

G. A. WING.

Stove Grate.

No. 93,781.

Patented Aug. 17, 1869.

Fig. 1.

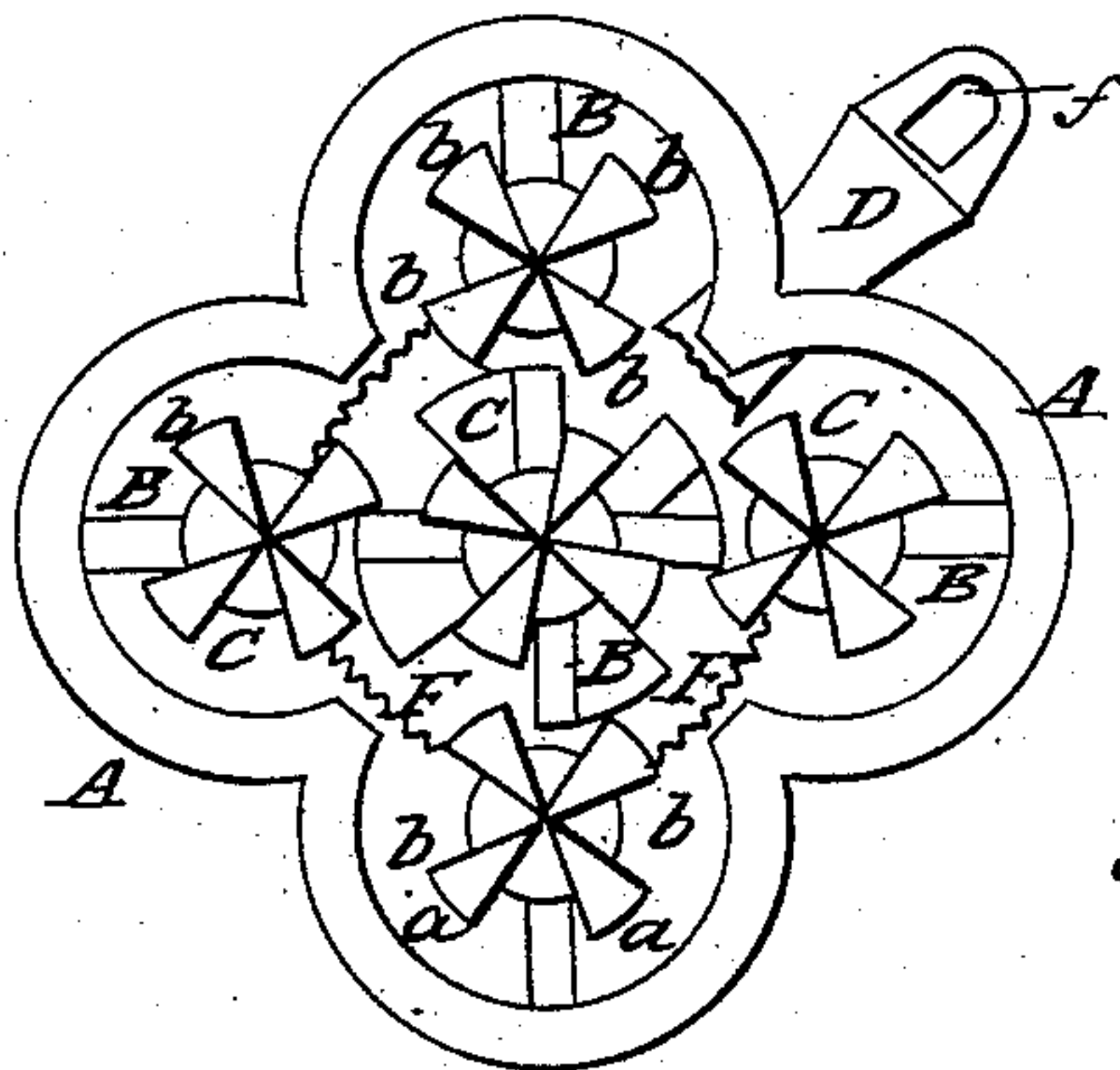


Fig. 2.

