

(No Model.)

H. B. CORNISH.
CARBURETOR.

No. 534,861.

Patented Feb. 26, 1895.

Fig: 1.

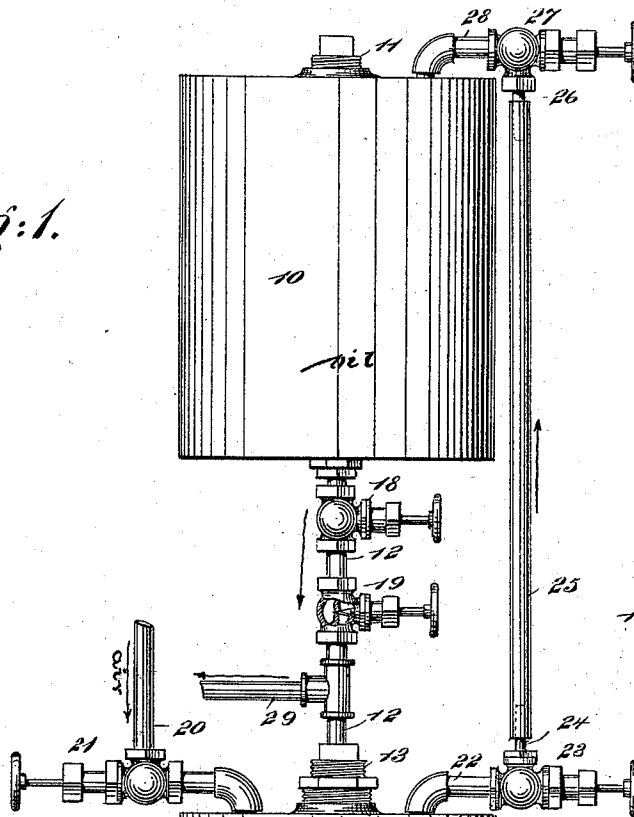


Fig: 2.

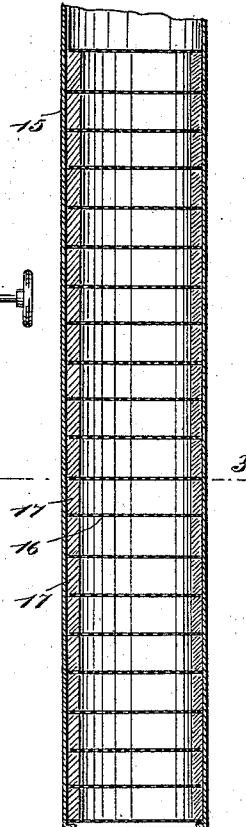
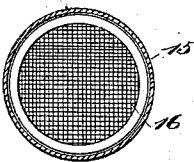
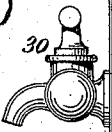


Fig: 3.



WITNESSES:
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UNITED STATES PATENT OFFICE.

HARRY B. CORNISH, OF HAMPTON, IOWA.

CARBURETOR.

SPECIFICATION forming part of Letters Patent No. 534,861, dated February 26, 1895.

Application filed November 10, 1894. Serial No. 528,415. (No model.)

To all whom it may concern:

Be it known that I, HARRY B. CORNISH, of Hampton, in the county of Franklin and State of Iowa, have invented a new and Improved Carburetor, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of apparatus which is used for carbureting air to enable it to be burned like a gas for illuminating purposes; and the object of my invention is to produce a very cheap and simple apparatus which is adapted to be used in connection with a supply tank of gasoline or other volatile oil and incorporate it with a volume of air so as to render the mixture suitable for illuminating purposes.

Another object of my invention is to produce an apparatus which is perfectly safe to use and may be very conveniently and easily controlled.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation, partly in section, of my improved apparatus. Fig. 2 is an enlarged detail longitudinal section of the vaporizer which is adapted to atomize the gasoline so that, as the air passes up through it, it will pick up the vapor and thus mingling with it form a substance burning equal to gas. Fig. 3 is a sectional plan on the line 3—3 of Fig. 2.

The apparatus is provided with a relatively small tank 10 capable of holding gasoline or other volatile oil, and this tank is provided with an inlet which is closed by a plug 11 and with an outlet pipe 12 at the bottom, which pipe delivers into a coupling or stuffing box 13 from which extends downward into the main tank 14 the vaporizer 15 which consists of a main tube and a series of screens 16, placed one above another and held in place by suitable interposed collars 17. The gasoline which flows downward through the pipe 12 is thus delivered upon the screens 16 and by these is finally subdivided so that the air which passes up through the vaporizer readily

picks up the oil. The pipe 12 is provided with a valve 18 which is adapted for use in shutting off the carbureted air from the tank 10, and also with a needle valve 19 controlling the down-flow of gasoline.

The air is supplied to the main tank 14 through a pipe 20, which connects with the upper part of the tank and is supplied from a suitable pump, and the pipe is controlled by a valve 21. Leading from the top of the main tank 14 is a nipple 22 which connects with the valve 23, and this has a nipple 24 adapted to connect with a rubber pipe 25 or an equivalent pipe, which at its upper end connects with the nipple 26 on a valve 27 of a pipe 28, which connects with the upper part of the tank 10. It will thus be seen that there is an equal air pressure in both the upper and lower tanks, so that the gasoline or other oil in the tank 10 will flow by gravity down into the tank 14.

The carbureted air passes out through a pipe 29 which connects with the pipe 12 below the valve 19, and the lower tank may be cleaned out through a faucet 30.

When the apparatus is to be used, the air is forced under pressure into the tank 14, through the pipe 20 and also from the tank 14 up through the pipe 25 to the tank 10, which contains the gasoline, and the valves 18 and 19 are opened sufficiently to permit the gasoline to drip down through the pipe 12 and into the vaporizer 15, where it is vaporized, as already described, and mingling with the air passes out through the pipes 12 and 29 to the service pipes.

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

1. In a carburetor, the combination of an oil-supply tank, a main tank, adapted to contain air under pressure a pipe affording communication between the oil-supply tank and the upper part of the main tank, a vaporizer located centrally in the main tank with its upper end under the lower end of the oil-supply pipe and adapted to receive oil therefrom, an outlet pipe for the carbureted air adapted for communication with the upper end of the vaporizer, and means for supplying air to the lower end of the vaporizer, substantially as set forth.

2. In a carburetor, the combination of a main tank adapted to contain air under pressure and an oil-supply tank, an oil-supply pipe affording communication between the lower
5 part of the oil-supply tank and the upper part of the vaporizer, a vaporizer in the main tank adapted to receive oil from the oil-supply pipe, a valve in the oil-supply pipe, means for passing a current of air through the vaporizer, a
pipe affording communication between the upper part of the oil tank and the main tank and a valve in said pipe, substantially as set forth.

HARRY B. CORNISH.

Witnesses:

GEO. BRAHAM,
W. E. PINCKNEY.