

W. McILVAIN.
Grate for Stoves.

No. 50,258.

Patented Oct. 3, 1865.

Fig. 1.

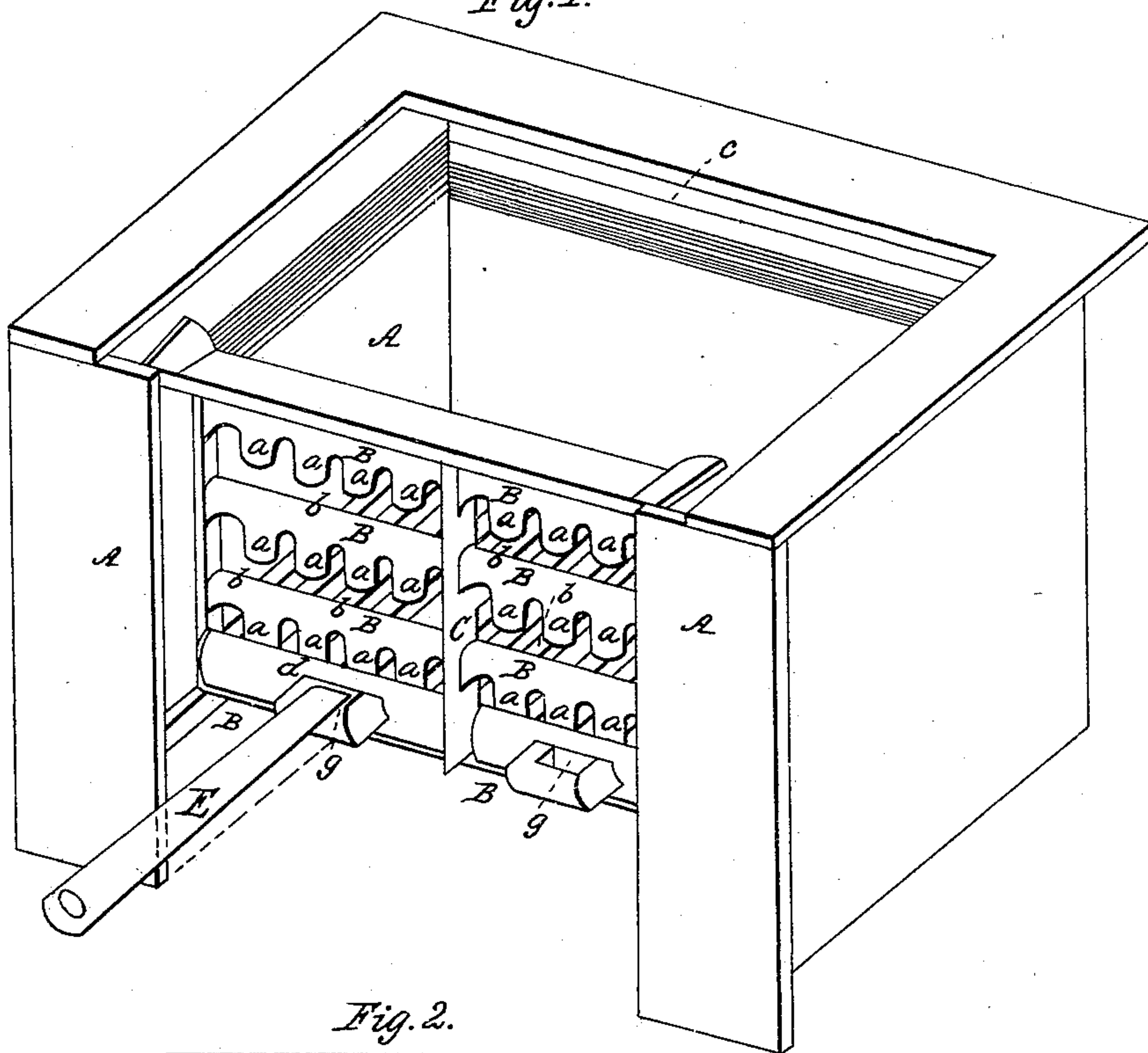


Fig. 2.

