

(No Model.)

C. S. KEITH.
GRATE.

No. 441,307.

Patented Nov. 25, 1890.

Fig. 1.

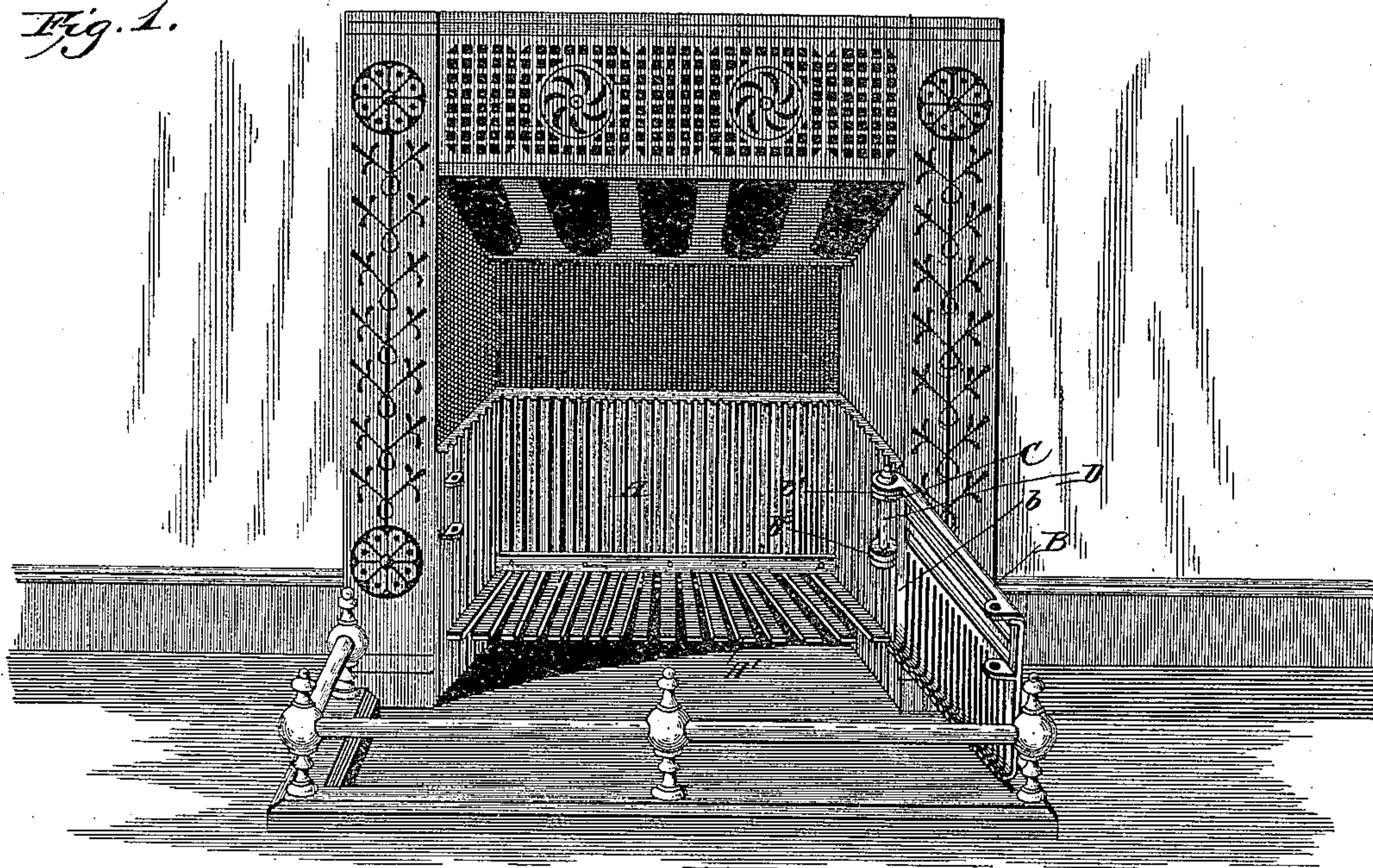


Fig. 2.

