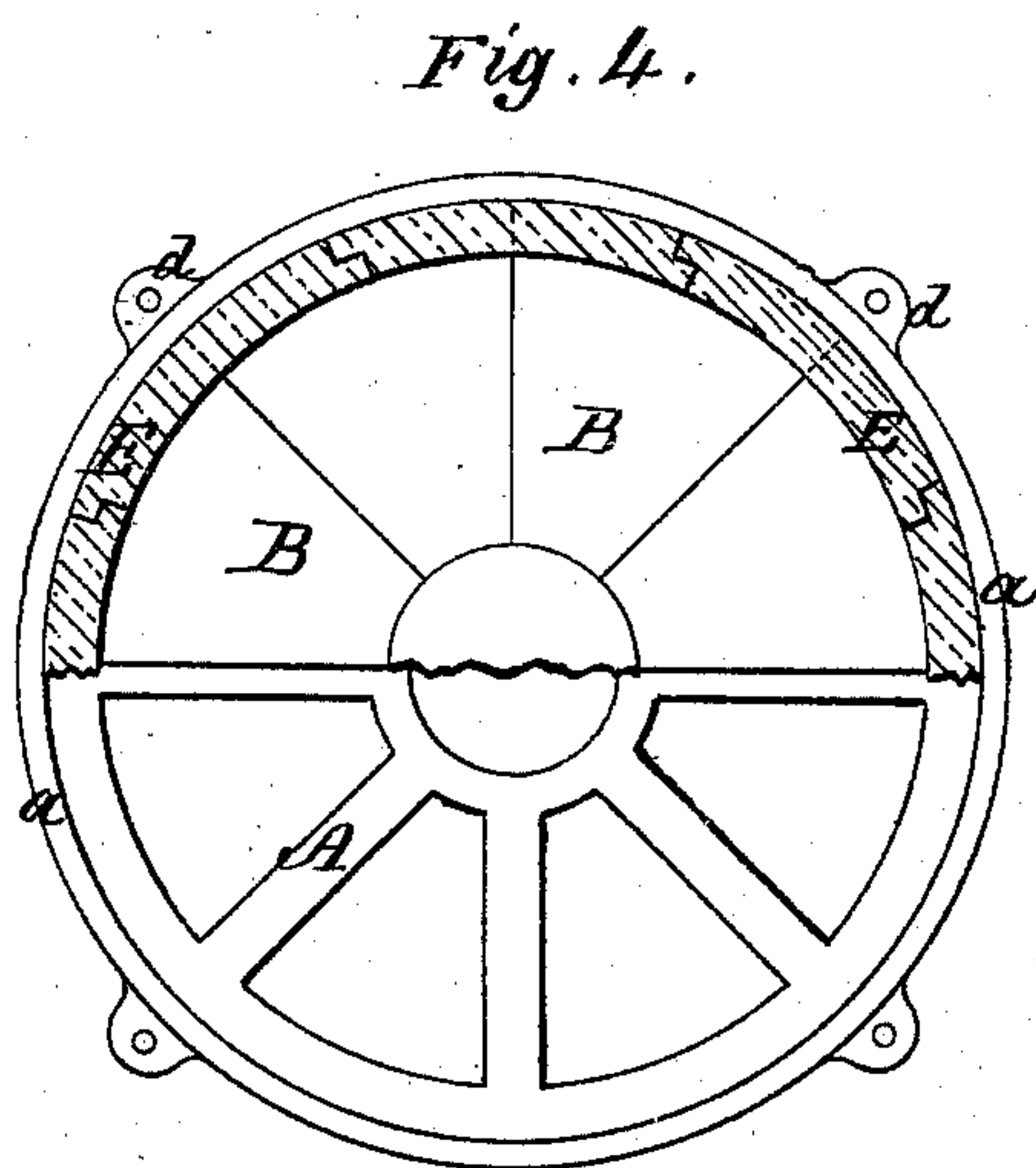
