May 15, 1934. R. A. CONRY 1,959,198

COLLAPSIBLE ELECTRIC STOVE

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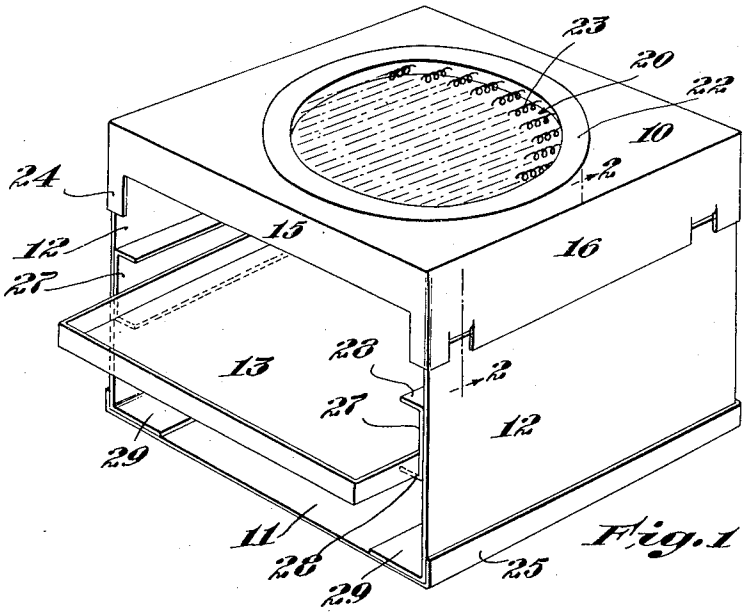


Fig. 1

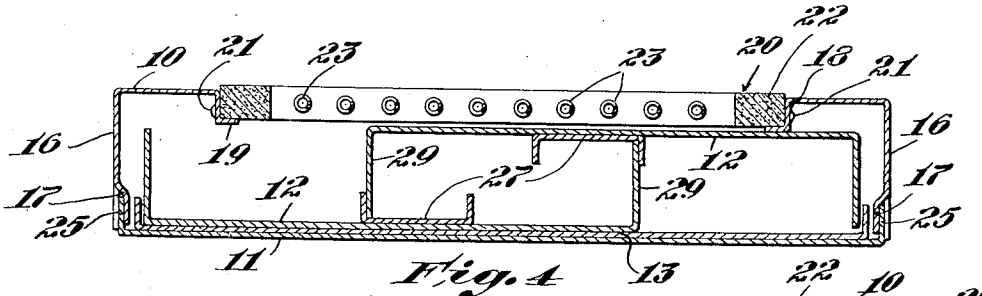


Fig. 4

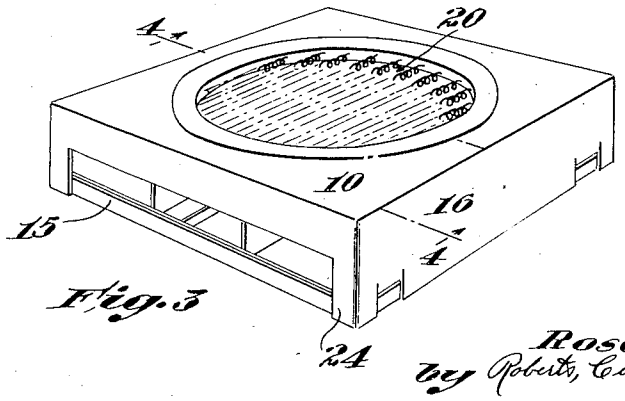


Fig. 3

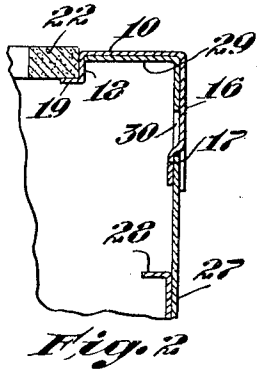


Fig. 2

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COLLAPSIBLE ELECTRIC STOVE

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5 Claims. (Cl. 219—37)

This invention relates to an improvement in a collapsible electric stove, and has for its primary object to provide a stove adapted for easy transportation when collapsed or knocked down, and adapted when set up to be used for cooking whether the heat be applied above or below the food, as for example, for boiling, frying, baking, toasting, broiling, and the like.

Other objects of the invention will appear from a consideration of the following description and of the drawing which forms a part thereof and in which

Fig. 1 is a perspective view of an electric stove embodying my invention in the set up condition ready for use;

Fig. 2 is an enlarged sectional view along the line 2—2 of Fig. 1;

Fig. 3 is a similar view of the stove shown in Fig. 1 in the collapsed or knocked down condition in which it may be readily transported; and

Fig. 4 is an enlarged cross sectional view of the stove taken along the line 4—4 of Fig. 3.

The stove here shown comprises a top plate 10, a bottom plate 11, side walls 12 and a removable pan 13.

