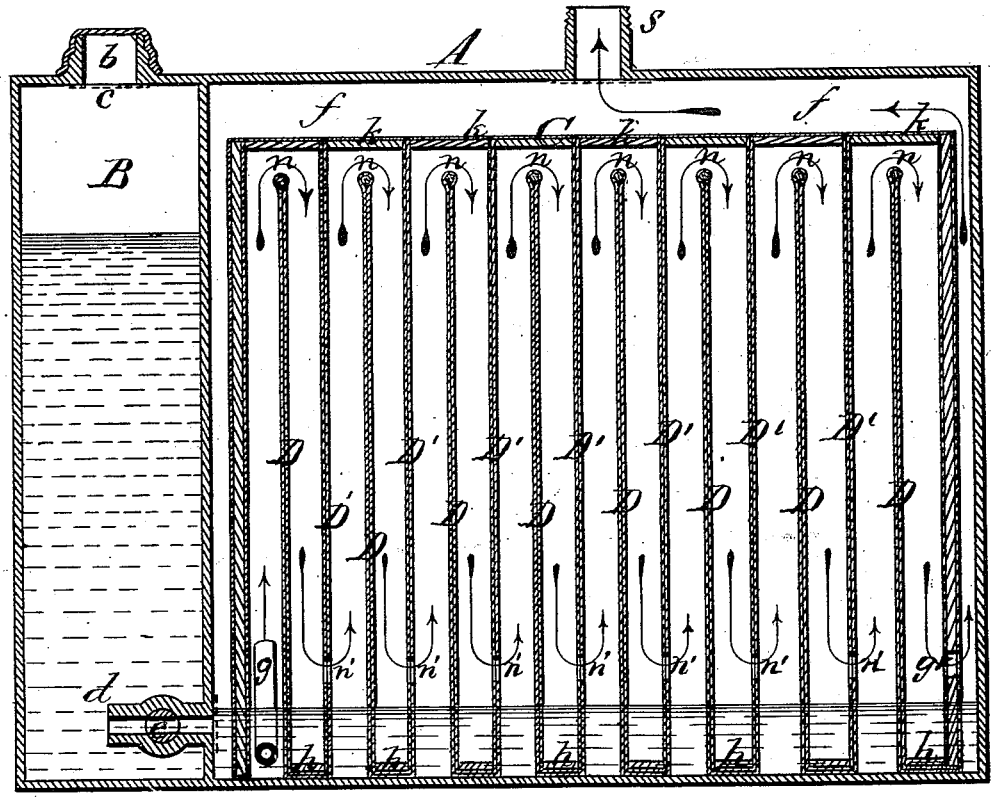
2 Sheets--Sheet 1.

D. L. WESTCOTT.

Carbureter.

No. 167,592. Patented Sept. 7, 1875.

Fig. 1.



WITNESSES

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INVENTOR

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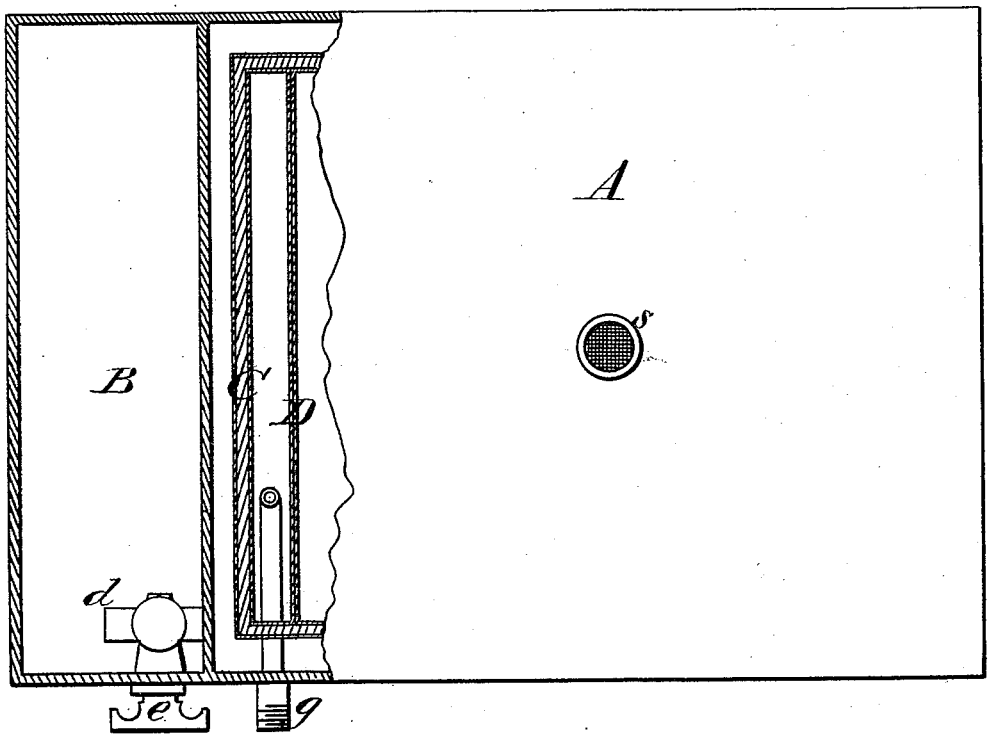
2 Sheets--Sheet 2.

