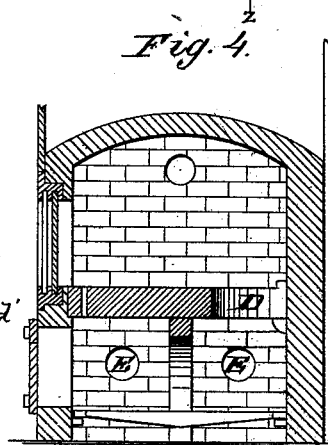
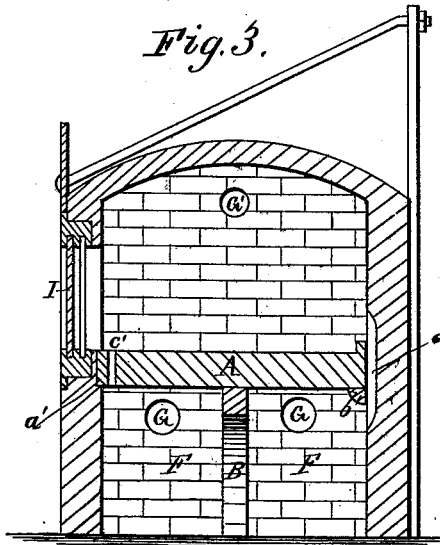
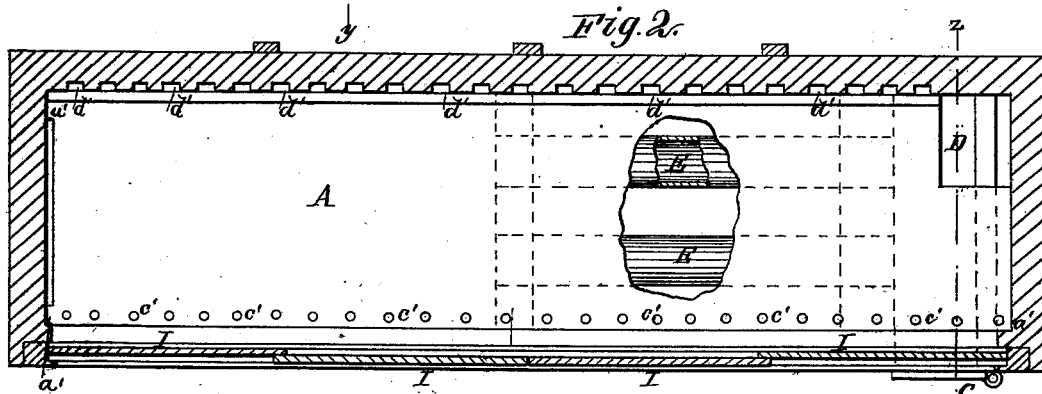
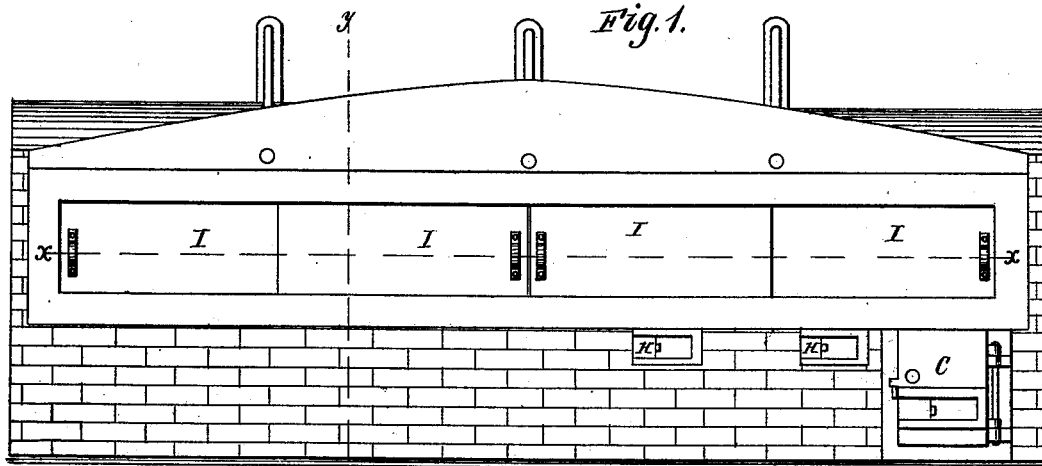


G. BRAKE.
Baker's Oven.

No. 215,088.

