

April 29, 1924.

P. M. LEWIS

1,492,474

GASOLINE FEED

Filed April 14, 1922

Fig. 1

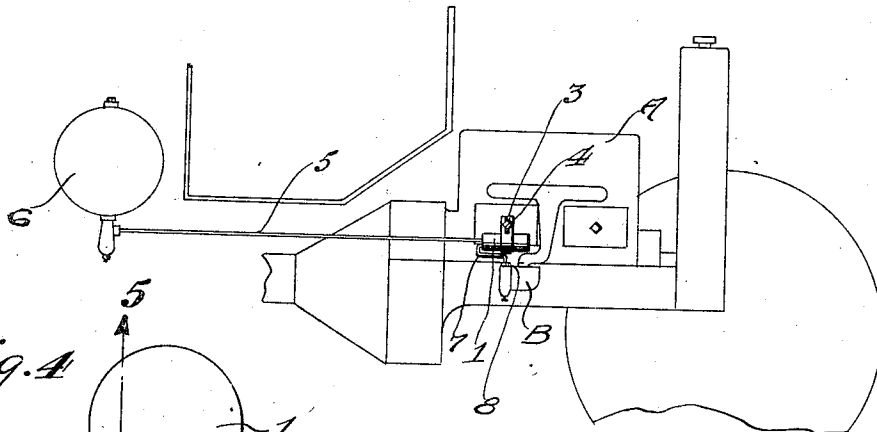


Fig. 4

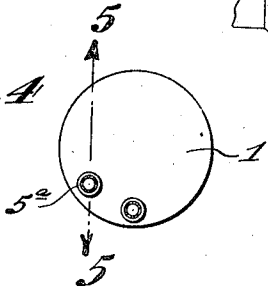


Fig. 2

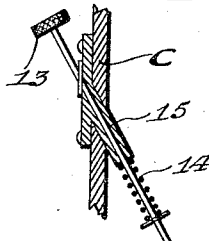


Fig. 5

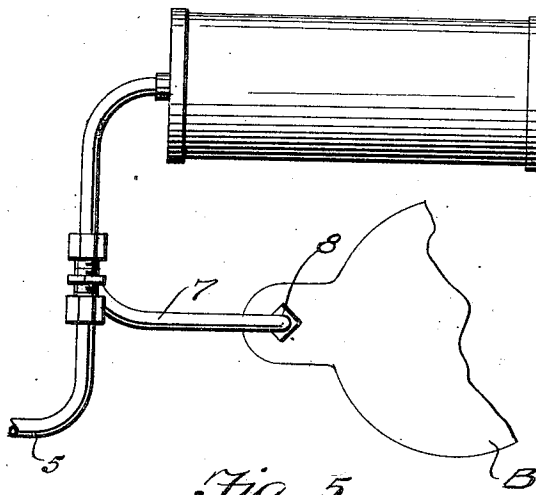
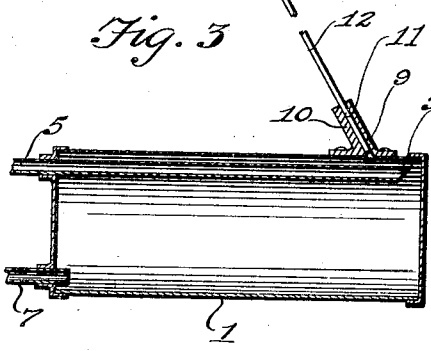
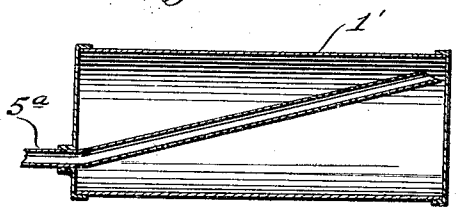


Fig. 5



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GASOLINE FEED.

Application filed April 14, 1922. Serial No. 552,712.

To all whom it may concern:

Be it known that I, PAUL M. LEWIS, a citizen of the United States, residing at Velpen, in the county of Pike and State of Indiana, have invented new and useful Improvements in Gasoline Feeds, of which the following is a specification.

This invention relates to a gasoline feed mechanism for motor vehicles, and an object of the invention is to provide a gasoline reserve tank used in connection with the gasoline supply tank and carbureter of a motor vehicle for feeding gasoline to the carbureter irrespective of the incline over which the vehicle is traveling.

