L. T. WILCOX.

BAKING OVEN.

APPLICATION FILED JULY 1, 1916.

1,356,102. Patented Oct. 19, 1920.

Fig. 1.

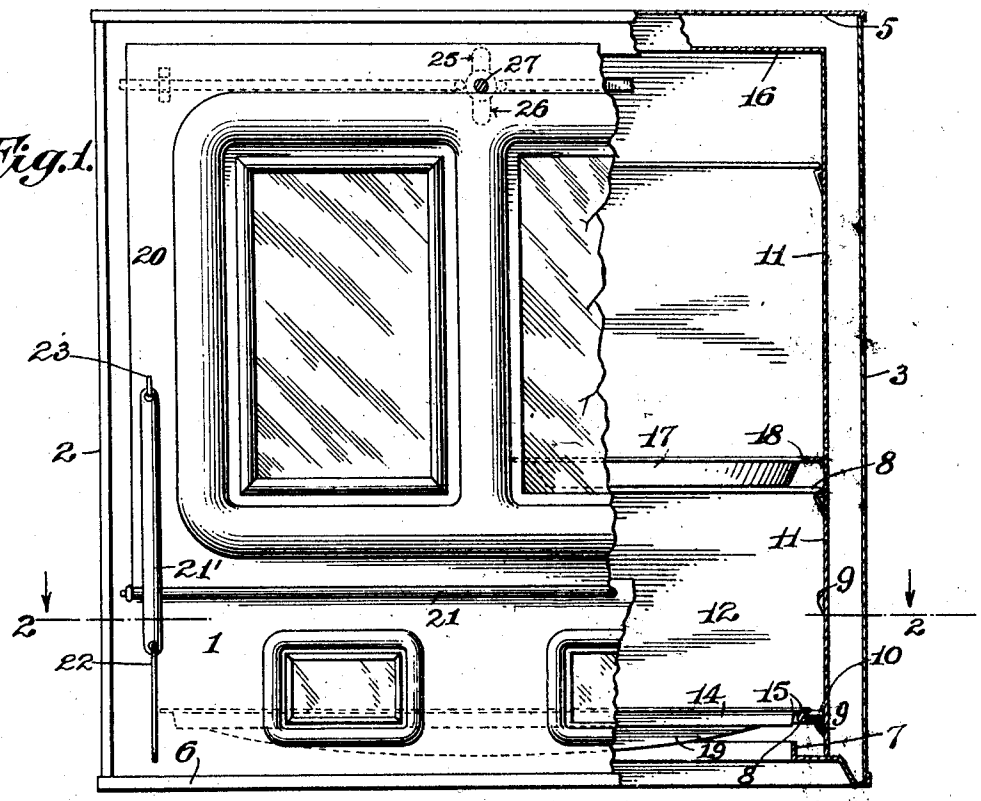


Fig. 2.

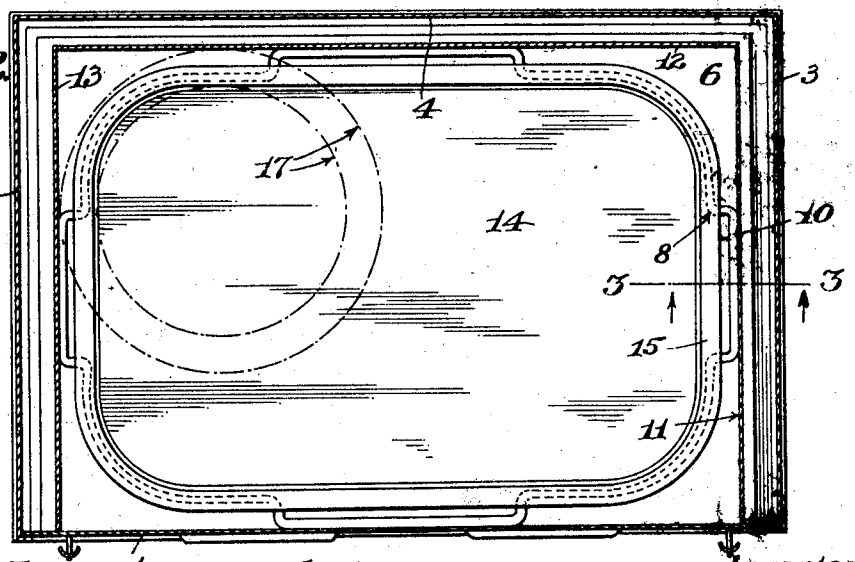
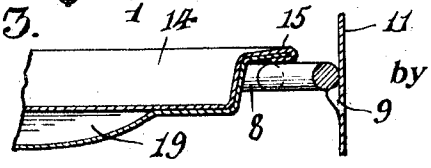


