

R. MOSS.

Adjustable Stove Grate.

No. 50,613.

Patented Oct. 24, 1865.

FIG. 1.

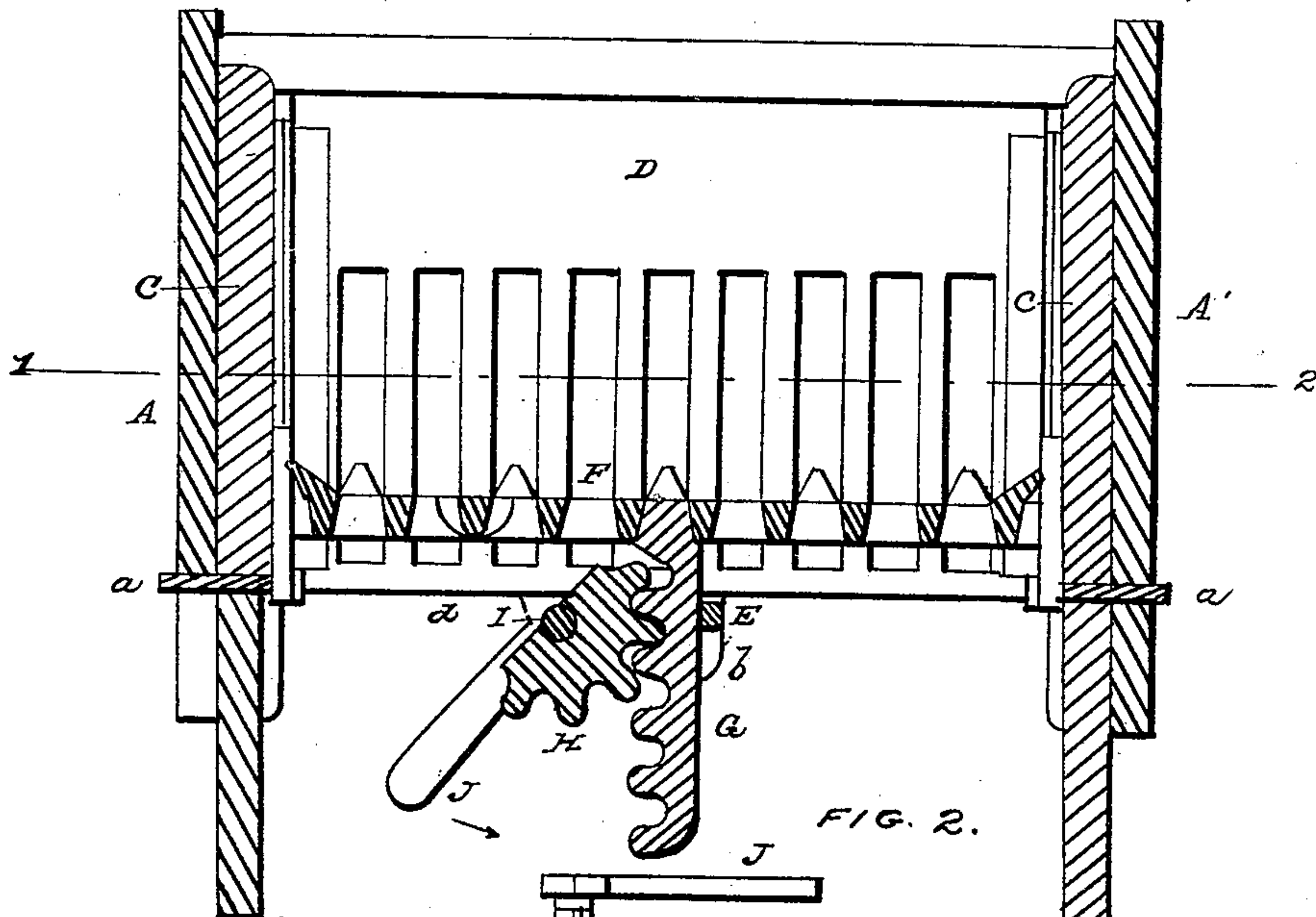


FIG. 2.

