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DOMESTIC APPLIANCE

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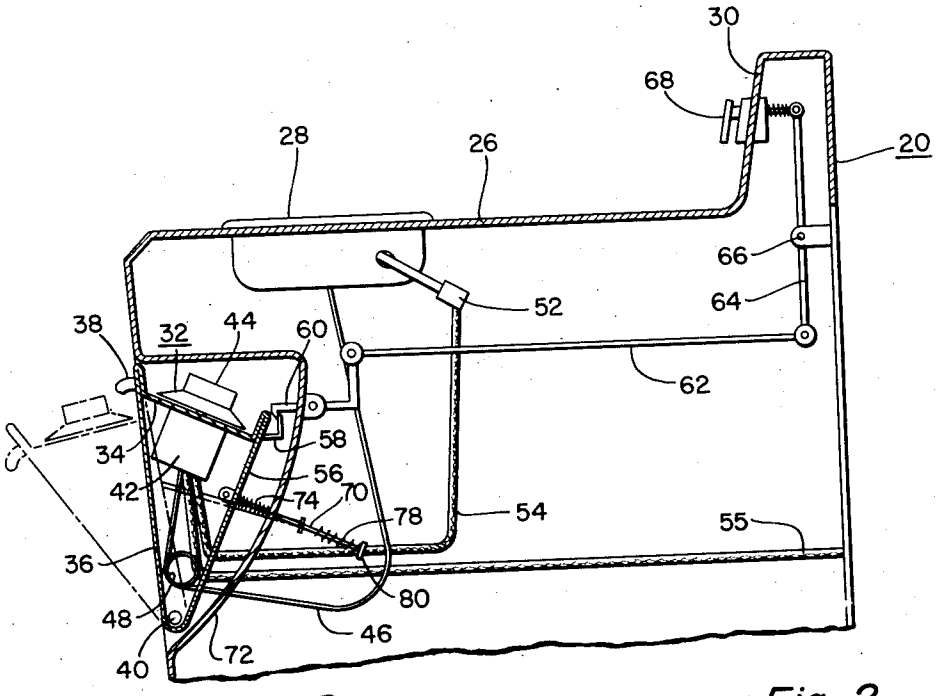

Fig. 2

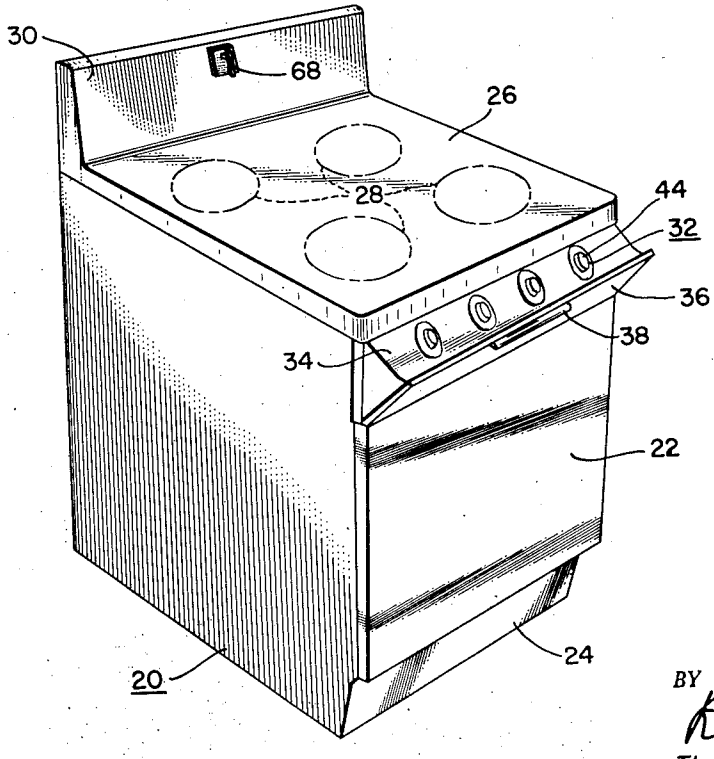

Fig. 1

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DOMESTIC APPLIANCE

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7 Claims. (Cl. 219—37)

This invention relates to a domestic appliance and more particularly to controls for the surface heaters of domestic ranges.

It has been found that small children often manipulate the controls for surface heaters of domestic ranges. It is possible for children to be burned if they touch a surface heater when it is turned on.

