

R. L. GILLISPIE.
BAKER'S OVEN ATTACHMENT.
APPLICATION FILED FEB. 1, 1911.

1,002,671.

Patented Sept. 5, 1911.

3 SHEETS—SHEET 1.

Fig. 1.

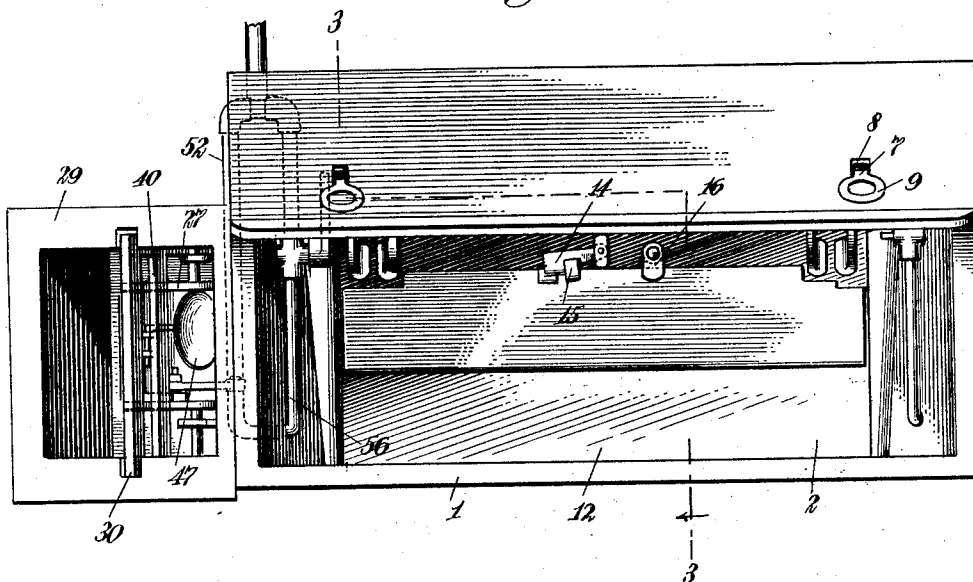
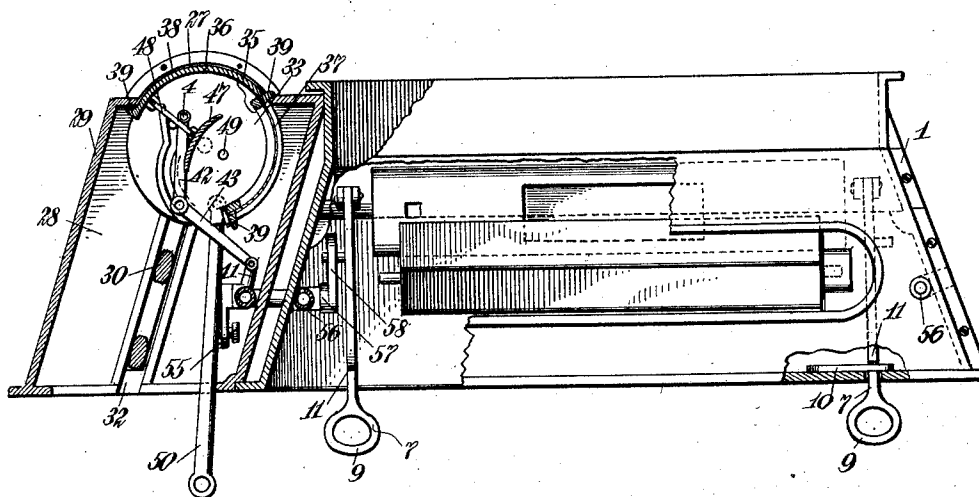


Fig. 2.



WITNESSES

Geo. W. Maylor
H. Whitely

INVENTOR

Robert L. Gillispie
BY *Mumford & Co.*
ATTORNEYS

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3 SHEETS—SHEET 2.

Fig. 3.

