No. 754,035. PATENTED MAR. 8, 1904.

F. J. ALBRECHT.

OVEN FRONT.

APPLICATION FILED APR. 25, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1

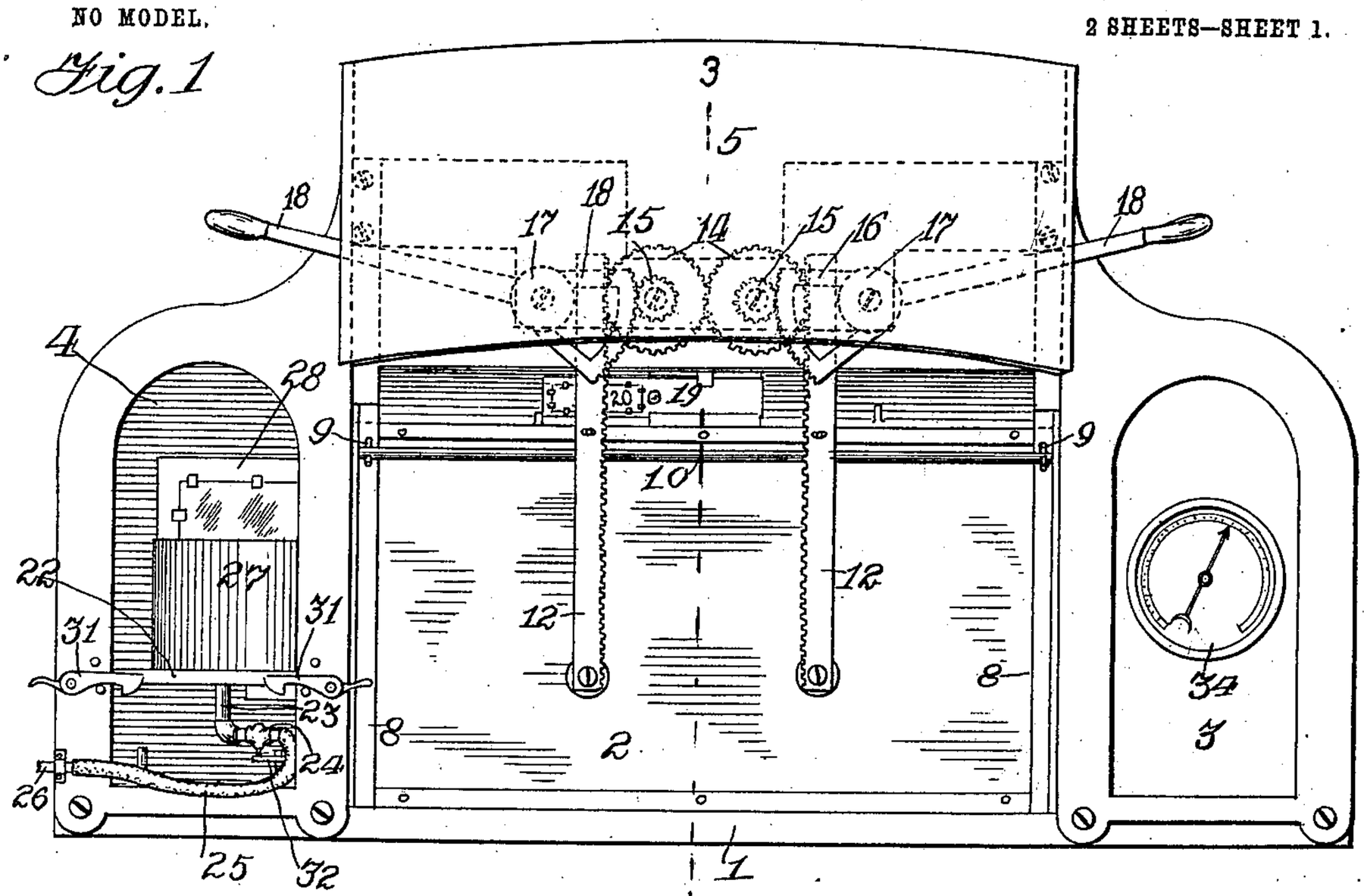
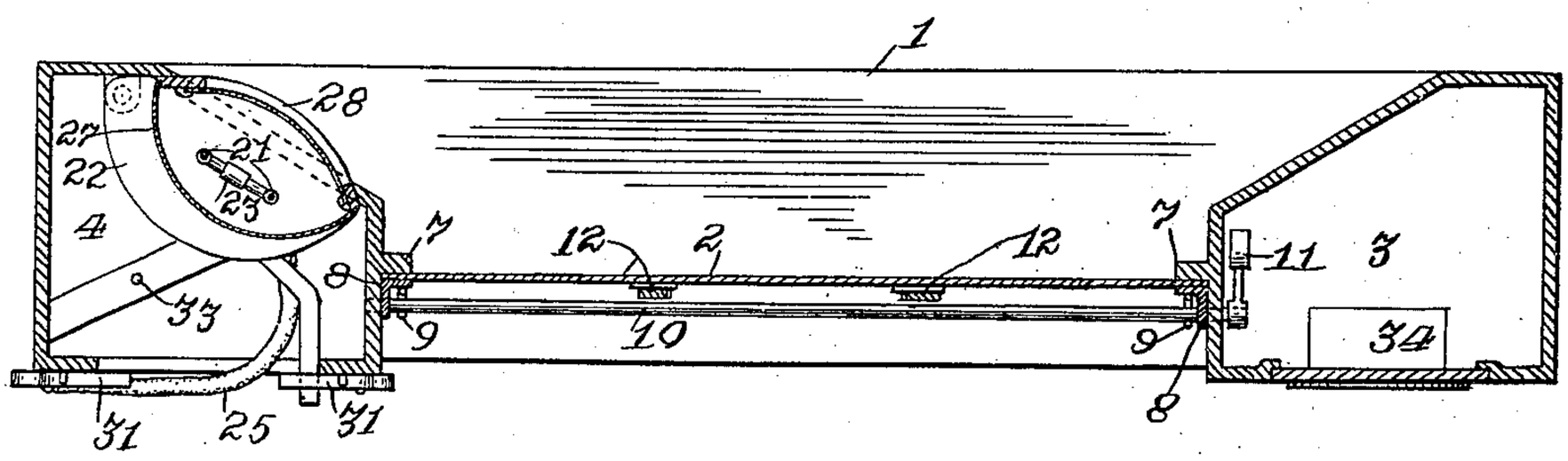


