

(No Model.)

A. BEYER.
FURNACE BOTTOM.

No. 524,238.

Patented Aug. 7, 1894.

Fig. 1.

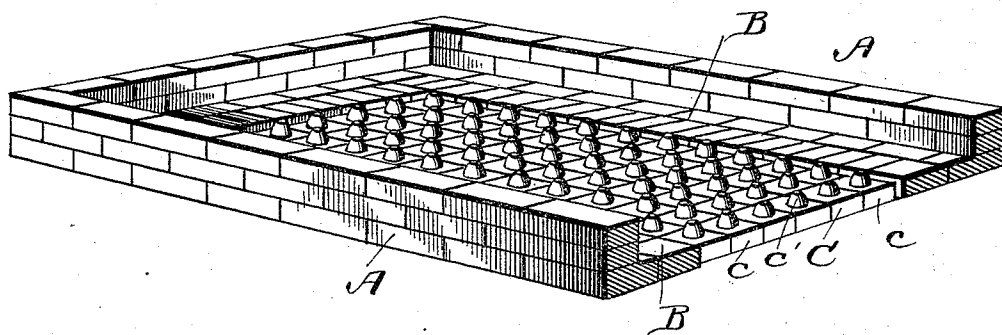


Fig. 2.

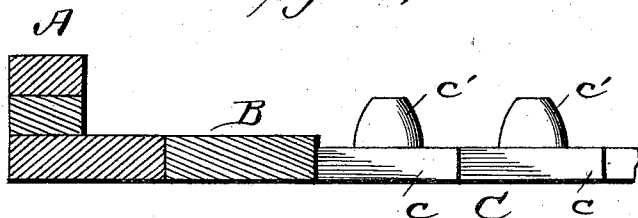
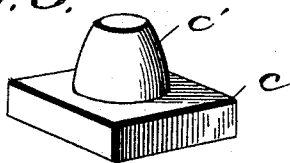


Fig. 3.



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UNITED STATES PATENT OFFICE.

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FURNACE-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 524,238, dated August 7, 1894.

Application filed June 4, 1894. Serial No. 513,419. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS BEYER, a citizen of the United States, residing at New Philadelphia, in the county of Tuscarawas, State of Ohio, have invented certain new and useful Improvements in Furnace-Bottoms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates generally to furnaces employed for heating sheets of tin, steel, copper, &c., and it relates particularly to the construction of the bottom. Heretofore furnace bottoms have been constructed in such a manner that the heat did not have full and perfect access to all parts of the sheet or plate heated, and besides this they frequently soil and impair the quality of the sheet tin, as a clean, bright finish is one of the essential points in the manufacture of sheet tin.

The object of my invention is therefore to remedy these defects and provide a bottom which shall be indestructible, one that will permit the full and free circulation of heat beneath the sheet; and one that can be readily kept clean, thus avoiding all danger of soiling the sheets during the process of heating.

With these various objects in view my invention consists essentially in a furnace bottom composed of a series of fire proof blocks or bricks arranged to form a complete bottom surface, each block or brick having a point or protuberance projecting from the upper face of said block.

My invention consists also in certain details of construction and combination of parts all of which will be fully described hereinafter and designated in the appended claims.

In the drawings, Figure 1 is a perspective view of a furnace bottom constructed in accordance with my invention. Fig. 2 is a transverse sectional view. Fig. 3 is a detail view of one of the blocks or bricks.

In constructing a furnace embodying my invention I employ the side walls A A and the surrounding border B all made of suit-

able fire proof bricks. Within the border B is arranged my novel furnace bottom C which consists of a series of fire proof blocks or bricks c all arranged to form an unbroken surface, and projecting from the upper face of each brick or block is a point or protuberance c' all being of uniform size and height said points being slightly flattened at their upper ends to provide a rest for the plate or sheet of metal to be heated.

In operation the plate or sheet is run upon the bottom and there subjected to the action of the flames and heat and inasmuch as it is supported upon a series of points the heat has a full and free circulation above and below the same, and below it the flame and heat can travel in all directions. The sheet is also prevented from coming into contact with dirt or foreign substance, and should the bottom become foul or impaired at any point it can be readily cleaned or repaired.

Metallic bottoms having a series of studs have been used and also bottoms having longitudinal ribs, but these do not accomplish the objects of my invention as the circulation of flame and heat is not complete and besides this they are not composed of a series of fire proof blocks or bricks which can always be kept clean or fresh.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An improved furnace bottom formed of a series of fire proof blocks or bricks each of which has a protuberance projecting from the upper face of the same, substantially as shown and described.

2. An improved furnace bottom consisting of a series of blocks or bricks each having a projection upon the upper face, said blocks or bricks being arranged to form an unbroken surface substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUSTUS BEYER.

Witnesses:

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