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DOMESTIC APPLIANCE

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3 Sheets-Sheet 1

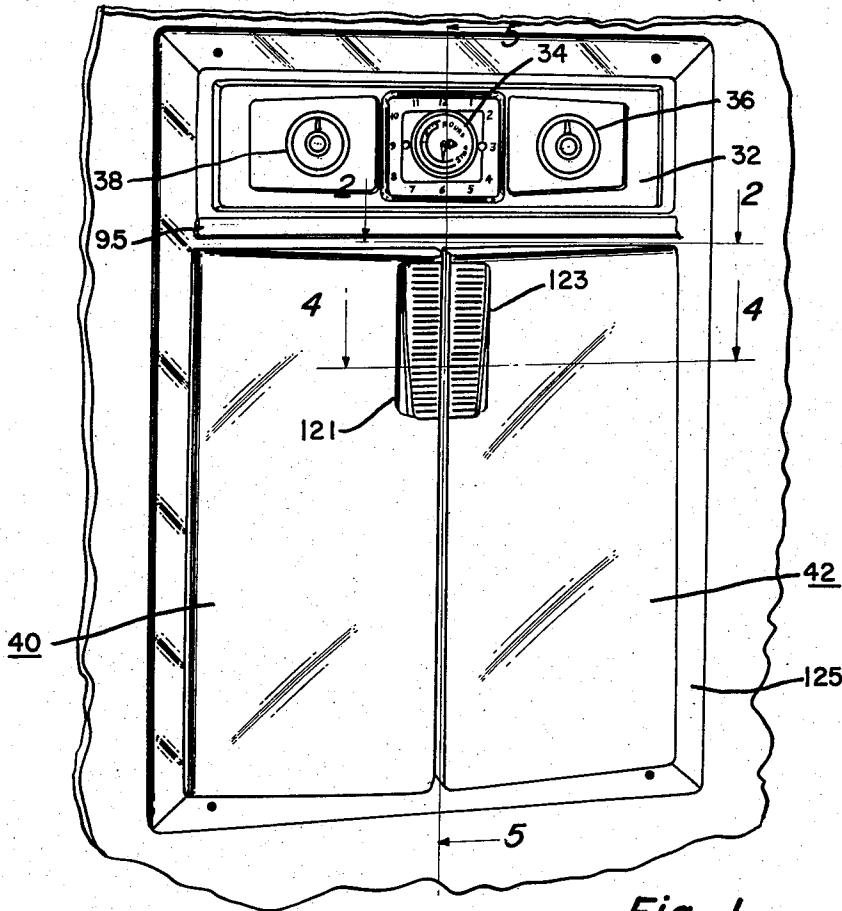


Fig. 1

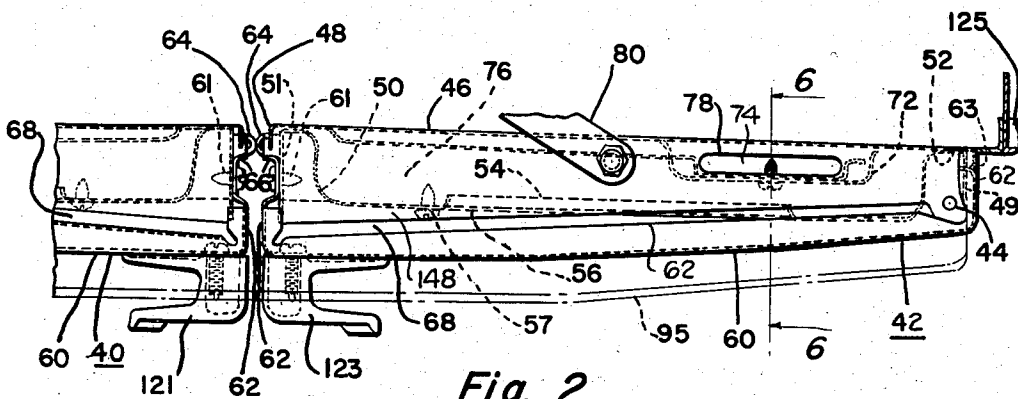


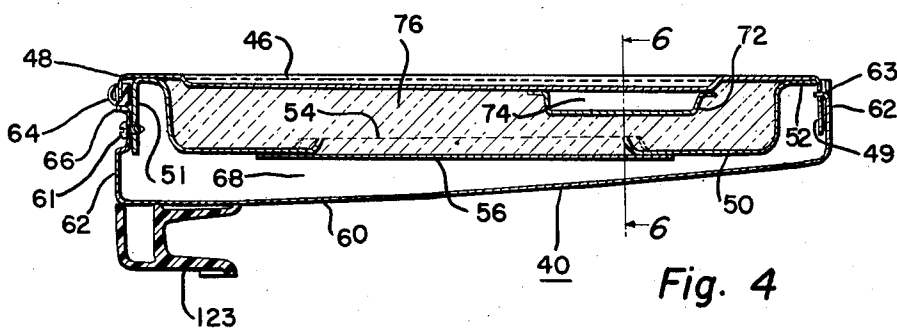
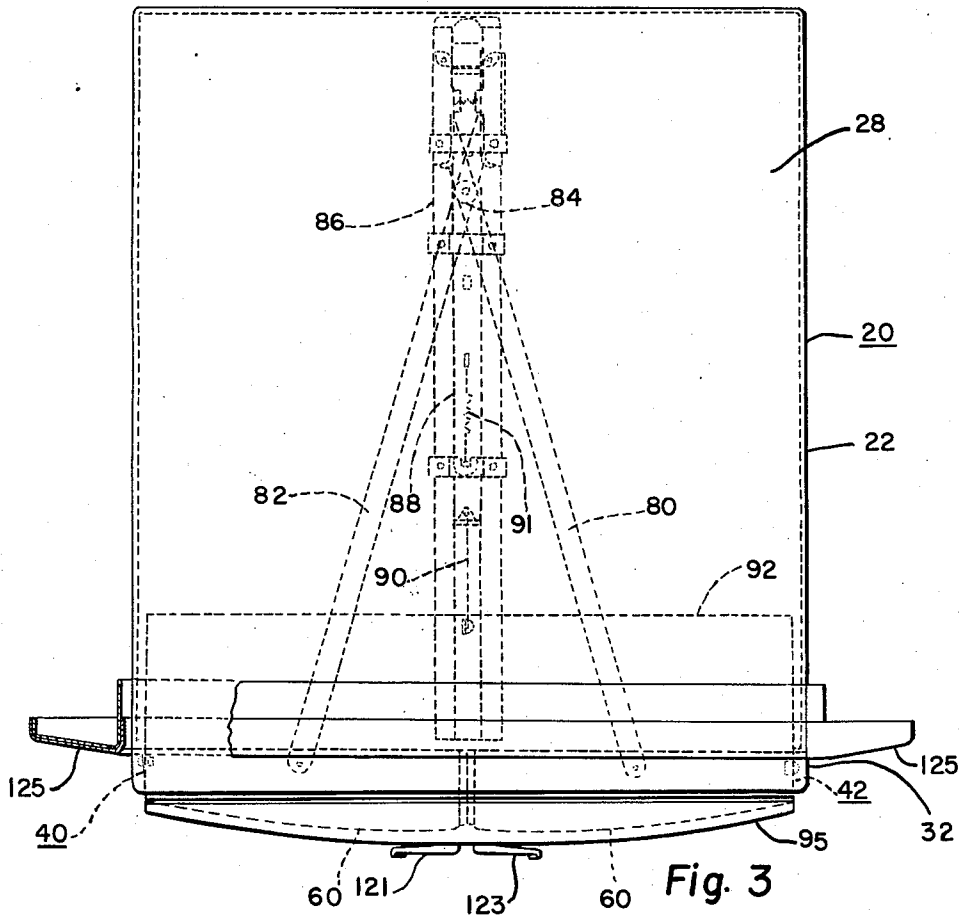
Fig. 2

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**Fig. 5**

