

D. & J. Stoner,

Fire Place.

No. 42,804.

Patented May 17, 1864.

Fig. 3.

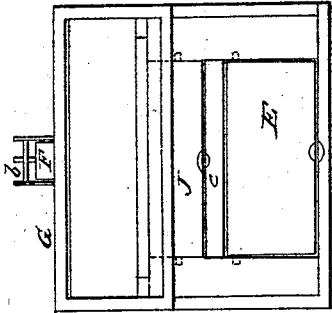


Fig. 2.

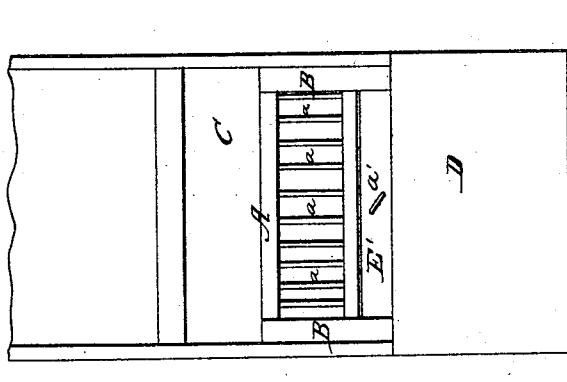
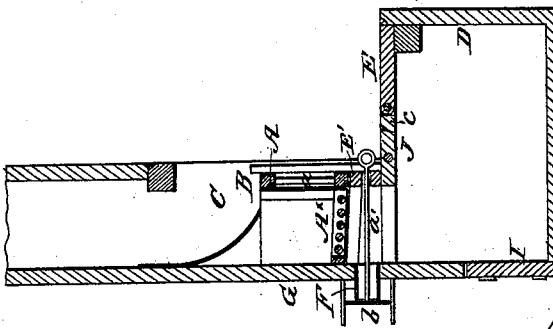


Fig. 1.



Witnesses.
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UNITED STATES PATENT OFFICE.

DANIEL STONER AND JOSEPH STONER, OF WEST OVERTON, PENNSYLVANIA.

IMPROVEMENT IN FIRE-PLACES.

Specification forming part of Letters Patent No. 42,804, dated May 17, 1864.

To all whom it may concern:

Be it known that we, D. STONER and J. STONER, both of West Overton, in the county of Westmoreland and State of Pennsylvania, have invented a new and Improved Grate; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a transverse vertical section of our invention. Fig. 2 is a front elevation of the same. Fig. 3 is a plan or top view of the same.

Similar letters of reference in the three views indicate corresponding parts.

This invention consists in a damper arranged in front and under the grate, in combination with an adjustable draft-hole, conducting air from the exterior to and under said grate, and with a front plate closing the space under the grate in such a manner that by the combined action of said damper and draft-hole the fire in the grate can be regulated at pleasure.

It consists, further, in the application to the draft-hole of an adjustable covering plate or valve, the position of which can be regulated by means of a rod from the interior of the room or apartment in which the grate is situated, in combination with a stationary plate shutting out the supply of air to the under side of the grate from the interior of the room in such a manner that the supply of air necessary for the combustion of the fuel in the grate can be regulated from the interior of the room or apartment by opening or closing the covering plate or valve.

The invention finally consists in an ash pit provided with a hinged lid or cover on top, and with a door leading to the exterior below, in combination with a grate of the ordinary construction in such a manner that the ashes and cinders dropping from the grate can be readily swept down into said ash-pit and removed therefrom and no dust or ashes are allowed to pass into the room.

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

A represents a grate consisting of an oblong frame of cast-iron or any other suitable

material, and provided with upright bars *a*, as clearly shown in Fig. 2 of the drawings, or constructed in any other suitable manner, and applied in combination with the horizontal slatted frame *A**. This grate is set between the upright grooved guide-bars *B*, which are firmly secured to the inner sides of the cavity *C*, in which the grate is built.

D is the hearth, which may be made on a level with the floor of the room or apartment in which the grate is situated, or which may be slightly elevated above said floor, if desirable. The space between the lower edge of the grate *A* and the top surface of the hearth is occupied by a plate, *E'*, of metal or other suitable material, which may be permanently fixed between the upright guide-bars or made movable in the same, and this plate forms the bearing or guide for a rod, *a'*, by means of which the supply of air to the fire on the grate can be regulated.

The air is introduced from the exterior of the room or building through a pipe, *F*, which may be made to extend through the rear wall, *G*, provided the building or room is so situated that such can be done, or which may extend down to a lower story or out in any convenient direction. This pipe is provided with a sliding covering plate or valve, *b*, which connects with the rod *a'*, so that it can be opened or closed by means of said rod, and the supply of air can be regulated.

The hearth *D* is hollow, and access can be had to it through the lid *E* or through the door *I*. The lid *E* swings on gudgeons, which have their bearings in the sides of the hearth, and when closed it is flush with the upper surface of said hearth. It is so arranged that it can be readily raised by means of a poker, and the space between its inner edge and the plate *E'* is occupied partly by the cross-bar *c* and partly by the damper *J*. This damper is hung on gudgeons similar to the lid, and by throwing it open the draft of the fire in the grate is stopped immediately. By the combination of the damper *J* and valve *b* of the pipe *F* the draft can be regulated to perfection.

The door *I* is situated in the lower part or near the bottom of the ash-pit, and, if possible, it ought to lead to the exterior of the building, so that the ashes from the ash-pit can be removed in the most convenient man-

ner. In cases where it is impracticable to have the door lead to the outside of the building the ashes and cinders may also be removed through the lid E.

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

1. The combination of the damper J with the grate A and adjustable draft hole or pipe F, constructed and operating in the manner and for the purpose substantially as herein shown and described.

2. The adjustable valve *b* and rod *a'*, in

combination with the draft-hole F, damper J, and grate A, constructed and operating substantially as and for the purpose set forth.

3. The hearth D, with a lid, E, and door I, in combination with the grate A, constructed and operating in the manner and for the purpose substantially as specified.

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Witnesses:

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