

No. 638,599.

Patented Dec. 5, 1899.

H. P. SCHAEFER.  
ACETYLENE GAS GENERATOR.

(Application filed Aug. 24, 1899.)

(No Model.)

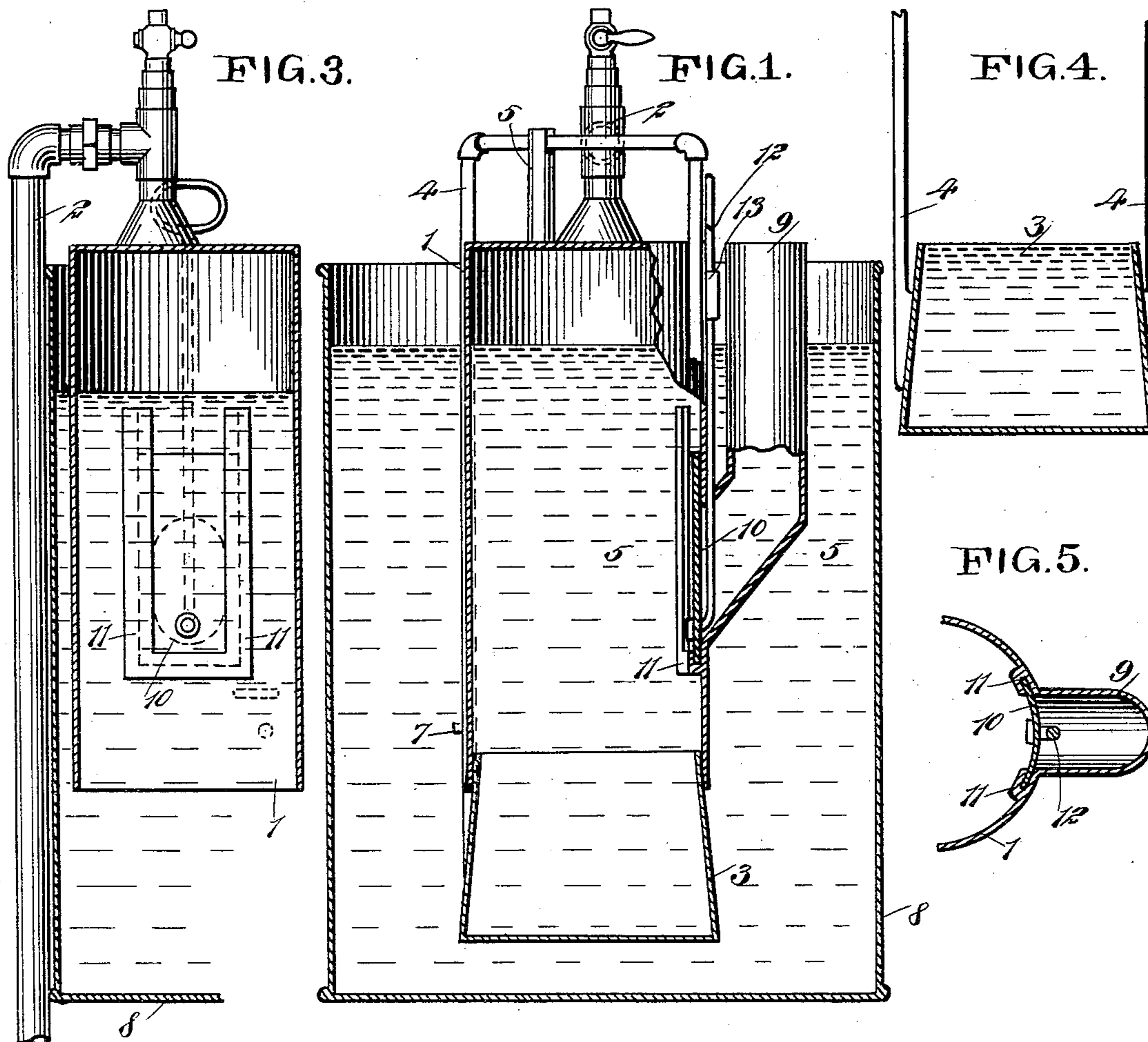
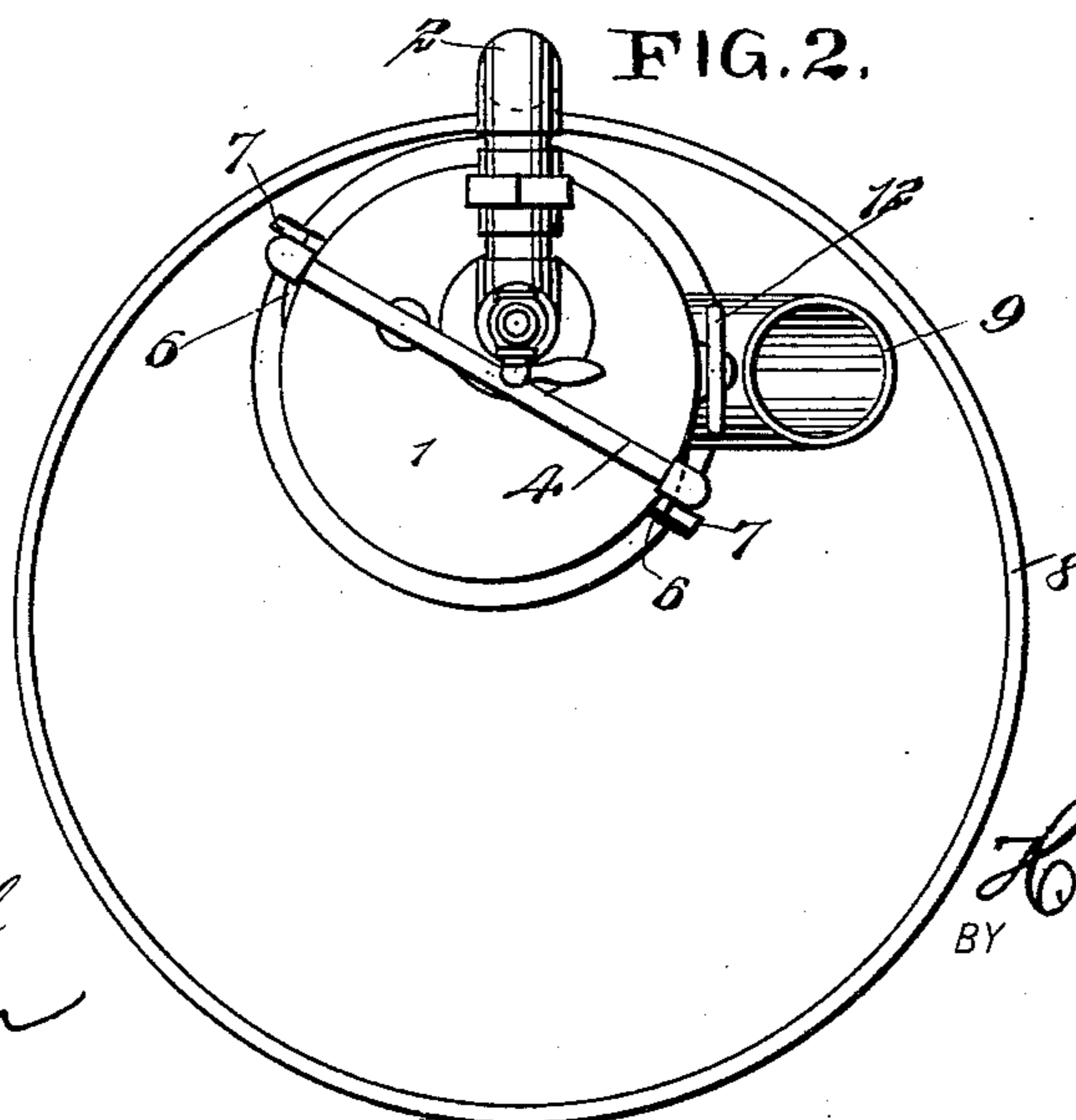
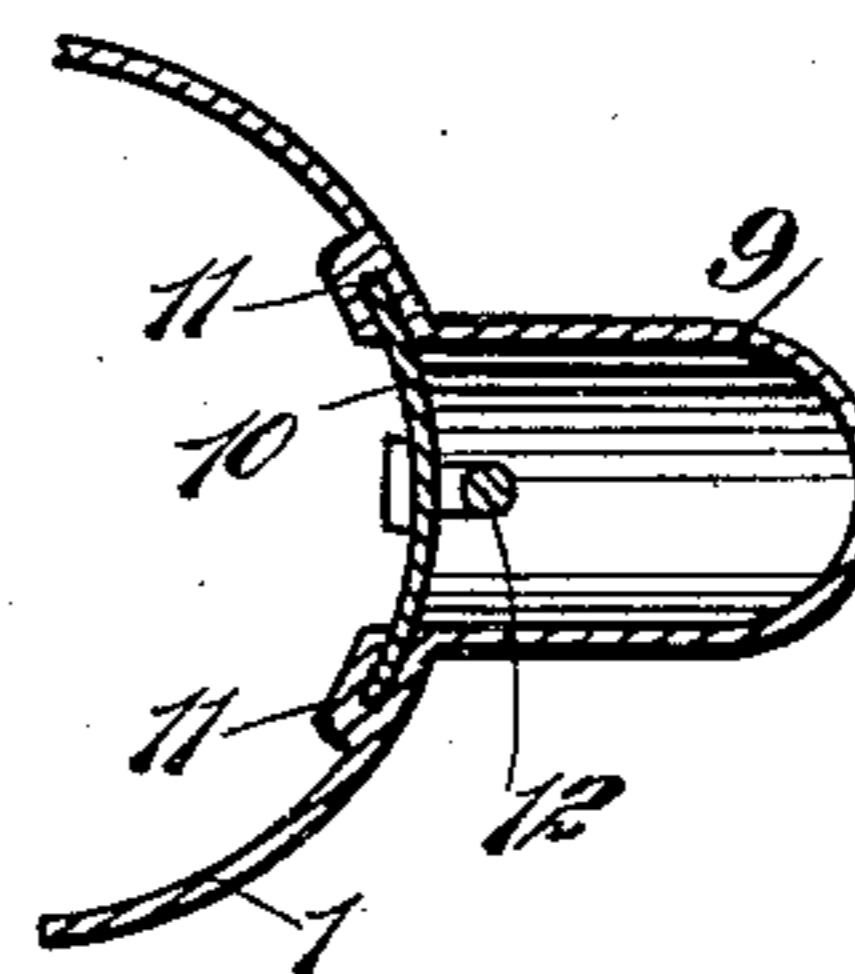


