

W. H. GWYNNE.

Vapor Burner.

No. 32,222.

Patented April 30, 1861.

Fig. 1

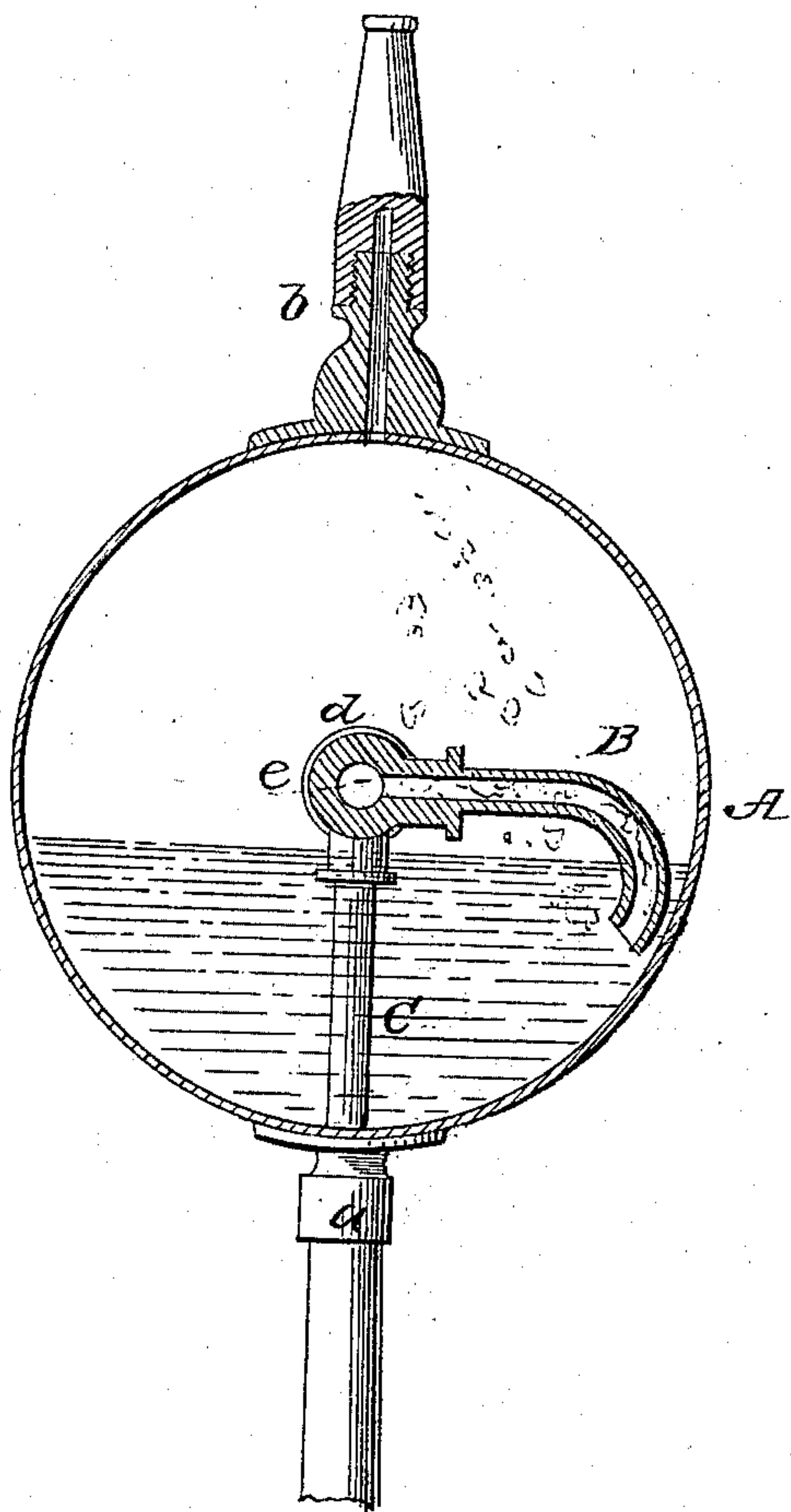
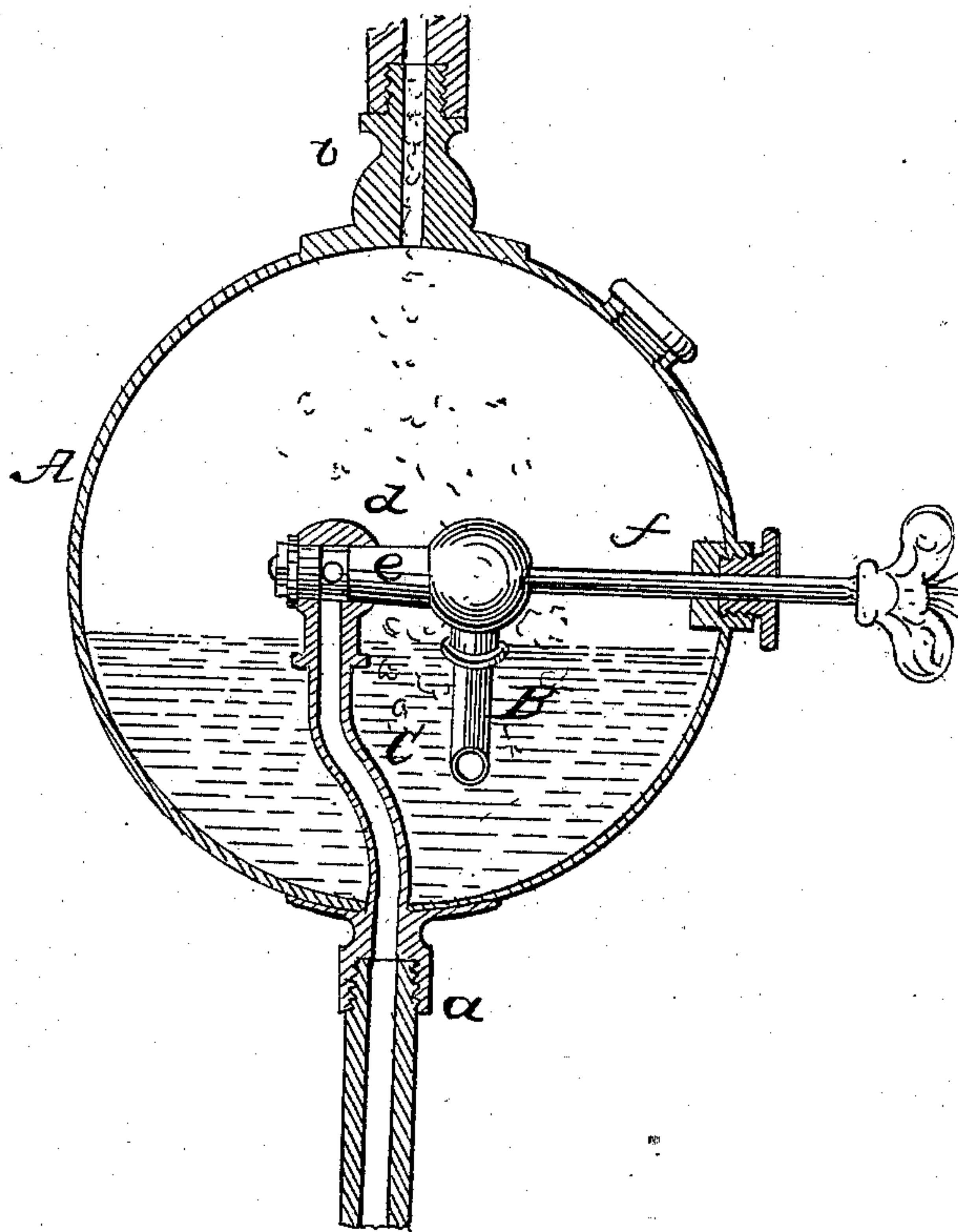


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

W. H. GWYNNE, OF NEW YORK, N. Y.

APPARATUS FOR NAPHTHALIZING GAS.

