S. R. DIVINE.

Carbureter.

No. 57 686. Patented Sept. 4, 1866.

Fig. 1.

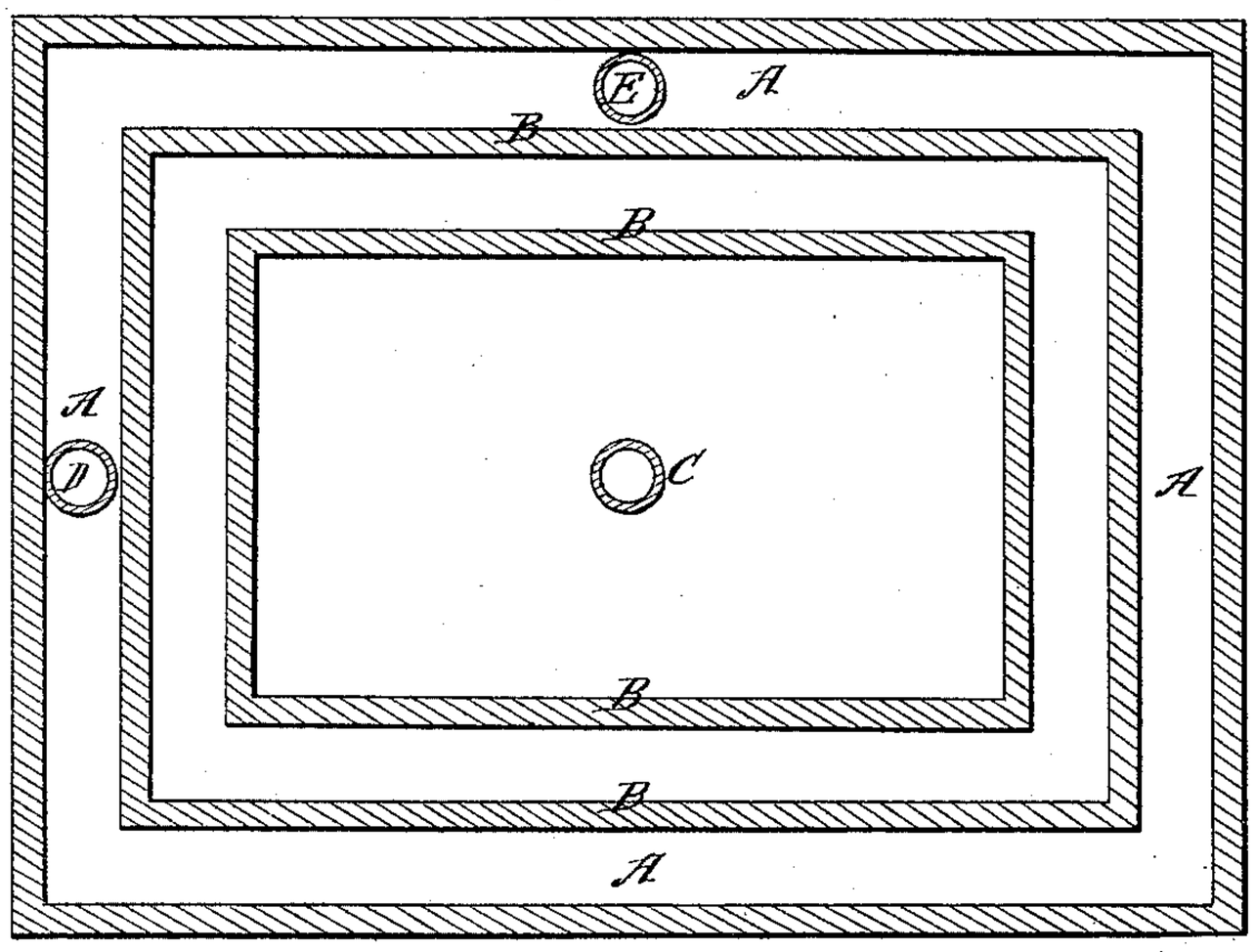
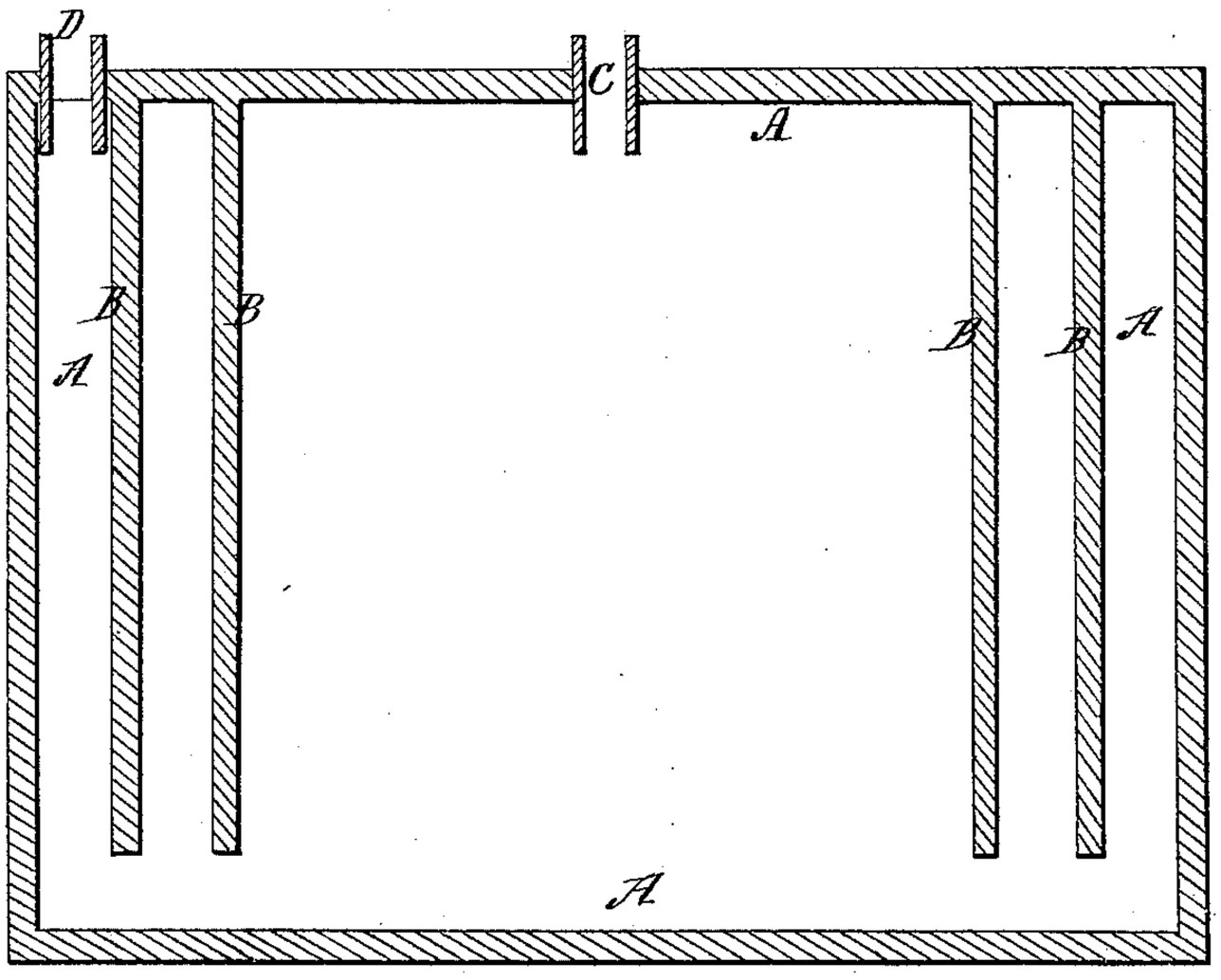


