J. A. PRICE.
Stove-Grate.

No. 205,503. Patented July 2, 1878.

Fig. 1.

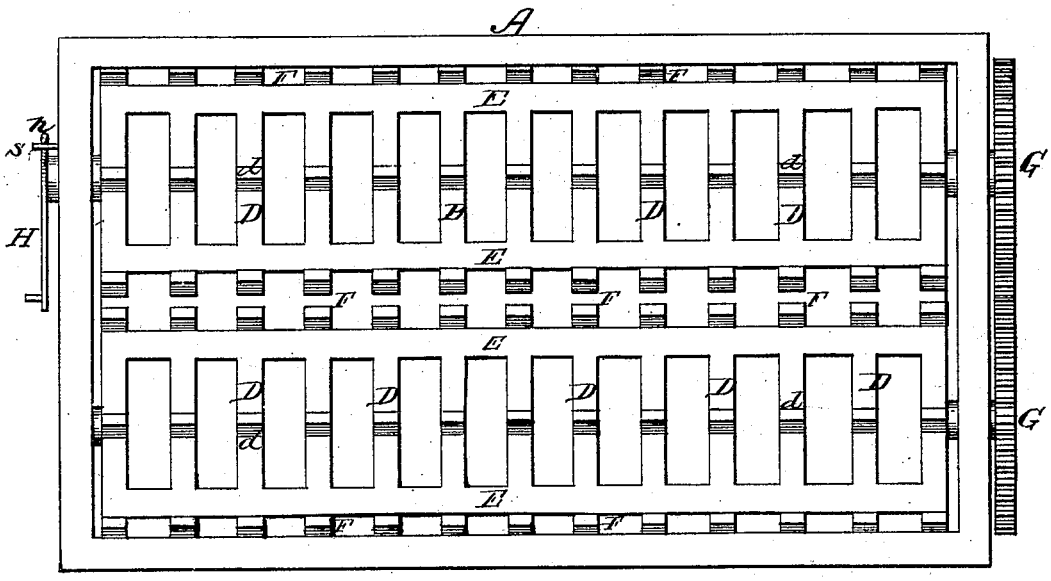
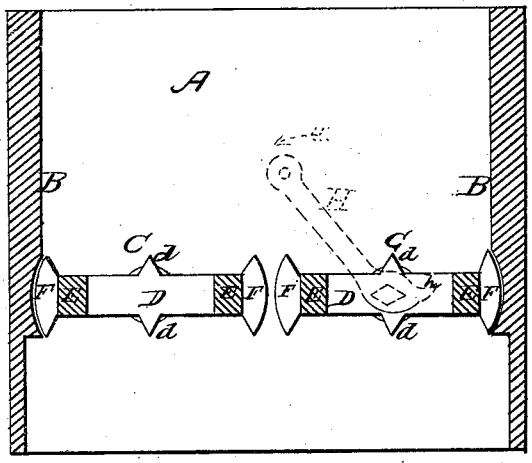


Fig. 2.



Witnesses:
Wm Blackstock.
C. F. Brown

Inventor
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UNITED STATES PATENT OFFICE.

JOHN A. PRICE, OF SCRANTON, PENNSYLVANIA.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. **205,503**, dated July 2, 1878; application filed May 28, 1878.

To all whom it may concern:

Be it known that I, JOHN A. PRICE, of Scranton, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Stove-Grates; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top-plan view, and Fig. 2 a transverse section.

Similar letters of reference in the several figures denote the same parts.

This invention relates to that class of stove-grates which are adapted for reversal, to cut off the ashes, clinkers, and lower part of the fire in the stove without dumping the upper part thereof; and it consists in a novel form of the grate-sections, as I will now proceed to describe.

In the accompanying drawings, A represents a stove or furnace, having the fire-bricks B B upon the sides. C C are the grate-sections, each consisting of a series of cross-bars, D, located at suitable distances apart and connected by longitudinal bars E E, as shown. F F are arms or projections, arranged opposite the end of the bars D, so as to project above their upper and lower surfaces, and at substantially right angles thereto. Both grate-sections are journaled in the ends of the stove or furnace, with the faces of the arms F F lying a short distance apart. Outside the stove, or between the stove and box-frame, they are connected by means of pinions or gear-wheels G G, and at the opposite end one of the journals is squared to receive a suitable handle or crank, H, for turning them.

It will be observed that the grate-sections are formed alike upon both sides, so that when revolved they will present like surfaces to the fire above.

When it is desired to remove any refuse matter from the combustion-chamber below the fire, the crank or handle H is turned in the direction indicated by the arrow, thereby causing the arms F nearest the walls of the stove to rise and cut through the lower portion of the fire and dump the same into the ash-pit below, while, as the grates again assume a horizontal position, they present a supporting-surface for the superincumbent mass above identical with that just turned down. The extremities of the arms F F are beveled, so as to present sharp edges that will more readily cut through the contents of the fire-chamber.

In order that the grates may not be turned past a horizontal position, I provide the handle with a projection or lug, *h*, to engage with a stop, S, at the proper point to prevent such further movement.

The cross-bars D D may be provided with central projections or points *d d* on opposite sides, if desired, to facilitate the cutting through of any refuse matter from the combustion-chamber below the fire, and the removal of the same into the ash-pit below.

The grate-sections herein described differ from those shown in Letters Patent No. 202,449, granted jointly to myself and Wm. McClane, April 16, 1878, in respect to the form of the cutting-edges. In said patent the transverse bars composing the sections are made of ogee form, and the cutting-edges are formed at the junction or point of intersection of the opposite curved surfaces of the sections. From this construction it will be seen that the surface of the grate next the fire is curved gradually to the cutting-edges.

In the present grate the upper and lower surfaces of the sections are substantially parallel, while the cutting-edges are arranged on arms which project beyond said surfaces at substantially right angles thereto.

In operation, the cutting-edges are in advance of the upper surface of the sections, and therefore cut more positively through the contents of the fire-chamber than when said upper surface curves gradually to the cutting-edge, as in the patent referred to.

I claim as my invention—

The stove-grate herein described, consisting of the reversible sections C C, geared together, as shown, having the cutting-arms F F arranged to project beyond the surfaces of the sections at substantially right angles thereto, and constructed either with or without the central projections or points *d d*, substantially as described, for the purpose specified.

JOHN A. PRICE.

Witnesses:

M. CHURCH,

WM. BLACKSTOCK.