

No. 639,516.

Patented Dec. 19, 1899.

P. BUCHER.
ACETYLENE GAS GENERATOR.

(Application filed Mar. 24, 1899.)

(No Model.)

FIG. 1.

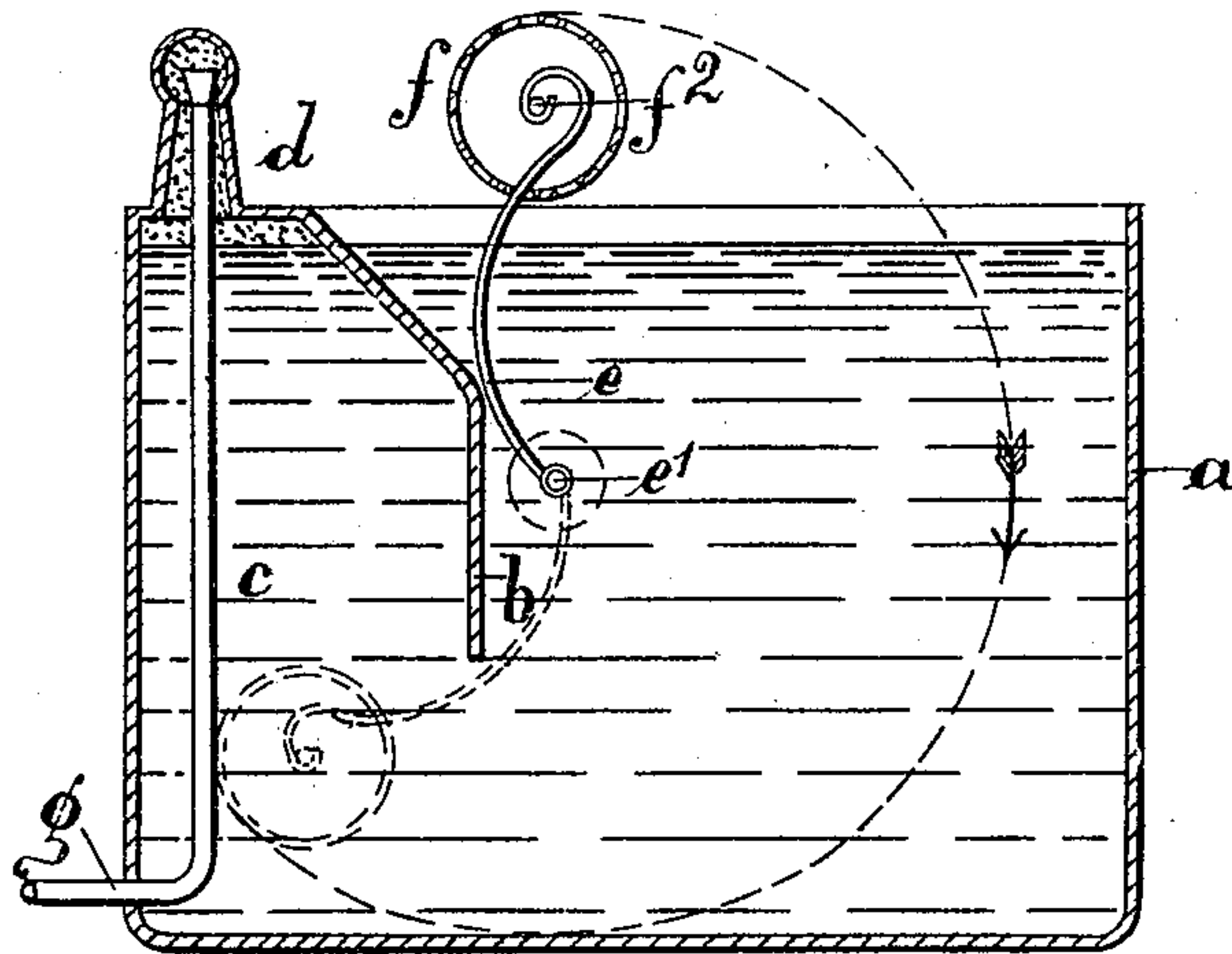
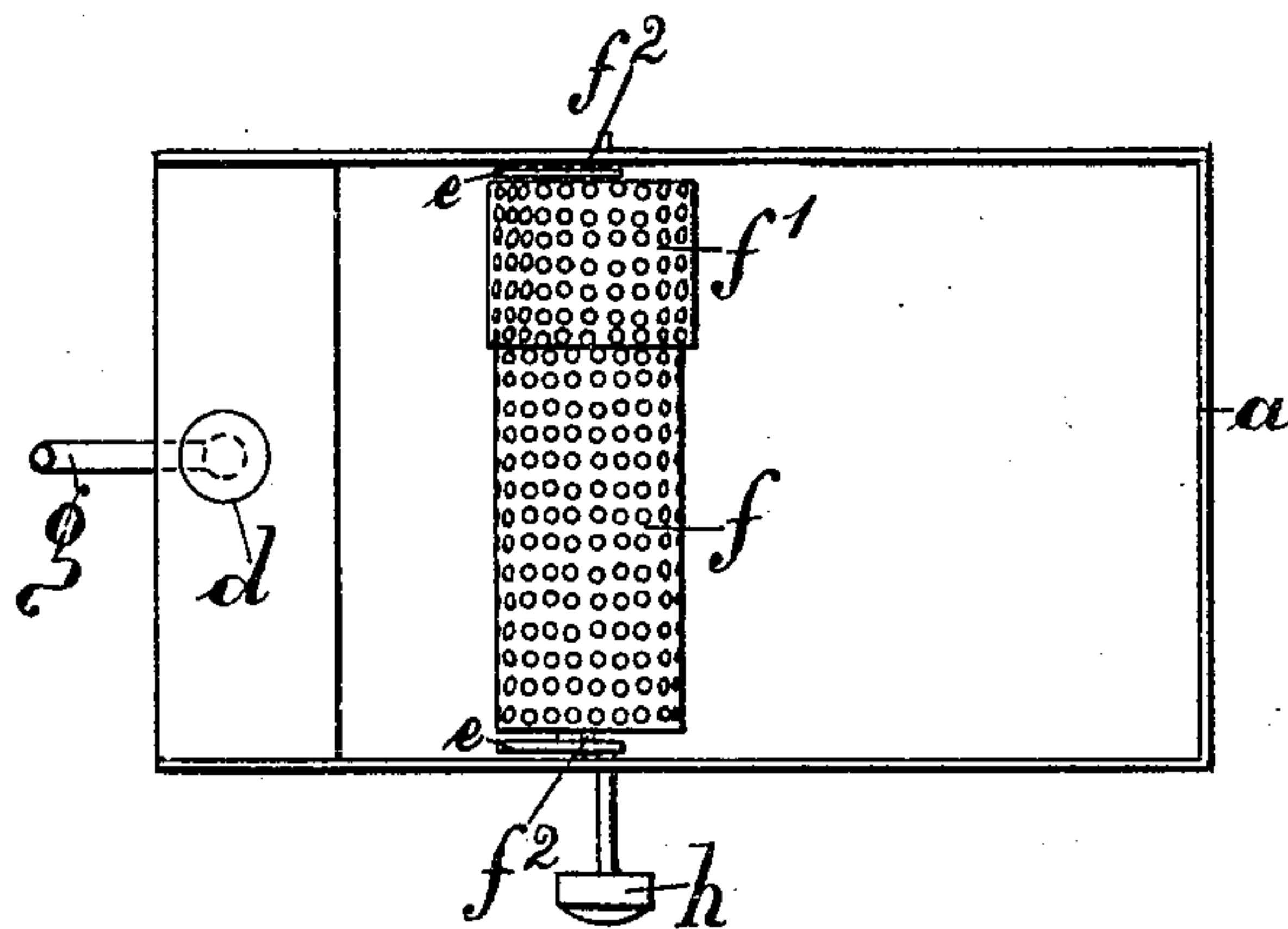