Fig. 2.



Witnesses:

Robert Grant
John McGrant

Inventor:

Solon R Divine

UNITED STATES PATENT OFFICE.

SILAS R. DIVINE, OF NEW YORK, N. Y.

IMPROVED APPARATUS FOR CARBURETING AIR.

Specification forming part of Letters Patent No. **57,686**, dated September 4, 1866.

To all whom it may concern:

Be it known that I, SILAS R. DIVINE, of the city, county, and State of New York, have invented a new and Improved Apparatus for Carbureting Gas or Air for purposes of illumination; and I do hereby declare that the following is a full and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in passing gas or air to be carbureted through successive walls or partitions of cloth or other suitable fabric, or through perforated partitions of any porous material.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct a vessel of any of the known forms for containing a liquid hydrocarbon, and within it place boxes or cups of the porous material preferred, open at the bottom. These boxes or cups are of different sizes, and, when properly arranged, form a series of hollow chambers. The gas or air being admitted into the inner chamber will pass through the pores, interstices, or perforations of the walls of that chamber to the next, and so on through the series. The open mouth of each cup or chamber descending into a liquid hydrocarbon will compel the gas or air to rise upward and laterally and be exposed to largely-increased surface as it traverses the successive walls or partitions. The sides of the chambers being saturated with the hydrocarbon liquid by the power of capillary attraction, the gas or air as it escapes will be thoroughly impregnated with the vapor of the said hydrocarbon.

In the accompanying drawings, Figure 1 is a vertical section of the apparatus. Fig. is a horizontal section of the same.

A A A A, Fig. 1, is a vessel for containing the liquid hydrocarbon; B B B B, walls forming the chamber; C, entrance-pipe for gas or air; D, exit-pipe for same; E, orifice for supplying liquid hydrocarbon.

Having explained the construction of my apparatus, what I desire to secure by Letters Patent is—

The use of chambers B B B B when placed one within another, and composed of porous or perforated walls, substantially as described.

SILAS R. DIVINE.

Witnesses:

STEPHEN J. DALLAS,

EDM. F. BROWN.