Nov. 8, 1966 L. C. HANSON 3,284,612

SURFACE UNIT ASSEMBLY

Filed Jan. 27, 1964 2 Sheets-Sheet 1

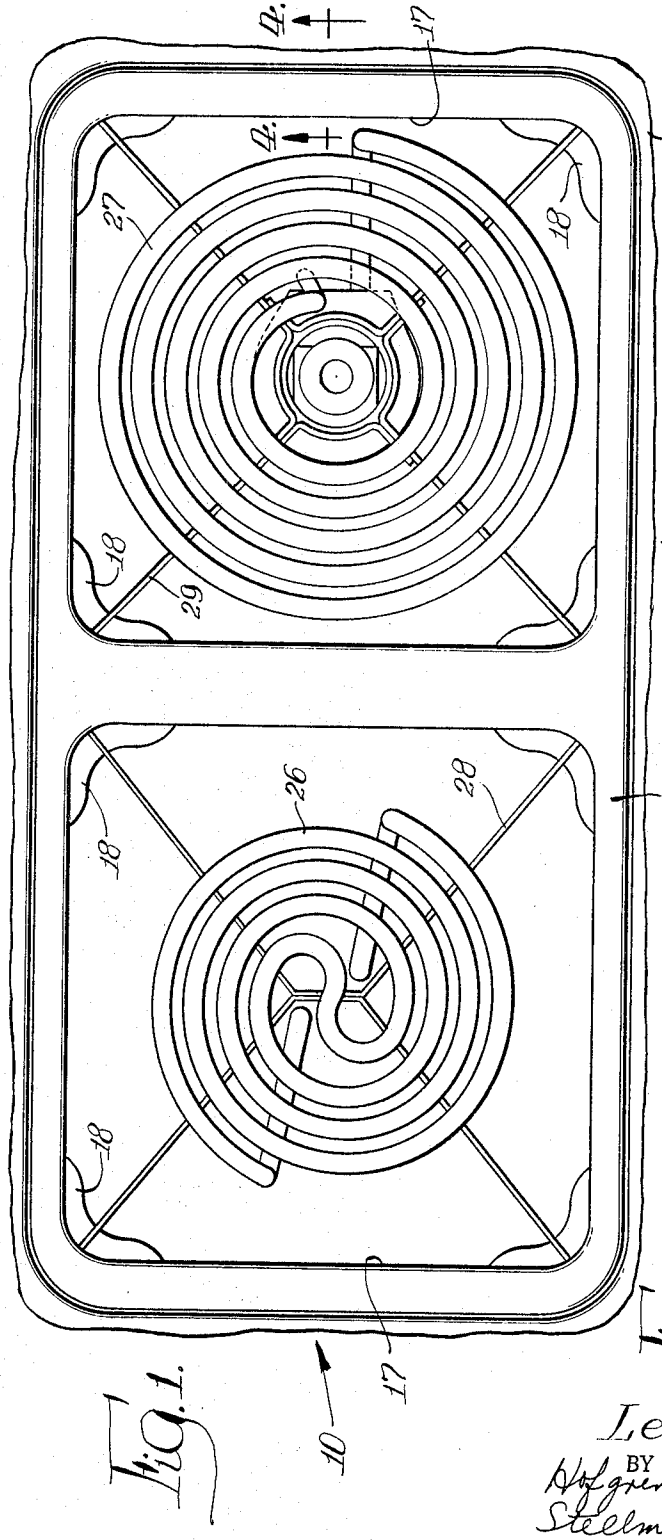


FIG. 1.

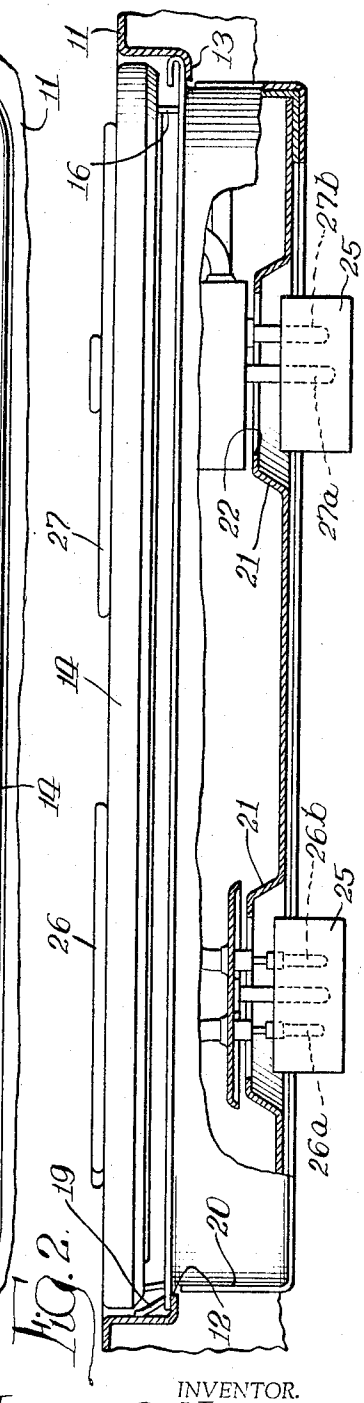


FIG. 2.

