

J. GOLDENBURGH.

Fire Place.

No. 4,801.

Patented Oct. 7, 1846.

Fig: 2.

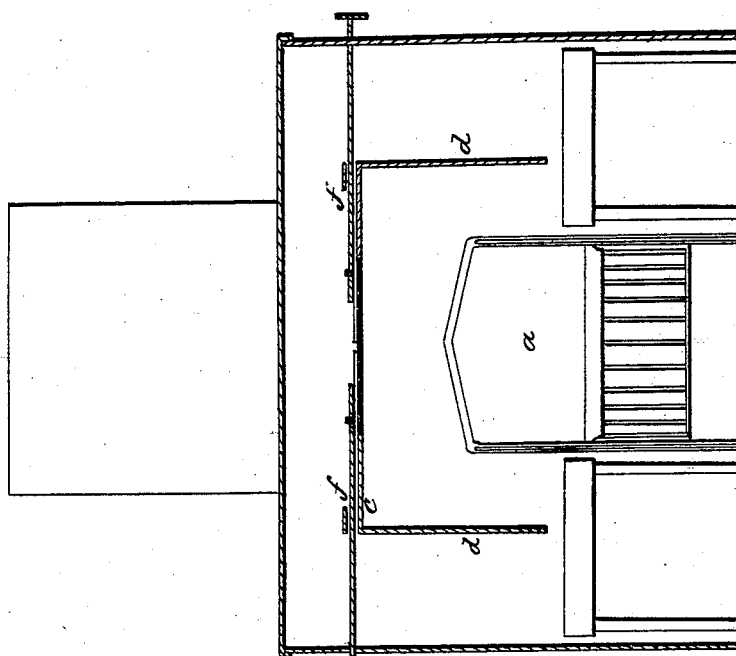
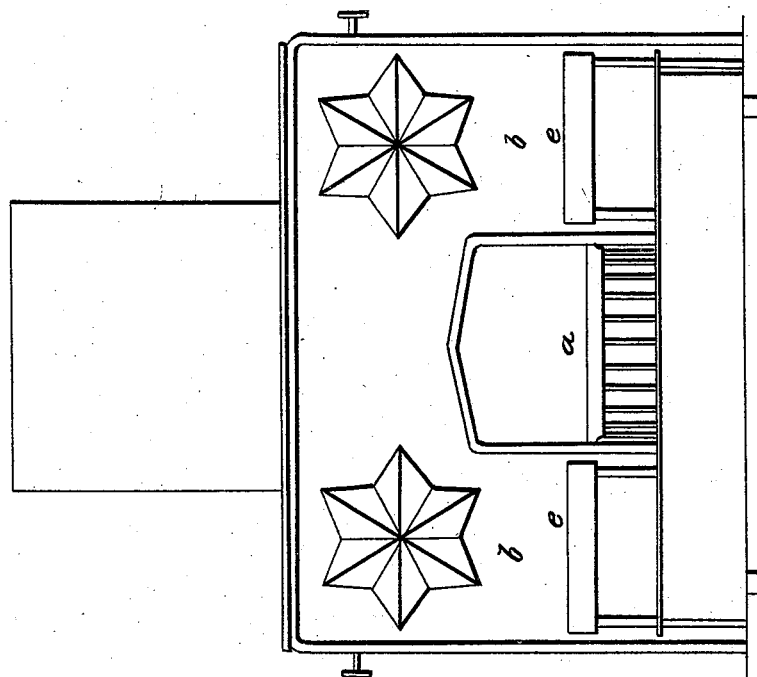


Fig: 1.



# UNITED STATES PATENT OFFICE.

JOHN GOLDENBURGH, OF CINCINNATI, OHIO.

## FIREPLACE-GRATE.

Specification of Letters Patent No. 4,801, dated October 7, 1846.

*To all whom it may concern:*

Be it known that I, JOHN GOLDENBURGH, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and Improved Fire-Grate for Heating Apartments, &c., and that the following is a full, clear, and exact description of the principle or character, which distinguishes my invention from all other things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front elevation of the grate set; Fig. 2, is a vertical section in a plane parallel with, and taken just behind the front plate.

The same letters indicate like parts in all the figures.

The nature of my invention consists in causing the smoke, &c., from a fire grate constructed in the ordinary way, to descend on each side of the said grate in a line parallel with the front thereof, and thence return up and pass out of the chimney, thus heating a broad space on each side of the fire chamber or grate and economizing the fuel,—the draft in said flues being regulated by dampers placed just below the return which when open will admit a sufficient quantity of air from the room to the flue, to check the draft through the fire in any desirable degree.

The construction is as follows: The fire place or grate (*a*) is of any of the usual forms; the front plate (*b*) which forms the jambs on each side is somewhat broader and higher than the ordinary grate front; behind this plate (*b*) there is a horizontal partition (*c*) some distance above the opening

of the grate front; (this is clearly shown in Fig. 2, the grate front being there drawn in red lines) from the end of partition (*c*) which extends beyond the opening above named on each side two vertical partitions (*d, d*) descend to within a few inches of the dampers at the bottom; these partitions divide the space behind the plate into two flues and cause the products of combustion to descend before they escape; these dampers (*e, e*) cover two openings in the grate front, and when raised they admit the air into the flues. The top or horizontal partition (*c*) has openings in it which can be covered with sliding dampers (*f, f*); these when they open permit the smoke to pass directly into the chimney, but when closed they turn it down through the side flues.

It will be obvious that the dampers (*e, e*) will regulate the strength of draft as well when the smoke passes off through the openings in partition (*c*) as when it is turned down around the side flues, and the great body of the heat is at once carried off, if it is not required in the apartment.

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

The combination of the dampers (*e, e*) with the descending flues behind the front plate and dampers (*f, f*) connected with the grate, the whole being constructed and arranged substantially in the manner and for the purpose set forth.

JOHN GOLDENBURGH.

Witnesses:

A. P. BROWNE,  
J. W. THAYER.