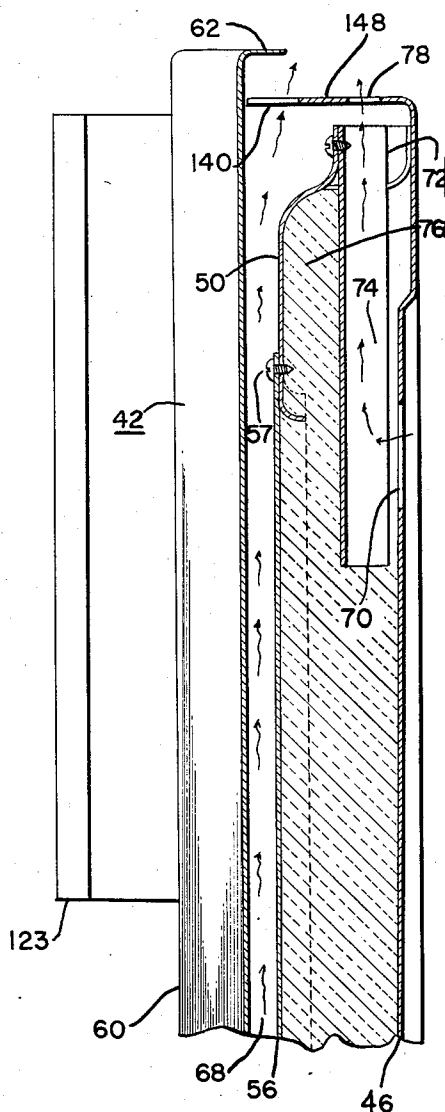


**Fig. 6**

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## DOMESTIC APPLIANCE

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Application March 11, 1955, Serial No. 493,628

2 Claims. (Cl. 126—198)

This invention relates to a domestic appliance and more particularly to improved wall ovens.

