

H. CRIBBEN.
Stove-Grates.

No. 195,918.

Patented Oct. 9, 1877.

Fig. 3

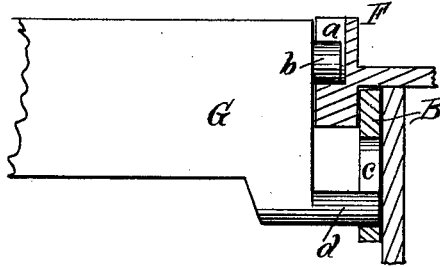


Fig. 1.

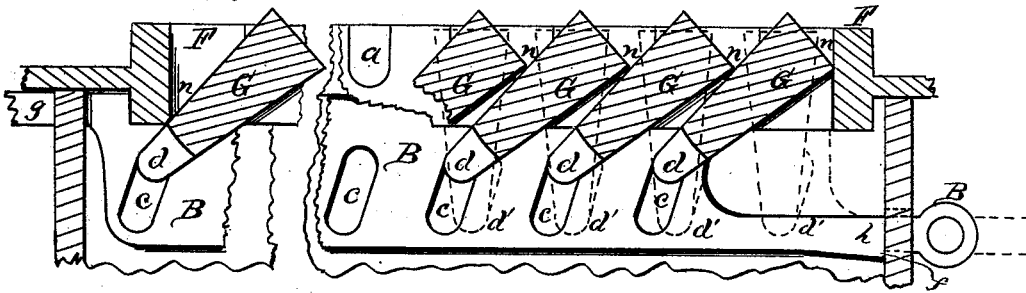
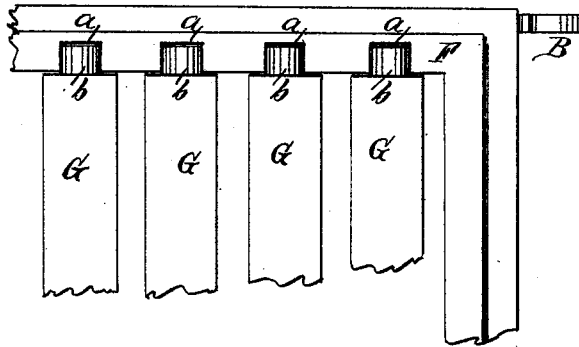


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY CRIBBEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE EQUITABLE CO-OPERATIVE FOUNDRY COMPANY, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. **195,918**, dated October 9, 1877; application filed August 11, 1877.

To all whom it may concern:

Be it known that I, HENRY CRIBBEN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Grates for Wood-Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a vertical sectional view of the invention, showing a vertical elevation of a portion of the shifting-bar B. Fig. 2 is a top-plan view of a portion of the grate-bars G and the grate-frame F. Fig. 3 is a transverse vertical section of the shifting-bar B and grate-frame F, and an elevation of one end of one of the grate-bars G.

The object of this invention is to provide wood-stoves with grates which may be closed, so as to prevent any draft of air from passing through between the bars when it is desired to simply keep the fire, or opened when it is necessary to have the fire burn.

It consists in the employment of pivoted grate-bars, connected together in a peculiar manner.

I provide wood-stoves with a rectangular frame, F, of a suitable size and proportion, arranged at the bottom of the fire-box. The two opposite sides of this frame are formed with a series of recesses, as shown at *a*, (where one of the bars is removed,) which receive and constitute the bearings for the axial pivot *b* on the ends of the grate-bars G, said pivots being located somewhat below the upper edge, as shown more clearly in Fig. 3.

The shifting-bar B may be suspended by projecting shanks *g* and *h* in bearings formed through the end walls of the lower portion of the stove; and it is provided with a series of slots, *c*, corresponding in number and distance apart with the grate-bars. These slots *c*, I preferably make more or less inclined, as shown in Fig. 1, which considerably reduces

the friction in changing the position of the grate-bars G. The shank *h* has a notch or shoulder at *f* to catch against the inner face of the wall, and hold the bar B and the grate-bars G in the adjustment shown in full lines in Fig. 1, which constitutes a close bottom for the fire-box.

By raising the ring end of the bar B, so as to release the catch or notch *f*, the bar may be withdrawn, so as to place the grate-bars in the vertical position, as indicated by the dotted lines at *d'*, thereby constituting an ordinary open grate.

In addition to the axial pivot *a* at each end of the grate-bars, each bar is also provided at each end with a sort of wrist-pin, *d*, somewhat offset below the lower edge, as shown in Figs. 1 and 3, which rests in the oblique slots *c* in the shifting-bar B. The grates may be shaken, if desired, by means of this shifting-bar B.

The grate-bars may be made in any desired form, size, or proportion, but, of course, should be of such a form in cross-section as to insure their resting against each other from end to end when rocked to the inclined position indicated in full lines in Fig. 1.

It will be seen that when the grate-bars are placed in this position the fine ashes will settle into the crevices between the bars at *n*, and seal these joints.

What I claim as my invention is—

As an improvement in the means of operating closing grate-bars, the oblique or diagonal slots *c* in the shifting-bar B, in combination with the wrist-pins *d* of said grate-bars G, whereby the latter, without the intervention of intermediate connections, are readily thrown from their open to their closed position, or vice versa, in the manner and for the purposes set forth.

HENRY CRIBBEN.

Witnesses:

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