

W. H. GWYNNE.

Manufacture of Illuminating Gas.

No. 39,227.

Patented July 14, 1863.

Fig: 1.

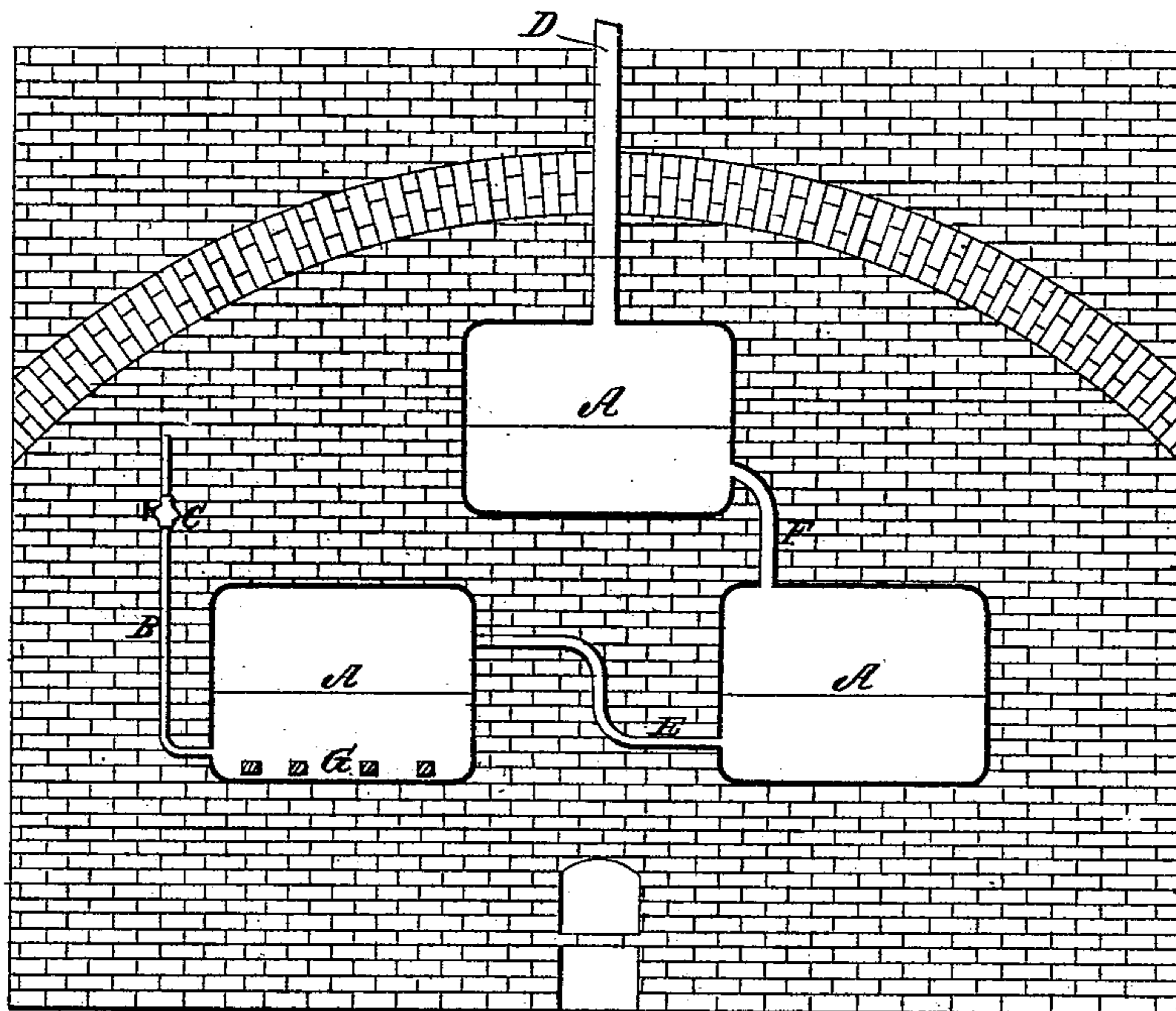


Fig: 2.

