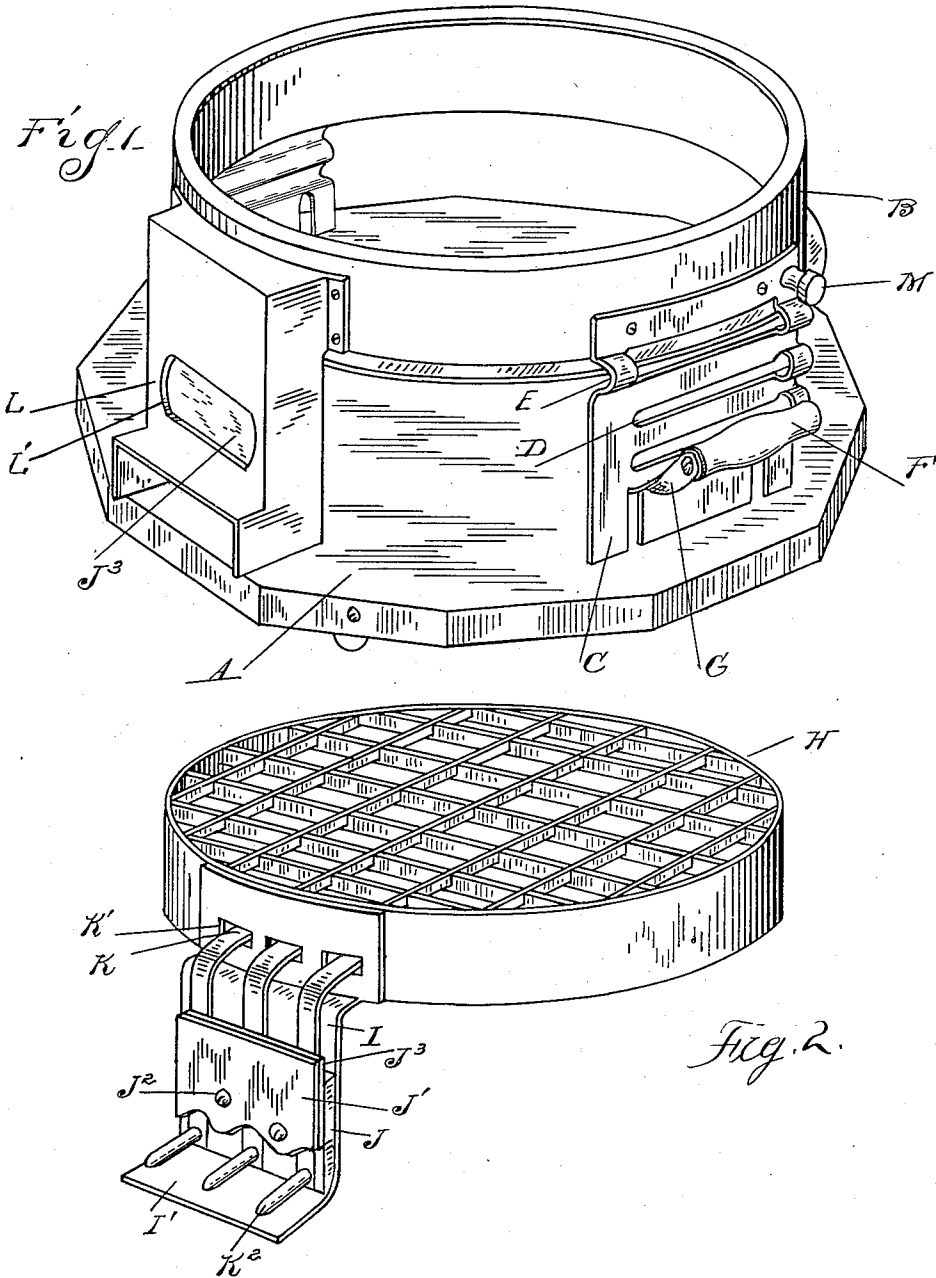


F. KUHN AND J. A. HAND.
ELECTRIC COOKER.
APPLICATION FILED FEB. 21, 1918.

1,330,877.

Patented Feb. 17, 1920.
2 SHEETS—SHEET 1.



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Fig. 3.

