

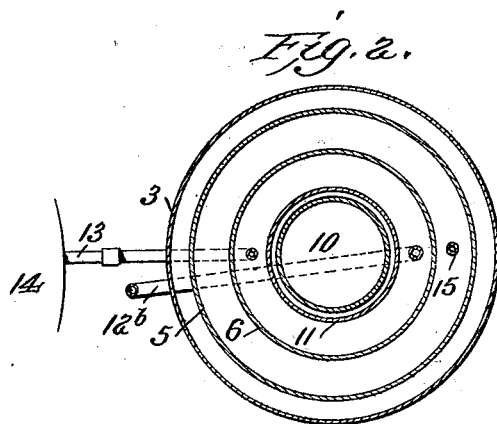
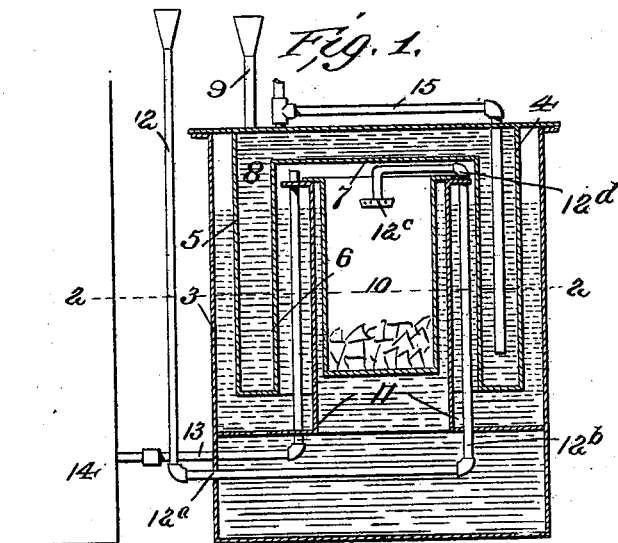
No. 645,557.

Patented Mar. 20, 1900.

J. M. ERTS & J. MILLER.
ACETYLENE GAS GENERATOR.

(Application filed June 19, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOSEPH M. ERTS AND JOHN MILLER, OF POUGHKEEPSIE, NEW YORK.

ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 645,557, dated March 20, 1900.

Application filed June 19, 1899. Serial No. 721,075. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH M. ERTS and JOHN MILLER, citizens of the United States, residing at Poughkeepsie, New York, have invented certain new and useful Improvements in Acetylene-Gas Generators, of which the following is a specification.

Our invention relates to improvements in acetylene-gas generators; and the object of the invention is to provide a generator which may be readily opened to gain access to the interior and one in which the cover or upper portion of the generator is provided with a water-chamber for keeping the walls cool, whereby any moisture in the gas will be condensed. We have also aimed to provide a water seal between the parts of the generator, whereby all escape of gas is absolutely prevented without necessitating the care in making the joints which is necessary in most generators in use.

To this end the invention consists, primarily, in a generator having a water-chamber in the cover or upper portion thereof.

It further consists in a generator having a removable cover with a water seal between said cover and the body of the generator.

It still further consists in the construction and arrangement of the parts herein described, and pointed out in the claim.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a central vertical section through the generator, and Fig. 2 is a transverse section on line 2 2 of Fig. 1.

The body of the generator is indicated at 3 and the removable cover at 4. The cover, as will be observed, is provided with an annular depending water-chamber formed by the concentric walls 5 and 6, the inner walls 6 being connected at the top by the horizontal wall 7, whereby a closed chamber 8 is formed, into which water is introduced by a water-inlet 9. The body of the generator is designed to be filled with water up to the level indicated in the drawings, and it will be observed that a perfect water seal is thus formed, and it is thus unnecessary to use any particular care in making a close fit between the cover and body of the generator. The car-

bid is contained in a vessel 10, which is removably sustained by the frame or support 11, connected with the body of the generator, the carbid-receptacle being open only on its upper side. Water is supplied to the carbid-receptacle by a supply-pipe 12, extending from a point above the generator downwardly below the lower edge of the cover, then inward, as shown at 12^a, then upward, as at 12^b, and then laterally inward from the edge of the carbid-receptacle, where it terminates in a spray-nozzle 12^c. The portion of the pipe which carries the spray-nozzle is provided with a hinge-joint 12^d, whereby it may be swung out of the way to permit the removal of the carbid-receptacle. The gas is conducted from the generator by an outlet-pipe 13, which extends from above the water-valve of the generator downward below the lower edge of the cover and then outward to connect with a gas-holder of the ordinary or any desired form, (indicated at 14.)

In order that the cover may be kept cool, we provide a water-circulating pipe 15, which extends from the upper portion of the cover downward to the lower end of the depending portion.

From the above description it will be understood that the gas generated by the carbid will rise and strike against the water-cooled surface of the cover and, being chilled thereby, any moisture in the gas will be condensed and fall back upon the carbid.

We claim as our invention—

In combination, the body portion, the cover having an annular rim resting upon the upper edge of said body portion and having an annular water-chamber depending within said body portion, supports extending up within said annular water-chamber, a carbid-receptacle removably supported thereby and means for feeding water to said receptacle and withdrawing the gas, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH M. ERTS.
JOHN MILLER.

Witnesses:

CHARLES A. HOPKINS,
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