D. H. DEAN.

Stove Lining.

No. 17,540. Patented June 9, 1857.

Fig. 1

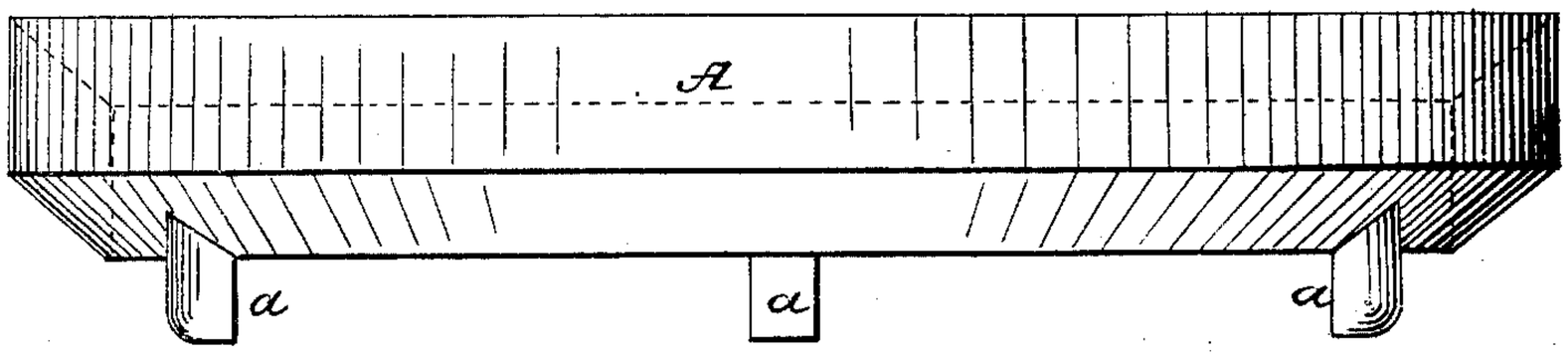
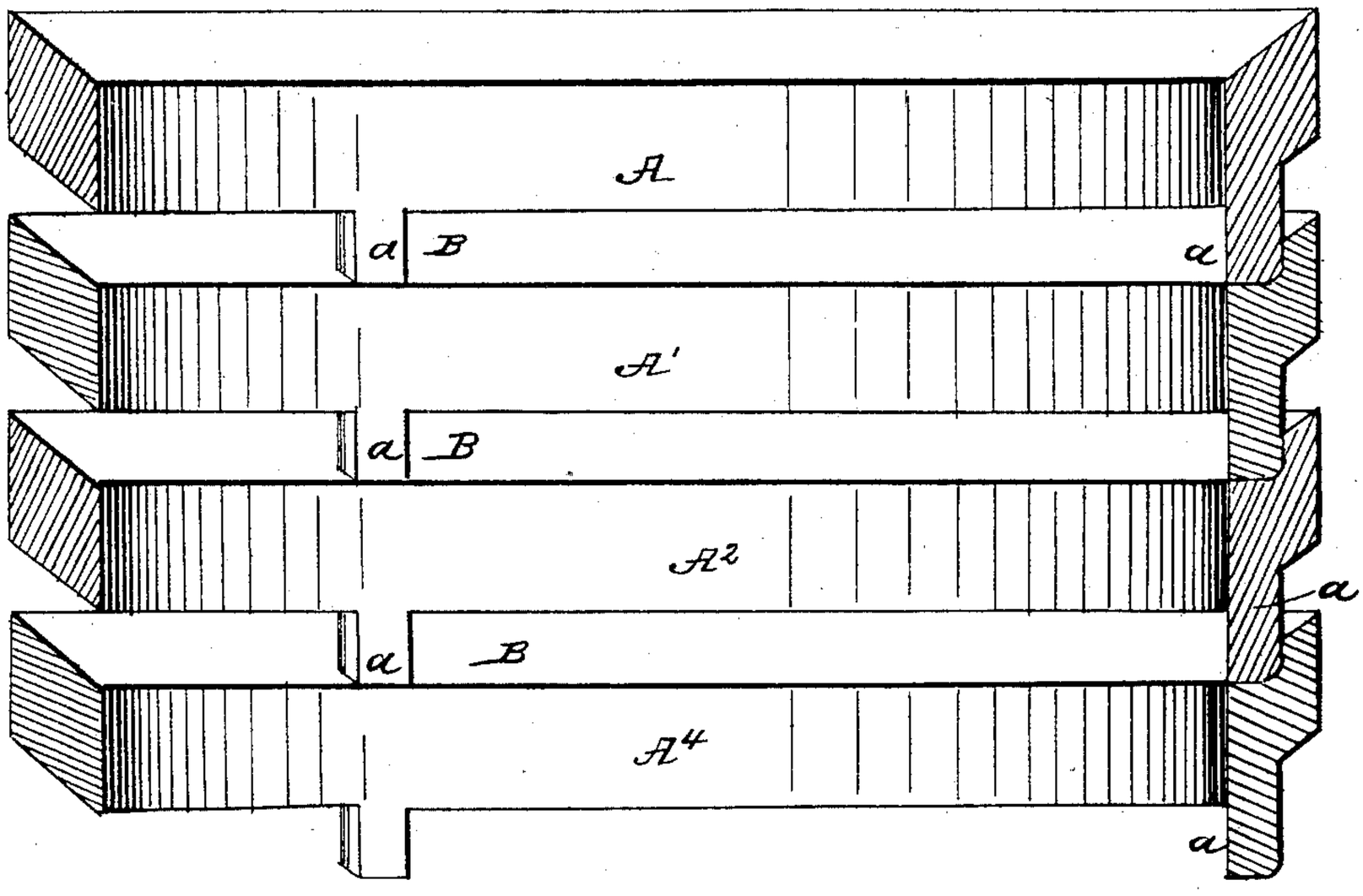