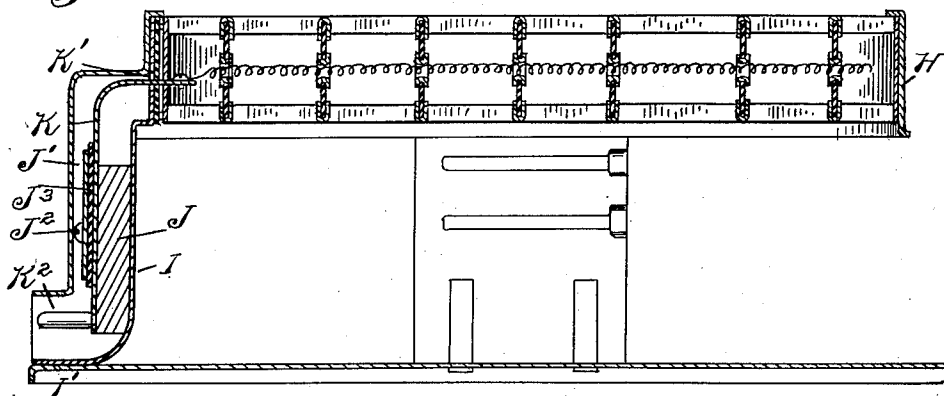


Fig. 4.

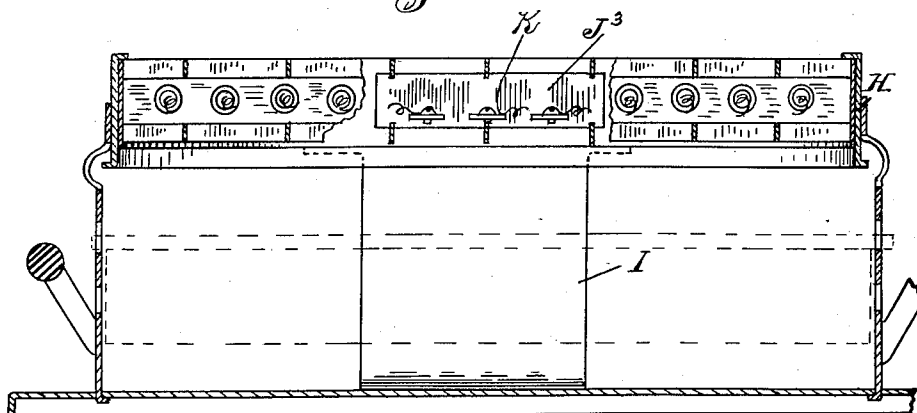


Fig. 5.

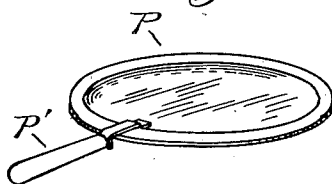
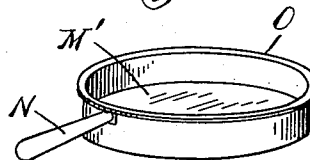


Fig. 6.



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UNITED STATES PATENT OFFICE.

FRANK KUHN AND JAY A. HAND, OF DETROIT, MICHIGAN, ASSIGNORS TO AMERICAN ELECTRICAL HEATER COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

ELECTRIC COOKER.

1,330,877.

Specification of Letters Patent.

Patented Feb. 17, 1920.

Application filed February 21, 1918. Serial No. 218,402.

To all whom it may concern:

Be it known that we, FRANK KUHN and JAY A. HAND, both citizens of the United States of America, both residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Electric Cookers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to electric cookers of that type designed for use with chafing-dishes, for toasting, broiling, etc. It is the object of the invention to obtain a compact unit adapted for the various operations and having provision for engagement of cooperating utensils, as hereinafter set forth.

In the drawings:

Figure 1 is a perspective view of the casing with the heating unit removed;

Fig. 2 is a perspective view of the unit detached;

Fig. 3 is a cross-section through the unit;

Fig. 4 is a section in a plane at right angles to Fig. 3; and

Figs. 5 and 6 are perspective views respectively of the cover plate and one of the utensils.

A is a base, preferably formed of pressed sheet-metal, having a flat top and depending side flange and which as shown is of polygonal form. B is an annulus which is supported above the base A by side members C. The latter are preferably formed of pressed sheet-metal and are slotted transversely to form racks for holding utensils below the ring. As specifically shown, the members C are provided with a series of slots D, leaving uncut marginal portions at opposite sides, and these side portions are crimped at E to form entrance grooves into the slots. There are also provided handles F which are attached to the member C by shank portions G struck out therefrom.

