739,183.

To all whom it may concern:

Be it known that I, ELI R. DEMING, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Measuring-Pump, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

10 This invention relates to a measuring pump used for the purpose of measuring liquids, such as gasoline or oil, and it especially relates to a pump intended for use with a portable tank or container.

15 An object of the invention is to provide an easily constructed frame for the support of the pump operating gears, which frame shall also have a lock for the pump connected therewith to prevent its unauthorized operation.

20 Another object of the invention is to provide the pump frame with adjustable stops whereby the quantity of liquid to be drawn can be quickly and accurately measured.

25 In the drawings in which the same numeral of reference is applied to the same portion throughout the several views, Figure 1 is a view partly in section of the pump barrel and gear operating frame, Fig. 2 is a front elevation of a portable tank having the pump applied thereto, Fig. 3 is a side elevation of the pump operating frame, and Fig. 4 is an elevation partly in section of a pump support used when the pump is placed upon a floor independent of a portable tank.

30 The numeral 1 represents the top of the tank 2 to which the top flanged cylinder 3 is suitably secured. This cylinder top has a suitable packing gland 4 and the cylinder 5 is held tightly in contact therewith by means of a number of bolts 6, which bolts also secure the cylinder base 7 tightly in contact with the bottom of the cylinder 5.

35 The base 7 has a depending portion 8 on which the valve support 9 is secured. This valve support supports the valve 10 and has suitable openings therethrough to permit the ingress of the fluid to be measured. Above the flanged top piece 3 there is a support 11 having a slot at 12 and carrying the stops, lock and gears for the operation of the plunger of the pump.

40 The pump piston rod 13 has a piston 14 secured thereto at its lower end, said piston being of a well known type and having a gasket 15 held in place by means of a flanged

collar 16, the valve 18 being movable vertically in said piston and held in its proper position by means of a screw 19 passed therethrough. In order to press the piston packing outwardly there is a round gasket 20 which is caused to bear upon the packing more or less by adjusting the flanged collar 16.

45 At the upper end the piston rod has a rack 22 secured thereto, said rack having a stop at 23 and a detent for a lock bolt at 24. In the upper part of the frame there is a shaft 25, on which the crank 26 is secured, said shaft also carrying a pinion 27. The pinion 27 meshes with a larger pinion 28 on a shaft 29, while the pinion 30 carried by the shaft 29 meshes with the rack 22.

50 The overhanging portion of the frame 11 has a hole therethrough, through which the pipe 32 is inserted, a set screw 31 being used to hold the pipe and frame in a fixed position with respect to each other, said set screw being inserted in place after the pipe has been threaded into the top of the plate 3. The upright portion of the frame carries an L shaped stop 33 which is secured thereto by means of the bolt 34, said stop having a slot 33' therein to permit this adjustment. The vertical portion of the frame is also provided with a slot 12, in which slot the blocks 35 and 36 are adjustable. These two blocks fit into the slot and are secured substantially in contact with each other by means of a bolt 37, this bolt holding a spring 38 in place between the two blocks.

55 The spring bears upon a ball 39, which ball holds the stop pins 40 in the extended or retracted position as may be desired. There are two of the stops, one above the other, and each is substantially a duplicate of the other. The object of these two stops is to provide means for drawing smaller determinate amounts of the liquid than would be drawn with one entire stroke of the piston, and they are made adjustable to permit of a close regulation of the different amounts to be drawn.

60 On the top of the pipe 32 there is a T 41. This T 41 has a nipple 51 connected thereto, on which nipple a check valve 52 is secured. The check valve discharges through a faucet 53, which faucet is connected to a suitable hose 42 for the delivery of the liquid to any suitable place, said hose having a stop cock 43 at the end thereof.

65 The tank 2 is provided with a handle 44

and with supporting wheels 45 and 46 in order that it may readily be moved from place to place, and it also has a pivoted handle 44' which drops down against the end of the tank or which may be raised up against the stops 54 when it is desired to use said handle to pull the tank around.

In order to count the number of gallons passed through the pump, a ten gallon counter 55 is secured on the pump frame, an arm 56 extending over the piston rod to contact with a projection 57 thereon to enable the user to count the number of gallons delivered. And in order to provide a complete check on any movement of the pump piston a smaller counter 58 is suitably connected with the shaft 29. Also for the convenience of the operator a strap 59 with an opening therein is secured to the faucet 53, in which the nozzle of the stop cock at the end of the hose may be inserted when the pump is not in use.

At the upper portion of the frame 11 there is formed an opening for the insertion of a lock 47, said lock having a bolt 48 which may be extended or retracted at will by means of a key. The T 41 is provided with a suitable closure 50, or may have a pipe inserted therein if it is so desired.

Fig. 4 shows a form of supporting base for the pump when it is to be placed upon a floor. The numeral 62 indicates the bottom flange, 60 a hollow pedestal in which the pump cylinder is placed and 61 indicates the top flange, which is integral with the hollow pedestal and to which the flange of the pump head 3 is suitably bolted.

Having thus described my invention what

I claim as new and desire to secure by Letters Patent of the United States, is as follows:

1. A measuring pump for liquids comprising a pump cylinder having a piston therein, a frame secured to the top of said pump cylinder, a discharge pipe passing through said frame and connected with the outlet of the pump cylinder, means carried by the frame to raise the piston, and an adjustable stop on the frame to determine the movement of said piston, said stop comprising a pair of blocks, a bolt securing the blocks together and to the frame and a stop pin passing through both of said blocks, substantially as described.

2. A measuring pump for liquids comprising a pump cylinder having a piston and valves therein, a slotted frame secured to the top of said pump cylinder, an outlet pipe passing through said frame and connected to the discharge of the pump cylinder, stops in the slot in said frame, said stops each comprising a pair of blocks, a bolt passing through each pair of blocks to secure them to the frame, and a stop pin passing through each pair of blocks, and means to hold said stop pins in the extended or retracted position, substantially as described.

In testimony whereof I have hereunto set my hand this 13th day of December A. D. 1912, in the presence of the two subscribed witnesses.

ELI ROGERS DEMING.

Witnesses:

HENRY B. LISTER,
C. P. GRIFFIN.