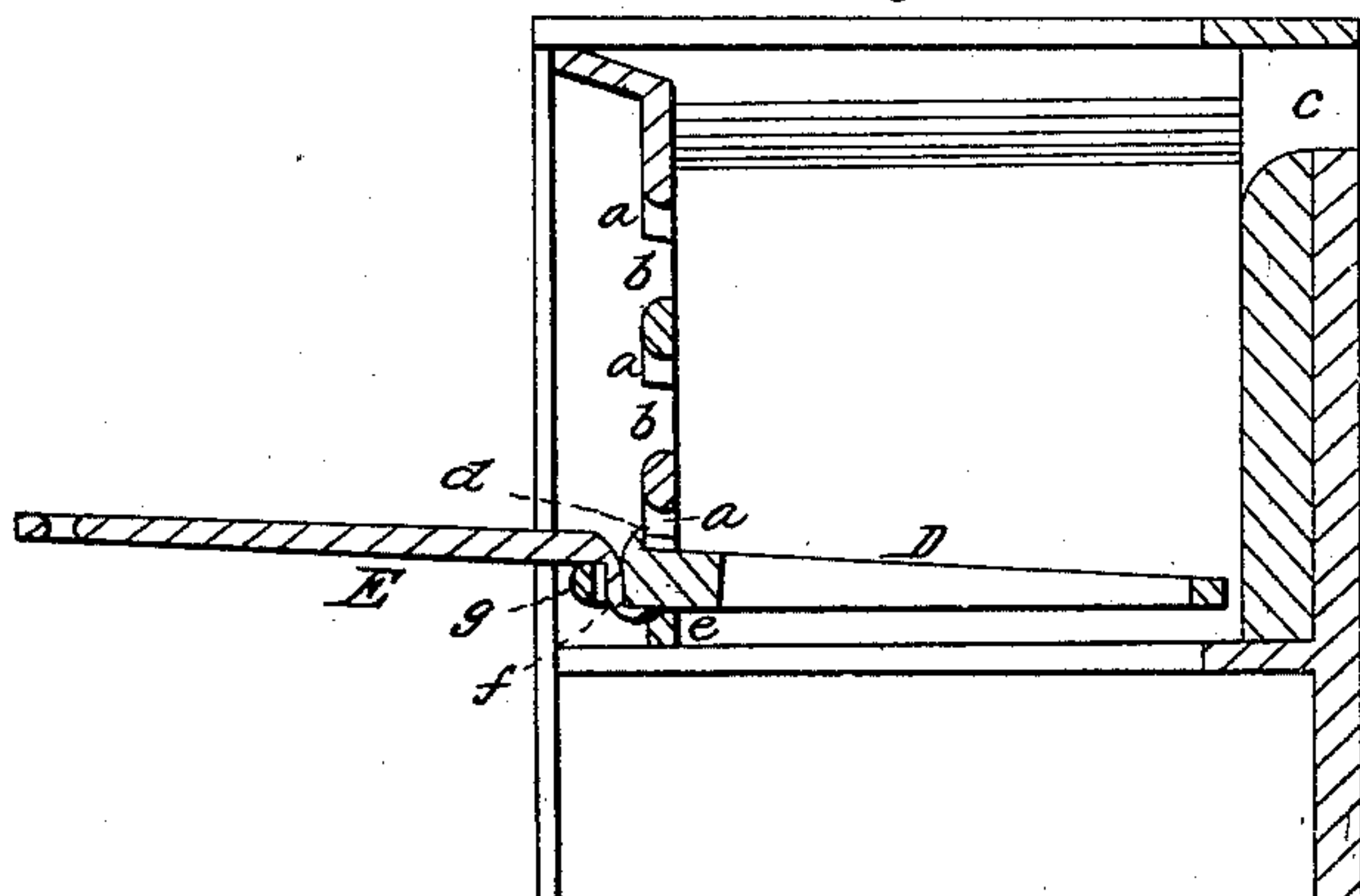
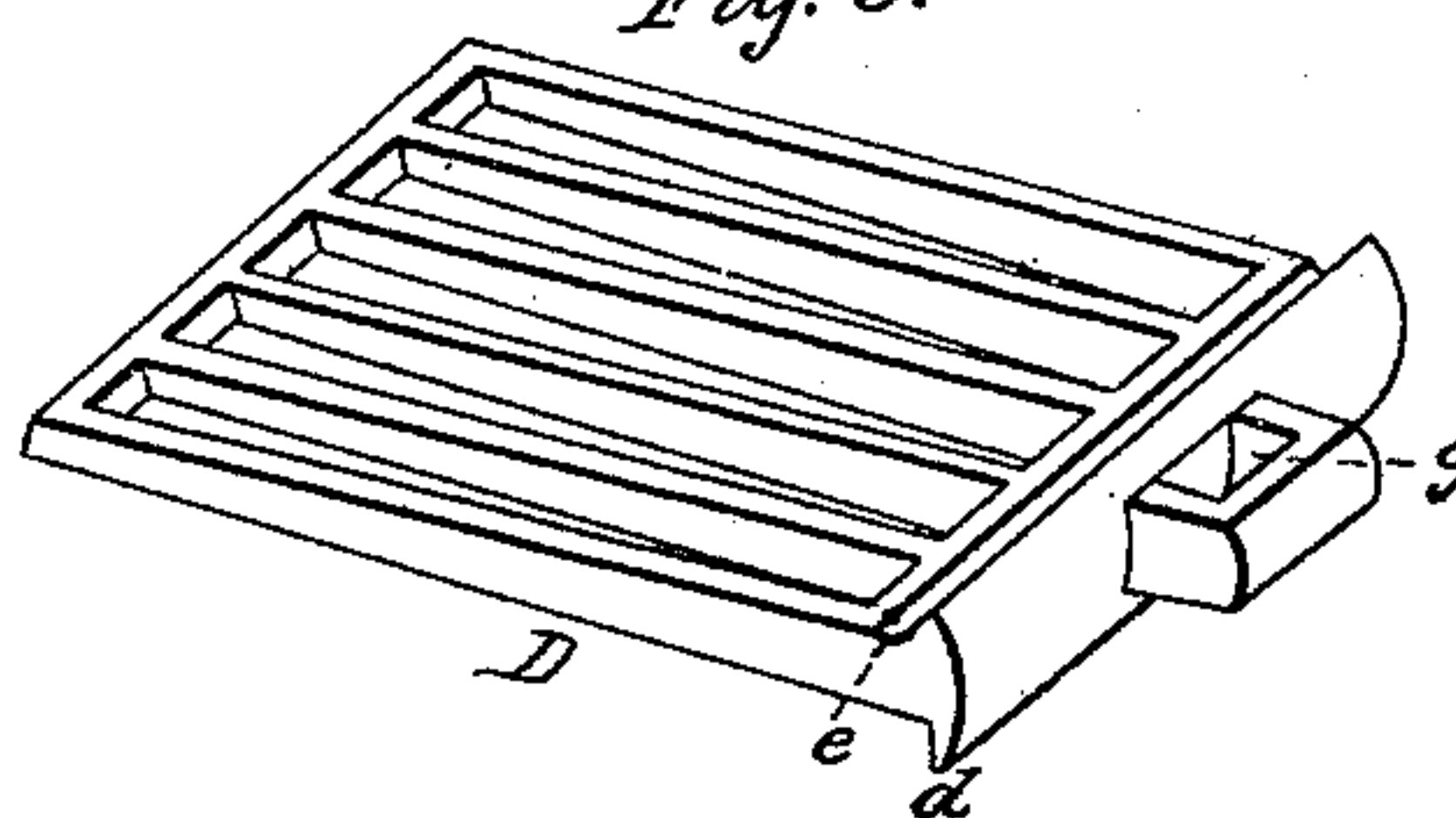


