

H. STANLEY.

Oven Valve.

No. 2,664.

Patented June 11, 1842.

Fig. 1.

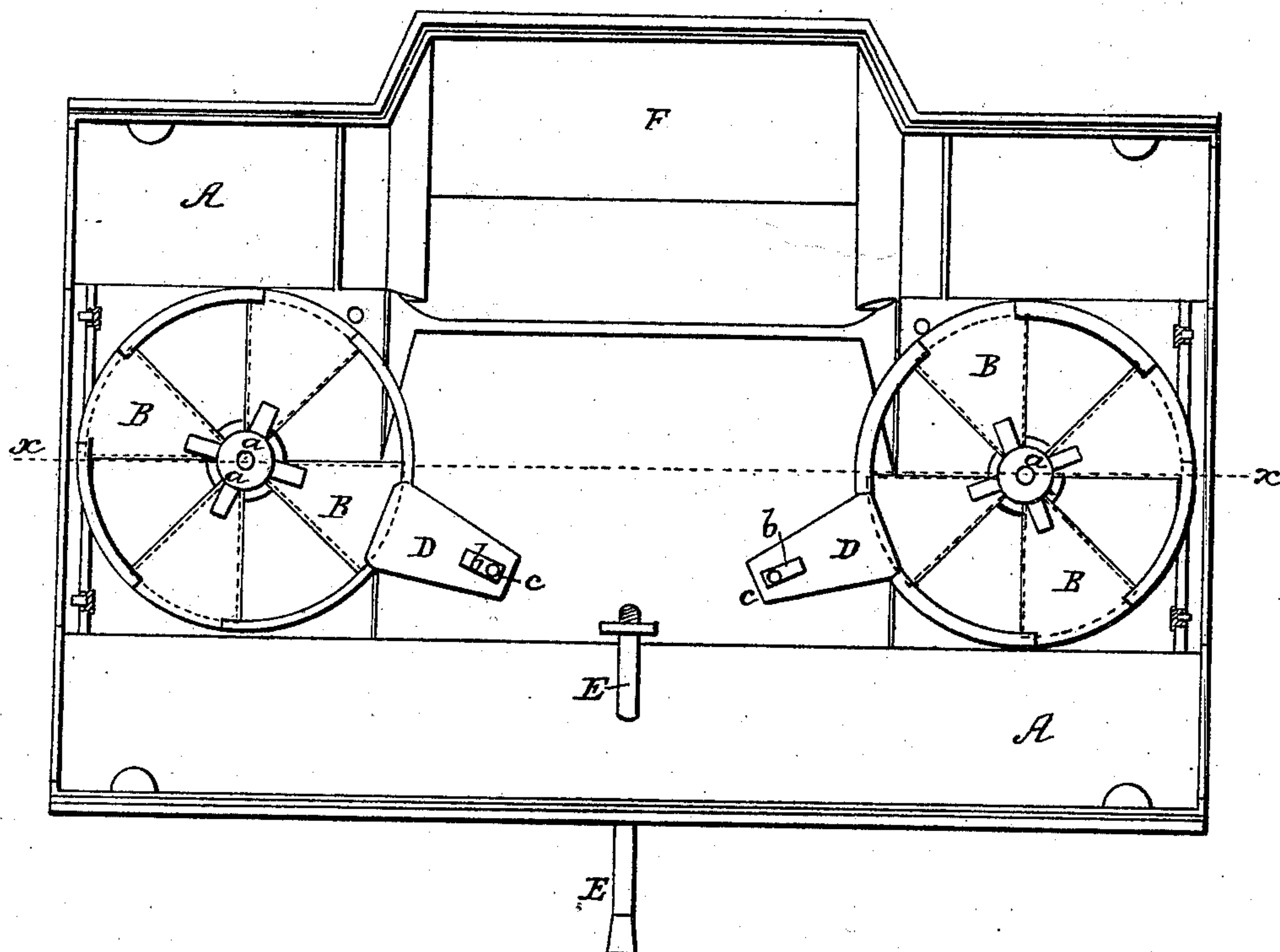
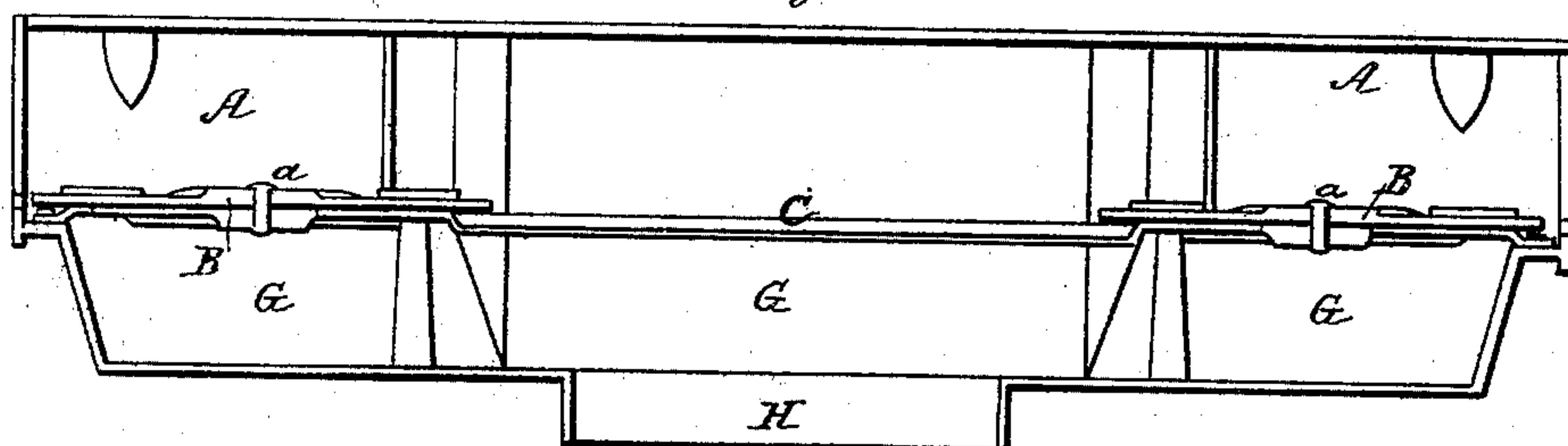


