(No Model.)

W. SCHMITT.

OPEN GRATE.

No. 589,985. Patented Sept. 14, 1897.

Fig: 1.

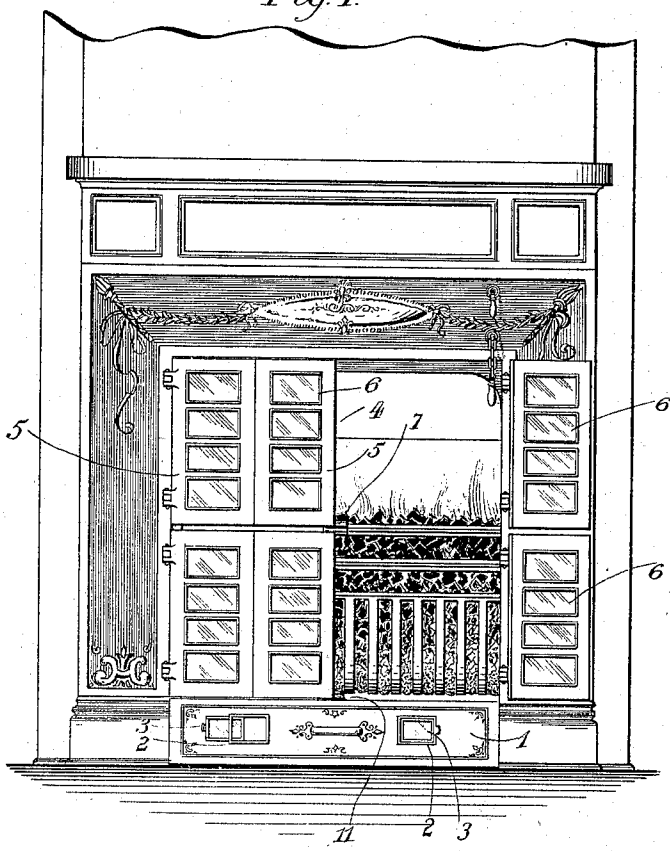


Fig: 2.

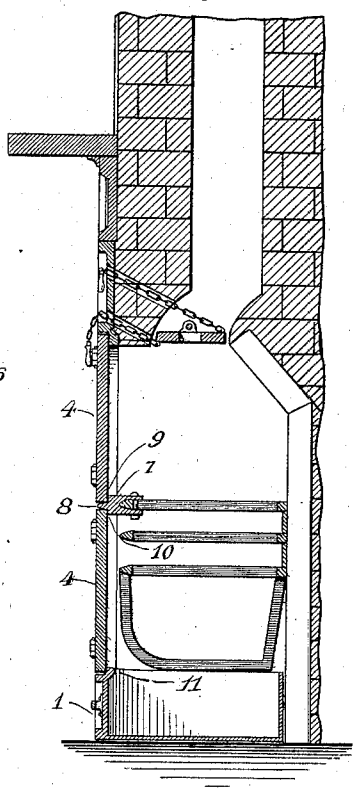
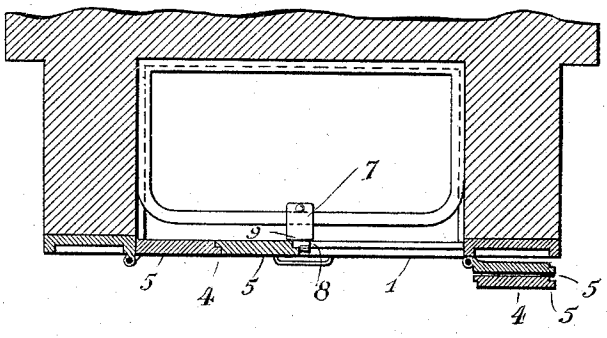


Fig: 3.



WITNESSES

F. L. Gray

L. W. Stockbridge

INVENTOR.

Wallie Schmitt.

by John Wedderburn

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WALLIE SCHMITT, OF NASHVILLE, TENNESSEE.

OPEN GRATE.

SPECIFICATION forming part of Letters Patent No. 589,985, dated September 14, 1897.