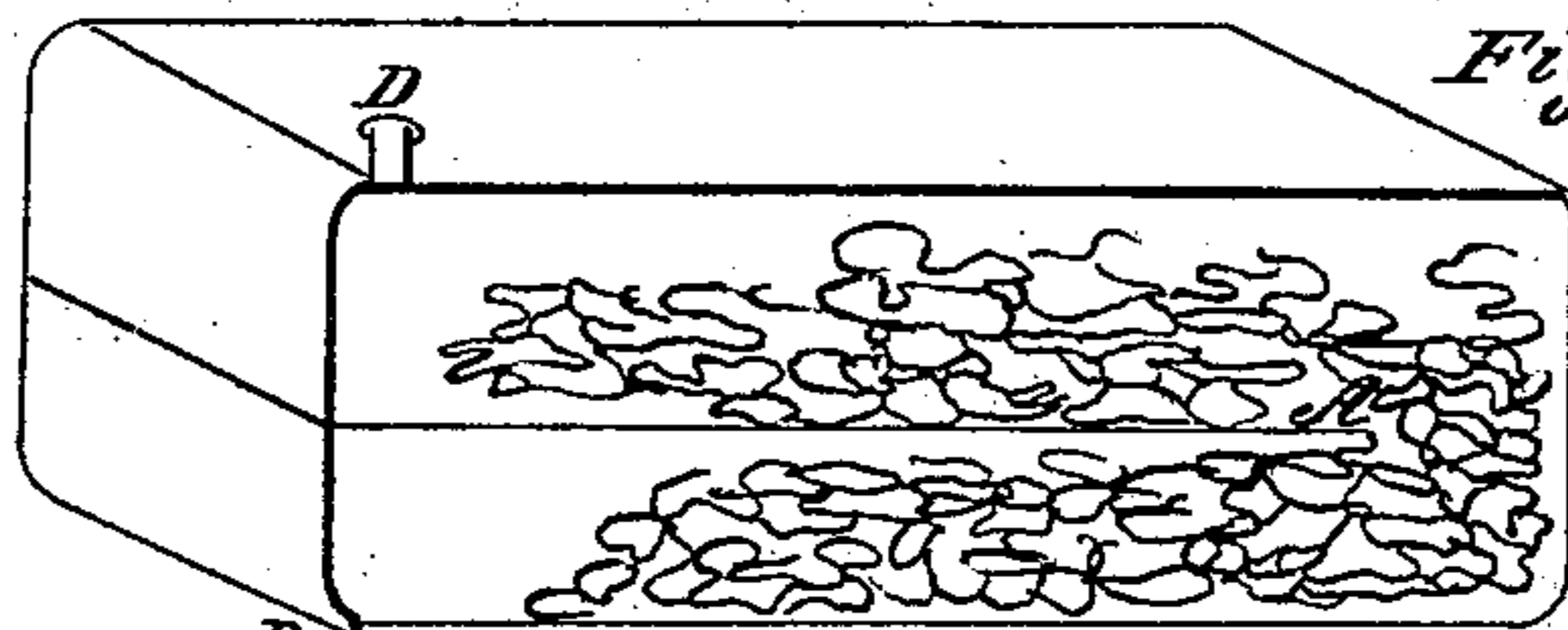
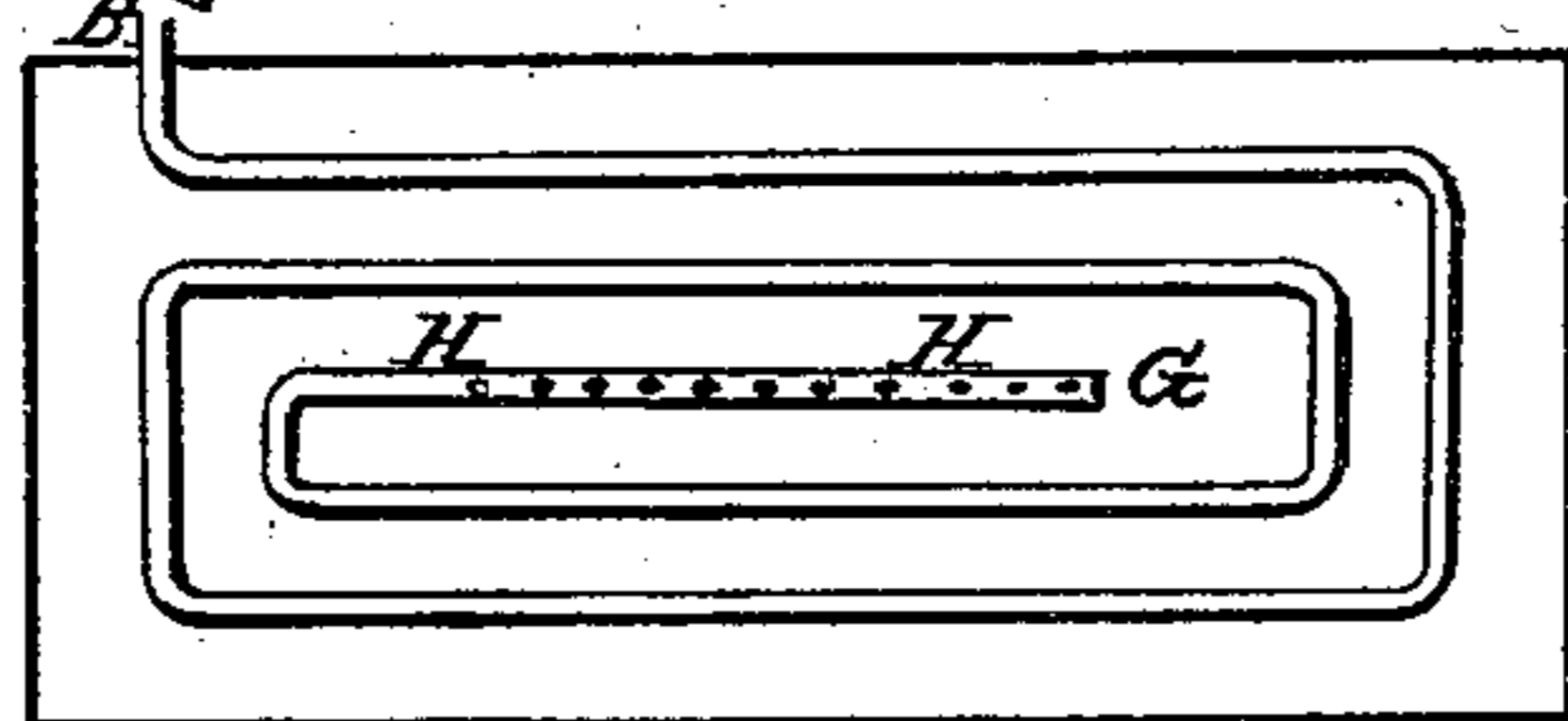


