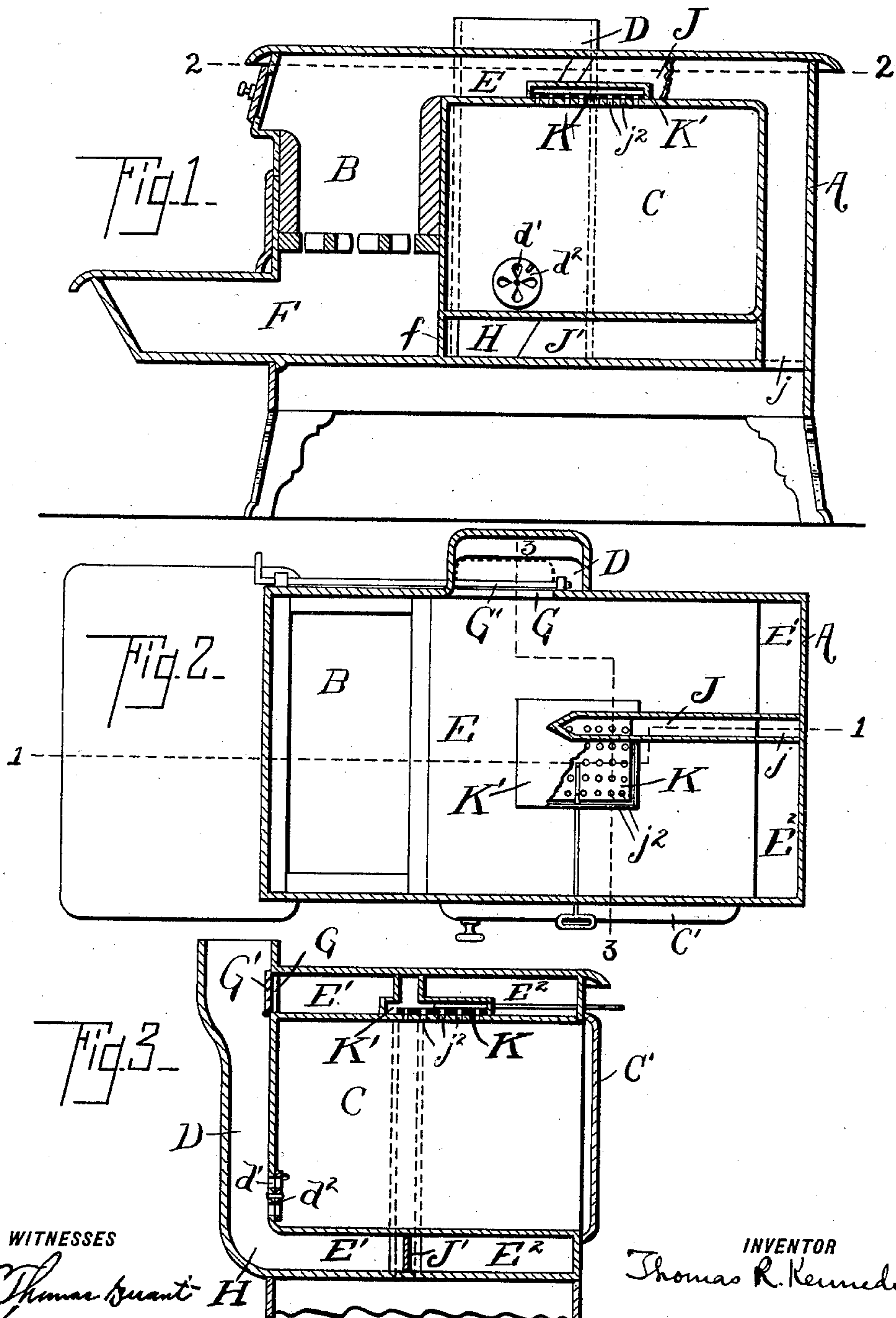


(No Model.)

T. R. KENNEDY.
COOKING STOVE.

No. 596,710.

Patented Jan. 4, 1898.



WITNESSES
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UNITED STATES PATENT OFFICE.

THOMAS R. KENNEDY, OF ROCHESTER, NEW YORK, ASSIGNOR TO THE
CO-OPERATIVE FOUNDRY COMPANY, OF SAME PLACE.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 596,710, dated January 4, 1898.

Application filed July 9, 1896. Serial No. 598,604. (No model.)

To all whom it may concern:

Be it known that I, THOMAS R. KENNEDY, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Cooking-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-letters marked thereon.

My present invention relates to stoves and ranges, and has for its object to improve the construction and operation of the flues and passages for smoke from the oven, whereby the latter will be evenly heated at all parts and whereby also the oven may be ventilated, the air supplied thereto being warmed during its passage through the stove-body.

To these ends it consists in certain improvements hereinafter fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawings, Figure 1 is a longitudinal sectional view of a stove embodying my improvements, taken on the line 1 1 of Fig. 2; Fig. 2, a horizontal sectional view on the line 2 2 of Fig. 1; Fig. 3, a vertical sectional view taken on the line 3 3 of Fig. 2.

Similar reference-letters in the several figures indicate similar parts.