The top plate 10 provides a flat surface preferably rectangular, having a central opening therein and side flanges 15 and 16, the latter having tongues 17 therein. The central opening is preferably defined by a flange 18 which may be continuous or interrupted and which terminates in one or more tongues 19 upon which an electric heating unit 20 may rest, being secured therein by any suitable means as for example screws 21. The unit 20 here shown comprises an annular frame 22 of plaster of Paris or other non-conducting material in which are supported resistance coils 23. In place of a unit so constructed other types of unit may be employed in wh ch the heat from the resistance coils may radiate both upwardly and downwardly from the frame 22. The flange 15 is preferably though not necessarily shallower than the flange 16 in order to permit full and easy use of the stove as will be pointed out below, and has at each corner an extension 24.

The bottom plate 11 has flanges 25 at the opposite sides only, but may have flanges at all four sides if desired. Secured to the inner faces of the side walls 12 intermediate the ends thereof are U-shaped strips 27 which provide opposed tracks or guides 28 for the pan 13 as will be described. The side walls each terminate at the ends in flanges 29 at right angles to the body portions thereof. Formed in each side wall 12 are slots 30.

When the stove is set up the slots 30 receive the tongues 17 formed in the flanges 16 of the top plate 10. The side walls are thus held securely in place and the contact of the flanges 29 with the top and bottom plates, see Figs. 1 and 2, prevent any shifting or swaying of the stove when in use. Preferably, as shown in Fig. 2, the upper flange 29 of each side wall is of such dimension that, when it enters the space between the opening flange 18 and the edge flange 16, it contacts with both such flanges thus increasing the rigidity of the stove. The stove is now connected to a source of current by means not shown and is ready for use. The heat from the unit 20 radiates upwardly so that the top plate 10 can be used in the usual manner. Moreover, when a pan is resting upon the frame 22 some of the heat is deflected downwardly into the compartment defined by the side walls and top and bottom plates, and cooks food placed in the pan 13 or on the bottom plate 11. In addition to the pan 13 a toaster or grill (not shown) may be provided and if the top of the stove is not in use the unit 20 may be covered by the pan 13 or any flat article.

When the stove is to be transported or stored it is collapsed or knocked down, the pan 13 and side walls 12 being placed upon the bottom plate 11 in any suitable manner as for example that shown in Fig. 4, with the side walls nested so that one flange 29 of each wall contacts with the strip 27 of the other wall to prevent shifting of the walls laterally in one direction. The top plate 10 is then placed over the other elements with the end flanges 16 slipped over the flanges 25 of the bottom plate and the tongues 17 passed behind them. The parts are thus held securely but removably in the collapsible or knocked-down condition and the stove can be easily packed and transported in a compact form. The extensions 24 of the flange 15 obviously prevent the pan 13 and side walls from sliding out of place.

While one embodiment of the invention has been shown and described, I am not limited thereto since other embodiments can be made without departing from the spirit and scope of the invention as set forth in the following claims.

I claim:

1. A collapsible electric stove comprising a top plate having an opening therein and flanges at the edges thereof, a heating unit in said opening, a bottom plate having flanges at opposite ends thereof, and side walls having flanges at oppo-

site ends thereof, said side wall flanges, when the stove is set up, bearing against the top and bottom plates and being confined by the flanges of such plates, the flanges of one of said plates having tongues projecting therefrom and the side walls having slots therein which receive such tongues to secure the side walls to the tongue carrying plate.

2. A collapsible electric stove comprising a top plate having a flange defined opening therein and flanges at the edges thereof, a heating unit in said opening, and side walls having flanges at opposite ends thereof, the flanges at the upper ends of the side walls resting against the top plate in the space between the opening flange and edge flanges thereof when the stove is set up.

3. A collapsible electric stove comprising a top plate having a flange defined opening therein and flanges at the edges thereof, a heating unit in said opening, and side walls having flanges at opposite ends thereof, the flanges at the upper ends of the side walls resting against the top plate in the space between the opening flange and edge flanges thereof when the stove is set up, and means for securing the side walls to the top plate in the set up condition.

4. A collapsible electric stove comprising a top plate having a flange defined opening therein and flanges at the edges thereof, a heating unit in said opening, and side walls having flanges at opposite ends thereof, the flanges at the upper ends of the side walls resting against the top plate in the space between the opening flange and edge flanges thereof when the stove is set up, and tongues projecting from the edge flanges of the top plate which enter slots in the side walls for securing the side walls to the top plate in the set up condition.

5. A collapsible electric stove comprising a top plate having an opening therein and flanges at the edges thereof, a heating unit in said opening, side walls and a bottom plate having flanges at opposite ends thereof, said side walls having slots therein, and the flanges of the top plate having tongues projecting therefrom, which tongues, when the stove is set up, engage the slots in the side walls to secure the walls to the top plate, and, when the stove is collapsed, engage the flanges of the bottom plate to secure that plate to the top plate.

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