

No. 781,701.

PATENTED FEB. 7, 1905.

E. WALTHER.
CARBURETER.

APPLICATION FILED SEPT. 1, 1904.

Fig. 1.

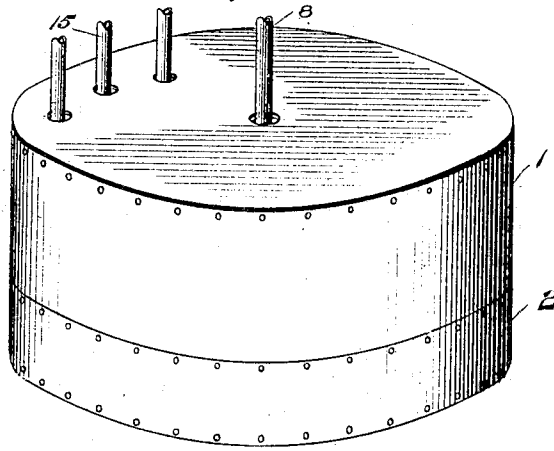


Fig. 2.

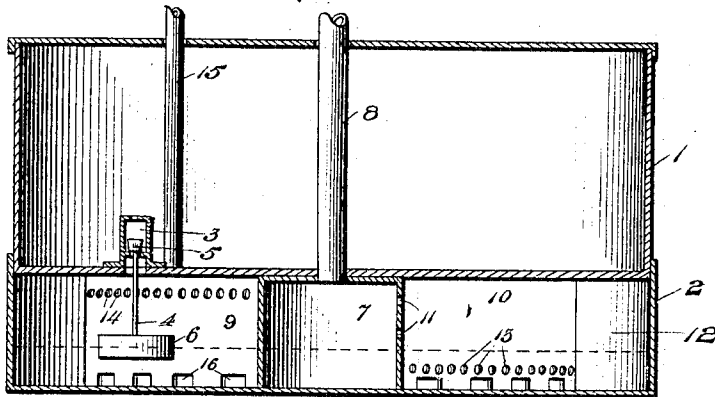
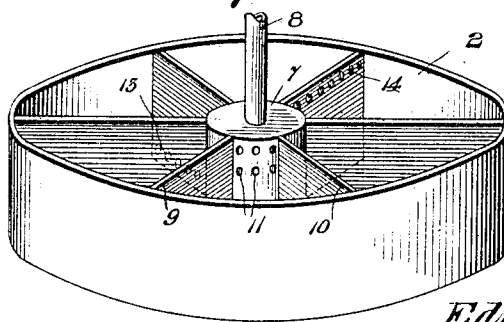


Fig. 3.



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CARBURETER.

SPECIFICATION forming part of Letters Patent No. 781,701, dated February 7, 1905.

Application filed September 1, 1904. Serial No. 222,958.

To all whom it may concern:

Be it known that I, EDWARD WALTHER, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Carbureters, of which the following is a specification.

My present invention relates to improvements in carbureters, and has special reference to an apparatus of this character adapted to generate gas from gasolene or the like by the passage therethrough of cold air under pressure, a new and novel construction of apparatus being provided to carry these objects into effect.

To attain these objects, the invention consists of a carbureter and supply-tank embodying novel features of construction and combination of parts, substantially as disclosed herein.

In the accompanying drawings, Figure 1 is a perspective view of the complete apparatus. Fig. 2 is a vertical sectional view therethrough. Fig. 3 is a perspective view of the carbureter with the supply-tank removed.

Referring to the drawings, the numeral 1 designates the supply-tank, which is in communication with the carbureter 2 through the medium of a pipe 3, in which is slidably mounted a stem 4, carrying a valve 5 upon its upper end and a float 6 upon its lower end, said float being within the carbureter and supported upon the body of the gasolene. This valve and float, with their immediate connections, are similar in construction to the valve and float shown and described in my Letters Patent for carbureter, No. 707,467, issued August 19, 1902, the same being modified and adapted to be operated with the construction herein set forth.

