S. DALLAR.

BOTTOM-PLATE FOR PUDDLING-FURNACE.

No. 170,529. Patented Nov. 30, 1875.

Fig: 1.

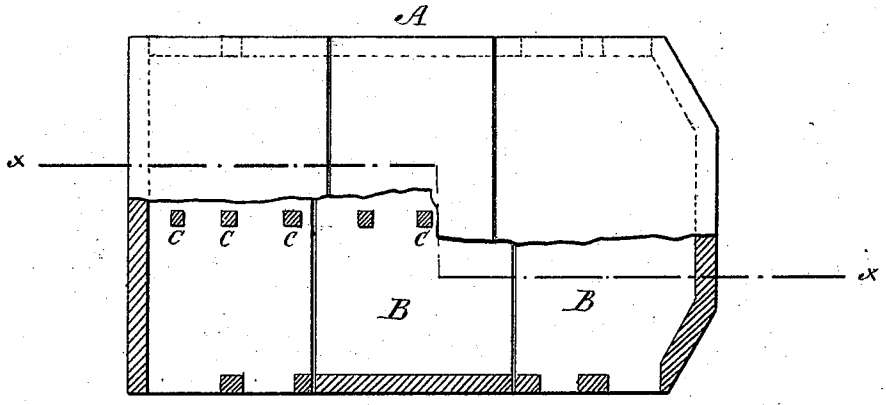


Fig: 2.

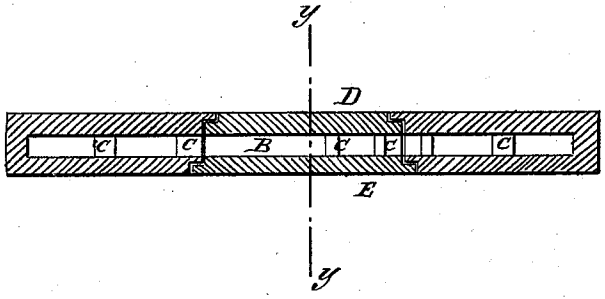
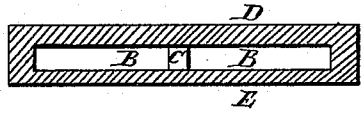


Fig: 3.



WITNESSES:

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SAMUEL DALLAR, OF PARKESBURG, PA., ASSIGNOR TO HIMSELF AND HORACE A. BEALE, OF SAME PLACE.

IMPROVEMENT IN BOTTOM PLATES FOR PUDDLING-FURNACES.

Specification forming part of Letters Patent No. **170,529**, dated November 30, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, SAMUEL DALLAR, of Parkesburg, in the county of Chester and State of Pennsylvania, have invented a new and useful Improvement in Bottom Plates for Puddling-Furnaces, of which the following is a specification:

The object of my invention is to construct for puddling-furnaces a bottom, simple in its construction, and admitting of being readily replaced, in whole or in part, when injured, and of being extended or contracted, as circumstances may require.

On reference to the drawing, Figure 1 is a plan view, partly in section, of my improved bottom plate; Fig. 2, a longitudinal section, and Fig. 3 a transverse section.

The bottom plate is composed of a series of sections, D, each consisting of a flat hollow cast-metal chest, closed at the outer edges, and rabbeted at those edges which are in contact with the edges of the adjoining sections, so that, when a number of sections are placed in their relasive positions, they will form a flat shallow box containing a chamber, B, as shown in the drawing. Each section is cast with a series of strengthening-connections, *c c*, extending from the bottom to the top, and openings are formed at suitable points in the edges, to permit the entrance and exit of water, steam, or air to and from the chamber B.

The bed-plate is secured in the usual position in the furnace, and is covered by the ordinary lining, a current of water, air, or steam being passed through the chamber B, and the bed-plate being thereby maintained at such a temperature as will neutralize the deteriorating influence of the heat on the metal.

By casting the bed-plate in sections, its manufacture is facilitated, its cost, compared with the usual hollow beds, is reduced, one or more sections can be removed and replaced without discarding the entire bed, the size may be varied by simply increasing or reducing the number of sections.

The connections or pillars *c c* not only prevent the top of the bed from sagging when heated, but they also brace and impart rigidity to the entire structure, so that it will support, without bending, the heavy weight placed upon it.

I do not claim a hollow bed-plate for furnaces; but

I claim—

A bed-plate consisting of a group of hollow sections, D, closed at the outer edges, excepting where air, water, or steam is admitted and discharged, and rabbeted at the joints, as set forth.

SAMUEL DALLAR.

Witnesses:
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