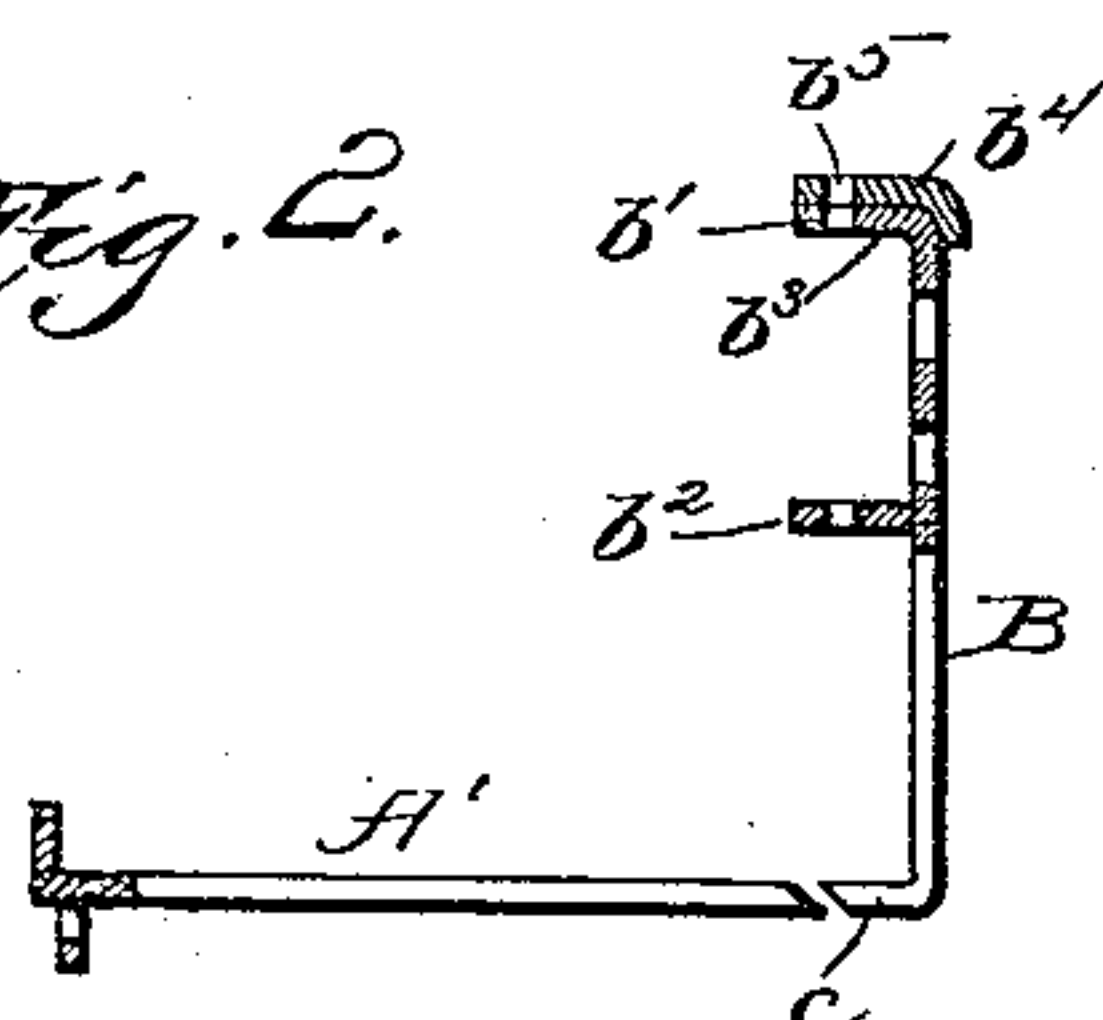
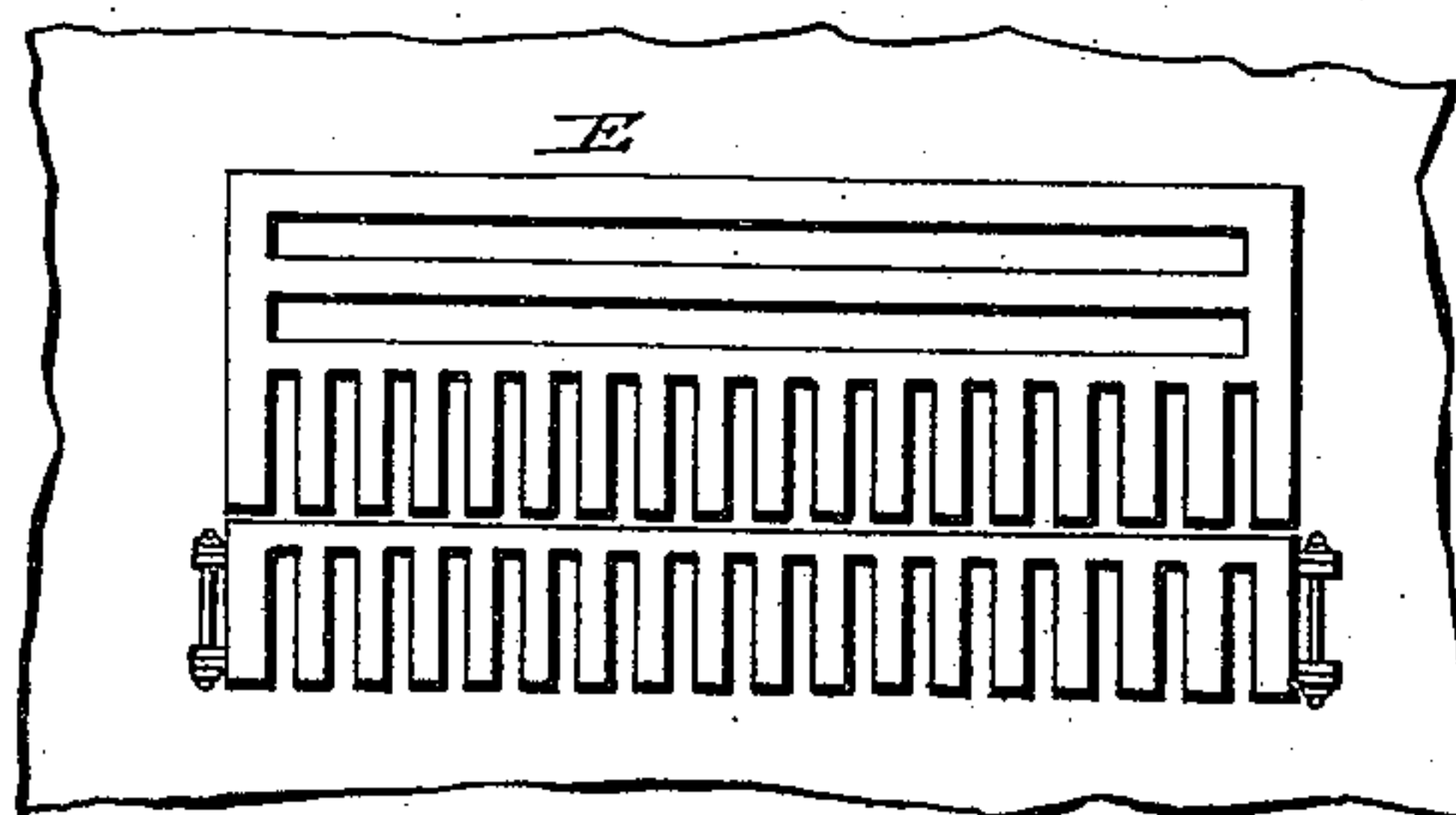


