(No Model.)

E. U. SCOVILLE.

GRATE.

No. 525,163. Patented Aug. 28, 1894.

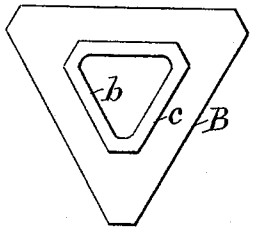


Fig. 1.

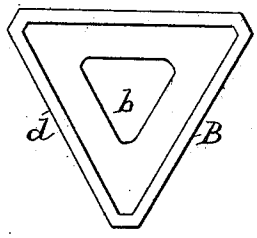


Fig. 2.

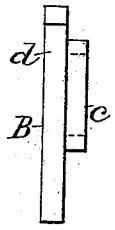


Fig. 3.

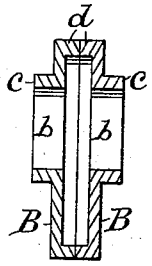


Fig. 4.

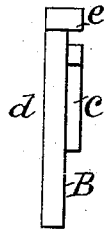


Fig. 5.

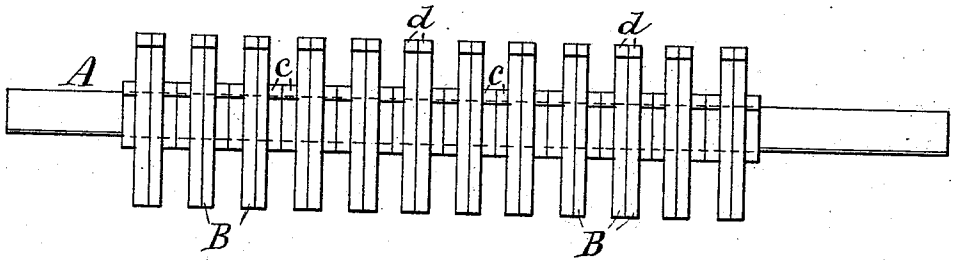


Fig. 6.

Witnesses:
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H. M. Seamans

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By C. H. Duell
his Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ELIJAH U. SCOVILLE, OF MANLIUS, NEW YORK.

GRATE.

SPECIFICATION forming part of Letters Patent No. 525,163, dated August 28, 1894.

Application filed January 29, 1894. Serial No. 498,341. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH U. SCOVILLE, of Manlius, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Grates, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to grate-bars, and the object is to provide a revoluble grate-bar with removable sections, so constructed that when strung upon the bar they will form inclosed air spaces which will prevent the grate from becoming over-heated, and warped and will present no ledges or projections that ashes can rest upon after passing from above the grate.

To this end my invention consists in the combination in a grate-bar of a shaft, and removable triangular shaped pieces strung upon the shaft, and shaped and arranged on the shaft to form an inclosed air space around the shaft between each pair of pieces. And my invention consists in certain other combinations of parts hereinafter described and specifically set forth in the claims.

In the drawings, Figure 1 is a side view of one of the triangular shaped pieces. Fig. 2 is a view of the opposite side of the piece. Fig. 3 is an edge view of the piece. Fig. 4 is a pair of pieces in section. Fig. 5 is an edge view of a modification, and Fig. 6 is a side elevation of a completed grate-bar.

Referring specifically to the drawings, A is the shaft or spindle preferably triangular shaped in cross-section and corresponding to the shape of the removable pieces, B, strung thereon. The pieces B are each provided with a perforation, *b*, in the center corresponding to the size and shape of the shaft. In order to hold the pieces separated, or the vertical walls thereof a distance apart, I provide a hub, *c*, or horizontal flange on one side of the piece close to the shaft. The pieces are so arranged and strung upon the shaft, A, that the hubs of the pieces make contact with each other and separate the vertical walls the required distance. On the opposite side of the piece, B, is a horizontal flange, *d*, extending from the outer edge on all sides, so that when a pair of pieces are placed together upon the shaft, with the flanges, *d*, in contact, an inclosed air space is formed surrounding the shaft between the inner vertical walls of the pair of pieces. In some cases I prefer to cast an additional rib, *e*, at the edge of the piece, but only on one of its sides, and projecting horizontally as far as the hub, as shown in Fig. 5 of the drawings. With such a rib on each piece the grate would be almost entirely closed on one of its sides, but this would be used for wood or very small coal.

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

1. In a grate-bar, the combination, of a triangular shaped shaft, removable triangular shaped pieces strung upon the shaft, horizontal flanges on both sides of the pieces, one of said flanges being at the outer edge of each piece, and the pieces arranged in pairs with the said flanges in contact with each other, substantially as shown and described.

2. In a grate-bar, the combination of a triangular shaped shaft, removable triangular shaped pieces strung upon the shaft, a horizontal flange on one side of the piece near the shaft and a horizontal flange on the opposite side of the piece at its outer edge and making contact with a like flange on the adjacent piece, and ribs, *e*, on the pieces, substantially as described and shown.

In testimony whereof I have hereunto signed my name.

ELIJAH U. SCOVILLE. [L. S.]

Witnesses:

MARK W. DEWEY,

H. M. SEAMANS.