No. 863,154. PATENTED AUG. 13, 1907.

F. J. COX.

CARBURETER.

APPLICATION FILED MAY 7, 1906.

Fig. 1

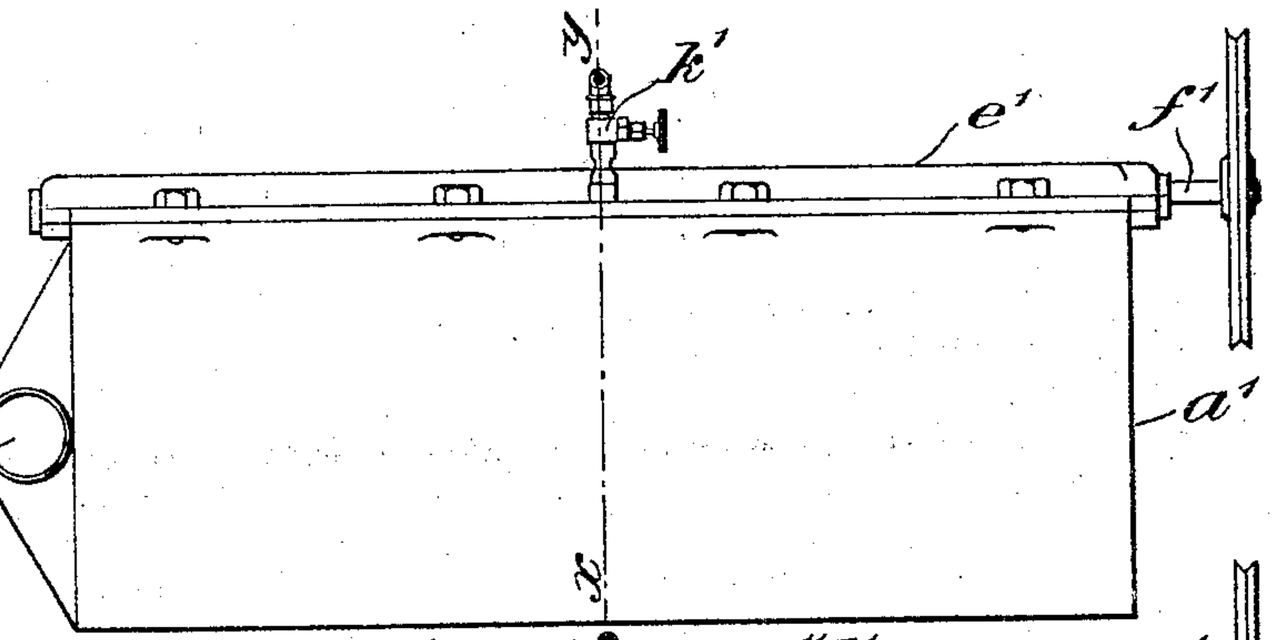

Fig. 2

