

C. F. ROSSIGNOL.
LIQUID DISPENSING APPARATUS.
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Fig. 1.

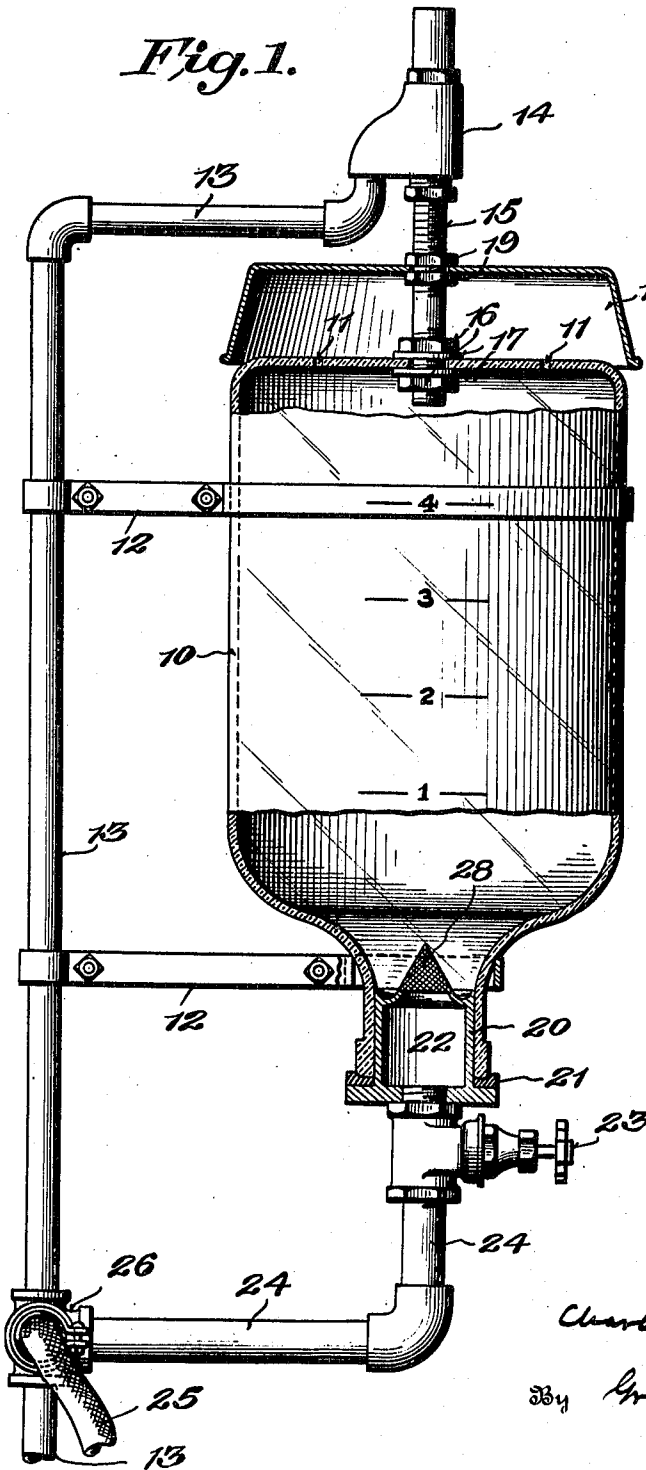


Fig. 2.

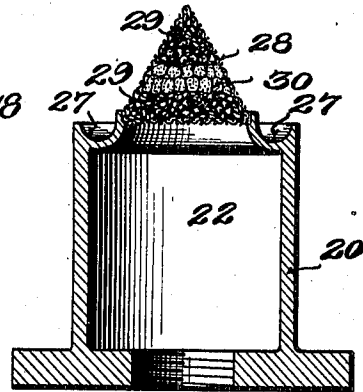
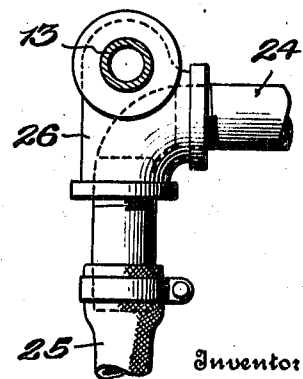


Fig. 3.



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LIQUID-DISPENSING APPARATUS.

1,276,271.

Specification of Letters Patent. Patented Aug. 20, 1918.

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To all whom it may concern:

Be it known that I, CHARLES F. ROSSIGNOL, a citizen of the United States, and a resident of Augusta, in the county of Richmond and State of Georgia, have invented certain new and useful Improvements in Liquid-Dispensing Apparatus, of which the following is a specification.

The invention relates to improvements in liquid dispensing apparatus such as are employed by retailers in the sale of gasoline to the users of automobiles. It has for its object the provision of a device that will not only filter the gasoline at the time it is measured preliminary to be turned into the tank of the automobile, but by providing a transparent filtering receptacle, which also forms the measuring vessel, the purchaser by simple inspection can ascertain that he is obtaining the stipulated quantity and can judge the quality of his purchase by its color. A device having such features has been found to be a very effective advertisement to the retailer.

The invention consists in the novel construction, combination and arrangement of parts hereinafter described, pointed out in the appended claims, and illustrated by the accompanying drawings.

