

W. B. SUTOR.

Grates for Stoves and Fire-Places.

No. 137,733.

Patented April 8, 1873.

Fig. 1.

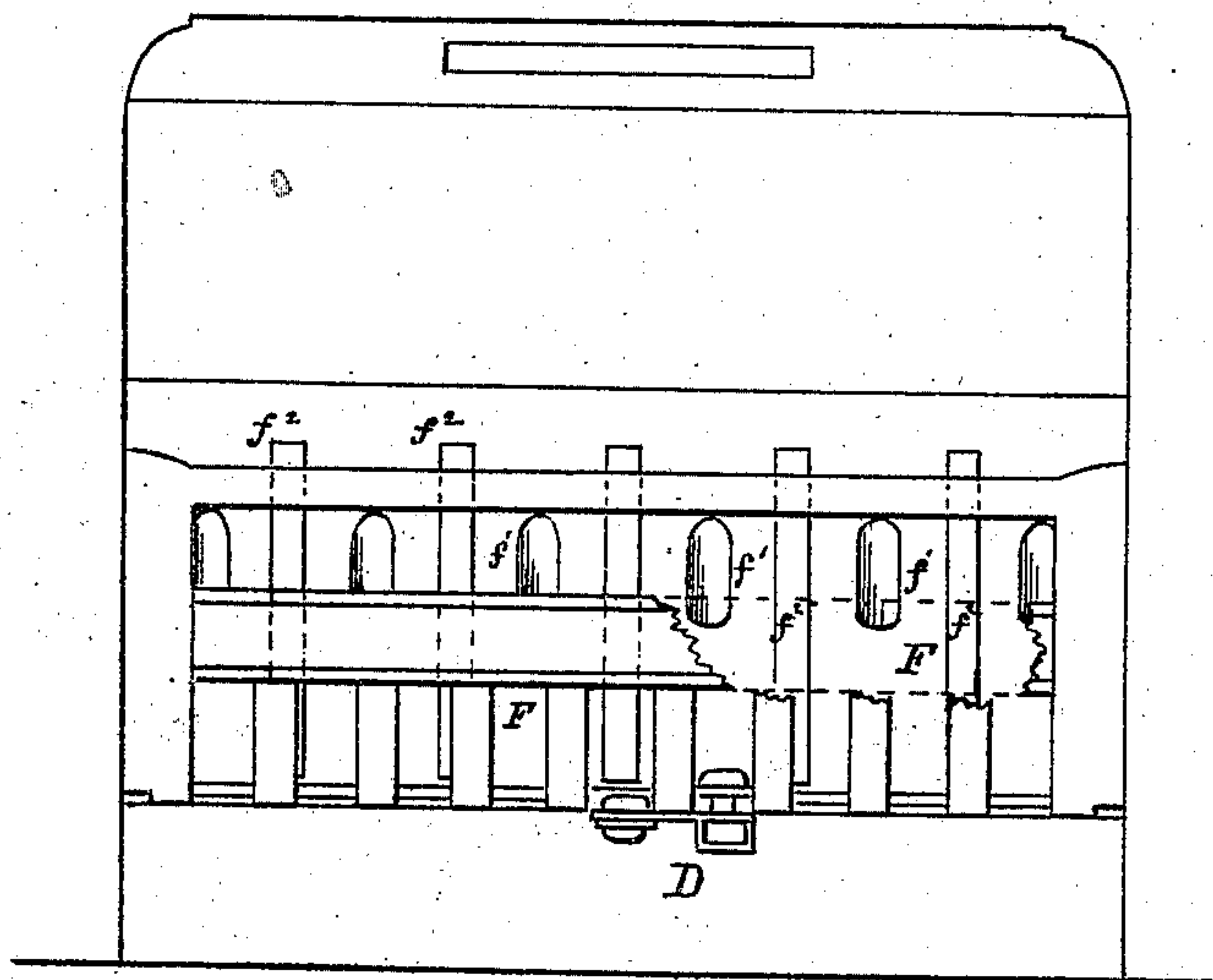
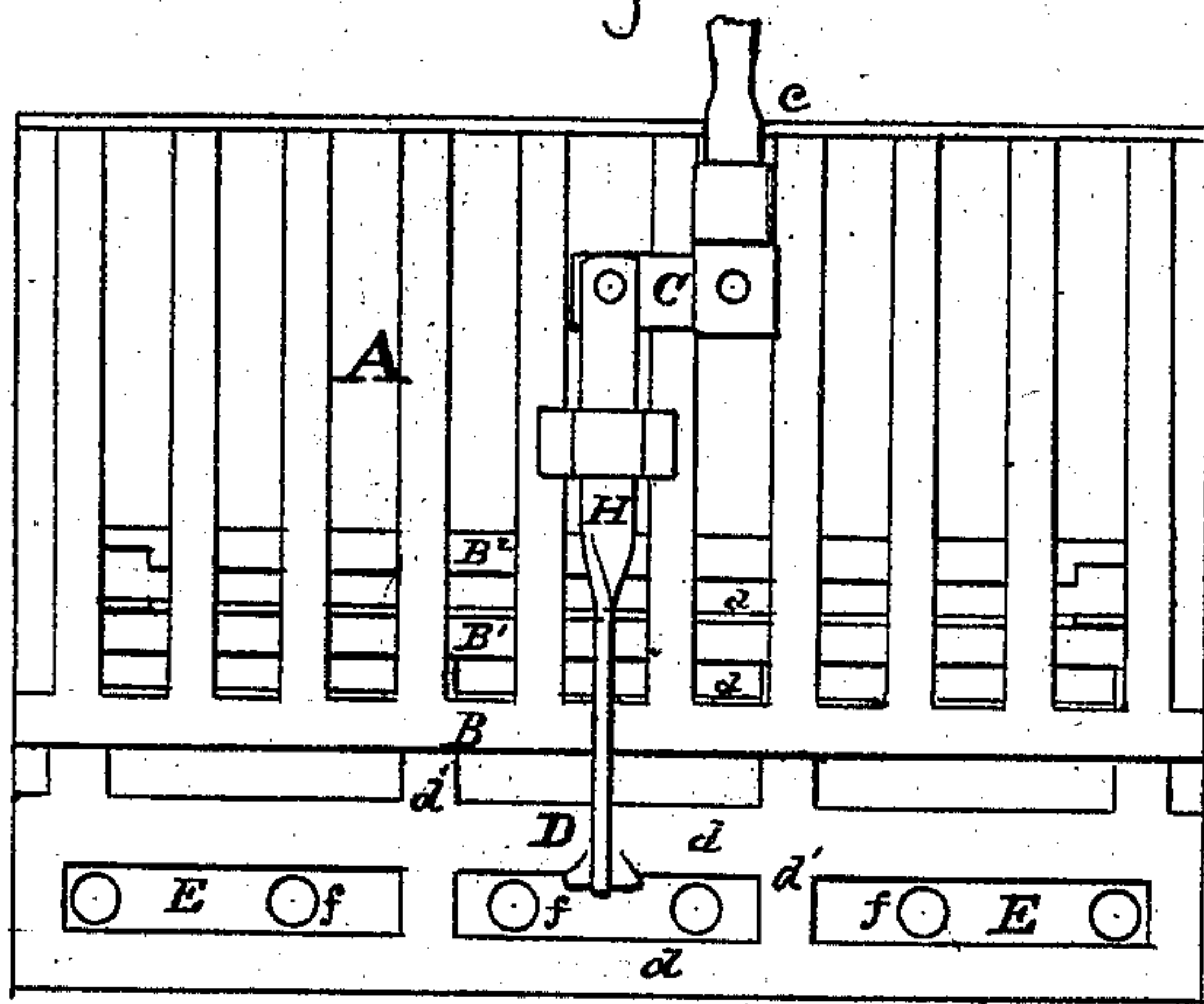


