

CHARLES S. RANKIN.

Grate for Fire Places and Stoves.

No. 123,727.

Patented Feb. 13, 1872.

Fig. 1.

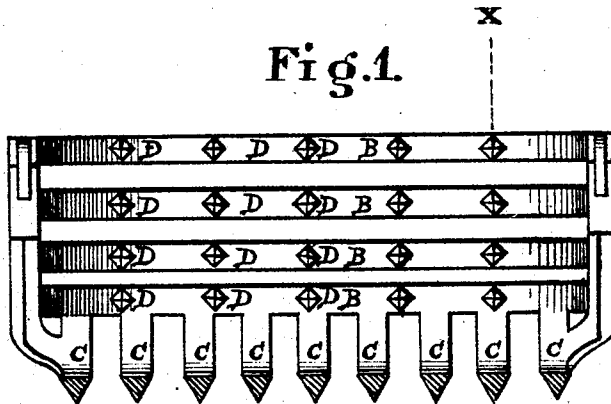


Fig. 3.

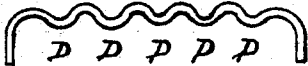


Fig. 4.

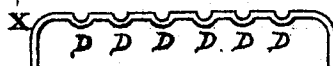
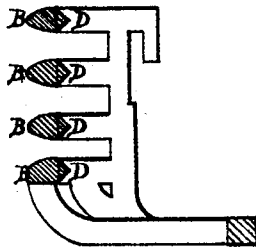


Fig. 2.



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CHARLES S. RANKIN, OF CINCINNATI, OHIO.

IMPROVEMENT IN GRATES FOR FIRE-PLACES AND STOVES.

Specification forming part of Letters Patent No. 123,727, dated February 13, 1872.

I, CHARLES S. RANKIN, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Grates for Stoves and Fire-places, of which the following is a specification:

My invention consists in projecting inwardly, at intervals, the inner or fire-side of the front bar or bars of a grate, whereby the burning fuel within the grate is prevented from falling and caking in the lower part of the grate, and a steady even draught and a bright fire are secured.

In the accompanying drawing forming part of this specification, Figure I is a rear elevation of the grate with the aforementioned projections attached. Fig. II is a transverse vertical section through the line X X of Fig. I. Figs. III and IV are each a plan view of a grate-bar projecting at intervals into the fire.

General Description.

A is a grate, of which C C C, &c., are the bottom transverse bars, and B B B are the longitudinal front bars. D D D, &c., are the projections upon the inner side of the front bars. As an equivalent of these projections D D D, &c., I give to the bar a corrugated or waving form, as shown in Figs. III and IV. The size, number, particular location, and manner of attachment of these projections will vary

with the configuration of the grate and kind of fuel used. They are usually, however, projected an inch beyond the inner surface of the front grate-bars, tapered to a point, and of sufficient thickness to support the weight of the fuel and to resist the action of the fire.

I do not limit myself to the form of the grate herein shown, but claim broadly the application of these projections to the front bars of any and every kind of grate in open or closed fire-places or stoves, and for any kind of fuel. These projections are especially useful in open grates, burning soft coal. They hold up the coal and prevent its caking on the bottom of the bars, and, tapering inwardly, they present a smaller surface of bar to the fire, and expose a correspondingly greater surface of the fire to the draught, thereby giving a brighter and steadier fire, and producing more heat.

Claims.

1. A grate, the inner side of the front bar or bars of which project inwardly at intervals, substantially as and for the purpose set forth.
2. A grate, provided with projections D D, or their equivalents, substantially as and for the purpose set forth.

CHARLES S. RANKIN.

Witnesses:

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