Fig. 3.



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by

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UNITED STATES PATENT OFFICE.

LEWIS T. WILCOX, OF PEEKSKILL, NEW YORK, ASSIGNOR TO A. J. LINDEMANN & HOVERSON COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

BAKING-OVEN.

1,356,102. Specification of Letters Patent. Patented Oct. 19, 1920.

Application filed July 1, 1916. Serial No. 107,048.

To all whom it may concern:

Be it known that I, LEWIS T. WILCOX, a citizen of the United States, and a resident of Peekskill, in the county of Westchester, State of New York, have invented certain new and useful Improvements in Baking-Ovens, of which the following is a specification.

The invention relates to ovens primarily intended to be used in connection with oil or gas burners, and in which the heat is supplied from a point below the oven, as when it is placed over gas or oil burners. Such ovens are usually provided with an open bottom and means for causing the distribution of the heat so that the baking or roasting of food therein will be effectively and uniformly done. They are also provided with doors having transparent portions through which the condition of the interior of the oven and the food in process of cooking may be observed without opening the said door. It is to ovens of this class that the improvements relate. Their objects will appear from the following specification and the accompanying drawings referred to herein.

In the said drawings, Figure 1 is a front elevation of an oven embodying the improvements with a portion of the front broken away. Fig. 2 is a horizontal section of the same on the line 2—2 of Fig. 1, looking in the direction indicated by the arrows in that figure. Fig. 3 is an enlarged vertical section on the line 3—3 of Fig. 2, looking in the direction indicated by the arrows in that figure.

The frame of the oven consists of four walls 1, 2, 3 and 4, a cover 5, and a bottom 6, the front wall 1 is cut out to provide openings for the door and windows and the bottom has a large central opening, through which heat passes from the burners to the interior, the edges of the metal around this opening being turned up to form a flange as shown at 7 (Fig. 1).

A substantially elliptical ring 8 is horizontally supported inside the oven on bosses 9, upon which rest the offset portions 10 of the ring. Two sets of these bosses are provided on the interior surfaces of the inner walls 11, 12 and 13 of the oven, one above the other, so that the ring 8 may be raised and lowered and supported thereby in its upper or lower position. The top of the oven is also provided with an inner wall or cover 16, the inner walls being spaced from the outer wall so as to provide a heat insulating chamber in the walls of the oven.

