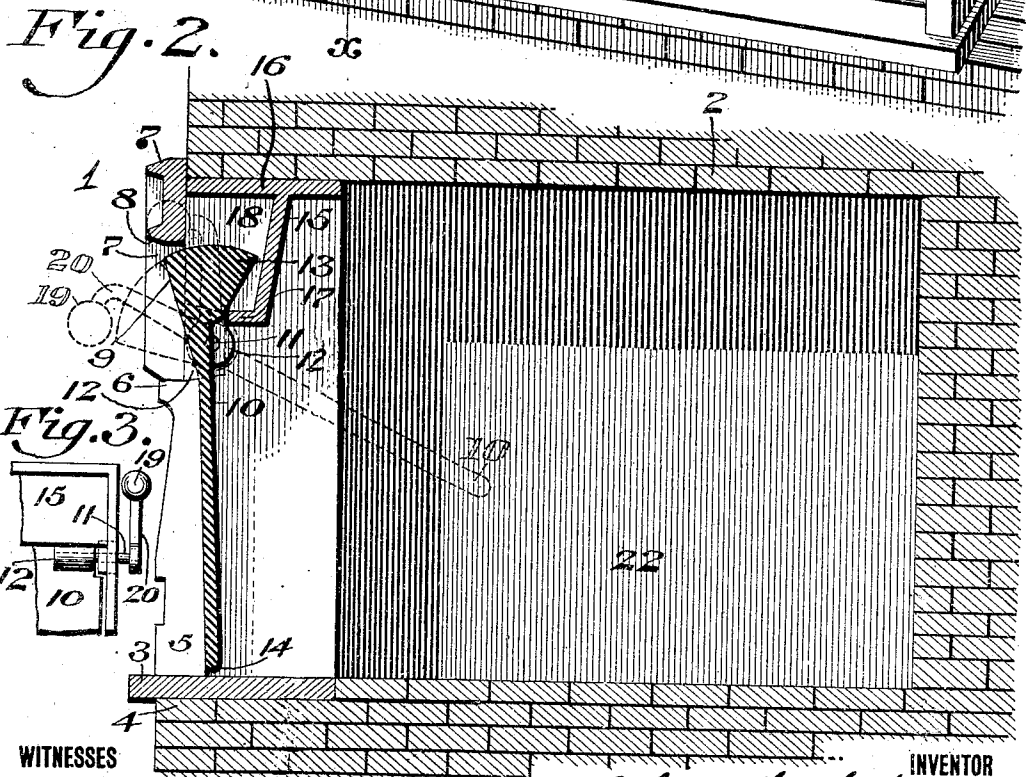
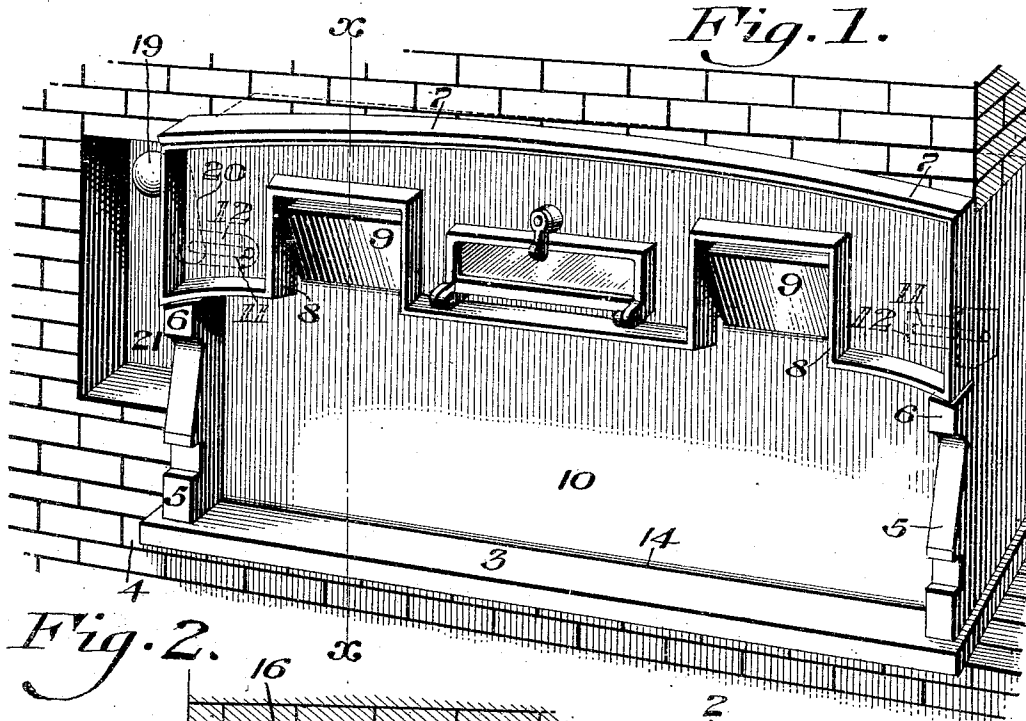


J. M. HOEPFL.
DOOR FOR BAKE OVENS.
APPLICATION FILED MAY 13, 1909.

941,780.

Patented Nov. 30, 1909.



