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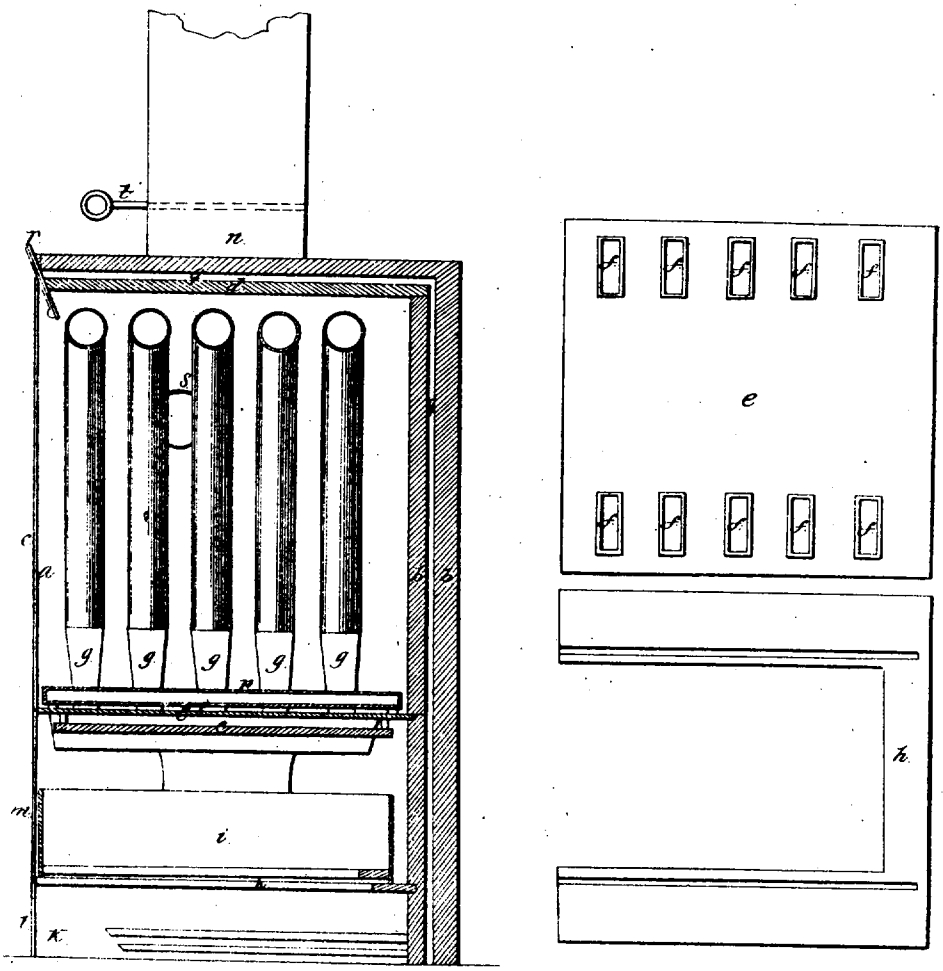
B. BLANEY.

2 Sheets—Sheet 1.

8,527 X

Bake Oven.

Patented Dec. 17, 1834.



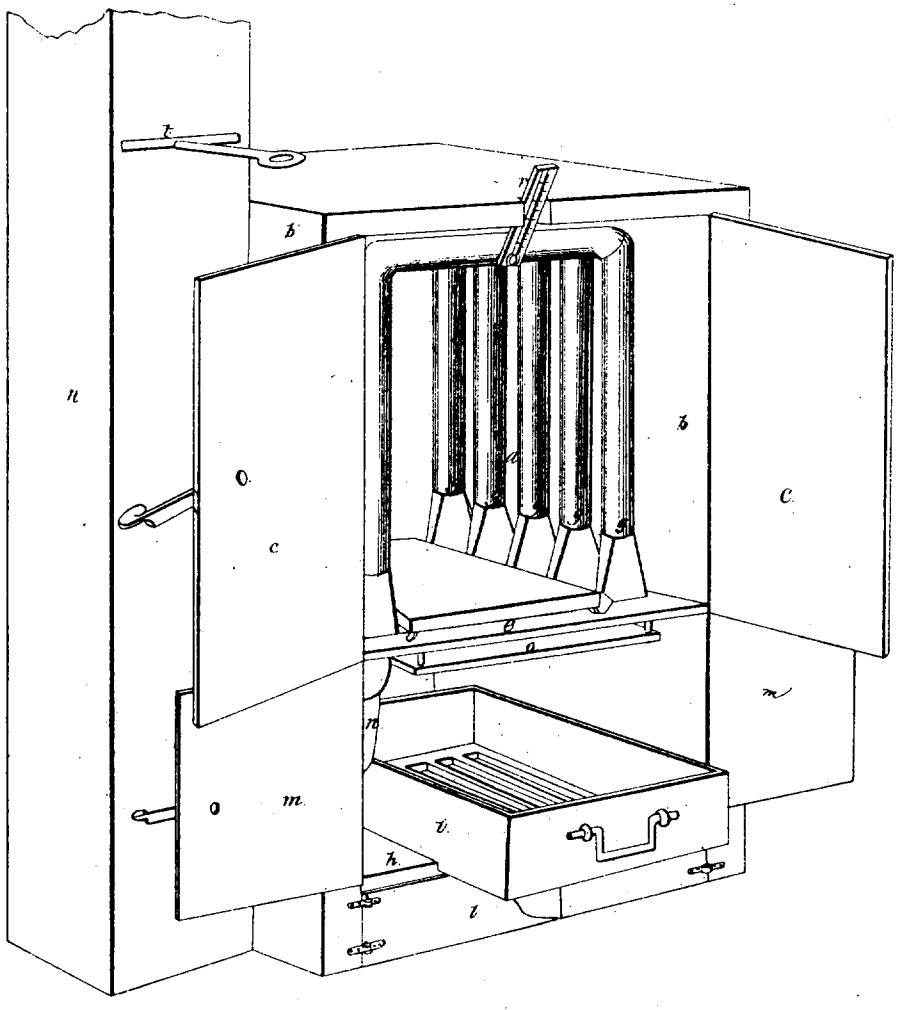
8,527✕

B. BLANEY.

Bake Oven.

