

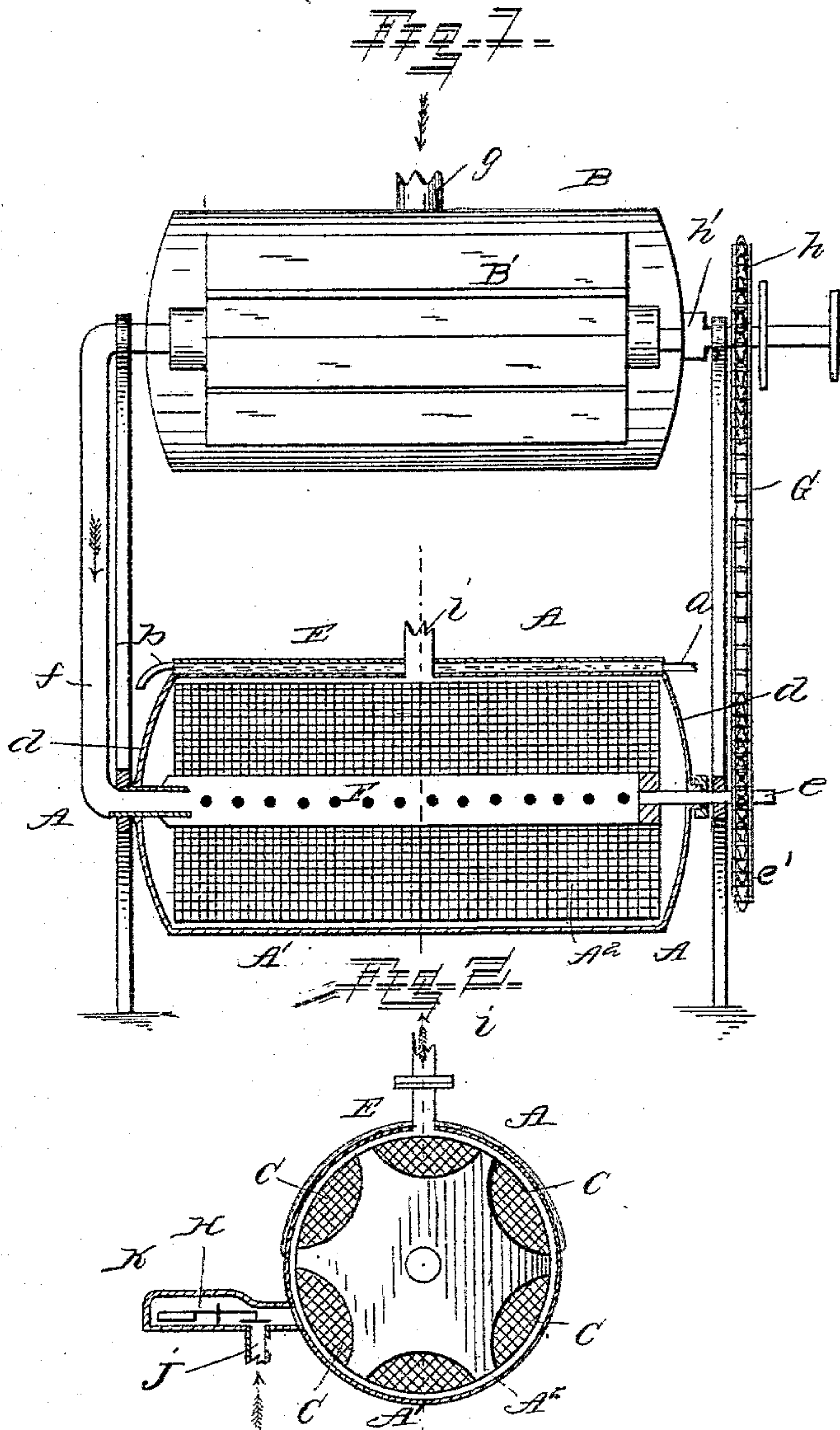
(No Model.)

L. F. McNETT.

CARBURETOR.

No. 356,950.

Patented Feb. 1, 1887.



WITNESSES.

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CARBURETOR.

SPECIFICATION forming part of Letters Patent No. 356,950, dated February 1, 1887.

Application filed March 13, 1886. Serial No. 195,114. (No model.)

To all whom it may concern:

Be it known that I, LYMAN F. McNETT, a citizen of the United States of America, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Carburetors, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention pertains to improvements in air-gas carburetors, having for its object to provide a maximum amount of carbureting-surface in a minimum amount of space without chilling or refrigerating the gas; to automatically maintain the hydrocarbon liquid at the required or uniform level or height; to reduce the temperature of the said liquid and to warm the vapor arising from the latter, and to maintain a steady flow of gas and to facilitate the process of carbureting the same; and the invention consists of the combinations of parts, including their construction, substantially as hereinafter set forth, and pointed out in the claim.

25 In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of my invention, and Fig. 2 is a cross-section of the carburetor proper.

