May 12. 1925. 1,537,679

T. A. KILLMAN ET AL

GASOLINE DISPENSING APPARATUS

Filed Nov. 27, 1922

Fig. 2.

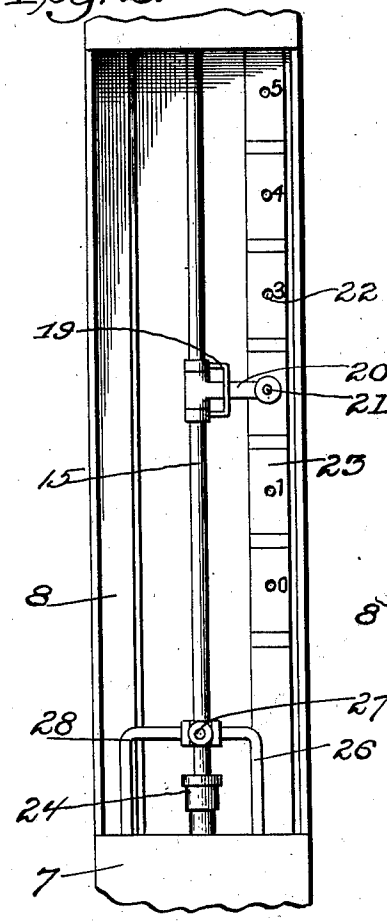


Fig. 1.

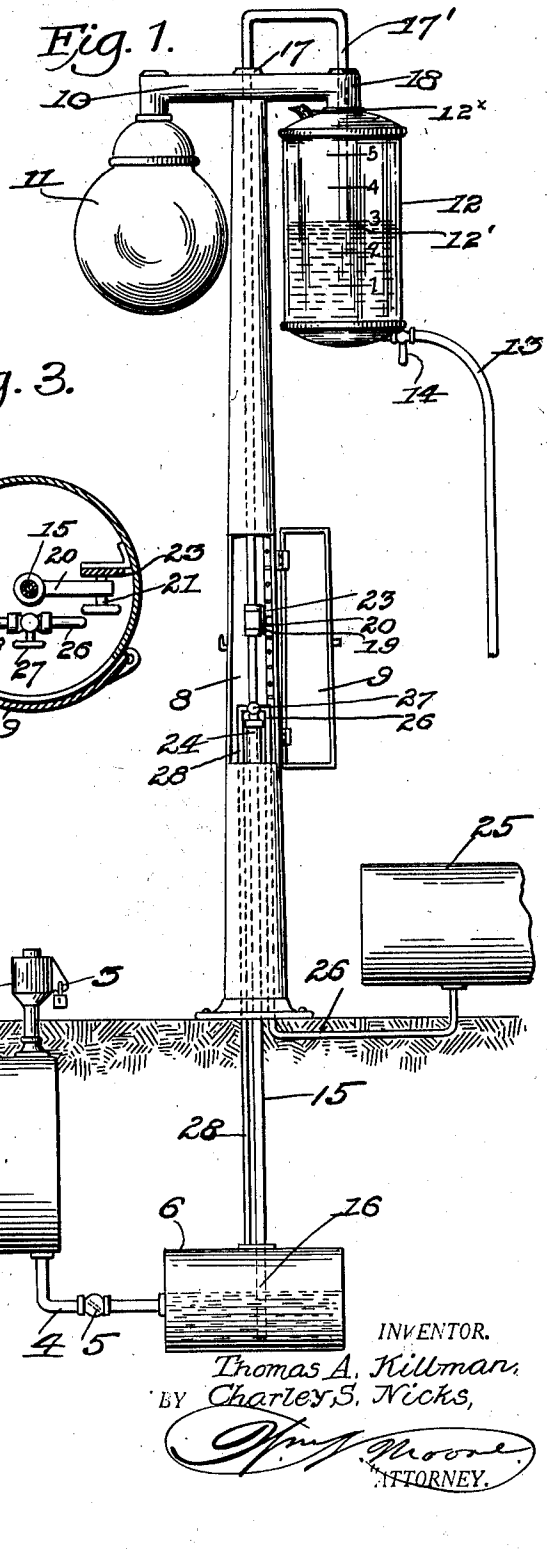


Fig. 3.

INVENTOR.
Thomas A. Killman,
BY Charley S. Nicks,
ATTORNEY.

