

J. W. H. DOUBLER.

Grate.

No. 15,971.

Patented Oct. 28, 1856.

Fig. 1

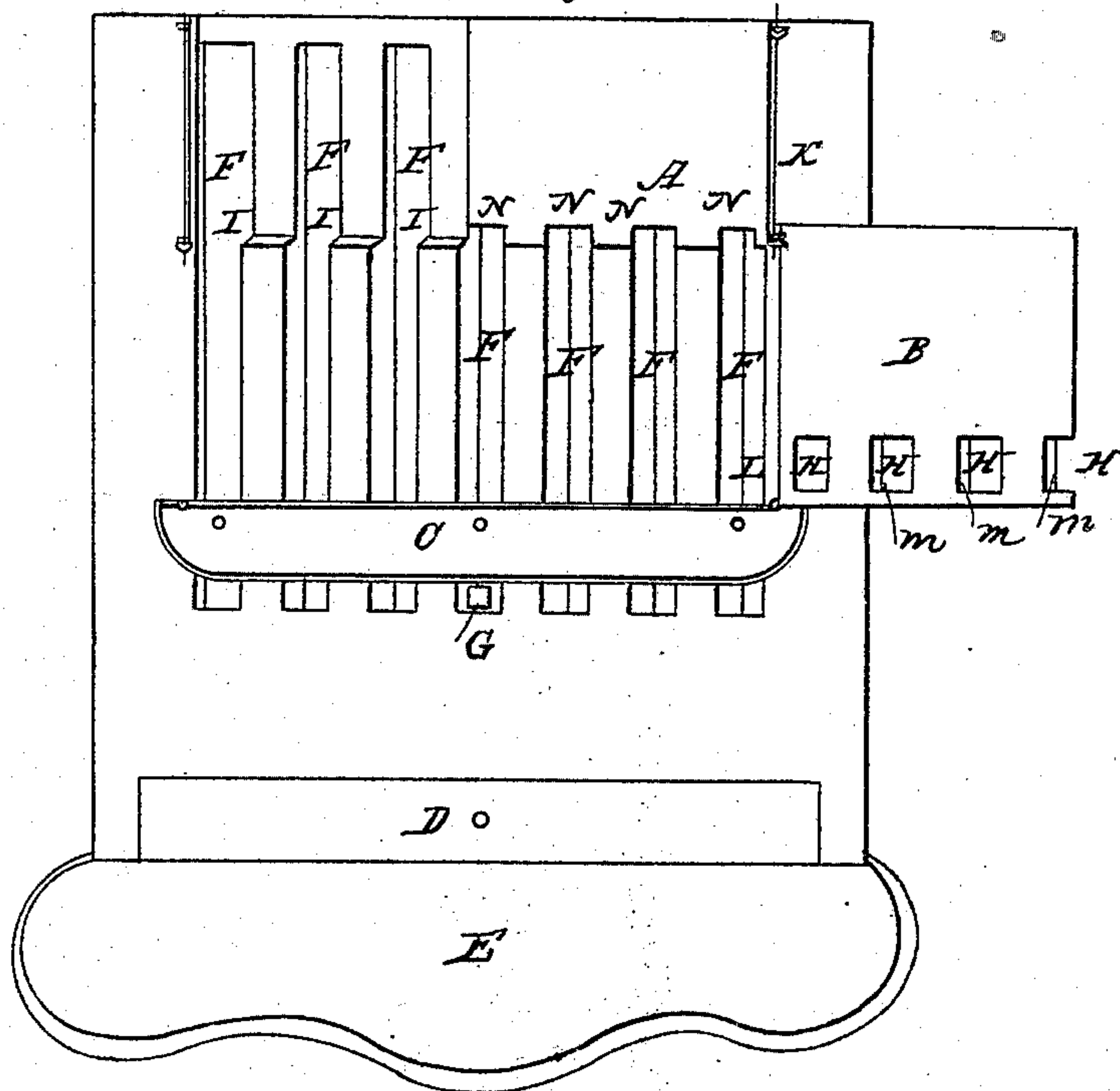
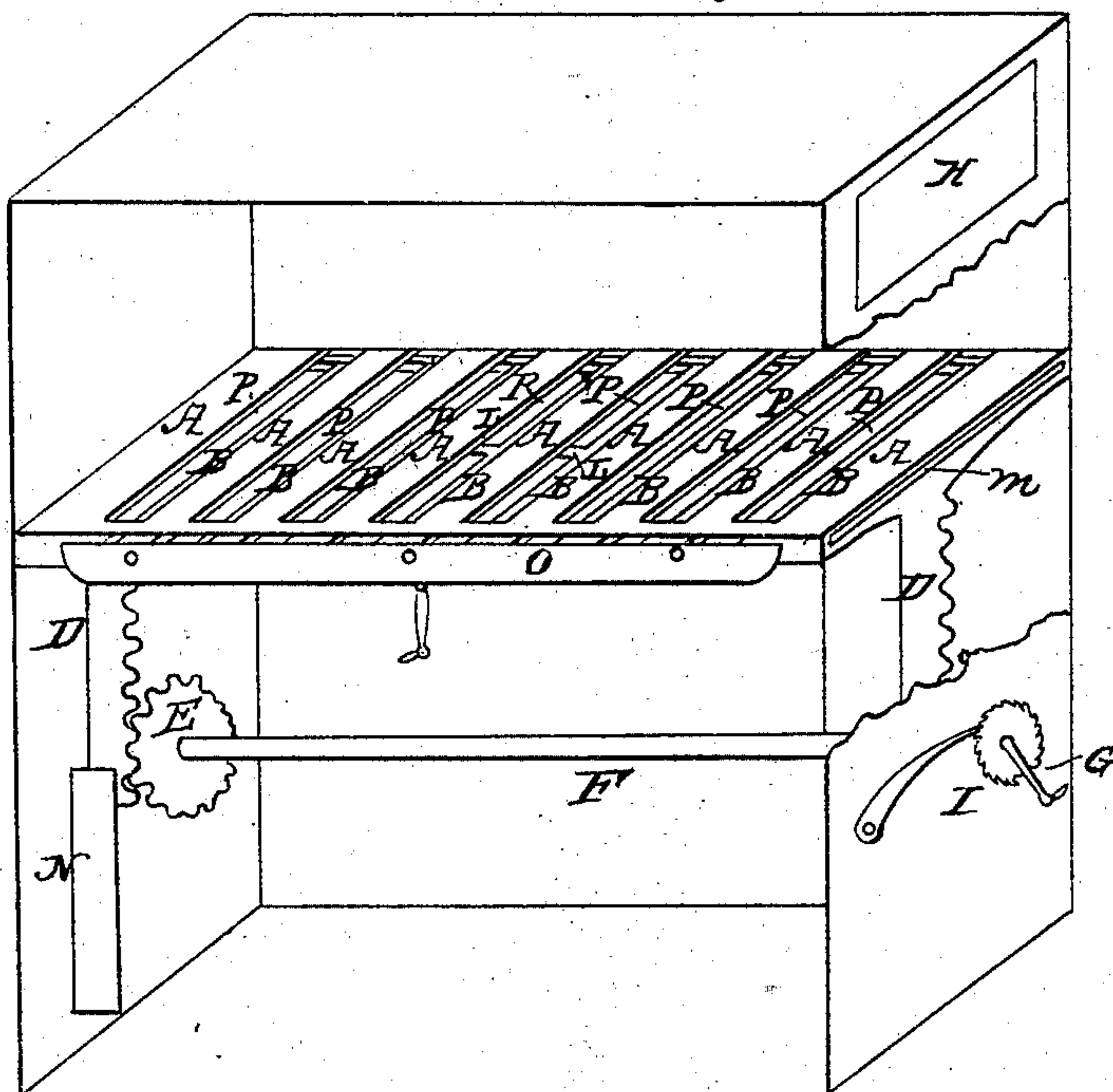


