No. 798,150. PATENTED AUG. 29, 1905.

S. B. WOLGAMOTT.

CARBURETER FOR GAS ENGINES.

APPLICATION FILED MAR. 7, 1904.

2 SHEETS—SHEET 1.

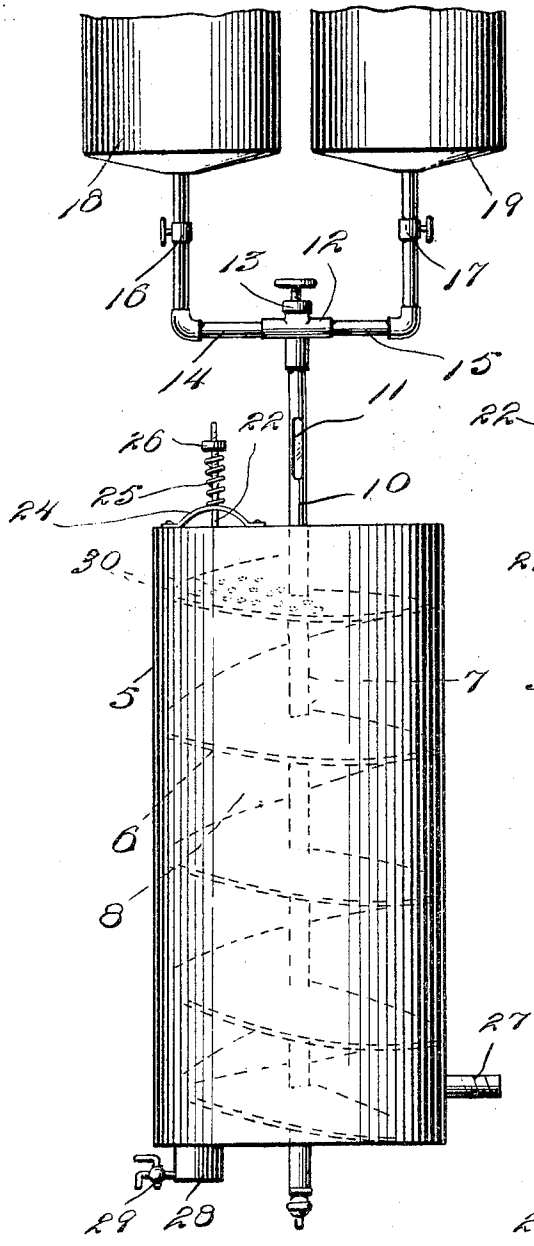


Fig. 1.

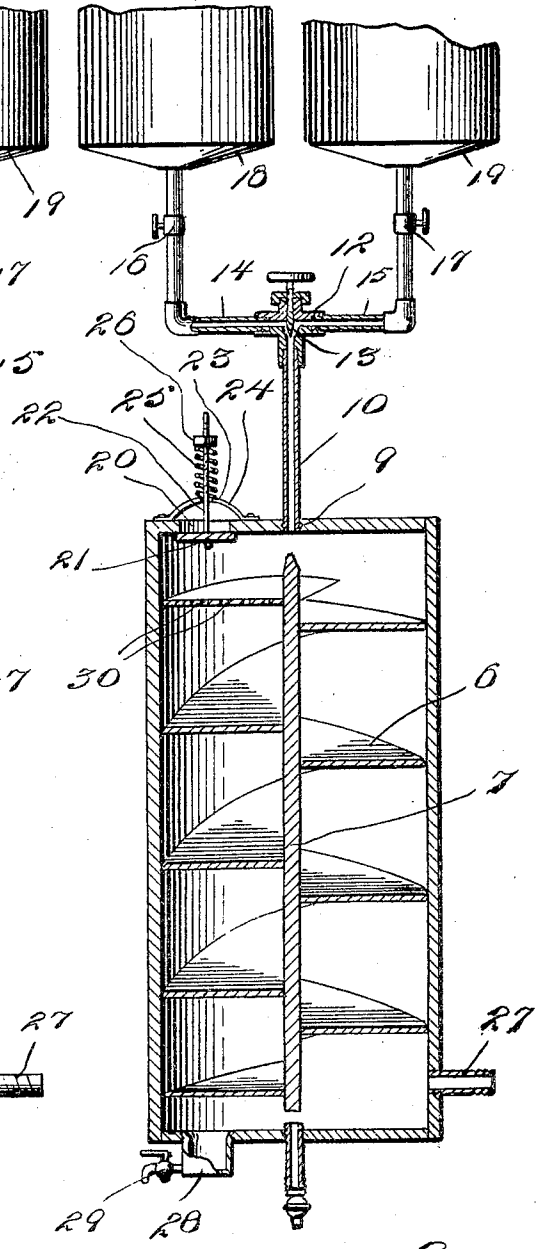


Fig. 2.