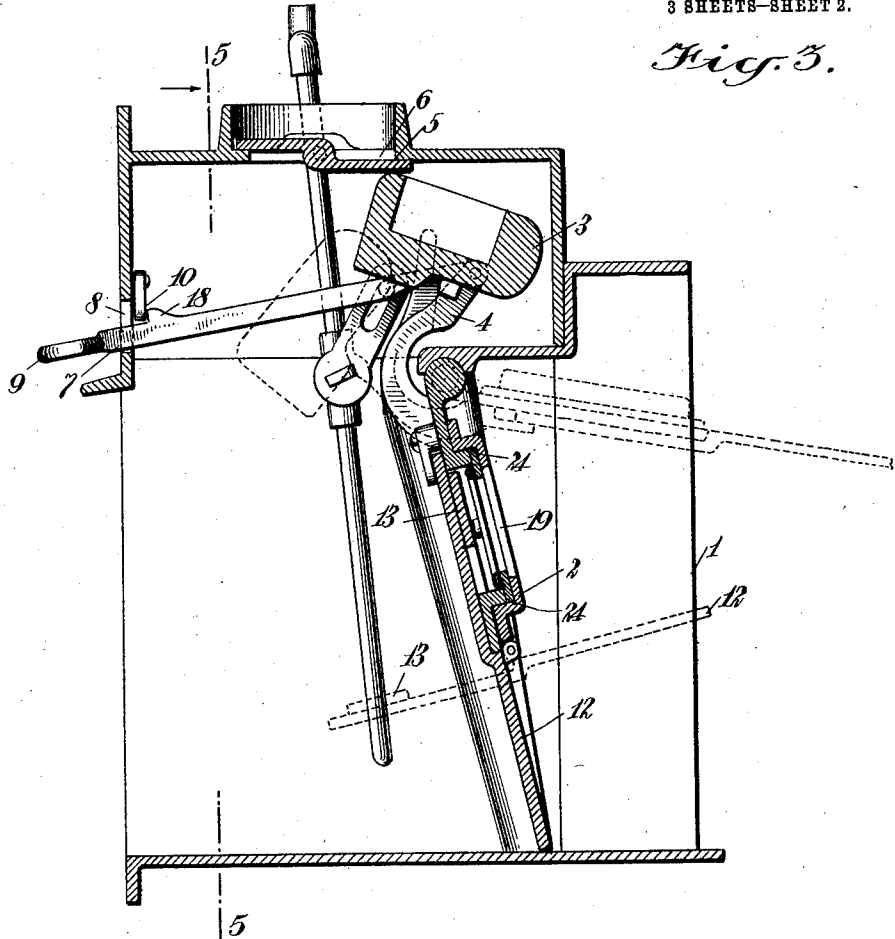
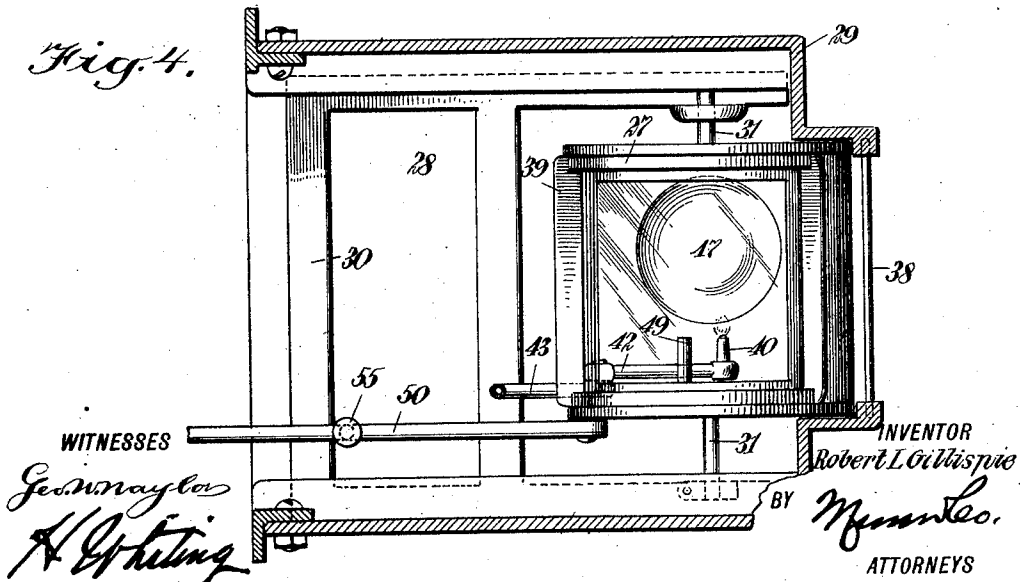


