F. N. HART.

Grate for Open Fire-Places.

No. 206,445. Patented July 30, 1878.

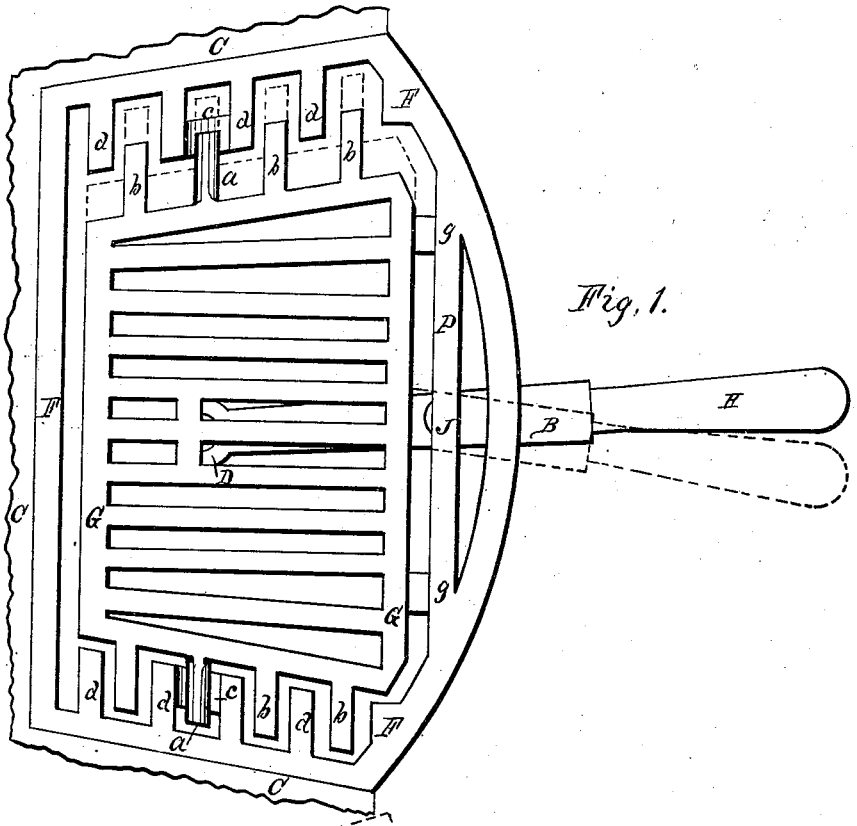

Fig. 1.

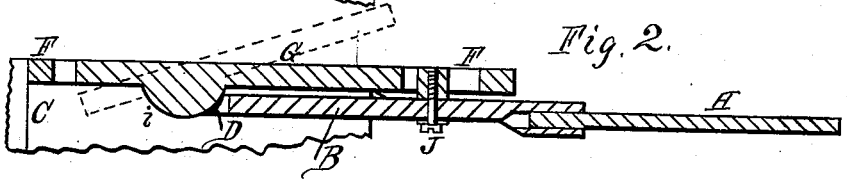

Fig. 2.

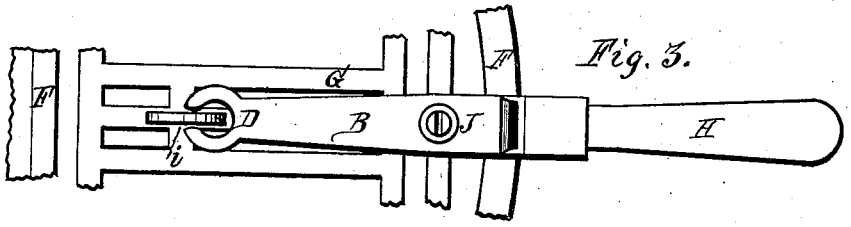

Fig. 3.

Witnesses.

W. G. Loughborough.

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Inventor

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Atty.

UNITED STATES PATENT OFFICE.

FRANK N. HART, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO HENRY S. HEBARD, OF SAME PLACE.

IMPROVEMENT IN GRATES FOR OPEN FIRE-PLACES.

Specification forming part of Letters Patent No. **206,445**, dated July 30, 1878; application filed May 21, 1878.

To all whom it may concern:

Be it known that I, FRANK N. HART, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Grates for Open Fire-Places; 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 top view of my improved grate. Fig. 2 is a vertical central section of the same. Fig. 3 is an inverted view of the central portion of the parts, showing the method of attachment of the shaker-bar to the pivoted or dumping grate.

The object of this invention is to provide a simple, cheap, and efficient grate for open fire-places, adapted to be either shaken or dumped.

It consists in the employment of a shaker-bar pivoted outside of the detachable portion of the grate, and having a bifurcated end, whereby it is detachably connected to a lug under the grate, the latter having a projecting journal at each end, which rests in open concave depressions formed upon projections of the outer grate-frame for their reception.

The grate-frame F is formed to correspond with the shape of the inner walls, C, of the fire-place, and in front to suit any desired shape of the vertical grate-bars. This frame is provided at each end with several projecting fingers or short bars, *d*, and they may be made pointed at their outer ends, if desired, which would probably be preferable.

Between two of these bars *d*, at each end of the frame, is formed a concave depression, *c*, which constitutes the axial bearing for the pivot projections *a* of the grate G. Each end of the grate is also provided with several projecting bars, *b*, which occupy a portion of the interstices between the bars *d*, and between which they move when the grate is being shaken. The bars *b* may also be pointed, if desired.

The front of the grate is supported by the lugs *g*, projecting from the bar P of the grate-frame. Upon the under side of the central bar of the grate is formed a segmental lug, *i*. The inner end of the pivoted shaker-bar B is bifurcated at D, the legs being curved, as shown more clearly in Fig. 3. The bar B is pivoted to a portion of the grate-frame F, as shown at J, and when the grate is placed in position the lug *i* rests between these curved projections at the end of the lever or bar B. The outer end of the latter may be socketed to receive the end of the detachable handle H.

It will be seen that while this grate may be shaken as easily as any stove-grate, it may also be readily dumped, and may also be removed entirely without the removal of a bolt or screw, and as conveniently replaced.

What I claim as my invention is—

As an improvement in open fire-place grates, a detachable dumping-grate provided on its under side with a segmental web or lug, *i*, in combination with a shaker-bar, B, having a bifurcated end, and pivoted at a point outside of the shaking and dumping portion of the grate, substantially as shown and described, whereby the grate, while being readily detachable, may be shaken or dumped without being uncoupled from the shaker-bar, as and for the purposes set forth.

FRANK N. HART.

Witnesses:

THERON E. PARSONS,

WM. S. LOUGHBOROUGH.