2 Sheets—Sheet 2.

Patented Dec. 17, 1834.



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Dec. 17. 1834

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Benjamin Blaney, a Citizen of the U. S.

Letters Patent.

The Schedule referred to in these Letters Patent and making part of the same, containing a description in the words of the said Benjamin Blaney himself of his Improvement in the mode of making & erecting Ovens, for domestic and other purposes, called Blaneys Oven.

"Blaneys Oven" may be placed wherever other ovens may be conveniently, and is constructed of Brick and iron, as follows, & is exhibited in the drawings herewith.—

First. The space for the oven is of a square form, and is inclosed on three sides with Brick walls, and a double iron door on the fourth or front, and is covered over the top with soapstone, brick or iron. The bottom to be of cast iron, with a row of oblong perforations on each side near the edge about two inches wide, by six inches long, or with a rim on each, projecting upward, upon which sheet or cast iron, funnels are to be placed for the passage of the smoke and heat from the furnace as herein after described.

Second. on the bottom of the furnace room, under the oven, is a cast iron plate, with grooves in on which the furnace is to slide, having a perforation in nearly of the size and directly beneath the bottom of the furnace to admit the air which passes through the ash pit into the furnace for the support of combustion. The ash-pit is furnished with a door nicely fitted, on which when closed will stop the circulation of the air through the furnace and flues of the oven.

Third. An oblong square box of cast iron, with grated bottom

bottom, is made to slide in and out, for the convenience of charging & discharging, and with or without being wholly removed from the furnace room.

Fourth. The door of the furnace room is to be opened and the furnace to be drawn out of the furnace room sufficient to be conveniently charged, which done, and the kindling ignited, it is to be shoved back into its place over the perforation in the bottom plate of the furnace room. The air door of the ash-pit is to be opened to allow the air to pass freely through the ash-pit into & through the furnace. The heat and smoke from which will act upon the bottom of the oven, passing across underneath the same, to and through the row of perforations on one side of the oven bottom, into funnels which are placed over each of the perforations, and within the space inclosed for the oven by the brick walls, rising perpendicularly nearly to the top of the oven, thence passing across the top in the funnels; & within the enclosure thence descending in the funnels through the perforations on the other side of the oven bottom, into the main flue or chimney. — thereby allowing the heat and smoke to rise in the funnels, to traverse the oven, radiating in its passage, from all sides of the funnels, and then, causing it to descend below the bottom of the oven before it enters the main flue or chimney, the greatest possible economy of heat is obtained within the space inclosed by the brick walls.

Fifth. There is to be in the furnace room a thick cast iron plate, something longer than the top of, and supported immediately over the furnace at a little distance from the inner side of the oven bottom, to prevent the fire from acting too powerfully on the cast iron bottom of the oven, and thereby injuring the same.

Sixth.

Sixth. There is also to be an air light sheet iron case, from one to two inches thick with legs upon the corners about nine inch high placed within the oven upon the cast iron bottom to equalise the heat, & prevent it from acting too intensely upon the bottom or lower part of whatever may be baking.

Seventh. Above the covering of the oven is an air light cavity from one to two inches high, to prevent the heat from being conducted off into, and through the Masonry, and which cavity if there is sufficient room to admit of it, may be extended all round upon the outside of the brick walls of the oven, thereby rendering it more perfect.

Eighth. There is to be a Thermometer conspicuously placed above the oven door, the globe of which is immersed in the atmosphere of the oven to indicate the temperature, thereby enabling the Operator to produce the desired results with certainty.

Ninth. There is to be a ventilator with a valve placed in the side wall through which the steam and vapour may escape into the main flue. There is also to be a damper placed across the main flue, higher than the top of the oven, which being closed, retains all the heat that may have accumulated in the Mason work, thereby rendering it equal to a common oven, after the fire is extinguished. There is also to be a stopper placed in the partition dividing the furnace room from the main flue or chimney, for the purpose of cleaning conveniently the furnace work flues.

The advantages of this new improvement over all other ovens, now in use consists in producing the desired results with greater certainty and expedition than in any other known mode now at such

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less expense, as the fire is applied directly to the object and with the least possible waste of heat, and may be used with any sort of fuel.

The petitioner claims as new and useful in his improvement, the general arrangement of the oven, and particularly the passing of the heat in the flues within the brick walls as above described and also the application of the thermometer, which enables the operator to graduate the heat and accomplish with certainty the desired results.

In testimony that the above is a true specification of my said improvement, as above described, I have hereto set my hand this fifth day of November, in the year of our Lord, one thousand eight hundred and thirty four.

Witnesses

George Gay. Benj. Blaney.

D. H. Simmons.

Drawing