

J. BAMRICK.
Grate-Bearing Bar.

No. 210,396.

Patented Dec. 3, 1878.

Fig. 1.

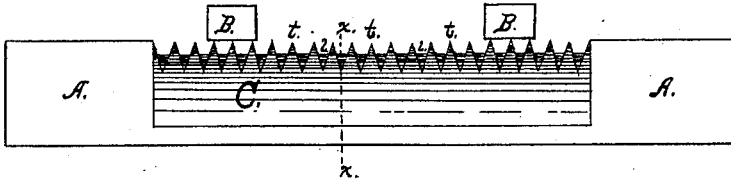


Fig. 2.

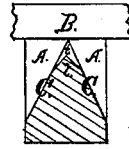


Fig. 3.



WITNESSES.
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IMPROVEMENT IN GRATE-BEARING BARS.

Specification forming part of Letters Patent No. **210,396**, dated December 3, 1878; application filed June 26, 1878.

To all whom it may concern:

Be it known that I, JAMES BAMRICK, of Syracuse, Onondaga county, New York, have invented a new and Improved Grate-Bearing Bar, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side view; Fig. 2, a section on the line *x x*, and Fig. 3 a top view.

The object of my invention is to provide an improved device for supporting grate-bars in furnaces or fire-boxes; and it consists in reducing the bearing-surface of the grate-bar to a minimum in width, and again subdividing this bearing-surface crosswise by grooves, so that the grate-bars will bear upon the apexes of a series of pyramids and be supported upon them, while the grooves between these pyramids will allow a circulation of air under and tending to cool the grate-bars as they lie upon these apex bearings, thus preventing their burning out as rapidly as where bearing-bars with a flat or plane upper or bearing surface are used.

In the drawings, A is the bar, which is made with square or rectangular ends A A, upon which the bar lies in use. The two opposite sides C C are beveled off toward each other down to an edge upon the upper face of the bar, and between the ends A A, as shown in the drawings. This edge is subdivided crosswise by a series of V-shaped grooves or channels, which form a series of four-sided pyramids, *t t*.

The spaces between these pyramid-teeth *t t* are made of such width that a grate-bar will rest upon two or more of them. Also, a ridge, *l*, is made between these pyramid-teeth, running lengthwise of the grate-bar, so that the

ashes will not catch and gather in the grooves, and the bar will always clean itself.

In each of the three figures, B represents a grate-bar, and shows how it lies upon the pyramid-points.

By this construction of a grate-bearing bar the grate-bars themselves lie upon two or more points or apexes of pyramids in each bearing-bar, and the grooves between the pyramid-teeth allow a circulation of air, and thus the grate-bars are kept cool and prevented from burning out at the point of bearing upon the grate-bar, which is the usual place for them to burn out.

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

1. In a grate-bearing bar, the pyramidal points or teeth *t t*, forming the bearing-surface of the bar B by beveling off the sides of the bar A, and by the transverse V-shaped grooves, substantially as and for the purposes above set forth.

2. In a grate-bearing bar, the longitudinal ridge *l*, between the bases of the pyramidal points *t t*, constructed and operating substantially as and for the purposes above set forth.

3. The above-described grate-bearing bar, constructed with the square ends A, beveled sides C C, and transverse V-shaped grooves forming the pyramids *t t*, and the ridge *l*, extending longitudinally between the bases of the pyramids, substantially as and for the purposes above specified.

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Witnesses:

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