Fig. 2



Witnesses:
H. L. Lewis
L. Boulton.

Inventor:
Francis J. albrecht
By C. D. Lewis
Attorney.

No. 754,035. PATENTED MAR. 8, 1904.

F. J. ALBRECHT.

OVEN FRONT.

APPLICATION FILED APR. 25, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3

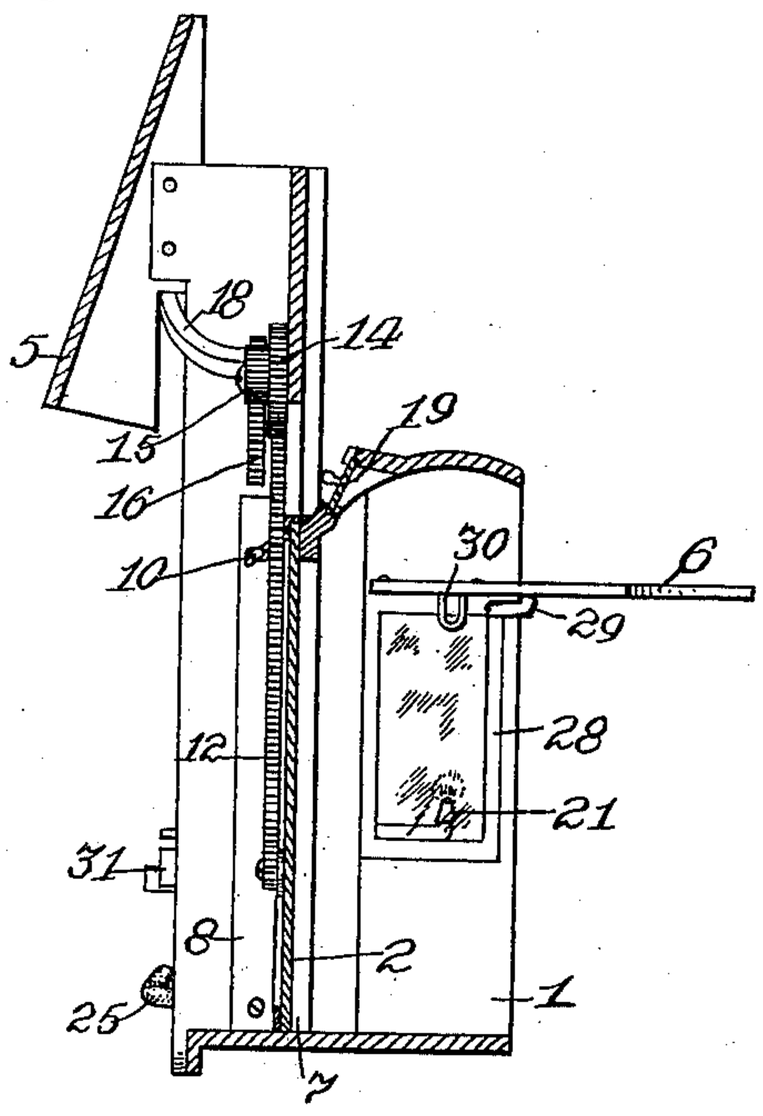


Fig. 4

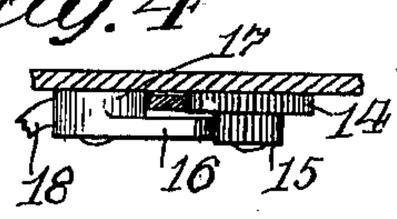


Fig. 5

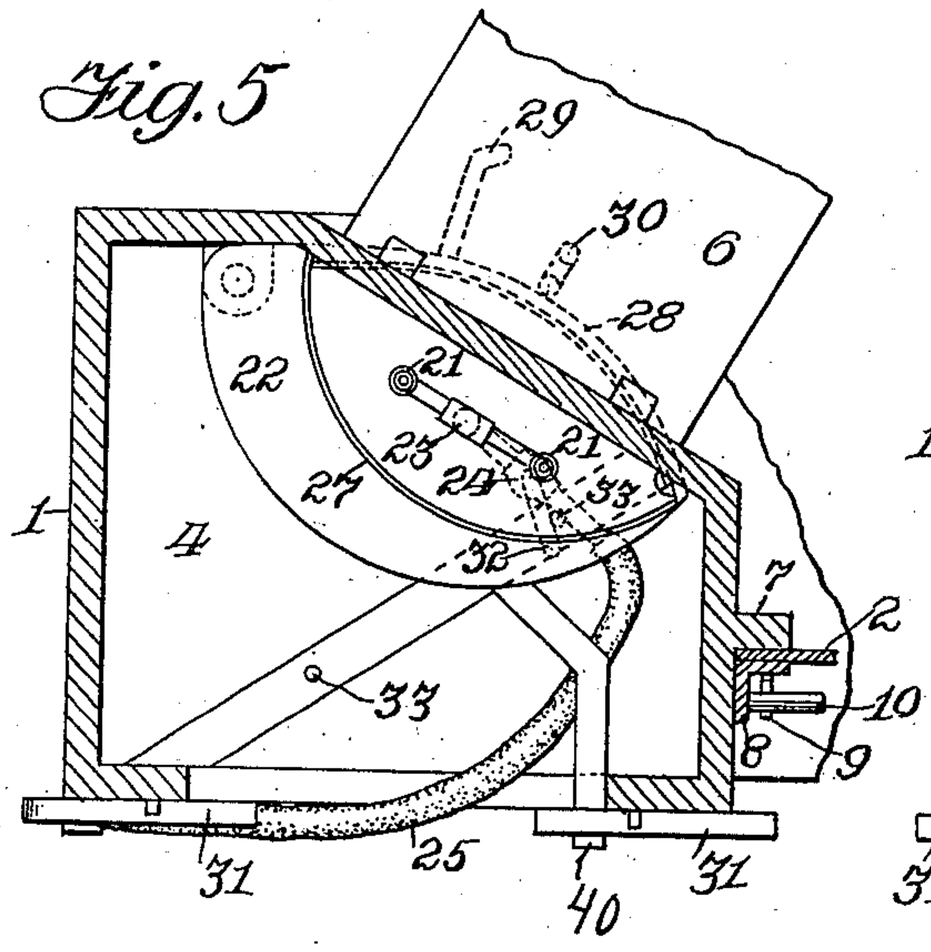
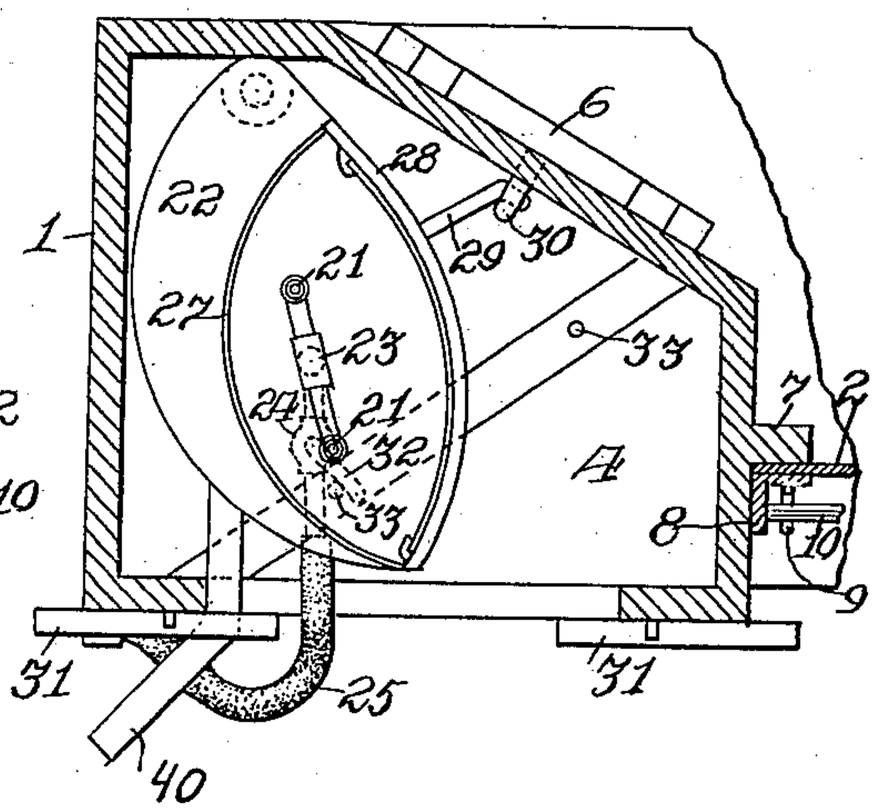