WITNESSES

P. F. Nagle.
L. Dowville.

INVENTOR

John M. Hoepfl.
BY *Friedersheim & Fairbanks.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN M. HOEPFL, OF PHILADELPHIA, PENNSYLVANIA.

DOOR FOR BAKE-OVENS.

941,780.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed May 13, 1909. Serial No. 495,704.

To all whom it may concern:

Be it known that I, JOHN M. HOEPFL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Door for Bake-Ovens, of which the following is a specification.

My present invention consists of a novel construction of a bake oven wherein the oven door is counterbalanced in a novel manner, the counterbalance being carried by the oven door and the oven being provided with a chamber within which the counterbalance is normally located so that the same is protected from the undue action of the heat and is also placed in a position where it is out of the way of the operator.

It further consists of a novel construction of a bake oven wherein the oven door has integral therewith or secured thereto a counterbalance which is normally retained within the front line of the oven, the door being counterbalanced in such a manner that it will remain in either its open or closed position.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a front elevation of a bake oven embodying my invention. Fig. 2 represents a section on line $x-x$, Fig. 1. Fig. 3 represents a side elevation of certain details of construction.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the front of my novel construction of bake oven 2, the latter having at its lower front portion the base or bed plate 3, which is seated or suitably secured in the masonry or brick work 4 and supports at or near its extremities the upright walls 5, which are recessed or provided with the shoulders 6,

upon which latter are supported the ends of the upper transverse door supporting plate 7, which is provided with the recess or recesses 8, which receive the counterbalances 9 of the oven door 10, which is pivotally supported on the trunnions or journals 11, which are mounted in the blocks 12, which are two in number, one at each side of the furnace and are preferably removable.

The counterbalancing devices are preferably constructed substantially as seen in cross section in Fig. 2 and their rear ends 13 are so constructed or weighted that they normally hang in substantially the position seen in Fig. 2, wherein the door 10 is shown as hanging in nearly a vertical plane with its lower edge 14 nearly or quite in contact with the plate 3, and it is evident that any undue or extreme outer movement of the door 10 will be prevented by the contact of the rear face or end 13 of the counterbalance 9 with the abutment or wall 15, which depends from the lap plate 16 and is provided with the forwardly extending flange 17, which also assists in arresting any improper movement of the counterbalances, which are located in the chamber 18, formed between the members 15, 16 and 17. It will be understood that the construction in proximity to both the counterbalances 9 is the same as that already described with respect to the left hand counterbalance, through which the section seen in Fig. 2 is taken.

19 designates a weight attached to the arm 20, which latter is secured to one of the journals 11, preferably the left hand one seen in Fig. 1, said arm and weight being contained in the recess or chamber 21, as will be understood from Fig. 1.

The operation is as follows:—The parts normally appear as seen in Figs. 1 or 2, the door 10 hanging in nearly a vertical plane and preventing the cool outer air from access to the interior 22 of the oven. When it is desired to obtain access to the oven the baker or attendant places the dough or other material upon a suitable implement and moves the door 10 inwardly until the parts assume the position seen in dotted lines in Fig. 2 and after the dough or other material has been deposited, the implement is withdrawn, whereupon the door automatically closes or swings from the position seen dotted in Fig. 2 to the position seen in full lines in said figure. In case the door should stick

slightly or it should be desired to accelerate its closing, the same can be readily effected by manipulating the weight 19, which is readily accessible to the operator. By locating the counterbalance directly on the oven door a very compact construction is produced and the oven door is reliably counterbalanced so that only a slight pressure is required to operate the door to open or close the same. It is to be noted that the door is fulcrumed in such a manner that it will open inwardly but not outwardly so that when the oven door has been opened and is returning to its closed position it is prevented from swinging outwardly beyond its closed position by the contact of the counterbalance with the plate 15. If desired the handle 20 and counterbalance 19 may be dispensed with and in case they are employed the handle 20 is placed as closely to the side of the furnace as possible and in practice the same does not extend more than about an inch beyond the side of the furnace, so that the width of the recess 21 is simply sufficient to contain the handle 20 thereby enabling me to greatly economize the space. The front of the oven in my present invention presents a very neat and attractive appearance and the oven can be very economically manufactured.

It will be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing

from the spirit or scope of the invention or sacrificing any of its advantages.

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

1. In a bake oven, a casing having a side thereof open and provided with a plurality of communicating openings, a door suitably fulcrumed and adapted to close said open side, a plurality of counterbalances carried by said door and adapted to pass through said plurality of openings, and means for protecting said counterbalances from the heat of the oven.

2. In a bake oven, a casing having an open side, a front plate on the open side and having an opening therein, a guard plate extending downwardly from the top of the casing and then forwardly toward said front plate thereby forming a chamber, a door fulcrumed in the side of the casing for closing the open side, a counterbalance carried by said door and located within said chamber, and an operating lever for said door.

3. In a bake oven, a casing having an open side, a pivoted door, and a counterbalance in line with the door, and a door-supporting plate having a recess in which said counterbalance is located.

4. In a bake oven, a casing having an open side and a door-supporting plate with recess, a pivoted door, a counterbalance in line with the door and located in said recess, and a weighted arm secured to one of the journals of the door.

JOHN M. HOEFTL.

Witnesses:

H. S. FAIRBANKS,
C. D. McVAY.