In the drawings, in which similar reference characters designate corresponding parts,

Figure 1 is a view, partly in elevation and partly in vertical section, showing an embodiment of the invention.

Fig. 2 is a longitudinal sectional view of the stopper or removable bottom for closing the lower end of the filtering receptacle.

Fig. 3 is a plan view of the coupling connecting the discharge pipe with the supporting standard.

The glass container 10 is in the form of an inverted bottle, preferably having a capacity of five gallons with the levels of the different gallons indicated on its side. In the top of the container are vents 11 to permit the escape of the contained air or gas while the container is being filled, and to permit the entrance of air into the container during the discharge of the liquid.

The container is carried by the brackets 12 extending from the supporting pipe 13. The latter also serves as the supply pipe to conduct the fluid from the pump to the container. At the upper end of the pipe 13 is a

joint 14, downwardly from which reach the pipe 15 into the interior of the container.

The entering end of the pipe 15 is secured to the top of the container by the clamping nuts 16 turned onto the pipe on opposite sides of the container top. Washers 17 are interposed between the clamping nuts and the adjacent wall of the container top, and extend over the annular space between the pipe and edge of the top to prevent leakage through such space.

Extending over the top of the container 10 is the shield 18 of an inverted dish-shaped form. The shield is held in place by the nuts 19 clamping it on the pipe 15. Between the edge of the shield and the container is an annular opening to provide a free passage to the chamber beneath the shield. When the container is empty, or partly so, it ordinarily contains an explosive mixture of air and gas. The shield prevents ignition of this explosive compound by preventing access to the vents 11. Also the gas that is forced through the vents while the container is being filled is so dispersed by the shield and diluted with air that the mixture passing through the annular opening between the shield and container would be so attenuated that it would not ignite. The shield also protects the container against blows in the direction of its top; and it also prevents water from dropping on the top and entering through the vents into the container.

In the discharge mouth at the lower part of the container is a filtering device to free the liquid from impurities. In this discharge mouth is fitted the removable bottom or stopper 20 having interposed between its flange and the edge of the mouth a washer 21 to prevent leakage around the stopper. In the stopper is a chamber 22 communicating at its upper end with the interior of the container, and its lower end with the casing of the valve 23 screwed into the head of the stopper. Into the lower end of the valve casing is screwed the pipe 24 communicating with the flexible hose 25 to carry the filtered fluid to the tank of the automobile or other receptacle. The pipe 24 and the hose 25 are connected by the coupling 26 (Fig. 3) carried by the standard pipe 13.

In the upper wall of the stopper 20 is an annular gutter or trough 27, and in the inner edge of this gutter is a seat (Fig. 2) in

which is tightly fitted the base of the conical screen 28 carrying the filtering material. The latter is formed of upper and lower layers 29 of granulated coke, or similar porous material, and an intermediate layer 30 of shredded sponge. The sponge being much more pervious than the coke forms a horizontal passage through which the liquid can pass to the lower layer of coke without passing through the upper layer. By this arrangement of layers the area of the filtering medium is more extensive than if the screen were filled solely with the coke. When the filtering material becomes clogged, by removing the stopper the screen can be replaced by another one containing fresh material.

In operating the device the gasolene is pumped through the pipe 13 into the container to fill the latter. As the liquid enters the container the gas and air escape through the vents 11 to the space beneath the shield 18, where the gas is further mixed with air so that when the mixture escapes beneath the edge of the shield the gas will be so attenuated that the mixture will be non-inflammable. The liquid filling the container is permitted to become quiescent for a brief period, during which any heavy sediment contained therein settles to the bottom of the container and is collected in the gutter 27. The inclined walls of the container and of the conical screen guide the sediment to the gutter. At intervals the stopper is removed and the gutter is cleared of the sediment. When the valve 23 is opened the fluid is discharged through the pipe 24 and the hose 25 into the desired receptacle. When the valve is opened the liquid passing through the filtering material contained in the conical screen will be freed of the lighter impurities that have not dropped into the gutter. By observing

the liquid through the transparent wall of the container, the purchaser can ascertain to a considerable extent the quality of the gasolene. Gasolene in its purest form is of a clear white appearance; a different appearance of the liquid would indicate a poorer quality. Also by observing the graduating marks on the container during the measuring operation the purchaser will know that he is obtaining the stipulated quantity.

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

In combination with a pipe-line for supplying liquid from a source of supply to a receiving container, of a transparent receptacle connected in said pipe-line between its inlet and discharge ends and in a manner to receive the liquid at its upper end, said transparent receptacle being provided with a contracted lower end, and an open vent in its upper end, and means on its side for indicating the quantity of liquid contained therein at various levels, a filter removably connected in the contracted lower end, a shield extending over the upper end of said transparent receptacle and supported in spaced relation thereto to lie above said open vent, and a manually controlled valve in the pipe-line between said filter and the discharge end of the pipe-line, whereby the liquid can be temporarily stored, measured, and inspected in the transparent receptacle before its discharge into the receiving container.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHARLES F. ROSSIGNOL.

Witnesses:

DENNIS J. D. ESMOND,
E. C. COHEN.