

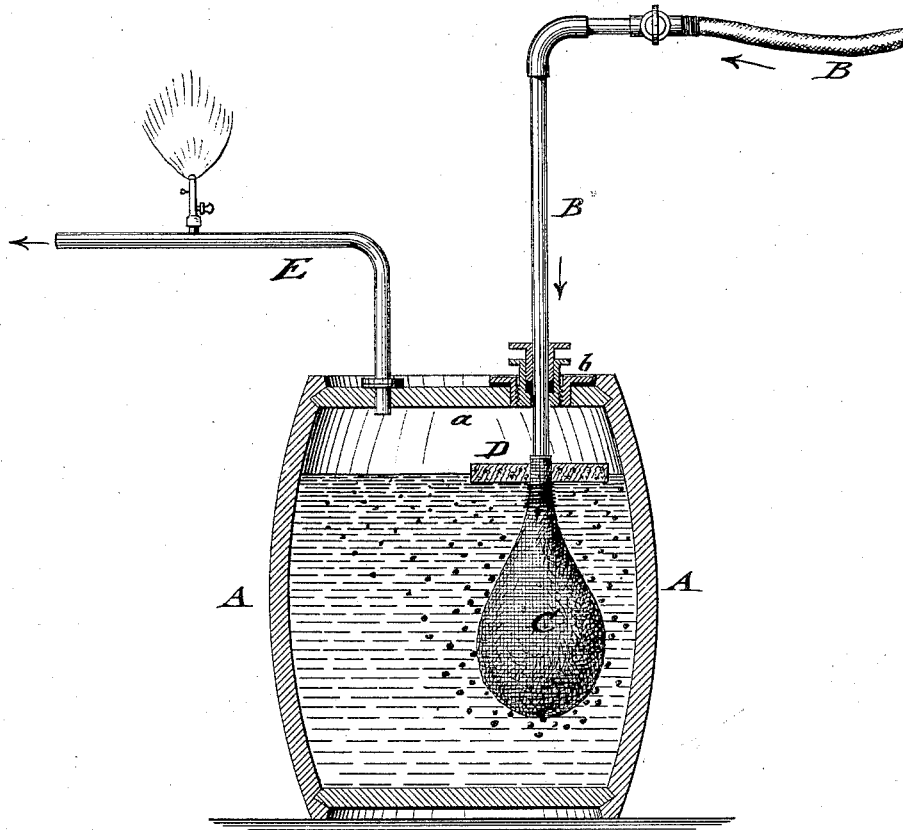
(No Model.)

C. HARTFELDT.

GAS GENERATOR.

No. 306,485.

Patented Oct. 14, 1884.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CARL HARTFELDT, OF NEW YORK, N. Y.

GAS-GENERATOR.

SPECIFICATION forming part of Letters Patent No. 306,485, dated October 14, 1884.

Application filed September 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, CARL HARTFELDT, of the city, county, and State of New York, have invented certain new and useful Improvements in Gas-Generators, of which the following is a specification.

The object of this invention is to furnish a simple and effective carbureting apparatus especially adapted for use in connection with the barrels in which the hydrocarbon oil is sold.

The accompanying drawing represents a vertical central section of my improved gas-generator.

My improved apparatus for generating gas is composed of a tank, A, preferably constructed of wood, in the shape of a barrel. The head *a* of the tank is provided with an opening and stuffing-box, *b*, through which a valved air-supply pipe, B, enters into the tank A, said supply-pipe being vertically guided by the stuffing-box and adapted to slide therein. The outer end of the air-supply pipe B is connected by a rubber or other pipe with an air-pump or other suitable air-forcing apparatus. To the inner end of the pipe B is tightly fastened a loosely-woven bag, C, of a suitable textile fabric, which bag serves as a diaphragm by which the air is distributed in a finely-divided state by the pressure of the air-pump and compelled to pass in small bubbles through the gasoline. The bag C is held entirely submerged in the gasoline by means of a float, D, that is secured above the bag C to the air-supply pipe B, said float rising or falling with the level of the gasoline, whereby the air-pipe B is also moved up and down in the stuffing-box *b*. The air-bubbles that escape through the bag C keep the gasoline in agitation and cause the evaporation of the same, the vapors and air mingling in the upper part of the tank A, so as to form there an illuminating-gas that is conducted through a pipe, E, attached permanently to the head *a* of the tank to the burners. Whenever any one or more of the burners connected to the gas-conducting pipe E are lighted, air is supplied by the air-pump, which is worked by a weight, spring, or other prime motor into the tank, and thereby the generation of gas estab-

lished. The quantity of air supplied to the tank has to be in proportion to the number of burners and to the gas consumed. The gasoline is pumped directly into the tank A from the barrel in which it is shipped, the tank being somewhat larger than the quantity of gasoline supplied thereto at a time, so that a space for the gas generated by the action of the air is formed above the level of the tank.

The device described forms a simple and inexpensive gas-generating device for private and business purposes, in which case the generating-tank is preferably stored in the customary manner in a shed at some distance from the building.

I am aware that various forms of gas apparatus have been heretofore used, in which are combined a tank for the liquid, an air-inlet pipe extending into said tank, and means for distributing air within the tank.

I am also aware that a curtain of coarse textile material, open at the bottom, has been used in connection with an oil-tank and a perforated pipe extending thereinto.

I do not claim these combinations, broadly.

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

The combination of a tank suitable for containing volatile hydrocarbon oil, a stuffing-box, and an outlet gas-pipe in the head of the tank, an air-supply pipe adapted to slide in the stuffing-box, and provided at its outer end with a flexible tube and regulating-valve, a bag made of loosely-woven textile fabric attached to the inner end of the air-pipe for distributing the air through the liquid, and a float attached to the air-pipe above the bag, whereby said float, bag, and air-pipe will simultaneously rise and fall with the rising and falling of the surface of the liquid, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CARL HARTFELDT.

Witnesses:

PAUL GOEPEL,
SIDNEY MANN.