

J. Kidd.

Making Hydro Carbon Gas.

N^o 87,681.

Patented Mar. 9, 1869.

Fig. 2.

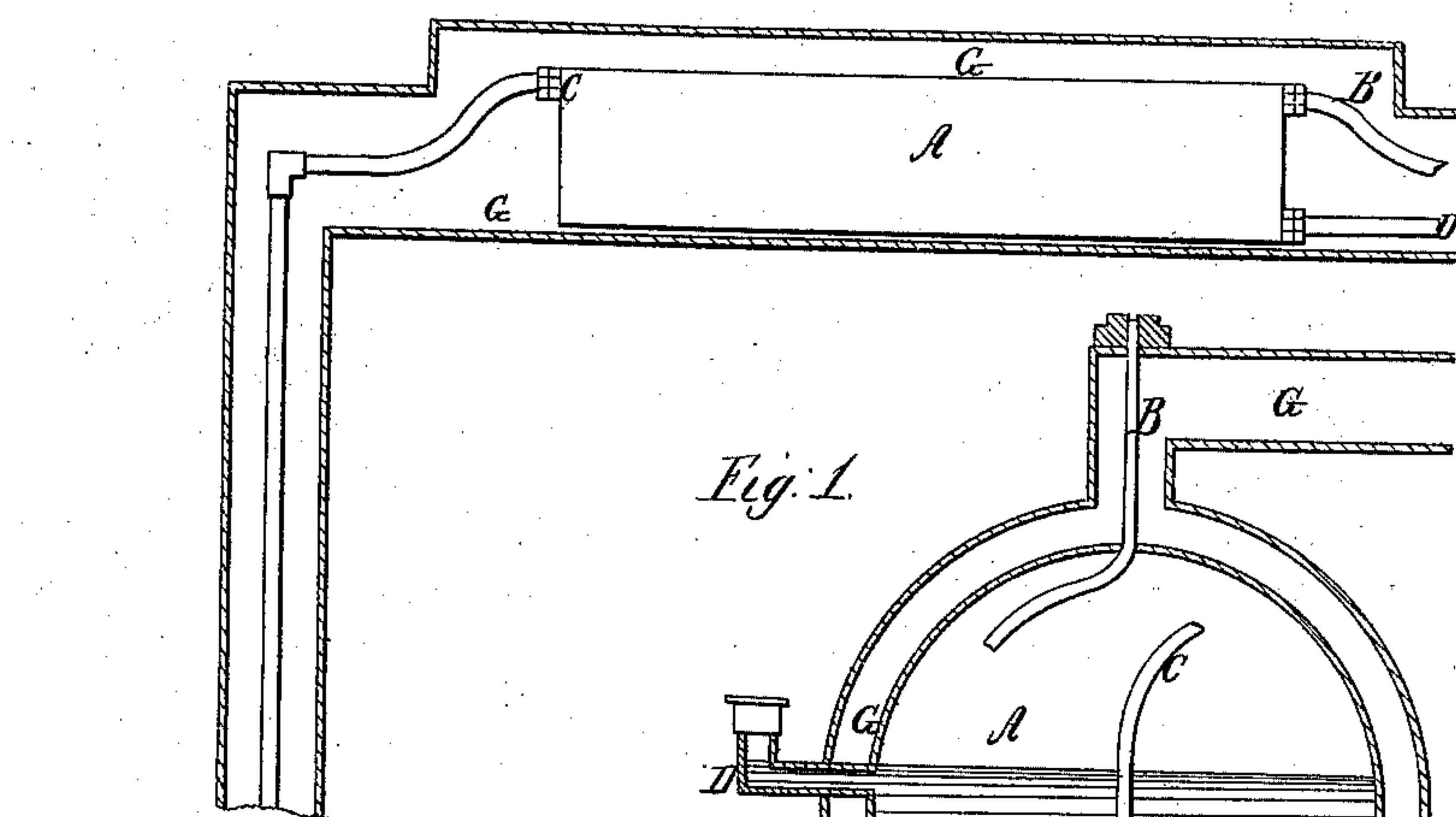
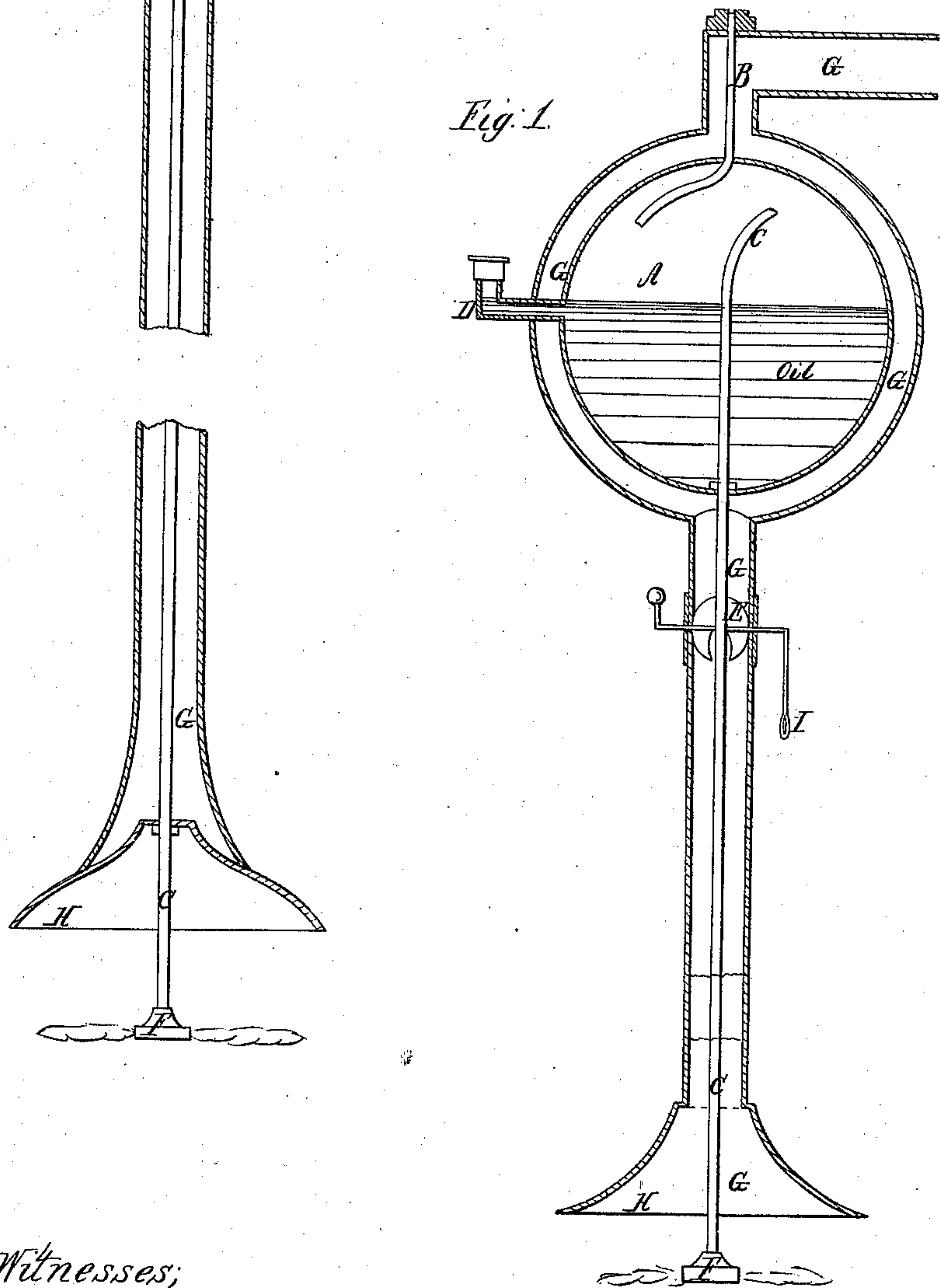


Fig. 1.



