

April 30, 1957

M. E. FRY
DOMESTIC APPLIANCE

2,790,886

Filed July 15, 1954

3 Sheets-Sheet 2

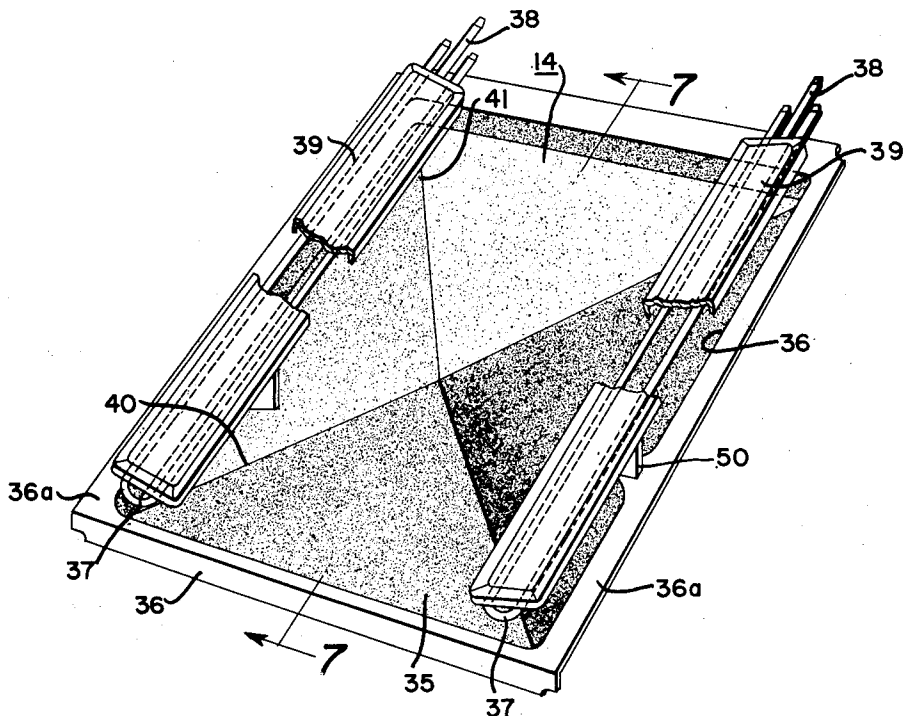


Fig. 5

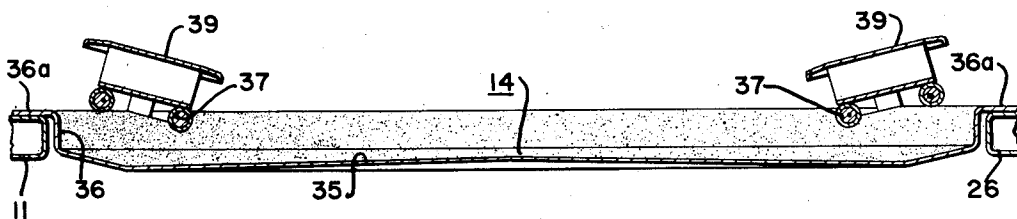


Fig. 6

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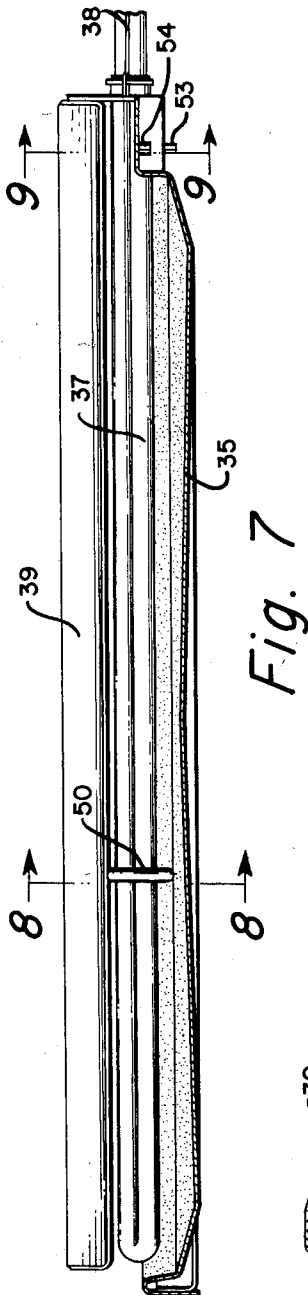