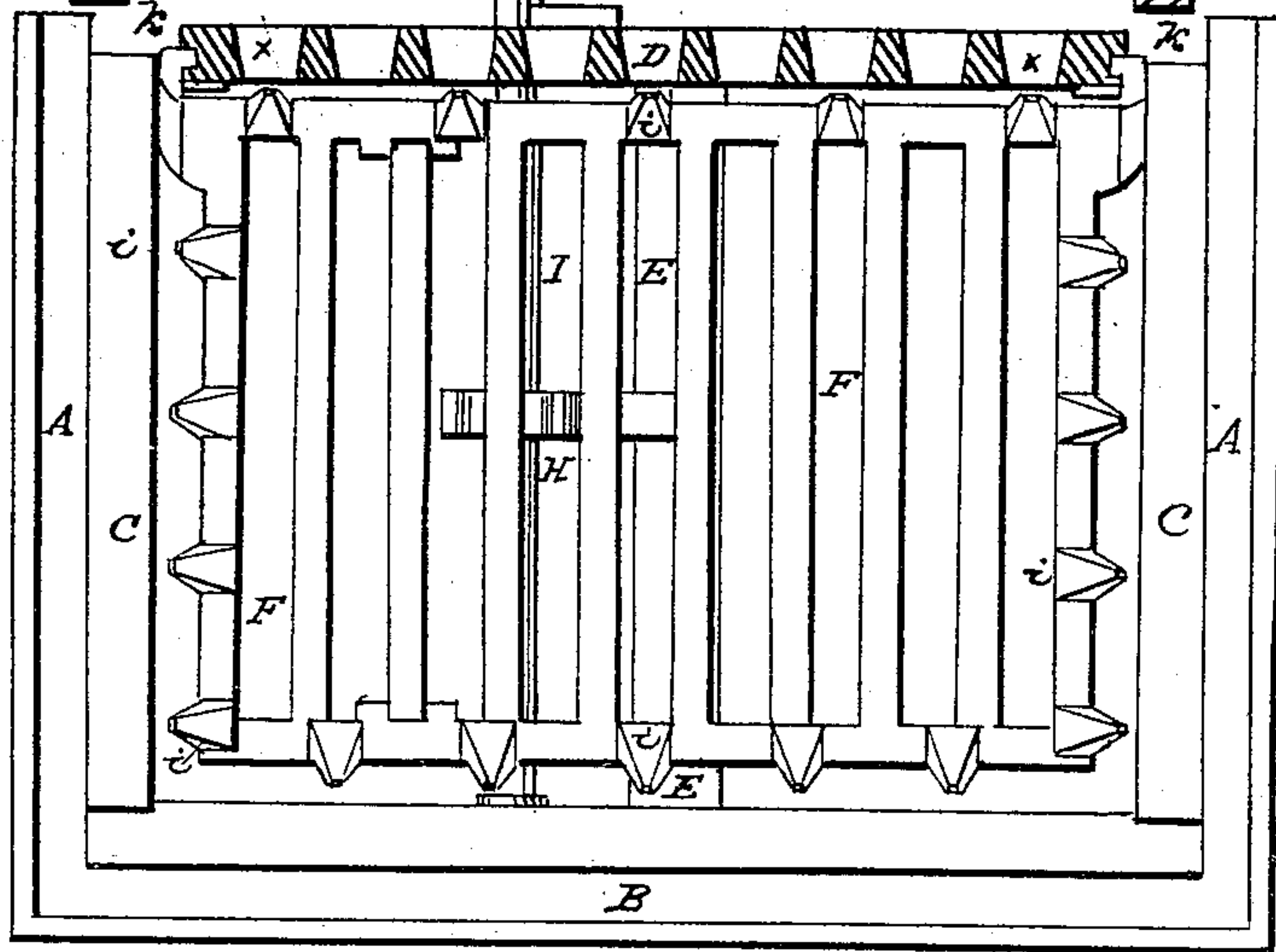
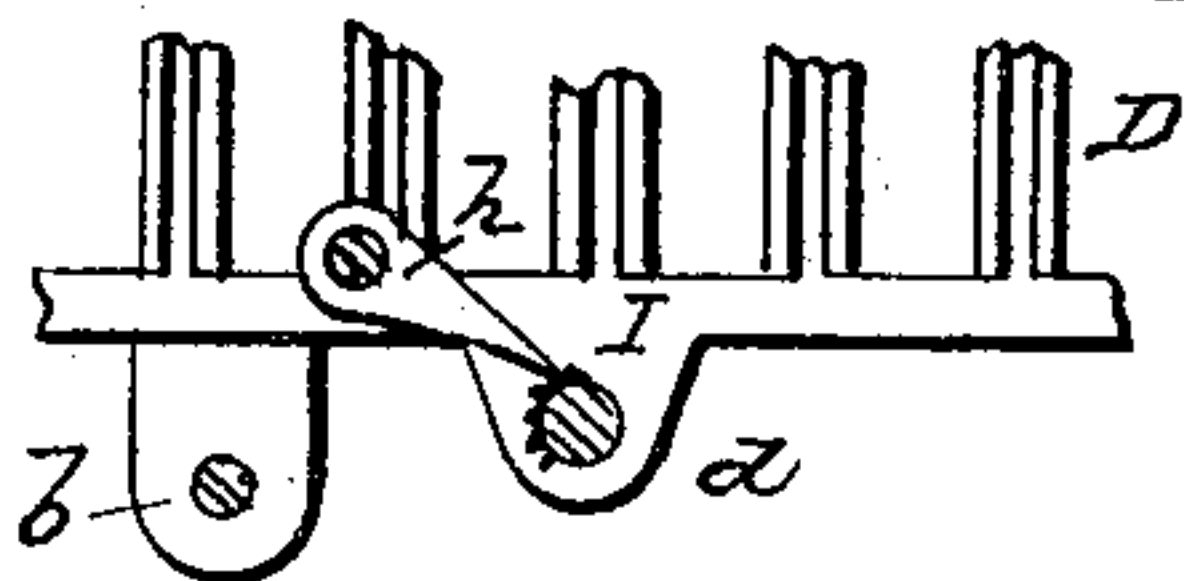


FIG. 3.