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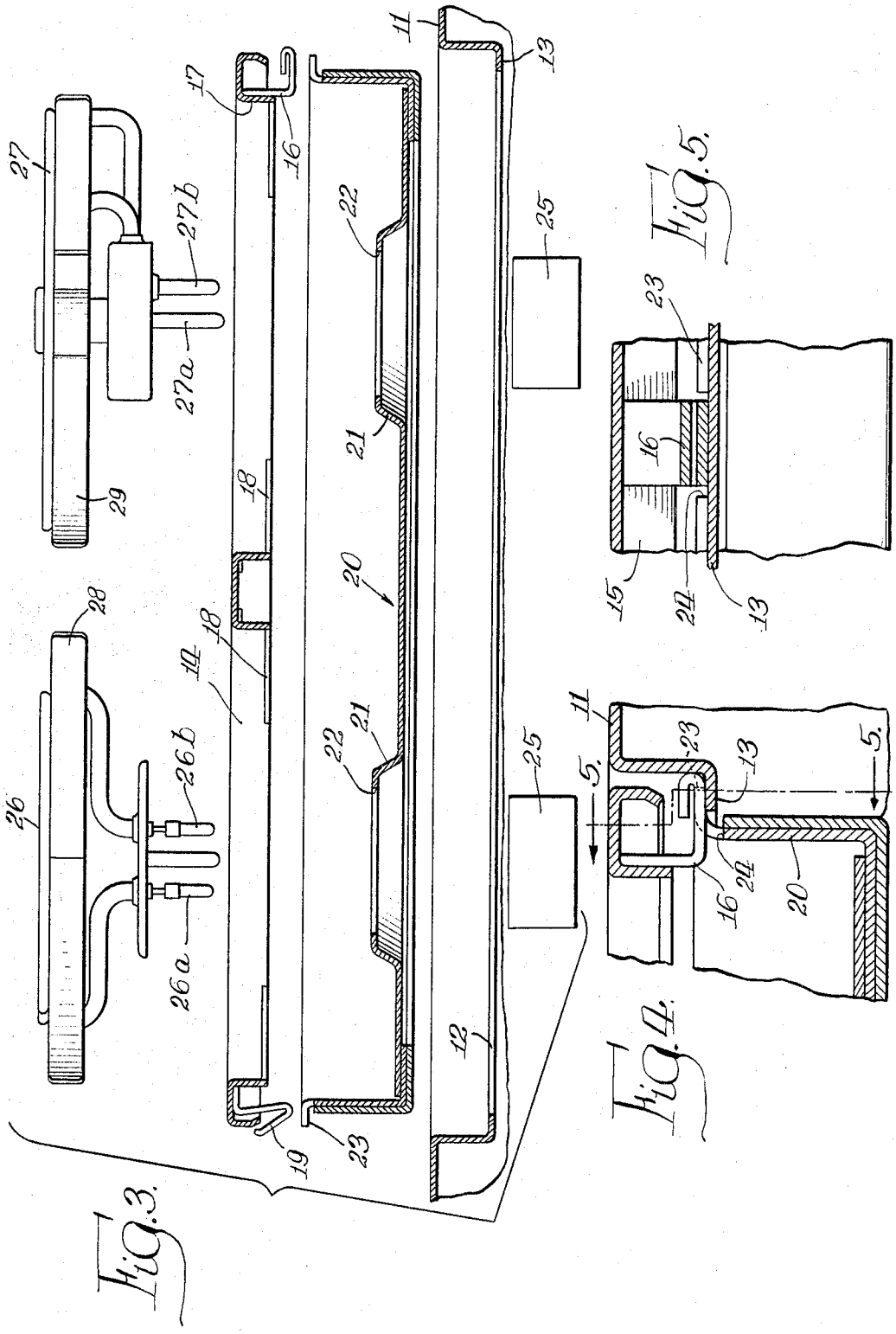


FIG. 3.

FIG. 5.

FIG. 4.

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SURFACE UNIT ASSEMBLY

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This invention relates to electrical surface units and more particularly to an assembly of elements making up such a unit and suitable for installation in a cook top.

It is the general object of the present invention to produce a new and useful surface unit of the character described.

It is a more specific object of the present invention to produce a surface unit assembly made up of a novel combination of elements to produce a surface unit having a wide variety of applications.

