(No Model.)

F. W. & H. BORN.

RANGE CLOSET DOOR.

No. 354,092. Patented Dec. 14, 1886.

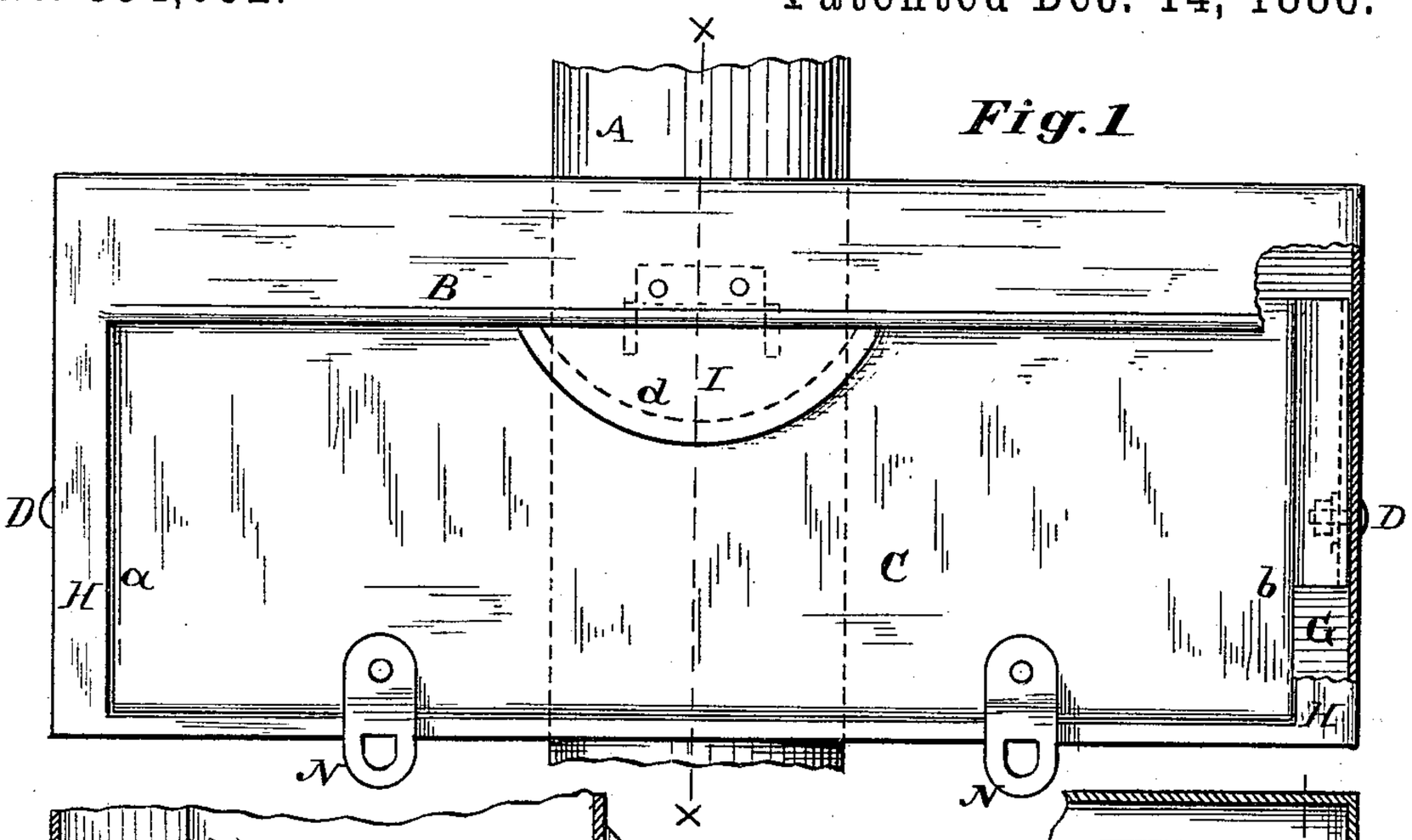

Fig. 1

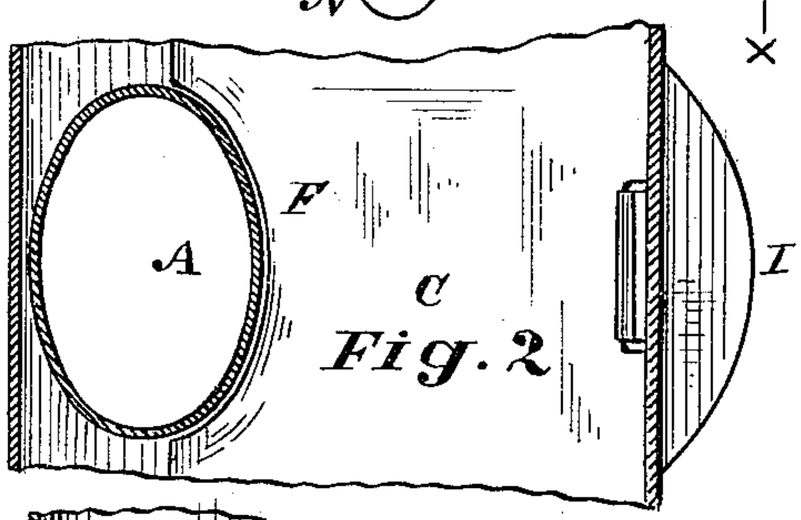

Fig. 2

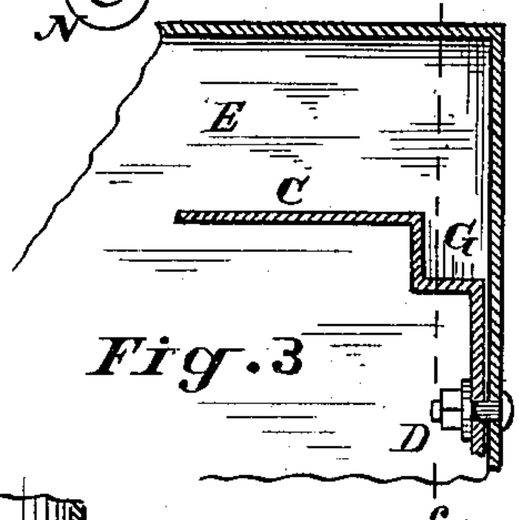

