

(No Model.)

J. A. VINCENT.
ACETYLENE GAS GENERATING APPARATUS.

No. 579,689.

Patented Mar. 30, 1897.

FIG. 2.

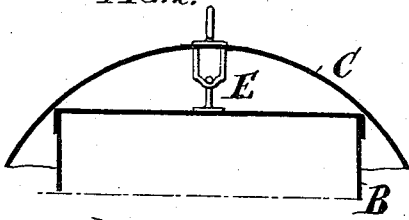
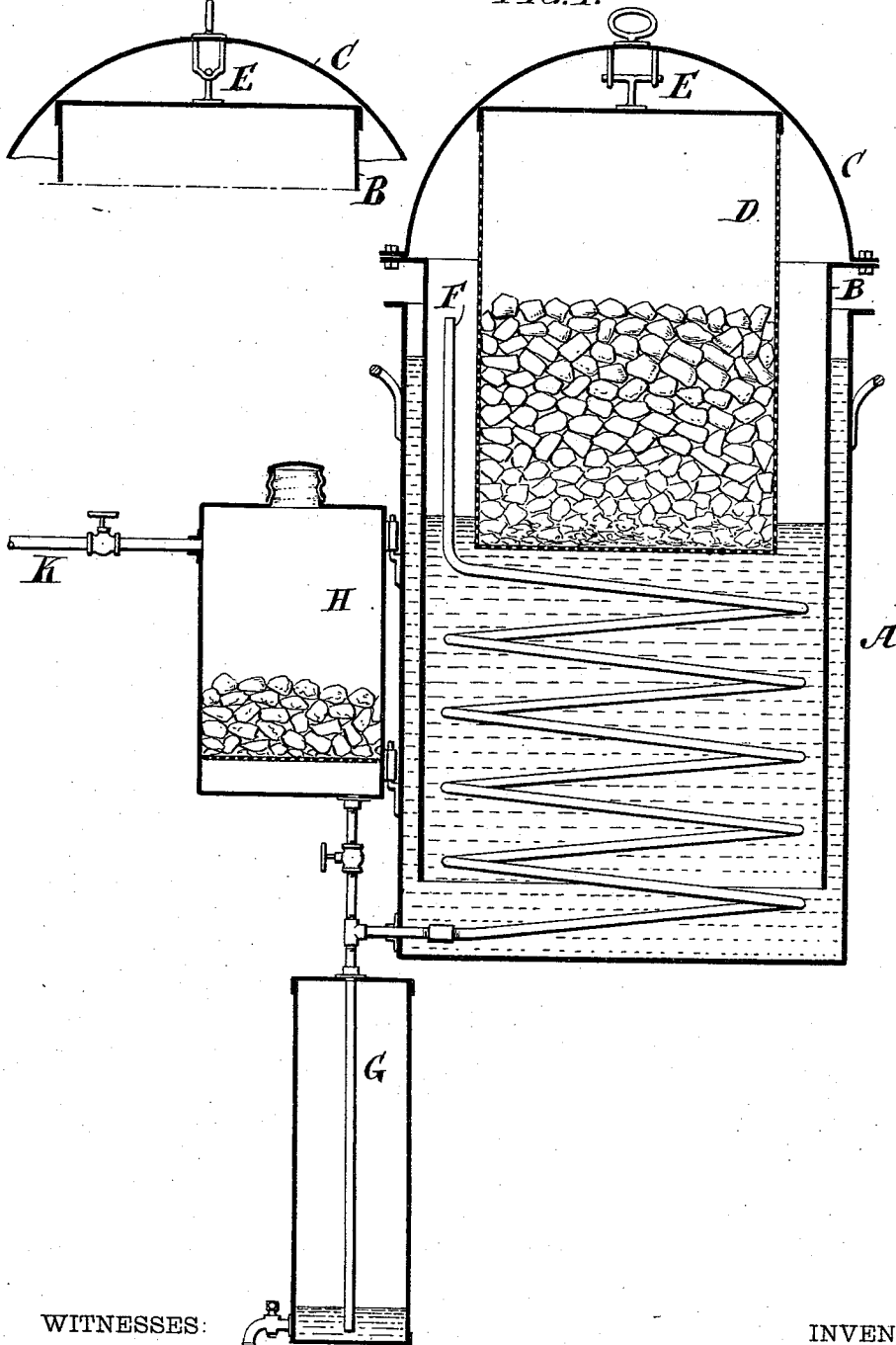


FIG. 1.



WITNESSES:

H. Coutant
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INVENTOR

Joseph A. Vincent,
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UNITED STATES PATENT OFFICE.

JOSEPH A. VINCENT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
THE ELECTRO GAS COMPANY, OF WEST VIRGINIA.

ACETYLENE-GAS-GENERATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 579,689, dated March 30, 1897.

Application filed May 7, 1896. Serial No. 590,520. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. VINCENT, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Gas-Generating Apparatus, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to a new and improved apparatus for generating gas by the combination of a liquid and a solid, and is especially applicable to the generation of acetylene gas from carbide and water.

My invention relates to that general class of apparatus in which the carbide is held in a receptacle which is moved up and down by the pressure of the gas entering the water in its lowest position and leaving it as it moves upward.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 represents a vertical cross-section through my apparatus, and Fig. 2 a cross-section through the upper part of and at right angles to the view shown in Fig. 1.

A represents a gas-holder water-tank which may be of any ordinary suitable construction. Within the tank is the bell B, which, as shown, is provided with an arched head C, which supports on gimbals the carbide-bucket D, the said gimbal-support E allowing the carbide-bucket to swing freely in any direction, as is readily seen. Extending above the water-level and through the water is the condenser F, leading into the drip-tank G, and thence through the carbide-drier H, and thence to the service-pipe K. The carbide-drier H preferably contains quicklime, which is useful not only for drying, but for taking impurities from the gas. It may be of any suitable form, but, as shown, is supported upon the side of the water-tank A.

The operation of my apparatus will now be readily understood. The bell B being removed the perforated bucket D is filled with carbide to the desired amount and put in position. Then the bell being replaced the carbide sinks to the desired position in the water, when the generation of the gas again causes the holder to rise. The generated gas passes through the pipe F and condenser, as shown, and the water escapes from the lower pipe into the drip-tank G. The gas itself passes upward to the drier H and so to the main.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the water-tank A, the vertically-moving bell or holder B, floated by the water in the tank, and carrying carbide-receptacle D, the condenser F, placed in the water-tank A, extending upward into the interspace between the carrier and the bell and downward in a coil in the water beneath the bell and then through the wall of the tank A, whereby the same water supports the bell and serves as a condensing medium for the gas, and the external drip-tank G, separately connected therewith, and the drier H connected with an upward extension of the pipe leading to the drip, thereby drying the air entering said pipe in part by the separation of the moisture in the drip and in part by its passage through the drying-chamber, substantially as described.

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

JOSEPH A. VINCENT.

Witnesses:

C. C. ADAMS,
GEO. H. JOHNSON.