(No Model.) 2 Sheets—Sheet 1.

W. H. LOOMIS.

STOVE GRATE.

No. 264,090. Patented Sept. 12, 1882.

FIG. 1.

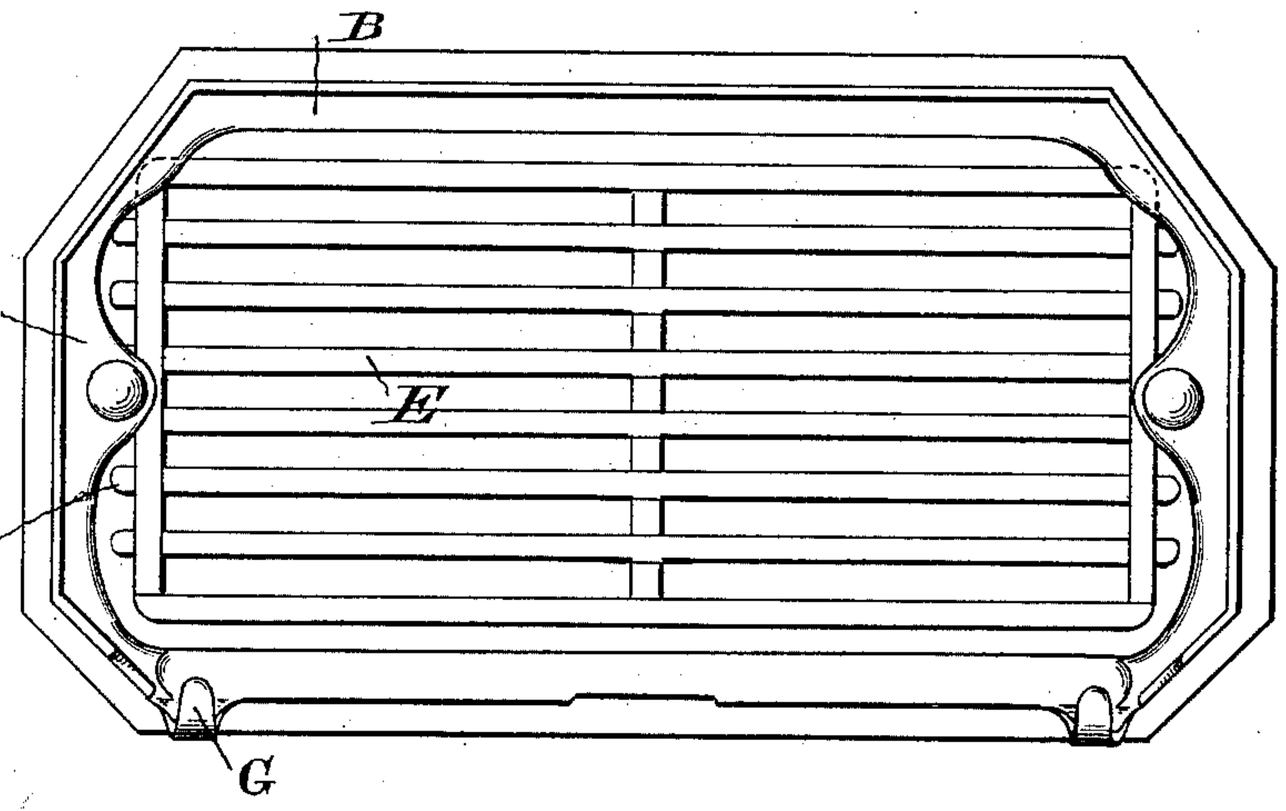


FIG. 2.