Fig. 4.



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3 SHEETS—SHEET 3.

Fig. 5.

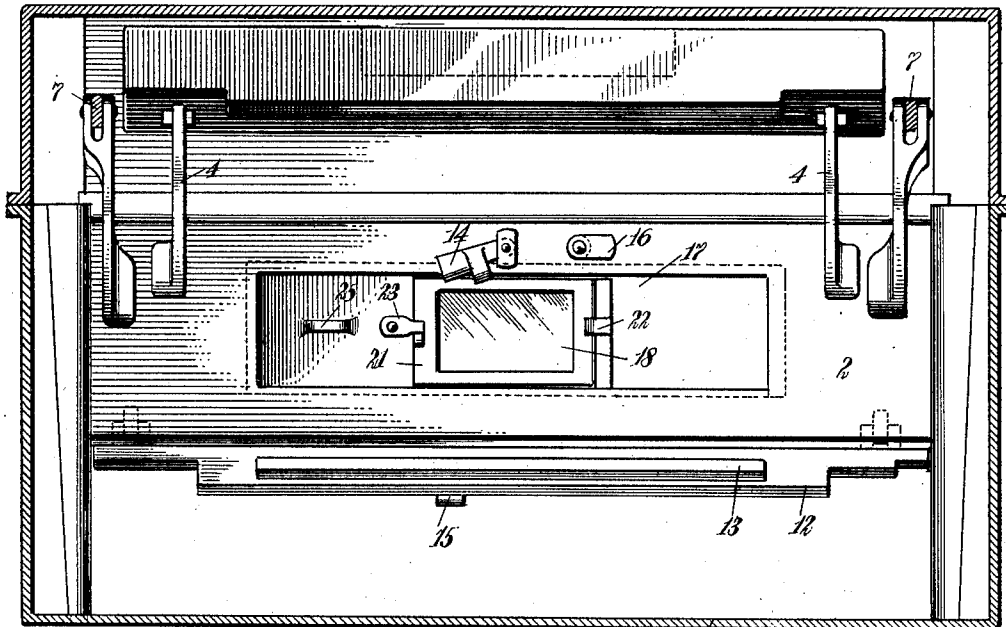
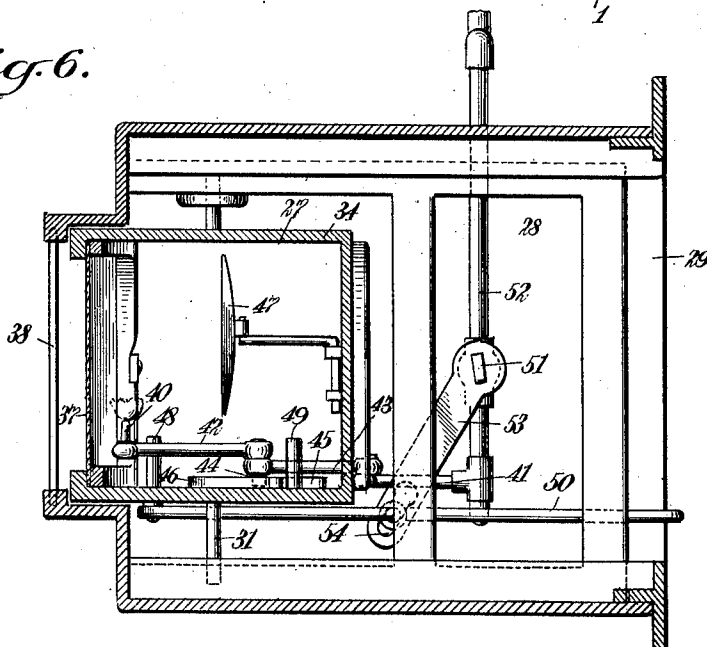


Fig. 6.



