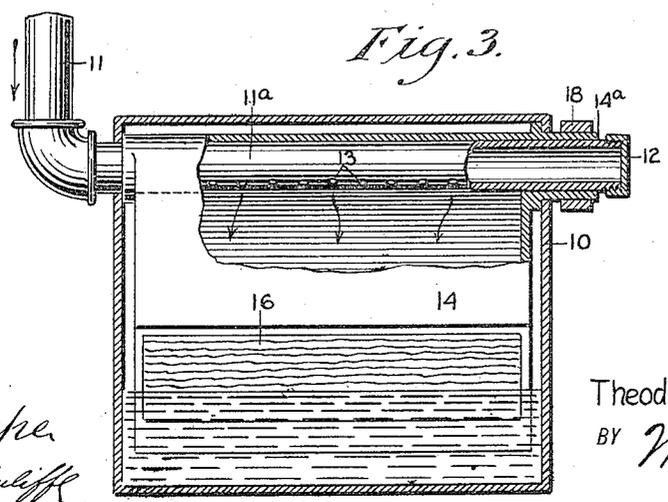
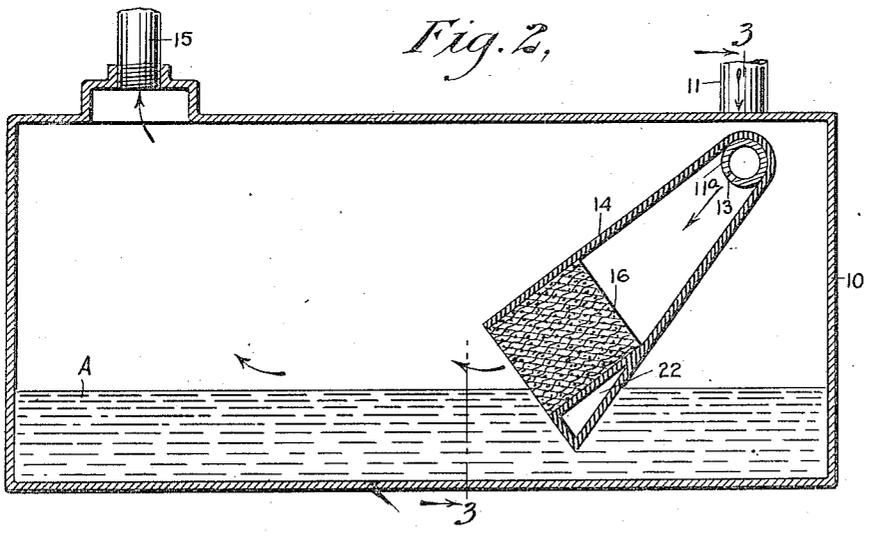
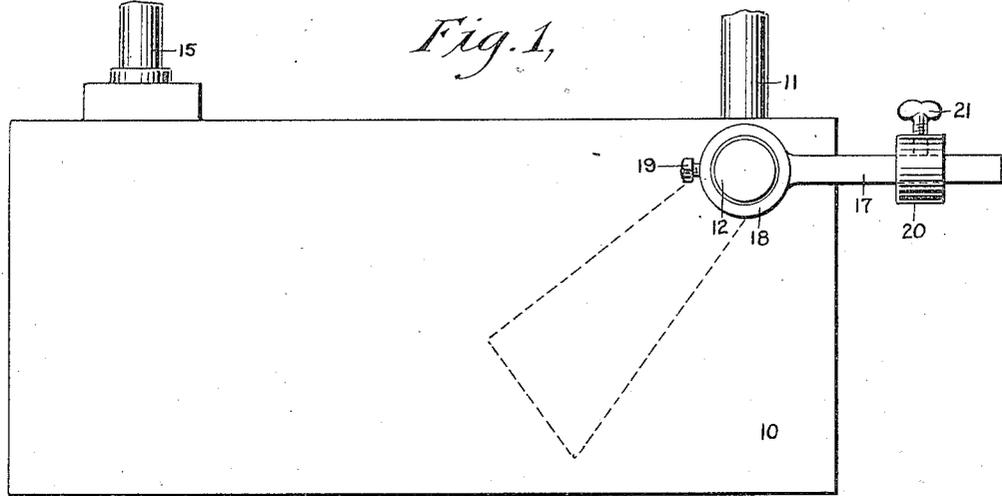


T. O. WINGER,  
 CARBURETER.  
 APPLICATION FILED FEB. 9, 1915.

1,155,184.

Patented Sept. 28, 1915.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## CARBURETER.

1,155,184.

Specification of Letters Patent. Patented Sept. 28, 1915.

Application filed February 9, 1915. Serial No. 7,054.