While it will be readily apparent to those skilled in the art that the novel assembly of elements comprising the surface unit of the present invention can be used with advantage in a number of situations, it is particularly useful in providing an assembly which can readily be incorporated into the basic structure of a gas stove to produce an electric stove or may be used to convert a gas stove into an electric stove. Thus, a manufacturer of gas stoves can use a large number of the basic parts forming a gas range, and then by utilization of the assembly of the present invention complete the stove, thereby providing an electric range but utilizing basic parts which have theretofore been utilized in producing a gas range. As a corrolary feature to those noted above, the surface unit assembly of the present invention includes a coiled electrical heating element having downwardly extending terminals of the plug-in type thereby to provide an electrical surface unit which can readily be removed and replaced for cleaning and other purposes.

Other and further advantages and objects of the present invention will be readily apparent from the following description and drawings, in which:

FIG. 1 is a top plan view of the surface unit assembly incorporating the present invention;

FIG. 2 is a side elevational view partially broken away for clarity of illustration of the apparatus shown in FIG. 1;

FIG. 3 is an exploded view of the various parts of the assembly shown in FIG. 1;

FIG. 4 is an enlarged sectional view taken along the line 4—4 of FIG. 1; and

FIG. 5 is a vertical section taken along the line 5—5 of FIG. 4.

While this invention is susceptible of embodiment in many different forms, there is shown in the drawings and will herein be described in detail a specific embodiment, with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiment illustrated. The scope of the invention will be pointed out in the appended claims.

Referring now to the drawings, there is shown a heating assembly **10** installed in a cook top, a portion of which is indicated at **11** having a rectangular opening **12** therein. Formed as a part of the cook top and surrounding the opening **12** is an inwardly extending supporting lip **13**.

Adapted to be supported on the lip **13** is a platform panel **14** having an edge portion **15** from which extend a plurality of fingers **16** adapted to rest on the upper surface of the lip **13**. The platform panel **14** is provided with a pair of generally rectangular apertures **17**, each having corner-bridging supporting ledges **18** adapted to support the electrical surface unit as hereinafter described. Also secured to one side of the edge portion **15** is a spring **19** which serves to hold the platform panel in position in the opening **12** but to permit the ready withdrawal therefrom for cleaning of the apparatus.

Positioned beneath the platform panel is a spillage pan **20** having in its bottom a pair of raised portions **21**, each having a hole **22** therein. The upper edge of the spillage pan is provided with an outwardly extending rim **23** having a plurality of notches **24** therein, each notch accommodating a finger **16** so that both the platform panel and the spillage pan are supported on the lip **13**.

Positioned beneath the holes **22** are terminal blocks **25**, the blocks being aligned with the holes **22** so as to receive the downwardly extending terminals **26***a* and **26***b*, and **27***a* and **27***b*, provided on the coiled surface units **26** and **27**, respectively.

The surface units are supported in position in the aperture **17** by means of spiders **28** and **29** resting upon the ledges **18** heretofore described.

From the foregoing it can be seen that the assembly of the present invention can be applied to a variety of uses and installations. The opening **12** can be the opening in any form of cook top including, for example, not only the gas stove hereinbefore mentioned, but also almost any flat surface upon which it is desired to mount an electrical surface unit. It is merely necessary to provide a support such as the lip **13** or its equivalent and to provide a firm mounting for the terminal blocks in position to receive the terminals of the electrical units.

I claim:

1. A surface unit assembly for use on a cook top having a generally rectangular opening therein provided with an inwardly extending lip, said assembly comprising in combination, a generally rectangular platform panel having a plurality of fingers extending therebeneath and engaging the lip at spaced areas to support said panel in said opening, said panel having a pair of generally square apertures therein, corner-bridging ledges at each corner of said square apertures, a spring mounted on the edge portion of the panel at one end thereof and engaging the edges of said opening resiliently to retain the panel therein, a spillage pan positioned beneath said apertures and having an outwardly extending notched rim resting on said lip with said fingers positioned in the notches of the rim, a pair of raised portions in the bottom of said pan generally centrally located beneath said square apertures with each of said raised portions being provided with a hole therein, a terminal block below said hole and aligned therewith, and a coiled heating unit having downwardly extending terminals received in said terminal block when said heating unit is supported in the aperture by said ledges.

2. A surface unit assembly for use on a cook top having a generally rectangular opening therein provided with an inwardly extending lip, said assembly comprising in combination, a generally rectangular platform panel having a plurality of fingers extending therebeneath and engaging the lip at spaced areas to support said panel in said opening, said panel having a pair of generally square apertures therein, a spring mounted on the edge portion of the panel at one end thereof and engaging the edges of said opening resiliently to retain the panel therein, a spillage pan posi-

tioned beneath said apertures and having an outwardly extending notched rim resting on said lip with said fingers positioned in the notches of the rim, a pair of raised portions in the bottom of said pan generally centrally located beneath said square apertures with each of said raised portions being provided with a hole therein, a terminal block below said hole and aligned therewith, and a coiled heating unit having downwardly extending terminals received in said terminal block when said heating unit is positioned in said aperture.

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