No. 711,346. Patented Oct. 14, 1902.

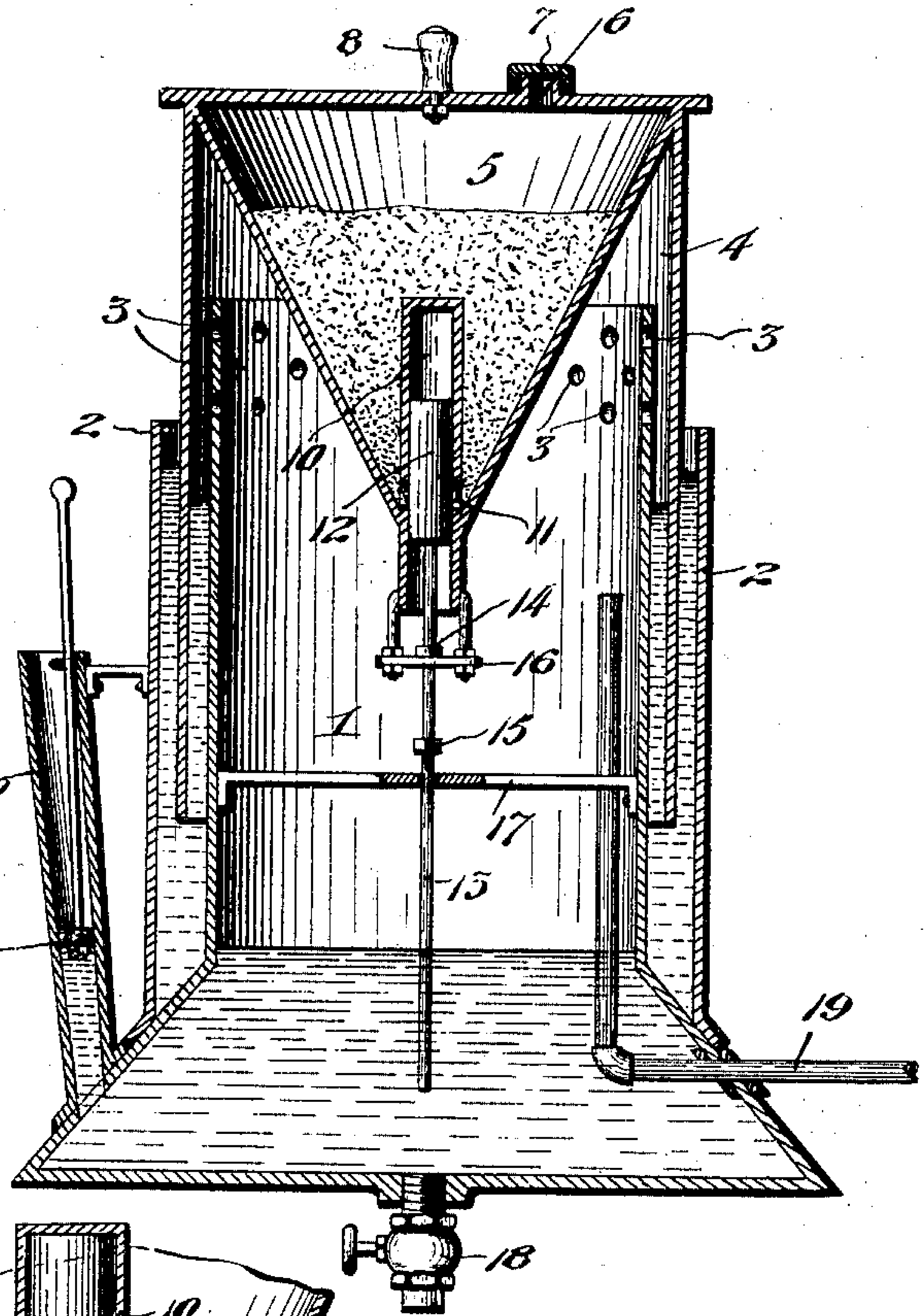
P. P. & J. J. REYNOLDS.