A indicates the casing or body of the stove or range; B, the fire-pot located at one end thereof; C, the oven; C', the oven-door; D, the vertical smoke-flue located at the back of the stove, having its inner wall formed by the back of the oven. The sheet-flue (indicated by E) extends from the fire-pot over the oven, down at the end thereof, and beneath it to the plate *f*, which latter constitutes the rear wall of the ash-pit F, as shown in Fig. 1. The front end of the sheet-flue, or that nearest the fire-pot, is in communication with the rear smoke-flue by a direct-draft aperture G, controlled by the pivoted damper G' and adapted to be opened for affording a direct draft when starting a fire and to be closed when the oven is to be used for baking, and the lower end of the sheet-flue is open to the smoke-flue at H.

J indicates a partition extending through the upper horizontal portion of the sheet-flue and the vertical portion at the end of the

oven and dividing said flue into two passages E' E², preferably of unequal width, the former, nearer the smoke-flue of the stove, being preferably narrower than the latter.

J' indicates a partition arranged in the lower horizontal portion of the sheet-flue, co-operating at one end with the lower end of the partition J and extending forward, so as to overlap the smoke-flue D when viewed from the front, as shown in Fig. 1.

The relative capacities of the passages E' E² are such that with a given draft in the smoke-flue they will draw equally, so that the flames and products being divided at the top of the flue will pass from the fire-pot around the oven evenly distributed over the surface of the latter and heating all sides of it equally. In the top of the oven and at or about the middle portion thereof are a series of perforations, or a single perforation, if desired, leading into the oven and which connect with the hollow dividing-partition J, and at or near the point where said partition connects with the openings above mentioned is preferably arranged a damper K. At some point in the sheet-flue at the end of the oven or under the oven the hollow partition J is connected with the outer air by the air-inlet opening *j*, the position of which opening may be varied in different constructions to suit the particular stove to which the invention is applied, the only essential being that a sufficient surface of the partition should be exposed to the action of the flame and heated products so as to heat the air entering through the inlet *j* to cause it to rise through said partition with enough velocity to pass into the oven and increase the temperature thereof. The damper K is shown inclosed in a shallow box K', connected with the hollow partition J and extending over the air-inlet holes *j*², but may be dispensed with, if desired. At the rear of the oven, adjacent to the smoke-flue D, is an air-outlet *d'* from the oven to said flue, which may be controlled by a suitable damper *d*², if desired, or this outlet may be dispensed with and the air from the oven find its exit through or around the oven-door C'. The area of said air-outlet should be sufficient to carry away all, or nearly all, of the volume admitted through the partition,

whereby the oven will be ventilated thoroughly.

By means of the arrangement of the parts described the flame and products will, when the damper G' in the flue C is closed, as in full lines, Fig. 2, pass from the fire-pot around the oven evenly distributed over the surface of the latter and will cause the air entering the dividing-partition to be heated properly before it enters the oven.

I do not claim, broadly, herein a partition arranged in a sheet-flue stove and adapted to divide the sheet-flue into unequal parts, as this arrangement forms the subject-matter of my pending application, Serial No. 647,356, filed August 6, 1897.

I claim as my invention—

1. In a cooking-stove, the combination of the oven, the fire-pot adjacent thereto, the sheet-flue extending from the fire-pot around the top, end and bottom of the oven, the smoke-flue connecting with the sheet-flue at the bottom of the oven near the end of the sheet-flue, the partition in said sheet-flue extending from near the fire-pot to a point under the oven, said partition being hollow for a portion of its length, having an upper opening into the oven and a lower opening to the external air.

2. In a cooking-stove, the combination of the oven, the fire-pot adjacent thereto, the single sheet-flue extending from the fire-pot around the top, end and bottom of the oven, the smoke-flue connected with said sheet-flue under the bottom of the oven near the end of said sheet-flue, a partition in said sheet-flue extending from near the fire-pot to a point opposite the smoke-flue opening under the oven, said partition being hollow beginning at a point in the sheet-flue at the end of

the oven and there having an air-inlet opening and extending to a point above the oven and there opening into the oven, and an air-outlet from the oven.

3. In a cooking-stove, the combination of the oven, the fire-pot adjacent thereto, the single sheet-flue extending from the fire-pot around the top, end and bottom of the oven, the smoke-flue connected with said sheet-flue under the bottom of the oven, near the end of said sheet-flue, a partition in said sheet-flue extending from near the fire-pot to a point opposite the smoke-flue opening under the oven, said partition being hollow beginning at a point in the sheet-flue at the end of the oven and there having an air-inlet opening and extending to a point above the oven and there opening into the oven, and an air-inlet from the oven into the smoke-flue.

4. In a cooking-stove, the combination of the oven, the fire-pot adjacent thereto, the single sheet-flue extending from the fire-pot around the top, end and bottom of the oven, the smoke-flue connected with said sheet-flue under the bottom of the oven, near the end of said sheet-flue, a partition in said sheet-flue extending from near the fire-pot to a point opposite the smoke-flue opening under the oven, said partition being hollow, beginning at a point in the sheet-flue at the end of the oven and there having an air-inlet opening and extending to a point above the oven and there opening into the oven and an air-outlet from the oven into the smoke-flue, and dampers controlling said air-inlet into the oven and said air-outlet from the oven.

THOMAS R. KENNEDY.

Witnesses:

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