Witnesses;

*George W. Moore
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Inventor;

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United States Patent Office.

JOSHUA KIDD, OF NEW YORK, N. Y.

Letters Patent No. 87,681, dated March 9, 1869.

IMPROVEMENT IN CARBURETTING GAS, AND IN OIL FOR THE SAME.

The Schedule referred to in these Letters Patent and making part of the same.

To all to whom it may concern:

Be it known that I, JOSHUA KIDD, gas-engineer, of 74 Maiden Lane, in the city and State of New York, have invented a new and improved Apparatus for Carburetting Gas, and a Method of Preparing Oil for the Same; and I 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 drawings hereunto annexed, and making part of this specification.

My invention is an improvement upon two former inventions for carburetting gas by the heated vapor of heavy oils, for which Letters Patent were granted to me, the first, No. 62,855, dated March 12, 1867, and the second, No. 83,289, dated October 20, 1868. Those inventions show methods of vaporizing the oil by the heat of the combined gas and vapor flame, from the top or sides of its vertical column, so that the heat to the carburetting-vessel is not checked by the deposit of tarry matter at the bottom of the vessel.

My present improvements consist in the method of heating the carburetting vessel, and in preparing the carburetting-oil to be used in the apparatus, so as to remove the tar therefrom.

In the preparation of the oil, I first heat the still or retort containing coal or other oil, to about 420° Fahrenheit scale, and allow all oil that will evaporate at or near this temperature, to pass off or distil over, after which I raise the temperature of the oil in the still to about 520° Fahrenheit scale, and condense and collect all the oil that passes over up to this temperature, and use it mixed with as much naphthaline as it will hold in solution, for the purposes of my invention.

The oil thus prepared will be found nearly free from tarry matter, and may then be evaporated and mixed with gas in a carburetting-vessel, heated from the bottom or top of its vertical column, or in any other convenient way, by the heat of the gas-flame placed either above or under the vessel.

My improvements show the gas-flame placed at a distance from the carburetter.

The heat is conducted by a suitable pipe to vaporize the oil placed in the carburetting-vessel, taking care al-

ways to keep the gas-pipe leading from the vaporizing-vessel to the burner, at high temperature, to prevent condensation of the heavy vapors passing with the gas through the pipe. This I accomplish by enclosing the outlet-gas pipe in the hot-air tube.

Description of Drawing.

Figure 1 is a vertical section of an apparatus, showing my improvements, with hot air tube attached, suitable for lighting large halls.

Figure 2 is a modification of the same.

A shows the carburetting-vessel.

B is the inlet, and

C, the outlet-pipe.

D, the oil-feed pipe, for supplying the carburetter with oil.

E is the heat-interceptor, or damper, made to open or close the hot-air channel, so as to regulate the heat to the carburetter.

G G G show hot-air channel.

F, the burner, and

H, the reflector.

This apparatus is intended to light large halls.

The burner and reflector are made to fit into or project below the hall-ceiling, and the carburetting-vessel is intended to be placed above the ceiling. The damper E is moved from any part of the buildings by a wire or bell-hanging arrangement attached to lever I.

Fig. 2 shows modification of fig. 1, with the carburetter placed in the hot-air channel, and made oblong.

The feed-pipe D, in this modification, may be carried and the oil supplied from outside the building.

H shows the reflector, made convex.

I claim, as new—

The general arrangement and method of heating the carburetting-vessel, together with the mode of preparing the oil, as described, for carburetting gas.

The above specification of my invention signed by me, this 28th day of November, 1868.

JOSHUA KIDD.

Witnesses:

GEORGE W. MOORE,

FRANC FERRARI.