

P. BOYDEN.

Improvement in Stove Grates.

No. 115,021.

Patented May 23, 1871.

Fig. 1.

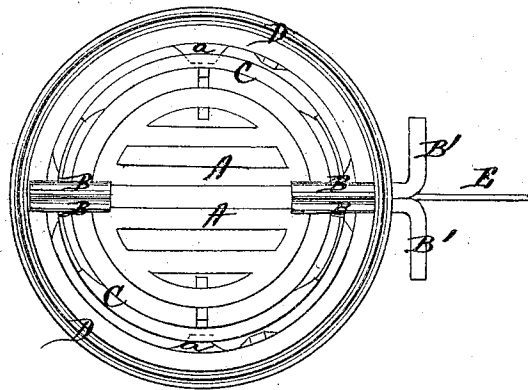


Fig. 2.

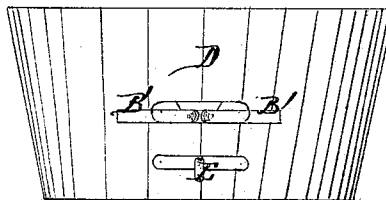
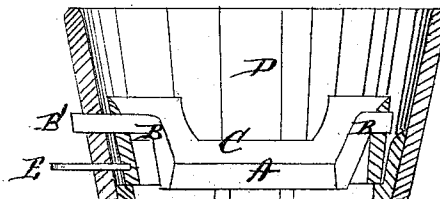


Fig. 3.



Inventor.

Harold Boyden
 by
 Alexander Mason
 Atty.

Witnesses.

Jas. O. Hutchinson
 L. L. Ewert.

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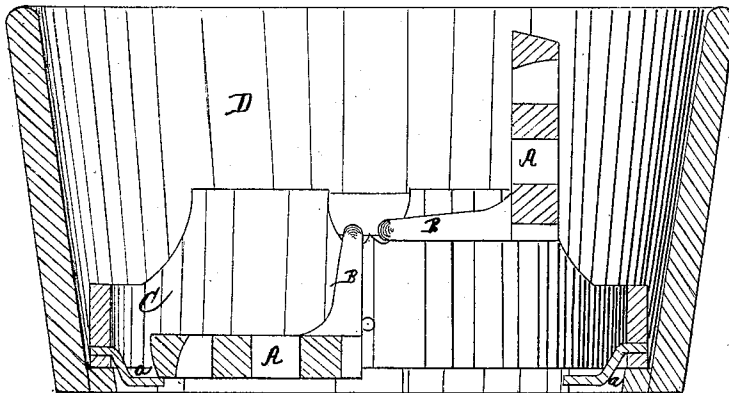
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Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE

PARDON BOYDEN, OF AMSTERDAM, NEW YORK, ASSIGNOR OF ONE-HALF
HIS RIGHT TO OSCAR F. NELSON, OF SAME PLACE.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. 115,021, dated May 23, 1871.

To all whom it may concern:

Be it known that I, PARDON BOYDEN, of Amsterdam, in the county of Montgomery and in the State of New York, have invented certain new and useful Improvements in Grates, Dumping and Shaking Apparatus to Coal-Stoves; and do declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "grate for coal-stoves," as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view; Fig. 2, a front elevation; and Fig. 3, a vertical section of my grate. Fig. 4 represents a cross-section of the grate-box, frame, and double grates, showing one grate thrown upward.

A A represent two semicircular wrought or cast metal bar-grates of sufficient size, so that when placed together the two will form a circular grate of any required size. At each end of the inner bar of each semicircular grate is made a knee-shaped bearing, B, rising upward and outward above the upper face of the grate in position, which form will place the grate, when in position, as hereinafter described, below the bearings. C represents a circular wrought or cast metal frame or rim, with grooves or slots in the upper edge on opposite sides, which are intended as mortise bearings or receptacles for holding and sustaining the knee-shaped grate-bearings B B. This circular frame or rim is placed within the stove, and rests upon flanges or pins *a a*, or moves on rollers protruding inward beneath it from

the inner sides of the stove or fire-box D. The knee-shaped bearings on that end of each semicircular bar-grate which is intended for the front of the stove are made of sufficient length to allow the ends of such bearings to pass through a slot or aperture in the front side of the stove, and are constructed in such a shape that when the grate is placed in position within the stove the ends of these will be turned one to the right and the other to the left hand on the outside of the stove, which bearing ends B' B' so placed are intended as levers with which to dump the grate. The dumping is produced by turning these levers B' B' or bearing ends in an upward direction toward each other. In the front side of the stove, and beneath the levers B', is made an elongated slot or mortise through the stove for the purpose of receiving a shaking-iron, E, which passes through this elongated slot or mortise into the side of the circular frame or ring C containing the grate.

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

1. A centrally-bisected grate, hung below its journaled bearings, as described, so that both sections of the grate can be dumped without removing the bearings, upon which it is lifted, from their positions, substantially as herein set forth.

2. The combination of the semicircular bar-grates A A, knee-shaped bearings B B, levers B' B', and circular frame or rim C, all constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of February, 1871.

PARDON BOYDEN.

Witnesses:

CHARLES P. WINEGAR,
PETER CREIGHTON.