No. 666,200. Patented Jan. 15, 1901.

# M. DE LASSERVE.

## ACETYLENE GAS APPARATUS.

(Application filed Mar. 16, 1899.)

(No Model.)

Fig. 1.

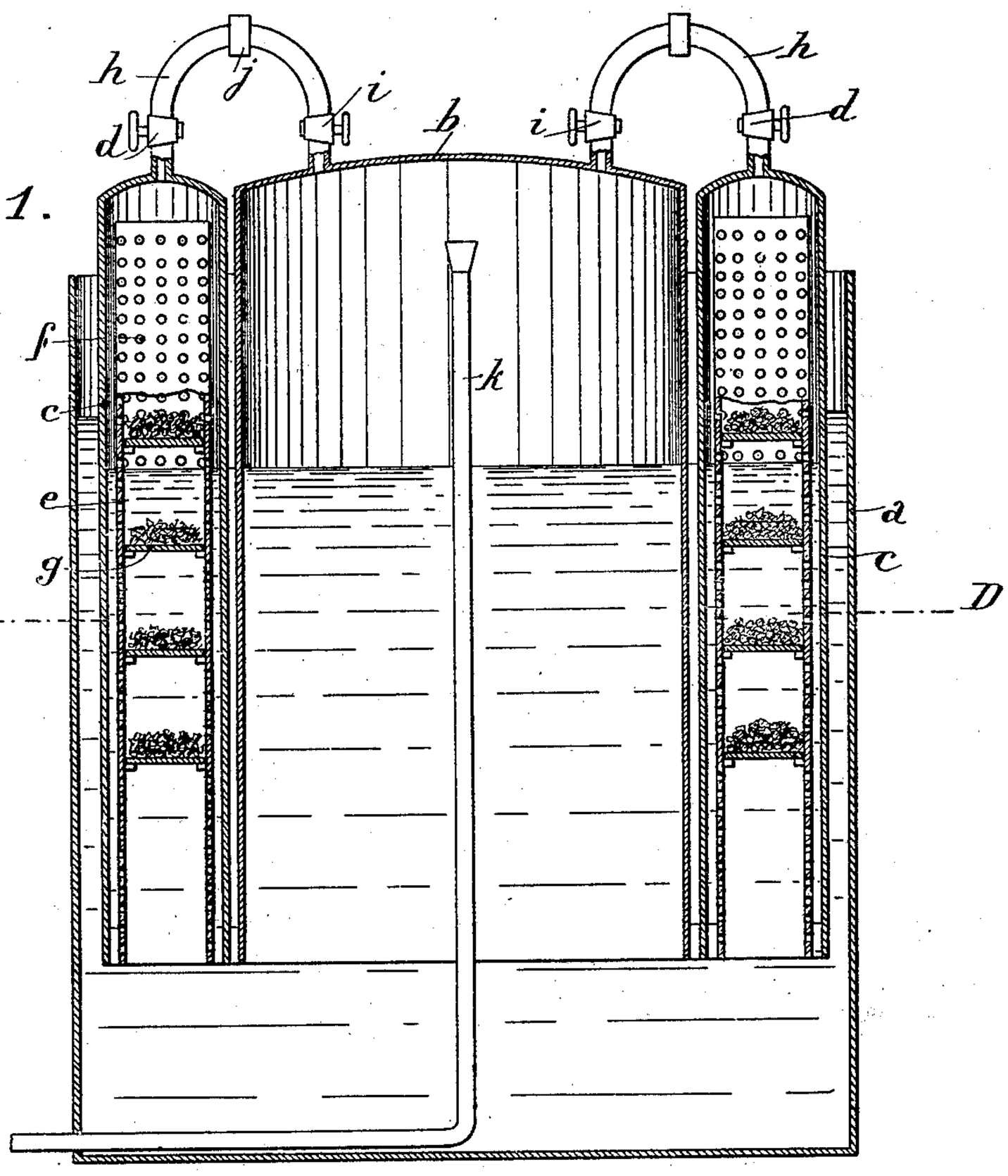
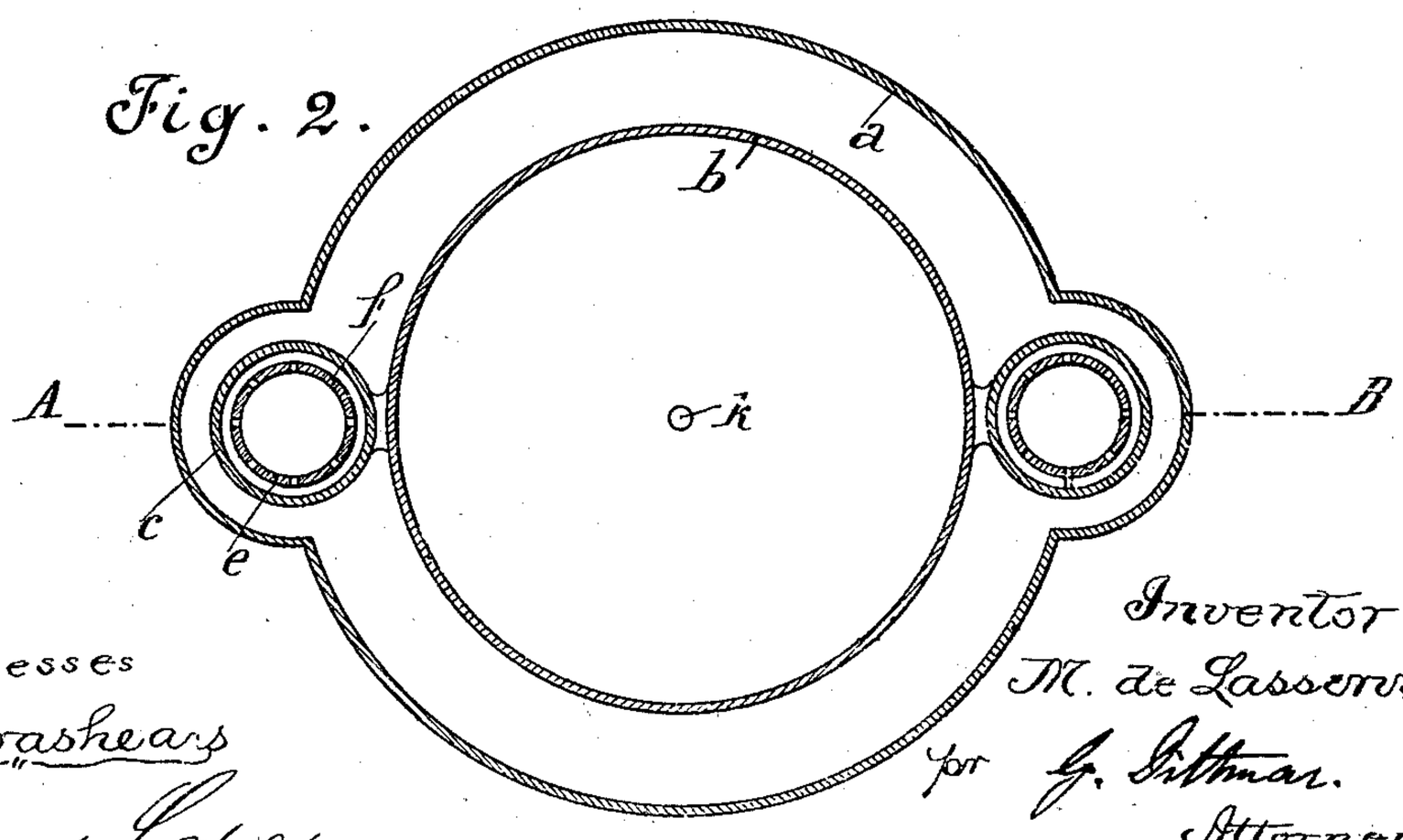