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UNITED STATES PATENT OFFICE.

THOMAS A. KILLMAN AND CHARLEY S. NICKS, OF NASHVILLE, TENNESSEE.

GASOLINE-DISPENSING APPARATUS.

Application filed November 27, 1922. Serial No. 603,646.

To all whom it may concern:

Be it known that we, THOMAS A. KILLMAN and CHARLEY S. NICKS, residents of Nashville, in the county of Davidson and State of Tennessee, citizens of the United States, have invented certain new and useful Improvements in Gasoline-Dispensing Apparatus, of which the following is a specification.

Our invention relates to improvements in gasoline dispensing apparatus which, while particularly adapted and possessing peculiar advantages for such purpose, may be used in any other situation where the apparatus would prove useful and practical.

The main object of our invention is the production of an apparatus which will positively dispense and deliver the exact amount of gasoline purchased and which in this manner will prevent fraud on the part of the seller of the gasoline.

Another object of our invention is the provision of an apparatus which will permit the purchaser to observe during the day or night the exact amount of gasoline which he has ordered and paid for and which will deliver to the purchaser every drop of the liquid.

Another object of our invention is the provision of an apparatus which will be comparatively compact and small in proportion to occupy a small amount of space and which will embellish and prove an ornament to the location where it is situated.

Another object of our invention is the production of an apparatus of the character and for the purpose stated which will be of simple and durable construction to insure cheapness of production and long life, and which will be thoroughly efficient and practical from every viewpoint.

With these objects in view, our invention consists of a dispensing apparatus of the character stated embodying novel features of construction and combination of parts substantially as described and particularly defined and distinguished by the claims, and as illustrated in the accompanying drawing, wherein:

Figure 1 represents a side elevation of a complete gasoline dispensing apparatus constructed in accordance with and embodying our invention.

Fig. 2 represents an elevation of the measuring scale and handle with indicator, shown on an enlarged scale for purpose of clearness, and

Fig. 3 represents a sectional view on the line 3—3 of Fig. 2.

Referring by numeral to the drawing, in which the same numbers of reference are employed to denote the same parts in all the views:

The numeral 1 designates the storage tank placed under the ground and of any desired capacity, provided with a filling cap 2, having a suitable locking means 3, while leading from the lower portion of said tank is the delivery pipe 4, provided with a check valve 5, and communicating with said delivery pipe is the supply tank 6, which is of a determined capacity, as will presently appear.

The gasoline is placed in the storage tank and delivered through the delivery pipe by gravity to the depressed supply tank, the check valve preventing backflow of liquid to the storage tank, and mounted on the ground or surface and preferably in line with and directly above said supply tank is the vertical hollow column or support 7, which is provided at a determined point with an opening 8, and a door 9, for closing and protecting said opening and enclosed mechanism, while at the top of said column is mounted the cross arm 10, depending from one end of which is the globe or lamp 11, while from the other end is supported the glass measuring tank or receptacle 12, from which leads the discharge pipe 13, provided with a controlling cock or spigot 14.

From this construction it will be noted that we provide a highly ornamental structure which disposes the measuring receptacle or container and the light in proper relation to enable the purchaser to see either during the day or night the exact amount of gasoline which enters and is discharged from the measuring container, and disposed in said column is the gas-delivery pipe 15, which at its lower end 16, is located in the supply tank, while its upper portion is guided at 17 in the column and terminates in a loop or bail-shaped discharge portion 17′, which is disposed in the measuring container and is guided in the cap or guide 18 in the top of said container.

The measuring tank or container is provided with a suitable scale 12′, which in-

dicates the exact amount in gallons and which is preferably of a less capacity than the supply tank, and the gas-supply pipe 15 is movable vertically by means of the handle 19, to lift and lower said pipe to designate the amount in gallons which is to be delivered. while said pipe also carries the swinging arm 20, which is provided with a stop 21, adapted to enter any designated one of the series of openings 22, upon the indicating bar or scale 23, thus the raising or lowering of the delivery pipe by means of the handle and the placing of the stock 21 in any desired opening 22, will also place the discharge end of the portion 17, in the exact relation to the said scale in the measuring tank, in order that the exact amount and only the exact amount of gasoline will be delivered to the purchaser.

