No. 790,025. PATENTED MAY 16, 1905.

G. L. BENNETT.

AIR CARBURETER.

APPLICATION FILED AUG. 13, 1904.

Fig. 1.

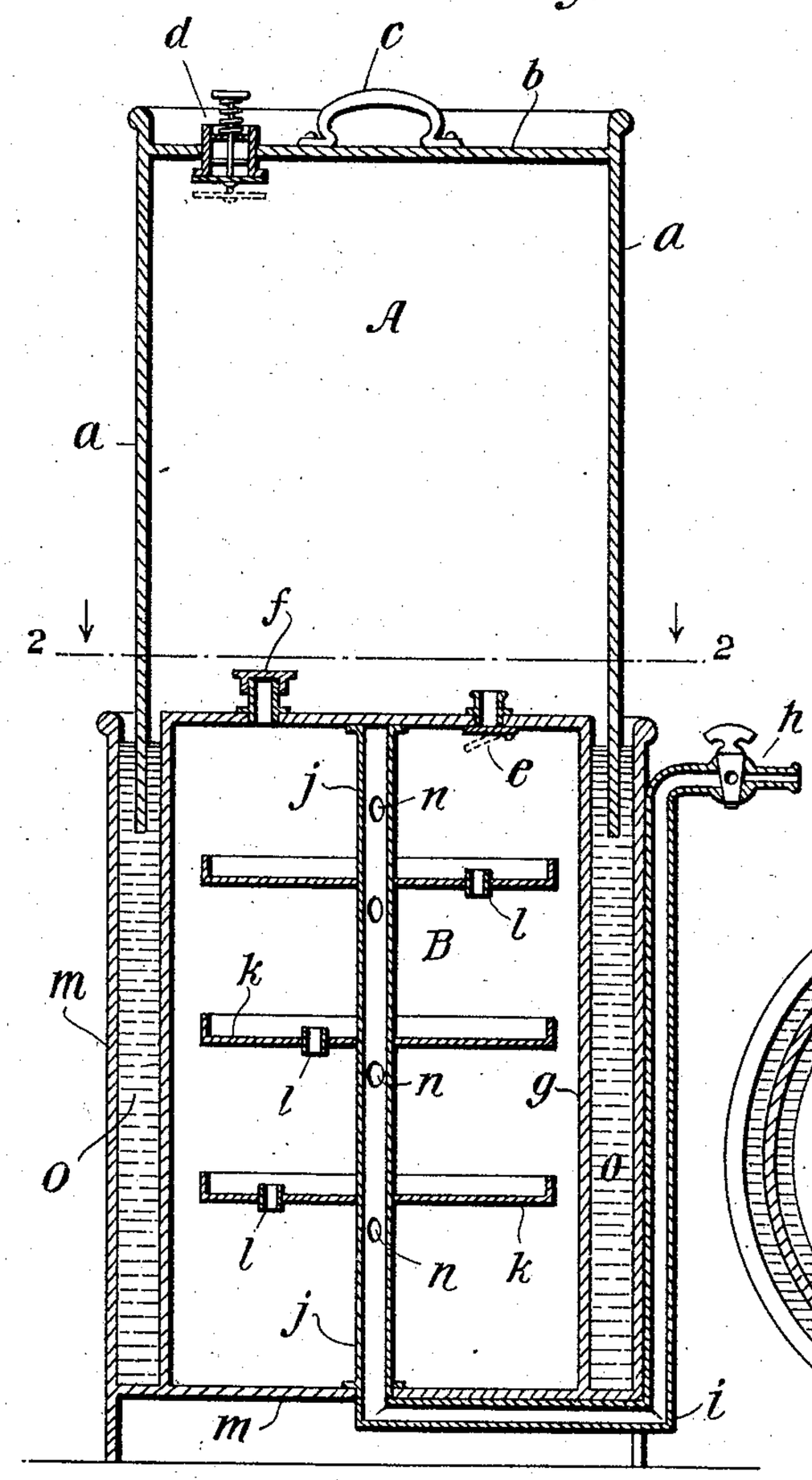
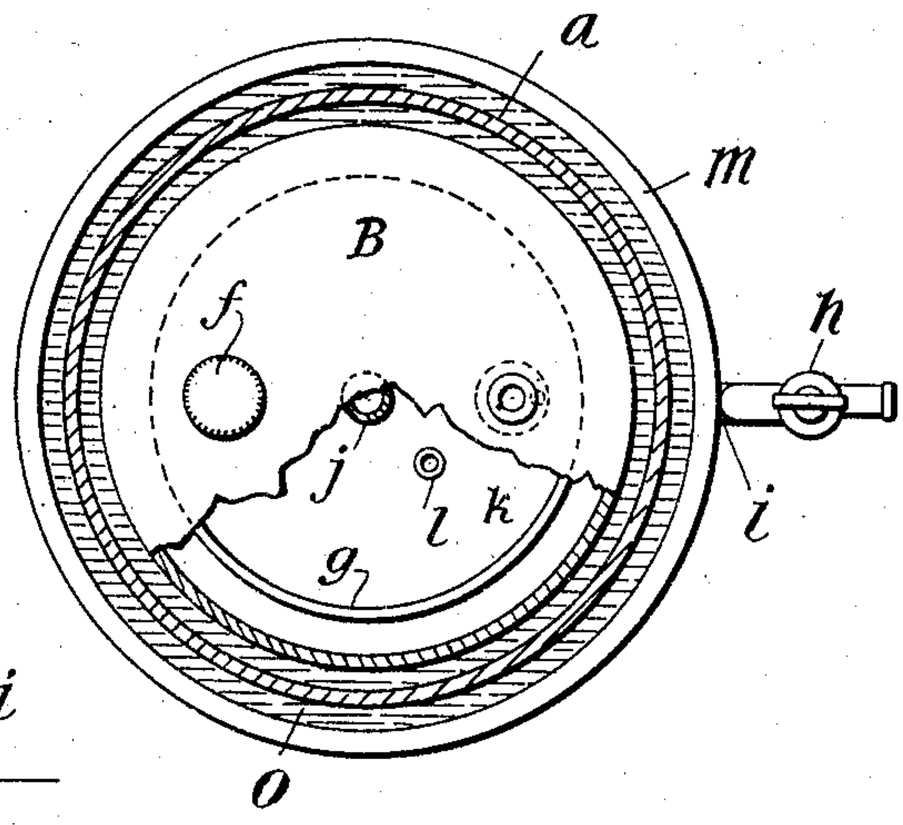


Fig. 2.