WITNESSES
Geo. Mayla
H. Whiting

INVENTOR
Robert L. Gillispie
BY *Mummales*
ATTORNEYS

UNITED STATES PATENT OFFICE.

ROBERT LIVINGTON GILLISPIE, OF NEW YORK, N. Y.

BAKER'S-OVEN ATTACHMENT.

1,002,671.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed February 1, 1911. Serial No. 605,870.

To all whom it may concern:

Be it known that I, ROBERT L. GILLISPIE, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Baker's-Oven Attachment, of which the following is a full, clear, and exact description.

10 This invention relates to a new and improved attachment for a baker's oven, in the form of an inlet, whereby access may be had to the interior of the oven in a most convenient and readily accessible manner by
15 means which can be readily controlled, and which will be simple and inexpensive.

An object of this invention is to provide a door for a baker's oven which may be readily opened from the exterior of the oven, and
20 which will be so controlled as to simultaneously illuminate the interior of the oven when the door is opened.

Another object of this invention is to provide a baker's oven with a duplex door,
25 which may be opened bodily to permit access to the interior of the oven through a large opening, or which may be opened partially when it is desired to have access to the interior of the oven, without the danger of
30 cooling the oven and causing the material being baked, to spoil.

A further object of this invention is to provide independent means for controlling the illumination of the interior of the oven
35 when access is had to the interior of the oven by means of the supplementary door only.

A further object of this invention is to provide a door for an oven, which may be manipulated in such a way as to simultaneously
40 control the movement of a damper, to permit the fumes from the oven to pass up into the flue without coming out into the room.

A still further object of this invention is
45 to provide transparent members through which the interior of the oven may be illuminated and viewed, with means for manipulating the same into and out of opposition to the interior of the oven, whereby the transparent
50 members may be in proper position when desired, and may be moved out of contact with the heat when not in use.

These and further objects, together with the construction and combination of parts,
55 will be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, wherein the attachment is shown detached from the oven, for the purpose of
60 simplicity, and in which like characters denote corresponding parts in all the views, and in which—

Figure 1 is a front view in elevation, showing the main door and the supplementary
65 door closed; Fig. 2 is a top plan view, with parts broken away to show the underlying structure; Fig. 3 is a vertical section on the line 3—3 of Fig. 1; Fig. 4 is a vertical section through the illuminating casing or
70 chamber, showing the illuminator in its non-illuminating position wherein it does not illuminate the interior of the oven and the light is dim; Fig. 5 is an enlarged vertical section, taken on the line 5—5 of Fig. 3,
75 showing only the supplementary door open; and Fig. 6 is a vertical section through the illuminating casing or chamber, showing the illuminator in the position in which it illuminates the interior of the oven, with the
80 light in full glow.

Referring more particularly to the separate parts of this invention as embodied in the form shown in the drawings, 1 indicates a frame, which is adapted to be inset in the
85 door opening of the oven and converges from the room side toward the oven side, as seen in Fig. 2, so that all points of the interior can be readily reached.

For the purpose of closing the inlet for
90 the oven formed by the frame 1, there is provided a door 2, which may be a single integral door, or may be a composite door, as shown in the drawings, which is shown pivotally connected at its upper end to the
95 frame, so as to swing open into the dotted-line position shown in Fig. 3. It will be noted that the door is a little wider than the opening in which it is hung, so that a positive closing fit with the frame will be made.
100 The door 2 is nicely counterbalanced by a member 3, which is connected thereto by brackets 4, which are preferably of gooseneck form, so as to avoid portions of the frame and bring the member 3 into proper
105 coöperative relation with a damper 5. This damper 5 is pivotally mounted intermediate its side edges in an outlet vent 6, whereby, when the door 2 is opened, the fumes from the oven can pass up through the outlet into
110 the chimney, if desired. It will be noted that the damper 5 projects beyond the vent

6 a sufficient distance on each side so as to contact therewith when closed, to form a practical, tight fit. This damper is so hung that it will automatically open when the member 3 is removed from contact therewith, into the position shown in dotted lines in Fig. 3; that is to say, the damper is eccentrically pivoted on the frame 1, so that the lower half will automatically swing the damper into a substantially vertical position when the member 3 is displaced, so that it no longer holds the damper in its horizontal position.

