

(No Model.)

2 Sheets—Sheet 1.

A. T. SIMPKINS.
BAKER'S OVEN.

No. 346,621.

Patented Aug. 3, 1886.

Fig. 1.

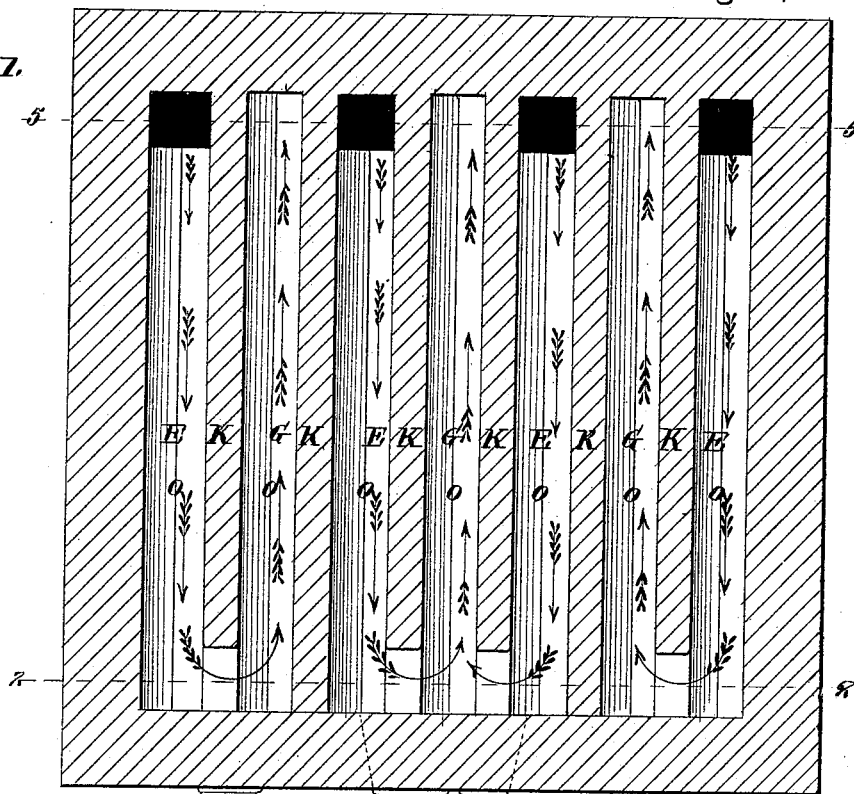
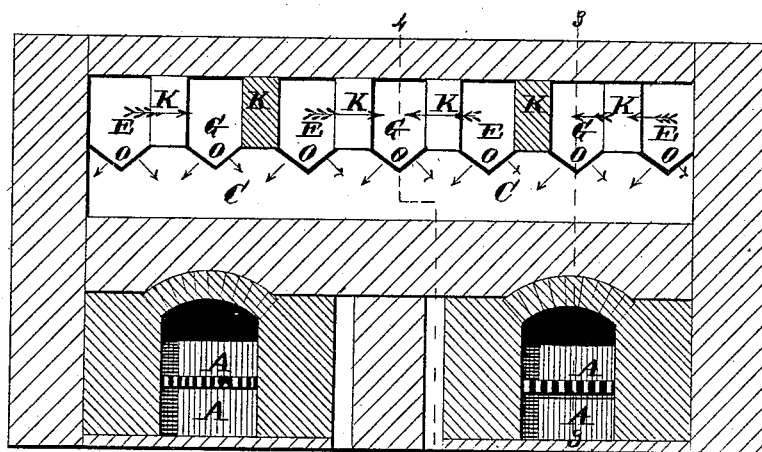


Fig. 2.



Attest,
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Inventor,
Alvin T. Simpkins
Paul Bateman, atty.

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Fig. 3.

