

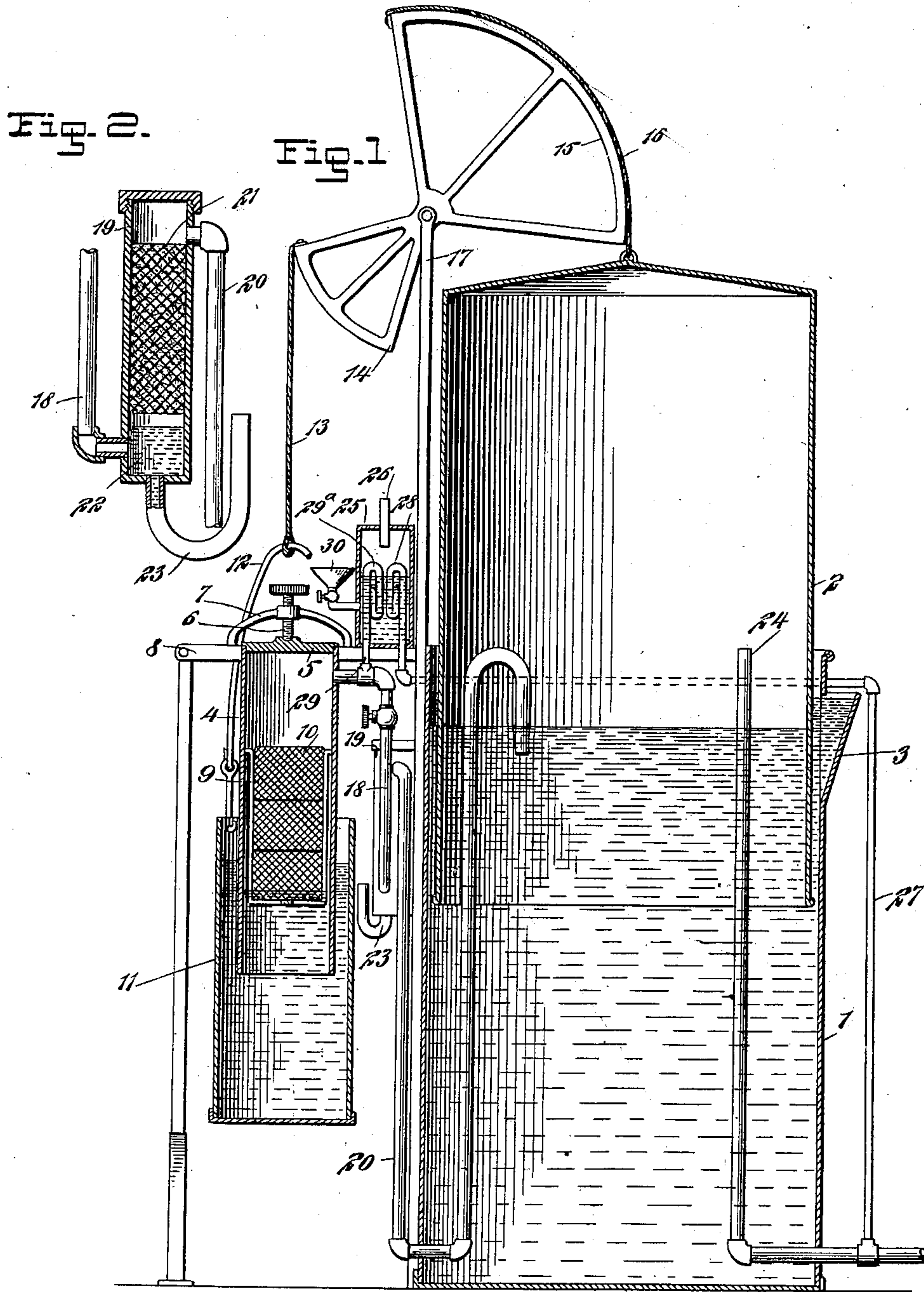
No. 660,889.

Patented Oct. 30, 1900.

J. M. COGLAN.
ACETYLENE GAS MACHINE.

(Application filed Apr. 19, 1900.)

(No Model.)



WITNESSES:

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JOSEPH M. COGHLAN, OF SAYVILLE, NEW YORK.

ACETYLENE-GAS MACHINE.

SPECIFICATION forming part of Letters Patent No. 660,889, dated October 30, 1900.

Application filed April 19, 1900. Serial No. 13,492. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. COGHLAN, a citizen of the United States, and a resident of Sayville, in the county of Suffolk and State of New York, have invented a new and Improved Gas-Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in gas-machines for generating gas from calcium carbide; and the object is to provide a gas-machine of simple construction in which there will be an economy in the use of carbide and a novel means for automatically immersing the carbide.

I will describe a gas-machine 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 both views.