The door 2, and thus the damper 5, are manipulated by an operator 7, which is shown in the form of a link projecting through an opening 8 in the front of the frame 1, that is, to the front of the oven, where it is provided with a convenient handle 9. The movement of the operator 7 may be prevented, and thus the door 2 locked in its closed position, by means of a latch 10, which is pivotally connected to the frame 1, and is adapted to be swung in front of a lug 11 on the operator 7, so as to prevent the outward movement of the operator. When the door as a whole is locked in its closed position in this manner, access may be still had to the interior of the oven, but to a smaller extent, which, however, is advantageous under many conditions where it is not desired to cool the oven by too great a draft of air. This may be accomplished by providing a supplementary door 12, which forms a part of the main or composite door 2, and is in the form of a panel hinged intermediate its top and bottom edges, to the main or body portion of the door 2, and so balanced that when unchecked, it will automatically assume a substantially horizontal position, such as that illustrated in the dotted lines in Fig. 3. This balancing may be done by eccentrically loading one side of the panel, as by means of a member 13 secured thereto. The supplementary door 12 can be locked in its closed position and in substantial alinement with the main portion of the door 2, by means of a latch 14, which engages a lock 15 on the door. This latch is pivoted to the main portion of the door 2, and can be readily released by a simple upward push. A further latch 16 may be provided for this door, for more positively locking it to the main door 2. When the supplementary door 12 is open, in the position indicated in the dotted lines in Fig. 3, it discloses a window 17, normally concealed by the upper leaf of the supplementary door. This window 17 has a transparent member 18 located in alinement with an opening 19 in the body of the door 2. This transparent member 18, which may be of any suitable character, such as mica, is located in a sash 21, which is detachably held in the window frame 17 by means of a

stationary latch 22 and a movable latch 23, so that it can be removed for the purpose of renewing or cleaning. The window 17 itself is slidably mounted in guides 24, so as to be capable of moving, to bring the transparent member 18 out of alinement with the opening 19, and thereby protect it from the fumes and heat of the oven when it is not desired to look into the interior of the oven. The window 17 may be manipulated in any suitable manner, as by means of a handle 25.

In order that the interior of the oven may be illuminated when either the supplementary door or the composite door is open, so that the baker can see the contents of the oven, there is provided an illuminator 27, which may be of any suitable form, such as that described hereinafter, and which is located in a chamber 28, formed by a casing 29 located on one side of the frame 1. The illuminator may be rotatably supported on a frame 30 by means of vertical stub shafts 31, and this frame may be slidably mounted in guides 32 in the casing 29, so that the illuminator can be withdrawn from coöperative juxtaposition to the interior of the oven to a point within the room, so that it can be renewed, changed or cleaned. The illuminator may be provided with a circular bottom 33 and a circular top 34, spaced apart from each other by a somewhat cylindrical partition 35. In this case, the partition 35 is shown to consist of an opaque portion 36 and a transparent portion 37. The latter may be of any suitable material, such as mica. It will be seen by reference to Figs. 2 and 6 that the illuminator extends in opposition to an opening 38 located on the oven side of the casing 29, so that the light from the illuminator can be alternately thrown into the interior of the oven and cut off from the interior of the oven by rotating the illuminator so as to alternately bring the transparent portion 37 and the opaque portion 36 of the partition in opposition to the interior of the oven. The motion of the illuminator may be limited by one or more stops 39, so that the operator will be prevented from accidentally leaving the illuminator in a condition where the light is half shining through the opening 38.