The carbureter which constitutes the lower compartment of my apparatus, which is preferably circular, is provided with a hollow hub 7 in the center thereof, to which leads an air-supply pipe 8, said pipe 8 passing centrally through the gasolene-supply tank, as clearly shown in Fig. 1. This disk 7 is hollow and is provided upon its periphery between the radial partitions 9 and 10 with a series of perforations 11, so that air passes through said perforations into the compartment 12, formed

between said partitions, through the perforations 13, formed in the partition 10, and as the carbureter is provided with a series of partitions radiating toward the periphery a series of compartments are provided, the said partitions of the compartments being alternately provided with the perforations 13 below the level of the gasolene and the perforations 14, located in partitions of each alternate compartment above the level of the gasolene, thus causing the air to commingle with the gasolene, so as to vaporize the same, and when it has reached the last compartment to allow it to pass upward through the pipe 15, where the commingled air and gas are delivered to be used. The compressed air in its passage through the carbureter causes the gasolene to evaporate, so that the vapors thereof will mingle with the compressed air and be carried through the exit-pipe 15. These partitions are clearly shown in the sectional view and are so supported between the periphery of the receptacle and the hub 7 that a space 16 is left between their lower edge and the bottom 17 of the receptacle, thus allowing the free flowing of the gasolene from one compartment to the other. If this were not the case, the compressed air would force the gasolene upward and out of the pipe 15 without properly gasifying the same.

This construction of carbureter by allowing the air to pass around and over the different partitions provides a perfect carbureter or generator, and if it is desired to generate the gas faster the number of partitions is increased, so that the air is caused to pass through a greater body of gasolene.

From the foregoing description, taken in connection with the drawings, it is evident that I provide a new and improved form of carbureter in which cold air under pressure causes the evaporation or the gasifying of the gasolene or the like, and by means of the float and valve, in combination with the other features, the proper amount of gasolene is admitted from the supply-pipe into the carbureter.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an apparatus of this character, the combination of a supply-tank, a generator be-

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low and in communication with the supply-tank, a central hollow hub in the generator, an air-supply pipe connected to said hub and extending through the supply-tank, a series of
 5 partitions radially connected to the hub and to the exterior rim of the generator forming a series of compartments, said partitions being provided with a series of openings each alternate one having openings below and the others
 10 having openings above the liquid-line of the generator, whereby when the air enters through the hub it passes through the openings of the partition and alternately out of the liquid throughout the generator, means for
 15 controlling the supply of liquid to the generator, and means for conveying the air and gas from the generator.

2. In an apparatus of this character, the combination of a circular supply-tank, a circular generator-tank located below the supply-tank and in communication therewith, means for controlling the height of liquid in
 20 the generator, a hollow hub in the generator having openings upon one side thereof, an air-supply pipe passing through the supply-tank and connected with said hub, a series of radiating partitions connected to the hub and to
 25 the exterior of the generator forming a series of compartments therearound, all of said partitions except one being provided with a series of perforations for the conveyance of the air and gas from one compartment to the
 30 other, the last-mentioned partition being a solid wall.

3. In an apparatus of this character, the combination of a circular supply-tank, a circular generator-tank located below the sup-

ply-tank and in communication therewith a float-controlled valve for admitting liquid to
 40 the generator and controlling the height thereof in the generator, a hollow hub in the generator having openings upon one side thereof, an air-supply pipe passing through the supply-tank and connected with said hub, a series
 45 of radiating partitions connected to the hub and to the exterior of the generator forming a series of compartments therearound, all of said partitions except one being provided with a series of perforations for the conveyance of
 50 the air and gas from one compartment to the other, the last-mentioned partition being a solid wall.

4. In an apparatus of this character, the combination of a circular supply-tank, a generator below and in communication therewith,
 55 means for controlling the flow from the supply-tank to the generator, a hollow hub located in the generator, a supply-pipe passing through the tank and in communication with said hollow hub, a series of radiating partitions provided with perforations below the
 60 surface of the fluid within the generator connected to the hub, another series provided with perforations above the surface of the liquid in the generator connected to the hub, whereby a series of compartments with passages for
 65 the air are provided, and means for conducting the air and gas from the carbureter.

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

EDWARD WALTHER.

Witnesses:

O. H. RASCHER,
 LOUIS E. RODDEWIG.