(No Model.)

I. W. HARLOW.

STOVE.

No. 259,306. Patented June 13, 1882.

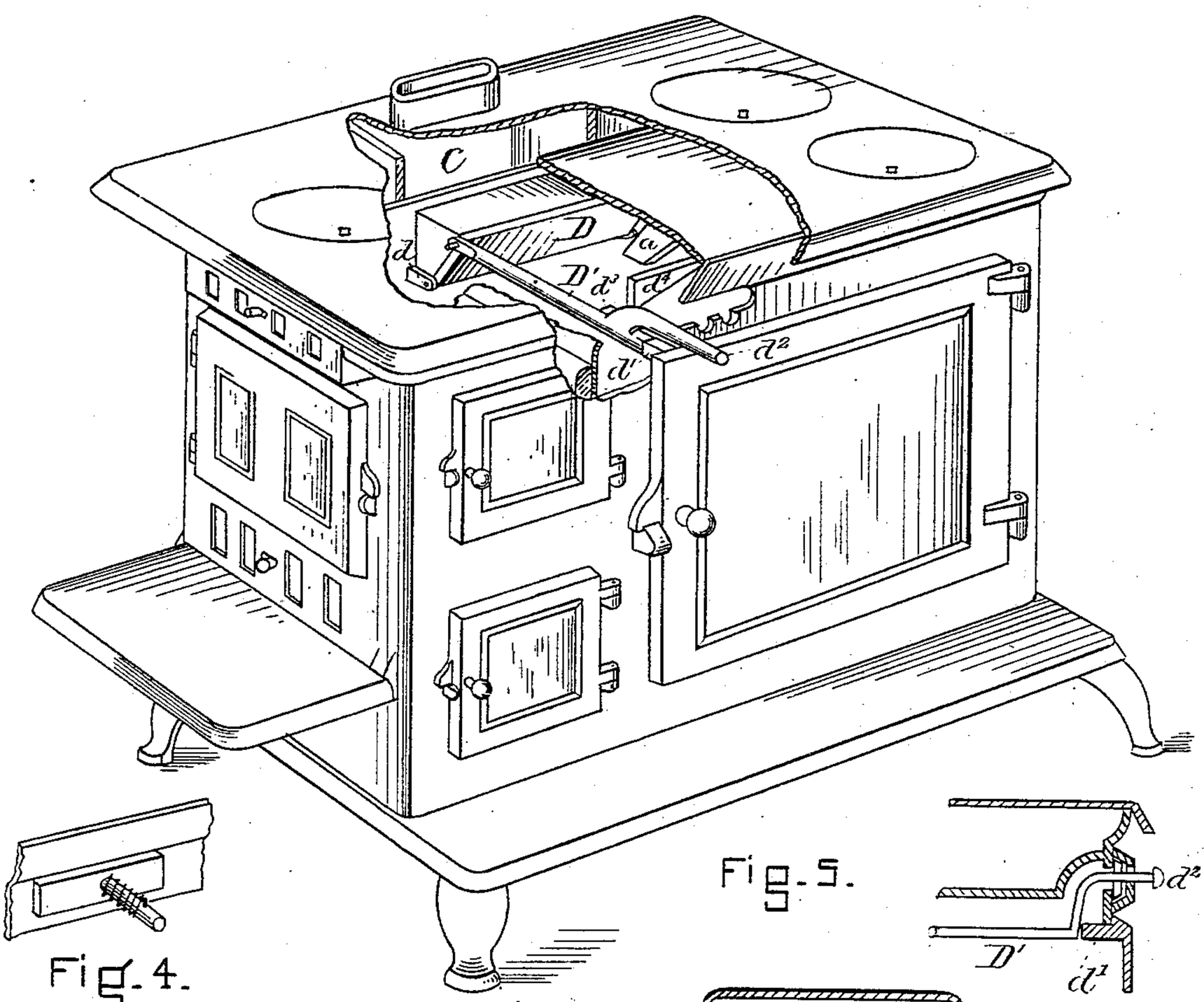

Fig. 1.

Fig. 4.

Fig. 5.