Fig. 7

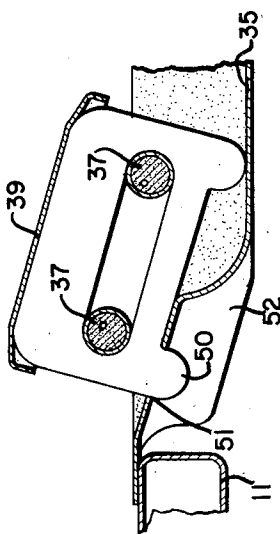


Fig. 8

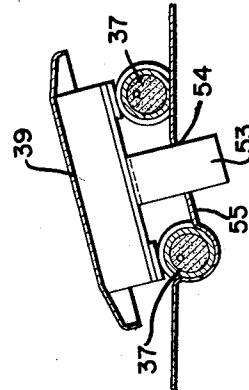


Fig. 9

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2,790,886

DOMESTIC APPLIANCE

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3 Claims. (Cl. 219—35)

This invention is directed to domestic appliances, and more particularly to an oven construction for electric ranges.

An object of this invention is to provide an oven for a range, which may be used as a relatively large single oven, or may be divided into two horizontally spaced individual relatively small ovens.

Further objects and advantages of the present invention will be apparent from the following description, reference being made to the accompanying drawings, wherein preferred embodiments of the present invention are clearly shown.

In the drawings:

Figure 1 is a vertical cross section of the oven, being used as a double oven;

Figure 2 is a front elevation, of reduced size, indicating use as a single large oven and including the door construction;

Figure 3 is an enlarged horizontal cross section taken along the line 3—3 of Figure 1;

Figure 4 is a perspective showing a heater construction which may be used in the oven;

Figure 5 is a perspective of the heater indicated in Figure 4, but showing further details;

Figure 6 is a cross section taken along the line 6—6 of Figure 5;

Figure 7 is a cross section taken along the line 7—7 of Figure 5;

Figure 8 is a cross section taken along the line 8—8 of Figure 7;

Figure 9 is a cross section along the line 9—9 of Figure 7.

In the drawings, an oven 10 may be constructed to be used as a single relatively large oven, which may be surrounded by a liner. The liner may include two vertical side walls 10a, a vertical back wall 10b, a horizontal top wall 10c, and a horizontal bottom wall 10d. The side walls 10a may be provided with shelf and heater guides 11 for receiving the shelves 12 and 13, and the heaters 14. The top wall 10c of the oven liner may be provided with guides 15 for receiving the broiling heaters 16 in removable and sliding relationship. A central vertical partition 17 is provided with flanges 18, which are slidably supported in brackets 19 on the top wall 10c, so that the partition 17 may be slidably inserted in and removed from the oven. The rear wall 10b of the oven is provided with flanges 21 to receive the rear end 22 of the partition 17.

The bottom wall 10d of the liner supports another central vertical partition 23 which extends upwardly in close relationship with the bottom of partition 17, sufficient space being provided to form a shelf space 24 only large enough to permit the shelf 13 to pass through it. The partition 17 is provided with shelf guides 25 and the partition 24 is provided with heater guides 26, all properly aligned with corresponding guides 11 on the side walls.

Thermostatic bulbs 27 are placed on either side of the partition 17 and are connected to two individual thermostatic switches which control respectively the upper and

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lower heaters in the corresponding half of the oven in which the thermostatic bulbs are located. The thermostats may be of the construction disclosed in the patent to McCormick No. 2,404,139 patented July 16, 1946.

Doors 30 and 31 may be hinged at 32 to the sides of the oven, and are adapted to swing inwardly to closed position. When closed, the vertical edges of the doors are adapted to be in close sealing relationship with each other and the back edges of the doors are adapted to be in close relationship with the front edge of the oven. The construction is such that the doors seal the oven both when it is being used as a single large oven or when the two halves are being used as small individual ovens. The doors substantially seal the small ovens from each other.