Fig 2



UNITED STATES PATENT OFFICE.

DANIEL H. DEAN, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO WILLIAM T. COGGESHALL.

FIRE-GRATE OR LINING OF FIRE-POTS.

Specification of Letters Patent No. 17,540, dated June 9, 1857.

To all whom it may concern:

Be it known that I, DANIEL H. DEAN, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvements in Stove-Linings or Fire-Grates; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, denotes an elevation of a stove lining or fire-grate having my improvement. Fig. 2, is a vertical and axial section of the same.

My invention does not consist in constructing a stove lining of a series of rings arranged one on the other, as I am well aware that such was patented by Jordan L. Mott, on the 21st day of July of the year eighteen hundred and thirty five the term of such patent having been extended to the twenty-first day of July of the year eighteen hundred and fifty six. Nor does it consist in any device or arrangement shown in the patent of Anson Atwood, dated May 14th 1850 and reissued September 17th 1850. Nor does it consist in any device, or arrangement shown in the patent of Garrettson Smith and Henry Brown dated May 15th 1847, for in this latter, the sides of the ring are not vertical, but stand at an inclination to the horizon, and are conical surfaces in consequence of the rings being frusta of cones. This causes the interior chamber of the fire pot or grate to be irregular or to be composed of a series of angular projections extending into it in such manner as to crowd and compact the fuel so as to prevent it from freeing itself from ashes and slag, whereas in my arrangement, which is an improvement on that of the said Smith and Brown, the sides of the rings are cylindrical surfaces, while the top and bottom edges only are inclined in such manner as to bring the upper edge of one ring on or about on a level with the lower edge of the ring directly over it. With my arrangement, the coal rests against a vertical wall or side of the fire pot and is not cramped, but can readily fall so as to discharge ashes as such is made. Furthermore my arrangement requires no disposition of ribs on the sides of the rings such ribs being for supporting one ring on the other, as my said arrangement only requires small feet or projections from the edges of the rings in order that one ring may be supported by and above the other. The cylindrical or vertical rings have other advantages as must be apparent to most persons. Therefore I herein expressly disclaim any device, construction or arrangement of rings described and represented in either of the said patents.

My invention is an improved method of constructing such rings, and consists in so forming their upper and under surfaces inclined that the spaces between the rings shall have a downward or inward inclination from the external toward the internal surfaces of the rings so as to bring the top of one ring on or about on a level with the bottom of the other, or that immediately above and supported by it, the same serving to enable the series of rings, not only to retain fuel to better advantage but to be less liable to be choked by any fuel, than when their top and bottom surfaces are made horizontal or at right angles to their sides.

In the drawings A, A^1, A^2, exhibit the several rings one of which is arranged above the other, so that there may be a space B, between each two adjacent rings one ring being supported on the other by feet *a*, *a*, extending from it and resting on the lower of the two and in corresponding notches, or recesses formed therein. The upper and under surfaces of each ring are beveled or chamfered inward toward the axis of the ring, and so that when one ring is arranged above another, the lower edge of the upper may be about on a level with the upper edge of the lower ring, the same being as shown in the drawings.

What I claim is—

Arranging the inner surface of each ring of the firepot cylindrically or vertically, the edges of the rings inclining inward in such manner, as to bring the upper edge of one ring on or about on a level with the lower edge of the ring directly over it as described, whereby advantages such as are above stated are gained.

In testimony whereof I have hereunto set my signature this twenty-first day of November A. D. 1856.

DANIEL H. DEAN.

Witnesses:

LEVI P. GREEN,

P. HAGERTY.