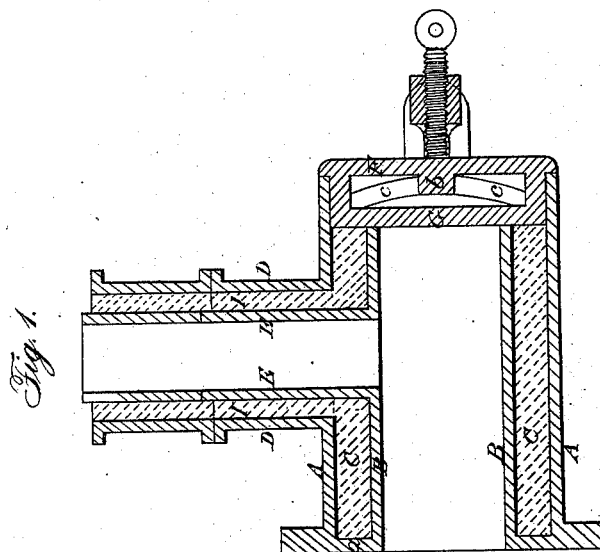
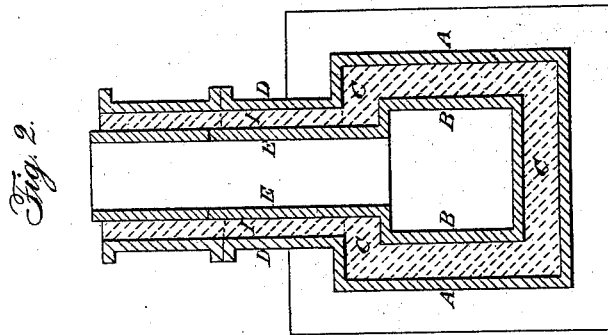


J. CHILCOTT.

Gas Retort.

No. 49,231.

Patented Aug. 8, 1865.



Witnesses:

*J. W. Coombs*  
*E. W. Reed*

Inventor:

*J. Chilcott*  
*per Brown Coombs & Co*  
*Attorneys*

# UNITED STATES PATENT OFFICE.

JOHN CHILCOTT, OF BROOKLYN, NEW YORK.

IMPROVED MODE OF CONSTRUCTING THE HEADS, NECKS, AND CONNECTIONS OF GAS-RETORTS.

Specification forming part of Letters Patent No. **49,231**, dated August 8, 1865; antedated July 24, 1865.

*To all whom it may concern:*

Be it known that I, JOHN CHILCOTT, of No. 70 Fulton street, in the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in the Necks, Heads, and Connections of Gas and other Retorts; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central longitudinal vertical section of the neck and head of a gas-retort. Fig. 2 is a transverse vertical section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in making the neck and head and the connection for the main of a gas or other retort with double walls, having a space between the inner and outer walls filled with plaster-of-paris or other poor conducting material or composition, the object being to prevent the loss of heat which results from the use of the ordinary head, neck, and connection composed of a single thickness of metal.

To enable others skilled in the art to make and use my invention, I will proceed to describe it with reference to the drawings.

A is the inner and B the outer walls of the retort-neck. C is the space between the inner and outer walls, filled with plaster-of-paris or other poor conducting material.

The neck is composed of a single casting, which is cored out to form the two walls and the space C, the inner and outer walls being connected at the inner end of the neck, as shown at *a*, and at the outer end also, if desired.

On the top of the neck is cast the double-walled connecting-socket D E for the connection of the hydraulic main. The inner wall,

E, of this socket is connected in the casting with the inner wall, B, of the neck and the outer wall, D, of the said socket, with the outer wall, A, of the neck, leaving the space I between them in communication with the space C in the neck. The spaces C and I are filled with the plaster-of-paris or other poor conducting material or composition through the opening at the top of the space I, an opening at one end of the neck, or any other suitable opening or openings. This material or composition may be inserted either in a wet or dry state; but if plaster-of-paris be used I prefer to put it in a wet state.

F G is the movable head of the retort. This may be fitted to the mouth of the neck and secured in the usual or any suitable manner, and need only differ from the heads commonly used in being cast or otherwise formed with two walls, F and G, having a space, H, between them to receive the filling of plaster-of-paris or other poor conducting material or composition, which may be inserted, in the same manner as into the spaces C and I, through a suitable opening or openings in either of the walls F G.

Braces *b* and *c* are provided between the inner and outer walls to stiffen and strengthen them.

What I claim as my invention, and desire to secure by Letters Patent, is—

Making the neck and head and the connection for the main of a gas or other retort, or either of them, with double walls, having a space between the inner and outer walls filled with plaster-of-paris or other poor conducting material, substantially as and for the purpose herein specified.

JOHN CHILCOTT.

Witnesses:

HIPPOLYTE MALO,  
J. W. COOMBS.