March 29, 1927. 1,622,485

A. BERSTED ET AL

ELECTRIC HEATING DEVICE

Filed Feb. 13, 1925

FIG. 1

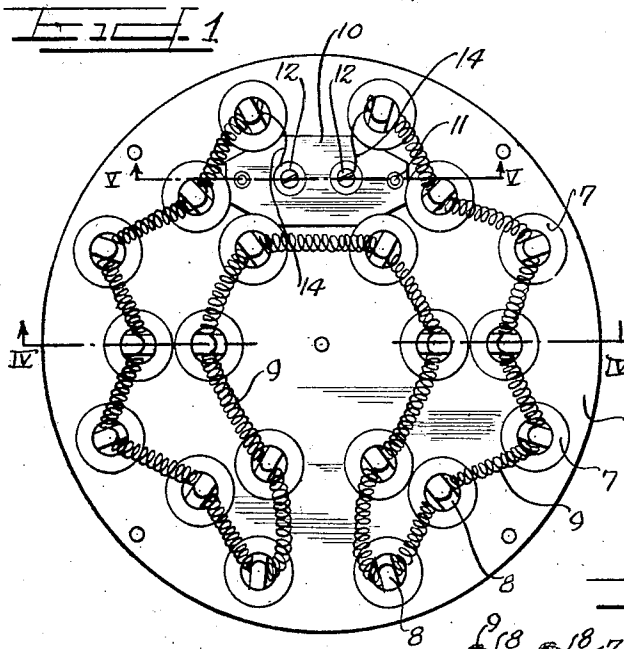


FIG. 3

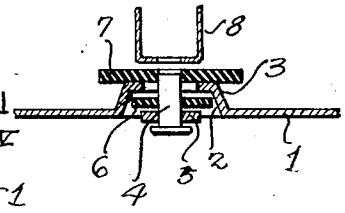


FIG. 4

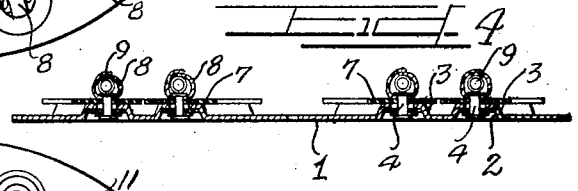


FIG. 2

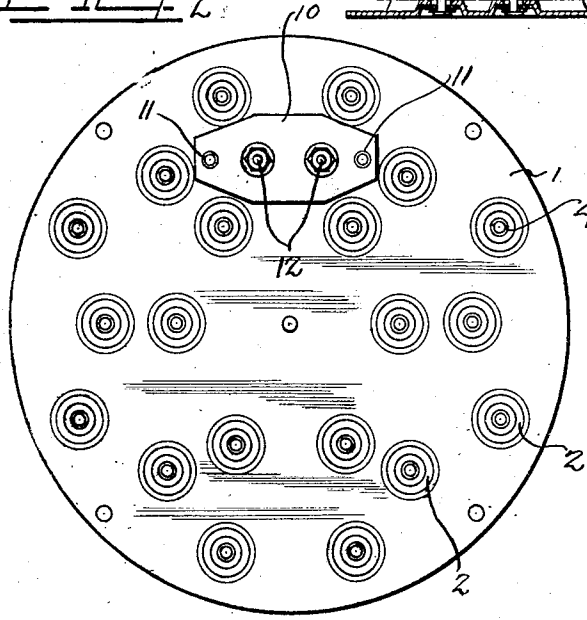
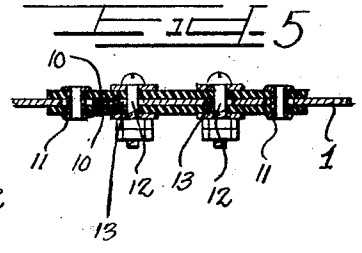


FIG. 5



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Patented Mar. 29, 1927. 1,622,485

UNITED STATES PATENT OFFICE.

ALFRED BERSTED AND MARTIN BERSTED, OF CHICAGO, ILLINOIS, ASSIGNORS TO BERSTED MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A COPARTNERSHIP COMPOSED OF MARTIN BERSTED AND ALFRED BERSTED.

ELECTRIC HEATING DEVICE.

Application filed February 13, 1925. Serial No. 8,869.

This invention relates to an electric heating device of that type involving a resistance coil arranged upon a plate member which is adapted for making waffles or for other purposes and concerns itself primarily with a structure that saves insulating material, and is cheaper to manufacture.

The invention comprises the novel structure and combinations hereinafter described and more particularly pointed out and defined in the appended claims.

In the accompanying drawings which illustrate a preferred embodiment of this invention and in which similar reference numerals refer to similar features in the different views:

Figure 1 is a top plan view of the heating device.

Figure 2 is a bottom plan view of the same.

Figure 3 is an enlarged sectional detail view illustrating the assembling of the heating device.

Figure 4 is a sectional view upon the line IV—IV of Figure 1.

Figure 5 is an enlarged sectional view through the contact pads taken upon the line V—V of Figure 1.

Referring to the drawings, there is shown a circular plate 1 preferably formed of sheet metal which is non-insulating having depressions 2 stamped therein from its bottom face to form raised portions or projections 3 upon its upper face. These projections are apertured for receiving rivets 4. Each rivet passes through a washer 5 which is positioned against the head of such rivet, an insulated disk 6 which fits in the depression and abuts the lower surface of the plate, a larger insulated disk 7 which rests on the top of the projections, and a U-shaped clip or clamp 8 which is seated upon the disk 7; the rivet being swaged over the web of the U clip. This structure avoids making the whole plate 1 of insulating material.

The resistance coil 9 is confined in these U-shaped clips, and supported upon the insulated disks 3. The coil is laid in such clips; the arms thereof are then bent over into overlapping relation to confine the coil, as clearly shown in Figure 4.

In order to lead an electrical current into and from the coil 9, a pair of insulated pads 10 are attached to the plate 1, one on each side thereof. Hollow rivets 11 may be used to attach the pads together on the plate 1. A pair of binding posts 12 extend through these pads; the plate 1 being provided with a pair of enlarged apertures 13 for receiving the posts 12. These apertures are sufficiently large to prevent short circuiting. The current is adapted to enter through these posts which are connected by short conductors 14 with the terminals of the coil 9.

From the foregoing, it will be appreciated that a simple structure has been provided wherein the coil is effectively retained upon its base in a very simple manner.

We are aware that many changes may be made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and we therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

We claim:

1. In a waffle iron, a base member having depressions in its lower face forming rising projections upon its upper face, U-shaped clips riveted upon said projections and insulated from said base, and a resistance coil confined in said clips, the arms of said clips being folded over said coil.

2. In a heating device, a base plate having hollow rising projections, clamping members secured to the tops of said projections and insulated from said base, a coil secured by said clamping members, said members having overlapping parts for engaging over said coil.

3. In a heating device, a base member having projections rising from its upper surface, insulated disks upon said projections, U-shaped members secured upon said disks, and a coil positioned between the arms of said U-shaped members and resting upon said disks, said arms being folded over said coil.

4. In a heating device of the class described, a base member having projections rising from its upper surface, insulated disks upon said projections, clamping means upon said disks, and a coil confined by said clamping means.

In testimony whereof we have hereunto subscribed our names.

ALFRED BERSTED.
MARTIN BERSTED.