Fig: 3.



Witnesses:  
H. Holdrege,  
Thomas Donohue

Inventor:  
W. H. Gwynne

# UNITED STATES PATENT OFFICE.

W. H. GWYNNE, OF WHITE PLAINS, NEW YORK.

## IMPROVEMENT IN THE MANUFACTURE OF ILLUMINATING-GAS.

Specification forming part of Letters Patent No. 39,227, dated July 14, 1863.

*To all whom it may concern:*

Be it known that I, W. H. GWYNNE, of White Plains, Westchester county, State of New York, have invented a new and Improved Method of Making Gas; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing a bench of three or more gas-retorts, in one of which I place a superheating and distributing coil, and then fill all the retorts with anthracite coal and passing steam decomposed in the first retort through the coal in the others for the purpose of carbonizing the gas more highly than could be done in one retort, and thereby producing illuminating-gas.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I make my retorts of iron, clay, or other material used for retorts, and set three or more of them in an oven built of brick, in the usual manner of gas-works, known among engineers as a "bench," and as is shown in Figure 1, of the annexed drawings, in one of which retorts I place a superheating and distributing pipe or coil, (marked G, shown in Figs. 1 and 3,) to which coil G is attached steam-pipe B with

its valve C, for the purpose of supplying a certain quantity of steam when needed. The retorts are then all filled up with anthracite coal and the lids placed on the retorts and luted tight. The valve C is then opened and steam passes through pipe B into coil G, through perforations H H, into the anthracite coal placed in the retort where the steam is decomposed into inflammable gases. It passes then out through pipe E, Fig. 1, into the next retort and around diaphragm A among the coal in that retort, where it takes up an increased quantity of carbon, and finally passes through pipe F into the last retort, where it is more fully carbonized, sufficiently for illuminating purposes, when it passes out the discharge-pipe D to the coolers and purifiers, whence it passes into the gasometers, where it is stored for distribution.

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

Carbonizing hydrogen gas by passing it through a sufficient quantity of anthracite coal to render it fit for illuminating purposes, substantially as described.

W. H. GWYNNE.

Witnesses:

H. HOLDREGE,  
THOMAS DONOHUE.