

G. H. STANSBURY.
STOVE-GRATE.

No. 177,027.

Patented May 2, 1876.

Fig. 1.

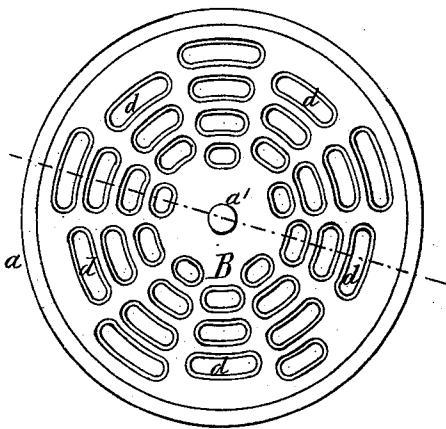


Fig. 2.

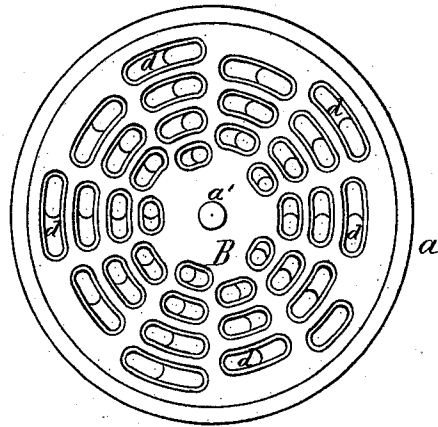


Fig. 3.

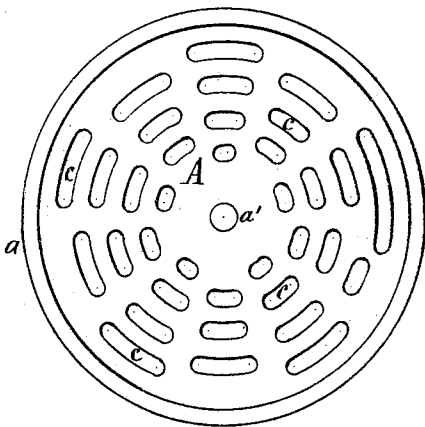
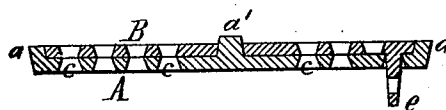


Fig. 4.



Chas. J. Buckhout.
C. H. Woodward. } Witnesses

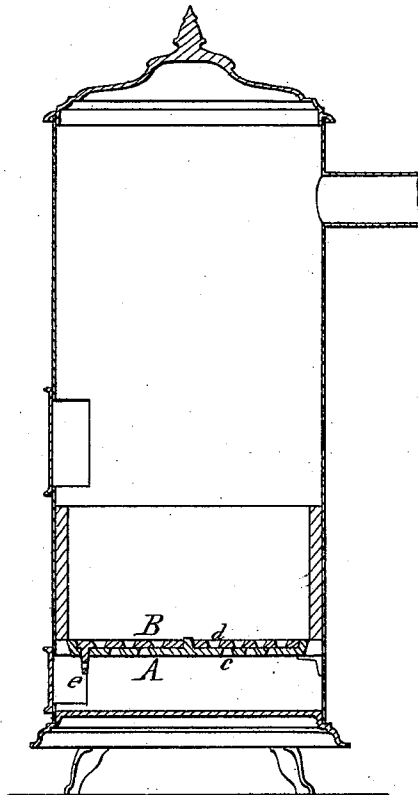
George H. Stansbury Inventor.
By Edward Wilhelm.
Attorney.

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Fig. 5.



C. J. Buchheit.
C. J. Baker. } Witnesses

George H. Stansbury Inventor
By *Edward Wilhelm*
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE H. STANSBURY, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-THIRD HIS RIGHT TO HUBBEL & BROTHER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. **177,027**, dated May 2, 1876; application filed March 13, 1876.

To all whom it may concern:

Be it known that I, GEORGE H. STANSBURY, of the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain Improvements in Grates for Stoves, which improvements are fully set forth in the following specification, reference being had to the accompanying drawing.

My invention relates to a grate composed of two parts or plates provided with corresponding openings, one of the plates being made adjustable with reference to the other, so that by properly moving the adjustable plate the openings in both plates can be made to coincide, allowing the draft to pass freely through the openings, and the ashes and coals to drop through the same, as in an ordinary open grate, while, by moving the adjustable plate so as to break this coincidence of the openings of the two plates, a solid or closed grate will be formed, shutting off the draft and retaining all the ashes and coals on the grate, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a plan view of my improved grate in an open position. Fig. 2 is a similar view with the openings partially closed. Fig. 3 is a plan view of the lower stationary part of the grate. Fig. 4 is a section in line *x x*, Fig. 1. Fig. 5 represents a heating-stove provided with my improved grate.

Like letters of reference refer to like parts in each of the figures.

A represents the lower stationary part or plate of the grate; and B the upper movable or adjustable plate. As shown in the drawing, the plate A is made circular in form, and provided with a raised rim or circumferential flange, and a central pivot, *a*. The adjustable plate B is provided with a central opening through which passes the pivot, and it fits within the raised rim of the lower plate A. *c* represents a number of draft-openings, arranged in the lower plate A, and *d* a series of corresponding openings formed in the upper plate B. As shown in the drawing, the openings *c* and *d* are made concentric, and are arranged in radial sets or rows, the openings in one set breaking joint with or alternat-

ing with the openings in the adjacent sets, or so that the openings in one set are opposite the solid portion of the plate between the openings of the next adjacent sets. The corresponding openings *c* and *d* in both plates, A and B, are made of the same size, so that by placing the openings in both plates directly above each other the grate will present the form of an ordinary open grate, formed by radial and concentric bars. By turning the upper plate B, the coincidence between the openings *c* and *d* is broken, and the openings partially or completely closed, as may be desired. The upper plate B is provided with a depending lug, *e*, designed to be connected with a suitable rod extending to the outside of the stove, so that the movable plate B can be conveniently operated.

Upon opening the grate fully, the draft is permitted to pass through the same, and the ashes and cinders to drop in the ash-pan below, in the same manner as in any ordinary open grate. By partially closing the openings in the grate, the draft is correspondingly reduced and the escape of the ashes and coals through the reduced openings of the grate correspondingly retarded. By closing the openings in the grate entirely, causing the latter to form a solid plate, the draft is entirely shut off, and all of the ashes and coals retained on the grate, which is of great importance in wood-stoves, as it enables the fire to be kept over night, which could not be accomplished heretofore. If desired, the movable plate B may be arranged on the under side of the stationary plate A.

I claim as my invention—

1. In a heating-stove, a grate composed of a stationary plate, A, and movable plate B, provided, respectively, with openings *c* and *d*, corresponding in number and form, so that by adjusting the movable plate, the grate can be opened or entirely closed, thereby forming a tight grate, which will retain all the ashes and coal, and enabling a wood fire to be kept a great length of time, substantially as herein set forth.

2. In a heating-stove, a grate composed of a stationary plate, A, and swinging plate B, provided, respectively, with corresponding

concentric openings *c* and *d*, arranged and operating as hereinbefore set forth.

3. In a heating-stove, the combination of the stationary grate-plate A, and swinging plate B, provided, respectively, with concentric openings *c* and *d*, arranged alternately in radial sets or rows, so that the openings of one set will be opposite the solid portions of the

plate between the openings of the next adjacent sets, substantially as hereinbefore set forth.

GEO. H. STANSBURY.

Witnesses :

EDWARD WILHELM,
CHAS. J. BUCHHEIT.