The source of light for the illuminator 27 may be of any suitable character, such as the gas-jet 40 shown. In this case, the gas-jet is shown as being connected to a supply pipe 41, by means of bracket pipe arms 42 and 43 pivotally connected together. Directly below the pivotal connection of the pipe arms 42 and 43, there is shown a cam follower 44, which passes between curved cam ribs 45 and 46 on the illuminator 27, so that when the illuminator is rotated from its illuminating position to its non-illuminating position, the jet 40 will be alternately thrown in front of a reflector 47 in

opposition to the transparent member 37, and away from the transparent member 37. The limits of movement of the jet 40 may be determined by any suitable means, such as pegs 48 and 49 located on opposite sides of the arm 42 on the illuminator 27. The illuminator may be manipulated in any suitable manner, as by means of a link 50, projecting through the front of the casing 29. The gas to the pipe 41 and thus to the jet 40 may be controlled by a link 50, when the latter is used to manipulate the illuminator 27, by providing a valve, indicated at 51, in a supply pipe 52 connected to the pipe 41, which may be operated from the link 50 by means of a lever 53. It will be noted by reference to Fig. 6 that this lever 53 is provided with a key-hole slot 54, whereby it is adapted to detachably engage a peg 55 on the link 50. It will thus be seen that when the opaque portion 36 of the partition is located in opposition to the opening 38, the jet 40 will be provided with a small supply of gas, so that merely a pilot flame, such as that illustrated in Fig. 4, will be in existence. It will also be seen that when the transparent member or portion 37 on the partition is in opposition to the opening 38, the jet 40 will be supplied with a sufficient amount of gas to form a large flame, as illustrated in Fig. 6.

When the composite or main door 2 is used as a single unit and opened bodily, it may be desirable to control the flame to the illuminator from the operator for the door 2. In this event, there is provided a second supply pipe 56, connected to the pipe 41, and having a valve, indicated at 57, which is operated by a lever 58. This lever has a pin-and-slot connection with one of the operators 7 of the door 2. It will be noted at this point that the operators 7 and the pipes 56 are duplicated on opposite sides of the frame 1, so that the door can be controlled from either side, and also so that the illuminator may be provided on either or both sides of the frame 1.

The operation of the device will be readily understood when taken in connection with the above description. When it is desired to have full and complete access to the interior of the oven, the door 2 is swung as a whole into the position indicated by the dotted lines in Fig. 3; by manipulating one or the other of the operators 7. This manipulation will remove the counterbalancing member 3 from its locking position with respect to the damper 5, so that the latter will automatically open, by reason of its eccentric overload on one side of its pivot. Thus, when the door 2 is open, any fumes which may come from the interior of the oven will pass up through the vent 6, which may be connected to the flue. By closing the door 2, the member 3 will automatically

come in contact with the under side of the damper 5, closing it at the same time that the door 2 is closed. However, if desired, the damper 5, before closing the door 2, can be swung slightly to one side, so as to permit the member 3 to pass without closing it. In such a case, the vent 6 may be open, even when the door 2 is closed. With the opening of the door 2, the valve 57 will also be opened, so that the jet 40 will be provided with a full supply of gas, and may illuminate the interior of the oven when the transparent member 37 is in opposition to the opening 38. In such an event, the valve lever 53 may be disconnected from the link 50 by means of a key-hole slot 51. When once closed, the composite door 2 may be locked closed by slipping the latch 10 in front of the lug 11 on the operator 7. If it should be desired to have only partial opening of the inlet to the oven, the supplementary door 12 can be unlatched, when it will automatically swing into the dotted-line position indicated in Fig. 3. In such an event, the illuminator may be controlled by the link 50 and the valve lever 53. The purpose of rotating the illuminator is to protect the transparent portion 37 of the partition of the illuminator from the fumes and heat of the oven when not in use. It will be seen that when the supplementary door 12 is opened, besides permitting access to the interior of the oven, it permits the baker to look through the body portion of the door 2, by shifting the window 17 into such a position that the transparent member 18 will be in opposition to the opening 19. When the operation is completed and it is no longer desired to get at the contents of the oven, the transparent member 18 of the window 17 may be protected from the heat and fumes of the furnace by sliding the window sidewise before closing the door 12.