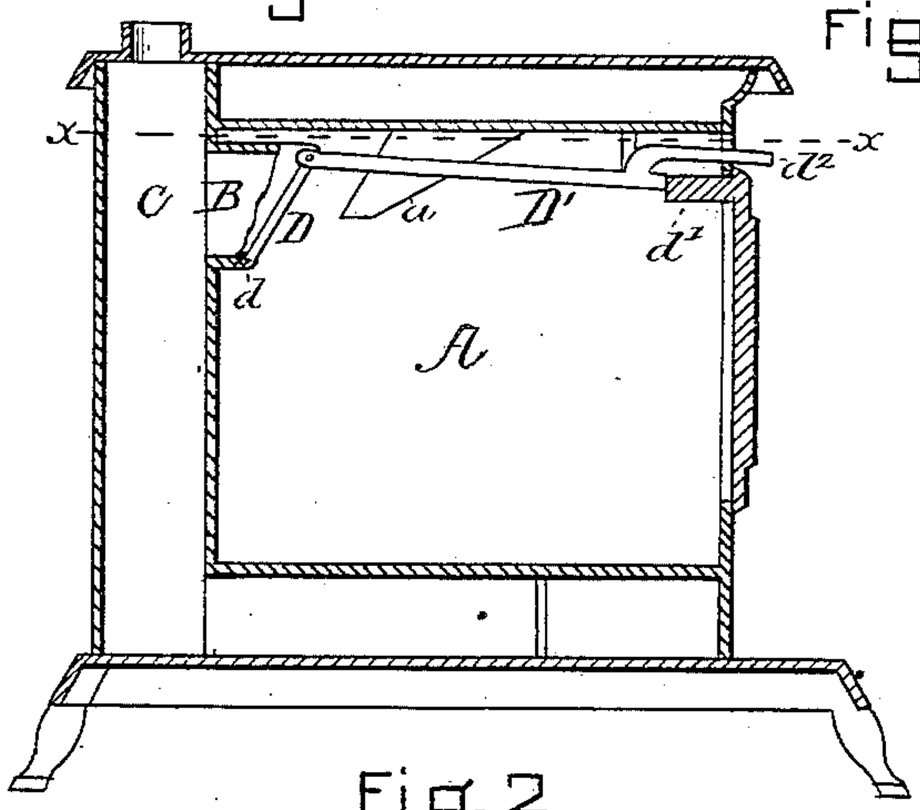

Fig. 2.

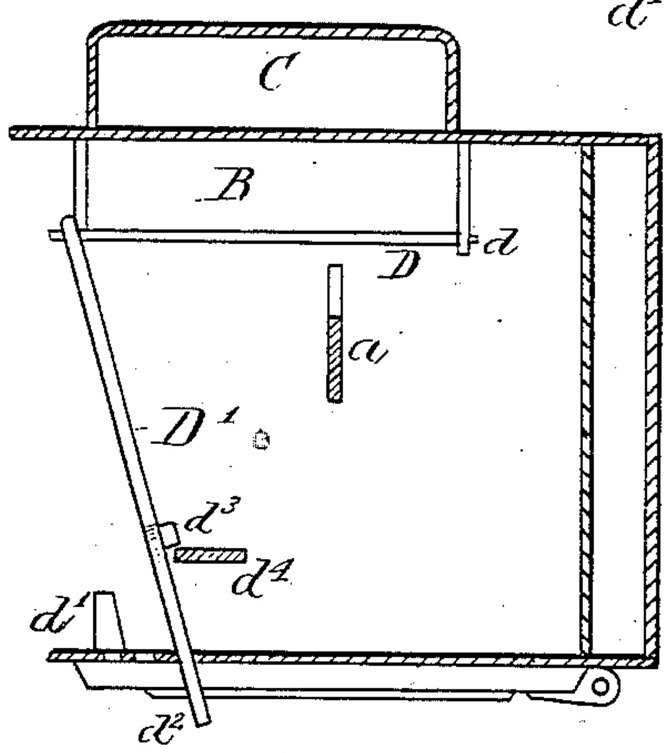

Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

IVORY W. HARLOW, OF PLYMOUTH, MASSACHUSETTS, ASSIGNOR TO THE PLYMOUTH FOUNDRY COMPANY, OF SAME PLACE.

STOVE.

SPECIFICATION forming part of Letters Patent No. 259,306, dated June 13, 1882.