Application filed December 1, 1896. Serial No. 614,116. (No model.)

To all whom it may concern:

Be it known that I, WALLIE SCHMITT, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Open Grates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has particular reference to open grates or fireplaces, and has for its object to provide an open grate or fireplace constructed in such a manner that the fire therein can be regulated in an efficient manner as well as for regulating the amount of heat given out thereby.

The invention consists in the features of construction hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a front elevation of an open grate constructed in accordance with this invention. Fig. 2 is a vertical section, and Fig. 3 is a horizontal section.

In its general features the said grate is constructed in the usual manner—that is to say, the walls, throat, and fire-basket are of the usual construction—and although in the drawings I have shown a grate with a flat straight front, yet it is obvious that this invention is applicable to all forms and shape of grates.

Referring now to said drawings, 1 indicates the ash-pan, that fits nicely between the walls of the grate and beneath the fire-basket, so that it fills the space, whereby any ashes or coals which may drop from the fire-basket fall into this ash-pan. The front of the ash-pan is provided with the draft-openings 2, which are regulated by the slides 3 for controlling the draft. To the front side of the grate are hinged a plurality of doors 4. These doors are preferably four in number, the lower doors reaching to the top of the fire-basket, while the upper doors reach from this point to the upper end of the fireplace. These doors are hinged at the side of the grate and consist, preferably, of two sections 5—that is to say, the doors are divided vertically and the sections hinged together. In this way it is seen that when the doors are swung outwardly the sections can be folded upon each other, whereby the doors occupy less room at the sides of the grate, and, further, that when the sections are folded upon each other their inner faces or the faces that stand close to the fire fold inwardly and are concealed, thereby adding to the appearance of the grate and hiding the blackened and sooty inner face of these doors. The said doors are made with a plurality of openings 6, which in the instance shown are square, but which may be of any shape or form and are covered by sheets of mica in the usual manner. It is designed to hold the doors a little distance from the fire-basket of the grate and also to provide means for holding them securely in this position, and for this purpose a projection 7 is secured to the fire-basket, as shown, which projection is provided at its outer end with a lip 8. The upper face of this lip 8 is curved, as shown, while a shoulder 9 is situated at the rear end of the upper face of the lip. The lower face of the lip is inclined, as shown, while between the lower face of the lip and the body portion of the projection is an upright shoulder 10. In use the upper door is adapted to slide upon the upper curved face of the lip and rest against the shoulder 9, while the lower door is wedged between the lower face of the lip and the upper face of the ash-pan. This lower door rests against the shoulder 10 of the projection 7 and against a lug 11 upon said ash-pan. In this way it is seen that the doors are held a little distance from the fire-basket, so that they are prevented from being heated to an excessive degree by proximity to the fire. The damper in the throat of the grate is preferably provided with openings to allow the escape of the noxious gases which otherwise find their way into the room.

The advantageous features of this device are plainly obvious to a person skilled in the art or who is used to open grates, and among which is the fact, first, that all the ashes and coals are received in this ash-pan, which fits tightly beneath the fire-basket. Again, by means of the draft-openings 2 the draft of the fire is effectually controlled. By means of the doors it is seen that while they can be closed to force the fire by reason of the openings therein the condition of the fire can al-

ways be observed, and, furthermore, it does not detract from the effect produced by an open-grate fire, which is one of the advantageous features making them popular. Furthermore, these doors avoid the use of a blower to start or force the fire, which is not only cumbersome, but is usually heated to such a degree that it is dangerous to handle. Many other features of improvement and advantage can be mentioned, but it is thought that the above are sufficient to illustrate not only the convenience of the device, but the manner in which the fire in the grate and the extent to which the room is heated is under complete control.

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

The combination with an open grate, of a plurality of doors hinged to the sides of the same, a projection fastened to the fire-basket of the grate provided at its outer end with a lip and shoulders to engage the upper and lower doors, and a projection upon the ash-pan of the grate.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WALLIE SCHMITT.

Witnesses:
P. H. SHELTON,
R. M. WILEY.