This application is a continuation-in-part of Ser. No. 463,352, filed October 20, 1954, which issued on February 18, 1958, as Patent 2,823,664.

It is an object of this invention to provide a wall type oven which reduces the hazards to children and reduces the possibility of children playing with the controls.

It is another object of this invention to provide a wall oven which is provided with a simple inexpensive vent.

It is another object of this invention to provide a wall oven in which the exposed portions are kept cool.

It is another object of this invention to provide a wall in which the controls and the walls above the oven are protected from vapors from the oven and the top of the door is concealed.

These and other objects are obtained in the forms shown by providing the oven with vertically pivoted outwardly open double doors having a ventilating space behind their outer ornamental exposed walls. The control panel is placed above the doors and closes a compartment above the oven provided with the door control mechanism. Above the doors there is provided an ornamental horizontal shield which covers the tops of the doors when in a closed position and conceals the oven vent and the ventilating spaces therein. The shield is controlled by the door mechanism in such a way so that when the doors are opened the shield is projected outwardly and to shield the control panel and the wall above from vapors flowing upwardly out of the oven. The assembly is surrounded by an ornamental outwardly extending flange covering any cracks or openings surrounding the oven and providing an ornamental appearance.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings, wherein a preferred form of the invention is clearly shown.

In the drawings:

Figure 1 is a perspective view of the front of the oven embodying one form of my invention;

Figure 2 is a fragmentary enlarged sectional view taken along the line 2—2 of Figure 1;

Figure 3 is a top view of the oven shown in Figure 1;

Figure 4 is an enlarged fragmentary sectional view taken along the lines 4—4 of Figure 1;

Figure 5 is a vertical sectional view taken along the lines 5—5 of Figure 1; and

Figure 6 is a fragmentary enlarged sectional view taken along the lines 6—6 of Figures 2 and 4.

Referring now to the drawings there is shown a wall type oven provided with a box-shaped wall structure 20 including outer walls 22 and inner walls 24 spaced inwardly of the outer walls and forming a liner for the oven compartment. Above the liner 24 there is provided a top sheet 26 and above the top sheet 26 there is provided a top wall 28. Between the top sheet 26 and the top wall 28 there is provided a compartment 30 containing a door control mechanism and the controls for the

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oven. The front of the compartment 30 is closed by an ornamental control panel 32 containing an automatic clock control 34, a temperature control 36 and a time signal 38. By providing the control panel above the doors and the oven, the controls are kept out of the normal reach of small children.

Beneath the control panel 32 are a set of vertically pivoted double doors 40 and 42. These doors are pivoted upon vertical pivot pins 44 adjacent their outer edges. They are formed of an inner upright sheet metal member 46 provided at its edges with outwardly extending flanges 48, 49 and 149. A second upright sheet metal member 50 is provided with off-set edge portions 52 which extend flatwise along and are bonded to the edge portions of the inner member 46 within the flanges 48, 49 and 149. Along one vertical edge the member 50 is provided with a forwardly extending flange 51 at the edge of the off-set portions 52. This member 50 is provided with a large central flanged opening 54 through which the interior may be filled with a suitable heat insulating material such as glass wool. The opening 54 may be closed by a removable plate 56 fastened in place by screws 57 after the interior is filled with insulation.

To prevent anyone from burning their fingers on the doors when the oven is in operation, each door is provided with an ornamental false front 60 provided with flanges 62 extending entirely around the periphery of the second sheet 50. On the hinge sides, the portions 62 extend outside the flange 49. At the meeting edge of the doors is a gasket seal 64 having a slot receiving the flange 48. The seal 64 is held from removal by a projection 66 upon the front 60 which prevents the seal 64 from being pulled away from the flange 48. Between the sheet metal members 50 and 60 there is provided a ventilating air space 68 having a side opening at the bottoms of the doors and also at the tops of the doors. This allows air to circulate freely through the space 68 and keeps the outer ornamental sheet 60 cooled sufficiently that children will not get their hands burnt if they touch the outside of the doors. On the hinge edges, the flanges 62 are provided with three inwardly turned projections 63 engaging slots in the flanges 49. On the opposite edge the flange 62 is fastened by the screws 61 threading into the flange 51.

