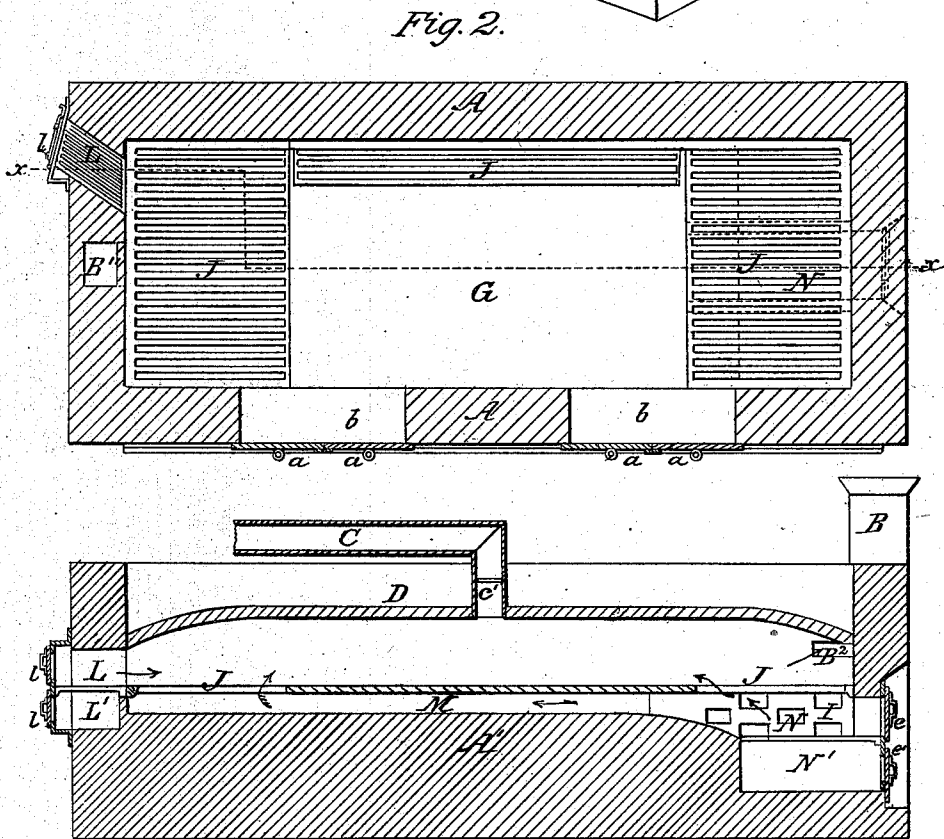
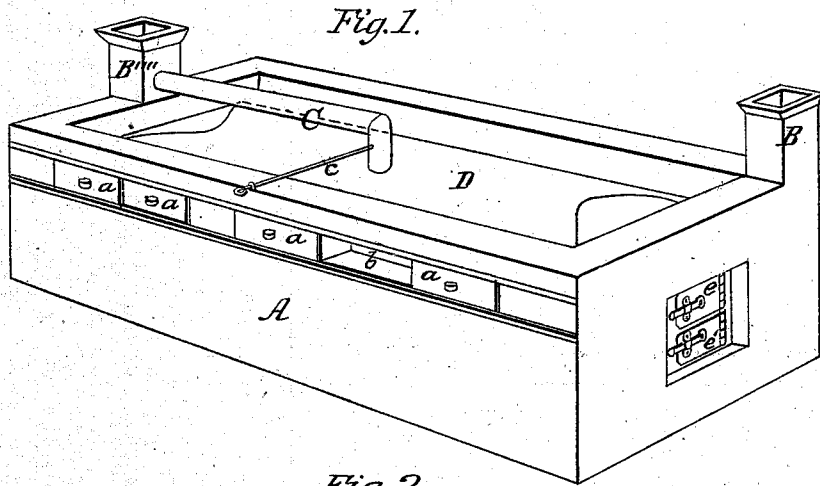


A. A. & J. A. AULL.
Bakers' Oven.

No. 108,086.

Patented Oct. 11, 1870.



Witnesses
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By
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United States Patent Office.

ADAM A. AULL AND JOHN A. AULL. OF BELLEFONTAINE, OHIO.

Letters Patent No. 108,086, dated October 11, 1870.

IMPROVEMENT IN BAKE-OVENS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, ADAM A. AULL and JOHN A. AULL, of Bellefontaine, in the county of Logan and State of Ohio, have invented a new and improved Bake-Oven; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of the oven.

Figure 2 is a section taken through the oven in a horizontal plane just above the hearth.

Figure 3 is a section taken vertically and longitudinally through the oven, in the direction indicated by the course of dotted line $x x$ in fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain improvements on ovens designed for general baking purposes.

It consists—

First, in arranging, at opposite ends of the hearth, within the walls of the oven, two furnaces, one of which is below the hearth, and adapted for coke or hard coal, and the other is located above the hearth, or between the latter and the crown of the oven, and is adapted for either coke, coal, or wood, thereby obtaining a more uniform heat throughout the oven than is obtained in ovens hitherto made.

Second, in constructing the hearth of the oven partly of soapstone and partly of iron grating, which will allow an equal distribution of heat throughout all parts of the oven, as will be hereinafter explained.

To enable others skilled in the art to understand our invention, we will explain its construction and operation.

In the accompanying drawing—

A represents the vertical walls of an oblong-rectangular oven, of which

A' is the base, and

D the arch or crown.

In front of the oven are sliding doors, $a a$, which are used for closing the passages $b b$ leading to the hearth.

This hearth, which is sustained in a horizontal position in any convenient manner, is elevated somewhat from the foundation A', so as to leave a free circulating space, M, shown in fig. 3, for allowing the heat free access to the bottom of the hearth.

The hearth is composed of a central slab or slabs, G, of soapstone, surrounded on three sides by grating, J.

The grating is at the ends and rear part of the imperforated portion G of the hearth, and causes a free circulation of the heated products from a furnace, N, beneath every part of this portion G.

Above the hearth is the crown of the furnace, out of which is carried a pipe, C, provided with a valve, c , which can be operated by a rod, c , leading to the front wall of the oven. The pipe affords an escape for steam from the oven to one of the main flues.

At one end of the oven, and below the hearth, a furnace, N, is constructed, provided with perforated side walls, P, a feed-door, e , and an ash-pit, N', which also has a door, e .

At this end of the oven is also constructed an escape-flue, B', leading to a chimney, B.

At the opposite end of the oven, and near one corner thereof, is a furnace, L, which is between the hearth and the crown D of the oven.

This furnace is provided with a feed-door, l , an ash-pit, L', which latter has a door, l .

On one side or in front of the furnace L is a flue, B'', leading to a chimney, B''.

It will thus be seen that we employ two separate furnaces for supplying heat above and below the hearth to the interior of the oven, and that these furnaces are arranged in such manner as to supply heat from both ends of the oven, thereby uniformly economically heating it throughout.

Having described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of two furnaces or fire-places at opposite ends of the oven, one furnace being located below the hearth and the other above it, substantially as described.

2. The construction of a hearth, of a soapstone imperforated portion, G, and a grating portion J, substantially as described.

ADAM A. AULL.
JOHN A. AULL

Witnesses:

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