(No Model.)

J. T. THOMPSON.

STOVE GRATE.

No. 264,583. Patented Sept. 19, 1882.

FIG-1-

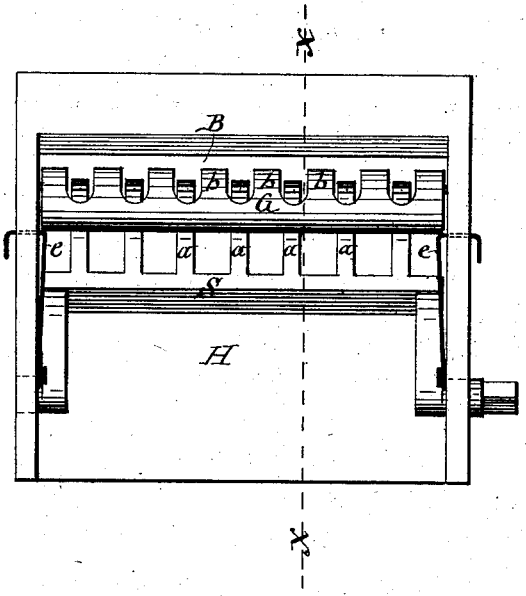


FIG-2-

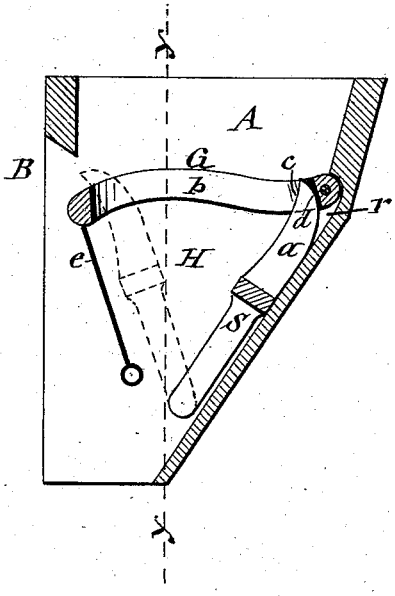


FIG-3-

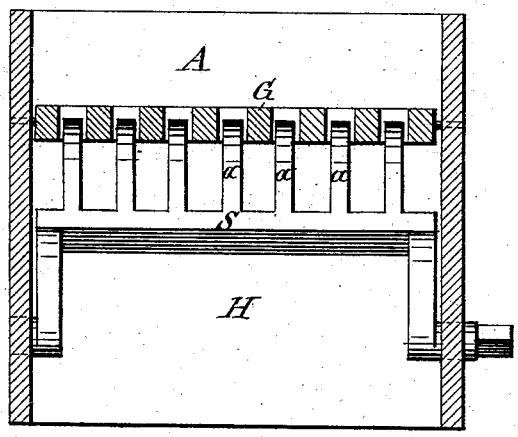
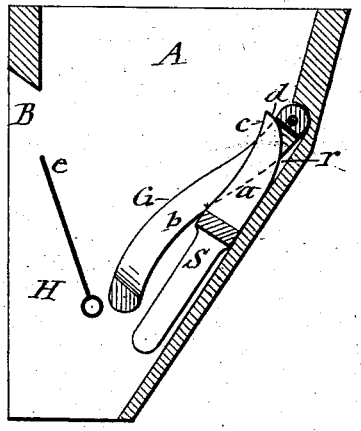


FIG-4-



WITNESSES—

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UNITED STATES PATENT OFFICE.

JOSEPH T. THOMPSON, OF VERONA, NEW YORK.

STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 264,583, dated September 19, 1882.

Application filed July 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH T. THOMPSON, of Verona, in the county of Oneida, in the State of New York, have invented new and useful Improvements in Stove-Grates, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to novel, simple, and effective devices for cleaning fire-grates; and it consists essentially in the combination, with said grate, of a pivoted scraper having prongs or teeth entering the interstices of the grate, and thus scraping the cinders and ashes from the top of the grate and effectually cleaning the same.