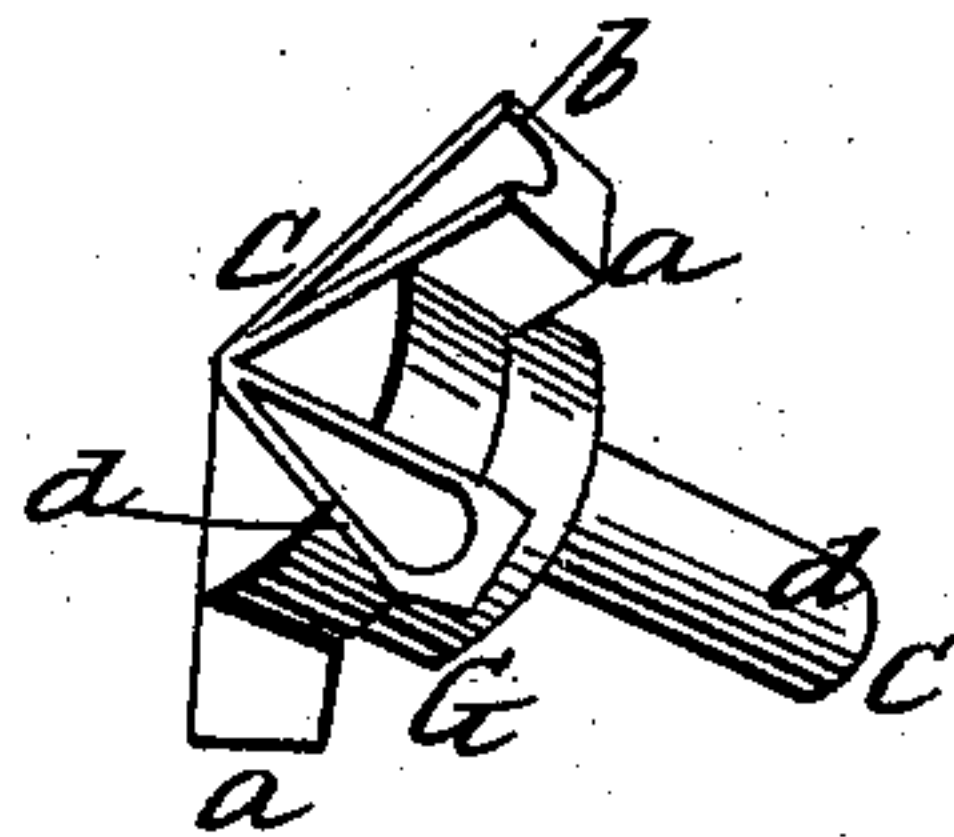
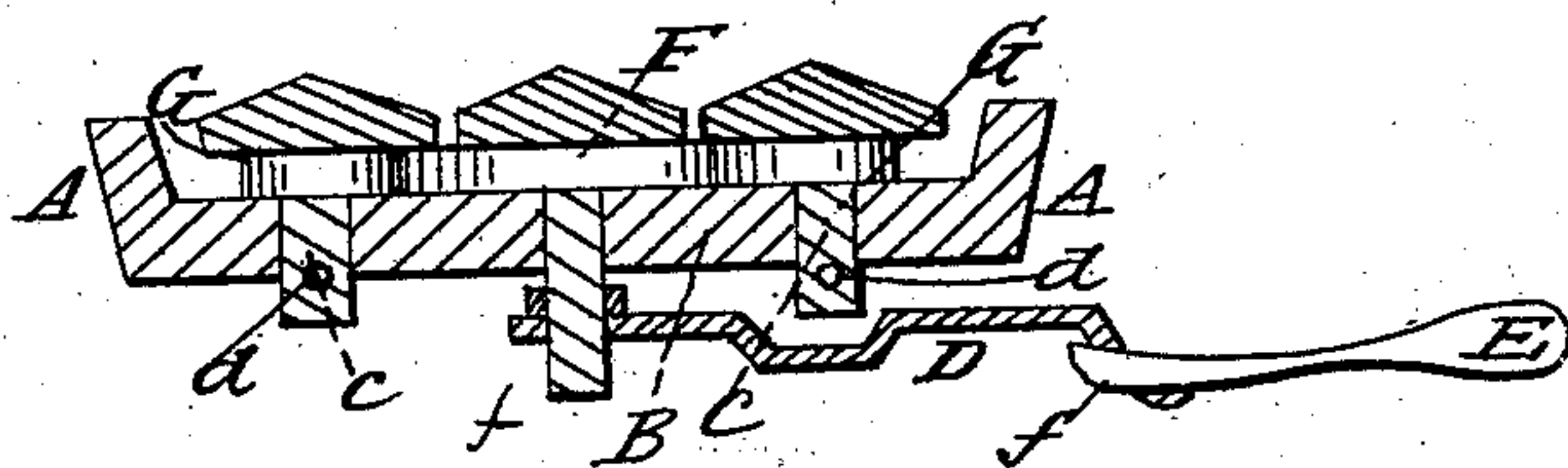


