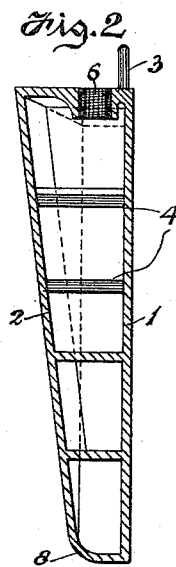
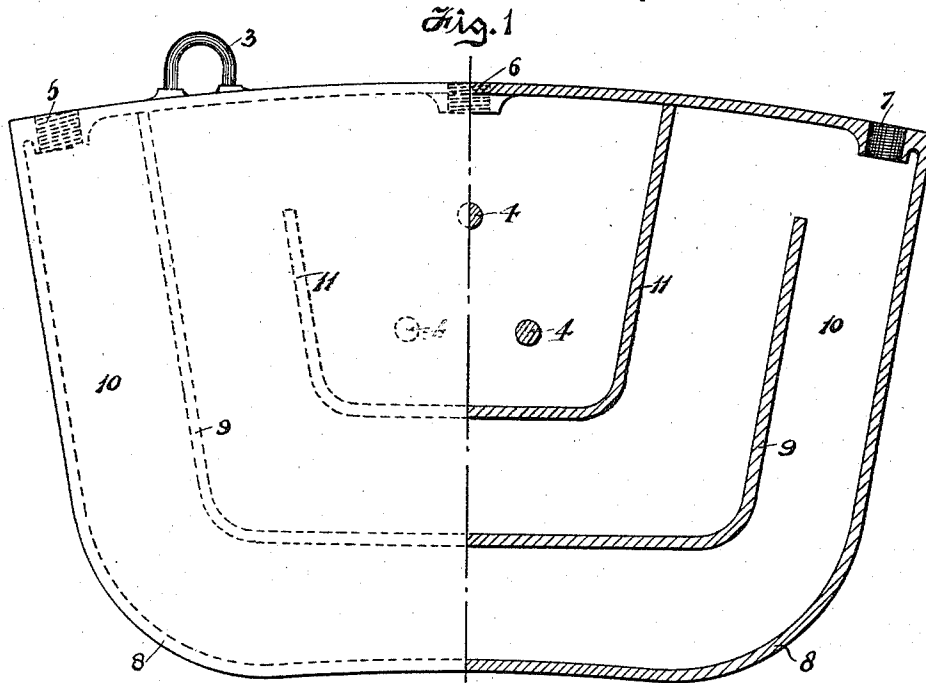
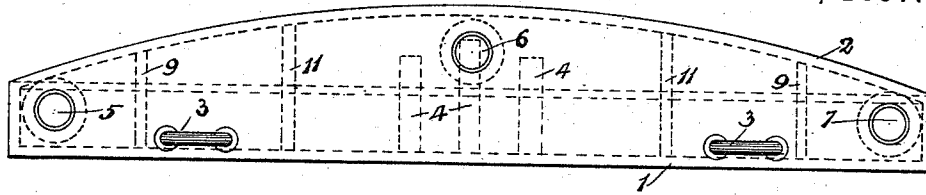


(No Model.)

E. M. PETERS.
BOSH PLATE FOR FURNACES.

No. 579,406.

Patented Mar. 23, 1897.



Witnesses
H. W. Middlemist
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UNITED STATES PATENT OFFICE.

EDMUND M. PETERS, OF NEW CASTLE, PENNSYLVANIA.

BOSH-PLATE FOR FURNACES.

SPECIFICATION forming part of Letters Patent No. 579,406, dated March 23, 1897.

Application filed February 18, 1896. Serial No. 579,747. (No model.)

To all whom it may concern:

Be it known that I, EDMUND M. PETERS, a citizen of the United States, residing at New Castle, in the county of Lawrence and State of Pennsylvania, have invented or discovered new and useful Improvements in Bosh-Plates for Furnaces, of which the following is a specification.

In the accompanying drawings, which make part of this specification, Figure 1 is a front end view of my bosh-plate. Fig. 2 is a half-plan and half-horizontal section of the same, and Fig. 3 is a section on line 3 3 of Fig. 2.

The purpose of my invention, generally stated, is a water-cooled bosh-plate for furnaces wherein the outside waterway is continuous and is provided with water-openings at each end, so that it can be thoroughly flushed out.

Heretofore in the manufacture of water-cooled bosh-plates too little attention has been paid to constructing the waterways so that the sediment can be thoroughly flushed out of them, and the shape of the plates has been such as to facilitate the lodgment of sediment at the corners. This has been a fruitful cause of the plates burning out, as the mud drying upon the plates keeps the water from cooling them at these points. In my invention I successfully meet both these difficulties. My bosh-plate is made at one casting and preferably of bronze, but may be of iron.

In the several views, 1 is the flat bottom, and 2 the top, tapering from front to back and convex from side to side.

3 3 are the usual attaching-eyes.

4 4 are cross strengthening-braces.

5 is the inlet water-opening, and 6 the usual outlet water-opening, while 7 is used as an outlet water-opening for flushing out.

The front corners 8 8 are curved instead of sharp, as usual.

9 is a partition-wall or baffle-plate which substantially parallels the line of the shell of the plate from the inlet-opening 5 nearly to the flushing-outlet 7, forming with the shell an uninterrupted waterway 10 between openings 5 and 7.

11 is a second interior baffle-plate. Additional baffle-plates may be provided, if desired.

When the bosh-plate is in use, the smooth lines of the corners 8 8 prevent the excessive lodgment of sediment at those points. The dirt that does adhere can be effectively driven out by applying water-pressure or a steam-hose to the inlet 5 and opening-outlet 7. In bosh-plates as usually constructed this would be impossible, since the passage from inlet to outlet is tortuous and indirect.

Having described my invention, I claim—

1. A water-cooled bosh-plate for furnaces, provided on its front face with a water-opening at each end and a third water-opening intermediate between the two; a direct waterway connecting the two end openings around the periphery of the bosh-plate and a tortuous waterway between the end openings and the intermediate opening.

2. A water-cooled bosh-plate for furnaces curved at the front corners, provided on its front face with a water-opening at each end and a third water-opening intermediate between the two; a direct waterway connecting the two end openings around the periphery of the bosh-plate and a tortuous waterway between the end openings and the intermediate opening.

In testimony whereof I have hereunto set my hand this 3d day of February, A. D. 1896.

EDMUND M. PETERS.

Witnesses:

S. P. MARSHALL,
HOMER BROWN.