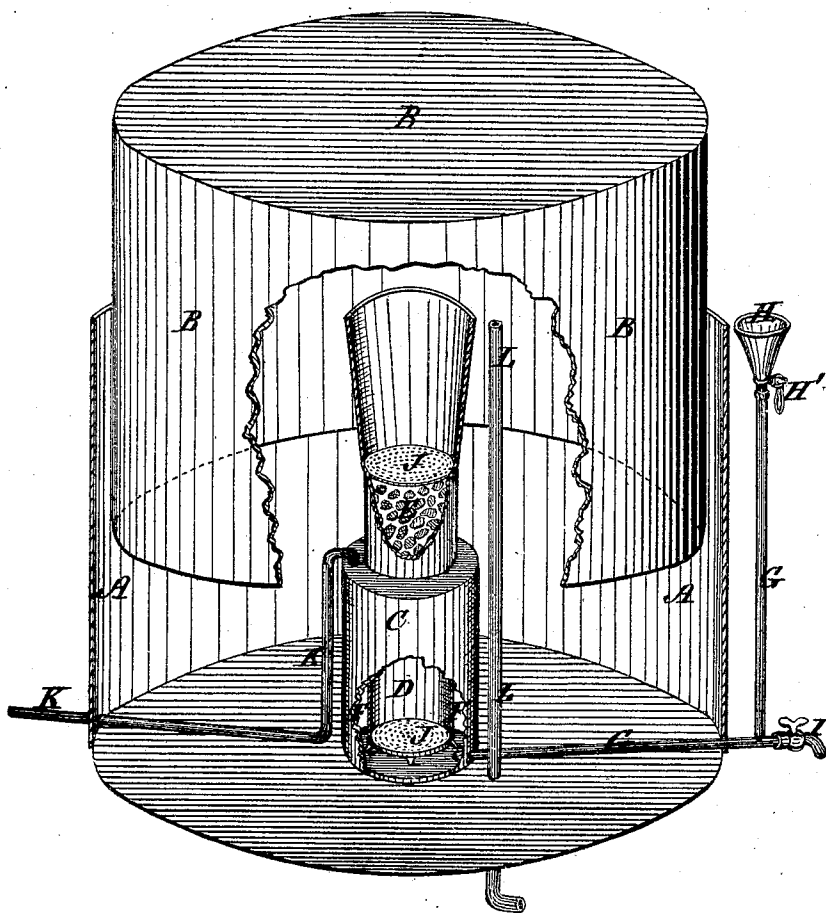


CHARLES GEARING & F. A. G. GEARING.
Improvement in Apparatus for the Manufacture of
Gas from Oils.

No. 128,199.

Patented June 18, 1872.



Witnesses
John F. Norton
Charles D. Tracy

Inventors.
Charles Gearing
F. A. G. Gearing
By their Atty.
T. N. Wofferman.

UNITED STATES PATENT OFFICE.

CHARLES GEARING, OF PITTSBURG, PENNSYLVANIA, AND FRANKLIN A. G.
GEARING, OF HOUSTON, TEXAS.

IMPROVEMENT IN APPARATUS FOR THE MANUFACTURE OF GAS FROM OILS.

Specification forming part of Letters Patent No. 128,199, dated June 18, 1872.

To all whom it may concern:

Be it known that we, CHARLES GEARING, of Pittsburg, in the county of Allegheny and State of Pennsylvania, and FRANKLIN A. G. GEARING, of the city of Houston, in the county of Harris and State of Texas, have invented a new and useful Machine for Manufacturing Gas from Oils, Benzine, or Gasoline; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which makes part of this specification, and which represents a front elevation of the gasometer with the tank or cistern and holder broken away to show the construction of the retort therein and its discharge and supply-pipes connected therewith.

My invention relates to machines for the manufacture of gas from oils, benzine, gasoline, &c.; and it consists in providing the tank or cistern with a retort constructed with an outer cylinder surrounding one or more cylinders or tubes, which inner cylinder is provided with perforated plates at the top and bottom thereof, and the space between said plates filled with sponge or other porous material, while the space or chamber between the inner and outer shell of the retort serves as a mixing-chamber for the oil and air before being forced through the sponge and delivered to the service-pipe, all of which will be hereinafter more fully set forth.

In the accompanying drawing, A represents a tank or cistern partially filled with water to seal the open bottom of the gas-holder B placed therein, and which rises and falls as there may be more or less gas within it. C represents the outer shell of the retort, and D the inner one thereof, which latter is provided at its top and bottom with perforated plates J, through which the gas escapes out into the holder B. Between these perforated plates sponge E is placed to absorb the moisture of the air. Instead of sponge any other suitable porous material may be used. Connected with the retort and communicating with the chamber F, between the inner and outer shells C

D thereof, is a pipe, G, provided at its top with a funnel, H, and suitable check and drip cocks H' I, for supplying and conducting the oil, benzine, or gasoline to the retort. Connected also to the retort and communicating likewise with the chamber F is an air-pipe, K, through which air is forced by a pump, fan, or other device into said chamber at the top thereof. The supply-pipe L is connected with the service-pipe of the house, and is arranged within the gas-holder in any convenient manner.

It will be seen from the foregoing that the oil, benzine, or gasoline is supplied at the funnel H, and thence through pipe G to the chamber F of the retort. By the aid of a pump, fan, or other suitable device, air is forced through air-pipe K into and at the top of the said chamber F of the retort, in which chamber both thoroughly commingle. The continued pressure of the air forces the oil, benzine, or gasoline up through the lower perforated plate J, thence through the sponge, which retains the oil, while the carbureted air escapes through the upper perforated plate J out through the open top of the retort into the holder B to the supply-pipe L to service-pipe for consumption.

Having described our invention, we claim—

In a machine for making gas from oil, gasoline or benzine having its gas-holder sealed by the water in the cistern or tank, as shown, the employment of a double-shell retort, so constructed as that a mixing-chamber is formed therein for commingling the air and oil or other material used while the interior of the inner shell is provided with sponge or other suitable substance through which the gaseous air is forced before its exit into the gas-holder, as herein described and shown.

In testimony whereof we have hereunto signed our names.

CHARLES GEARING.

FRANKLIN A. G. GEARING.

Witnesses:

EDM. F. BROWN,
CHAS. F. TRACY.