FIG. 5.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HENRY P. SCHAEFER, OF SCHULENBURG, TEXAS.

## ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 638,599, dated December 5, 1899.

Application filed August 24, 1899. Serial No. 728,317. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY P. SCHAEFER, of Schulenburg, in the county of Fayette and State of Texas, have invented a new and Improved Gas-Generator, of which the following is a full, clear, and exact description.

This invention relates to improvements in machines for generating gas from calcium carbide; and the object is to provide a machine of very simple and comparatively inexpensive construction and so arranged as to prevent the entrance of air or the escape of gas when the carbide-holder is removed for cleaning.

I will describe a gas-generator embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section of a gas-generator embodying my invention. Fig. 2 is a top plan view thereof. Fig. 3 is a section at right angles to Fig. 1. Fig. 4 is a section of the carbide holder or bucket. Fig. 5 is a section on the line 5 5 of Fig. 1.

The generator comprises a cylinder 1, from which a pipe 2 leads to a gas-receiver—such, for instance, as a gasometer of ordinary construction and which it is not deemed necessary to show. Removably engaging in the lower open end of the generator is a holder or bucket 3 for carbide. This holder or bucket has a bail 4, which when the bucket is in position extends upward and over the top of the generator and is engaged by a block 5, which rests upon the top of the generator. This block 5 has a notch in its upper end, in which the top cross-piece of the bail engages.

Arranged on the side of the generator are inclined guide-blocks 6, and at the end of each guide-block is a stop-pin 7, with which the bail engages when the holder or bucket is in position. The generator, as here shown, is suspended by means of the pipe 2 and is arranged within a water-tank 8. This water-tank, however, may be dispensed with, and in place of it a reservoir of the desired size may be dug in the ground and made properly water or liquid tight. The tank 8 is considerably larger than the generator, so that after removing the holder or bucket 3

from the generator it may be lifted upward at one side of said generator.

Leading into the generator is a chute 9, through which the carbide is to be fed. The opening between this chute and the generator is controlled by a plate-valve 10, movable in guides 11, formed on the inner side of the generator, and from the plate-valve a stem or rod 12 extends upward through a guide 13 on the generator.

In operation water is to be placed in the tank 8 and also in the generator, and when the bucket 3 is in position carbide may be fed thereto through the chute 9. The gas generated will pass up through the water in the generator and thence pass through the pipe 2 to the receiver.

When it is desired to clean the bucket 3, it may be removed, as before described, and before again placing it in position to receive carbide it should be filled with water, as indicated in Fig. 4, so as to permit it to be easily sunk in the water contained in the tank.

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

1. A gas-generator, comprising a gas-generating cylinder, a pipe leading therefrom to a receiver, a bucket or carbide-holder removably connected to the lower end of the cylinder, a chute leading into the cylinder, and a valve for controlling communication between said chute and the cylinder, substantially as specified.

2. In a gas-generator, a tank, a generating-cylinder suspended in said tank, a bucket or carbide-holder removably connected to the lower end of the cylinder, a chute leading into the cylinder, and a valve for controlling the communication between said chute and the cylinder, substantially as specified.

3. A gas-generator, comprising a water-tank, a generating-cylinder suspended in the tank, a bucket having its upper end inserted in the open lower end of the cylinder, a bail on said bucket extended upward over the cylinder, stop-pins on the cylinder with which the bail engages, and a valve-controlled chute leading into the cylinder, substantially as specified.

4. A gas-machine, comprising a tank, a generating-cylinder suspended in the tank, a

bucket removably connected to the lower end of the cylinder, a bail extended upward from the bucket, and across the top of the cylinder, and a supporting-block arranged between  
5 the top of the cylinder and the upper portion of the bail, substantially as specified.

5. A gas-generator, comprising a tank for containing liquid, a generator-cylinder suspended in the tank, a bucket removably connected to the lower end of said cylinder, a  
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bail extended from the bucket, inclined guide-blocks on the cylinder for engaging with the bail, stop-pins on the cylinder, and a valve-controlled chute leading into the cylinder, substantially as specified.

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Witnesses:

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