ACETYLENE GAS GENERATOR.

(Application filed Apr. 3, 1902.)

(No Model.)

Fig. 1



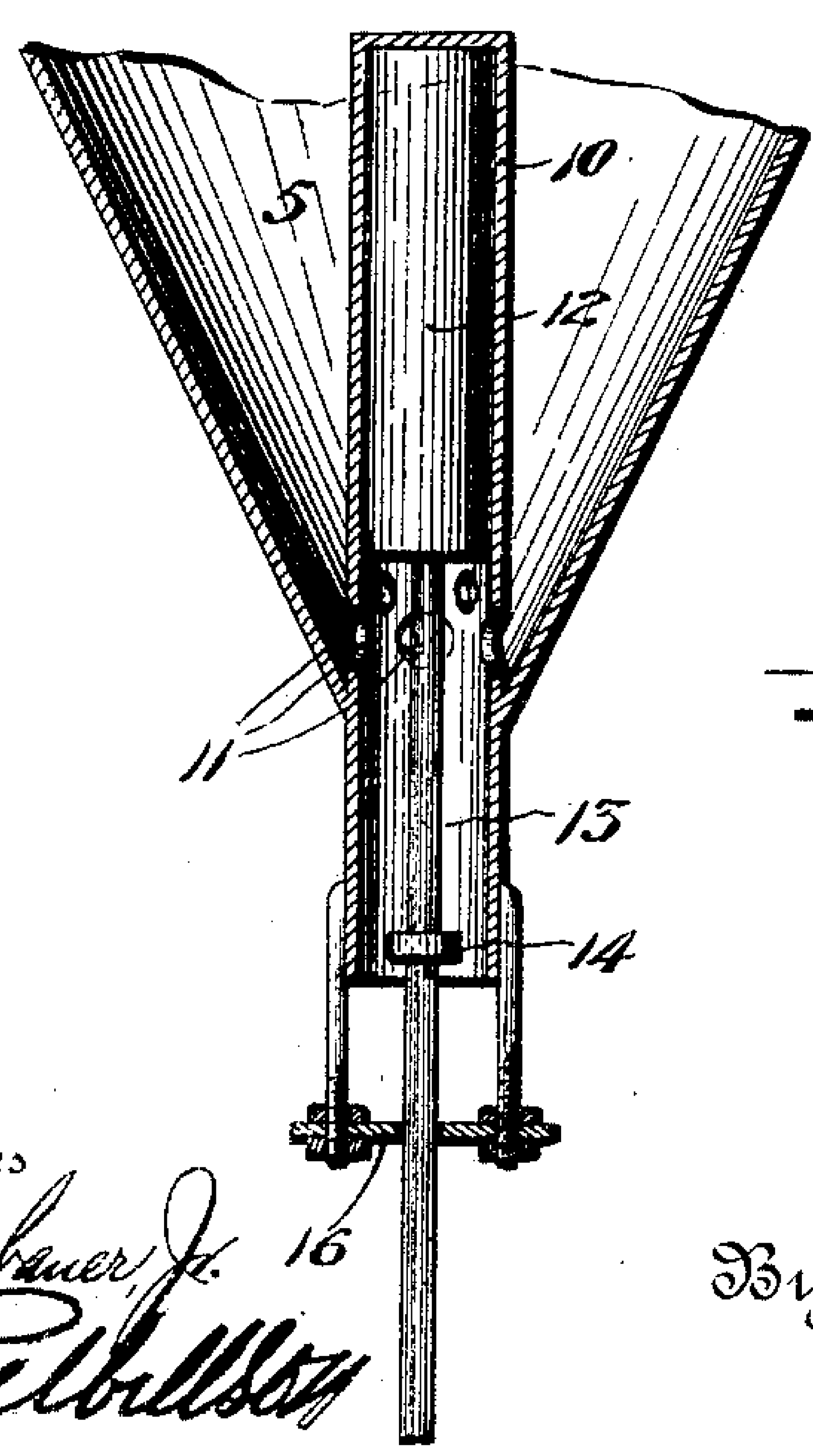


Fig. 2

Witnesses

J. W. Griesbauer, Jr.

Inventors

P. P. Reynolds and
J. J. Reynolds

By H. B. Willson & Co.

