No. 640,300

Patented Jan. 2, 1900.

F. J. MILLINGTON.

ACETYLENE GAS GENERATOR.

(Application filed Sept. 16, 1899.)

(No Model.)

Fig. 1.

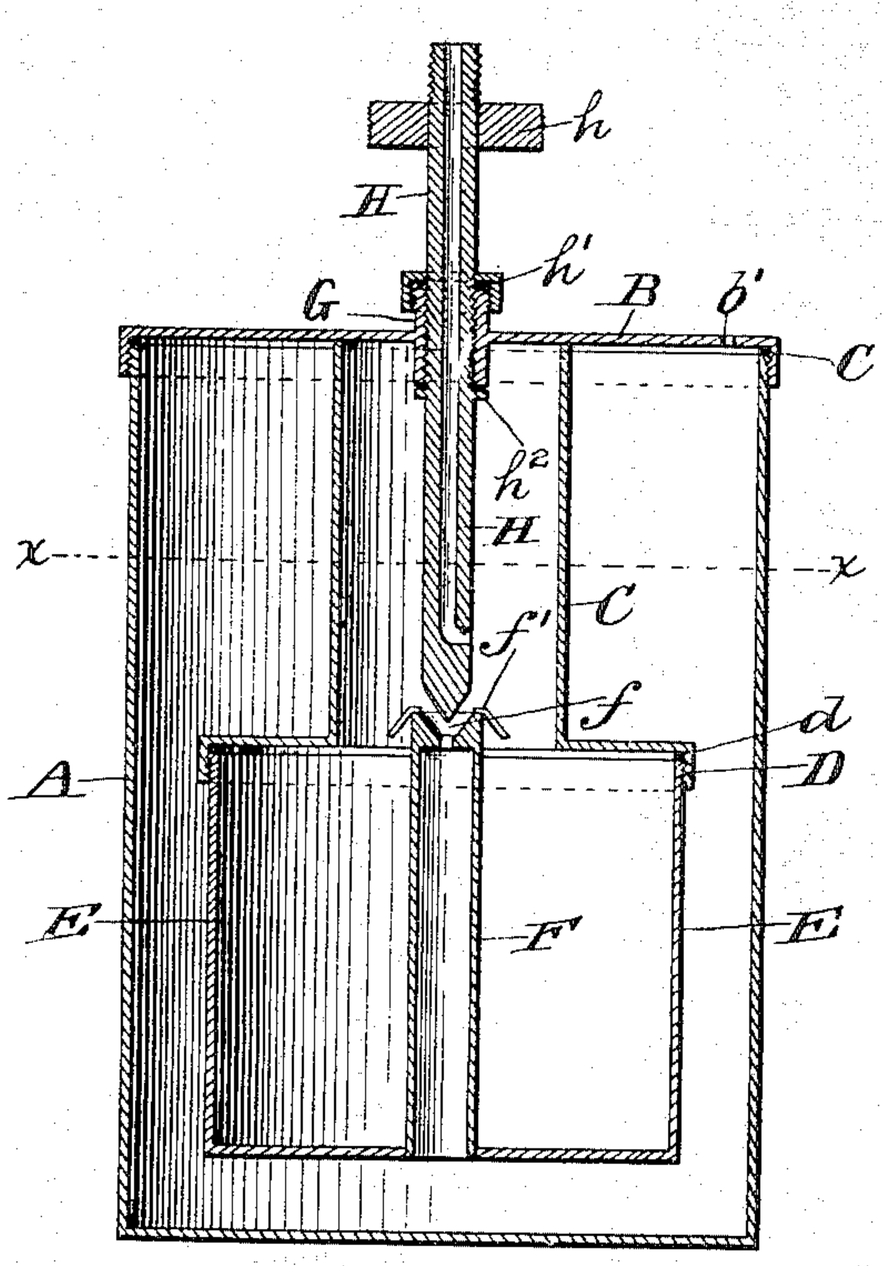
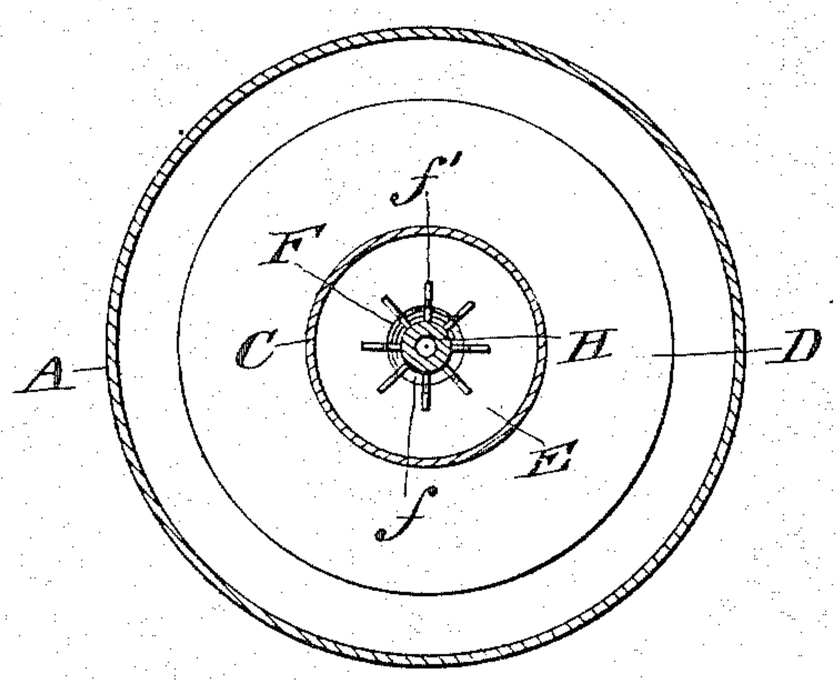


Fig. 2.



