

H. H. STIMPSON.

3 Sheets—Sheet 1.

Range.

No. 3,587.

Patented May 17, 1844.

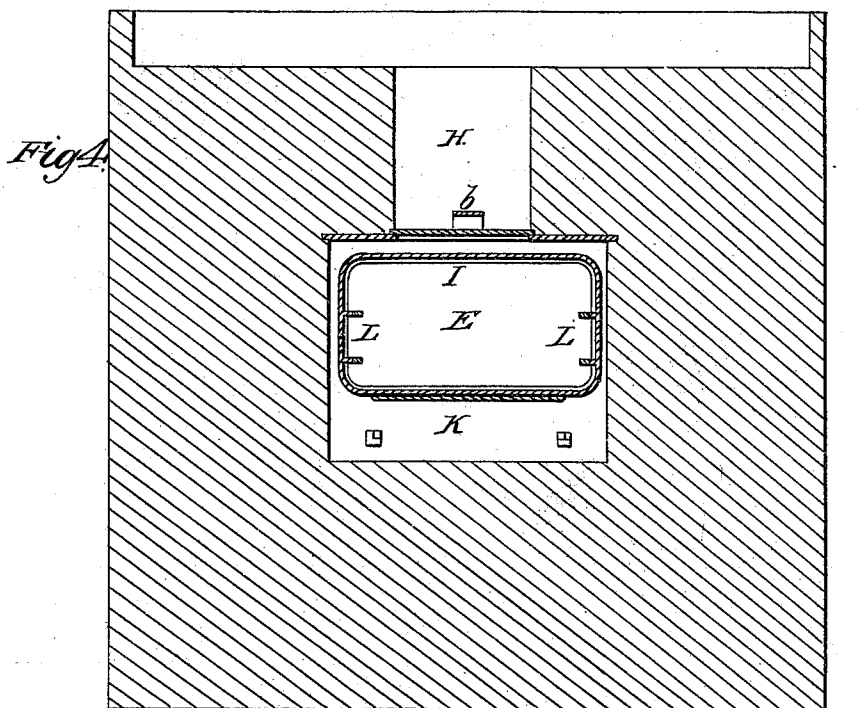
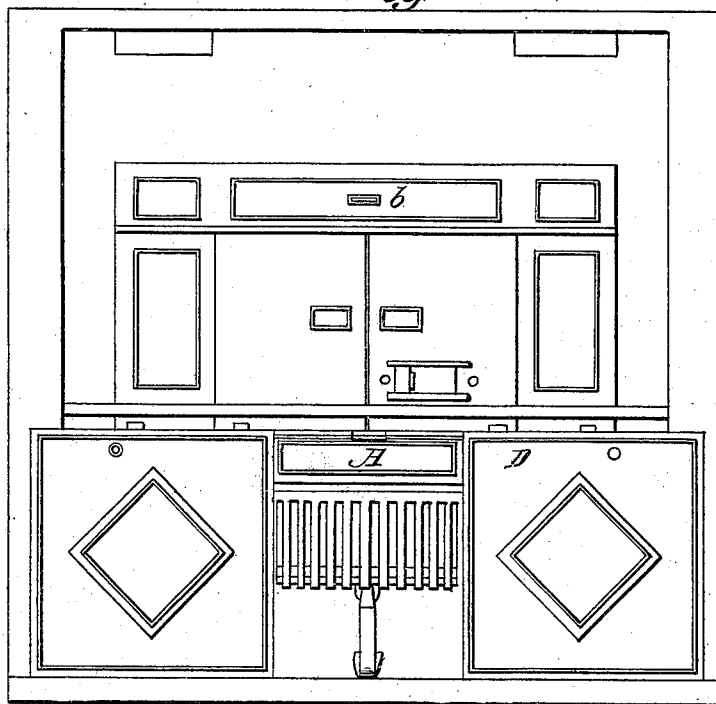


Fig. 1.



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3 Sheets—Sheet 2.

Range.