*To all whom it may concern:*

Be it known that I, THEODORE O. WINGER, a citizen of the United States, and a resident of Amery, in the county of Polk and State of Wisconsin, have invented a new and Improved Carbureter, of which the following is a full, clear, and exact description.

My invention relates to apparatus for producing an explosive or combustible mixture of air and gasolene, or like fluid, hereinafter referred to as gasolene, for use in internal combustion engines, and for other purposes.

My invention is based on the fact that air will take up gasolene and like fluids and become thereby carbureted by contact with the gasolene either in passing over the surface thereof; over and against the surface of fibrous or absorbent material saturated with the gasolene, or by being discharged into a body of gasolene below the surface thereof.

Prime objects of my invention are to provide a device whereby effective contact with the gasolene will be brought about, and to provide a device of the indicated character having provision for adjustment to vary the contact surface between the air and gasolene or the period of contact whereby to vary the character of the mixture as to its richness.

A further object of the invention is to provide a structural embodiment of the invention, of extremely simple form, which will have a wide range of adjustment and which may be adjusted with facility.

Other objects and advantages of the invention will appear from the more particular description following.

Reference is had to the accompanying drawings forming part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which:

Figure 1 is a side elevation of a carbureter embodying my invention; Fig. 2 is a longitudinal vertical section; and Fig. 3 is a transverse vertical section on the line 3-3 of Fig. 2.

In constructing a practical embodiment of my invention in accordance with the illustrated example, a reservoir 10 is provided of suitable content to give the desired capacity in a given case, said reservoir being adapted to contain a body of gasolene A, or similar fluid. An air inlet pipe 11 leads into the reservoir 10 at one side and extends

as at 11<sup>a</sup> transversely of the reservoir, to and through the opposite side as shown in Fig. 3, the end at said opposite side of the reservoir being suitably closed as by a cap 12.

The horizontal terminal 11<sup>a</sup> of the air inlet 11 discharges through either a longitudinal series of apertures 13 or equivalent openings or opening into a hollow air deflector 14, which is hung on the said terminal 11<sup>a</sup> of the inlet pipe. The reservoir 10 has an outlet 15 for carbureted air and the deflector 14 is arranged to direct the air into contact with the body of gasolene A between the inlet 11 and the said outlet. The deflector is widened from the inlet toward the outlet, which may be effected by flaring the upper and lower walls thereof, as shown best in Fig. 4, and in order to vary the effective area of the outlet the deflector 14 is adapted to be regulated, by means hereinafter described, to cause its outlet end to be immersed to a greater or less extent below the surface of the gasolene A, thereby varying the outlet passage for the air between the surface of the gasolene and the upper wall of the deflector.

Preferably I provide in the deflector 14 adjacent to its outlet end a screen 16 which may consist of a mass of fabric, or the like, or fibrous material sufficiently absorbent to take up the gasolene by capillary action when the lower portion of the screen material is immersed.

The means for maintaining the rockable deflector 14 at different inclinations to the surface of the gasolene may consist of the following devices: At one end the deflector is formed, as shown in Fig. 3, with a tubular extension or sleeve 14<sup>a</sup> fitting the projecting terminal of the branch 11<sup>a</sup> on the inlet pipe inward from the cap 12. On said sleeve 14<sup>a</sup> is secured an arm 17 which is formed with a collar 18 surrounding the sleeve and detachably secured to the latter by a set screw 19, or the like. The arm 17 has a sliding weight 20 having a set screw 21 to hold it in adjusted position on the said arm 17. By the described construction the leverage of the weighted arm may be increased or decreased to counter-balance the deflector 14 at any given inclination, as will readily be understood.

The deflector 14 may have a float chamber 22 at the outlet end at the underside whereby to give the deflector more or less buoyancy when the lower end is submerged, and there-

by assist in facilitating the counterbalancing of the deflector at a given angle.

With my improved carbureter it will be seen that the richness of the mixture will, to some extent, depend on the size of the reservoir and thus on the distance between the deflector 14 and the outlet end of the reservoir, but the richness of the mixture may be very effectively regulated by varying the submergence of the outlet end and its screen 16. Thus a particular mixture to suit required conditions may be produced according to the intended use of the mixture for internal combustion engines or other purposes.

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

A carbureter comprising a reservoir hav-

ing an outlet for carbureted air, a fixed inlet pipe leading to the reservoir and having a perforated member extending transversely across the reservoir near the top for the outlet of air, a hollow deflector rockably hung upon and surrounding the said transverse member of the air inlet pipe, and having an outlet near its lower end, and a variable counter-balance arm on the said deflector outside the reservoir serving to counter-balance the deflector at various inclinations.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THEODORE O. WINGER.

Witnesses:

O. G. DAHLSTROM,  
V. H. CLANTERSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."