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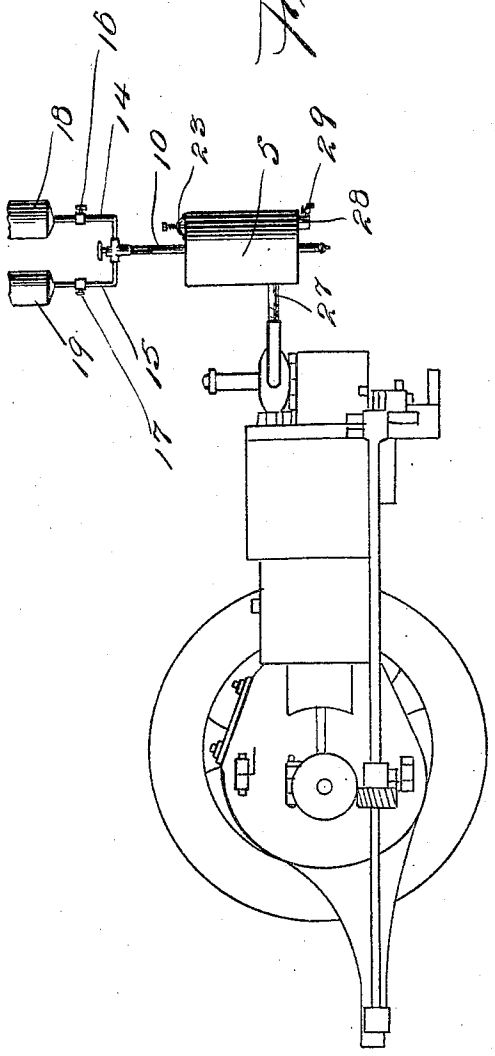
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2 SHEETS—SHEET 2.

Fig. 5.



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UNITED STATES PATENT OFFICE.

SAMUEL B. WOLGAMOTT, OF TANCRED, CALIFORNIA.

CARBURETER FOR GAS-ENGINES.

No. 798,150. Specification of Letters Patent. Patented Aug. 29, 1905.

Application filed March 7, 1904. Serial No. 197,014.

To all whom it may concern:

Be it known that I, SAMUEL B. WOLGAMOTT, a citizen of the United States, residing at Tancred, in the county of Yolo, State of California, have invented certain new and useful Improvements in Carbureters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to carbureters, and more particularly to those for use in connection with explosive-engines, and has for its object to provide a device of this nature which will retain a quantity of gas in storage at all times when in use and which will be so constructed as to permit of the mixture of a number of light hydrocarbons or other volatile liquids in the desired quantities and of the admission of the mixture to the carbureter at the desired rate.

Another object is to provide a construction in which the liquids will be thoroughly volatilized and in which the amount of air admitted to the carbureter may be regulated to obtain the desired richness of gas.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the complete device. Fig. 2 is a longitudinal section of Fig. 1. Fig. 3 is a side elevation of a gas-engine provided with the present invention.

Referring now to the drawings, the present invention comprises a cylindrical casing 5, closed at the top and bottom and which has disposed therewithin a spiral 6, arranged around a central core 7, so that a continuous helical passage 8 is formed. Above the upper end of the spiral 6 there is an opening 9 in the top of the casing, and connected with this opening is a pipe 10, having a glass sight 11 therein. This pipe is provided with a three-way connection 12 at its upper end which contains a needle-valve 13, which is directed downwardly into the pipe, as shown. With the two remaining openings of the connection 12 are connected pipes 14 and 15, having valves 16 and 17 therein which permit of the variation of the supply of liquid received from reservoirs 18 and 19, with which the pipes are connected. Adjacent to the opening 9 is a second opening 20, provided with a downwardly-opening valve 21. This valve, as shown, consists of the usual plate, having an upwardly-extending stem 22, which is received in the opening 23 of an arched brace 24, secured to the top of the casing. Above the brace a helical spring 25 is engaged with the stem and is held thereon by means of a thumb-nut 26, which may be moved upon the stem to vary the tension of the spring. A pipe 27 enters the casing 5 and is connected with the passage 8, adjacent to the bottom thereof, and this pipe 27 is adapted for connection to the intake-valve of an explosive-engine. Below the end of the passage 8 is a trap 28, provided with a valve 29 to catch any unvolatilized liquid which may reach the bottom of the spiral 6. The upper end of the spiral is perforated, as shown at 30, for a short distance to insure the spreading of the liquid over the entire surface, it being understood that these perforations lie just below the point at which the liquids strike the spiral, capillary attraction being sufficient to prevent the passage of the liquid through the perforations.

In practice the reservoirs 18 and 19 are filled with the desired liquids and the valves 16 and 17 are adjusted to give the correct mixture, after which the valve 13 is adjusted to permit of the correct flow of liquid to the casing and the tension of the spring 25 is regulated. The liquid striking the spiral 6 flows downwardly thereover, being spread by the perforations 30, and is evaporated by the atmosphere in the passage 8. The engine is now started, which draws the air through the pipe 27 and causes a partial vacuum in the passage 8. This opens the valve 21 and causes a current of air to pass downwardly through the passage 8 and in contact with the liquid, which insures the thorough volatilization thereof. If the explosions within the cylinder of the engine are irregular or lack the desired force, the several valves of the carbureter may be adjusted until the correct mixture is obtained.

In practice modifications of the specific construction shown may be made and any suitable materials and proportions may be used without departing from the spirit of the invention.

What is claimed is—

A carbureter for gas-engines comprising a cylindrical casing, a core disposed centrally within the casing, a spiral plate surrounding the core and secured thereto, said plate having transverse series of perforations at its upper end, a pipe engaged in the upper end of the casing over the core and arranged to discharge liquid thereupon and upon the spiral at its perforated portion, laterally-extending

branch pipes connected with the first-named pipe at its upper end, a needle-valve at the union of the pipes arranged to close the first-named pipe, separate tanks connected with the laterally-extending pipes for the passage of liquid through the pipe from the tank, valves arranged for operation to cut off the supply of liquid from the tanks, a yoke secured to the top of the casing, said casing having an opening therein below the yoke, a valve for the opening, a stem carried by the valve and slidably engaged in the yoke, a spring engaged with the stem above the yoke, a nut adjustably engaged with the stem above the spring to vary the tension of the spring, said spring being arranged to hold the valve in closed position and an outlet-pipe at the bottom of the casing.

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

SAMUEL B. WOLGAMOTT.

Witnesses:

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