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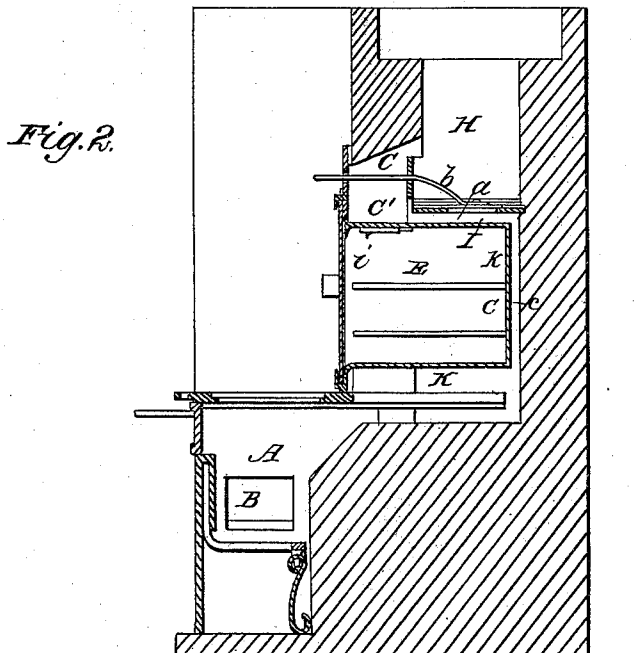
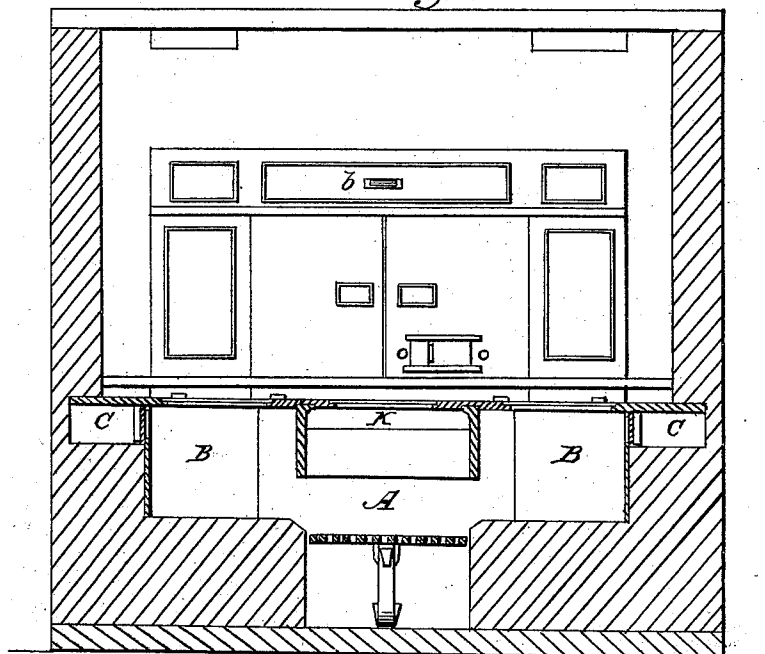


Fig. 5.



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3 Sheets—Sheet 3.

Range.

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Fig. 6

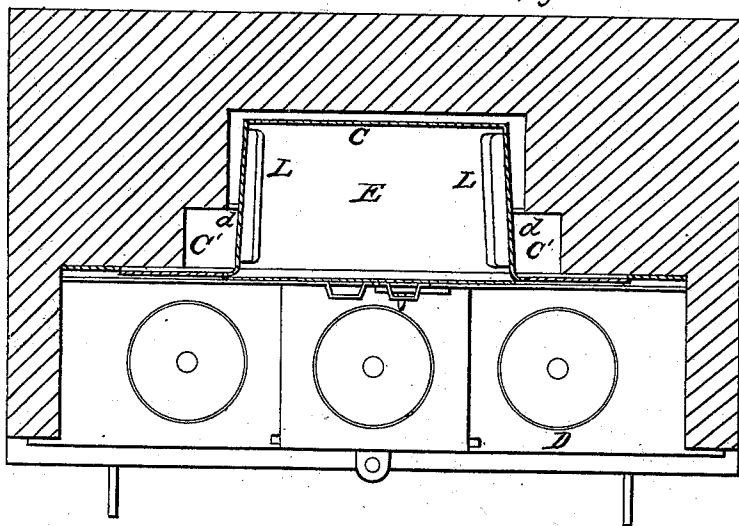
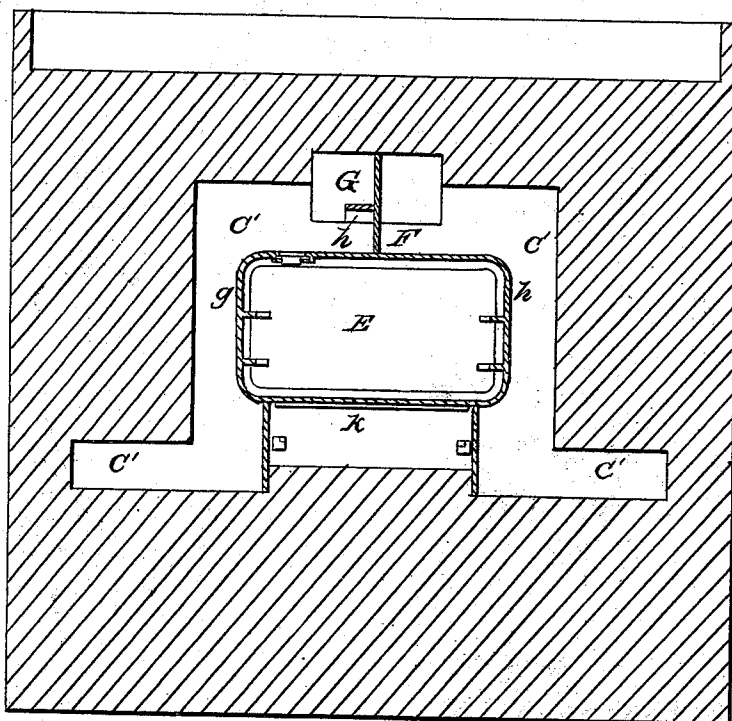


Fig. 3



UNITED STATES PATENT OFFICE.