D. L. WESTCOTT.

Carbureter.

No. 167,592. Patented Sept. 7, 1875.

Fig. 2.



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UNITED STATES PATENT OFFICE.

DANIEL L. WESTCOTT, OF FORT WAYNE, INDIANA.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. **167,592**, dated September 7, 1875; application filed August 7, 1875.

To all whom it may concern:

Be it known that I, DANIEL L. WESTCOTT, of Fort Wayne, in the county of Allen and State of Indiana, have invented a new and valuable Improvement in Carbureters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical central section of my carbureter; and Fig. 2 is a plan view, part horizontally sectional, of the same.

This invention relates to that class of carbureters which is designed for enriching and cheapening ordinary illuminating-gas, and also for carbureting atmospheric air by means of any fluid hydrocarbon.

My invention consists in a reservoir or case for containing the carbureting-fluid, in which is applied a feed-chamber, and also a box covered with a suitable absorbent, and having a similar absorbent arranged in it in such manner that the gas or air forced through the apparatus is compelled to pass on opposite sides of each sheet of the absorbent in a tortuous or serpentine course, as will be hereinafter explained.

In the annexed drawings, A designates a case of suitable capacity and material, in one end of which an air-tight reservoir, B, is constructed for containing a supply of any fluid hydrocarbon. At the top of this reservoir is a feed-opening, *b*, provided with a tightly-fitting cap and also with wire-gauze *c*, which latter will prevent danger from fire. Near the bottom of the reservoir is a pipe, *d*, leading into the main portion of the chest A, and provided with a cock, *e*, for regulating the supply of fluid into the chest from the reservoir. C designates a box, which is somewhat smaller than the chamber *f* in which it is placed, and which has four vertical sheet-metal sides, through one of which air is forced through a pipe, *g*, and, after being carbureted, is expelled through an aperture, *g'*, into the chamber *f*. The four walls of the box C are covered, both inside and outside, with a cloth, which is a good absorbent. The top and bottom of the box C are made up of narrow removable strips, *h k*. The strips *k*, forming the top of the box, are arranged close together, but between the narrower strips on the bottom of this box spaces are left, as shown in Fig. 1. D D' are vertical divisions formed of sheets of cloth, which is a good absorbent, which sheets are carried over the strips *k* and under the strips *h*, as shown in Fig. 1. At the upper end of every alternate division D is an opening, *n*, and near the lower end of every division D' is an opening, *n'*. By this arrangement of divisions in the box C, and the openings *n n'* through them, air or gas which is forced into the box C at one end thereof will alternately pass upward and downward through the vertical spaces between the divisions, and impinge on both sides of each division, and finally escape from box C into chamber *f* through the opening. The box C is supported upon the bottom of the case A in a shallow layer of any suitable kind of carbureting-fluid, which fluid will be absorbed by the sheets of cloth, and, by capillary attraction, carried up to the top of said box. I thus obtain, in a given space, the largest possible amount of evaporating-surface.

The gas, as it is manufactured, is conducted out of the chamber *f* to the burners through a pipe, *s*.

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

1. The case A, having at one end the reservoir B, with feed-pipe *d* leading into the chamber *f* of the chest, in combination with the removable box C, substantially as described.

2. The combination, with the chest A, of the removable box C, having its inner and outer walls covered with an absorbent cloth, and provided with the air-inlet pipe *g* and outlet-pipe *g'*, substantially as described.

3. The removable box C, having vertical division-walls D D', removable strips *h k*, and absorbent cloth, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

D. L. WESTCOTT.

Witnesses:

WALTER C. MASI,

B. H. MORSE.