E. B. DICE.

ELECTRIC HEATING APPARATUS.

APPLICATION FILED JULY 6, 1915.

1,284,257. Patented Nov. 12, 1918.

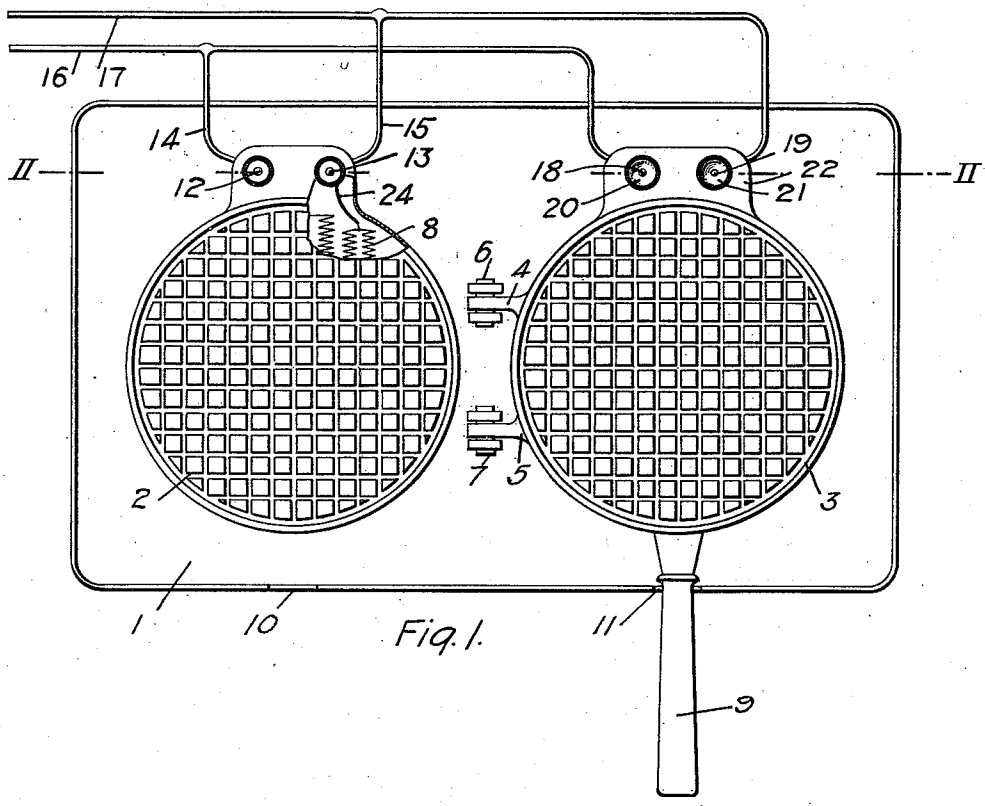

Fig. 1.

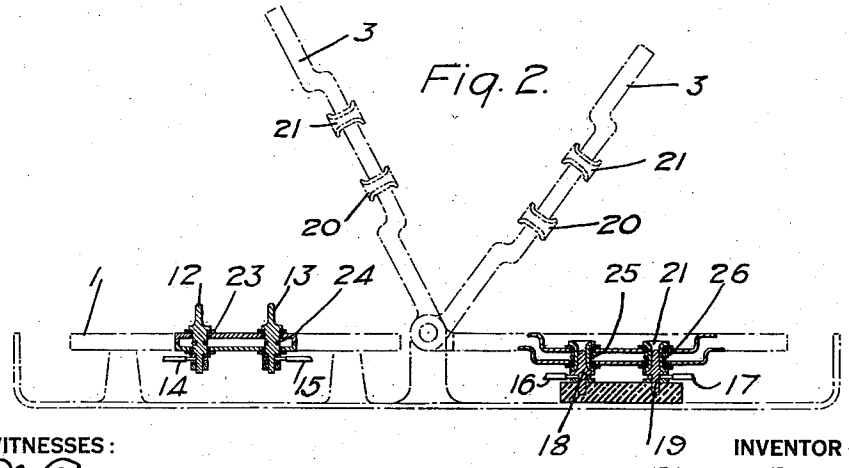

Fig. 2.

WITNESSES:

R. J. Cadge.

R. D. Brown

INVENTOR

Elmer B. Dice.

BY

Wesley G. Carr

ATTORNEY

UNITED STATES PATENT OFFICE.

ELMER B. DICE, OF WILKINSBURG, PENNSYLVANIA, ASSIGNOR TO WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

ELECTRIC HEATING APPARATUS.

1,284,257. Specification of Letters Patent. Patented Nov. 12, 1918.