The heating unit H is of a form to fit within the annulus B, and to avoid overheating the connector the terminals of the unit are extended downward to a point adjacent to the base. To support these terminals a sheet-metal member I is secured at its upper end to the periphery of the unit and is extended downward therefrom, terminating in an outwardly-extending flange I'. On the downwardly-extending portion is mounted an insulated block J, and secured

upon this block are terminal bars K which extend upward and inward through slots K' in the member I. The lower ends of said terminal bars have attached thereto the outwardly-projecting contact pins K² for engaging with the plug of the connector. The terminal connections just described are housed and protected by a casing L which is secured to the annulus B and extends downward adjacent to the base, being fashioned to form in connection with the flange I' an outwardly-opening socket for receiving the plug. The construction is such that the heating unit may be engaged with or disengaged from the casing by sliding it beneath the annulus B, inserting the member I into the housing L and then raising the unit into engagement with said annulus, where it is held from disengagement by securing means M.

It is necessary in the manufacture of heaters to provide units of different resistance and to correspond to the different voltages of the electrical service in different places. As it is also necessary to mark the voltage on the heater in an exposed place where it can be easily read, it is customary to place this marking on the outer casing or frame, which necessitates the carrying in stock of a large number of these frames which are mechanically of the same construction but are differently marked. We have avoided this difficulty by placing the marking plate upon the detachable heating unit and exposing the markings to view through a window in the frame. Thus, as shown, the member L has the window L' formed therein, and the marking plate J' is mounted upon the insulator block J where it serves in addition to its function of a marking plate as a clamping plate for the terminal bars K. The plate is secured by screws J², and an insulator lining J³ of mica or other suitable material is placed between the plate and the conductors.

The heater is designed for use in connection with various utensils, such as M', each of which is provided with a handle N and with a flange O for engaging the grooves D in the racks. This will permit of raising or lowering the utensils by placing the flange O in different grooves, or if desired the utensil may be placed on top of the unit. P is a cover and reflector-plate provided with a handle P' and which may be placed

either above a utensil or in engagement with the rack to prevent downward radiation of heat.

With the construction as described the heating units, the specific construction of which forms no part of the present invention, may be formed of various resistances but mechanically of the same structure. Each unit is properly marked upon the plate J' and the units are exchangeably engageable with the stand or frame member. Thus in assembling a heater for any particular voltage it is only necessary to select the proper unit and to place the same in engagement with the stand or frame by sliding the terminals into the housing L and the unit proper into the annulus B, securing it by the pins M. When thus assembled the voltage and other markings required are prominently displayed through the window L' so as to identify the heater. It is also possible to quickly exchange the units when desired, so that it is only necessary to carry a limited number in stock.

What we claim as our invention is:

1. In an electric cooker, the combination with a base, of an annulus thereabove, a heating unit mounted within said annulus, and a support for said annulus upon said base, comprising a sheet-metal member transversely slotted with uncut portions at opposite sides thereof, one of said uncut portions being bent to form an entrance groove to a slot, for the purpose described.

2. In an electric cooker, the combination with a base, of an annulus thereabove, a heating unit supported within said annulus, and a member for supporting said annulus upon said base comprising a pressed sheet-metal member transversely slotted with uncut portions on opposite sides thereof, one of said portions being bent to form an entrance groove to a slot and said member also having struck-out portions, and a handle secured to said struck-out portions.

3. An electric cooker, comprising a base formed of pressed sheet-metal having a downwardly-extending marginal flange, an annulus above said base, a heating unit detachably engageable with said annulus, and supports for said annulus upon said base

comprising sheet-metal members transversely slotted with uncut marginal portions, said marginal portions being bent to form entrance grooves into said slots, struck-out portions from said members, and handles secured to said struck-out portions.

4. In an electric heater, the combination with a base, an annulus supported thereabove and a housing in fixed relation to said annulus and base, of a heating unit detachably engageable with said annulus and terminals on said unit engageable with said housing when said unit is engaged with said annulus.

5. In an electric heater, the combination with a base, an annulus thereabove, means for supporting said annulus upon said base, and a housing in fixed relation to said annulus and base, of a heating unit detachably engageable with said annulus from the underside thereof, and terminals on said unit extending downward adjacent to said base and projecting outward, said terminals engageable with said housing when said unit is engaged with said annulus.

6. In an electric heater, the combination with a base, of an annulus thereabove, means for supporting said annulus on said base, a housing secured to said annulus and projecting downward therefrom, being open on its inner side and having an outward opening near the base, a heating unit engageable with said annulus from the underside thereof, and terminals extending downward and outward from said heating unit engageable with said housing when said unit is engaged with the annulus.

7. In an electric heater, the combination with a base, of an annulus supported thereabove, a housing secured to said annulus and projecting downward therefrom, a heating unit engageable with said annulus and terminals extending downward and outward from said heating unit, said terminals being engageable with said housing when said heating unit is engaged with said annulus.

In testimony whereof we affix our signatures.

FRANK KUHN.
JAY A. HAND.