

A. McVEAN & D. W. SMITH.
STOVE-GRATES.

No. 183,955.

Patented Oct. 31, 1876.

Fig 1.

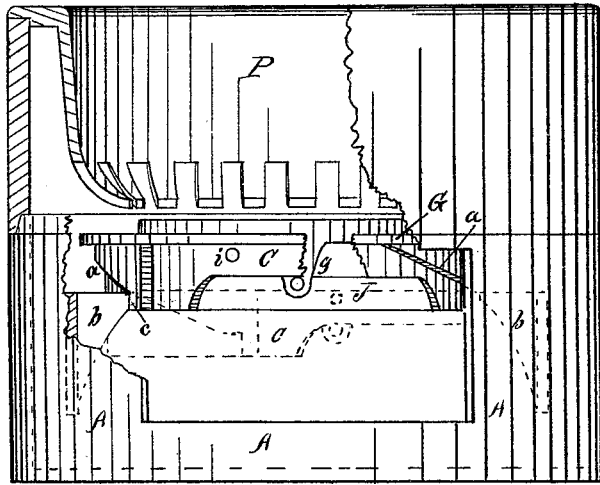
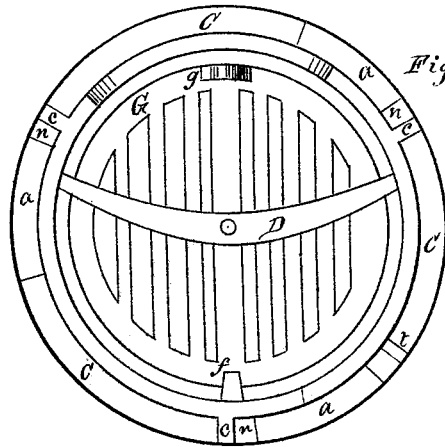


Fig 2.



Witnesses.

J. H. Clement

E. R. Brinkerhoff

Inventors.

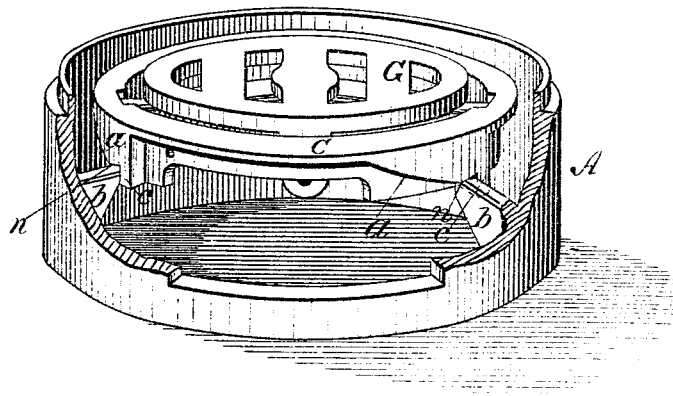
A. McVean & D. W. Smith
By *Thos. Goughborough*
Atty

A. McVEAN & D. W. SMITH.
STOVE-GRATES.

No. 183,955.

Patented Oct. 31, 1876.

Fig. 3.



Witnesses:
Will H. Dodge
Conrad S. Trenchard

Inventor:
Alex McVean and
D. W. Smith
By J. H. Loughborough
Att'y

UNITED STATES PATENT OFFICE.

ALEXANDER McVEAN AND DANIEL W. SMITH, OF ROCHESTER, NEW YORK;
SAID SMITH ASSIGNOR TO SAID McVEAN.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. **183,955**, dated October 31, 1876; application filed
March 3, 1876.

To all whom it may concern:

Be it known that we, ALEX. McVEAN and DANL. W. SMITH, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Stove-Grates; and we 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 front sectional elevation of the fire-pot P and ash-pit A of an ordinary base-burning stove having our invention attached. Fig. 2 is an inverted view of the grate G and the revolving annular hanger C, in which it is supported. Fig. 3, Sheet 2, is a perspective view of the parts partially separated.

It has been found quite objectionable to hang the grate sufficiently below the lower edge of the fire-pot to permit of raking off the clinkers, &c. The object of our invention is to provide a grate for base-burning stoves which may be readily adjusted at any time, so as to afford any desired amount of space between it and the bottom of the fire-pot for cleaning the grate, after which it may be readjusted in a position at, or even within, the lower edge of the fire-pot. It consists in such a construction and arrangement of the parts as will permit of the raising or lowering of the grate, and either shaking the same in a horizontal plane, or dumping the same while in its raised or its lowered position.

There are three brackets, *b*, fixed to the walls of the ash-pit A, and the annular hanger C is provided with three inclined planes, *a*, which rest upon the inner points of the brackets. The stops *c* gage the rotation of the hanger C by striking the brackets. The inclined planes are slightly recessed next to the stops, as shown at *n*, to form a sort of rest or lock to prevent the ring or hanger from running back after having been raised.

The grate G may be made after any desired pattern, and pivoted to the curved bar D, which is pivoted at each end in the annular

hanger C. The rear edge of the grate rests upon the lug *f*. It is also provided with the ordinary shaker-lug *g*.

The annular hanger may have a stop, *t*, at the upper end of one of the inclined planes, to limit its backward movement.

It might be desirable to place the inclined planes inverted upon the wall of the ash-pit, and provide three projecting arms upon the annular hanger to rest upon them, which would produce the same result. Or, there might be three studs used, their upper ends resting in suitable sockets in the hanger, and the lower ends in similar sockets formed in the base of the ash-pit. The hanger in this case should be provided with three projections, reaching to the wall of the ash-pit, for the purpose of keeping it centered, and two stops should also be provided upon the wall of the pit A, to limit the rotation of the annular hanger.

When the clinkers are to be removed the shaker is inserted in the hole *i* in the hanger, and moved to the right, which drops the grate to the position indicated by the dotted lines J, and the contraction of the bottom of the fire-pot prevents the body of the coal from falling. After the grate is sufficiently cleaned, it is again raised to its normal position by turning it backward.

It will be seen that the grate may be either shaken or dumped, whether in its upper or lower adjustment.

What we claim as our invention is—

In combination with the ring C, constructed to operate substantially as shown and described, the grate G, hung therein as set forth, and adapted to be shaken in a horizontal plane, or dumped while in either its raised or its lowered adjustment, for the purposes set forth.

A. McVEAN,
D. W. SMITH.

Witnesses:

WM. S. LOUGHBOROUGH,
A. L. MABBETT.