It is an object of this invention to provide a practical concealed control arrangement which is readily and conveniently usable by the housewife but which will be concealed and protected in such a way that it cannot be manipulated by children.

These and other objects are attained in the form shown in the drawings in which the upper portion of the front of the range pivots outwardly to make accessible an upwardly facing control panel which controls the various surfaces heaters upon the range top. When not in use, this panel and the upper front wall portion are pushed back to conceal the controls beneath the range top. The upper front wall portion and the panel are provided with a latch which retains the pivoted assembly in the concealed position until released by a releasing mechanism placed in the upper central portion of the back of the range top where it is substantially inaccessible to small children.

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

In the drawings:

Figure 1 is a perspective view of a domestic range embodying one form of my invention; and,

Figure 2 is a vertical sectional view through the range shown in Figure 1.

Referring now to the drawings there is shown a domestic range and oven including a rectangular sheet metal cabinet **20** provided with an oven door **22** in the front wall with a kickplate **24** beneath. The cabinet is provided with a range top **26** containing four surface heaters **28** and having a rear back splash portion **30**. The surface heaters **28** may be controlled by four identical surface heater controls **32**. To conceal these controls they are mounted upon a control panel **34** which extends rearwardly at an acute downwardly extending angle from the rear face of a front panel **36**. This front panel forms a part of the front wall of the cabinet **20** and extends in the horizontal direction between the sides of the cabinet **20** and between the oven door **22** and the front of the range top **26** in the vertical direction. This panel **36** may be provided with a suitable centrally located handle **38**.

Adjacent the lower edge of the panel **36** is a pivot pin connection **40** to the side walls of the cabinet **20**. This allows the control panel **34** and the front panel **36** to pivot outwardly to the dot-dash line position shown in Figure 2 and to the full line position shown in Figure 1 so that the controls **32** are readily accessible. The controls **32** include a box shaped structure **42** containing a

thermostatic control mechanism which is fastened to the control panel **34**. The controls **32** each have a manipulating knob **44** above the control panel **34**.

Preferably all or at least some of the surface heaters **28** are provided with a thermostatic control. Each thermostatic control includes a capillary tube **46** extending downwardly from the casing **42** and provided with a coiled portion **48** adjacent the pivot **40** to provide the necessary flexibility to allow the pivoting of the control panel **34**. The capillary tube **46** extends to a resiliently mounted thermostat bulb provided in the center of the surface heater unit **28** in a manner similar to that shown in the Weber et al. Patent No. 2,303,012, issued November 24, 1942. Each surface heater unit **28** has its terminal portion **52** connected by flexible electrical conductors **54** to suitable switches with the casing **42**. Other flexible conductors **55** extend from each casing **42** to the power supply. In this way, the heating of each surface heater **28** is controlled by a thermostatic control mechanism within each casing **42**.

The panel **36** has a rear wall portion **56**, provided with a keeper **58**, cooperating with a pivoted latch member **60**. The pivoted latch member **60** will automatically engage and hold the keeper **58** whenever the panel **36** is moved inwardly to the full line position in Figure 2. This latch **60** is connected by the rod **62** to the lower end of the lever **64** pivoted upon the pivot pin **66**. The upper end of the lever **64** connects to the rod and knob **68** projecting from the front of the back splash portion **30**.

When it is desired to use one of the surface heaters **28**, the handle and rod **68** are pulled to raise the latch **60** to allow the control to move outwardly. The rear part **56** of the panel **36** is pivotally connected to a rod **70** which extends through the wall **72** of the recess which receives the control panel **34**. Threaded on this rod **70** between the wall **72** and the member **56** is a compression type coiled spring **74** which urges the control panel **36** outwardly so that it will move automatically to the position shown in Figure 1 whenever the handle **68** is pulled. The rod **70** is provided with a second spring **78** held by the head **80** upon the rod to yieldingly limit the outward movement of the panel **36** to the position shown in Figure 1. This makes the control panel readily available whenever it is desired to use any one of the surface heaters **28**. When use of the surface units **28** is completed the control panel **36** may be pushed rearwardly to again engage the latch **60**. The controls and the control panel are then inaccessible to small children since they are not able to reach the release handle **68**. In this way the children are protected.