Application filed July 6, 1915. Serial No. 38,204.

To all whom it may concern:

Be it known that I, ELMER B. DICE, a citizen of the United States, and a resident of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Electric Heating Apparatus, of which the following is a specification.

My invention relates to electric translating devices having two or more relatively movable members that are each provided with current-consuming elements, and it has for one of its objects to provide a device of the character indicated having means for supplying current to all of the current-consuming devices in each of the several relative positions of the component members.

Another object of my invention is to provide two-part electric heating devices, such as waffle irons and the like, with means for heating both parts of the device while they are in each of two or more relative positions.

An electrically heated waffle iron embodying the principles of my invention is illustrated in the accompanying drawing, in which Figure 1 is a plan view, with parts broken away, of the waffle iron in its open position, and Fig. 2 is a transverse sectional view taken substantially along the line II—II, Fig. 1 and showing one form of terminal construction adapted for use in the device shown in Fig. 1.

Referring to the drawing, a supporting frame 1 of any suitable material supports the corresponding halves 2 and 3 of a waffle iron, the member 3 being provided with perforated lugs 4 and 5 coöperating with pivot pins 6 and 7, whereby the member 3 is pivotally supported with relation to the member 2. Each of the members 2 and 3 is provided with resistance elements of any suitable form, one of which is shown at 8 associated with the member 2. A handle 9 is attached to the member 3, and notches 10 and 11 may be provided in the supporting frame 1 for receiving the handle in its open and in its closed position, respectively.

The stationary heating member 2 is provided with a pair of contact members 12 and 13 which are connected, by means of conductors 14 and 15, to supply conductors 16 and 17. The contact members 12 and 13 consist, in the present modification of my device, of rounded pins extending through, and preferably insulated from, the frame 1, as best shown in Fig. 2. A similar set of contact pins 18 and 19 is secured to the frame 1 in line with the terminal pins 12 and 13, but preferably somewhat below the level of the latter pins. The contact pins 18 and 19 are connected to the line conductors 16 and 17, respectively.

The movable heater member 3 is provided with contact members 20 and 21 that are adapted to engage the contact members 12 and 13 in the closed position of the device and to engage the contact members 18 and 19 in its open position. As shown, the contact members 20 and 21 consist of short metallic tubes extending through a projecting ear 22 of the member 3 and having flared ends which facilitate their engagement with the stationary contact pins. The terminals 23 and 24 of the heating element 8 that are associated with the stationary member 2, are electrically connected to the terminal pins 12 and 13, while the corresponding terminals 25 and 26 of the heating element associated with the movable member 3 are electrically connected to the tubular contact members 20 and 21, respectively.

In the operation of my device, it is evident that current will flow through both of the heating members 2 and 3 in their open and also in their closed position, since the tubular contact members 20 and 21 are adapted to engage either the contact pins 12 and 13 or the contact pins 18 and 19.

The provision for heating both of the members of an electrically heated waffle iron in both of their relative positions is a decided advantage in this class of apparatus. It is to be understood, however, that my invention is not restricted to this form of device or to the structural details which I have shown and described. My invention comprehends broadly the feature of supplying energy to the several parts of a current-consuming device in a plurality of relative positions of such parts and from terminals and supply conductors that are relatively stationary with respect to the said parts, and, therefore, no limitations are to be imposed upon my invention except such as are indicated in the appended claims.

I claim as my invention:

1. An electric device comprising a plurality of relatively movable members, current-consuming elements associated with each of the said members, and means, includ-

ing terminals and supply conductors that are relatively stationary with respect to the said members, for supplying current to the said current-consuming elements in each of a plurality of relative positions of the said members.

2. An electric heating device comprising two heating members adapted for relative pivotal movement, heating elements associated with each of the said members, and means, including terminals and supply conductors that are relatively stationary with respect to the said members, for energizing both of the said heating elements in both their open and in their closed position.

3. An electric heating device comprising a stationary member, a movable member pivotally associated therewith, a heating element associated with each of the said members, means for constantly energizing the heating element associated with the said stationary member and means including separate sets of terminals for energizing the heating element associated with the said movable member in each of two different positions of the said movable member.

4. An electrically heated waffle iron comprising a stationary heater, a movable heater pivotally associated therewith, a heating element for each of the said heaters, two pairs of stationary terminal members connected to a surce of current supply, and terminal members for the heating element associated with the said movable heater, the latter terminal members being adapted to engage one of the said pairs of stationary terminal members in the closed position of the device and to engage the other pair of stationary terminal members in the open position thereof.

In testimony whereof I have hereunto subscribed my name this 26th day of June, 1915.

ELMER B. DICE.