(No Model.) 2 Sheets—Sheet 1.

J. BENDER.

BAKER'S OVEN.

No. 259,795. Patented June 20, 1882.

Fig. 1.

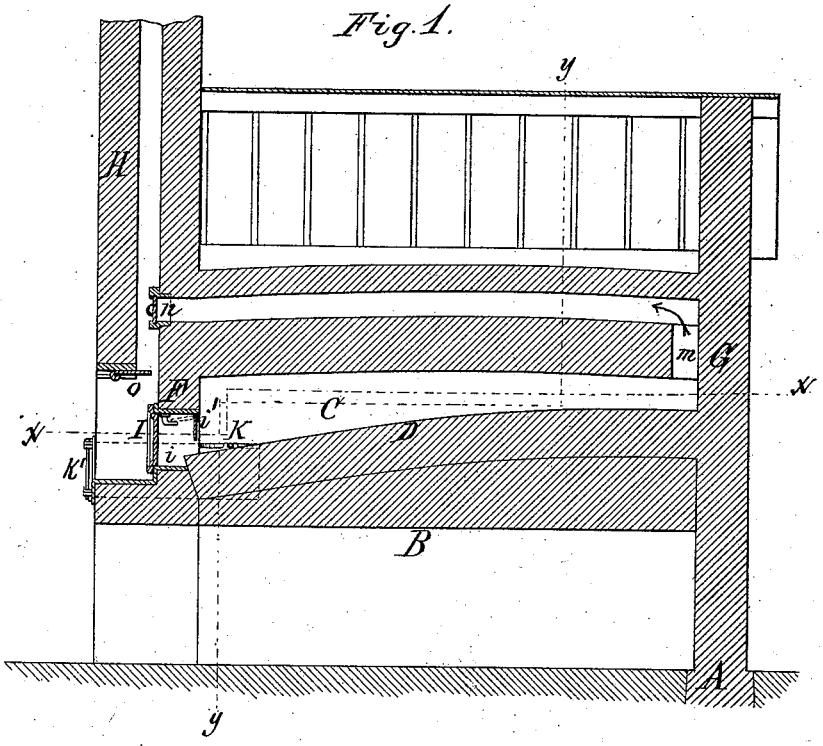
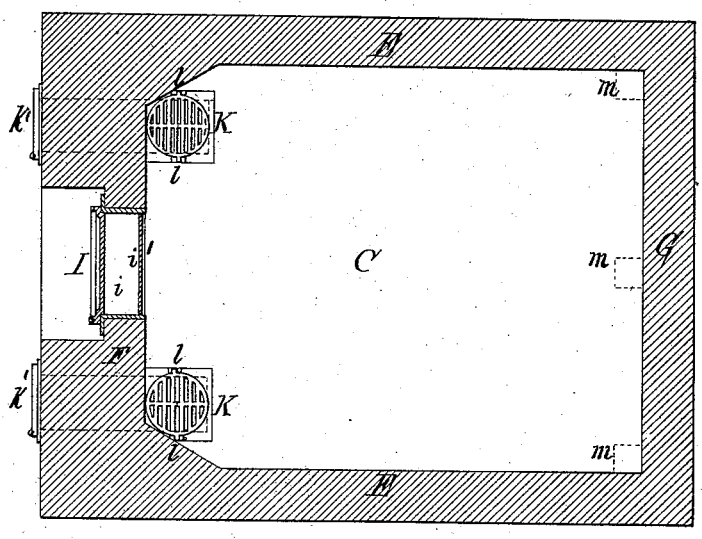


Fig. 2.



Witnesses.
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

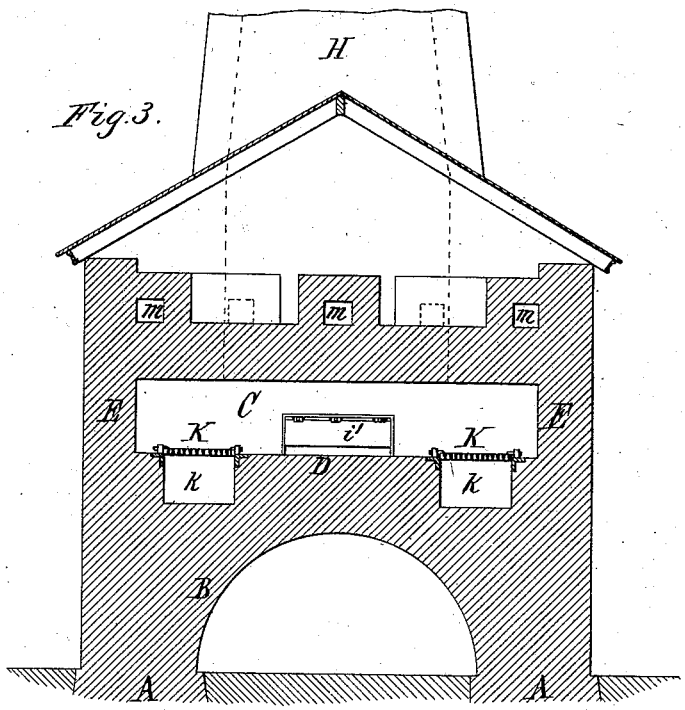
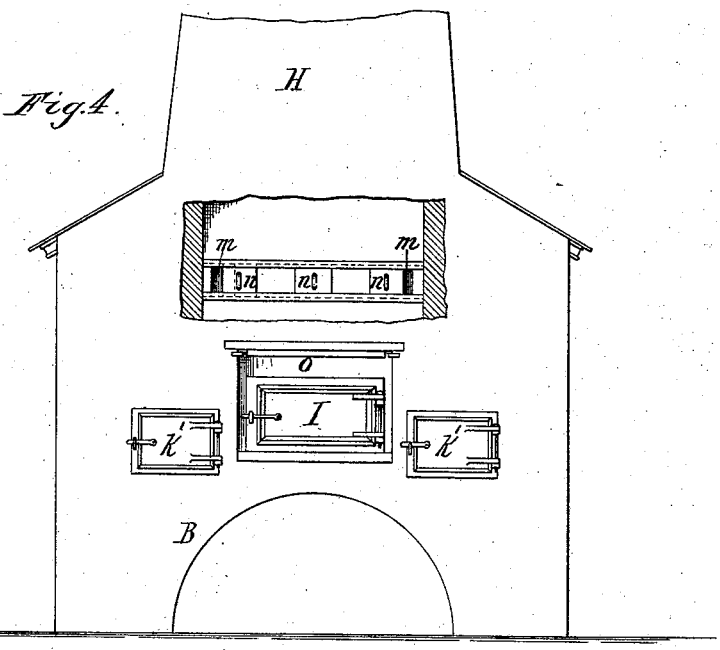