Fig. 2.

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# UNITED STATES PATENT OFFICE.

MAURICE DE LASSERVE, OF THENON, FRANCE.

## ACETYLENE-GAS APPARATUS.

SPECIFICATION forming part of Letters Patent No. 666,200, dated January 15, 1901.

Application filed March 16, 1899. Serial No. 709,365. (No model.)

*To all whom it may concern:*

Be it known that I, MAURICE DE LASSERVE, a citizen of France, residing at Thenon, France, have invented certain new and useful Improvements in Acetylene-Gas Apparatus; 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 present invention has for its object the production of an acetylene-gas apparatus comprising a bell and two or more gas-generators formed with the gas receptacle or bell, thus allowing same to be lifted or lowered therewith. The purpose aimed at is to create a simplified acetylene-gas generator in which all the lever-joints or sets of cocks which are usual in all the ordinary so-called "automatic" apparatus are avoided. The baskets in which the carbid is placed are fixed diametrally opposite each other at the circumference of the bell or receptacle, the latter thus carrying same with it in its up-and-down movements. They are submerged in the same water as the bell, and as soon as the bell is sufficiently lowered to submerge the carbid the bell is again filled with a fresh provision of gas and rises again.

In the annexed drawings is represented as an example one form of such an apparatus.

Figure 1 is a vertical section on the line A B of Fig. 2, and Fig. 2 is a horizontal section on the line C D of Fig. 1.

*a* is the vat, in which the bell *b* and the two gas-generators *c c*, fixed on same, are mounted when the apparatus is set to work. Each gas-generator comprises a bell *c*, inside of which, at each side, is secured a cylinder *e*, perforated with holes *f* for a portion of its height and provided with perforated partitions or shelves *g*, on which is placed the carbid.

The gas produced in the generators *c c* is directed through the pipes *h*, provided with cocks *d* and connections *j*, which are also provided with cocks *i i*, to the bell *b* and therefrom to the mains by the pipe *k*.

When setting, the cock *i* is left open, the vat partly filled with water, and the bell placed therein. The carbid having been placed on the perforated partitions or shelves *g* of the cylinders, these partitions are covered by the bells *c*, which are secured to the said perforated cylinders in any suitable manner—as, for instance, by forcing in strips *c'* between them, as shown in Fig. 1—and these two gas-generators being thus charged are lowered into the water, the cocks *d* being first left open and then closed when the water reaches the carbid, which position may be indicated by means of external marks made on the gas-generator. The gas-generators are then connected with the gasometer by means of the connections *j*. The cocks *d* are thereafter opened slowly and gradually to drive out the air, and the carbid being then reached by the water the production of acetylene gas begins, while the gas contained in the gasometer causes same to rise up, together with the gas-generators. When sufficient gas is formed to raise the bell, the carbid is raised out of the water and the production is stopped until the bell is again lowered on account of the consumption of gas.

In practice this apparatus presents numerous advantages in the impossibility of an overproduction of gas and a perfect safety. The gas-pressure is always uniform and can be regulated at will, while the light obtained is steady and very economical.

I claim—

The herein-described apparatus for manufacturing acetylene gas, embodying a suitable water-container, a floating gas-holder, two generators diametrically arranged to either side of the gas-holder and adapted to reciprocate therewith, each of said generators comprising a bell and an inner-lying shell having a series of superposed communicating carbid-compartments, said inner-lying shell being perforated throughout its length for the escape of gas and the inlet of water and having its bottom open to admit the water, a separable valved connection between each generator and the gas-holder, and a discharge-pipe for the gas-holder, substantially as shown and described.

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

MAURICE DE LASSERVE.

Witnesses:
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