

WILLIAM DILLON.

Improvement in Steam-Boiler Brick or Tile.

No. 127,467.

Patented June 4, 1872.

Fig. 1.

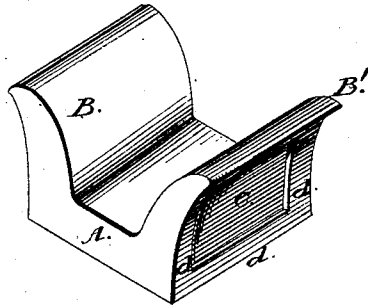
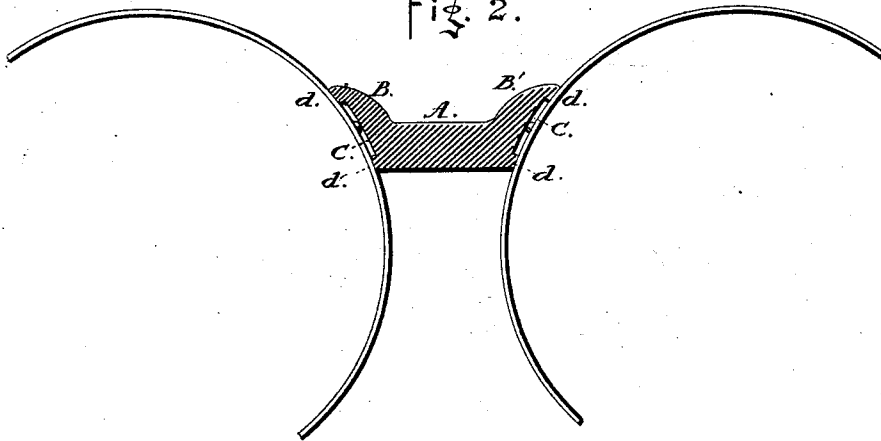


Fig. 2.



Attest:
James H. Kimball
John H. Hager

Inventor:
William Dillon

UNITED STATES PATENT OFFICE.

WILLIAM DILLON, OF WHEELING, ASSIGNOR OF ONE-HALF OF HIS RIGHT
TO BUCKNER J. SMITH, OF NEW CUMBERLAND, WEST VIRGINIA.

IMPROVEMENT IN STEAM-BOILER BRICKS OR TILES.

Specification forming part of Letters Patent No. 127,467, dated June 4, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, WILLIAM DILLON, of the city of Wheeling, in the county of Ohio and State of West Virginia, have made the invention for Steam-Boiler Brick or Tile, hereinafter set forth, of which the following is a specification, reference being had to the accompanying drawing and the letters of reference thereon.

My invention relates to an improved brick of tile to be used between steam-boilers in setting them up for use; and consists in one of such a form that it will extend from boiler to boiler, and support itself by means of wings or flanges extending upward, and conforming to the curvatures of the boilers, said upward and curved wings or flanges having large recesses or cut-outs in the sides, which come in contact with the boilers, so that, in case, in their laying, they come upon rivets in the boilers they will closely fit to the boilers by the rivets entering into said recesses; and also in this case, as well as when no rivets intervene, suitable mortar can be filled into such recesses to insure a firm and close fit of the tile to the sides of the boilers. Besides, by means of these recesses or cut-outs the tile can be easily cut down to conform to variable curvatures of the same in different boilers, or any uneven surfaces on the same, because the edges or ribs around these recesses are much more easily cut down than a plain surface. As is well known, on setting up horizontal steam-boilers they are set about six inches apart, and the brick is built in between them at a point, measuring from their top, equal to one-third of their diameters; and heretofore the ordinary brick or tile has been used for this purpose, either built in and supported directly against the boilers, or upon bars of iron extending along the boilers, in conformity with a patent heretofore granted me.

The old method of constructing boiler-tile was of a rectangular form, placed, as before mentioned, with a bearing against the surface of the boilers. The boilers, when thoroughly heated, would of course expand in the direction of the tiling, and when the expansion was very great the tiles were frequently crushed and rendered unserviceable. It will be seen, by the peculiar form of my tiles, they having their flanges conforming to the periph-

ery of the boilers, and resting on the same above a center horizontal line, are necessarily lifted up with the boilers as they expand, and as they contract the tiling lowers with the same, always bearing on the surface of the boilers. It is quite impossible, under any circumstances of expansion, to crush a tile of the form described and illustrated.

This invention, though simple, is very important, as by its peculiar form it is saved from crushing and frequent renewal, and, with the recesses in its flanges, it accommodates itself to the rivets and other irregularities on the surface of the metal, allowing it to take the movement of the boilers without resistance. Should the tiles or brick upon the old plan refuse to yield by crushing, the boiler must inevitably suffer in consequence.

In the drawing, Figure 1 is a perspective of a tile like the one of my invention, the standpoint from which taken being to the left, and only showing one recess in one wing; but the other is like unto it. Fig. 2 is a side view of the above figure.

Like letters refer to similar parts.

A, body or base of tile or brick; B B', curved wings or flanges of the same; C, recesses in both wings of tile; *a a*, ribs or edges of the wings, and inclosing the recesses C.

The best and cheapest material from which to make this tile is fire-clay, from which they are easily molded. While this tile can be readily fitted to boilers with diameters varying several inches, they can be made of as many different sizes as may be required. The ribs around the wings which surround the recesses may be from one to three inches wide and one to three inches high, more or less, as may be deemed best by the user.

The manner of using them, while it is manifest from their inspection, has already hereinbefore been shown.

What I claim as my invention, and desire to secure by Letters Patent, is—

A boiler brick or tile with body or base A, upwardly and outwardly curved wings or flanges B B' provided with the recesses or cut-outs C, substantially as described.

WILLIAM DILLON.

Witnesses:

J. BOONE McLURE,
CURRAN MENDEL.