

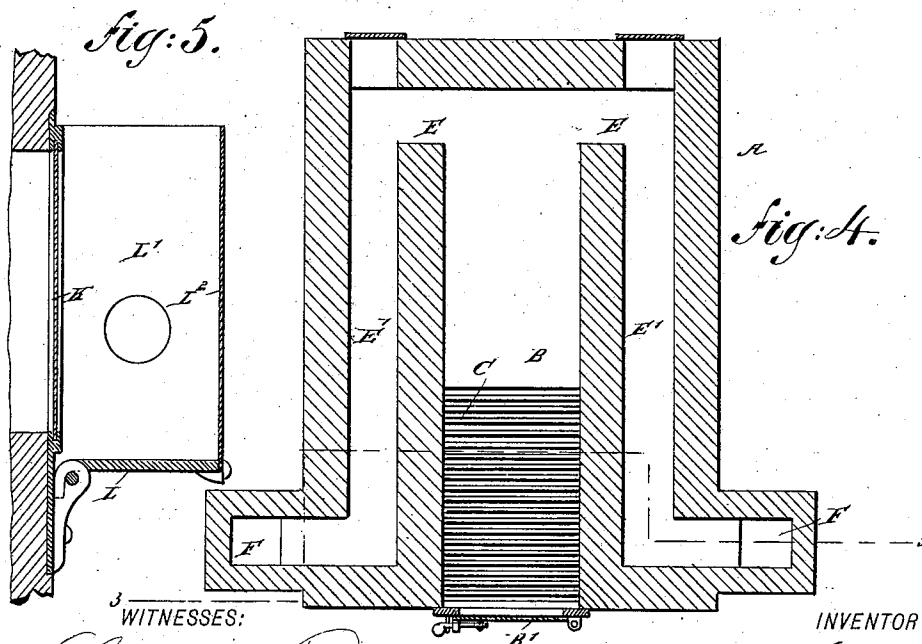
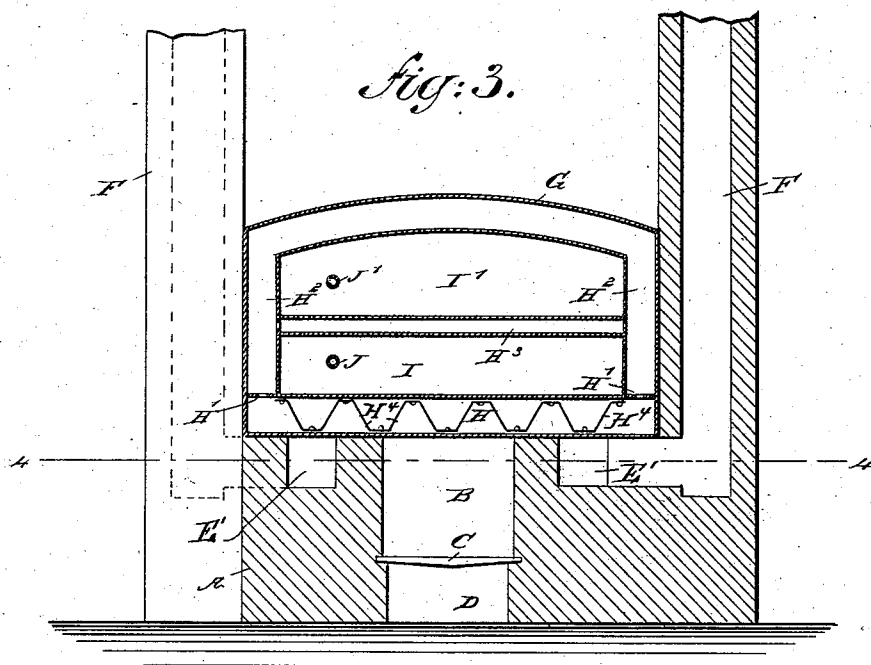
(No Model.)

2 Sheets—Sheet 2.

A. SPANGLER.
STEAM BAKE OVEN.

No. 564,116.

Patented July 14, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ADAM SPANGLER, OF SILVERTON, OREGON.

STEAM BAKE-OVEN.

SPECIFICATION forming part of Letters Patent No. 564,116, dated July 14, 1896.

Application filed June 21, 1895. Serial No. 553,581. (No model.)

To all whom it may concern:

Be it known that I, ADAM SPANGLER, of Silvertown, in the county of Marion and State of Oregon, have invented a new and Improved Steam Bake-Oven, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved steam bake-oven which is simple and durable in construction, very effective and economical in operation, and arranged to bake perfectly, and to give bread or other material to be baked a fine luster, and without danger of burning.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the improvement. Fig. 2 is a sectional side elevation of the same on the line 2 2 of Fig. 1. Fig. 3 is a transverse section of the same on the line 3 3 of Fig. 4. Fig. 4 is a sectional plan view of the same on the line 4 4 of Fig. 3, and Fig. 5 is an enlarged sectional side elevation of the lamp-support.