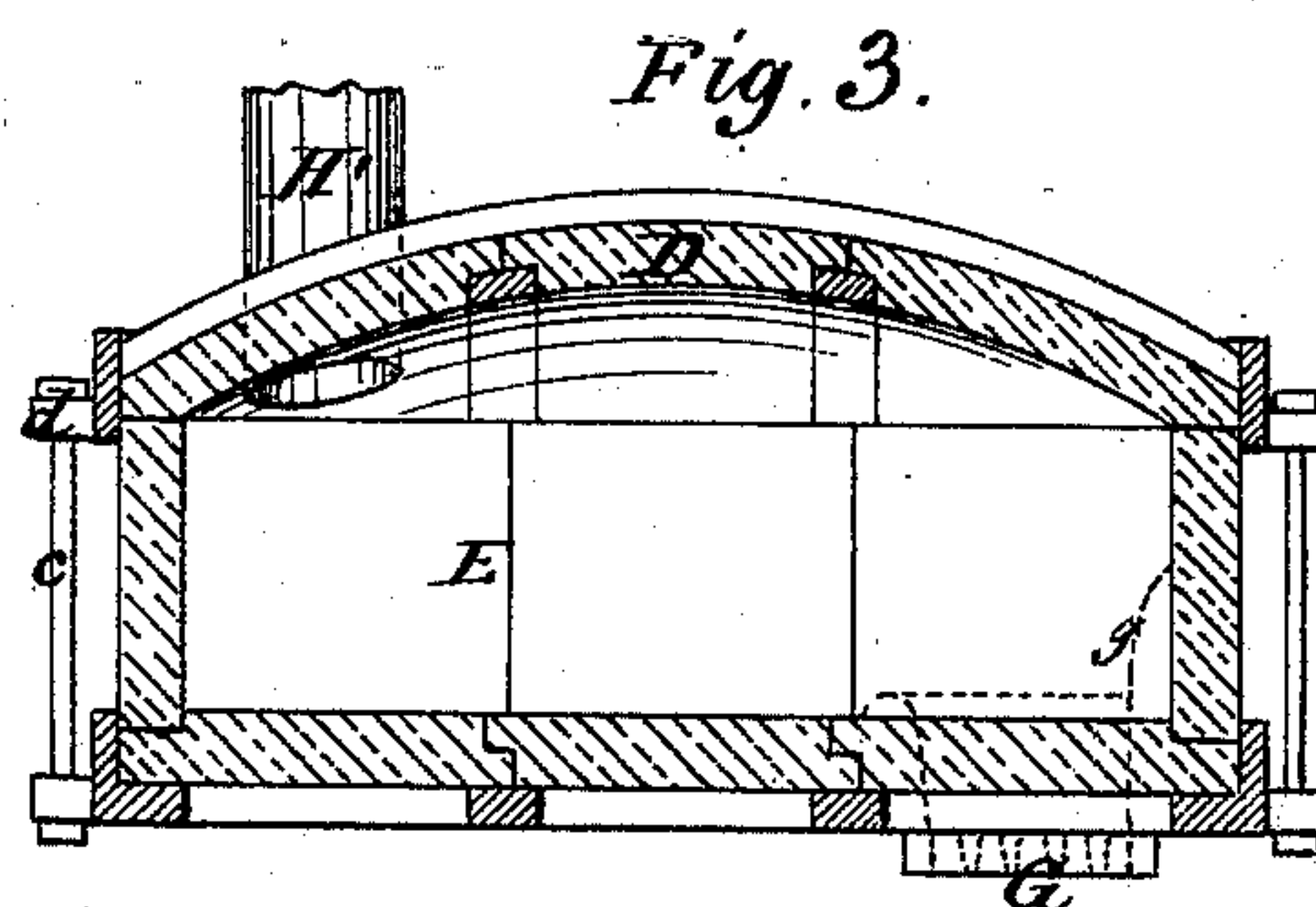
