

W. R. HARRIS.
GASOLINE PURIFIER.
APPLICATION FILED JAN. 10, 1920.

1,364,435.

Patented Jan. 4, 1921.

Fig. 1.

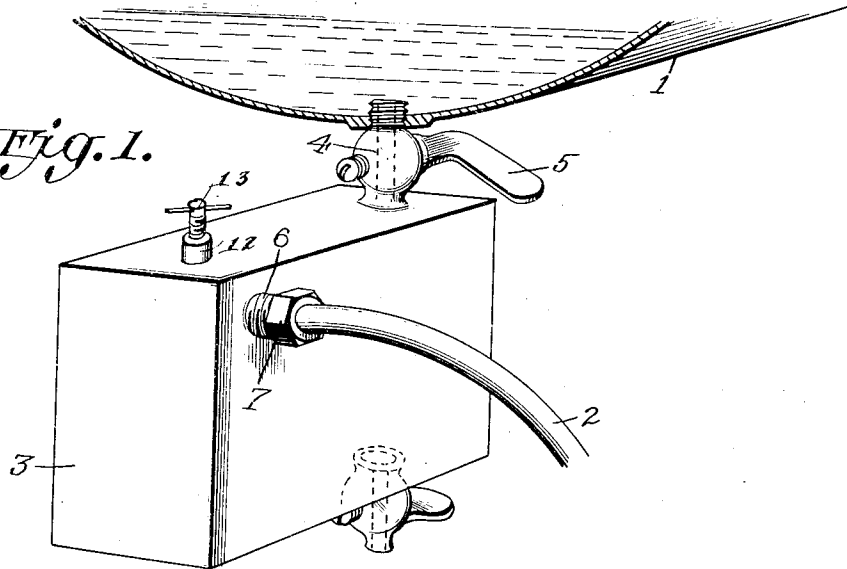


Fig. 2.

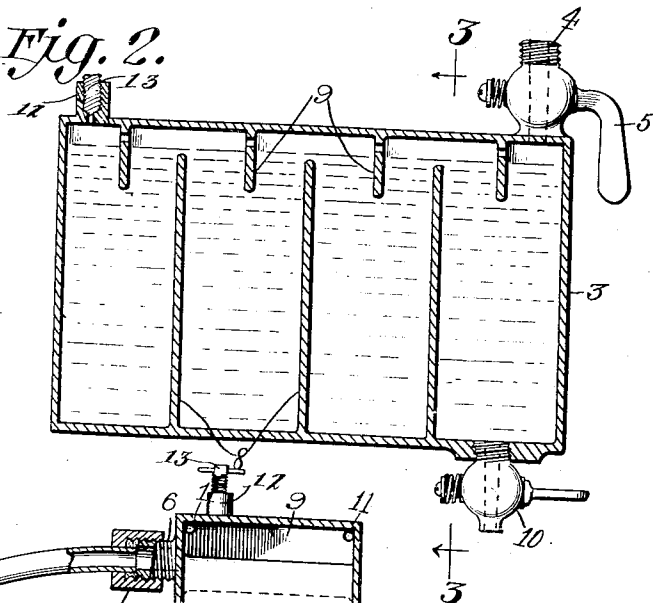
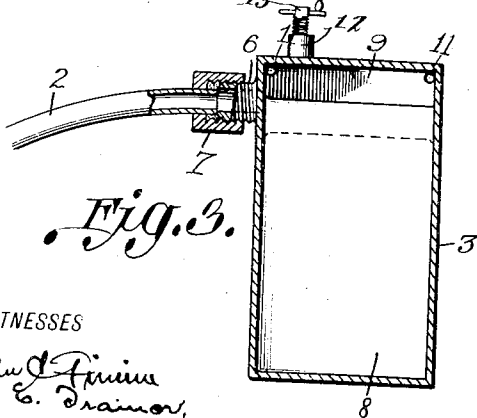


Fig. 3.



WITNESSES

John C. Finnie
C. E. Drimmer

INVENTOR

W.R. Harris.

BY *Alvin Koo*

ATTORNEYS

UNITED STATES PATENT OFFICE.