Fig. 3.



Witnesses:
Stephen Votok
David Eldridge

Inventor:
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UNITED STATES PATENT OFFICE.

WILLIAM MCILVAIN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN GRATES FOR STOVES.

Specification forming part of Letters Patent No. 50,258, dated October 3, 1865.

To all whom it may concern:

Be it known that I, WILLIAM MCILVAIN, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Grates for Stoves, Ranges, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a fire-box of a stove or range. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a perspective view of one of the grates C in an inverted position.

Like letters in all the figures indicate the same parts.

The nature of my invention mainly consists in constructing and arranging the front and bottom grates of a stove or range in such a manner as to provide for an easy and expeditious changing of the bottom grate or grates from one altitude to another; to vary the depth of the fire-chamber so as to accommodate it to the reception of any desirable amount of fuel and still have the top surface of the fuel nearly on a line with the draft-space which communicates with the oven, so as to effectually throw the heat into the same.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the fire-box of a stove or range.

B B B B are longitudinal bars, which compose the front grate, being divided in their middle by the upright C, which separates the bottom grates, D D. In small fire-places a single grate is sufficient, and consequently the upright is dispensed with. The bars B have vertical projections *a*, so as to give a sufficiently open front for draft on the front side

of the fire-box. The spaces *b* between the upper edges of the bars B and the lower ends of the said projections *a* are sufficient for the grates D to be passed in freely, and to allow the shaking of the same to clear the fuel of ashes. The said grates are placed somewhat on a descending angle to incline the fuel to the rear side of the chamber, so as to effectually throw the heat through the draft-space *c*. There is a lip, *d*, on the upper edge of the front bars of the grates D D, which bears against the projections *a* of the bars B to sustain the grates in their proper position, and a groove, *e*, in the under side of the same, as seen in Figs. 2 and 3, which bears on the upper edge of the contiguous bar B and acts in conjunction with the lip to effect this object, and also to keep the grates in their lateral position for shaking them.

E is a lever, by means of which the grates are shaken, the fulcrum part *f* being placed in an opening, *g*, of a grate, as seen in Figs. 1 and 2, when the lever is to be used.

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

1. Adjusting the grates D at different altitudes in the fire-chamber by means of the bars B with the vertical projections *a*, substantially as described, and for the purpose specified.

2. Constructing the front bars of the grates D with the lips *d* and the grooves *e*, substantially in the manner and for the purposes set forth.

In testimony that the above is my invention I have hereunto set my hand and affixed my seal this 24th day of June, 1865.

WM. MCILVAIN. [L. S.]

Witnesses:

STEPHEN USTICK,
JOHN WHITE.