Fig. 2 Sectional View.



UNITED STATES PATENT OFFICE.

HENRY STANLEY, OF WEST POULTNEY, VERMONT.

VALVE FOR ELEVATED OVENS.

Specification of Letters Patent No. 2,664, dated May 11, 1842.

To all whom it may concern:

Be it known that I, HENRY STANLEY, of West Poultney, in the county of Rutland and State of Vermont, have invented a new and useful improvement in the manner of forming, arranging, and combining the valves used in governing the draft from a stove into the flue which surrounds an elevated oven; and I do hereby declare that the following is a full and exact description thereof.

The elevated oven which I employ is of that kind which is furnished with a flat flue that passes around from the lower to the upper part of the oven, on its rear side, and through which the heated air from the fire may be made to pass when the oven is not used for baking, or when it is desired to lessen the heat which is to be communicated to it; flues of this description have been previously in use, and are not claimed by me as constituting any part of my invention, which consists in the particular manner in which I arrange, combine, and operate the valves by means of which the draft is directed and governed. The lower part of my elevated oven is furnished with a chamber, or cavity, into which the heated air, and other gaseous products of combustion from the stove are to pass, through one or two pipes, in the ordinary manner, and whence it is to be conducted, around the oven, to the exit pipe through which it finally escapes into a chimney. On the upper part of the above named chamber, below the body of the elevated oven, I place three valves, two of which control the draft at the two ends of the chamber, and allow it to pass in any required quantity through the flue space which surrounds the oven; the third, which is situated between the two last named, controls the draft through the flat flue which passes up on the rear side of the oven; and when this is entirely opened, the whole of the draft will pass up through said flue, the end valves being then entirely closed. These three valves are so connected together as to cause them to be moved simultaneously by means of one rod. In the arrangement of valves heretofore made with a view to the government and direction of the draft through the three openings, the three valves, or dampers, which have been used, have required three separate rods, or handles, for their management.

In the accompanying drawing, Figure 1, is a top view of the three valves, or dampers, above named, the cylindrical, or oval, oven, and the case by which it is surmounted being omitted in the representation, for the purpose of showing the particular arrangement of the valves; the plate, also, which form the inner part of the flat flue is omitted in this figure. In the position in which these valves are represented the two at the ends are closed, and the middle one open, admitting the whole of the draft to pass through the flat flue.

A, A, is a portion of the outer shell, or case, of the oven, which is composed of plates of cast-iron, put together in the ordinary way.

B, B, are the two ends, and C, the middle valves. Those marked B, B, cover openings through the plate which forms their seat, which openings are represented by the dotted lines, and need no description, the manner of their action being well understood. The valves B, rotate on the center pins *a, a*, and they are each furnished with a projecting piece D, which lies upon the valve C, and have slots *b, b*, in them to receive the pins *c, c*, cast on the face of the valve C.

E, is the rod by which the valve C, is made to slide back and forth, and it will be seen that in doing so, it will cause the valves B, B, to rotate; the three valves are so connected and proportioned, as that when the middle valve C, is pushed entirely back, so as to close the opening F, which leads into the flat rear flue, the passages governed by the valves B, B, will be entirely open; and, of course, by partially closing the valve C, the amount of opening through the respective passages will be regulated and governed.

A like simultaneous movement of the three valves may be obtained by means of toothed gearing, operating in the manner of racks and pinions, but the arrangement represented is more simple, and perfectly effective, and is therefore preferred by me.

Fig. 2, is a vertical section through the lower portion of the elevated oven, in the line *x, x*, of Fig. 1, G, G, being the chamber into which the heated air passes from the stove through the pipe H, or through two such pipes, rising directly from the stove.

Having thus, fully described the nature of my invention, and shown the manner in

which the same operates, what I claim therein as new and desire to secure by Letters Patent, is—

5 The manner in which I have arranged the three valves, or dampers, as herein described and represented, and combined the same with the heated air chamber below an elevated oven, so that by the movement of one of them, the three shall operate simultaneously, as herein set forth; and this I claim

whether said valves are connected together, and combined with the elevated oven, precisely in the manner described, or in any other which is substantially the same, producing a like effect upon the same principle. 15

HENRY STANLEY.

Witnesses:

THOS. P. JONES,
EDWIN L. BRUNDAGE.