Application filed February 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, IVORY W. HARLOW, of Plymouth, in the county of Plymouth and State of Massachusetts, a citizen of the United States, have invented a certain new and useful Improvement in Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 is a perspective view of a six-boiler range containing my invention, with a portion of the top and side plates of the stove and oven broken out to represent the construction. Fig. 2 is a vertical section of the stove. Fig. 3 is a horizontal section of a portion thereof on the line *x x* of Fig. 2. Figs. 4 and 5 represent details in construction hereinafter referred to.

In the drawings, A is the oven. B is the flue or opening connecting the oven with the direct flue C. This flue or opening B is adapted to be opened or closed by means of the valve, damper, or door D, which preferably is hinged at *d*, and which is adapted to open or fall back automatically by gravity upon the release of a catch until restrained by a stop. This stop I have shown attached to the top plate of the oven at *a;* but of course it may be located anywhere else without departing from the spirit of this invention.

The hinged valve is adapted to be opened or closed by means of the rod D′, which is attached to it at one side, near its upper end, and extends across the upper part of the oven to a point near the oven-door, and it is arranged in line with and bears against the projection *d′*, extending inwardly from the oven-door, and is held in place by any suitable means which will permit it to be reciprocated.

Upon the opening of the oven-door the projection *d′* of course is withdrawn, thereby allowing the hinged plate to fall back, opening the passage, and moving out the rod D′.

Upon the closing of the oven-door the projection comes in contact with the end of the rod, forces it inwardly, and causes it to lift up the plate and close the passage.

If it is desired to operate the hinged plate or valve without opening the door, there may be an arm, d^2, provided the connecting-rod, which shall extend through the side plate of the stove over the oven, and which, by being moved laterally in notches provided for the same, shall either permit of the opening of the valve by removing the end of the connecting-bar from contact with the oven-door projection, or shall close it so that it will not open with the oven-door by moving the rod laterally until the stop or projection d^3 shall engage with the stop d^4 upon the under side of the top plate of the oven. It is substantially immaterial for the purposes of this invention where these stops are located, or how the hinged valve or damper controlling the flue is secured in place, or where the flue is located, or how the damper or valve is connected with the oven-door, provided that the valve is adapted to be automatically opened upon the opening of the oven-door and automatically closed upon the closing thereof, and provided, also, that, if desired, they are so arranged that the connecting device can be unshipped, so that the damper or valve can be operated either to open or close the flue without opening or closing the oven-door.

The advantages of this invention are obvious. It is desirable to provide means whereby an oven may be ventilated, either at will or automatically upon the opening of the oven-door, in order that its temperature may be regulated, and the steam, hot air, and odor of cooking which escape into the room upon the opening of the oven-door may be drawn into the direct escape-flue of the stove or range; and to accomplish this purpose I connect the oven, as described, with the direct flue by means of a suitable opening in the partition plate or wall between them, or by means of a suitable flue, and arrange a valve, damper, or door in said opening or flue, which is adapted to be opened and closed automatically in opening and closing the oven-door, or may be independently operated.

Of course it is not essential to the spirit of this invention that the damper or hinged plate controlling the entrance from the oven to the escape-flue be operated from without the stove; but when it is so operated, if desired, the projecting handle may be provided with a plate arranged to move horizontally thereon, and adapted to cover the holes or notches in the

side plate of the stove through which the arm projects; and this plate may be held against the side plate of the stove automatically by means of a coiled spring. This construction is represented in Fig. 4.

In Fig. 5 I represent the movable plate inside the side plate of the stove, between it and two holding projections, and the top plate of the oven is curved as shown.

Having thus fully explained my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of an oven having an opening or flue connecting it with an escape-passage, a valve or damper controlling the same, the oven-door, and a connecting device, whereby the valve or damper is controlled as to its position by the oven-door, all substantially as and for the purposes described.

2. The combination of an oven having an opening or flue connecting it with an escape-passage, a valve or damper controlling the same, and a device for actuating it, adapted to be operated either by the oven-door or independently thereof, all as set forth.

3. The combination of an oven having an opening or flue connecting it with an escape-passage, a valve or damper controlling the same, and a device for actuating it, extended without the stove, in close proximity to the oven-door, all substantially as specified.

IVORY W. HARLOW.

In presence of—
ARTHUR LORD,
B. F. STEVENS.