Fig. 2



UNITED STATES PATENT OFFICE.

J. W. H. DOUBLER, OF STEPHENSON COUNTY, ILLINOIS.

COOKING-STOVE.

Specification of Letters Patent No. 15,971, dated October 28, 1856.

To all whom it may concern:

Be it known that I, JOHN W. H. DOUBLER, of the county of Stephenson and State of Illinois, have invented a new and useful Improvement in Cooking-Stoves; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction.

I construct my stove of any desired size and shape, the furnace occupying most of the front of the stove. At the bottom immediately over the bottom plate I insert an ash box D, Figure 1 in the accompanying drawing, which slides in upon the bottom plate and occupies the whole width of the front of the stove. The front of the stove from the top to within two or more inches of the ash box is divided into bars and openings. These openings are closed at pleasure by the doors A, and B, Fig. 1, with corresponding doors on the opposite side. The sliding door B, Fig. 1, rests upon a pivot L and is attached to the iron rod M. These doors have openings H and N, to correspond with the openings in the stove F, so that when the doors are closed the openings will admit air sufficient for the draft. I furnish the sliding door with a slide to close the openings and make the stove air tight when desired. The bars composing the front of the stove are made with a shoulder I forming a recess to admit the door A, and the door B moving up and down with the grate and hearth C on the rod K closes over the door A.

The bottom of the furnace is composed of bars as shown at A, Fig. 2, in the accompanying drawing, with openings as shown at P, Fig. 2, running parallel with the sides and perpendicular to the front. This grate rests at each end upon a sliding segment D,

which is elevated and depressed by a pinion cog wheel E placed at either end of a shaft or rod F, which shaft is turned by the crank G and ratchet wheel I. Immediately under the open grate A and moving upon a flange of the same, I have a sliding grate a, shown at B, Fig. 2, worked by the shaft C, the bars and openings of which correspond in size with the bars and openings in the grate A, so that when it is in place the grate presents a closed surface, but when moved by the shaft C the openings in the grate A are entirely free. This sliding grate B has a bar, as shown at L, with a cog on the under side and is moved by two cogs on the shaft C, Fig. 2. The grates, with the hearth O attached and the sliding door B (Fig. 1) are elevated and depressed together.

I do not claim as new the sliding grate nor yet the method of elevating or lowering it by means of rack and pinion or equivalent devices, neither the mere use of a draft slide or damper to a stove door; but

What I do claim as new and useful herein is—

The arrangement of the upper stationary doors (A) set back as described and lower set of doors (B), the latter being attached to the rising and falling grate and hung and arranged so as to slide upward over or against the upper doors when elevating the grate to raise or reduce the size of the fire, said lower sliding doors being provided with a damper or slide (m), whereby the same relative position of front draft opening to the fire is maintained whatever the varied set in altitude of the sliding grate, and whereby while a large amount of door surface is provided the furnace or stove, but a portion only of the weight of said doors has to be lifted in elevating the sliding grate.

J. W. H. DOUBLER.

Attest:

HIRAM BRIGHT,
MARTIN KIMBLE.