Since the oven is inserted in a recess in the wall the usual type of vent for an oven is inconvenient. To provide a simple inexpensive form of vent I provide an aperture 70 in the upper interior portion of the inner sheet metal member 46. Behind this aperture I provide a vertically extending U-shaped metal member 72 providing a ventilating passage 74 within the insulation space 76 of each door. The upper flange 148 is provided with an opening 78 which communicates with the passage 74. The opening 140 between the flanges 148 and 62 communicates with the air space 68. By this arrangement cool air may flow upwardly through the air space 68 to the opening at the top between the flanges 148 and 62 so that the outer ornamental front 60 is kept sufficiently cold to prevent anyone from being burned. Vapor, air and other fluids may escape from the interior of the oven through the aperture 70, the passage 74 and through the opening 78 in the flange 148.

To cause the doors 40 and 42 to open and close simultaneously there is connected to each door adjacent the mid portion of its top one of the long links 80 and 82 extending into the compartment between the top sheet 26 and the top wall 28. The inner end of each of these links 80 and 82 is pivotally linked by a connecting pin to a roller 84 which rides within an inverted U-shaped guide member 86. The roller 84 is connected to a slide member 88 which is slidably mounted in the inverted U-shaped member 86. The slide member 88 is connected by

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a suitable link 90 with a movable shield 92. This movable shield 92 is connected at each end by the members 94 to the pivot pins 96 which pivot the shield 92 for outward movement. When either of the doors 40 or 42 is opened, the links 80 and 82 insure the simultaneous opening of the other door. A detailed disclosure of the slide mechanism is shown in the Patent 2,823,664, which issued on Feb. 18, 1958.

The pin linking the inner ends of the links 80 and 82 together normally holds the slide member 88 in a retracted position against the tension of a spring 91 which tends to push the slide member 88 and the shield outwardly. As the doors 40 and 42 are being opened, the links 80 and 82 and their connecting pin move forwardly allowing the slide member 88 and the link 90 to move forwardly under the force of the spring 91, thereby moving the shield 92 outwardly. This permits the hot vapors from the oven to flow upwardly and outwardly through the oven doors but prevents this vapor from contacting the control panel 32. The shield 92 when projected outwardly causes the vapor to flow far enough forward that it will not contact the control panel 32 or the wall above. The shield 92 is provided with an ornamental front projecting lip 95 which extends over and beyond the outer ornamental sheet member of the doors. It covers from sight the opening 78 and the opening between the flanges 48 and 62 at the top of the doors and keeps the vapor passing through the oven vent passage 74 away from the control panel 32. This lip 95 follows the curved contour of the doors shown in Figure 4.

The doors are each provided with ornamental handles 121 and 123 made of suitable non-metallic material. The entire structure is surrounded by an outwardly extending ornamental flange member 125 adjacent the doors. The control panel 32 is set back from the front edge of the lip 95 and the closed positions of the doors 40 and 42 so that the ventilating air will be kept away from the control panel and its instruments. The controls are up high so that they are easily read and operated without stooping. Also, small children will not be able to readily reach the controls thereon. Likewise, the handles 121 and 123 are high so that they can be readily and comfortably reached by grown-ups and yet they cannot be readily reached by small children. The flange member 125 covers the joint between the oven and the wall in which it is located.

While the form of embodiment of the invention as herein disclosed constitutes a preferred form, it is to be understood that other forms might be adopted, as may come within the scope of the claims which follow.

What is claimed is as follows:

1. An oven including walls enclosing an oven compartment, a door for the front of said compartment, said door

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being provided with spaced inner and outer sheet metal walls and a top wall, said inner sheet metal wall being provided with an opening communicating directly with the interior of said oven, said door being provided with a false sheet metal front spaced outwardly of the outer sheet metal wall to form an air space therebetween, said door being provided with ventilating openings adjacent its top and bottom communicating with said air space to form an air flue, said top wall being provided with an opening communicating with the atmosphere outside of the oven and with said air space to ventilate said air space, the interior of said door being provided with a passage extending from the opening in said inner wall to said opening in the top wall to vent the oven.

2. An oven including walls enclosing an oven compartment, a door for the front of said compartment, said door being provided with spaced inner and outer sheet metal walls and a top wall, said inner sheet metal wall being provided with an opening communicating directly with the interior of said oven, said door being provided with a false sheet metal front spaced outwardly of the outer sheet metal wall to form an air space therebetween, said door being provided with ventilating openings adjacent its top and bottom communicating with said air space to form an air flue, said top wall being provided with an opening communicating with the atmosphere outside of the oven and with said air space to ventilate said air space, the interior of said door being provided with a passage extending from the opening in said inner wall to said opening in the top wall to vent the oven, an upright panel extending above said door, and a shield extending between the panel and the door and extending over and above the door and protruding forwardly of said panel and said door to shield the panel.

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