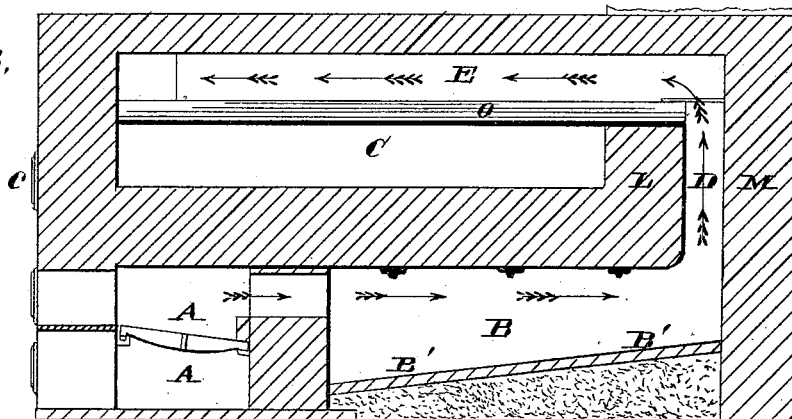


Fig. 4.

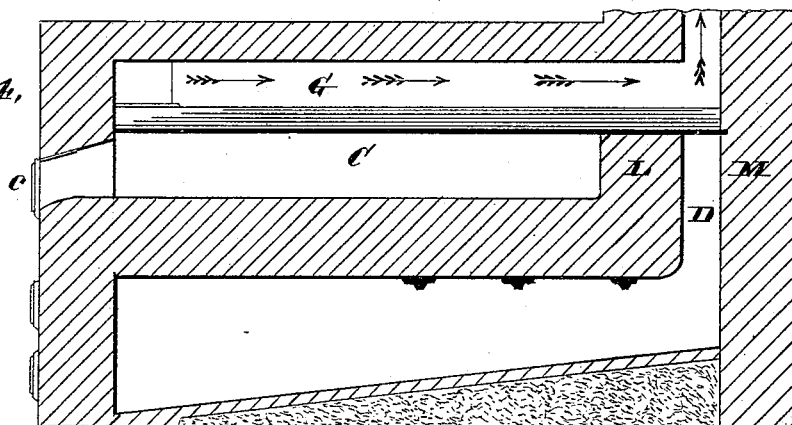
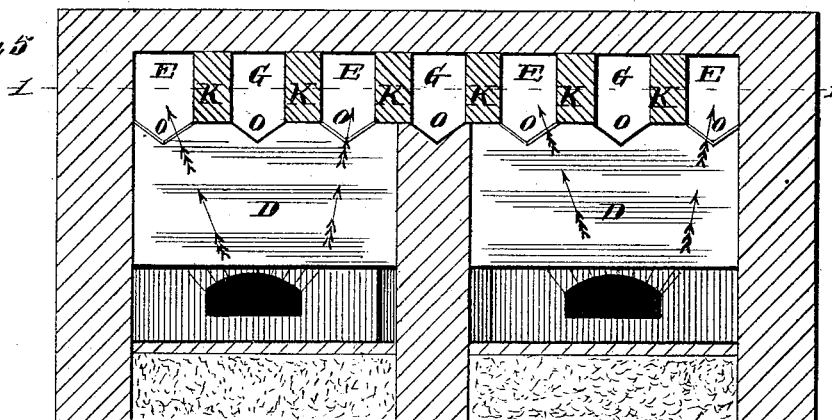


Fig. 5.



Attest:

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Paul Baker, atty

UNITED STATES PATENT OFFICE.

ALVIN T. SIMPKINS, OF ST. LOUIS, MISSOURI.

BAKER'S OVEN.

SPECIFICATION forming part of Letters Patent No. 346,621, dated August 3, 1886.

Application filed June 8, 1885. Serial No. 168,094. (No model.)

To all whom it may concern:

Be it known that I, ALVIN T. SIMPKINS, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Bakers' Ovens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a horizontal section of my baker's oven on line 1 1 of Fig. 5; Fig. 2, a vertical section of the same on line 2 2 of Fig. 1; Fig. 3, a vertical section of the same on line 3 3 of Fig. 2; Fig. 4, a vertical section of the same on line 4 4 of Fig. 2; Fig. 5, a vertical section of the same on line 5 5 of Fig. 1.