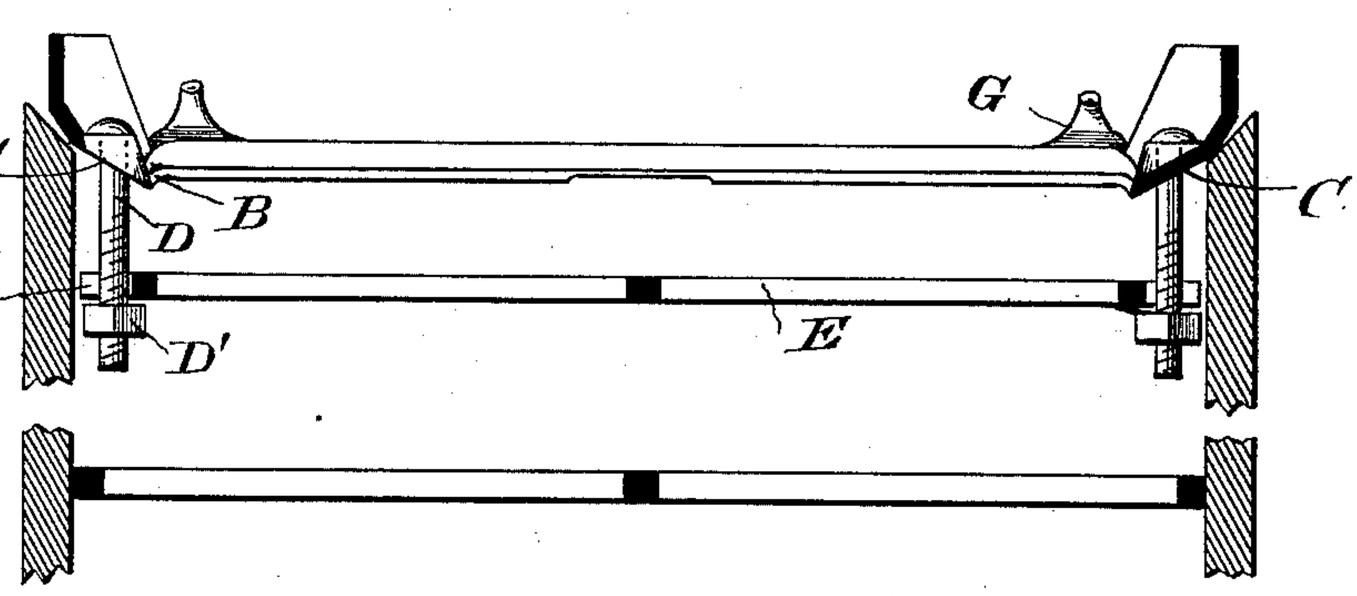
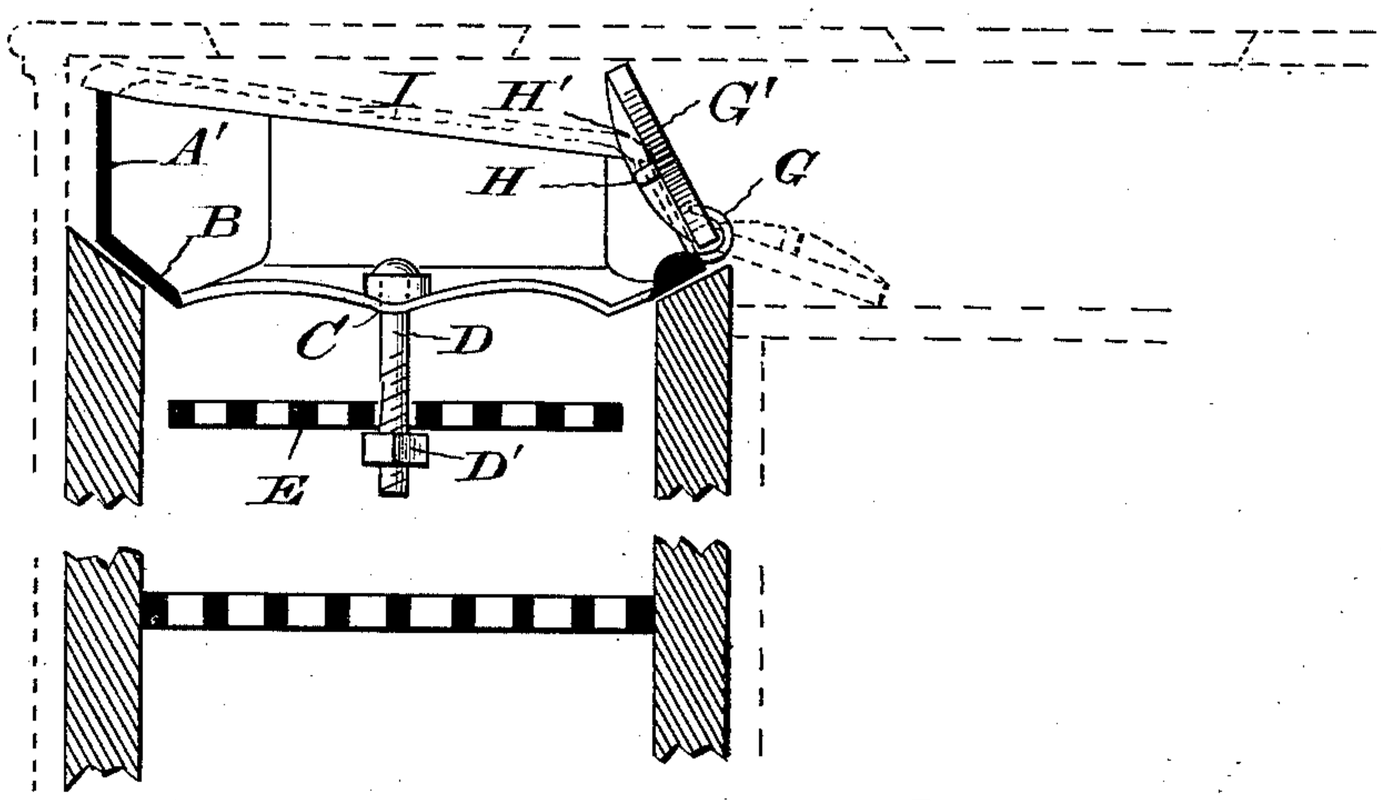