Fig. 2.



Witnesses :

H. A. Daniels.
Geo. H. Howard.

William B. Sutor, Inventor
Charles S. Whitman, Attorney

UNITED STATES PATENT OFFICE.

WILLIAM B. SUTOR, OF INDIANA, PENNSYLVANIA.

IMPROVEMENT IN GRATES FOR STOVES AND FIRE-PLACES.

Specification forming part of Letters Patent No. **137,733**, dated April 8, 1873; application filed September 21, 1872.

To all whom it may concern:

Be it known that I, WILLIAM B. SUTOR, of Indiana, in the county of Indiana and State of Pennsylvania, have invented an Improved Grate and Fire-Place. The following description, taken in connection with the accompanying plate of drawing hereinafter referred to, forms a full and exact specification, wherein are set forth the nature and principles of the invention, by which the same may be distinguished from others of a similar class, together with such parts thereof as are claimed as new and are desired to be secured by Letters Patent of the United States.

My invention relates to improvements in grates; and the nature thereof consists in certain modifications in the details of the construction of the same, hereinafter described and shown.

In the accompanying plate of drawing, which illustrates my invention and forms a part of the specification thereof, Figure 1 is a front elevation of the grate. Fig. 2 is a view of the under side of the same when the damper is open.

The construction and operation of my invention are as follows:

The bottom of the grate A is provided with the longitudinal bars B B¹ B², the ends of the inner one of which, B, rest upon the sides of the fire-place, as does also the chair E, which forms a support for the lower tile F. The said

lower tile is provided with cylindrical apertures *f*, which extend upward in a diagonal direction, and form, by their intersection with the plane of the front of the said tile, the openings *f*¹, and between the said openings are the cleats *f*². The damper D consists of the four horizontal bars *d*, bound together by the cross-bars *d'*, and operated by the bell-crank C, which is connected with the horizontal bars by the connecting-rod H.

By means of the handle *c* attached to the said bell-crank the horizontal bars of the damper may be moved forward in such a manner as to entirely cover the apertures in the tile F and the openings formed by the intersection of the transverse and longitudinal bars at the bottom of the grate, and thereby shut off the draft and open the flue at the rear of the tile F.

Having thus described the construction and operation of my invention, I will state what I claim, and desire to secure by Letters Patent, as follows:

The combination of the grate, the damper, and the perforated tile, operating together as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 12th day of July, 1872.

W. B. SUTOR. [L. S.]

Witnesses:

I. N. BANKS,
THEO. COLEMAN.