To all whom it may concern:

Be it known that I, ALFRED B. ANTISELL, a citizen of the United States, and resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Electrical Cooking Utensils, of which the following is a specification.

This invention relates to improvements in electric cooking utensils and has particular reference to an improved electrically heated vessel for quickly warming liquids, though its use is not limited thereto.

The object of the invention is to provide a generally improved cooking utensil or vessel adapted to be heated electrically and comprising such features of improved construction as are hereinafter set forth and as illustrated in the accompanying drawing in which—

Figure 1 is a view of an electric cooking utensil embodying the invention, parts being in elevation and parts in section. Fig. 2 is a horizontal sectional view through the handle and Fig. 3 is an enlarged view of the terminal connections of the heating element.

The utensil or vessel comprises an inner shell 4 and an outer shell 5, each preferably of copper and nickel plated. The inner shell 5 is provided with a rim or bead 6 within which the outer shell 5 is secured by any suitable means, as by soldering, welding, crimping or otherwise.

The heating element consists of a coil 7 of wire wound upon a base or layer of cement or similar material 8 which is laid upon the inner shell 4. Outside the coil 7 there is provided a layer of asbestos 9. There is provided a space 10 between the shells. Before the shells are finally secured or assembled a partial vacuum is created in the space 10. This may be done by heating the air therein, so that after cooling a partial vacuum exists in space 10, or the vacuum may be obtained by other means and serves as a non-conductor of the heat from the coil 7.

The terminals of the coil 7 consist of separate strips 11 and 12 of conducting material, for instance brass. The strips 11 and 12 are laid between the coil 7 and the cement layer 8 with a piece of non-conducting material 13, for instance mica, between the coil and the terminals as clearly shown in Fig. 3.

The upper inner end of the terminal 11 is electrically connected at 14 to the upper turn of the coil 7, and the other terminal 12 is electrically connected at 15 to the bottom turn of the coil 7, thereafter the terminal strips are bent upwardly on the outside of the asbestos layer 9. So it will be clear that the terminals 11 and 12 are strips of metal bent upon themselves and insulated from the coil except for the connections at 14 and 15 to the ends of the coil, while the outer portions of the terminals are available for connections with the source of electricity.

16 represents a suitable hollow handle preferably of wood which is secured to the utensil by a sleeve 17 which fits over a bushing 18 soldered to the outer shell 5. A block 19 of porcelain or other non-conducting material is laid within the bushing 18 and two rods 20 of brass or similar material are screwed into said block 19 until their inner pointed ends abut the terminals 11 and 12 with force so as to make a good electrical connection therewith. Lock nuts 21 are provided to keep the rods 20 in constant touch with the terminals. The rods are further insulated and positioned in the handle by a fiber washer 23 and nuts 24, the ends 25 of the rods serving as means for attaching the usual plug from a cable from an electric light socket, all of which is not shown.

The utensil as herein described and illustrated may be made quickly at a low cost and tests have shown that liquid in the vessel is quickly and economically heated when the current is turned on.

The detailed construction may be changed and the invention is not limited to the precise manner of making or the forms of parts as illustrated otherwise than required by the scope of the appended claims.

I claim:

1. A utensil of the character described comprising an inner and an outer shell, a heating element carried by said inner shell, an insulating covering over said heating element, separate terminal pieces secured to said heating element and bent to lay on the outside of said insulating covering, a handle secured to said outer shell and terminal rods in said handle secured therein and in contact with the said terminal pieces.

2. A utensil of the character described comprising an inner and an outer shell secured together to form a chamber in which a partial vacuum is created, a heating element around said inner shell, insulating ma-
terial on both sides of said heating element, separate terminal pieces electrically connect-
ed at the ends of said heating element and secured between said heating element and the insulating material on the one side there-
of, a handle secured to said outer shell, terminal rods in said handle projecting in-
wardly into contact with said terminal pieces and means in said handle for secur-
ing said rods therein and for insulating one rod from the other rod.

3. A utensil of the character described comprising an inner and an outer shell hav-
ing a vacuum chamber between them, a layer of cementitious material on said in-
ner shell, a coil of wire wound upon said cementitious material, an insulating cover-
ing outside said coil of wire, terminal pieces secured between said coil and said cement-
titious material, insulating material be-
tween said coil of wire and said terminal pieces, which latter are connected respec-
tively to the upper and lower turn of wire in said coil, said terminal pieces being further bent to lay on the outside of said insulating covering, a handle secured to said outer shell and terminal members secured in said handle in contact with the said terminal pieces.


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