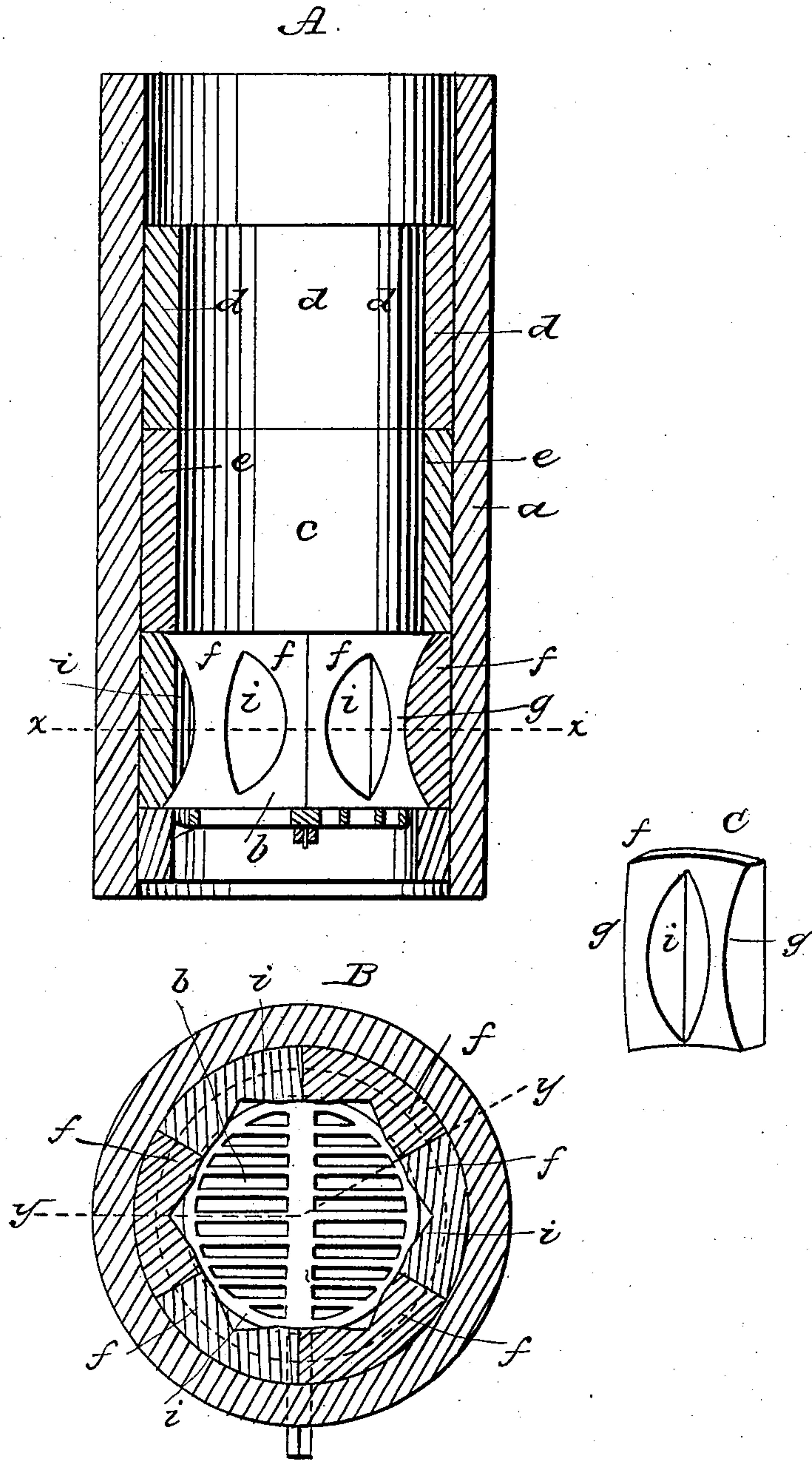


L. GLEASON.

Stove Grate.

No. 104,844.

Patented June 28, 1870.



Witnesses
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C. Warren Brown.

Inventor
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United States Patent Office.

LYMAN GLEASON, OF MILFORD, MASSACHUSETTS.

Letters Patent No. 104,844, dated June 28, 1870.

IMPROVEMENT IN STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LYMAN GLEASON, of Milford, in the county of Worcester and State of Massachusetts, have invented an Improvement in Stoves; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates to the construction of fire-pot linings for stoves, furnaces, &c., with reference to a provision for freeing the bottom of a fire from clinker and ashes, without destroying or impairing the live fire or coals in the upper part of the fire-pot.

My invention consists, primarily, in the employment, in the lower part of the fire-pot, of a lining made up of fire-bricks, the face of each of which has a swell between the top and bottom, and in forming each one of these swelled bricks with one or more vertical flutes or recesses, or depressions, made in its front face.

The drawing represents a portion of a stove or stove-body, embodying my improvement.

A shows the fire-pot in sectional elevation, the section being taken on the line *y y*.

B is a cross-section, on the line *x x*.

C shows one of the swelled fire-pot bricks.

a denotes the stove-body or cylinder.

b, the grate.

c, the fire-pot or chamber.

d e f, three courses of lining to the fire-pot, such lining being preferably made of fire-bricks.

The two courses *d e* may be made of common fire-bricks, but, in the lower course, *f*, the bricks are made of peculiar shape, as follows:

Each brick *f*, at its top and bottom, is of substan-

tially the same thickness as the bricks *d e*, but the face of each brick swells inwardly, as seen at *g*, so that, when the fire-pot is charged, and the coal at the bottom is somewhat consumed, the body of coal in the fire-pot will be sustained by the contracting portion of the fire-pot within the lower course of bricks, and above the line *x x*, to such extent as to permit the grate to be turned into vertical position without disturbance thereof, letting down the ashes, cinders, and clinkers which are in the bottom of the fire-pot, below the line *x x*, the enlargement of the fire-pot, (below this line,) produced by the swelling formation of the bricks *f*, causing the ashes, cinders, and clinker to fall freely into the ash-pit as soon as the grate is turned into such vertical position. When the grate is turned back into horizontal position, and is slightly shaken, the live coals above fall down to the grate without injury to the fire. By this construction a stove may be kept free from ashes and clinker without, at any time, letting the fire go out.

To facilitate the freeing of the fire-pot from ashes, I prefer to make each brick *f* with a depression or groove, *i*, extending vertically along its front face, such depressions also making air-passages, through which air can pass in kindling the fire.

I claim—

In combination with the fire-pot or chamber of a stove or furnace, a course of fire-bricks or fire-pot linings *f*, each made with a swelling face, *g*, and with a vertical groove or depression extending along such face, substantially as described.

LYMAN GLEASON.

Witnesses:

J. B. CROSBY,

FRANCIS GOULD.