Fig. 6



Witnesses:
H. J. Lewis
L. Boulton.

Inventor:
Francis J. Albrecht
By C. D. Lewis
Attorney.

No. 754,035. Patented March 8, 1904.

UNITED STATES PATENT OFFICE.

FRANCIS J. ALBRECHT, OF PITTSBURG, PENNSYLVANIA.

OVEN-FRONT.

SPECIFICATION forming part of Letters Patent No. 754,035, dated March 8, 1904.

Application filed April 25, 1903. Serial No. 154,228. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS J. ALBRECHT, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Oven-Fronts, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in oven-fronts, and more particularly to fronts to be used on bake-ovens.

The object of the invention is to provide an oven-front in which the door may be readily operated and said door will stay in any position in which it is placed and also to provide an illumination for furnishing light to the oven, whereby the condition of material contained in the same may be observed.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a front elevation of my improved oven-front. Fig. 2 is a plan view in section thereof. Fig. 3 is a vertical sectional view on line 3 3 of Fig. 1. Fig. 4 is a detail view of the door-actuating gearing. Fig. 5 is an enlarged plan view of the illuminator in its operative position. Fig. 6 is a view of the same in its inoperative position.

This improved oven-front is preferably constructed of cast or sheet metal, and the frame 1 has three apertures formed therein. The oven-door 2 is centrally located, and the temperature-chamber 3 is formed on one side of said door and the illuminator-chamber 4 on the other side. A hood 5 is secured over the door 2 in order that any fumes or odorous vapors generated within said oven will when the door is open in passing upward be caught by said hood and be conducted to the flue or any other suitable point.

The illuminator is so constructed that when the same is not in use the aperture through which the light enters the oven will be closed by a door 6 and said door will be automatically locked by shutting off said illuminator.

The mechanism for operating and holding the door 2 consists of the ledges 7, formed on the frame 1 of the oven-front, against which the rear edges of the door rests, the same being held thereagainst by the two angle-pieces 8 8, which are pivoted to the frame at their lower ends and have their upper ends held against the door by the pins 9 9, which are mounted in the shaft 10, running across the front of said door, said shaft having a weight 11, which tends to turn it in a direction to accomplish the above results.

The racks 12 12, which are secured to the door, are engaged on their upper ends by the gears 14 14, which mesh with each other, and said gears have the smaller gears 15 formed integral or secured to them, said gear 15 being engaged by the segment 16, which is secured to the disk 17, which has a handle 18 extending to a suitable position on the oven-front. This disk is so formed and mounted that it supports the rear edge of the rack, as clearly shown in Fig. 4, and by actuating either or both of the handles 18 the gears 14 14 are rotated, thereby moving the door to the desired position, where it would be held by the angle-pieces 8 8, as before explained.

