

No. 665,743.

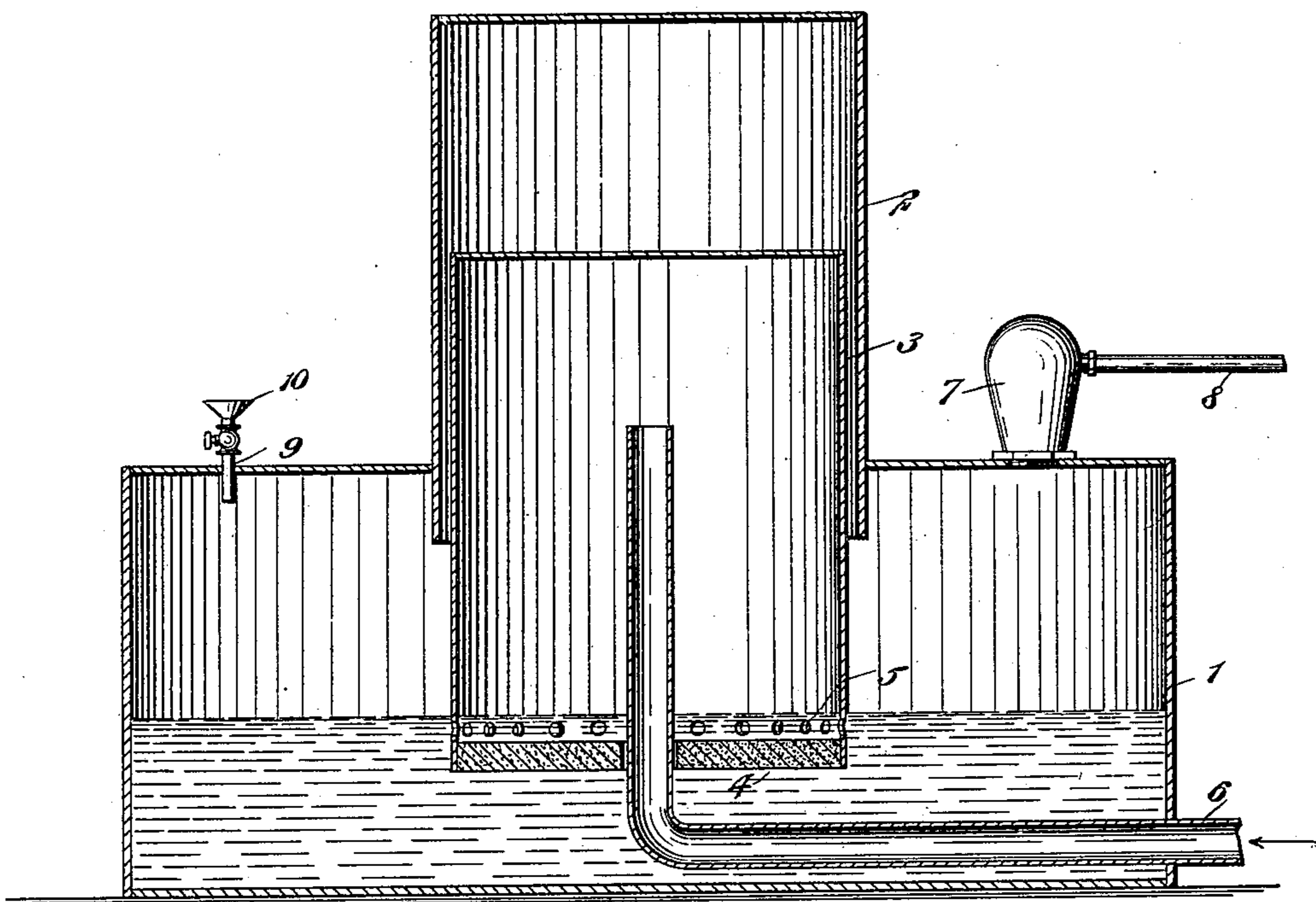
Patented Jan. 8, 1901.

E. J. KERN.

CARBURETER.

(Application filed July 16, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EDWARD J. KERN, OF JACKSON, MISSOURI.

## CARBURETER.

SPECIFICATION forming part of Letters Patent No. 665,743, dated January 8, 1901.

Application filed July 16, 1900. Serial No. 23,741. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD J. KERN, a citizen of the United States, and a resident of Jackson, in the county of Cape Girardeau and State of Missouri, have invented a new and Improved Carbureter, of which the following is a full, clear, and exact description.

This invention relates to carbureters or machines for generating gas from hydrocarbon oils for illuminating and fuel purposes; and the object is to provide a carbureter of simple construction and of comparatively small cost in which a practically equal pressure will at all times be maintained, thus insuring a steady and even light.

I will describe a carbureter embodying my invention and then point out the novel features in the appended claim.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure represents a sectional elevation of a carbureter embodying my invention.

The carbureter comprises an oil-tank 1, upon which is a dome 2, the said tank and dome communicating one with the other and being air-tight. Movable vertically in the tank and guided in the dome 2 is a floating bell 3, designed to receive air to be discharged into the hydrocarbon oil—such, for instance, as gasolene. This floating bell is closed at its top, and at its bottom it has a closure 4, of cork or similar material, that will cause the device to float upon the oil. The bell is to be of such weight, however, as to sink the lower end sufficiently to submerge the air-outlets 5, formed through the wall of the bell just above the cork bottom. An air-inlet pipe 6 leads into the tank 1 and thence through the bottom 4 into the bell. Air is to be forced through this pipe 6 by any suitable means at a low pressure. A dome 7 is attached to the tank, and a gas-distributing pipe 8 leads from said dome. Oil may be supplied to the tank 1 through a pipe 9, provided with a valve and having a funnel 10 at its top.

In operation air is supplied to the bell under light pressure, and this air escapes through the perforations 5, which, as before stated, are below the level of the oil, so that the air passes into the body of the oil and in passing upward therefrom becomes thoroughly saturated with the hydrocarbon vapor, and this vapor collects in the tank 1 above the oil and may be carried off as desired through the pipe 8. Should an overpressure of air pass into the bell 3, it will cause the bell to rise, bringing the perforations 5 above the level of the oil, so that the surplus air may pass into the chamber above the oil. When so relieved, the bell will immediately sink to its normal position, as before stated, and it is obvious that this overpressure will be but momentary.

In this carbureter the bell is practically at all times kept at the same level in the oil as the oil lowers in the tank, and therefore the point of saturation remains the same until all of the oil shall have been used, and I have found that a pure clear gas is generated and that it is not necessary to heat the burners by means of alcohol or the like to cause the gas to ignite.

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

In a carbureter, an oil-tank, a dome on said tank, a bell movable in said tank and having perforations near its lower end and held by the weight of the bell below the level of the oil in said tank, a bottom of cork or similar material for the bell, an air-pipe leading into the bell, and a gas-distributing pipe leading from the tank, substantially as specified.

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

EDWARD J. KERN.

Witnesses:

WILLIAM H. MILLER,  
SAMUEL D. WILLIAMS.