30 In the embodiment of my invention I suitably support upon frame-work the carburetor proper, A, and blower B, preferably disposing one above the other, the carburetor being the lower. The carburetor proper, A, comprises the outer imperforate cylinder or casing, A', and the inner wire-woven or perforated cylinder, A², which is adapted to revolve in the former, as hereinafter described.

40 The inner cylinder, A², has applied to its inner circumference, wholly covering it, save at small intervals between them, absorbents C, which are approximately semi-cylindric in cross-section, having their convexities presented toward the inner or central space of the cylinder. These absorbents C are also made of woven wire or cloth, and filled with asbestos, cotton-waste, or other porous absorbent. The absorbents, by reason of their aforesaid construction and disposition, provide a maximum amount of gas-carbureting surface in a minimum amount of space. The cylinder A² is also

covered with wick cloth or other porous absorbent.

Upon the outer cylinder or case, A, is secured a jacket, E, for distributing warm water upon the said cylinder for warming the vapor from the hydrocarbon. The warm-water-supply pipe is connected to the jacket E at a, while the same after use is discharged at b. The warming of the hydrocarbon vapor prevents the refrigeration or chilling of the gas. The ends of the cylinder A' are provided with convexed heads d, their convexities being presented outward.

The inner cylinder, A², is provided with a central apertured tube or pipe, F, and hung in position within the cylinder A' at one end upon a spindle or shaft, e, bearing in the cylinder or case A, upon which shaft e is mounted or secured a sprocket or toothed wheel, the purpose of which will appear farther on. The other end of the cylinder A² is hung upon the inward horizontally-extended portion of the blast or blower pipe f, passed through that head of the cylinder, and entering at its inner end the pipe F.

The blower B has upon its inside a fan, B', which takes the air thereinto through the air-inlet g in the upper side of the casing, while the air is delivered or forced therefrom into the pipe f, which conducts it into the apertured pipe F of the carburetor-cylinder A².

G is an endless-chain belt, which is passed around a sprocket or toothed wheel or pulley, h, upon the fan or blower shaft h' and around the wheel e' of the inner carburetor-cylinder shaft for rotating the said cylinder to effect the constant lifting or presentation of different portions or particle after particle of the liquid hydrocarbon to the air or blast from the pipe F. It is obvious that this operation will preserve a steady flow of gas and facilitate the process of carbureting the same, the latter leaving the carburetor through the outlet i in the upper side of the cylinder A' and being conducted through pipes to the burners for use. This outlet may have a valve or cut-off, if desired, to confine the gas to the carburetor.

J is a pipe which, in practice, leads to the reservoir or tank containing the liquid hydro-

carbon, which tank or reservoir is so located or arranged that its bottom stands about in the same plane with the level or height of that liquid in the carburetor.

- 5 H is an automatic overflow-valve, which is pivoted in a pipe or inlet, *k*, which latter is disposed in a plane that coincides with the height or level at which the liquid hydrocarbon stands in the carburetor. The valve
10 H will therefore, when the liquid has reached the required level or height in the carburetor, close; but the moment the liquid sinks or falls below that point it is obvious that the valve will be opened by the action of the liquid from
15 without pressing upon it, and thus automatically effect the feeding of the liquid or hydrocarbon to and the cutting off of the same from the carburetor, and therefore maintaining the liquid in the carburetor at the required uniform height.
20

- I am aware that it is not new to provide a revolving carburetor with internal perforated wings or vanes, whereby portions of the liquid hydrocarbon are taken up and delivered in
25 shower or spray to the passing current of air, and an interior grating, the surface of which is covered with a thin absorbent coating; also, a carburetor comprising a tank wherein two foraminated cylinders are secured on a perforated pipe or hollow shaft, said cylinders having cotton-batting inserted between the same; and I am further aware that it is not new to secure within a cylindric vaporizing chamber or generator a perforated shaft, on which are
30 secured two similar disks or metallic plates perforated with numerous holes to receive and support wicking or other suitable fibrous rope or absorbent material for vaporizing benzole

or other volatile hydrocarbon, mixing it with air. Carburetors having water-jackets on their ulterior surface having been heretofore known and used, I make no claim to such feature; but my invention is designed as an improvement over the devices above outlined, and to this end I employ, in connection with
45 an outer cylinder having a water-jacket, an inner perforated cylinder covered with wicking-cloth and absorbents parallel with the axis of said inner cylinder, and my invention also comprises an automatic valve, all of which
50 features have been hereinbefore described.

By placing the absorbents parallel with the axis of the inner cylinder, as stated, I not only provide the best and most practicable manner of constructing the carburetor, but obtain a maximum amount of gas-carbureting surface in a minimum amount of space, which is a desideratum in this class of inventions.
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Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—
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The combination, in a carburetor, with the inner perforated cylinder covered with wicking-cloth and the outer cylinder having the water-jacket, of the absorbents, the pipe having the
65 automatic valve, the blower, and the chain-belt passed around the sprocket-wheels on the shafts of the blower and the inner cylinder of the carburetor, substantially as and for the purpose set forth.
70

In testimony whereof I affix my signature in presence of two witnesses.

LYMAN F. McNETT.

Witnesses:

JAMES S. FITCH,
LEWIS C. PARKER.