FIG. 2.



WITNESSES:

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ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 639,516, dated December 19, 1899.

Application filed March 24, 1899. Serial No. 710,349. (No model.)

To all whom it may concern:

Be it known that I, PETER BUCHER, manufacturer, a subject of the German Emperor, residing at Mannheim, in the German Empire, have invented certain new and useful Improvements in Acetylene-Gas Generators; and I 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 object of my invention is to provide a simple, easily-manipulated, and effective generator for acetylene gas. This object I attain in the manner which I will now describe, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of the generator, and Fig. 2 is a plan view of the same.

In the views, *a* is a vessel to contain water, provided with a partition *b* to form at one end of the vessel a generating-chamber *c*, this generating-chamber being closed at the top by a hood *d*. Into this hood, above the level of the water, opens the upper end of a pipe *g*, through which the generated gas is drawn off. The partition *b* does not extend to the bottom of the vessel *a*, and through the opening below the partition *b* the calcium carbide, which is inclosed in a perforated box *f*, can be passed into the bottom of the generating-chamber. The box *f* has a cap *f'* at one end, and when the cap is fitted in place the pins *f''*, centrally located in the ends of the box, can be fitted into the ends of a pair of levers or a forked lever *e*, adapted to turn on trunnions *e'*, fitted in the sides of the vessel *a*. One of these trunnions is provided with a button, handle, or lever *h*, by which the arms *e*, carrying the carbide-receptacle, can be turned from the position shown in full lines in Fig. 1 to the position shown by dotted lines in that figure, or the reverse. The ends of the arms *e* may be forked or bent, as shown in Fig. 1, so that the pins *f''* of the receptacle may be conveniently sprung into them.

The calcium carbide having been put into the box and the cap *f'* put in place, the box is fitted into the ends of the arms *e*, and the latter are then turned so as to bring the box, with its contained carbide, into the bottom of the generating-chamber *c*. After the genera-

tion of the required amount of gas or after the carbide has been exhausted, the arms *e* are turned back to bring the box out of the water and the remains of carbide removed and a fresh piece put in.

After a few days of use the bottom of the generator-tank is filled by the residue of undeveloped lime, which drops out of the holes of the carbide-box and forms a slimy molasses-like body rising higher and higher in the tank, unless the tank is cleaned out at very short intervals. In my generator the box is held fast in position, and by being centrally pivoted in the ends of the levers it is possible by a very small exertion to force the box through the mud in the bottom of the tank should it rise high enough to impede the travel of the box through the water to its position in the gas-chamber.

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

1. An acetylene-gas generator having a generating-chamber in combination with pivoted levers, a perforated box, inclosing the carbide, centrally mounted upon said levers, and adapted to be carried into the generating-chamber from below, by means of said levers.

2. An acetylene-gas generator consisting of a vessel to contain water, having a partition to form a generating-chamber closed at the top and open at the bottom with levers, a perforated box inclosing the carbide centrally pivoted upon said levers and adapted to be introduced into the generating-chamber under the partition by means of said levers, substantially as described.

3. An acetylene-gas generator consisting of a vessel to contain water having a partition to form a generating-chamber, closed at the top and open at the bottom, with levers, a cylindrical perforated box having removable cap and provided, with means for pivoting it upon said levers and adapted to be introduced into the generating-chamber, under the partition, by means of said levers.

In testimony whereof I affix my signature in presence of two witnesses.

PETER BUCHER.

Witnesses:

A. SOMME,
J. ADRIAN.