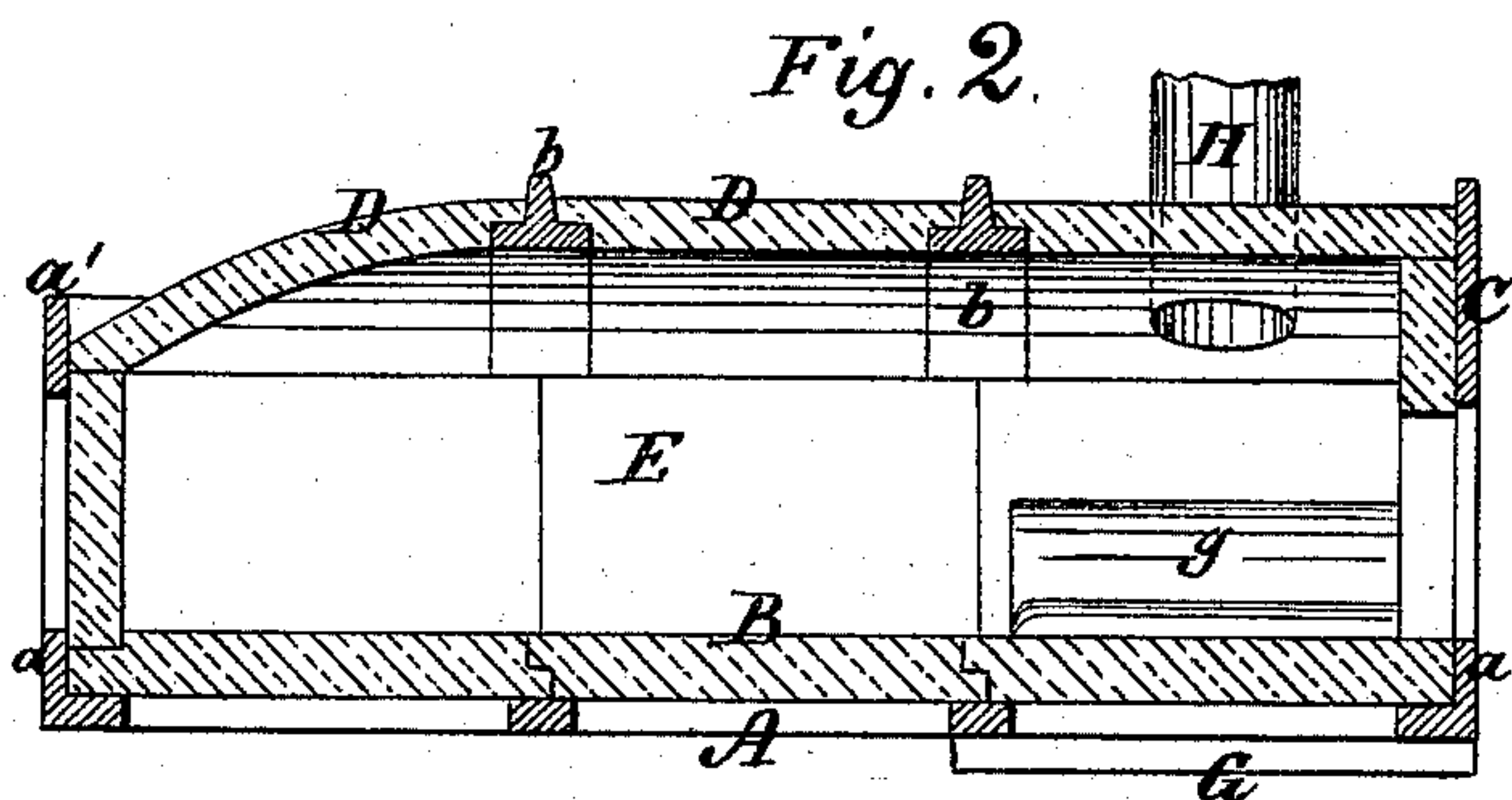