Fig. 3

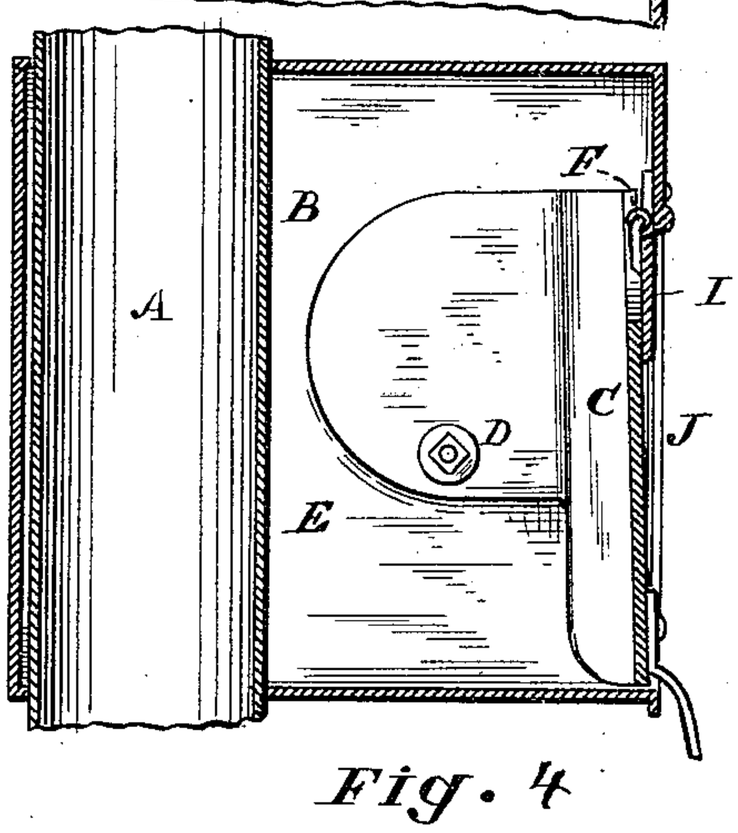

Fig. 4

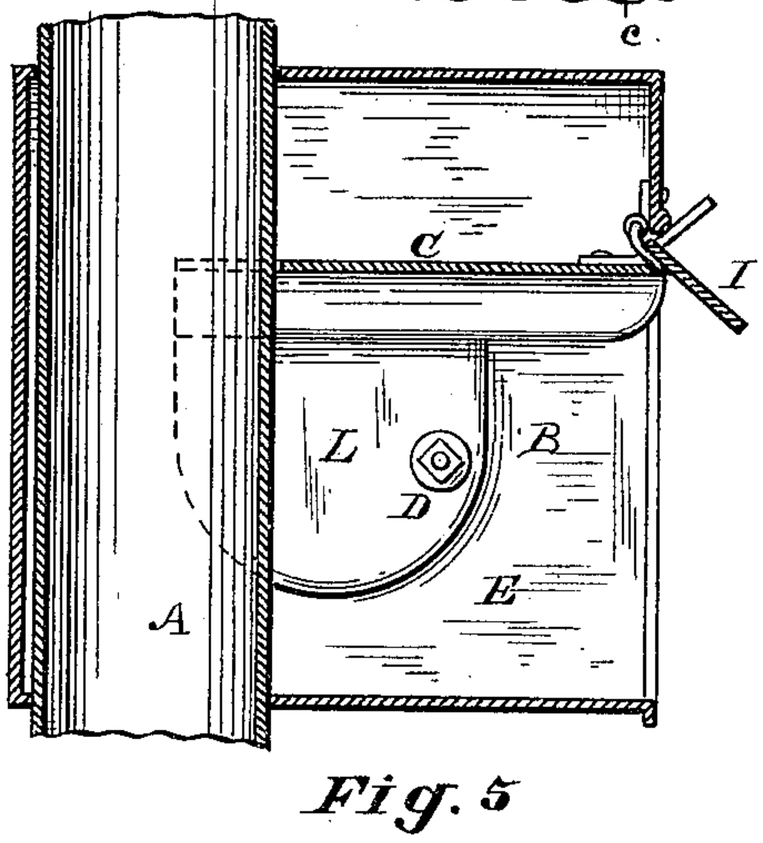

Fig. 5

WITNESSES

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UNITED STATES PATENT OFFICE.