The gas-delivery pipe is mounted for movement in a suitable guide or stuffing box 24, while disposed in suitable relation to the column is a compressed air tank 25, from which leads the delivery pipe 26, upward into the column where it is controlled by the hand valve or cock 27, and which terminates in the branch 28 in the top of the supply tank to force the proper amount of gasoline up through the set gas-delivery pipe into the measuring container.

It will thus be apparent that the gasoline is fed from the storage tank into the supply tank and in the determined quantity and under air compression is delivered upwardly through the gas-delivery pipe into the measuring container, the operator raising the delivery pipe to the proper point and in view of the purchaser, and also controlling the compressed air to force only the exact amount into the said measuring tank.

It will thus be apparent that we provide a gasoline dispensing apparatus which will positively prevent the purchaser being defrauded by delivering every drop of gasoline purchased; also that the apparatus comprises few parts to insure simplicity, durability and inexpensiveness and to withstand hard and constant usage, and that by reason of the ornamental appearance of our apparatus in connection with its numerous features of merit, it will commend itself as highly desirable, useful and efficient.

The operation of our apparatus is as follows:—By means of the handle or knob 21, the supply-pipe 15 is set to any number of gallons desired. Then the three-way valve 27 is turned, which admits compressed air to enter the supply tank 6, which forces the gasoline, then in this tank, up through the supply pipe 15, and over into the glass container 12. The air valve is held open and the gasoline allowed to run into the container until it has filled up somewhat above the amount for which it is set. Then the air is cut off by the three-way valve 27, which opens a vent or leak and allows the compressed air to escape from the supply tank 6. Then from the fact that the supply pipe 15, is full of gasoline, it will act as a siphon and will draw or siphon the extra amount in the container back into the supply tank 6. That is, it will continue to siphon it out till the level in the container has reached the lower end of the supply pipe, when air will enter the supply pipe and stop the siphoning or drawing out at the exact amount for which it was set, and there is no way the operator can get any more gasoline out of the container only through the delivery hose or pipe 13 to the car. So, it is not left to the operator to measure the exact amount, but it is measured mechanically, which insures correct measurement, and at the same time puts the amount the customer has ordered out of control of the operator, and makes it plain to the customer that he is getting the exact amount he is paying for, without any possibility of any of it running back through some secret pipe into the storage tank while it is supposed to be delivered to his car.

The glass measuring tank 12, is preferably provided with an overflow 12^{x}, leading from its top back to the storage tank, to return the gasoline in the event of the air valve 27, being left open too long.

The siphoning action forms a most important feature of our invention, and produces an apparatus which will operate perfectly and prevent fraud, and also the arrangement of the gasoline container and the light is such that the light is thrown directly upon said container, enabling the purchaser to see exactly the amount of gasoline he is paying for.

We claim:

1. A gasoline dispensing apparatus, embodying in connection with a storage tank, a supply tank and air compression means, a vertical hollow support, a horizontal arm mounted on the upper end of said support, a lighting means depending from one end of said arm, a visual measuring container depending from the other end of said arm and illuminated by said lighting means, an opening in said hollow support having a closure, a scale in view of said opening having a series of vertically arranged holes, a vertical gasoline delivering pipe having its intermediate portion in said support, its lower end dipping in said supply tank and having an elbow terminating and discharging in said visual measuring container, a control means for said gasoline delivering pipe, a handle carried by said pipe for raising and lowering it to the desired point, and a stop carried by said handle to engage one of the holes on said scale to secure the pipe at the exact adjustment.

2. A gasoline dispensing apparatus, em-

bodying in connection with a storage tank, a supply tank and air compression means, a vertical hollow support, a horizontal arm mounted on the upper end of said support, a lighting means depending from one end of said arm, a visual measuring container depending from the other end of said arm and illuminated by said lighting means, an opening in said hollow support having a closure, a vertical gasoline delivery pipe having its intermediate portion in said support, its lower end dipping in said supply tank and having its upper end terminating in a discharge portion disposed in said visual measuring container, a control means for said gasoline delivery pipe, a handle carried by said pipe for raising and lower it to the desired point, and having means for engaging said scale to retain the pipe at the exact measuring adjustment.

In testimony whereof we hereunto affix our signatures.

THOMAS A. KILLMAN.
CHARLEY S. NICKS.