A tray 14 rests upon the ring 8 and is supported thereby by means of its peripheral flange 15, and this tray covers the opening in the bottom of the oven so as to intercept the heat rising from the burners and cause it to pass up along the inner walls of the oven. The corners of the oven are angular and the corners of the tray 14 are rounded, so that a substantially triangular space is left at the four corners and the distance between the corners and the tray is greater than the distance between the tray and the walls at intermediate points. By this provision a larger opening for the upward passage of heated air is provided at the corners—the points most distant from the burners, and a more uniform distribution of the heat thus caused. The curvature of the corners of the tray, however, is on a shorter radius than that of the pans or dishes usually employed to hold food to be cooked, so that the edges of the said pans may come in contact with the walls without projecting materially beyond the tray. Such a pan is indicated by the dotted lines in Fig. 2, the inner circle of dotted lines representing the bottom of the pan and the outer circle representing the upper outer edge. This pan is also shown at 17 in Fig. 1, in which it is shown to be flared from the bottom up and provided with an annular rim or flange 18. The primary objects of this provision are to prevent the edges of the pan from interfering materially with the upward passage of heat and also to insure that liquid overflowing from the pan will fall on the tray 14. Such liquid does not usually fall sheer from the rim of the pan but turns inwardly and drips therefrom inside the outer edge of the rim, and in most cases from the bottom of the pan, and as the bottom of the pan will always be within the outer edges of the tray, the tray thus catches such drippings and protects the burners beneath it.

The tray 14 is also provided with a false bottom 19 between which and the true bottom asbestos or other insulating substance may be placed if desired, and the direct radiation of heat from the burners to the medial part of the oven is thus interrupted

to a sufficient extent to prevent overheating and burning of the cooking food at this part of the oven.

The tray 14 is formed by stamping up a sheet of metal, then applying the false bottom and then turning over the edges of the metal to secure the edges of the false bottom. It is thus formed without the use of solder or other similar means for uniting the two parts.

The door 20 is hinged at 21 to the front wall 1 and is provided with a bracket 21, the lower end of which slides on the bail 22 fixed to the front wall, and the upper end of which is secured on the ring 23 of the door, so that the door will be supported thereby when opened and turned outward substantially at right angles to the front wall.

The upper edge of the door is provided with a latch consisting of a suitable knob on the outer side of the oven, and the tongues 25 and 26 secured to and turning with the knob. These tongues extend in opposite directions from the shank 27 of the knob and are provided with bosses 28 and 29 respectively, which bear against the bead 30 and boss 31 of the front wall and oven respectively when the knob is turned to secure the door in its closed position, thereby insuring a tight closure of the door.

What I claim is:

1. A device of the character described, comprising an oven shell or casing composed of walls, a top, and a bottom, one wall being provided with a door opening and the bottom having an opening for the admission of heat, said oven adapted to be placed upon suitable burners and said bottom opening extending over one or more burners, a door for opening and closing the door opening, a tray supported horizontally in the said oven below the upper part of the door opening, said tray covering and extending beyond the bottom opening and being spaced from the walls of said oven a greater distance at the corners of the oven than at points intermediate said corners, the said spaces at the corners being less at their greatest width than one-fourth of the length of the shortest oven wall.

2. A device of the character described, comprising an oven shell or casing composed of walls, a top, and a bottom, one wall being provided with a door opening and the bottom having an opening for the admission of heat, said oven adapted to be placed upon suitable burners and said bottom opening extending over one or more burners, a door for opening and closing the door opening, a tray supported horizontally in the said oven below the upper part of the door opening, said tray covering and extending beyond the bottom opening and being spaced from the walls of said oven a greater distance at the corners of the oven than at points intermediate said corners, the said spaces at the corners being less at their greatest width than one-fourth of the length of the shortest oven wall, and the corners of said tray being curved on a radius greater than the greatest width of said space.

3. A device of the character described, comprising an oven shell or casing composed of walls, a top, and a bottom, one wall being provided with a door opening and the bottom having an opening for the admission of heat, said oven adapted to be placed upon suitable burners and said bottom opening extending over one or more burners, a door for opening and closing the door opening, a tray supported horizontally in the said oven below the upper part of the door opening, said tray covering and extending beyond the bottom opening and being spaced from the walls of said oven a greater distance at the corners of the oven than at points intermediate said corners, the said spaces at the corners being less at their greatest width than one-fourth of the length of the shortest oven wall, and spacing members supporting said tray from said oven walls at the back and ends of the oven.

Witness my hand this 20th day of June, 1916, at the city of New York, in the county and State of New York.

LEWIS T. WILCOX.