Witnesses
Jos. H. Blackwood
Hartwell P. Heath

Inventor
Frederick J. Millington
by A. A. Gourick
Attorney

UNITED STATES PATENT OFFICE.

FREDERICK J. MILLINGTON, OF BRUSHTON, NEW YORK.

ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 640,300, dated January 2, 1900.

Application filed September 16, 1899. Serial No. 730,732. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK J. MILLINGTON, a citizen of the United States, residing at Brushton, in the county of Franklin and State of New York, have invented certain new and useful Improvements in Acetylene-Gas Generators, of which the following is a specification.

My invention relates to acetylene-gas generators, and has for one of its objects to provide a compact simple form of generator suitable for lamps, piping, or other purposes where only a small generator can be used, as well as to purposes demanding a large supply of gas, and therefore larger generators.

Another object of my invention is to provide an acetylene-gas generator having the reservoir containing the calcic carbid or analogous material submerged in the liquid slaking agent.

Another object of my invention is to combine the valve-stem by which the valve through which the liquid slaking agent is admitted to the compound is opened or shut and the pipe through which the resultant gas passes.

Another object of my invention is to provide a water-tube from the bottom of the carbid-reservoir with the valve for admitting the liquid slaking agent in its top.

These objects I accomplish in the manner and by the means hereinafter more fully described in detail and particularly pointed out in the claim, reference being had to the accompanying drawings, in which like letters represent like parts in both the views.

Figure 1 is a central sectional view of my invention. Fig. 2 is a plan view on line $x\,x$, Fig. 1.

My invention consists of an outer shell A, closed at the top by means of a screw-cap B and packing C, arranged to close said shell A hermetically except for an opening in the center of said cap B, in which opening the hereinafter-described cap G is fixed, and for an air-hole b' near the edge of said cap B. Firmly secured around the center part of the cap B on the inside and depending from said cap B down into the shell A is a hollow cylindrical tube C, of much smaller diameter than the shell A. The tube C ends at its lower end in a screw-cap D, of greater diameter than the tube C, though less than the interior diameter of the shell A. The receptacle E for the calcic carbid or other analogous material is fitted to be screwed tightly into the screw-cap D, a gas and air tight joint being formed by packing d. Through the center of the bottom of the receptacle E passes a hollow pipe F, which rises to within a short distance of the top of the receptacle E and has at its top a valve-seat f, with a pin-point opening, and around said valve-seat f a number of wires f' are fixed and extend diagonally downward. Securely fixed in the opening b in the cap B is an interiorly-screw-threaded cap G, which extends a little above and a little below the cap B. A gas-pipe H is exteriorly screw-threaded and adapted to be raised or lowered through the cap G by the thumb-wheel h and is provided with a flange and packing h' to make an air and gas tight joint and with a check or stop h^2 to limit its movement. The lower end of the gas-pipe H is solid and pointed and adapted to fit in the valve-seat f and close and open said valve.

The operation of my invention is as follows: The receptacle E being charged with calic carbid or other suitable material, the receptacle E is securely screwed into the cap D. The thumb-wheel h is now turned until the gas-pipe H is screwed down tight and its lower end closes the valve-seat f. A suitable amount of the liquid slaking agent is now put into the shell A and the cap B placed on the shell A with suitable packing and screwed tightly down. The apparatus is now ready for use. When it is desired to use the gas, the generator is attached by the upper end of the gas-pipe H to the desired pipe or lamp and the thumb-wheel h screwed up. This admits the liquid slaking agent through the pipe F, the wires f' serving to distribute it through the compound. The gas rises into the tube C and thence passes into the pipe H.

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

An acetylene-gas generator consisting of a chamber for the slaking fluid, a chamber for the generating compound suspended in said fluid-chamber, a pipe communicating with said fluid-chamber and extending through the bottom of said compound-chamber and up

into said compound-chamber, said pipe provided at its top with a valve, a valve-stem provided with means for operating it and extending through the upper part of said compound-chamber and through the top of said fluid-chamber, said stem being hollow in its upper part and provided with a vent from said hollow into said compound-chamber, adapted to admit the resultant gas, substantially as shown and described.

In testimony whereof I hereto affix my signature in the presence of two witnesses.

FREDERICK J. MILLINGTON.

Witnesses:

L. C. BRUNET,

HOWARD H. HAWKINS.