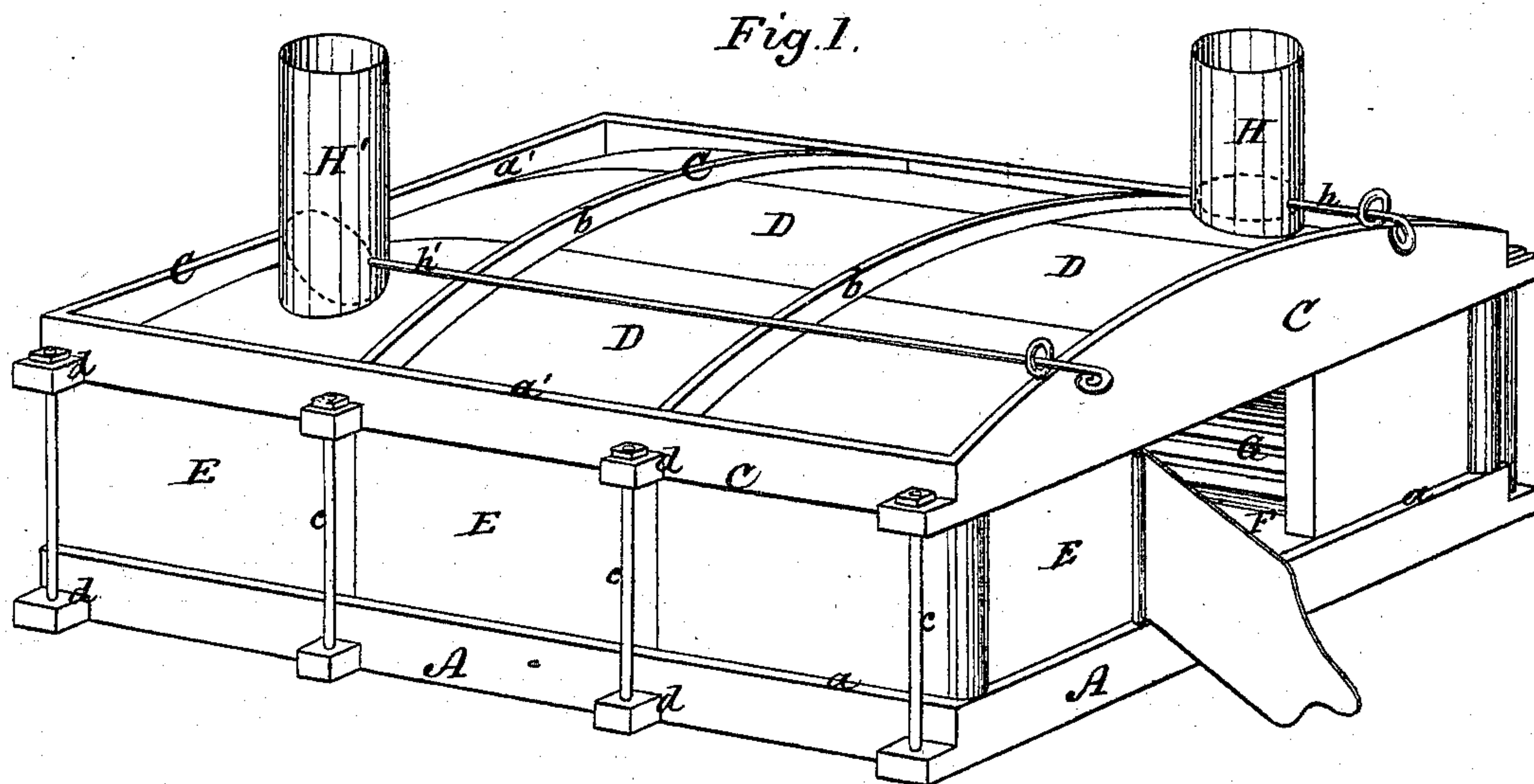