The heaters 14 may be of any desired construction. For example, each heater 14 may include a plan 35 which has sides 36, two of which are provided with flanges 36a which are adapted to slide on the guides 11 and 26. Two hairpin sheathed electric heating elements 37 are movably supported on each span 35, and are provided with prongs 38 which are insertable in and removable from the connectors 38a. Suitable baffles 39 are placed over the heaters 37.

The bottom of the pan 35 may be bulged or struck during the forming operation to strengthen the bottom. For example, the bottom may be slightly bent or folded along the seams 40 and 41 which extend from the four corners of the pan 35 and form a very flat four-sided cone which is relatively shallow as compared with the sides 36 of the pan. The cone may extend upwardly or downwardly with respect to the lower edges of sides of the pan, as desired.

The heaters each have downwardly extending lugs 50 which extend into slots 51 in the pan 14. The pan 14 is bulged at 52 around the slot 51 to cause the heater construction to slant inwardly. The heaters are also provided with downwardly directed lugs 53 extending into slots 54 in the body of the pan 14. The pan 14 is downwardly slanted at 55 also to cause the heater to slant inwardly. The lugs 50 and 53 lock the heaters longitudinally to the pan 14 so that the heaters are pulled out of or pushed into the connectors 38a when the pan is pulled out of or into the oven.

Two of the shelf guides 11 are in substantial alignment with the shelf space 24, to permit the shelf 13 to be supported on said guides and to pass through said space. Others of said shelf guides 11 are aligned with each other and with guides 25 to permit additional shelves 12 to be supported above (or below) shelf 13 when the small ovens are being used, and to support shelf 13 at a higher (or lower) level if desired when the partition 17 is removed.

If desired, the either or both partitions 17 and 23 may be removable. The shelf space 25 may be near the bottom, near the center, or near the top of the oven. Shelves 12 may be above or below shelf 13, and shelf 13 may be movable up or down, depending on the location of shelf space 24.

In operation, the user may place food on shelves 12 or 13 on either side of the partitions 17 and 23. Food may be broiled, baked or roasted on one side of partitions 17 and 23 alone or at the same time that an independent broiling, baking or roasting operation is being carried on in the other side of the oven. The individual thermostats for each side of the oven may be differently or similarly set as required. The user may remove the partition 17 and/or 23 and may move the shelf 13 to a different level or may insert additional shelves similar to shelf 13 and may then broil, bake or roast in the single large oven and can adjust the two thermostats to the same position or different positions as desired.

While the form of embodiment of the invention as

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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. In combination: a relatively large oven casing having two vertical side walls, a vertical back wall, a horizontal top wall, and a horizontal bottom wall; a horizontally removable vertical partition in said oven dividing said oven into two independent relatively small ovens; a horizontal guide-way within said large oven casing for slidably supporting said vertical partition, said rear wall having lateral supporting means for said partition; an individual heater in each small oven; and a removable horizontal shelf extending beneath said partition from the front to the rear and from one side wall to the other above said heaters.

2. In combination: a relatively large oven casing having two vertical side walls, a vertical back wall, a horizontal top wall, and a horizontal bottom wall; a vertical partition intermediate the side walls in the upper part of said oven extending near the bottom of said oven; a second vertical partition in the lower part of said oven aligned with said first partition and providing a horizontal shelf space extending from the front to the rear between said partitions; a shelf extending from the front to the rear removably supported by said side walls and passing between said vertical partitions through said shelf space; and an individual heater on each side said second partition.

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3. In combination: a relatively large oven casing having two vertical side walls, a vertical back wall, a horizontal top wall, and a horizontal bottom wall; a horizontally removable vertical partition in the upper part of said oven extending near the bottom of said oven; said partition having outturned flanges on its upper edge, said top wall having guideways receiving said flanges; a second vertical partition in the lower part of said oven aligned with said first partition and providing a shelf space between said partitions; shelf guides on said side walls aligned with said shelf space; additional aligned shelf guides above the level of said shelf space on said side walls and on said removable central vertical partition; and an individual heater on each side of said second partition.

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