Witnesses:

~~Carl H. Schafer~~

E. A. Carroll.

Inventor:

George L. Bennett

By Orris A. Bishop. Atty

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UNITED STATES PATENT OFFICE.

GEORGE L. BENNETT, OF CHICAGO, ILLINOIS.

AIR-CARBURETER.

SPECIFICATION forming part of Letters Patent No. 790,025, dated May 16, 1905.

Application filed August 13, 1904. Serial No. 220,651.

To all whom it may concern:

Be it known that I, GEORGE L. BENNETT, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, (whose post-office address is 1002 West Madison street, Chicago,) have invented a new and useful Improvement in Air-Carbureters, of which the following is a specification.

My invention relates to vapor-generators in which gasolene, naphtha, benzin, or other volatile fluids are used to produce gas or vapor; and the object of my improvement is to provide an inexpensive portable air-carbureter for the use of dentists, jewelers, and other mechanics in their laboratories in places where they are not otherwise provided with gas. I attain this object by a mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view showing all parts. Fig. 2 is a top view of the water-tank and carbureting-chamber with the bell removed. A portion of the top of the chamber is cut away, showing one of the vaporizing-pans and the overflow-vent.

Similar letters refer to similar parts throughout both the views.

The cylindrical water-tank *m* is constructed of the required capacity, the bottom being placed two inches above the lower rim. The evaporating-chamber B is made two inches smaller in diameter than the water-tank, having a closed top. The top of the chamber is provided with an opening *f*, having a screw-cap, and an outwardly-closing valve *e*, fixed eccentrically in the top. A tube *j*, having three or more evaporating-pans *k*, smaller in diameter than the chamber B, are fixed to the tube *j* centrally one above the other at equal distances apart. The pans *k* have overflow-tubes *l* fixed in the floors, the top of the overflow-tubes being lower than the rim of the pans and so disposed as to not come opposite to each other. A circular orifice *n* is made in the tube between each pan. The top end of the tube carrying the pans *k* is then fixed vertically in the center of the top of the chamber. A circular orifice is punched in the center of the water-tank floor. The chamber B, having the tube *j* and pans *k* connected therewith, is placed in the tank, the end of the tube *j* inserted in the orifice in the floor of the tank and should protrude about three-fourths of an inch to facilitate connecting the discharging-tube *i*. The chamber is then adjusted to an equal distance circumferentially from the wall of the tank *m* and soldered fast to the floor of the tank. This will form a one-inch space between the wall of the tank and the chamber. The discharging-tube *i* is then fixed to the protruding end of the tube *j* and extended horizontally beneath the floor to the outside of tank, then carried vertically to the top of tank and fitted with a stop-cock *h*.

The cylindrical bell A is made one-half inch smaller in diameter than the tank and provided with a handle *c* in the center of the top. An outwardly-closing valve *d* is fixed eccentrically in the top of the bell. The side wall of the bell is carried up above the top about one and one-half inches to form a rim, thus completing the device.

In operation, the space *o* being partially filled with water, the cap *f* is removed. The fluid to be used is spilled into the pans *k* sufficient to fill them. If they overflow, it will fall to the bottom of the chamber and evaporate from thence. The cap *f* is then replaced. The bell is inverted and placed telescopically around the chamber in the water where it will float. The weight of the bell will compress the air and it will pass down through the valve *e* and over and around the pans. The fluid used will soon unite with the air and be ready to flow out through the apertures *n* in the exhaust-tube *j* to the discharge-tube *i*. A hose can be fixed to the cock *h* leading to a blowpipe or vulcanizer or such other instrument as may be required, or it may be connected with a Bunsen burner and Welsbach mantle. When the bell has been exhausted, seize the handle and lift it up. The valve *d* will open and let the air in and the valve *e* will close, preventing the gas from coming up into the bell. If greater pressure is required, weights may be placed on top of the bell; but this will not be found necessary unless more than one burner is in use at a time.

Having described my invention and its operation, I do not wish to confine myself to the specific number of evaporating-pans, since they may be multiplied if faster evaporation is required; nor do I wish to confine myself to generating fuel-gas exclusively, as anesthetic vapors may be generated equally as well and conducted to an inhaler. I am aware that volatile fluids have been evaporated by being spread over large surfaces. Therefore I do not claim the combination broadly; but

What I do claim as my invention, and wish to secure by Letters Patent, is—

The combination in a carbureting-machine, the superimposed evaporating-pans fixed centrally to a vertical tube, the overflow-vents fixed eccentrically in floor of said pans, the said tube having discharging-ports above each pan, the tube and pans fixed centrally in a cylindrical chamber, the outwardly-closing valve, and means for charging said pans, fixed in the top of said chamber, the discharging-tube connected externally with the vertical tube, in combination with a water-tank and floating bell substantially as described.

GEORGE L. BENNETT.

Witnesses:
J. H. BISHOP,
M. E. GRREGG.