FREDRICK W. BORN AND HENRY BORN, OF CLEVELAND, OHIO.

RANGE-CLOSET DOOR.

SPECIFICATION forming part of Letters Patent No. 354,092, dated December 14, 1886.

Application filed March 9, 1886. Serial No. 194,586. (No model.)

To all whom it may concern:

Be it known that we, FREDRICK W. BORN and HENRY BORN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Range-Closet Door; and we do hereby declare that the following is a full, clear, and complete description thereof.

The nature of our invention consists in the construction and arrangement of the door with the oven or warming-closet, by which the door may be turned back out of the way within the oven and held there in position by gravity resultant from the eccentric pivotal supports connecting the door with the oven, the pivotal supports being eccentric to the greater weight of the door when closed and when opened.

The door is provided with arms or extensions reaching into the closet or oven, and extending from the top of the door to points below the center thereof at each end. The arms are so constructed as to constitute weights for counterbalancing the door and holding it in a horizontal position when opened or closed.

A portion of the door is cut out, according to the size of the smoke-pipe passing through the oven, that the door may be entirely turned back into the upper part of the oven. The portion cut out is covered over by an adjustable flap when the door is turned back to close the oven.

A more full and complete description of the said improvement is set forth in the following specifications, in connection with the accompanying drawings, making part of the same, in which—

Figure 1 is a front view of an oven or warming-closet with the improved door connected, the range or stove not being shown. Fig. 2 is a top view in section, showing the door turned back. Fig. 3 is a section showing the front of the oven and door hinged thereto on one side. Figs. 4 and 5 are transverse vertical sections in direction of the line *x x*, Fig. 1, and represent the door opened and closed.

Like letters of reference refer to like parts in the several views.

A, Fig. 1, is the smoke-pipe from the stove or range, and extends through the oven B in the same way and for the same purpose as in ordinary cases. The oven may be connected with the stove or range, as is usually done, or otherwise. The door C is hung or pivoted to the ends of the oven, as indicated at D, Fig. 1. This door extends longitudinally over the opening into the oven E from *a* to *b*. One side or part of the door is cut out to form a curve or segment of circle F, as shown in Fig. 2, so as to correspond to the shape of the smoke-pipe A when the door is fully opened, or turned back for admittance to the oven E, as seen in the drawings.

The door is formed with angular lines G at the ends, one of which is seen in Fig. 3. This angular shape is for the purpose of allowing the door C to close down over the oven, by the angle G dropping behind the parts H H of the front ends of the oven, as seen in Fig. 1, and indicated by the dotted line *c*, Fig. 3.

In front of the oven is hinged a flap, I, Figs. 1, 4, and 5. This flap covers up the opening caused by the curved cut-out F in the door when the oven is closed, as seen in Figs. 1 and 4, the broken line *d*, Fig. 1, indicating the opening F, which is covered over by the hinged flap when the door is down, closing the oven, as shown.

When the oven-door is turned back, as seen in Figs. 2 and 5, the flap I is raised up by the door and held thereby so long as the door is raised, as seen in Figs. 3 and 5, and when the door is lowered to close the oven the flap turns down with it to the position seen in Fig. 4, thus closing up the opening F, before mentioned.

It will be observed that the pivots D are so arranged that the line of gravity is on the outside, J, of the pivots when the door is closed, as seen in Fig. 4, which effectually closes the oven, and when the door is open, as in Fig. 5, then the gravity, being on the side L of the pivots D, will hold the door open and bearing against the pipe A, as seen in Fig. 2, thus giving free access to the oven. Thus the door may at any time be opened and closed by means of the handles N, without any inconvenience or annoyance to one at work with the stove by the doors turning out from the oven and projecting over the stove, as the door is hinged in a horizontal plane by means of the

described arms to the ends of the oven, which constitute a counter-weight to the door in holding it closed and open.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination of the oven, the door *c*, and the arms reaching into the oven and extending from the upper part of the door to a point below the center thereof, and pivoted to the oven near their lower edges, to constitute counter-weights for the door, substantially as and for the purpose set forth.

2. The combination of the oven, the smoke-pipe passing therethrough, pivoted arms, the door *c*, having a recessed upper edge, F, adapted to the form of the smoke-pipe, and hinged flap I, arranged substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

FREDRICK W. BORN.
HENRY BORN.

Witnesses:
J. H. BURRIDGE,
C. L. BURRIDGE.