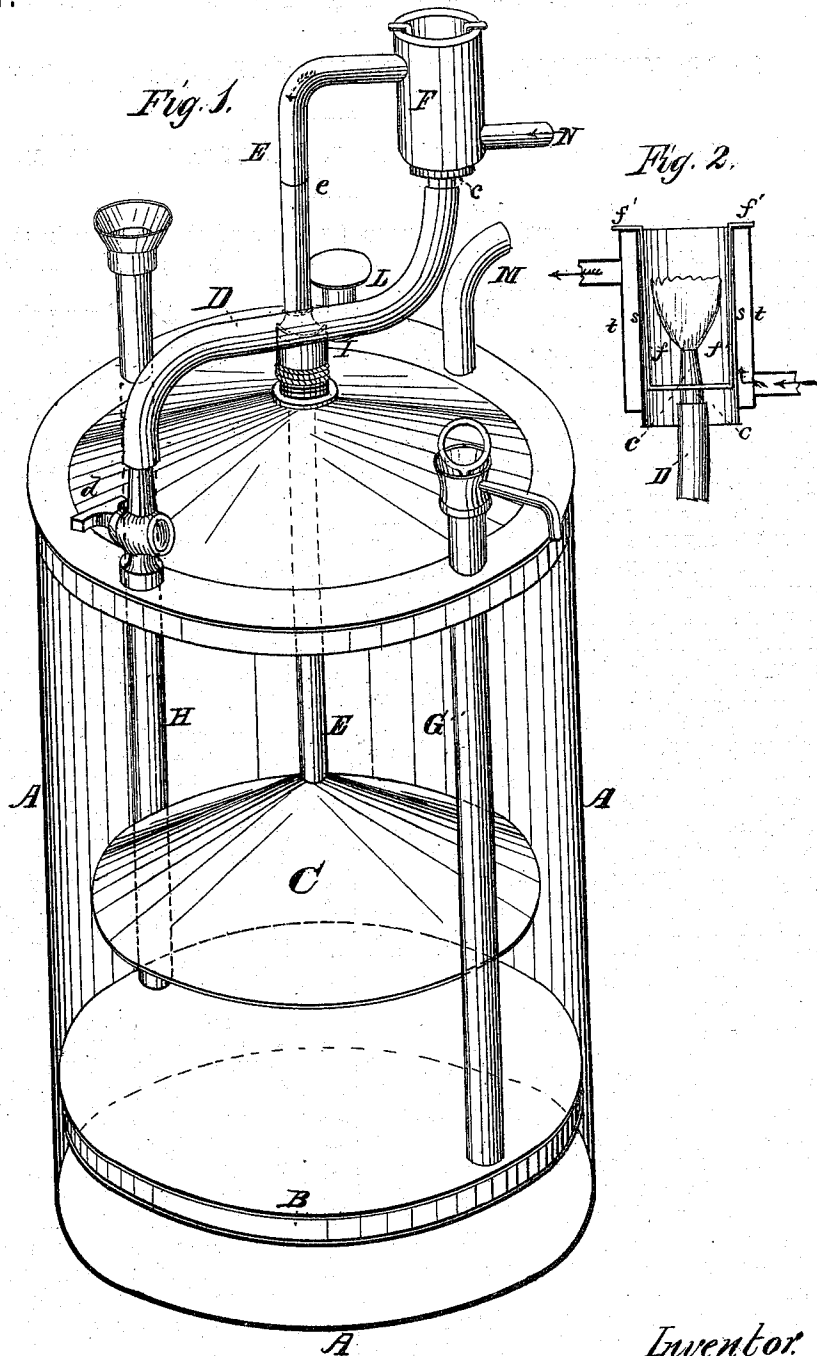


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Improvement in Apparatus for Carbureting Air.

No. 127,031.

Patented May 21, 1872.



Witnesses.

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HENRY G. DAYTON, OF MAYSVILLE, KENTUCKY.

