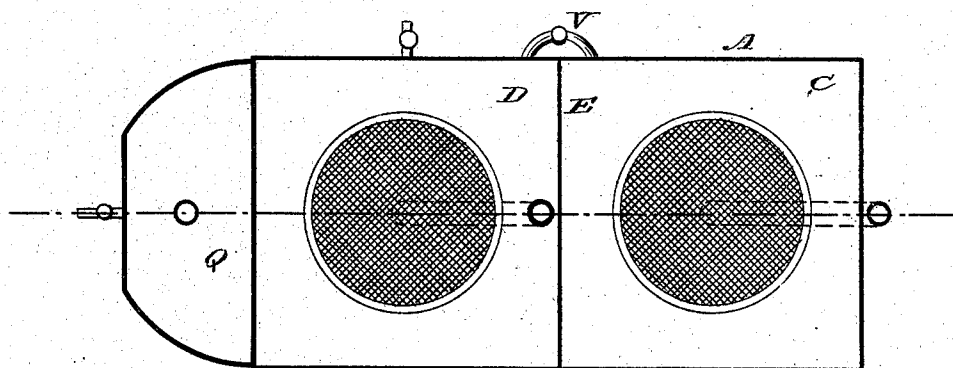
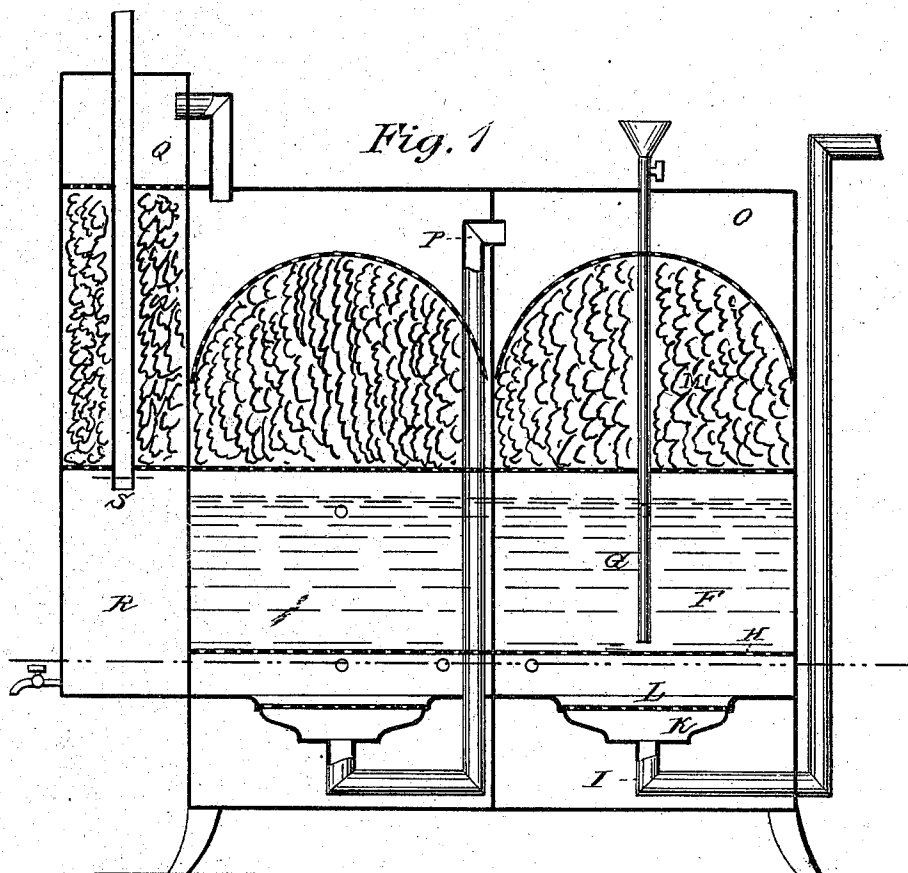


C. LAWRENCE.

Carbureter.

No. 100,534.

Patented March 8, 1870.



Witnesses:

Chas. Nida
John E. Crosby

Inventor:

Chas. Lawrence
per Munn & Co. Atty.

United States Patent Office.

CHARLES LAWRENCE, OF CINCINNATI, OHIO.

Letters Patent No. 100,534, dated March 8, 1870.

IMPROVEMENT IN CARBURETING AIR.

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, CHARLES LAWRENCE, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a new and improved Carbureting-Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

The invention relates to the art of carbureting atmospheric air for illuminating purposes, and

It consists in passing it through intermittent baths, and drying it at intervals between each bath.

I will now describe, in accordance with the requirements of law, a machine which will carry out and exemplify in a practical way the process for which I desire Letters Patent.

Figure 1 represents a longitudinal sectional elevation of my improved apparatus, and

Figure 2 represents a plan view of the same.

Similar letters of reference indicate corresponding parts.

I provide a vessel, A, of any preferred form, of sheet metal of any suitable kind, and divided into two or more general divisions, O D, by vertical dividing-walls, E. These general divisions are divided horizontally into any preferred number of chambers, and by perforated dividing-plates.

F represents the gasoline-chamber, to which the gasoline is admitted by the pipe G.

Near the bottom of the said chamber is provided a perforated plate, H, by which the air which is admitted through the bottom from the pipe I is spread and disseminated thoroughly throughout the gasoline.

To further effect the said dissemination, a depression, K, is formed in the bottom of the vessel, around the mouth of the pipe I, and a perforated plate, L, placed over the same.

Above the chamber F is another chamber, M, separated therefrom by a perforated plate, N. This chamber is filled with sponge, or any other preferred absorbent material, and through it the vapor of gasoline

taken up by the air passed, and the impregnating process thereby continued.

From the said chamber M the vapor collects in the space O above, passing through another perforated plate, from whence it is conveyed by the pipe P to the bottom of the next general division D of the apparatus, where it passes through a similar course, and passing therefrom into a third division, Q, which I denominate the condensing division, passing this time downward through the perforated plates and absorbent material into the space R, from which it is taken by the pipe S to the gasometer, or to the gas-mains.

The bottom of the space R may be provided with a cock, for drawing off any water of condensation which may be deposited there.

Other cocks may be applied to the chambers F, for testing and governing the height of the gasoline therein, and for drawing off the said chambers from time to time.

The pipe V is designed to equalize the volume of gasoline in each of the chambers F, as that in the first chamber is taken up more rapidly by the air than in the other.

I propose to arrange a gasoline-reservoir upon the top of the apparatus, or in any other preferred arrangement, for holding the supply, and connected to the pipe G to facilitate the delivery of the same into the reservoir in small quantities, say each day by opening the cock and allowing it to flow in to about the amount consumed, which I consider preferable to supplying larger quantities at greater intervals.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The process of carbureting air by passing the same through intermittent baths of hydrocarbon liquid, and drying it between each bath, as and for the purpose specified.

CHARLES LAWRENCE.

Witnesses:

N. MARCHANT,
AUGS. LAWRENCE.