H. H. STIMPSON, OF BOSTON, MASSACHUSETTS.

COOKING-RANGE.

Specification forming part of Letters Patent No. 3,587, dated May 17, 1844; Reissued August 8, 1846, No. 84.

To all whom it may concern:

Be it known that I, HERBERT H. STIMPSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Cooking-Ranges, and that the following description and accompanying drawings constitute a full and exact specification of the construction and operation of my invention.

Figure 1, of the drawings above mentioned, represents an elevation of the front of my improved range. Fig. 2, is a transverse, central and vertical section thereof. Fig. 3, is a vertical and longitudinal section, taken through the lateral flues, and front part of the oven. Fig. 4, is another section taken parallel to the latter, but in rear of it, and of the lateral flues. Fig. 5, is another longitudinal and vertical section taken through the fire grate, and boiling chambers.

My improvement consists in the arrangement of the lateral, and other flues, for the discharge of smoke, and conveyance of heat to the oven; by which I am enabled to more effectually heat the oven and boilers at the same time than by the modes heretofore adopted of disposing the said flues.

In the drawings, A, denotes the fire grate or fire place; on each side of which a boiling chamber B, is arranged and communicates therewith in the usual manner; the said boiling chamber having an orifice or opening in its top plate, for the reception of one of the boilers, and a flue or passage C, leading out of, and by the side of it and extending rearward at right angles to the front plate D, of the range. Each of these flues is then continued horizontally in rear of its boiling chamber (as seen at C', in Fig. 3) until it meets the side of the oven E. It is next carried vertically by the side of and in contact with the front part of the side of the oven, (this latter side of the oven forming one side of the flue) and thence horizontally over the front part of the top of the oven until it meets and terminates against a partition F. An opening G, in the rear side of each lateral flue, permits the smoke which passes through the lateral flue to escape into a discharging flue H, which extends rearward to the chimney and directly over a flue space I, formed over the top of the oven. The oven has a flue space K, extending entirely be-

neath it, and communicating with the fire place, and from the said flue space K, a vertical flue L, arises on each side of the oven (see Fig. 4,) and in rear of the lateral flues and thence passes over the rear part of the top of the oven, and communicates with the discharge flue H, through a horizontal opening *a*, which may be closed at any time by a damper or flue valve *b*. The heat is also permitted to circulate in rear of the rear end of the oven, through a very narrow space *c*, which is left between the end of the oven and the brickwork, and communicates with the flue space beneath the oven.

Fig. 6, is a horizontal section of the oven and its side flues, in which it will be seen, that each of the lateral flues C', is separated from the flues in rear of it, by a partition or plate *d*.

The lateral and other flues about the oven thus open into the discharge flue H, at, or about the same level, so that by means of the damper *b*, we can so regulate the size of the opening at *a*, as to cause a part of the smoke and heat proceeding from the fire, to pass into one, or both of the boiling chambers, and from thence into the lateral flues C', C', whenever we desire to bake and boil at the same time.

In my improved range, the oven is wider from *g*, to *h*, Fig. 3 than it is deep, or from *i*, to *k*, Fig. 2, the said arrangement of it rendering it more convenient for the insertion and removal of articles, than it is, as ordinarily disposed. Besides, when so arranged, and with the lateral and other flues passing around it, in the manner as hereinbefore described, the heat is disseminated very equally over, and throughout the whole oven, thereby preventing the articles in one part thereof, from being scorched or burnt, before others in other parts, can be much affected by the heat; as usually occurs in the long ovens which extend a greater distance in rear of the fire place, than they are in width.

I do not claim the introduction of the smoke, heat, or other volatile products of combustion, to the sides of an oven of a cooking range through lateral flues proceeding from the boiling chambers or space under the boilers; but

That which I do claim consists in—

The manner of arranging the flues which proceed from the boiling chambers, and fire

place, and pass in contact with the oven, so as to equally, or thoroughly distribute the heat over the exterior of the oven, and permit the operations of baking and boiling, to be carried on, without shutting off or interrupting the communication between the fire place and flue space beneath the oven, and around its sides; the said arrangement consisting in carrying the lateral flues, or those proceeding from the boiling chambers, directly against the front parts or halves of the sides of the oven, and thence horizontally over, and in contact with the top thereof, and opening the same at the top of the oven, into the discharge flues, as before described, in combination with carrying the main dis-

charge flue of the fire place beneath, and in contact with the oven, and around and in contact with the rear parts or halves of its sides and top, the same being connected with the discharge flue leading to the chimney, and the whole being substantially as hereinbefore set forth.

In testimony that the foregoing is a correct specification of my said invention and improvement, I have hereto set my signature this seventeenth day of April, year of our Lord 1844.

H. H. STIMPSON.

Witnesses:

R. H. EDDY,
DAVID A. GRANGER.

[FIRST PRINTED 1913.]