It will thus be seen that there is provided a simple and efficient device, which will properly illuminate the interior of the oven and permit as large an inlet opening to the oven as desired.

While I have shown one embodiment of my invention, I do not wish to be limited to the specific details thereof, but desire to be protected in various changes, alterations and modifications which may come within the scope of the appended claims.

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

1. The combination with a frame adapted to provide an inlet for an oven, of a composite door for said inlet, comprising a body portion pivotally connected to said frame, and a supplementary door pivotally connected intermediate its top and bottom edges to said body portion so as to swing

from a position co-extensive with said body portion to a position at an angle to said body portion.

2. The combination with a frame adapted to provide an inlet for an oven, of a composite door for said inlet, comprising a body portion pivotally connected to said frame, a supplementary door pivotally connected to said body portion so as to swing to a position at an angle to said body portion, and a latch for locking said supplementary door in substantial alinement with said body portion to form of said supplementary door and said body portion said composite door.

3. The combination with a frame adapted to provide an inlet for an oven, of a composite door for said inlet, comprising a body portion pivotally connected to said frame, a supplementary door pivotally connected to said body portion, an operator for manipulating said composite door, a latch for locking said composite door against movement as a whole, and a latch for locking said supplementary door to said body portion.

4. The combination with a frame adapted to provide an inlet for an oven, of a composite door for said inlet, comprising a body portion pivotally connected to said frame, and a supplementary door pivotally connected to said body portion, said body portion having a window therein normally covered by said supplementary door, whereby, when said supplementary door is opened, the interior of said oven may be viewed through said body portion.

5. The combination with a frame adapted to provide an inlet for an oven, of a composite door for said inlet, comprising a body portion pivotally connected to said frame, and a supplementary door pivotally connected to said body portion, said body portion having a window therein normally covered by said supplementary door, whereby, when said supplementary door is opened, the interior of said oven may be viewed through said body portion, said window having a transparent member therein and being slidably mounted in said body portion so as to permit the movement of said transparent member out of exposure to the interior of the oven.

6. The combination with a frame adapted to provide an inlet for an oven, of a door for said inlet, said door having an opening therein, and a window movably

mounted in said door and having a transparent member adapted to be brought into opposition to said opening, whereby the interior of said oven can be viewed from the outside.

7. The combination with a casing having an opening therein adapted to face the interior of an oven, of an illuminator having a partition, comprising an opaque portion and a transparent portion, said illuminator being rotatably mounted in said casing, so as to permit the selective juxtaposition of either said opaque portion or said transparent portion in opposition to said opening, and means for manipulating said illuminator.

8. The combination with a casing having an opening therein adapted to face the interior of an oven, of an illuminator having a partition, comprising an opaque portion and a transparent portion, said illuminator being rotatably mounted in said casing, so as to permit the selective juxtaposition of either said opaque portion or said transparent portion in opposition to said opening, means for manipulating said illuminator, a jet for said illuminator, and means on said illuminator for moving said jet into and out of close juxtaposition to said transparent portion of said partition during its own movement.

9. The combination with a casing having an opening therein adapted to face the interior of an oven, of an illuminator having a partition, comprising an opaque portion and a transparent portion, said illuminator being rotatably mounted in said casing, so as to permit the selective juxtaposition of either said opaque portion or said transparent portion in opposition to said opening, means for manipulating said illuminator, a jet for said illuminator, means on said illuminator for moving said jet into and out of close juxtaposition to said transparent portion of said partition during its own movement, a pipe for supplying gas to said jet, and means for controlling the supply of gas passing through said pipe to said burner, operated in synchronism with the movement of said illuminator.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT LIVINGTON GILLISPIE.

Witnesses:

JOHN C. JEHY, Jr.,

ROBERT W. GILLISPIE.