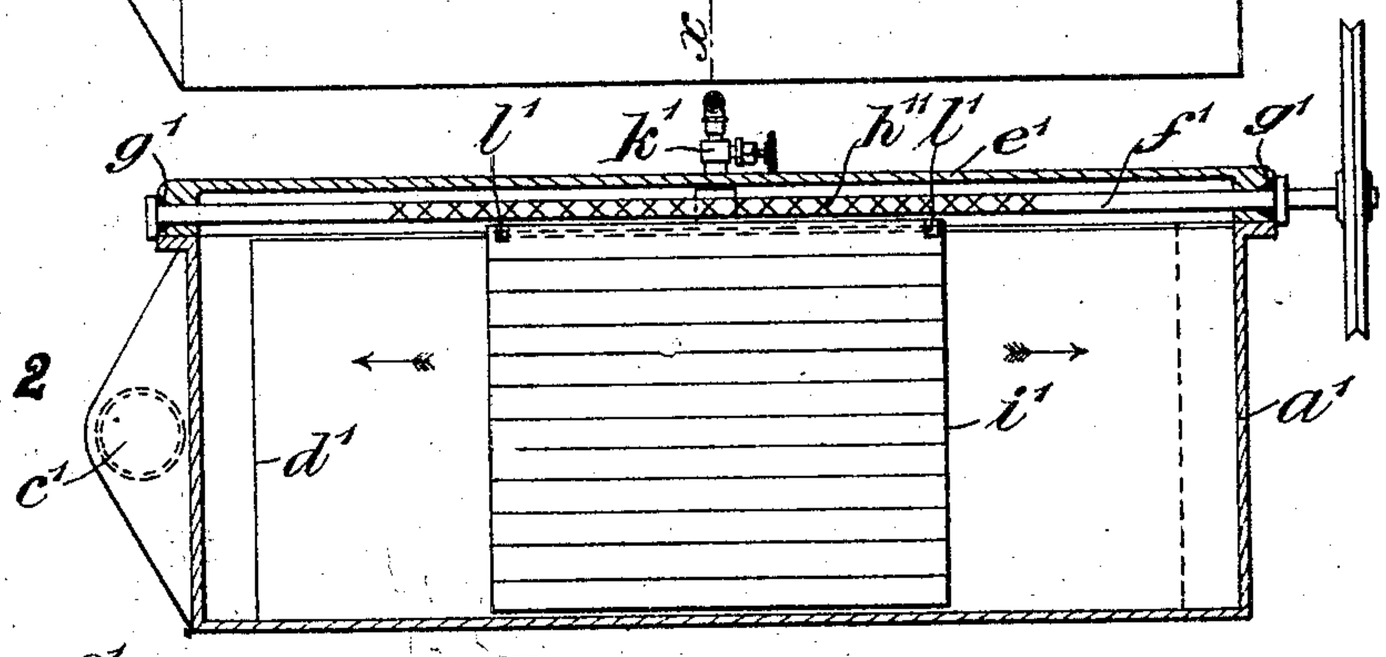

Fig. 3

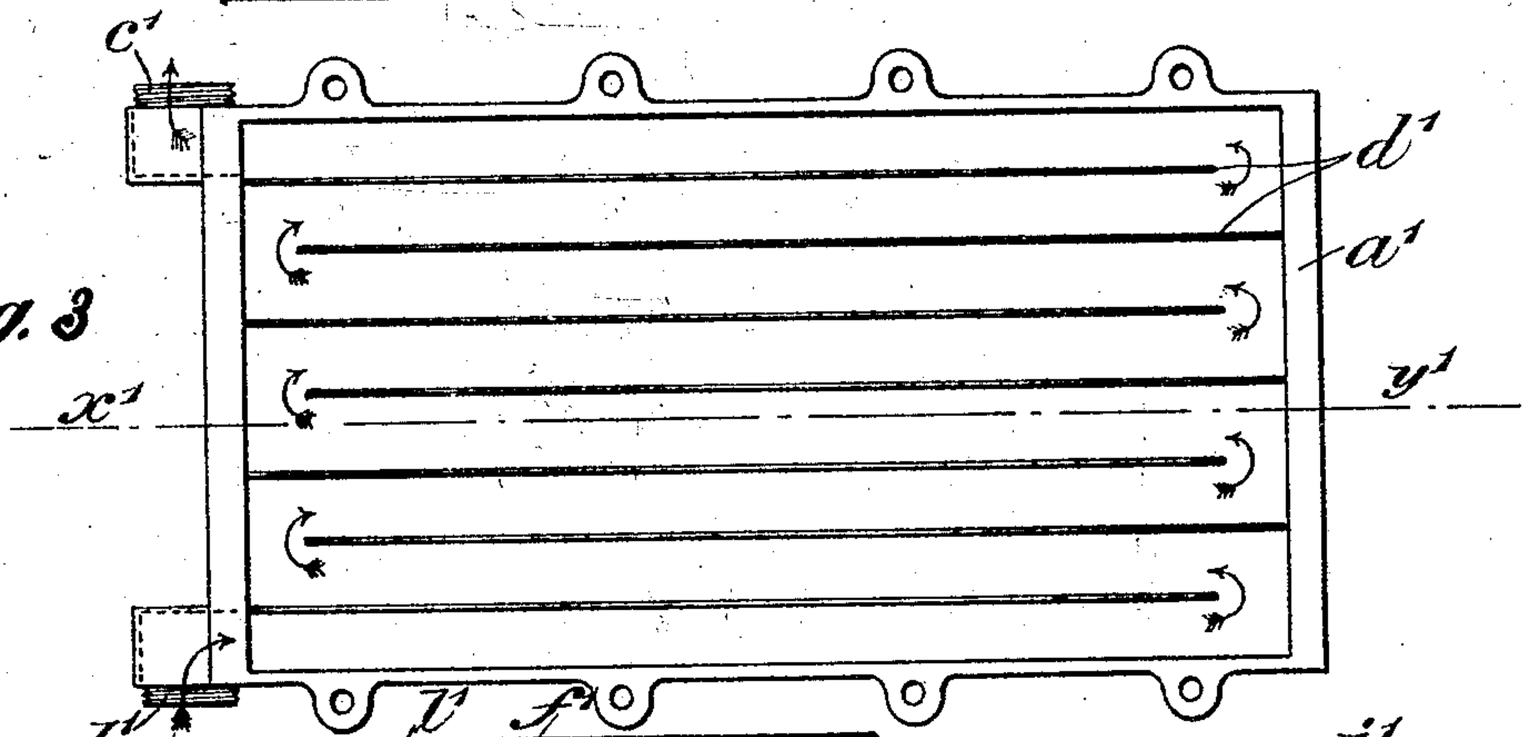

Fig. 4

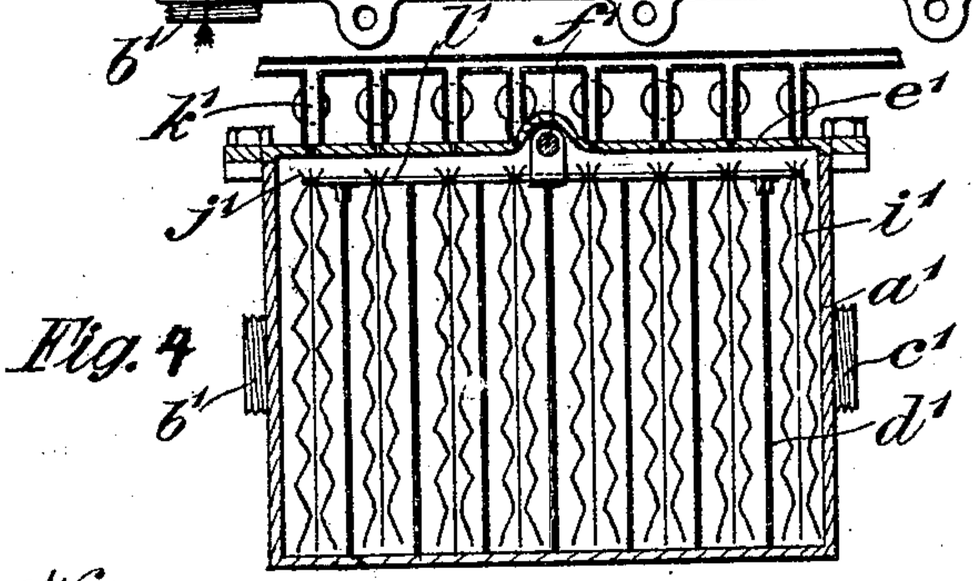

Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

FREDERICK JOHN COX, OF LONDON, ENGLAND.

CARBURETER.

No. 863,154. Specification of Letters Patent. Patented Aug. 13, 1907.

