

J. D. SLICHTER.
Grate for Stoves.

No. 159,360.

Patented Feb. 2, 1875.

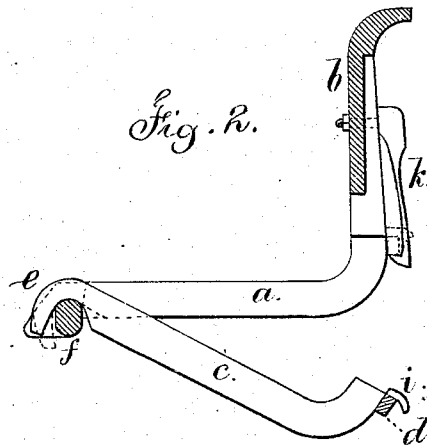
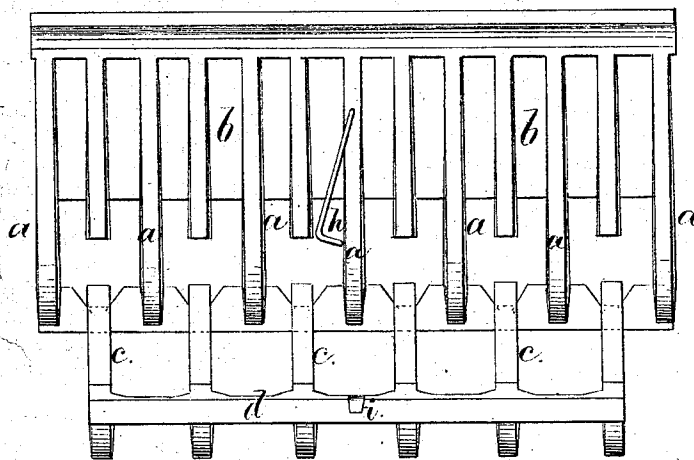


Fig. 1.



Witnesses,
Chas. H. Smith
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Att'y.

UNITED STATES PATENT OFFICE.

JOSEPH D. SLICHTER, OF READING, PENNSYLVANIA.

IMPROVEMENT IN GRATES FOR STOVES.

Specification forming part of Letters Patent No. **159,360**, dated February 2, 1875; application filed December 16, 1873.

To all whom it may concern:

Be it known that I, JOSEPH D. SLICHTER, of Reading, in the State of Pennsylvania, have invented an Improvement in Grates for Furnaces, Stoves, &c.; and the following is declared to be a specification of the same.

This invention is to allow for the removal of clinker and slate from a fire without allowing the fuel to fall down through the grate-bars. The invention is especially available upon cooking and other stoves, and ranges, and in furnaces where the removal of clinker is of great importance as insuring a uniform and perfect combustion.

I make use of fixed bars of ordinary character, but about twice the ordinary distance apart, and introduce intermediate bars made with hooks at the back ends, that hook over the rounded portion of the back bar, uniting the stationary bar. By this construction the grates can be separated, and one grate can be lowered for removal of clinker, and the parts are made with facility, and do not require the hinge-pins at the joints heretofore proposed for grates of this general character.

In the drawing, Figure 1 is an elevation of the grate of a stove or range, with the secondary grate dropped down. Fig. 2 is a cross-section of the same; the position of the secondary grate, when up in place, being indicated by dotted lines.

The grate-bars *a a* are permanent or fitted into place in any usual manner. I have shown them connected with the front piece, *b*, in a form adapted to a cooking-stove or range of usual construction. The bars *a a*, however, are placed at about twice the ordinary distance apart; or they may be in groups of two, three, or more, with intermediate spaces adapted to the movable bars. The secondary grate-bars *c c* are placed intermediate to the

bars *a a*, and are removable. They are united by the front bar, *d*, and made with hooks *e* at the other ends, passing above and hooking over the bar *f*, that connects the rear ends of the bars *a*. The bar *d* will, by preference, be positioned so as to be in front of the plate *b* when raised up, and hence out of the way in raking the fire. The hooked ends *e* of the bars *c c* allow the grates to be easily separated or put together. The grates do not require hand labor in fitting them together, the parts being cast ready for use. In Fig. 1 the hook *h* is shown as adapted to catch below a lug, *i*, upon the bar *d*, and in Fig. 2 a spring-latch, *k*, is shown that catches below the edge of the bar *d*.

When in use these bars support the fuel in the ordinary manner, and allow for the fire being raked; but when there is any accumulation of clinker or slate the secondary bars are lowered and the pieces withdrawn, the body of the fuel, meanwhile, being supported by the stationary grate-bars *a a*, after which the movable bars are raised to place. The movable bars may be the same width as the stationary bars, or they may be of greater or less width, so that the spaces between the respective bars, when either raised or lowered, will be adapted to the fuel made use of.

I claim—

The bar *f*, uniting the back ends of the grate-bars *a*, and nearly round, in combination with the intermediate bars *c*, that are made with hooks *e* at their back ends, passing over the bars *f*, as and for the purposes set forth.

Signed by me this 12th day of December, A. D. 1873.

J. D. SLICHTER.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.