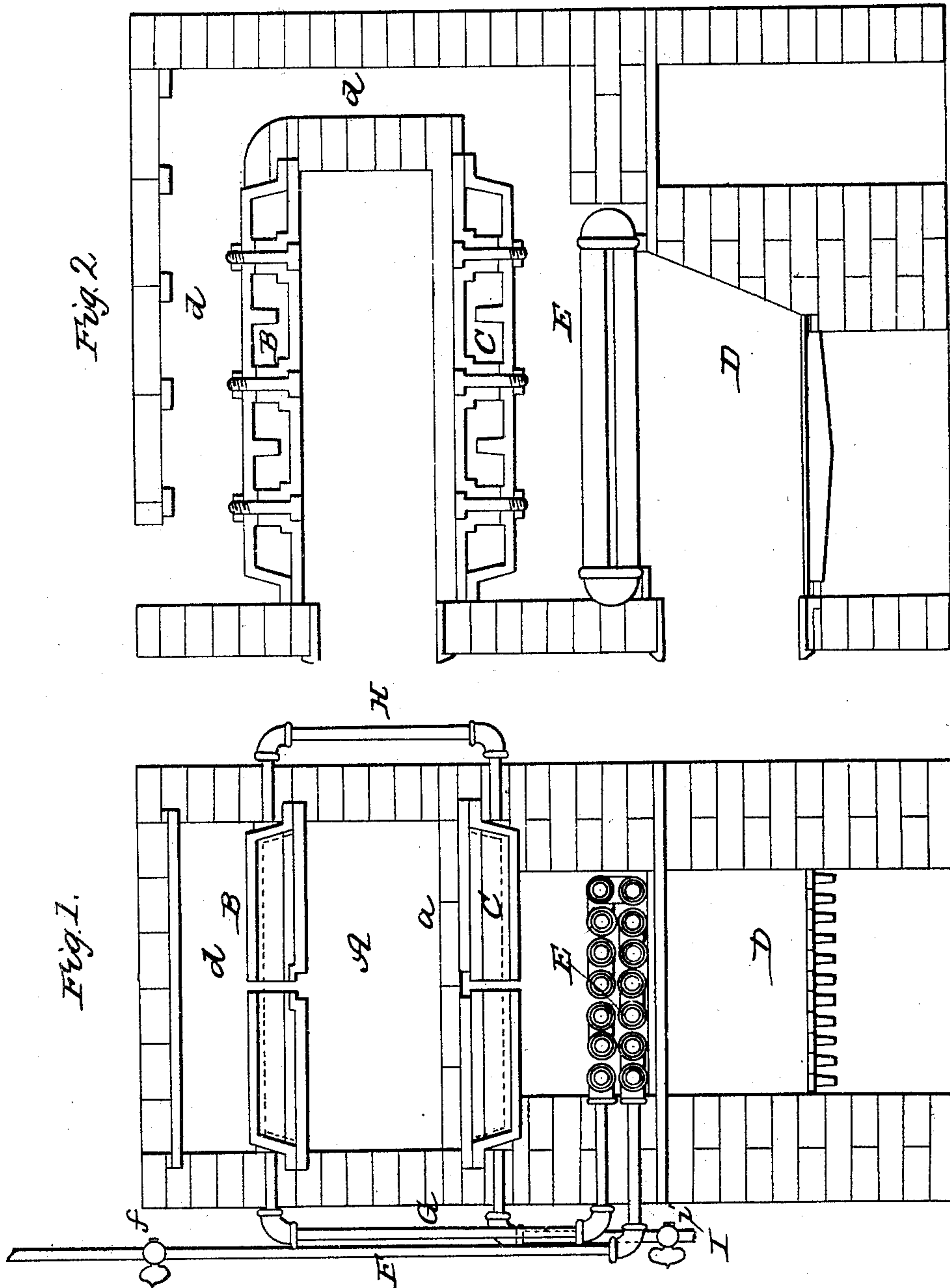


H. LYON.
Bake Oven.

No. 21,610.

Patented Sept. 28, 1858.



UNITED STATES PATENT OFFICE.

HAMILTON LYON, OF CINCINNATI, OHIO.

METHOD OF HEATING OVENS BY STEAM.

Specification of Letters Patent No. 21,610, dated September 28, 1858.

To all whom it may concern:

Be it known that I, HAMILTON LYON, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in the Heating of Ovens; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

10 This invention relates chiefly to the preservation of a constant, equable and controllable heat in an oven and consists in certain modes of availing applying superheated steam, or air, circulating within an inclosing shell or jacket.

15 In the accompanying drawings Figure 1 represents a transverse section of the oven and Fig. 2 a vertical longitudinal section of the same.

20 A, is an oven, which may be formed of boiler plate or cast iron and may be lined with brick (a).

B, C, are steam spaces placed respectively above and below the oven.

25 D, is a fire place whose flue *d*, is carried up behind the oven and over the top of the upper steam space. The upper part of the fire place contains a coil of pipes E.

30 Steam at low pressure being conveyed from a boiler through a pipe F, to the coil E, becomes superheated, and in this condition passes through a pipe G, into the upper steam space B, and thence by a pipe H, into the lower steam space C, whence it escapes 35 by a small exhaust I.

f, is a cock to regulate the supply of steam.

i, is a cock to regulate the exhaust.

The steam is to be superheated to a point which will raise the temperature of the oven to a heat suitable for baking, say from 350° 40 to 400° Fahrenheit. By means of the cock *i*, the degree of heat may be regulated with accuracy but a constant discharge is kept up to a greater or less extent in order to prevent a reflux of dry superheated steam to 45 the boiler, which would be accompanied with a sudden and violent increase of pressure.

This arrangement is found to possess great advantages over any in which the steam is in 50 contact with the bread or in which it is admitted to contact with the water while in a superheated state. No necessity exists for the use of a high pressure boiler. The oven may be kept constantly ready for instant 55 service and its heat is uniform and under perfect control, the result of which is a material saving in fuel and labor and a more perfect performance of the baking process.

I claim as new and of my invention here- 60 in—

The combination of the pipes F, E, G, and H, chambers B, and C, and exhaust I, or their equivalents, arranged and employed 65 substantially in the manner and for the purposes set forth.

In testimony whereof, I hereunto set my hand.

HAMILTON LYON.

Attest:

EZRA COPE,
GEO. H. KNIGHT.