S. A. THOMAS.

Mouth-Piece Lid for Gas-Retorts.

No. 161,716. Patented April 6, 1875.

Fig: 1.

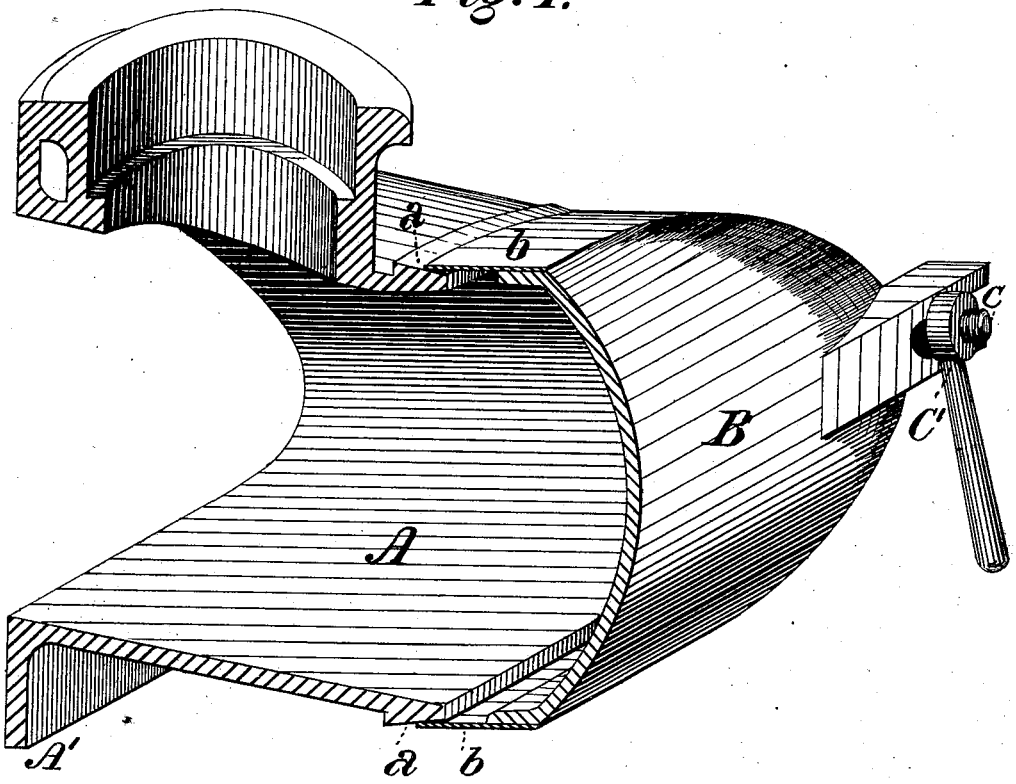


Fig: 2.

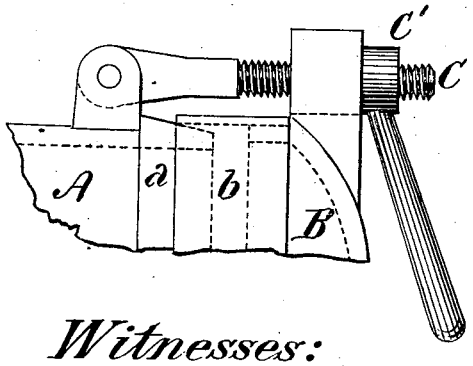
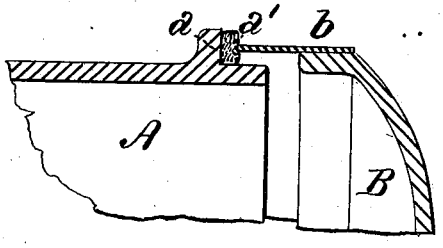


Fig: 3.



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UNITED STATES PATENT OFFICE.

SAMUEL A. THOMAS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MOUTH-PIECE LIDS FOR GAS-RETORTS.

Specification forming part of Letters Patent No. **161,716**, dated April 6, 1875; application filed March 15, 1875.

To all whom it may concern:

Be it known that I, SAMUEL A. THOMAS, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improvement in Mouth-Piece Lids for Gas-Retorts, of which the following is a specification:

The object of my invention is to provide a lid or cover for gas-retorts which will be self-sealing—that is to say, gas-tight without the necessity of luting, and which will accommodate itself at all points to its bearing upon the mouth-piece; to which ends my improvement consists in providing the lid with a flexible rim or flange, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a perspective section of a retort mouth-piece and lid embodying my improvement; Fig. 2, a plan or top view of a portion of the same; and Fig. 3, a section, showing another application of my invention.

The mouth-piece A is, in this instance, shown as constructed for application to a D-shaped retort, to which it is attached by bolts passing through its rear flange, A′. The front or opening of the mouth-piece is, by preference, provided with a conical bearing-surface, *a*, extending all around its periphery. The lid B is of similar outline to the opening of the mouth-piece, and is provided with a rim, flange, or lip, *b*, which fits over the bearing-surface *a* of the mouth-piece, and is formed of plate-iron, or any other suitable material of a flexible character.

The lid may be held in position by the hinged bolts C and clamping-nuts C′, as shown, or by the ordinary transverse bar and central screw, or any other form of fastening preferred.

The rim *b*, it will be observed, has a narrow bearing upon and entirely around the bearing-surface *a*, and, by reason of its flexibility, adjusts itself accurately and closely thereto, and enables a gas-tight joint to be made without luting or cementing.

In the modification shown in Fig. 3, the bearing-surface *a* is formed upon a flange extending around the periphery of the mouth-piece, and the flexible rim *b* bears upon packing *a′*, which it presses up to the face of the flange.

I am aware that inclined or conical bearing-surfaces have been proposed upon the mouth-pieces of retorts, in connection with lids having correspondingly-inclined faces, and do not desire to claim such device.

I claim as my invention—

As a new article of manufacture, a mouth-piece lid for retorts provided with a flexible rim or flange, substantially as set forth.

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Witnesses:

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