WITNESSES:  
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INVENTOR.  
*H. Howson*  
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# UNITED STATES PATENT OFFICE.

REES MOSS, OF PHILADELPHIA, PENNSYLVANIA.

## ADJUSTABLE STOVE-GRATE.

Specification forming part of Letters Patent No. 50,613, dated October 24, 1865.

*To all whom it may concern:*

Be it known that I, REES MOSS, of Philadelphia, Pennsylvania, have invented a Device for Raising Stove-Grates; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to that class of grates which can be raised or lowered for the purpose of increasing or diminishing the capacity of the fire-place; and my invention consists in an adjustable horizontal grate having certain projections, which are arranged at the edges of the grate and extend beyond the same toward the sides of the fire-place and toward the spaces between the bars of the front vertical grate, so that when the horizontal grate is raised the projections will detach the slag from the interior of the fire-place, and thus maintain the latter free from obstructions.

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

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a sectional elevation of the fire-place of a stove or range with my improvement; Fig. 2, a sectional plan on the line 1 2, Fig. 1; and Fig. 3, a detached view of part of my improvement.

A and A' are the opposite sides, and B is the back, of the fire-place of an ordinary cook-stove or range, on the inside of which is the usual lining, C, of fire-brick or soapstone, the said lining resting on a ledge, *a*, which projects from the sides and back of the fire-box. To the front of the fire-box is adapted a detachable vertical grate, D, from the under side of which projects a lug, *b*, a plate, E, extending from the said lug to a similar lug on the under side of the ledge *a* at the back of the fire-box.

Within the fire-place a horizontal grate, F, fits loosely, a bar, G, projecting downward from the center of this grate, and one edge of this bar fitting into and being guided by the plate E, and the opposite edge having teeth adapted to those of a segment, H, on the shaft I, which turns in lugs *d* on the lower edge of the vertical grate D and on the under side of the ledge

*a* at the back of the fire-place. The outer end of the shaft I is square and adapted for the reception of a handle, J, that portion of the shaft next the outside of the lug *d* being furnished with teeth, into which fits the end of a pawl, *h*, hung to a pin on the outside of the vertical grate D.

The upper surface of the grate F is provided near its edge and on all four sides with pyramidal lugs *i i*, which project upward and outward toward the sides and front of the fire-place.

To each of the outer corners of the grate F is secured a vertical guide-piece, *k*, a rib on the side of which projects into a groove, *x*, in the side of the front grate, D. When the handle is applied to the end of the shaft I and turned in the direction of the arrow, Fig. 1, the grate F will be raised within the fire-box and be maintained in its position by the end of the pawl *h* engaging with the teeth on the shaft I, thereby preventing the latter from turning. When the grate has to be lowered the pawl *h* is raised and the handle turned downward until the grate rests on the plate *e*.

One of the grate-bars fits loosely in the frame of the grate F, so that it can be detached when the ashes have to be removed.

By the devices above described the grate may be quickly and easily raised and lowered, so that the capacity of the fire-place may be increased or diminished at pleasure, the grate being elevated when it is required to have an intense heat at the top of the stove for frying, boiling, or other similar culinary purposes, and lowered when the ovens have to be heated or when a low fire only is needed.

The grate is maintained in a horizontal position, as it is raised and lowered, by the guide-pieces *k k* and by the bar G, which slides in the recess in the plate E.

It will be seen that the projections *i i* extend beyond the edges of the grate F toward the sides of the fire-place and between the bars of the grate D, so that as the grate F is raised the slag which adheres to the fire-brick and the front grate is broken off from the same, the fire-place being thus maintained perfectly clear and free from clinkers, so as to insure the uniform and perfect combustion of the coal and allow the grate to be freely raised and lowered.

I do not desire to claim an adjustable grate,



nor a grate in which projections are on the upper edges of the bars, for maintaining the heated coals from contact with the latter; but

I claim as my invention and desire to secure by Letters Patent—

The adjustable grate F, with its projections *i*, when the said projections are arranged at the edges of the grate and extend beyond the same toward the sides of the fire-place and to-

ward the spaces between the bars of the vertical grate D, as and for the purpose specified.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

REES MOSS.

Witnesses:

CHARLES E. FOSTER,  
JOHN WHITE.