Application filed May 7, 1906. Serial No. 315,709.

To all whom it may concern:

Be it known that I, FREDERICK JOHN COX, a subject of the King of Great Britain and Ireland, residing at 212 Brecknock Road, Tufnell Park, London, N., England, have invented certain new and useful Improvements in and Relating to Carbureters, of which the following is a specification.

The invention has for its object to provide a surface upon which the volatile liquid is to be exposed that the surface shall have a movement with reference to the jet or orifice through which the volatile liquid is distributed upon it, so that by such means a regular and considerable interval elapses before the volatile liquid is deposited upon the surface at any particular point, and thus the feed of the carbureting liquid may be regulated so as always to yield less than that which would cause the flooding of the carbureter and always amply sufficient to produce the amount of carburation required. According to this part of the invention I mount the screens or surfaces upon which the volatile liquid is fed so as to have a considerable slow movement in the carbureter casing which movement very conveniently can be effected by means of a spindle, which at the same time serves to carry the whole of the series of screens employed, which spindle is provided with reverse screw threads so that when the screens or frames reach one end of the casing they return so that in the continuous rotation of the spindle in the same direction an alternate reciprocation is given to the frames. According to this part of the invention it is preferred to provide a carbureter in which a series of fixed partitions are provided which stop short of the respective ends thereof so as thus to form a tortuous course for the air from one side of the carbureter casing to the other, and in each of the spaces between these respective partitions a screen such as hereinafter described is mounted, a number of screens, being suspended advantageously upon a frame, which frame has mounted upon it a screw sleeve which traverses the spindle aforesaid on its rotation.

Figure 1 is a view of a modfied form of carbureter. Fig. 2 is a longitudinal section of the carbureter on line x', y' (Fig. 3). Fig. 3 is a plan of the carbureter with the top casing and gauze screens removed. Fig. 4 is a cross section of the carbureter on line x, y, (Fig. 3.) Fig. 5 is a detail view of a gauze screen.

In carrying the invention into effect I provide a casing a, and I provide an inlet b' and outlet c' at the same end in opposite positions centrally to lead the air for carburation through the tortuous course formed by the space between the vertical partitions d' provided in the casing, and I provide a cover e' for this casing, having downwardly protruding sides sufficient for the mounting beneath the cover of the spindle f' before referred to, which I advantageously mount in ball bearing g' to insure ease of operation. Upon this spindle I form reverse threads h'' for the purpose hereinbefore described.

I provide the screens or surfaces i' upon which the liquid is disposed for carburation as wire gauze of zig-zag shape in vertical section, and I preferably provide a number of such sheets of gauze which I connect together, and the upwardly projecting extremities j' thereof I flare outwardly funnel-shaped for the reception of the drops of volatile liquid from the nozzles or jets k' which are mounted in a central position upon the cover e' so that the volatile liquid may flow down the screen so formed. It will be understood that it is preferred to provide a transverse series of such nozzles k' one nozzle for each screen. Two or more of the partitions d' may serve as guides for the rods or frames l' by which the respective screens i' are supported, and any suitable anti-friction, devices may be used in connection therewith.

Any suitable gear may be provided for the rotation of the spindle, which it will be understood will effect a relatively slow reciprocating movement of the connected screens.

Any other material than wire gauze may be used.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A carbureter comprising a casing, a series of screens mounted within said casing, means for reciprocating said screens and means for depositing liquid upon said screens substantially as described.

2. A carbureter comprising a casing, vertical partitions within said casing a series of gauze screens mounted within said casing, means for reciprocating said screens and means for depositing liquid upon said screens substantially as described.

3. A carbureter comprising a casing, vertical partitions within said casing, vertical partitions within said casing, a reversely screwed spindle for reciprocating said screens and a series of pipes for depositing liquid upon said screens substantially as described.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK JOHN COX.

Witnesses:
FREDERICK COLLINS,
H. D. JAMESON.