At the forward side of the top of the oven-front a sight-aperture is formed, which consists in mounting the slide 19 over the aperture formed in said front. This slide is more than twice the length of the aperture formed in the front, and one end of said slide is solid to close the same aperture, the other end, however, having an aperture formed therein which is covered with mica 20, and when said slide is moved to a position where the mica is over the aperture in the front the conditions within the oven may be observed. To facilitate this observation, the illuminator is placed at one side of the door and consists of the burners 21 21, mounted on the pivotally-mounted plate 22. These burners are supplied with gas through the pipe 23, which has the cock 24 connected therein, and a flexible hose 25 connects the said pipe with a permanent pipe 26. A reflector 27 is placed behind the burners, and a frame 28, in which mica is secured, ex-

tends slightly within said oven through an aperture when the illuminator is in an operative position; but said aperture is otherwise closed by a door 6, and said door is secured by the hook 29 on said frame 28, engaging the loop 30, formed on said door, as clearly brought out in Figs. 3, 5, and 6.

The hook 29, which projects from the pivotal frame 28, it will be observed, is slightly angled and is designed to engage the hook 30 and hold the door closed, as seen in Fig. 6. In order to open the door, the lever 40, which is fastened to the pivoted plate 22, is swung into the position shown in Fig. 5 of the drawings, in which position said lever 40 will engage and be held by a catch 31, and in the forward movement of the plate the hook 29 will bear against the door and throw the same open. As the plate swings toward the opening into the oven the lever 32, coming in contact with a pin 33, will turn on the supply of gas and illuminate the interior of the oven. When it is desired to close the door, the lever 40 is swung into the position shown in Fig. 6, and the plate 22, which turns back into the casing and carrying with it the hook 29, the latter engages the eye 30 upon the door and closes and locks the same, while the lever 40 is held in a locked position by means of the tilting catch 31, as disclosed by Fig. 6. As the swinging plate 22 turns back in the casing the handle 32, coming in contact with a pin 33, will cause the supply of gas to be turned partially off. By this construction means is provided for automatically opening the door and throwing the plate-carrying burners into a position to throw the light into the oven and automatically turning on and cutting off the supply of gas as the plate is moved forward or back.

A thermometer or pyrometer 34 may be inserted in a chamber formed therefor, thereby to determine the temperature of the oven at all times.

While I have described my invention in detail, I reserve the right to make various slight changes in the details of construction without departing from the general spirit thereof.

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

1. In an oven-front, the combination of the frame having a central aperture in which a door is placed, racks and pinions for actuating said door, segments and gears for actuating said pinions, handles for actuating said segments, a weighted shaft for holding said door against ledges formed on the frame, chambers formed on either side of the central aperture formed in the frame, a device for indicating the temperature in one of said chambers, an aperture in the wall of the other chamber communicating with the oven, a frame carrying transparent material adapted to close said aperture, a door hinged at the top of said aperture adapted to close said aperture when the same is not closed by said frame, burners placed behind and mounted on the base of said frame, and means for regulating said burners corresponding with their position, substantially as described.

2. In a device of the character described, the combination of a frame having a central aperture at the sides of which ledges are formed, a vertical sliding door the rear edges of which rest against said ledges, angles at the front edges of said door, a rod having pins mounted in either end resting against said angles, a weight attached to said rod for holding said pins against the angle said angle holding the door against the ledges at its rear, racks and pinions for actuating said door, segments and gears for actuating said pinions, handles for actuating said segments, a slide one end of which has an aperture covered with transparent material, an aperture in the top of said frame adapted to be covered by either half of said slide, chambers formed on either side of said door-aperture, a temperature-indicator placed in one of said chambers, an aperture connecting the other chamber with the oven, a swinging frame covered with transparent material, burners located behind said frame on its base, the said frame in one of its positions adapted to close the aperture in said chamber, a door hinged over said aperture and adapted to close said aperture when the same is not closed by the said frame, means carried by said frame for locking said door in when in its closed position, a cock mounted on said frame and adapted to be controlled by the position of the frame, and latches for holding said frame in one of its two positions, substantially as described.

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

FRANCIS J. ALBRECHT.

In presence of—
FRED O. HENZI,
H. J. LEVIS.