Specification of Letters Patent No. 32,222, dated April 30, 1861.

To all whom it may concern:

Be it known that I, W. H. GWYNNE, of the city, county, and State of New York, have invented a new and Improved Gas-Carbonizer; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

10 Figure 1, represents a vertical central section of my invention. Fig. 2, is a similar section of the same, taken in a plane at right angles to the previous figure.

Similar letters of reference in both views 15 indicate corresponding parts.

This invention consists in the arrangement in connection with a gas fixture of a reservoir containing a quantity of carbonizing liquid in such a manner that the gas 20 is compelled to pass through said carbonizing liquid just before it reaches the burner, and that the hydro-carbon vapors, which are taken up by the gas in passing through the liquid in the reservoir, have no chance to 25 form a deposit before they pass out of the burner; it consists also in making the tube, which conducts the gas from the pipe into the reservoir and through the carbonizing liquid contained therein, adjustable in such 30 a manner, that it can be set according to the quantity of liquid in the reservoir and according to the larger or smaller quantity of hydro-carbon vapors which it is intended to incorporate with the gas.

35 To enable those skilled in the art to make and use my invention I will proceed to describe its construction and operation with reference to the drawing.

40 The reservoir A, which is made of sheet brass or of any other desirable material and in the shape of a globe or in any other convenient form, is provided with a socket *a*, at its bottom to screw it on the gas pipe, and with a nipple *b*, on its top which is intended 45 to receive the tip or burner.

From the socket *a*, at the bottom of the reservoir rises the tube *c*, up to a level with the center of the reservoir and the upper end of this tube is provided with a head or boss 50 *d*, to receive a plug *e*, as clearly shown in Fig. 2 of the drawing. This plug is perforated in a longitudinal and in a transverse

direction similar to the plug of an ordinary swivel joint commonly used by gas fitters and it forms a communication between the interior of the tube *c*, and between a curved 55 pipe B, that emanates from the head of the plug and at right angles with its axis. A rod *f*, which passes through a stuffing box in the side of the reservoir and which is firmly 60 secured to the head of the plug *e*, allows of revolving said plug together with the curved pipe B.

The reservoir is partially filled with naphtha, benzole, or some other hydro-carbon liquid and the pipe B, is rotated so that its 65 mouth stands at a greater or smaller distance below the surface of said liquid. If the gas is now let on it passes up through the tube *c*, into the pipe B, and in order to 70 reach the tip, it has to pass from the mouth of said pipe through a portion of the hydro-carbon liquid. The hydro-carbon vapors which are thus absorbed by the gas are carried up with the gas to the tip and no time 75 or place is given to them to precipitate and to form a deposit in any portion of the fixture before they reach the tip or burner. The depth to which the mouth of the pipe B, is depressed below the surface of the hydro-carbon liquid in the reservoir is deter- 80 mined by the quality of the gas and by the quantity of vapors intended to be incorporated with the same and as the liquid in the reservoir diminishes from day to day by 85 evaporation, the plug *e*, with the pipe B, is turned down gradually until after a certain time a new supply of hydro-carbon liquid must be introduced. By these means the illuminating power of inferior gas can be im- 90 proved in a simple, cheap and convenient manner and the disadvantages attending all devices heretofore proposed for the same purpose, are entirely obviated.

When used with a branch or chandelier 95 the carbonizer is so located and arranged that a single reservoir serves for a number of burners.

I do not claim in itself to carbonize gas by passing it through hydro-carbon liquid; but, 100

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

1. The use of a reservoir for containing a

liquid hydro carbon, attached to the gas fixture and provided with a pipe communicating directly with the burner substantially as hereinafter shown and described and for the
5 purpose explained.

2. The arrangement of the revolving pipe B. and reservoir A. in combination with a

gas-burner substantially as and for the purpose described.

W. H. GWYNNE.

Witnesses:

O. D. MUNN,
G. W. REED.