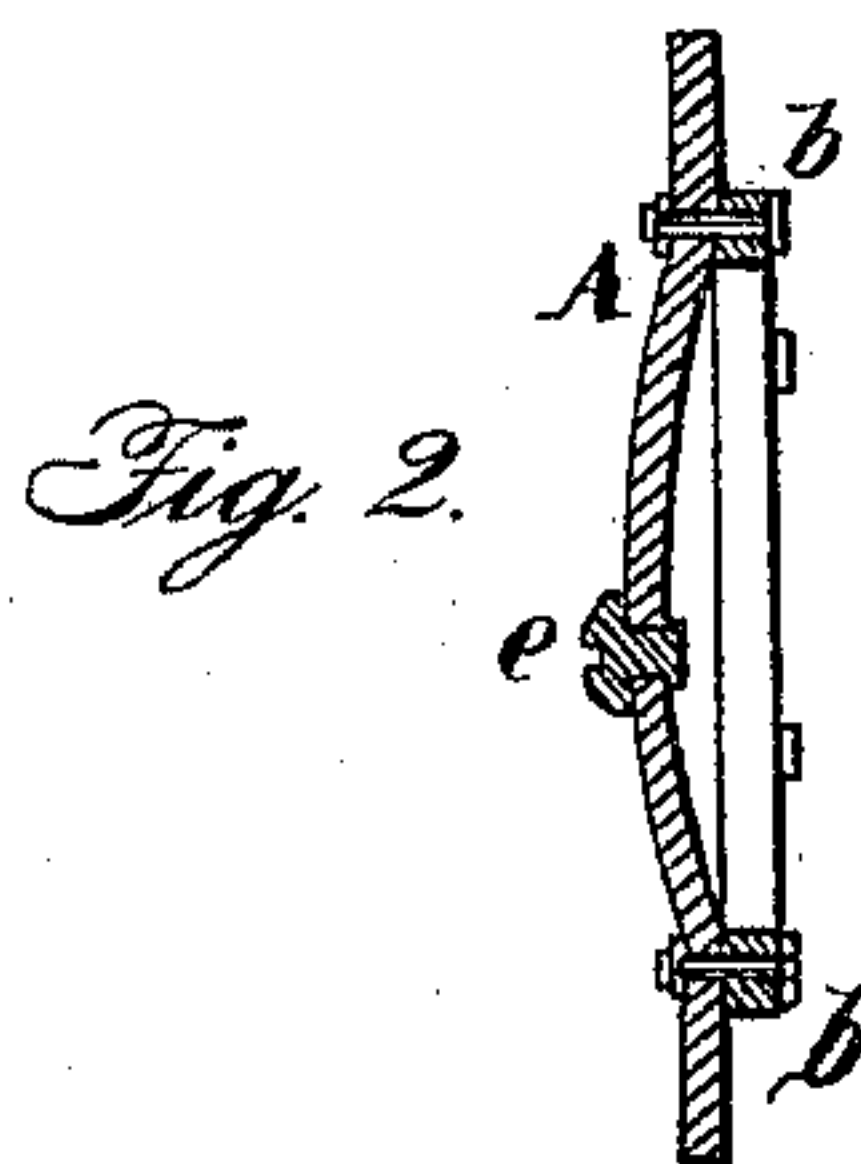
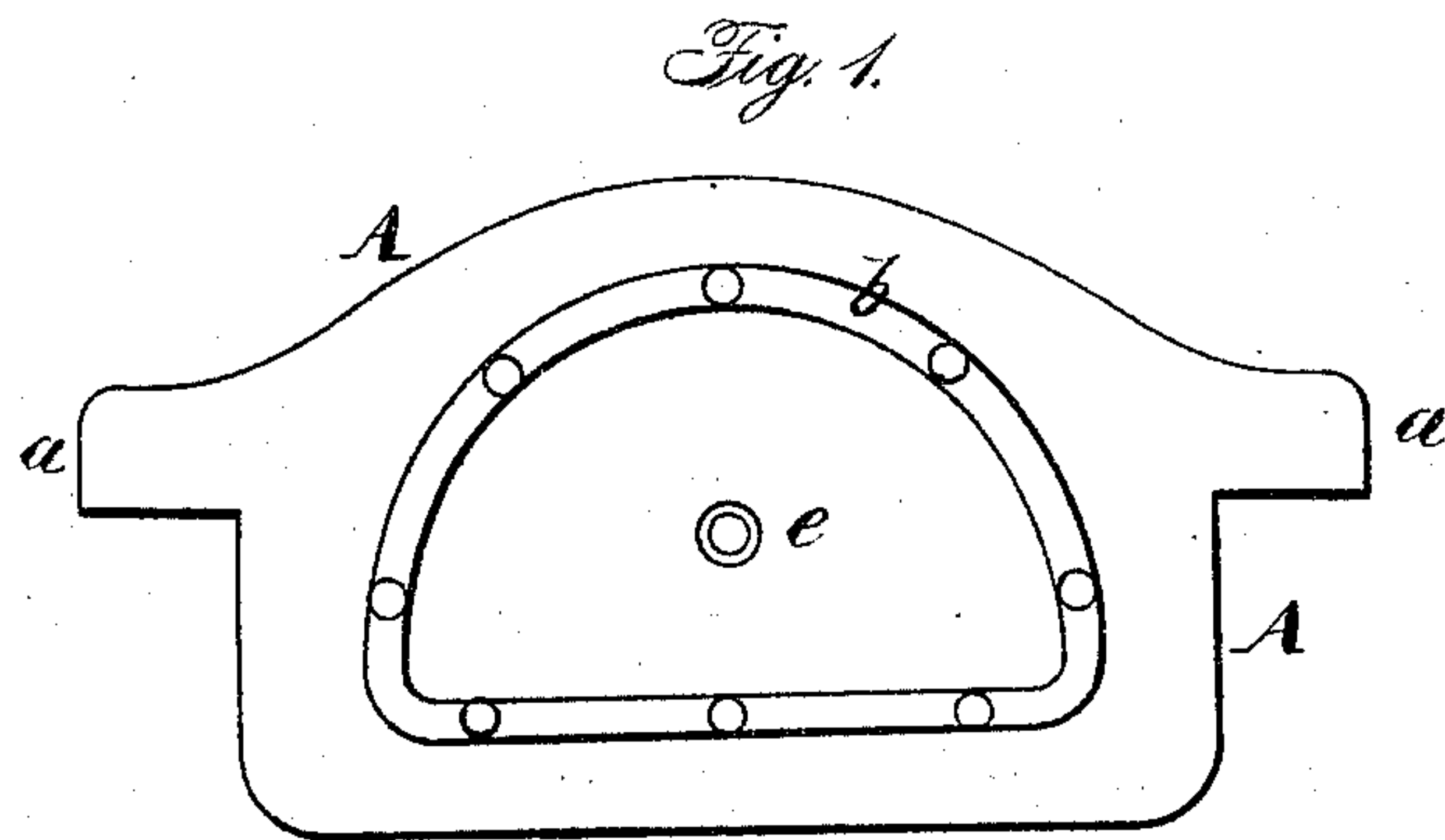