Patented May 6, 1879.



WITNESSES:
Henry N. Miller
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UNITED STATES PATENT OFFICE.

GEORGE BRAKE, OF LANSING, MICHIGAN.

IMPROVEMENT IN BAKERS' OVENS.

Specification forming part of Letters Patent No. **215,088**, dated May 6, 1879; application filed January 31, 1879.

To all whom it may concern:

Be it known that I, GEORGE BRAKE, of Lansing, in the county of Ingham and State of Michigan, have invented a new and Improved Baker's Oven, of which the following is a specification.

Figure 1 is a front elevation of the oven. Fig. 2 is a horizontal section on line *x x*, Fig. 1. Fig. 3 is a vertical cross-section on line *y y*, Fig. 1. Fig. 4 of the drawings is a vertical transverse section through the line *z z* of Fig. 2, for the purpose of showing the connection and relation of parts.

Similar letters of reference indicate corresponding parts.

This invention has for its object a baker's oven which shall be simple and cheap in construction and economical and efficient in its working.

The sides, ends, and roof of the oven are built of brick, and the floor or bottom *A* is of stone or some refractory composition that will withstand the heat, supported by arches *B B* along its center, and in channels *a' a'* or on projections *b' b'* at its ends and sides.

At one end of the oven, at *C*, is the fire-place for heating it. The products of combustion, or a portion of them, pass up through the opening *D* into the oven proper, while another portion may pass through the pipes *E E*, which extend under the floor of the oven for about half its length, and discharge their contents into space *F*.

Holes *c' c'* and passages *d' d'* in and at the sides of the oven-floor permit the heat from below to flow into the space above the floor—a matter of great importance sometimes for regulating the temperature of the oven.

The draft is created by a smoke-stack, with which the oven is connected by flues *G' G'* and *G G*, and in these flues are placed dampers to regulate the temperature above and below the oven-floor.

The openings *H H*, which are provided with sliding doors, are for the purpose of admitting cold air to cool the oven-floor should it be too hot.

The oven-roof is supported and braced, as seen, by lintels, buck-staffs, and rods, and the whole front of the oven proper is opened or closed by doors *I I*, which slide in grooved plates which are placed above and below

them. These doors are made of iron, and lined with fire-brick or some other refractory material.

The average dimensions of a baker's oven are about twenty feet in length and six feet in width, and the working doors are at one or both ends; hence the labor of charging and emptying them, or "setting" and "drawing," and of arranging their contents, is very great, and long heavy "peels" must be used for the work.

By this arrangement—placing sliding doors along the whole front of the oven—every part of it can be easily reached with a short light peel, and all the labor attending baking be much reduced.

In ordinary bakers' ovens, the fires must be drawn before putting in the dough, lest the bread be injured by the smoke, gases, and floating ashes; hence the oven quickly cools. But it will be seen that by the devices herein shown the fires may be maintained during the baking, without fear of injuring the bread, by closing the damper in flue *G'* and keeping open those in *G G*, and the opening *D* may also be closed with a slab of stone or brick.

By maintaining a constant fire much more work can be done in this oven in a given time than in the ordinary baker's oven, and this will work well with coal, coke, or wood as fuel. It can be built of any desired dimensions, to suit a small or a large trade, and can be constructed for about one-third of the cost of a revolving oven of like capacity.

By judiciously arranging the dampers which control the drafts below and above the oven-floor, an even heat can be secured in every part of the oven proper.

I am aware that doors in front of the oven are not broadly new; but

What I claim is—

A brick oven whose bottom *A* is supported on central arches, *B*, over an end fire-place, *C*, and on projections or recesses at the ends and sides, and which is provided with opening *D*, holes *c'*, and passages *E* and *d'*, arranged as shown and described.

GEORGE BRAKE.

Witnesses:

W. K. PRUDDEN,
JOHN BROAD.