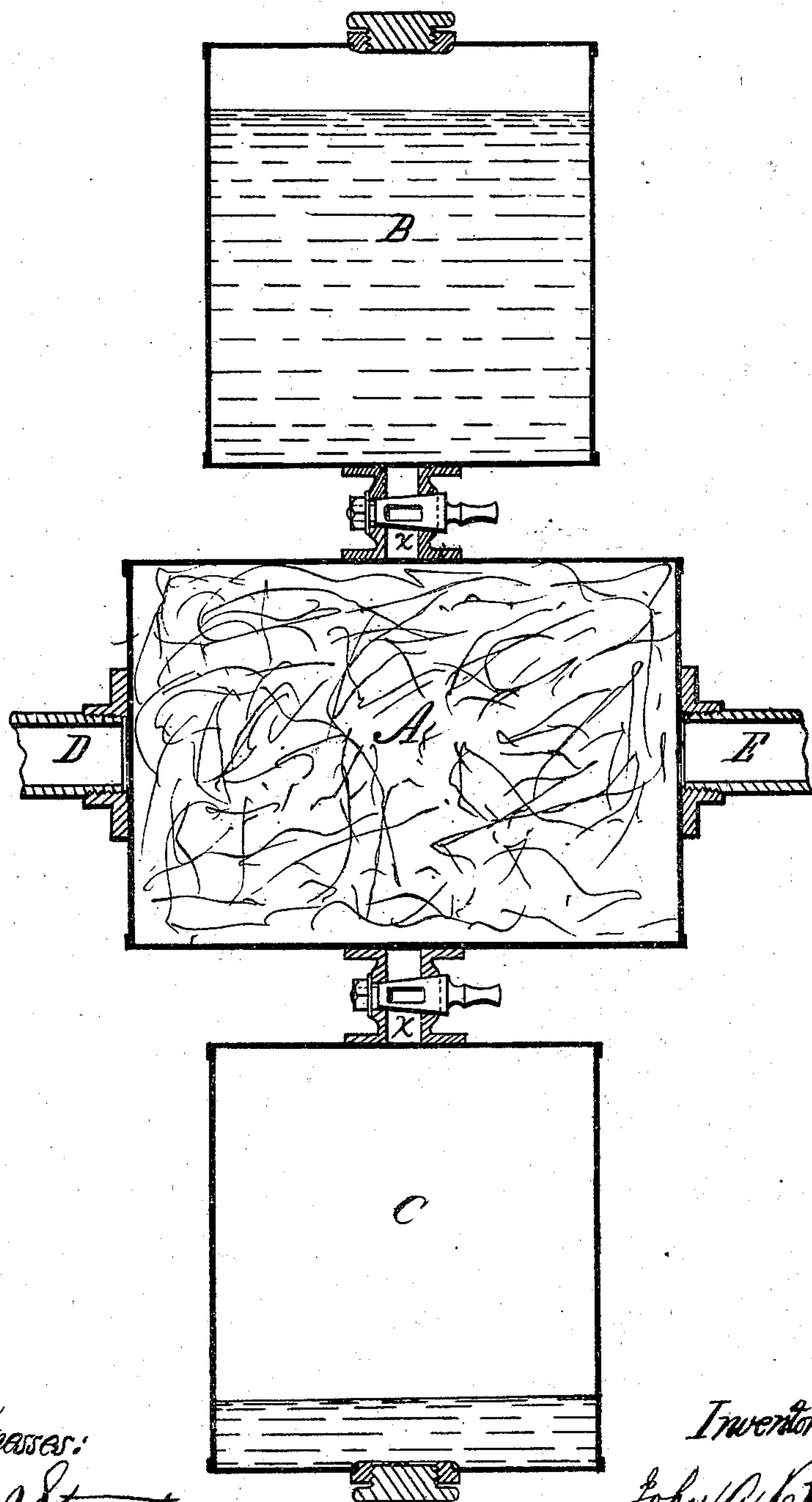


J. A. BASSETT.
CARBURETING GAS.

No. 66,068.

Patented June 25, 1867.



Witnesses:
H. L. Stuart
D. P. Hooper

Inventor:
John A. Bassett

United States Patent Office.

JOHN A. BASSETT, OF SALEM, MASSACHUSETTS.

Letters Patent No. 66,068, dated June 25, 1867.

IMPROVEMENT IN CARBURETTING GASES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN A. BASSETT, of Salem, in the county of Essex, and State of Massachusetts, have invented certain new and useful improvements in Method of Carburetting Gases; and I do hereby declare that the following is a full description of the same, reference being had to the accompanying drawing, making a part of this specification.

The object of this invention is to overcome the difficulties which prevent a regular and uniform carburation of gases for illumination, by what is known as the capillary process, and also to arrange that the bulk of the hydrocarbon liquid used for carburetting may be away from the immediate vicinity of the carburettor, and avoid the necessity of having a large amount of a volatile fluid in the building to be lighted. It is well known that in the use of fibrous substances as a material to distribute and volatilize the hydrocarbon, that its capillary power is not constant, and that it is liable to be clogged from the impurities ever present in coal gas.

In this invention the reservoir of hydrocarbon is placed above the chamber in which the carburation takes place, and a regular or intermittent flow is allowed to pass over and through the capillary material through which the gas passes to be carburetted.

The advantage of this arrangement is that the supply of hydrocarbon being uniform, the carburation is fully under control and may be made perfectly regular, and a hydrocarbon of lower specific gravity and less volatilizing power may be used. I prefer to use in the carburetting-chamber the porous carbon described in my patent of March 4, 1862, because it possesses certain specific advantages over other capillary materials, but any capillary substance may be used which will answer the purpose.

The reservoir of hydrocarbon may be placed in any convenient position and connected with the carburettor by a small tube, the quantity of hydrocarbon admitted to the carburettor being regulated by a cock. Below the carburettor a small reservoir may be placed to receive the overflow of hydrocarbon, and it should be arranged so as to be drawn off when required.

The apparatus may be so arranged that the carburettor is simply an enlargement of the gas-supply tube, so arranged that all the gas to be carburetted passes through the enlargement. The hydrocarbon should be supplied from the reservoir in such proportions as may be required to carburet the maximum quantity of gas which passes through the apparatus. Small carburettors may be arranged upon this plan so that the reservoirs may alternately fill and discharge, the inlet and outlet pipes being connected with stuffing-box joints. The reservoir at the top when empty is turned over, and the reservoir at the bottom which has become filled from the overflow becomes the discharging reservoir.

It will be seen that one of the principal objects of this invention is to keep out of the building to be lighted the bulk of the hydrocarbon used for carburetting. The presence of a large quantity of a volatile hydrocarbon in the building is dispensed with, and the result produced is more uniform and independent of variations of temperature. If it is desired, the pipe conveying the hydrocarbon to the carburettor may be packed with a fibrous material, so that the flow may be more perfectly regulated.

In the drawings, A represents the carburettor packed with a capillary material; B, the reservoir for containing the hydrocarbon; C, the reservoir for receiving the overflow; D, the inlet and E the outlet for gas; $x x$, the cocks by which the supply is controlled.

Having described my invention, what I claim, and desire a patent for, is—

1. The arrangement of a hydrocarbon reservoir above and connected with a carburetting-chamber, either with or without capillary material, substantially as set forth.
2. The overflow receptacle connected with the carburetting-chamber, for the purpose set forth.
3. The process of carburetting gases for illumination by the method substantially as specified.

JOHN A. BASSETT.

Witnesses:

H. S. STUART,
D. S. HOYER.