Fig. 3.



WITNESSES

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GRATE.

SPECIFICATION forming part of Letters Patent No. 441,307, dated November 25, 1890.

Application filed March 26, 1890. Serial No. 345,419. (No model.)

To all whom it may concern:

Be it known that I, CONSTANCE S. KEITH, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Grates; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to grates, and more particularly to grates for fire-places.

It has for its object to provide a grate which will permit of the ready and easy removal of cinders, ashes, and dead coals, and which will be simple and strong of construction, easy of operation, and comparatively inexpensive of manufacture.

With these objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described, and pointed out in the claim.

In the accompanying drawings, in which similar letters of reference indicate corresponding parts, Figure 1 is a perspective view of a fire-place in which a basket-grate embodying my invention is secured with its front swung outward. Fig. 2 is a vertical sectional view taken through the front and bottom grate-bars, and Fig. 3 is a front view of a portion of a range embodying my invention.

A represents the fire-place in which the grate is secured. This grate consists of two sections A' and B, A' designating the bottom or fixed section, which is secured to the rear wall of the fire-place, and B the front or swinging section, which is secured in close relation to the section A' in the following manner: The vertical end pieces *b* of the swinging section are provided at their upper ends with eyed extensions *b'*, projecting therefrom at right angles, and at their intermediate portions with similar extensions *b²*. The upper cross-bar *b³*, which is preferably angular in cross-section, has secured to its upper flat side a strengthening bar *b⁴*, whose ends *b⁵* are

turned inward and are each provided with an eye which registers with the eyes aforesaid. This bar serves to re-enforce the upper eye-extensions *b'* at their points of pivotal connection, thus distributing the strain at these points between the eye-extensions *b⁵* and *b'*. To each side wall of the fire-place are secured a series of eyes C in vertical alignment. The swinging section is now placed in position within the fire-place, and the eyes of the same are brought into alignment with the eyes of the fire-place and made to alternate therewith and rest thereupon. A pin D is now inserted through each series of registering eyes, and thus the swinging section is secured in position.

When it is desired to clean the grate, either one of the pins is withdrawn, and the front of the grate may then be swung outward upon its pivot, and the cinders, coals, and ashes can then be readily removed, thus obviating the great drawback heretofore experienced in cleaning grates having stationary fronts; or, if desired, the grate-front may be entirely removed from the grate proper for any purpose—as, for instance, to repair or replace the front with a new one—by simply withdrawing the pivots.

In Fig. 3 I have shown my invention applied to a range. In this instance the lower front portion of the grate is independent of the upper fixed portion E and is secured to the sides of the same to swing outward. The means employed for securing the swinging section in position with the range may be the same as used in securing the swinging section within the fire-place.

The grate-bars of the swinging front preferably have their lower ends bent inwardly, as shown at *c*, Fig. 2, and are beveled to correspond with the beveled ends of the horizontal grate-bars. The bars of the swinging front do not meet the horizontal bars, thereby forming an opening for the insertion of an implement by means of which the bed of coals may be raked. By alternating the eyes of the swinging front with the eyes of the fire-place and allowing the former to rest upon the latter all strain is relieved from the pivot-pins.

Although I have described certain means for hinging the swinging section in position,

I would have it understood that I contemplate as coming within the scope of my invention a grate whose front portion swings outward with respect to its bottom, and I would there-
5 fore reserve to myself the right to make such changes as come within the scope of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent
10 of the United States, is—

The combination, with a bottom section of a grate, of a removable swinging front and removable pivots for said front.

In testimony whereof I affix my signature in presence of two witnesses.

CONSTANCE S. KEITH.

Witnesses:

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