In certain types of motor vehicles, it is well known that when the vehicle is climbing a hill and the gasoline supply is comparatively low in the tank, that the gasoline will not properly feed to the carbureter consequently the operation of the engine is stopped, and it is an object of this invention to provide a siphon structure interposed between the connection of the tank and carbureter which will feed gasoline to the carbureter at all times irrespective of the relative elevations of the carbureter and tank.

Other objects of the invention will appear in the following detailed description taken in connection with the accompanying drawing wherein:

Fig. 1 is a side elevation of the improved siphon showing it applied.

Fig. 2 is a top plan view of the improved siphon.

Fig. 3 is a longitudinal section through the siphon.

Fig. 4 is an end elevation through a modified form of the invention.

Fig. 5 is a vertical section taken on the line 5-5 of Fig. 4.

Referring more particularly to the drawings, the improved gasoline or fuel feed siphon comprises a cylindrical body 1 which has a supporting strap 2 engaging its outer surface intermediate its ends. The strap 2 is slotted as shown at 3 for engagement over a suitable bolt 4 carried by the side of an engine A of a motor vehicle, for supporting the improved siphon in close proximity to the carbureter B. The tank 1 has its ends sealed, preferably hermetically, and a fuel supply pipe 5 enters the tank through its rear end and extends through the length of the body, as clearly shown in Fig. 3 of the drawings. The pipe 5 has communication

with the gasoline tank 6 of a vehicle equipped with the device to permit the gasoline or other fuel to enter the cylindrical body 1. The inner end of the pipe 5 is cut at an angle as shown at 5', so as to permit all of the liquid fuel to pass out of the pipe into the body 1. An outlet pipe 7 is connected to the rear end of the body 1 at its lowermost portion and extends to and is connected with the inlet pipe 8 of the carbureter B so that fuel will pass out of the body or tank 1 of the siphon to the carbureter.

In gasoline supply systems, the tank 6 is provided with an air vent at its uppermost portion and the gravity action of the gasoline together with the suction of the carbureter draws the gasoline from the tank and in the present invention, these forces acting, will fill the tank or body 1 of the siphon structure, the lowermost portion of which is practically on a level or slightly above the top of the carbureter B and the fuel will flow from the body 1 into the carbureter until the body 1 has a predetermined capacity, preferably one pint and it will be apparent that during travel of a vehicle equipped with the device the tank or body 1 will be full at all times and thus when the vehicle starts up an incline the angle of which is sufficient to bring the carbureter B above the elevation of the tank 6 the gasoline or fuel will feed to the carbureter from the tank or body 1 while without the use of the siphon structure, in cases where the gasoline is low in the tank 6, such feeding of gasoline would be cut off preventing operation of the vehicle.

An air vent 9 is formed in the casting 10 which is attached to the body 1 and it has communication through the longitudinal bore 11 of the casting with the interior of the tank or body 1 to permit release of air from the tank to prevent the feed from becoming air bound. A rod 12 is slidably mounted in the bore 11 and extends upwardly therefrom through the dash C of the motor vehicle, having a thumb nut 13 mounted upon its outer end to facilitate its sliding movement in the bore 11 for opening or closing the vent 9. A spring 14 is coiled about the rod 12 and engages a dash carried guide 15 for urging the rod into vent closing position.

In Figs. 4 and 5 of the drawings a slight modification of the gasoline feed structure

is shown in which the inlet pipe 5^a enters the tank 1' adjacent its lowermost portion at its rear end and inclines upwardly through the tank or body 1' towards the
5 forward end of the body, opening out adjacent the top of the body.

It is, of course, to be understood that the invention may be constructed in other manners and the parts associated in different
10 relations and, therefore, I do not desire to be limited in any manner except as set forth in the claim hereunto appended.

Having thus described my invention what I claim is:

An auxiliary fuel tank for motor vehicles 15 having an inlet pipe entering one end of the tank adjacent the top thereof and extending into the tank for nearly its entire length, the inner end of said pipe being cut at an angle, an outlet pipe leading from the same end of
20 the tank that the inlet pipe enters but at a point adjacent the opposite wall, an air regulating pipe for the tank consisting of a vent pipe section extending upwardly from the tank, and a slidably mounted rod for
25 opening and closing the pipe section.

In testimony whereof I affix my signature.

PAUL M. LEWIS.