Fig. 3.



Witnesses:  
Robert B. Wine  
James R. Van Dyke

Inventor:  
George A. Wing

# United States Patent Office.

GEORGE A. WING, OF ALBANY, NEW YORK.

Letters Patent No. 93,781, dated August 17, 1869.

## STOVE AND FURNACE-GRATE.

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, GEORGE A. WING, of Albany, in the county of Albany, and State of New York, have invented a new and improved Stove and Furnace-Grate; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top view of my invention.

Figure 2 is a perspective view of one of the centres of the grate.

Figure 3 is a vertical central section.

Similar letters of reference indicate like parts in all the figures.

The principal object of my invention is to construct a stove or furnace-grate that will, when rotated, clear out the ashes from the fire thoroughly. This object I have accomplished by constructing a grate with two or more centres, and so connecting them, that when one is shaken or rotated, they will all be simultaneously operated, and in like manner.

A designates the grate-frame, constructed of circular segments, as shown in fig. 1.

Extending across said frame A are cross-bars B B, upon which the grate-centres C are supported.

To the central rotating grate C is attached a large toothed wheel, F, which gears into or meshes with smaller toothed wheels G, which are pivoted to and revolve with the surrounding central grates C, as seen in figs. 1 and 3.

D designates a bar, projecting from and attached to the central pivot O of the grate.

E designates the shaker of the stove, and shows the mode of operating the series of rotating grates.

The several rotating grates C are fluted or recessed, as shown at *b* in fig. 2, for the purpose of permitting

a supply of air to the fire, and also to form edges upon the grates, the more readily to separate the ashes from the fire, when the grates are shaken.

A series of three grates may be used to fit the long fire-box of cooking-stoves, or to form an oval grate for an oval parlor-stove.

For large furnaces, it is believed that this form or mode of construction offers great advantages over the present kinds of grates used.

These several grates C might have loops connected to their pivots, and pins working in slots in the loops, so as to be operated by turning the central grate, the same as in the above-described plan. But I prefer the mode, herein shown and described, of operating the series of grates C, by means of the toothed wheels F and G.

It will be seen from the above, that when the central grate is rotated by means of shaking-bar E, all the surrounding grates C will also be rotated, and the fire will be well shaken by such an operation.

The outer ring A of the grate will rest upon a ring in the stove, at the bottom of the fire-pot, in the well-known and usual manner, and in order to make it a dumping-grate, it will be necessary to have the ring A rest upon two pivots, placed at opposite points of its circumference, in the well-known and usual manner.

What I claim as new, and desire to secure by Letters Patent, is—

The construction of a stove or furnace-grate, consisting of a series of rotating grates, in combination with toothed wheels F and G, or their equivalents, whereby the series of grates C may be rotated simultaneously, substantially as herein set forth.

GEORGE A. WING.

Witnesses:

ROBERT B. WING,  
JAMES R. VAN EPS.