Figure 1 is a sectional elevation of a gas-machine embodying my invention, and Fig. 2 is a sectional elevation of a purifier employed.

The gasometer comprises the usual fixed section 1 and the bell 2. The fixed section near its top has a funnel-shaped opening 3, through which water may be poured to supply the gasometer. Arranged adjacent to the gasometer is a generator, comprising a cylinder 4, open at its lower end and having a removable cover 5, which is held tightly in place by means of a screw 6, passing through a yoke 7, attached to an arm 8. Removably supported in the cylinder 4 is a basket-like frame 9, in which the open-work carbide-holders 10 are placed. I have here shown three of these carbide-holders arranged one above another; but obviously a greater or less number may be employed. Portions of the upper end of the frame 9 are turned outward to engage upon supporting-lugs or the like on the inner side of the cylinder 4. Water is supplied to the carbide, and the supply is controlled by movements of the gasometer-bell. As here shown, the water is placed in a vessel 11, into which the lower portion of the cylinder 4 extends. This vessel 11 is movable up and down relatively to the fixed cylinder 4, and I have here shown it as provided with a bail 12, from which a rope or similar device 13 ex-

tends to a connection with a segmentally-shaped lever 14, connecting with a larger segmentally-shaped lever 15, from which a connection 16 extends to the bell 2, as plainly indicated in Fig. 1. The periphery of the segmental levers may be curved or channeled to receive the connections 13 and 16. These levers are pivoted to a rod 17, extended upward at one side of the gasometer and connected to the fixed portion thereof.

From the upper portion of the generating cylinder 4 a supply-pipe 18 extends downward and communicates with the lower portion of a purifier-cylinder 19, arranged at one side of the gasometer, and from the upper portion of this purifying-cylinder 19 a pipe 20 leads into the gasometer and has its upper end turned downward, terminating below the level of the water in the gasometer. Removably placed in the cylinder 19 is a basket 21 for containing a purifying material for the gas, and in the lower portion of this cylinder, below the basket 21, a small amount of water 22 is placed. A water-seal pipe 23 communicates with the bottom of said cylinder 19. A service-pipe 24 extends into the gasometer to a point above the water-level and then outward through the fixed portion to the burners.

To prevent accident from overpressure of gas, I provide a blow-off device having connection both with the service-pipe and with the supply-pipe 18, leading from the generator. This blow-off consists of a cylinder 25 and may be located at any desired place, from which cylinder a pipe 26 leads to some point out of doors. A small tube 27 leads from the service-pipe 24 and terminates in a double turn or gooseneck 28, which has its open end below the surface of water contained in the cylinder 25. From the pipe 18 at a point above its valve a tube 29 extends into said cylinder 25 and has a double turn or gooseneck 29^a, having its open end below the level of the water in the cylinder 25. Water may be placed in the cylinder 25 through a funnel 30.

In operation, when the gas is generated from the material contained in the lowermost holder 10 the bell 2 will be moved upward. Then as the supply of gas contained in said vessel is reduced the said bell will move downward, rocking the compound levers 14 and 15

and drawing the vessel 11 upward to immerse the second holder for carbid, and this of course will be continued until all of the carbid is destroyed for gas-making purposes. The
5 gas generated will pass through the pipe 18, and thence through the purifier and the pipe 20 to the interior of the gasometer. Should an overpressure occur in the pipe 24, an escape will be found through the tube 27. This
10 escaping gas will pass into the water contained in the cylinder 25, and thence up through the same and out through the pipe 26. Should an overpressure occur in the generator, this gas will pass up through the tube 29 and out,
15 as before described, through the pipe 26.

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

1. In a gas-machine, a gasometer, comprising a bell, a generator, consisting of a fixed
20 cylinder adapted to hold calcium carbid, a vessel for containing water into which said cylinder extends, and connections between said vessel and the gasometer-bell, whereby
25 the vessel is raised or lowered by movements of said bell, substantially as specified.

2. A gas-machine, comprising a gasometer, a generator-cylinder arranged adjacent there-

to, a water vessel into which the generator-cylinder passes, a segmental lever having connection with said vessel, and another larger
30 segmental lever connected to the first-named segmental lever and having a connection with the gasometer-bell, whereby the water vessel is raised by the lowering of the bell, substantially
35 as specified.

3. In a gas-machine, a gasometer, a generator arranged at one side thereof and having
pipe communication with the interior of the gasometer, a service-pipe leading from the
40 gasometer, a blow-off cylinder for containing water, a tube leading from the first-named pipe and having its end turned downward and then upward within the blow-off cylinder, and a
45 tube leading from the service-pipe and having its end turned downward and then upward within said cylinder, substantially as specified.

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

JOSEPH M. COGHLAN.

Witnesses:

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