The improved steam bake-oven is provided with a brickwork A, in which is formed a combustion-chamber B, provided with a grate C, below which is arranged an ash-pit D. Doors B' and D' lead to the combustion-chamber B and the ash-pit D, respectively, to introduce the fuel and to remove the ashes in the usual manner.

From the ends of the combustion-chamber B and on opposite sides lead the openings E into longitudinally-extending channels E', formed in the brickwork A, and connected at their forward ends with chimney-flues F. On the top of the brickwork A, directly over the combustion-chamber B, channels E' and openings E is set a metallic shell G, made of sheet metal or similar material, and formed in its bottom with a boiler H, containing the water to be heated by the fire burning in the combustion-chamber B to generate steam. This boiler H is connected by apertures H' with steam-spaces H², divided longitudinally by a chamber H³, to form the ovens I and I', of

which the oven I is located directly above the boiler H and supported by brackets H⁴, and the oven I' is located between the chamber H³ and the top steam-space. The boiler H may be provided with the usual flues, if desired.

By the arrangement described the steam generated in the boiler H surrounds the ovens I and I' at the bottom, top, sides, and rear, as is plainly shown in the drawings.

The front ends of the ovens I and I' are provided with suitable doors I² and I³ for inserting the bread or other material to be baked, or removing the same from the ovens whenever the baking process is completed.

Into the front ends of the ovens I and I' project the steam-supply pipes J and J', respectively, each provided with a valve J², and both connected with a pipe J³, leading to the steam-spaces in the boiler H. Thus, when the valves J² are opened, steam can pass from the steam-spaces of the boiler into the ovens. The ovens are also provided at their front ends with windows K, in front of each of which is placed a lamp supported on a hinged bracket L, provided with a casing L' and a reflector L², for throwing the rays of light through the windows K to the inside of the oven to illuminate the latter and to permit the baker to view the contents of the oven.

Water is supplied to the boiler H by a suitable supply-pipe N, and the said boiler is provided with a blow-off pipe N', shown in Fig. 2. On one side of the boiler is arranged a water-gage O, (see Fig. 1,) and on the top of the steam-spaces H² is arranged a safety-valve Q. A gage P is also provided for the steam-compartment.

It will be seen that by the arrangement described the fuel burned in the combustion-chamber B on the grate C is utilized to the fullest advantage, as the heat and gases travel under the boiler H both in the combustion-chamber and in the return-channels E' before escaping to the chimneys. It will further be seen that as the ovens I and I' are completely surrounded by steam-spaces, with the exception of the front, a uniform heat is produced inside of the ovens, so that the bread or other material will be perfectly baked.

By providing the steam-supply pipes J and J' any desired amount of steam can be in-

jected into the said ovens, so that moist heat is obtained within the ovens, and consequently perfect baking of the material takes place, and a finer luster is given to the same.

5 By the use of the valves or stop-cocks J² any desired amount of steam may be let into the ovens. As very little steam is used, the boiler requires refilling with water but once
10 in twelve to twenty-four hours during continuous use of the oven.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

15 1. A steam bake-oven, comprising a combustion-chamber, a boiler forming the top of the combustion-chamber, an oven located above the boiler and supported by brackets, a steam-chamber communicating with the said boiler and in which said oven is located,
20 and a valved pipe connecting the said steam-chamber with the interior of the oven, substantially as shown and described.

2. A steam bake-oven, comprising a combustion-chamber having openings leading
25 from its end at opposite sides, and communicating with longitudinally-extending return outlet-channels for the smoke and gases, the said outlet-channels being arranged at opposite sides of the combustion-chamber and connecting with chimney-flues at their forward
30 ends, a boiler set over the said combustion-chamber and channels and forming the top

thereof, a steam-chamber communicating with the said boiler, one or more ovens set in the said steam-chamber, and valved pipes
35 connecting the said steam-chamber with the interior of the ovens, substantially as shown and described.

3. A steam bake-oven, comprising a furnace having a combustion-chamber and provided with longitudinally-extending return
40 outlet-channels for the smoke and gases, the said channels being located at opposite sides of the combustion-chamber and communicating at their rear ends with the said combustion-chamber and connected with chimney-flues at their forward ends, a metallic shell set over the said combustion-chamber and
45 channels, and forming the top thereof, a boiler in the bottom of said shell, an oven supported in the said shell directly above the boiler, a second oven located above the first oven, said ovens being separated from each other and from the walls of the shell at the top, bottom,
50 sides, and rear by steam-spaces communicating with the boiler, and pipes located at the front of the oven and provided with valves, the said pipes extending into the ovens and connected with a pipe leading to the steam-spaces, substantially as shown and described.
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Witnesses:

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