B. H. BARTOL.  
Gas-Retort Lid.

No. 66,444.

Patented July 9, 1867.



Witnesses:

*Wm. Albert Steel*  
*L. H. Charles Godwin*

Inventor:

*B. H. Bartol*  
*By his Atty*  
*J. H. Howson*

# United States Patent Office.

B. H. BARTOL, OF PHILADELPHIA, PENNSYLVANIA.

*Letters Patent No. 66,444, dated July 9, 1867.*

## IMPROVED COVER FOR GAS-RETORTS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, B. H. BARTOL, of Philadelphia, Pennsylvania, have invented an Improved Cover for Gas-Retorts; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of a retort cover made of plate iron, depressed in the middle, provided at the back with a wrought-iron rib, and in front with a central rivet or stud, all substantially as described hereafter, the cover thus constructed being both stronger and lighter than those of the usual construction, which are liable to fracture through rough usage. On reference to the accompanying drawing, which forms a part of this specification—

Figure 1 is a rear view, and

Figure 2 a transverse section of my improved cover for gas-retorts.

The cover A is made of plate iron, and of a shape according with that of the mouth of the retort, and at each end of the cover, and forming part of the same, is a lip, *a*, these lips being adapted to the usual lugs at the front end of the retort. A rib, *b*, of wrought iron, is firmly riveted to the cover, and is of such a shape as to fit snugly in the end of the retort, there being between this rib and the edges of the cover sufficient space to receive the usual mass of clay or other material, by which a tight joint is effected between the cover and the end of the retort. Within the rib *b* the cover is depressed at the back so as to form a convexity in front, or the cover may be depressed in front to form a protuberance at the back, the cover having, in either case, additional strength and rigidity imparted to it. At or near the middle of the cover is secured a rivet or stud, *c*, having a prominent head, with a recess for the reception of the point of the usual screw which secures the cover to the end of the retort.

Retort-covers have heretofore been made of cast iron or malleable cast iron, both of which have been found inadequate to resist the shocks and strains to which they are subjected by being thrown on to and about the hard floor of a retort-house, the breakage of the lips being the frequent result of such rough usage. The cast-iron covers, too, are heavy, and cannot be handled without considerable exertion on the part of the attendants. It will be evident that these objections are obviated by my improved retort-cover, which is made of comparatively light plate iron, strengthened by the depression at the part where the greatest force is exerted, and by the wrought-iron rib at the back.

I claim as my invention, and desire to secure by Letters Patent, as a new article of manufacture—

The within-described retort-cover made of plate iron, depressed in the middle, and provided with a wrought-iron rib, *b*, at the back, and with a central rivet or stud, *c*, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

B. H. BARTOL.

Witnesses:

W. W. DOUGHERTY,

F. D. PASTORIUS.