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EMERGENCY GASOLINE TANK

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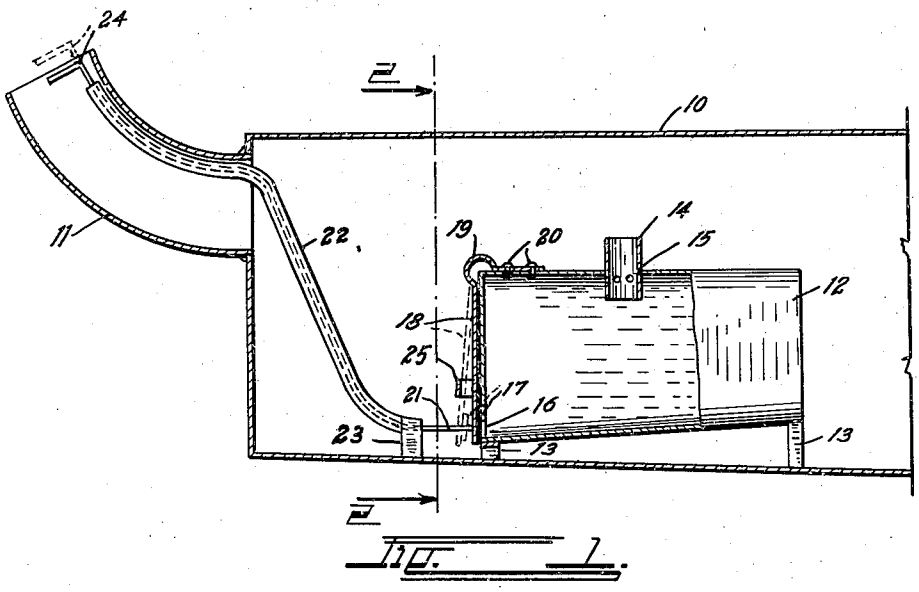



Fig. 1.

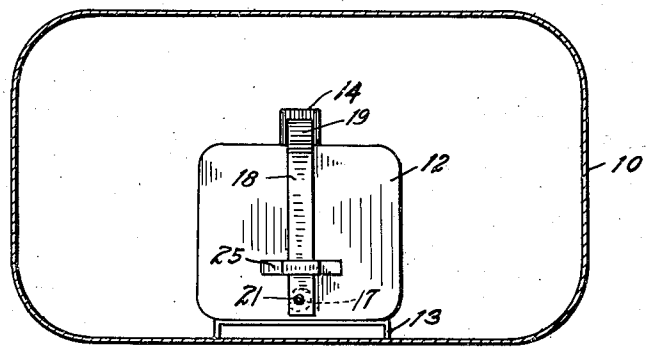



Fig. 2.

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## EMERGENCY GASOLINE TANK

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4 Claims. (Cl. 158—46.5)

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This invention relates to an auxiliary gas tank for automotive vehicles. The principal object of the invention is to provide an auxiliary supply of gasoline which can be released after the main supply has been exhausted to enable the driver to reach the next filling station.

Another object of the invention is to so construct the device that it will have a minimum of operating parts, so that it will be positive in operation, and so that it will be always ready for use after long periods of disuse.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention, reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a fragmentary longitudinal section through the filling extremity of a conventional automotive gasoline tank, ilustrating the invention in place therein; and

Fig. 2 is a cross section through the tank of Fig. 1, taken on the line 2—2, Fig. 1.

A conventional gasoline tank is indicated at 10 in the drawing, with its filling spout at 11.

The invention contemplates mounting an auxiliary tank or emergency reservoir 12 in the bottom of the tank 10 upon suitable supporting legs or brackets 13. The reservoir 12 is provided at its top with a filling sleeve 14 which extends above and below the top of the reservoir. The sleeve is provided with air vent openings 15 positioned immediately below the reservoir top.

The bottom of the auxiliary reservoir is preferably inclined downwardly toward the extremity adjacent the filling spout 11. The latter extremity of the reservoir contains a discharge orifice 16 at its lowest point. The orifice 16 is normally closed by means of a resilient sealing gasket 17.

The gasket 17 is mounted on the inner face of the lower extremity of an inverted L-shaped leaf spring 18. The spring 18 extends upwardly to form a resilient loop 19, thence extends horizontally over to the top of the reservoir 12 to which it is attached by means of suitable rivets or other devices 20. The gasket 17 is clamped tightly over the orifice 16 by the inherent resiliency of the spring 18.