FIG. 3.



WITNESSES.

Wilmer Bradford

George Derby.

INVENTOR.

William H. Loomis.

per Edwin Brown Smith

Attorney.

(No Model.) 2 Sheets—Sheet 2.

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STOVE GRATE.

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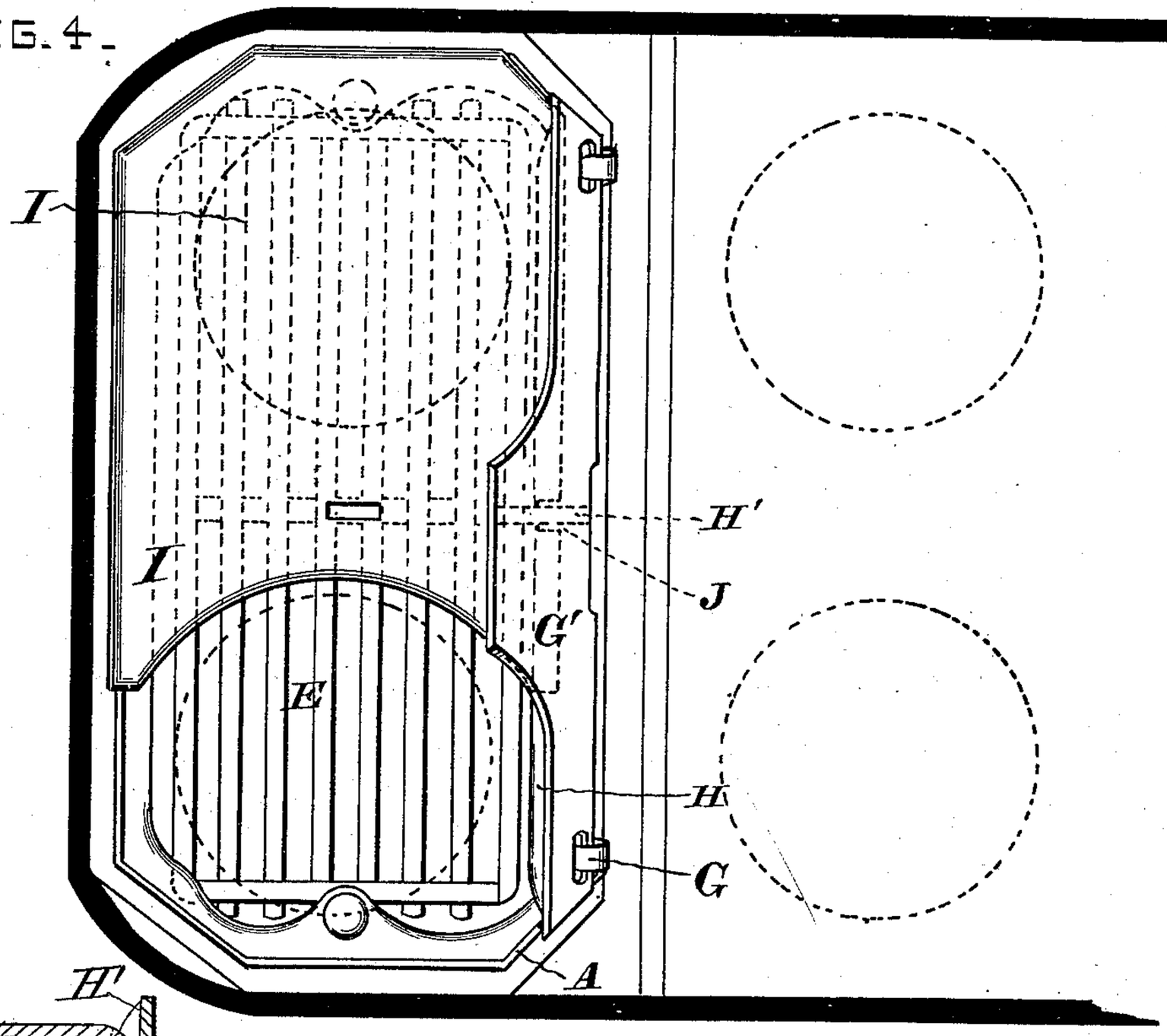
FIG. 4.