IMPROVEMENT IN APPARATUS FOR CARBURETING AIR.

Specification forming part of Letters Patent No. 127,031, dated May 21, 1872.

Specification describing certain Improvements in Apparatus for Carbureting Common Air, invented by HENRY G. DAYTON, of Maysville, county of Mason and State of Kentucky.

The first part of my invention relates to the construction of a water-chamber, and placing it immediately under the superincumbent mass of gasoline or other hydrocarbon used, and upon the bottom of the vessel containing it, to the intent that it may be heated in cold weather, to promote vaporization, by introducing hot water into such chamber. The second part of my invention relates to the construction of the supply-pipe for air forced into the apparatus, with an adjustable-screw packing-box where it enters the apparatus, and to constructing and placing upon the lower end of such pipe a disk or plate in dished form, concave side downward; the object of this combination of devices being that this concave disk may spread the current of air, introduced through the supply-pipe, evenly over the surface of the mass of the hydrocarbon, and the adjustable-screw packing-box will enable the operator to keep the disk just above the surface of the hydrocarbon without touching it. The third part of my invention relates to a combination of the devices, hereinafter more fully described, to effect the raising of the temperature of the air, introduced into the machine, in cold weather, to a certain degree, to promote vaporization of the hydrocarbon. These devices are a double cylinder or heater above the holder of the hydrocarbon, through which common air is forced into the apparatus, and a plate provided with a burner and suspended in said heater, and a flexible pipe, which conducts a part of the carbureted air from the body of the machine to such burner, where, by burning, it heats the incoming air, as designed, during its passage into the machine.

In the accompanying drawing, Figure 1 represents a perspective view of a machine constructed with my improvements, the front wall of the body of the machine having been cut away, in order to display the parts therein contained. Fig. 2 represents a central vertical

section of the annular heater or double cylinder and parts immediately connected therewith.

The letter A indicates the bottom and walls of the holder or receptacle for the gasoline and air; B, the chamber for warm water. This, as well as the annular heater F, is only necessary for use in cold weather, for a temperature of about 60° in the gasoline, and 80° Fahrenheit in the air, is considered sufficiently high for the most favorable results. H is the pipe by which the warm water is introduced, and G is a pump, by means of which the water is to be discharged. E is the supply-pipe, through which the air is forced. I is the packing-box, which is placed just above where the pipe passes down through the top of the receptacle. By means of an elastic gasket and the screw in the packing-box, the supply-pipe can be fastened at any point, so that the concave plate C may be held just above the surface of the gasoline. This plate, by reason of its peculiar form and its proximity to the surface, spreads out the current of air forced down the supply-pipe equably over such surface, and thus secures uniformity of action. L is the pipe for the introduction of the gasoline, and M the one for the discharge of the carbureted air. D is a flexible pipe, opened and closed by the cock *d*, by which a portion of the gas prepared for combustion is fed to the burner *c*, by means of which the annular heater is warmed. That burner is passed through and fastened into the plate *f*, bent into the form shown inside the heater. The ends *f' f'* of that plate are bent outwardly and over the upper edge of the heater, and thus sustain said plate and the burner *c* in proper position. The air enters at N and flows between the inner and outer walls of the heater, and thus flows over a heated surface of considerable extent, and then passes into pipe E and down into the body of the machine.

Claims.

What I claim as my invention is—

1. The water-chamber B upon the bottom of the holder of the gasoline or other hydro-

carbon, and immediately under the latter, as shown, substantially as and for the purpose described.

2. The combination of the adjustable-screw packing-box I, the air-pipe E, and concave plate C, constructed and arranged substantially as and for the purpose described.

3. The combination of the annular heater F having the pipe-connections N and E, the

flexible pipe D, and the burner c having the supporting-plate f, each constructed and all arranged substantially as and for the purpose described and set forth.

HENRY G. DAYTON.

Witnesses:

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