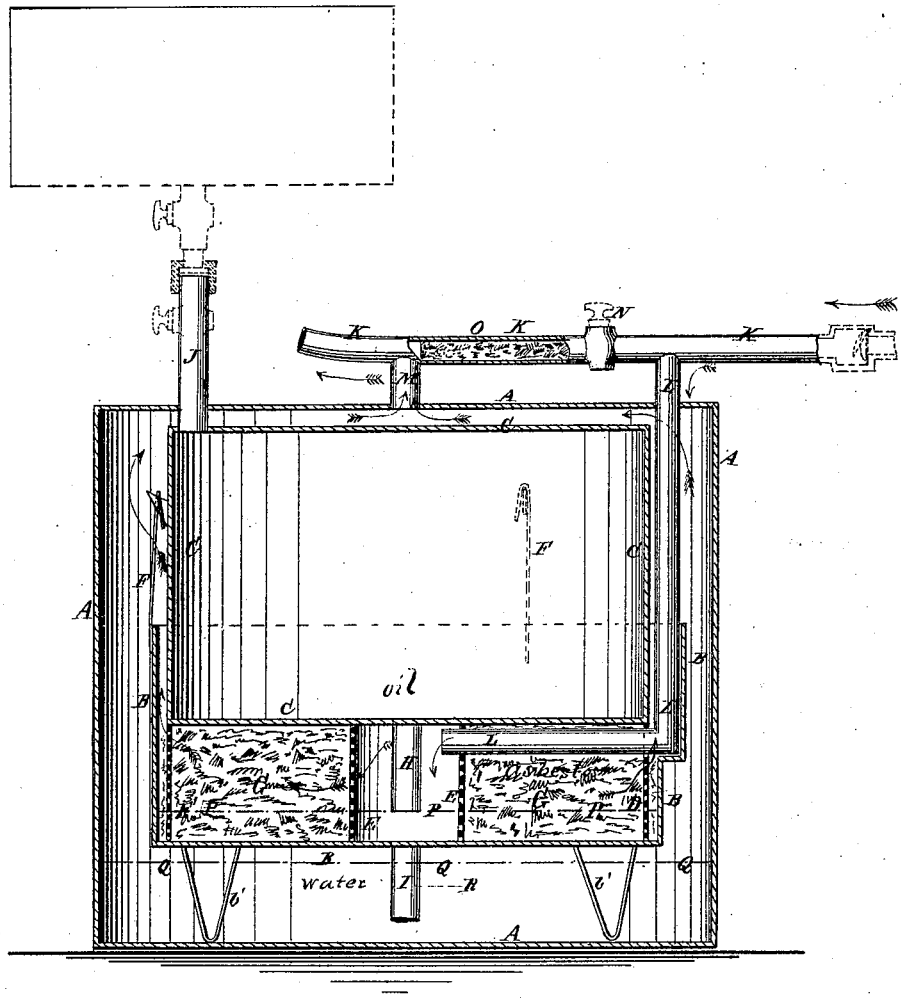
J. M. POLLARD.

Carbureter.

No. 169,034. Patented Oct. 19, 1875.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES M. POLLARD, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO HIMSELF AND WALLACE W. BARTON, OF GALVESTON, TEXAS.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. **169,034**, dated October 19, 1875; application filed July 24, 1875.

To all whom it may concern:

Be it known that I, JAMES M. POLLARD, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Improvement in Carbureter, of which the following is a specification:

The figure is a vertical section of my improved carbureter.

The object of this invention is to furnish an improved apparatus for enriching illuminating-gas with the vapor of gasoline or other light hydrocarbon, so as to greatly increase its effectiveness, and which shall be simple in construction, and convenient, effective, and safe in use.

The invention will first be described in connection with drawing, and then pointed out in the claim.

A represents the outer case of the apparatus, the walls of which I propose to make double, and with the intermediate space filled with crushed asbestus. B is a low open-topped vessel of a less diameter than the case A, and which is provided with legs *b'* to support it at a little distance above the bottom of the case A. C is the gasoline-holder, which is made of a little less diameter than the vessel B, and which is supported at a little distance above the bottom of the vessel B by the perforated flanges D E attached to its bottom, and the lower edges of which rest upon the bottom of the vessel B. The perforated flange D is secured to the bottom of the vessel C at or near its edge, and the perforated flange E is secured to the bottom of the vessel C around and at a little distance from its center, so as to be concentric with the said flange D. The vessels B C may be further connected together by hooks F upon their outer sides. The space between the perforated flanges D E is filled with crushed asbestus G, or other suitable material, but asbestus is preferred as being wholly unaffected by the oil and gas. H is a small pipe open at both ends, the upper end of which is secured in a hole in the center of the bottom of the gasoline-holder C, and the lower end of which extends nearly to the bottom of the vessel B. I is a small pipe open at both ends, the upper end of which is secured in a hole in the center of the bottom of the vessel B, and the lower end of which extends nearly to the bottom of the case A. J is a small pipe leading in through the top of the case A and through the top of the vessel C for convenience in putting in the gasoline, and which is closed with a stop-cock. K is the gas-pipe from which the inlet-pipe L passes down through the top of the case A, passes down along the side of the vessel C through the space between the sides of the vessels C B, or through an enlargement of said space formed to receive it, passes in through the perforated flanges D E, and discharges the gas into the space within the perforated flange E. M is the outlet-pipe, which passes from the space between the tops of the vessel C and case A, through the top of the said case A, and leads into the gas-pipe K. The gas-pipe K, between the pipes L M, is supplied with a stop-cock, N, and the said pipe K, between the stop-cock N and the outlet-pipe M, is filled with crushed asbestus O. The gas-pipe K, beyond the pipe L, is designed to be provided with a valve to prevent any backflow of the gas. The vessel C is designed to be supplied with gasoline from a can provided with a single opening, in which is secured a short pipe provided with a stop-cock, and with a coupling for connecting it with the supply-pipe J of the apparatus.

In supplying the vessel C with gasoline the pipe of the can is coupled with the pipe J, and both the stop-cocks are opened, allowing the gasoline to flow into the said vessel C. The gasoline from the vessel C flows down through the pipe H into the bottom of the vessel B, saturates the asbestus G, and rises above the bottom of said vessel B, until the mouth of the pipe H is covered, as indicated by the line P, which prevents any further escape of air, and any further downflow of gasoline except to supply the loss of that taken up by the gas as it passes through the asbestus G. The lower part of the case A is filled with water up to about the line Q, which covers the lower end of the pipe I and prevents the outflow of the gasoline through the pipe I, the gasoline and water meeting in the pipe I at about the point R, owing to the difference of gravity between the two fluids. This construction allows any water of condensation to escape through the

pipe I. The case A should be provided with an overflow-pipe, (which is not shown in the drawings.) As the gas escapes from the pipe L it passes through the asbestus G, becomes saturated with the vapors of gasoline, passes up through the space between the walls of the vessels B C, through the space between the walls of the vessel C and case A, through the pipe M into the pipe K, and thence to the burners. The richness of the gas may be regulated by adjusting the cock N to allow any desired proportion of the gas to pass to the burners without passing through the carbureter. The packing O opposes to the gas that is passing through the pipe K the same resistance that the carbureter does to the gas that is passing through it, so that the desired proportions may be maintained under all circumstances.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of case having air or gas induction pipes K L and eduction-pipe M, the vessel B *b'*, having overflow-pipe I, and the gasoline-holder C, having flanges D E, oil-feed pipe H, and gasoline-pipe J, as and for the purpose specified.

JAMES M. POLLARD.

Witnesses:
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