WARD ROLLAND HARRIS, OF MOORE, TEXAS.

GASOLENE-PURIFIER.

1,364,435.

Specification of Letters Patent.

Patented Jan. 4, 1921.

Application filed January 10, 1920. Serial No. 350,661.

To all whom it may concern:

Be it known that I, WARD R. HARRIS, a citizen of the United States, and a resident of Moore, in the county of Frio and State of Texas, have invented certain new and useful Improvements in Gasolene-Purifiers, of which the following is a specification.

My invention is an improvement in gasolene purifiers, and has for its object to provide a device of the character specified, adapted to be arranged between the fuel tank and the carbureter, for thoroughly removing from the fuel the impurities, such as dirt and the like, and also water, to insure that the fuel will be in the best possible condition for use.

In the drawings:—

Figure 1 is a perspective view of the improved purifier, with a portion of the tank in section,

Fig. 2 is a longitudinal vertical section of the purifier,

Fig. 3 is a section on the line 3—3 of Fig. 2.

In the present embodiment of the invention the purifier is arranged between the fuel tank 1 and the carbureter, not shown, the purifier being connected to the carbureter by means of the usual pipe 2. The purifier comprises a casing 3 of substantially rectangular formation, having at one end and at its top an inlet casing 4 which is adapted to be connected to the fuel tank as shown, and a valve is arranged in the inlet casing, the valve being controlled by a handle 5.

This tank has an outlet nipple 6 at its opposite end, and near the top, with which the pipe 2 is connected by the usual union indicated at 7. Arranged transversely of the tank is a series of vertical partitions 8 extending upwardly from the bottom to near the top and connected with the sides and bottom. A series of flanges or webs 9 depend from the top of the tank, to a point slightly below the tops of the partition 8, the flanges or webs 9 being spaced at approximately equal distances between the partitions 8. Thus the partitions and the webs overlap each other, and the partitions divide the tank into a series of compartments, four in the present instance.

At the end adjacent to the inlet 4 there is provided a drain valve 10, by means of which the sediment deposited in the first

compartment, that is, the compartment adjacent to the fuel tank, may be withdrawn. Near the top, in each of the compartments 9 there is provided an opening 11 through which air may pass from the space between the webs or flanges.

In operation all of the fuel that passes from the fuel tank to the carbureter passes through the auxiliary tank 3. The heavy matter in the fuel, as for instance, dirt and the like, tends to settle toward the bottom, and any hindrance of the flow of the fuel facilitates such settling.

The partitions 8 and webs 9 provide baffles which hinder the flow, and facilitate the separation. The partitions 8 facilitate the separation of dirt and the like while the webs 9 facilitate the separation of the lighter materials, that is the materials which are lighter than the fuel.

The auxiliary tank or fuel purifier will remove the dirt, water and other foreign matter from the fuel as it flows from the tank to the carbureter. This dirt tends to clog the communicating pipes and also tends to cause too rich a mixture, and a consequent loss of power and an overheating of the engine.

As is known, agitation prevents settling, and there is but little chance for the impurities to settle while the fuel is flowing straight from the fuel tank to the carbureter. By introducing the auxiliary tank 3 in the circulation, there is provided mechanism for hindering the flow and facilitating settling.

Referring to the drawing, it will be noticed that an air valve 12 is provided, so that the air may be permitted to escape when first filling, instead of making it work out through the fuel tank or carbureter.

I claim:—

A gasolene purifier comprising a tank provided in its top at one end with an inlet and provided at the upper portion of its other end with an outlet, a plurality of transverse partitions within said tank extending from the bottom thereof to near the top and dividing the tank into a series of equal compartments, a plurality of webs depending from the top of said tank to a point slightly below the tops of said partitions and arranged centrally of said compartments, each of said webs having an opening

adjacent the top of the tank whereby to permit passage of air through all of the webs, said partitions and webs cooperating to permit slightly restricted passage of gasoline from each compartment to the next successive one and the partitions operating to greatly retard the passage of impurities

from one compartment to the next, and a vent located at the top of the tank at the end opposite the inlet whereby to permit the escape of air when the tank is initially filled. 10

WARD ROLLAND HARRIS.