

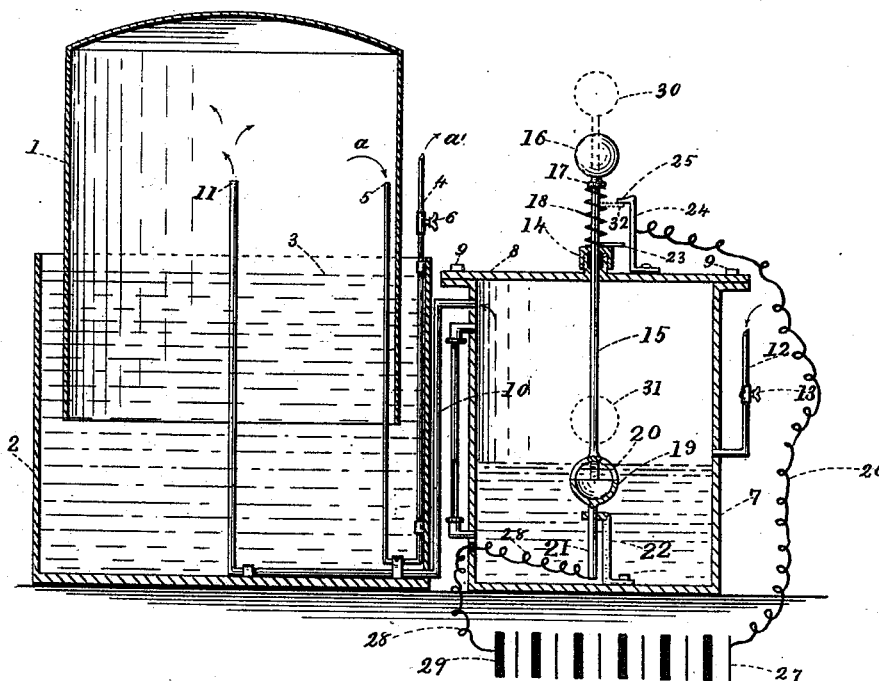
(No Model.)

M. C. BURT.

APPARATUS FOR THE MANUFACTURE OF GAS BY ELECTRICITY.

No. 418,551.

Patented Dec. 31, 1889.



Witnesses.

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UNITED STATES PATENT OFFICE.

MARTIN C. BURT, OF LAKE VIEW, ILLINOIS.

APPARATUS FOR THE MANUFACTURE OF GAS BY ELECTRICITY.

SPECIFICATION forming part of Letters Patent No. 418,551, dated December 31, 1889.

Application filed June 19, 1889. Serial No. 314,783. (No model.)

To all whom it may concern:

Be it known that I, MARTIN C. BURT, a citizen of the United States, residing at Lake View, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for the Manufacture of Gas by Electricity, of which the following is a specification.

My invention relates to a new and useful process for the manufacture of gas for heating or illuminating purposes, and will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawing, in which a suitable apparatus is shown for illustrating my invention.

In said drawing, 1 and 2 represent the ordinary gasometer for receiving and holding the gas. The tank 2 is nearly filled with water up to or about the level 3. An outlet-pipe 4 descends down to or near the bottom of the tank, and then by means of elbows turns and projects up through the water into the gas-chamber of the gasometer, as at 5. The gas passes out of the gasometer in the direction of the arrows *a a'*. A stop-cock 6 controls the flow of gas.

The oil-vessel 7 may be constructed in any well-known way, as shown in the drawing. It is represented as a cylindrical vessel, having a removable top 8, secured by bolts 9. From this oil-vessel is a pipe 10, extending into the tank and up through the water into the gasometer, terminating at or about the point 11. At the opposite side of the oil-vessel is the inlet-pipe 12, provided with a stop-cock 13, for controlling the admission of the oil. This oil-vessel may also be provided with a glass indicating-tube, secured thereto in any well-known way, so as to show the height of the oil within the vessel.

A stuffing-box 14, made in the ordinary way, is secured to the top 8, and passing through the stuffing-box is a rod 15, having a knob or push-button 16. Between the stuffing-box and the flange 17 is a spiral spring 18, for keeping the rod 15 up in its normal position. In the drawing I have shown it as pushed down to the lowest point, from which it will immediately rise again the moment it is released from the force that brought it down. The lower end of the rod 15 is secured to the

upper portion of the retort 19, which is shown in a semi-spherical form, having two or more curved arms 20 at the top, by which it is attached to the rod 15. The bottom of the retort 19 is provided with a rod 21, which passes through a hole in the supporting-bracket 22, so as to allow the whole to have a free vertical movement up and down.

To one side of the upper portion of the rod 15, above the stuffing-box 14, is a side projecting pin 23, and near said pin is a bracket 24, rigidly secured to the cover 8 in any well-known way adapted for the purpose and having a hook portion 25.

To the bracket 24 is connected an electric wire 26, having its opposite end connected to one pole 27 of an electric battery, dynamo-electric machine, or other generator of electricity, and to the rod 21 is attached an electric wire 28, which is insulated and passes through the side of the vessel 7 and connects with the opposite pole 29 of the battery. From this construction it will be seen that by pressing the button 16 downward into the position shown in the drawing it will be immersed in the oil and the electric circuit will be disconnected, and that by releasing the button 16 the spring 18 will immediately bring the button, the retort, and other parts connected with it into the position shown by the dotted lines 30, 31, and 32, thereby bringing the retort (filled with oil) up out of the oil in the vessel, and at the same time bringing the pin 23 in contact with the hook portion 25, or in the position shown by the dotted lines 32, thereby completing an electric circuit through the platinum retort and decomposing the oil within it, the gas therefrom passing into the gasometer, which operation may be continued, so that at each vertical movement of the retort an additional portion of gas is produced, the strength of the electric current being of sufficient strength to produce a fixed gas for heating or illuminating purposes.

I claim as my invention—

In an apparatus for the manufacture of gas by electricity, the combination, with the vessel for holding the liquid of which the gas is made, of a retort provided with a shaft extending from the bottom downward into a supporting-bearing and a shaft extending

from the upper portion of the retort through
the top of the liquid-vessel, the whole capable
of a vertical movement up and down, a wire
connecting the lower portion of the retort
5 with one pole of an electric battery, a pin
projecting from the upper shaft, and an elec-
tric point adapted to connect with the pin in
its upward movement and connected with a
wire to the opposite pole of the battery,
10 whereby as the retort passes down into and

fills with liquid the electric circuit is broken,
and when it rises up again out of the liquid
the circuit is again completed and the retort
becomes sufficiently hot to decompose the
liquid; substantially as described.

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Witnesses:

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