The invention also consists in a novel construction and arrangement of the details of the aforesaid grate-cleaning apparatus, all as hereinafter more fully described, and specifically set forth in the claims.

Referring to the annexed drawings, Figure 1 is a front view of a fire-pot and ash-box of a cook-stove. Fig. 2 is a vertical transverse section on line *x x*. Fig. 3 is a longitudinal section on line *y y;* and Fig. 4 is another vertical section, showing the grate in its dumping position.

Similar letters of reference indicate corresponding parts.

A represents the fire-pot of an ordinary cook-stove, having in its front an opening, B, extending across the stove and a short distance above the front edge of the grate G. This grate I hinge at its rear preferably in a recess, *r*, in the back of the ash pit or box H, so as to shield the hinged edge of the grate and prevent the ashes and cinders from entering between said edge of the grate and the adjacent wall of the fire-pot.

The front of the grate is supported by a movable stop, *e*, which in the annexed drawings is represented in the form of a spring-bar, connected at its lower end to the inner side of the end walls of the ash-pit H, and having its upper end held yieldingly at a sufficient distance from said end walls to reach under and engage the bottom edges of the grate.

The grate G has interstices extending from rear to front and nearly the entire width of the grate, and forming a series of grate-bars, *b b*, united at their extremities. The greater or main portion of the grate-bar *b*, from the front rearward, is arched or of a segmental contour, as best seen in Fig. 2 of the drawings, and underneath the grate G the scraper-frame S is pivoted eccentrically in relation to the segmental part of the grate. The pivot of said frame is slightly forward from the true center from which the segment of the grate G is described, for the purpose hereinafter explained.

The scraper-frame S is provided with a series of prongs or teeth, *a a*, which enter the interstices of the grate. One of the trunnions by which the scraper S is pivoted protrudes at the exterior of the ash-box H, and is adapted for the application of a wrench or shaker to its extremity for imparting the requisite oscillatory movement to said scraper, which normally lies back against the rear wall of the ash-box, and has the extremities of its teeth beneath the surface of the grate and as near as possible at the rear end of the bar *b*, as shown in Fig. 2 of the drawings. In swinging the scraper forward the eccentric pivot thereof throws the end of the teeth *a* slightly above the surface of the grate, and thus causes said teeth to scrape the ashes and cinders from the top of the grate forward to the front of the grate, where they can escape through the opening B. In order to render the aforesaid operation of the scraper more effective, I terminate the scraper-teeth *a* with an abrupt front, *c*, and a beveled or curved back, *d*, thereby enabling said teeth to obtain a better hold on the ashes and cinders during the forward thrust of the scraper and to pass under the ashes, &c., during the backward movement of the scraper.

When it is desired to dump the grate the stops *e* are removed from the front of the grate, thus allowing the said portion of the grate to drop, as illustated in Fig. 4 of the drawings.

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

1. In combination with the grate G, the scraper-frame S, pivoted beneath the grate and provided with prongs *a a*, entering the interstices of the grate, substantially as and for the purpose set forth.

2. The combination and arrangement, with the fire-pot A, provided with the front opening, B, of the grate G, having arched bars *b*, and

the scraper-frame S, pivoted eccentrically in relation to the grate-bars, and having prongs *a a* entering the interstices of the grate, substantially as described and shown.

3. In combination with the grate G, the pivoted scraper S, having prongs *a* terminating with the abrupt front *c*, and beveled or curved backs *d*, as shown and described, for the purpose set forth.

4. The combination, with the fire-pot A, of the grate G, hinged at its rear, the movable stop *e*, and the scraper S, pivoted beneath the grate, all as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 22d day of July, 1882.

JOSEPH T. THOMPSON. [L. S.]

Witnesses:

WM. C. RAYMOND,

F. H. GIBBS.