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. A domestic range including a cabinet provided with a range top, said cabinet having a pivoted front wall portion immediately below said range top, said front wall portion being pivoted adjacent its lower edge, the rear face of said front wall portion being provided with an upwardly facing control panel extending beneath and concealed by the range top when said front wall portion is in its inward position, said range top being provided with a plurality of surface heaters, said control panel being provided with individual control means having manipulating means projecting upwardly from the panel, one of said surface heaters being provided with a thermostat control adapted to contact and be responsive to a receptacle supported upon the heater, and connecting means extending from said thermostat control and said one surface heater to one of said control means and from the other surface heaters to the other control means.

2. A domestic range including a cabinet provided with a range top, said cabinet having a pivoted front wall portion immediately below said range top, said front wall portion being pivoted adjacent its lower edge, the rear face of said front wall portion being provided with an upwardly facing control panel extending beneath and concealed by the range top when said front wall portion is in its inward position, said range top being provided with a plurality of surface heaters, said control panel being provided with individual control means having manipulating means projecting upwardly from the panel, and means operably connecting each of said surface heaters to one of said control means, said range top being provided with a back splash portion, latch means for latching said front wall portion in its inward position, and release means for said latch means including a manipulating means mounted upon said back splash portion.

3. A domestic range including a cabinet provided with a range top, said cabinet having a pivoted front wall portion immediately below said range top, said front wall portion being pivoted adjacent its lower edge, the rear face of said front wall portion being provided with an upwardly facing control panel extending beneath and concealed by the range top when said front wall portion is in its inward position, said range top being provided with a plurality of surface heaters, said control panel being provided with individual control means having manipulating means projecting upwardly from the panel, and means operably connecting each of said surface heaters to one of said control means, said range top being provided with a back splash portion, spring means for urging said front wall portion outwardly, latch means for latching said front wall portion in its inward position, and release means for said latch means including a manipulating means mounted upon said back splash portion.

4. A domestic range including a cabinet provided with a range top, said cabinet having a pivoted front wall portion immediately below said range top, said front wall portion being pivoted adjacent its lower edge, the rear face of said front wall portion being provided with an upwardly facing control panel extending beneath and concealed by the range top when said front wall portion is in its inward position, said range top being provided with a plurality of surface heaters, said control panel being provided with individual control means having manipulating means projecting upwardly from the panel, and means operably connecting each of said surface heaters to one of said control means, said range top being provided with a back splash portion, spring means for urging said front wall portion outwardly, means for limiting the outward movement of said front wall portion, latch means for latching said front wall portion in its inward position and release means for said latch means including a manipulating means mounted upon said back splash portion.

5. A domestic range including a cabinet provided with a range top, said cabinet having a pivoted front wall portion immediately below said range top, said front wall portion being pivoted adjacent its lower edge, the rear face of said front wall portion having as a rearwardly extending part thereof an upwardly facing control panel extending beneath and concealed by the range top when said front wall portion is in its inward position, stop means for stopping the forward movement of said front wall portion and said control panel when substantially all of said control panel is exposed, said range top being provided with a plurality of surface heaters, said control panel being provided with individual control means having manipulating means projecting upwardly from the panel, and means operably connecting each of said surface heaters to one of said control means.

6. A domestic range including a cabinet provided with a range top, said cabinet having a pivoted front wall portion immediately below said range top, said front wall portion being pivoted adjacent its lower edge, the rear face of said front wall portion having as a rearwardly extending part thereof an upwardly facing control panel extending beneath and concealed by the range top when said front wall portion is in its inward position, stop means for stopping the forward movement of said front wall portion and said control panel when substantially all of said control panel is exposed, said range top being provided with a plurality of surface heaters, said control panel being provided with individual control means having manipulating means projecting upwardly from the panel, and means operably connecting each of said surface heaters to one of said control means, spring means for propelling said pivoted wall portion forwardly, and manually releasable latch means for holding said wall portion in its inward position.

7. A domestic range including a cabinet provided with a range top, said cabinet having a pivoted front wall portion immediately below said range top, said front wall portion being pivoted adjacent its lower edge, the rear face of said front wall portion having as a rearwardly extending part thereof an upwardly facing control panel extending beneath and concealed by the range top when said front wall portion is in its inward position, spring stop means for resiliently stopping the forward movement of said front wall portion and said control panel when substantially all of said control panel is exposed, said range top being provided with a plurality of surface heaters, said control panel being provided with individual control means having manipulating means projecting upwardly from the panel, and means operably connecting each of said surface heaters to one of said control means.

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