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN BENDER, OF BUFFALO, NEW YORK.

BAKER'S OVEN.

SPECIFICATION forming part of Letters Patent No. 259,795, dated June 20, 1882.

Application filed April 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN BENDER, of the city of Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Bakers' Ovens, of which the following is a specification.

This invention relates to an improvement in that class of bakers' ovens in which the fire is placed directly in the oven proper, and has for its object to effect a uniform heating of the oven in a simple manner and at comparatively small expense.

My invention consists of the novel construction of the oven, as hereinafter fully set forth.

In the accompanying drawings, consisting of two sheets, Figure 1 is a horizontal vertical section of my improved oven. Fig. 2 is a horizontal section in line *x x*, Fig. 1. Fig. 3 is a cross-section in line *y y*, Fig. 1, looking forward. Fig. 4 is a front elevation with a portion of the front wall of the chimney broken away to show the dampers of the flues.

Like letters of reference refer to like parts in the several figures.

A represents the foundation-walls; B, the arch which supports the oven C; D the floor, E the side walls, F the front wall, and G the rear wall, of the oven proper; and H the chimney.

I represents the oven-door, which closes an opening, *i*, arranged centrally in the front wall, F, of the oven, and *i'* is a plate hung in the opening *i* to confine the heat in the oven when the door is opened.

K K are two grates, arranged on opposite sides of the opening *i*, near the front wall, F, in line with the floor D of the oven, or thereabout, as clearly shown.

k k are ash-pits arranged underneath the grates K and provided with doors *k'*. The grates K are supported on pivots *l*, or in any other suitable manner, so that the burning coal resting on the grates can be readily dumped into the ash-pits when desired.

m represents three flues, one arranged centrally and one in each corner of the oven, and all rising along the rear wall, G, a short distance, and running thence forwardly to the chimney.

n represents sliding or other adjustable dampers, arranged at the front ends of the flues *m*, where they enter the chimney. The lower end of the chimney-flue opens into the open space in front of the door I, in the usual manner, and is provided with a sliding damper, *o*, whereby the lower end of the chimney can be opened or closed, as desired. The dampers *n* are arranged near the lower end of the chimney, so that they can be reached and adjusted when the damper *o* is open. After the coal has been placed upon the grates K through the opening *i* and ignited the doors I and the damper *o* are closed and the doors *k'* and the dampers *n* are opened. The hot gases pass through the oven from both grates rearwardly and escape through the flues *m* to the chimney H. The arrangement of the grates K near the side and front walls of the oven and of the central and side flues, *m*, at the rear end of the oven distributes the heat uniformly over the entire width of the oven, and this distribution can be further regulated by adjusting the dampers *n* of the flues so as to heat the oven thoroughly and uniformly. The floor D of the oven becomes properly heated by the flame, but does not become overheated, as it does when the fuel is burned directly on the floor of the oven, and the necessity of using large quantities of water to cool the overheated floor is thereby avoided.

Bituminous or soft coal can be advantageously burned on the grates K, and the oven is thereby heated at much less cost than when wood is employed. When the oven has been properly heated the coal resting on the grates K is dumped into the ash-pits *k*, the dampers *n* and doors *k'* are closed to confine the heat, the damper *o* is opened, and, after properly cleaning the oven, the articles to be baked are placed in the same through the opening *i* in the usual manner. The steam and gases produced by the dough in the oven are confined in the same, whereby a fine glossy surface is produced on the bread.

I claim as my invention—

The combination, with the oven C, provided with a front opening, *i*, having a door, I, of grates K K, arranged in the floor of the oven on opposite sides of the opening *i*, and provided with ash-pits *k*, having doors *k'*, flues *m*, provided with dampers *n*, and a chimney, H, having a damper, *o*, substantially as set forth.

JOHN BENDER.

Witnesses:

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