This invention relates to the construction of a baker's oven in such manner that it will retain the steam generated in the baking process, and thus secure the application of a moist heat to the article being baked; also, that the oven will heat quickly and retain its heat for a long time, even after the fire in the hearth has gone out. With these main objects in view I construct my oven in the following manner:

Except as hereinafter particularly stated, my oven is constructed of fire-proof masonry. Underneath the front of the oven proper is the fire-place A A, which is in the usual form. (See Figs. 2 and 3.) Leading from fire-place A A, and underneath the remainder of the oven proper, is a flue, B, provided, preferably, with an inclined bottom, B'.

C is the oven proper. This oven at all its sides, except the top, is provided with a thick wall of masonry, preferably brick, and the only openings into said oven are through a door or doors at its front end, as by door c. Back of the oven, and in open connection with flue B, is a vertical flue or flues, D, and this flue D connects with a certain number of horizontal flues, E, leading from their connection with flue D in the direction of the arrows, as shown at E, Fig. 3—that is, toward the front wall of the oven. These horizontal flues, which connect with the vertical flue D, open directly into flue D at the back end of the oven, follow along horizontally the line of the top of the oven proper, and then at the front end of oven they connect with the other horizontal flues, G, situated on the same plane.

These "other horizontal flues" G connect with flues E at the front end of the oven, but they do not connect with the vertical flue D; but at the back end of oven they connect, in any suitable manner, with the chimney. (Shown in broken section in Figs. 3 and 4.)

A horizontal section, Fig. 1, shows the connections and relative constructions of flues E and G. The number of these flues is regulated by the size of the oven which it may be desirable to build. They are separated from each other by partition-walls K, except at the point where a flue, E, may connect with a flue, G. The bottoms of these flues E and G form the top of the oven C, and these bottoms of the flues E and G are made in the following manner: Resting on the masonry of the rear wall, L, when forming the bottom of a flue, G, or on the masonry of the rear walls, L and M, when forming bottom of a flue, E, I place horizontally long V-shaped pieces of iron, O, and these V-shaped irons form not only the crown of the oven and the support for the walls K K, but also, by their shape, give strength to the crown of the oven; also, being of iron, they readily take up the heat passing into the flues and transmit the rays of heat to the oven C. Their shape also gives a greater radiating-surface for the oven, and also directs the rays of heat at right angles to each other upon the articles being cooked, as shown in Fig. 2. By making the flues E G comparatively large—say ten inches deep by eight inches wide—an advantage is derived in this, that the products of combustion in passing through will not pass so rapidly, but their passage will be made gradual, thus giving the walls and irons a better opportunity to absorb the heat.

The operation of my invention is as follows: Fire being started in the hearth A, the products of combustion pass into the flue B, then into the vertical flue D, from there into the horizontal flues E, along their entire length to the opening in their adjoining horizontal flues G, back to the chimney. Thus the oven is surrounded by heat, the products of combustion being underneath the oven C in the flue B, back of the oven in the flue D, throughout the top of the oven in the flues E and G, and circulating throughout the top of oven in the way best calculated to do good—that is, so

as to thoroughly heat the walls of the oven, and so that the rays of heat through the irons O, being directed into the oven at cross angles, reach the oven directly in every part, and thus
5 produce a more thorough and even heat.

I am aware that ovens having a baking-chamber the top of which is formed of a metal plate, as described in German Letters Patent No. 15,554, are not new, and I do not desire
10 to claim the same.

I claim—

1. In a baker's oven, the combination of the chamber C, fire-chamber A, and flue B, situate below the chamber C, rising flues D, horizontal flues E, situate above the chamber C and
15 communicating with the flues D, flues G, situate on the same horizontal plane with the flues E and communicating therewith at the ends removed from the flues D, and V-shaped parti-

tions O between the flues E G and the top of the chamber C, substantially as and for the purpose specified. 20

2. In a baker's oven, the combination of a baking-chamber, parallel flues situate above the same, said flues communicating with each
25 other and with the fire-chamber at opposite ends, and V-shaped partitions forming the bottom of the flues and extending downward in the baking-chamber, substantially as and for the purpose specified. 30

In testimony whereof I have affixed my signature, in presence of two witnesses, this 21st day of May, 1885.

ALVIN T. SIMPKINS.

Witnesses:

PAUL BAKEWELL,
JOS. W. CROOKES.