A length of flexible wire, such as piano wire 21

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is secured in any desired manner to the lower extremity at the spring 18 and extends from thence through a guide tube 22. The guide tube 22 extends from a point opposite the gasket 17, where it is supported in a bracket member 23, upwardly and outwardly into the spout 11, terminating below the extremity thereof. At the latter extremity of the tube 22, the wire 21 is bent at right angles to form a handle portion 24.

It is desired to call attention to the simplicity of the structure. There are no loose members, no joints, no pivots—in fact nothing to get out of order. The device can set for years without operation and without damage. There are no loose parts to create noise by rattling.

When the main tank 11 is filled, the gas will flow through the filling sleeve 14 into the reservoir 12, allowing it to fill completely to its top, the air escaping through the air vent openings 15. The sleeve 14, by extending into the reservoir 12, prevents the fluid from splashing from the reservoir.

After the supply of gas has been exhausted from the tank 10, an auxiliary supply will be retained in the reservoir 12. To make this auxiliary supply available for use, it is only necessaary for the operator to remove the conventional filling cap from the spout 11. He can then grasp the handle portion 24 of the wire 21. By drawing upon this handle portion, the spring 18 is flexed away from the tank 12, causing the gasket 17 to open the discharge outlet orifice 16, thus allowing the emergency supply to flow into the tank. A check strap 24 is provided to prevent the spring 18 from being flexed sufficiently to cause permanent damage.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. An emergency fuel reservoir for an automotive vehicle comprising: a main gasoline tank; a filling spout extending from one end thereof; a reservoir positioned within said main tank; a filling opening at the top of said reservoir; a discharge orifice in the end and adjacent the bottom of the reservoir facing said filling spout of said tank; a leaf spring secured to the exterior of said reservoir and having a free extremity extending over said orifice; a sealing gasket attached to the free extremity of said spring over said discharge orifice to normally seal the latter; and means

operable from said exterior of said tank for flexing said spring to lift said gasket from said orifice.

2. An emergency fuel reservoir for an automotive vehicle comprising: a main gasoline tank; a filling spout extending from one end thereof; a reservoir positioned within said main tank; a filling opening at the top of said reservoir; a discharge orifice in the end and adjacent the bottom of the reservoir facing said filling spout of said tank; an inverted, L-shaped, leaf spring having a horizontal portion secured to the top of said reservoir and a vertical portion urged against the end of the reservoir over said orifice; a sealing gasket attached to the vertical portion of said spring over said discharge orifice to normally seal the latter; means operable from said exterior of said tank for flexing said spring outwardly to lift said gasket from said orifice; means for limiting the outward movement of said spring; and a resilient loop formed in said spring intermediate the horizontal and vertical portions thereof to increase the resiliency thereof.

3. An emergency fuel reservoir for an automotive vehicle comprising: a main gasoline tank; a filling spout extending from one end thereof; a reservoir positioned within said main tank; a filling opening at the top of said reservoir; a discharge orifice in the end and adjacent the bottom of the reservoir facing said filling spout of said tank; an inverted, L-shaped, leaf spring having a horizontal portion secured to the top of said reservoir and a vertical portion urged against the end of the reservoir over said orifice; a sealing gasket attached to the vertical portion of said spring over said discharge orifice to normally seal the latter; and a flexible pull member extending from said spring into said spout by means of which said spring may be drawn away from said orifice.

4. An emergency fuel reservoir for an automotive vehicle comprising: a main gasoline tank; a filling spout extending from one end thereof; a reservoir positioned within said main tank; a filling opening at the top of said reservoir; a discharge orifice in the end and adjacent the bottom of the reservoir facing said filling spout of said tank; an inverted, L-shaped, leaf spring having a horizontal portion secured to the top of said reservoir and a vertical portion urged against the end of the reservoir over said orifice; a sealing gasket attached to the vertical portion of said spring over said discharge orifice to normally seal the latter; a flexible pull member extending from said spring into said spout by means of which said spring may be drawn away from said orifice; and a guide tube surrounding said flexible member, said guide tube extending from a position opposite the vertical portion of said spring to a position within said filling spout.



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