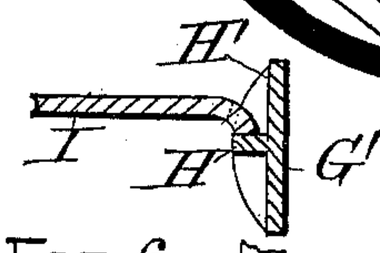
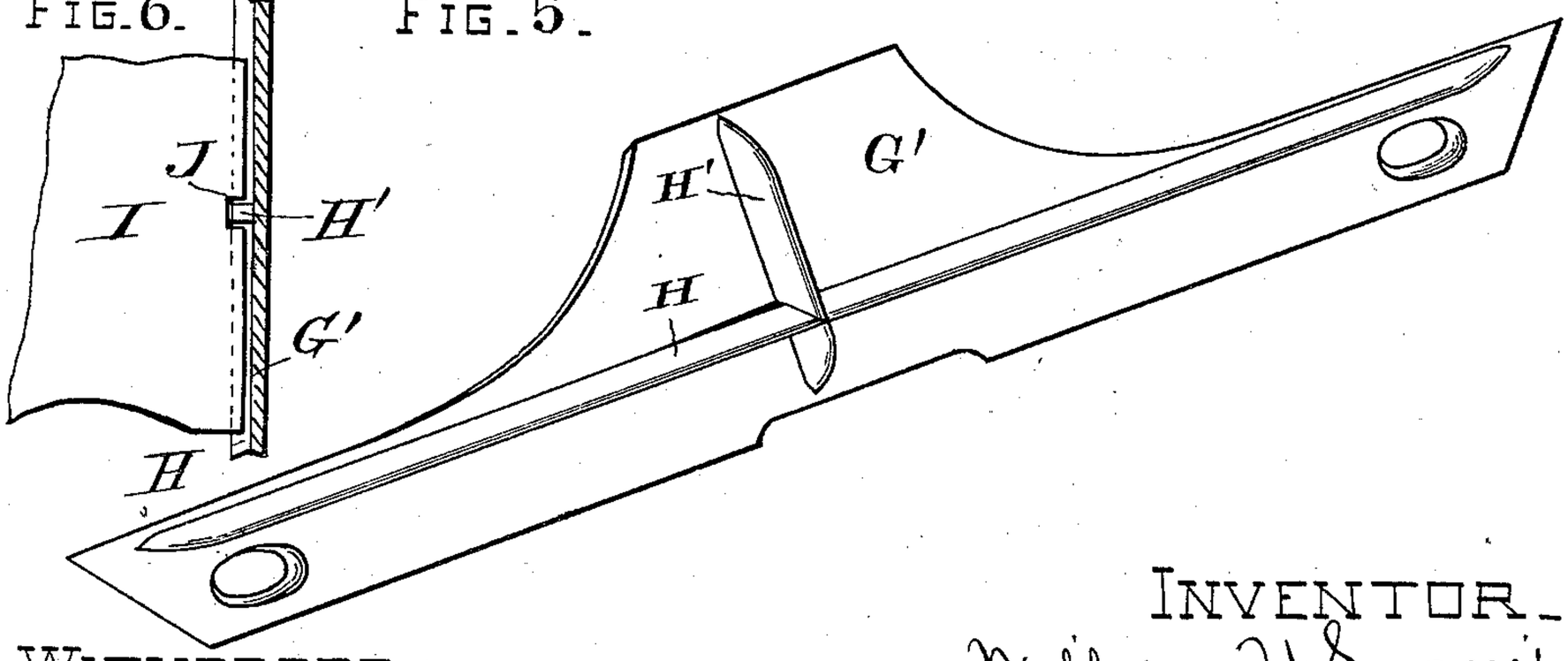


FIG. 6.

FIG. 5.



WITNESSES.

Wilmer Bradford

George Derby

INVENTOR.

William H. Loomis

By Brownell & Brownell.

Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM H. LOOMIS, OF ALAMEDA, CALIFORNIA.

STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 264,090, dated September 12, 1882.

Application filed June 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY LOOMIS, a citizen of the United States, and residing at Alameda, in the county of Alameda and State of California, have invented certain new and useful Improvements in Stove-Grates, of which the following is a specification.

My invention relates to that class of grates which is mainly adapted to cooking stoves and ranges; and the objects of my invention are, first, to provide a grate whereby the fuel which is employed will be brought nearer to the cooking utensils, and thereby render it more convenient in broiling or toasting; second, to provide a means whereby a more economical use of fuel is effected. I accomplish these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a plan view showing the grate and its supporting-frame. Fig. 2 is a central longitudinal section. Fig. 3 is a transverse sectional view. Fig. 4 is a plan view showing the deflecting-plate in position. Fig. 5 is a perspective view of the hinged damper. Fig. 6 is a plan and vertical section of the damper and deflecting-plate.

Similar letters refer to similar parts throughout the several views.

The iron frame A, to which my grate is suspended, is made angular or square at the corners, with a lower beveled edge, B, turned inwardly, so as to fit the beveled tops or edges of the fire-brick lining of the stove upon which it is intended to rest. The inner edges of the flange, at the ends of the frame, are scalloped, as shown, and midway therein are formed eye-holes C C for the bolts and nuts D D′, by which the grate is suspended. That side of the frame represented at A′ is made wider than the opposite side, and is intended to be placed in front or next to the front end of the stove or range, under the top plate thereof, while the opposite side is made lower for a damper arrangement, to be hereinafter more fully described.

My grate E, I construct much in the usual manner, yet the bars are provided with extensions or projections to provide lugs F F, between which the bolts are received, while the lower edges of these lugs rest upon the nuts D′ at the end of the bolts. By this means the grate loses its rigidity and may be adjusted or balanced between the projections or lugs at any time, or be dumped or removed altogether.

To the opposite side of the frame, or that part which sets nearest to the flues of the stove, I cast lugs or hooks G, to receive and hold a damper, G′, which is cut away or curved at both ends, as shown. It has also a longitudinal rib, H, and a right-angled rib, H′, eccentric to the center of its sustaining-plate, for the purpose of sustaining a deflecting-plate, to be hereinafter described. The office of this damper G′ is to deflect the heat from the center of the stove to the right and left and direct it to or under the pots or holes away from the middle or center of the stove-plate, and thus prevent the heating and warping of the plate consequent upon such excessive heat directed to that point, now so common in stoves and ranges, and hence when my damper is turned up or edgewise the heat and flame will be directed to the right and left of the flue.

For economy's sake, when but little fire is needed, housekeepers and cooks sometimes build the fire at one end of the fire-pot or grate only; but in all such cases, with the grate or fire-pot as constructed in the ordinary way, the heat and flame will spread and be conducted along almost the entire space occupied by the flue of the stove, and the object is not attained. In order to accomplish this object I construct a deflecting-plate, I, and place it upon the end of the frame of the grate opposite to that on which the fire is built, as shown, with the damper vertical or in position. The inner end of this plate is made in the form of an arc, to correspond with the stove-lid, and the kettle or pot is placed in the pot-hole at the curved end of this plate, and will receive the direct action of the fuel and flame from the fire beneath, and but little, if any, of the heat will be lost. The inner edge of this plate rests upon the rib made upon the damper, and is held in place by the notch J, which receives the vertical rib H′.

By this construction it will be seen that the ordinary grate need not be dispensed with, but may remain and be employed as a dumping-grate in the usual way and manner, and that the ashes and cinders may be dumped from

the suspended movable grate upon the stationary grate without interfering with it.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In cooking stoves and ranges, the frame A, adapted to fit around and upon the top of the fire-bricks or lining of the fire-pot, and provided with a suspended or hanging grate, constructed and arranged to operate substantially in the manner and for the purpose as herein set forth and specified.

2. The combination and arrangement of the frame A, adapted to fit around or upon the fire-lining of a stove or range, and provided with a suspended removable grate, and the damper G′, connected to the rear side of said frame, so as to direct the heat and flame from the center to the right and left, substantially in the manner and for the purpose as herein set forth and specified.

3. In a cooking stove or range, the combination of the frame A, suspended grate E, damper G′, having ribs H H′, and the deflecting-plate I, provided with notch J, all substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 24th day of May, 1882.

WILLIAM H. LOOMIS. [L. S.]

Witnesses:
C. W. M. SMITH,
CHAS. E. KELLY.