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PEARL P. REYNOLDS AND JERRY J. REYNOLDS, OF LAPORTE, TEXAS.

ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 711,346, dated October 14, 1902.

Application filed April 3, 1902. Serial No. 101,250. (No model.)

To all whom it may concern:

Be it known that we, PEARL P. REYNOLDS and JERRY J. REYNOLDS, citizens of the United States, residing at Laporte, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Acetylene-Gas-Generating Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to acetylene-gas-generating machines.

The object of the invention is to provide a machine of this character which shall combine within one single device both a generator and a gasometer the parts of which are so arranged as to render the machine efficient and entirely automatic in action, as well as inexpensive of production.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully explained, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a longitudinal vertical sectional view of our improved acetylene-gas-generating machine; and Fig. 2 is a longitudinal sectional view of the valve, showing it in open position.

Referring to the drawings, 1 denotes a casing having secured to it a surrounding shell 2 and being provided at its upper end with apertures 3.

4 denotes a bell or dome of greater diameter than the casing and which surrounds the upper end thereof and has its lower end in a seal formed by said casing 1 and the shell 2. The upper end of the bell or dome is provided with a conical carbid-holder 5, which is provided with a filling-aperture 6, closed by a nozzle 7 with a handle 8. The lower end of this holder is provided with a cylindrical valve-casing 10, the lower end of which projects from the apex of the carbid-holder and the portion of which above the apex of the carbid-holder is formed with discharge-apertures 11, through which the carbid from the hopper is adapted to escape and be discharged from the lower end of the casing. A valve 12 works within the valve-casing and is provided with a stem 13, to which is secured two stops 14 and 15, the former of which coacts with a clip 16, secured to the lower end of the valve-casing, whereby when said valve-casing is elevated, due to the pressure of the gas within the dome or bell, said valve will also be elevated and be in position to close the openings 11. The stop 15 coacts with the cross-bar or spider 17, whereby upon the lowering of the bell or dome said stop 15, coming in contact with the cross-bar, will hold the valve 12 against downward movement, and as the bell continues to lower the openings 11 of the valve-casing will be uncovered, thus allowing the calcium carbid to escape from the carbid-holder into the valve-casing and into the water. It will be observed that when the carbid-holder is lowered to a position where it abuts against the upper end of the casing 1 and the valve is opened the fresh gas generated will rise and a part will press upwardly against the lower end of the carbid-holder, while the other part, escaping through the apertures 3, will equalize the pressure, and thus prevent the flickering of the light due to an unsteady upward movement of the bell.

18 denotes a draw-off cock for cleaning the bottom of the casing 1.

19 denotes a service-pipe, and 20 denotes a gage. The gage is secured to the casing 1 and consists of a tube the lower end of which communicates with said casing and contains a float 22, which indicates the amount of water within the casing.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The combination with a gas-generating casing, of a bell or dome having a sealed movable connection with the casing, a carbid-holder carried by the bell or dome and pro-

jecting downwardly into the generating-casing and provided with a vertically-projecting cylindrical valve-casing having an opening in its side communicating with the carbid-holder and open at its lower end, a clip secured to the lower open end of said valve-casing, a valve located in said valve-casing and adapted to regulate the flow of carbid through said opening, a rod fixed to said valve and provided with stops, one arranged above the other, a cross-piece secured in the generating-casing, the upper stop adapted to coact with the clip and the lower stop to be actuated by the cross-piece, whereby in the upward movement of the bell or dome, the uppermost stop will engage the clip and support the valve in a position to close the opening, and in the downward movement of the bell or dome, the lower stop will engage the cross-piece and move the valve to uncover said opening, substantially as set forth.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

PEARL P. REYNOLDS.
JERRY J. REYNOLDS.

Witnesses:
H. W. THOMPSON,
E. P. SEMEAU.