HENRY CHATAIN.

Construction of Ovens for Bakers, etc.

No. 125,439.

Patented April 9, 1872.



Witnesses

Walter B. Masson

P. J. Dodge

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UNITED STATES PATENT OFFICE.

HENRY CHATAIN, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN THE CONSTRUCTION OF OVENS FOR BAKERS, &c.

Specification forming part of Letters Patent No. 125,439, dated April 9, 1872.

To all whom it may concern:

Be it known that I, HENRY CHATAIN, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Ovens; and that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents a perspective view of my oven. Fig. 2 represents a longitudinal vertical section of the same. Fig. 3 represents the same oven in transverse vertical section. Fig. 4 represents, in top view and partly in horizontal section, a different form of oven, but exhibiting the same principles of construction.

Similar letters of reference where they occur denote like parts in all the figures.

My invention relates to the peculiar construction of ovens generally used by bakers, confectioners, hotels, &c.; and consists in forming a frame-work of cast-iron to support the bricks of which the floor of the oven is made; and also in forming a similar frame-work, but convex in form, to support the bricks of which the arch or roof of the oven is constructed, both frames being provided with flanges to retain the bricks in position, and bolts to connect the parts together. Ordinary brick ovens have been built for ages, and are generally considered the best for the purpose of baking; but a great objection to their more general introduction is the cost, which amounts to one hundred, two hundred, and even three hundred dollars; also, the liability of the arch or roof of the oven to cave in, and the impossibility of removing the oven from one location to another without destroying it. My invention relates to certain combinations, by means of which my oven can be built at a comparatively low price, not liable to get out of order, and can be easily taken apart and set up again.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawing.

A represents the bottom frame. It is made of iron, (preferably cast-iron,) cast in one or more pieces, and has all around it a flange, *a*, to retain the floor-bricks B in position. C represents an iron frame of the same dimensions

as the frame A, but having the ribs *b* arched over so as to allow the bricks D to be nearly self-supporting. It has also a flange, *a'*, to prevent the thrust of the arch. The frames A and C are bolted together by bolts *c* passing through lugs *d* cast on the sides thereof. The frame C and bricks D of the arch rest on the side bricks E of the oven. The bricks forming the floor, sides, and arch are preferably made of fire-clay, and are rabbeted at the edges so as to fit one another's projections, the bricks being molded for the purpose. On one side of the interior of the oven, near its entrance F, is located a fire-pot provided with a grate, G, that portion of the oven being protected from the direct action of the fire by side bricks *g*. The arch of the oven is provided with two openings, to which smoke-flues are fitted, the smoke-flue H being placed directly over the place where the fire is kept, and the flue H' at the furthest point from the fire.

To set up an oven of this construction, brick pillars or even wooden trestles are erected to the proper height, and the frame A placed firmly upon them, over which the bricks B, forming the floor, are laid, around which are placed vertically the side bricks E. The top frame C is then placed over them, and the bricks D, forming the arch, arranged between the iron ribs *b*, on which they partly rest. The two frames are then bolted together by means of the bolts *c*, and the flues H H' placed in position. The joints between the bricks, being rabbeted, can be easily cemented together while placing the bricks in position. The oven is then ready for use. The fire is kindled over the grate G, the damper *h* being turned so as to leave the flue H open for a free exit of the smoke. After the fire is well kindled the flue H is closed by means of the damper *h*, and the damper *h'* turned so as to open the flue H', the heat from the fire being in that manner obliged to circulate through the whole inside of the oven before escaping through that flue.

It will readily be seen that, by the peculiar construction of this oven, the heavy retaining-walls used, and so necessary in ordinary ovens to keep the arch from caving in, are dispensed with, and that it can be removed from one place to another without destroying it. If it is desired to retain the heat in the oven constantly,

it may be kept in a box with sand surrounding it.

Having thus fully described the construction and operation of the oven, what I claim therein as new, and desire to secure by Letters Patent, is—

1. A removable oven, when constructed of rabbeted bricks, held in position by iron frames A and C connected together by bolts *c*, substantially as and for the purposes set forth.

2. I also claim the combination of an iron foundation, A, and upper frame C, constructed, as represented, with interposed bricks rabbeted at their edges so as to form a light and strong oven, substantially as and for the purpose described.

H. CHATAIN.

Witnesses:

EDMUND MASSON,
EDMUND F. BROWN.