E. SCHWARTZ.

ELECTRIC TOASTER.

APPLICATION FILED JUNE 30, 1919.

1,425,344.

Patented Aug. 8, 1922.

3 SHEETS—SHEET 1.

Fig. 1.

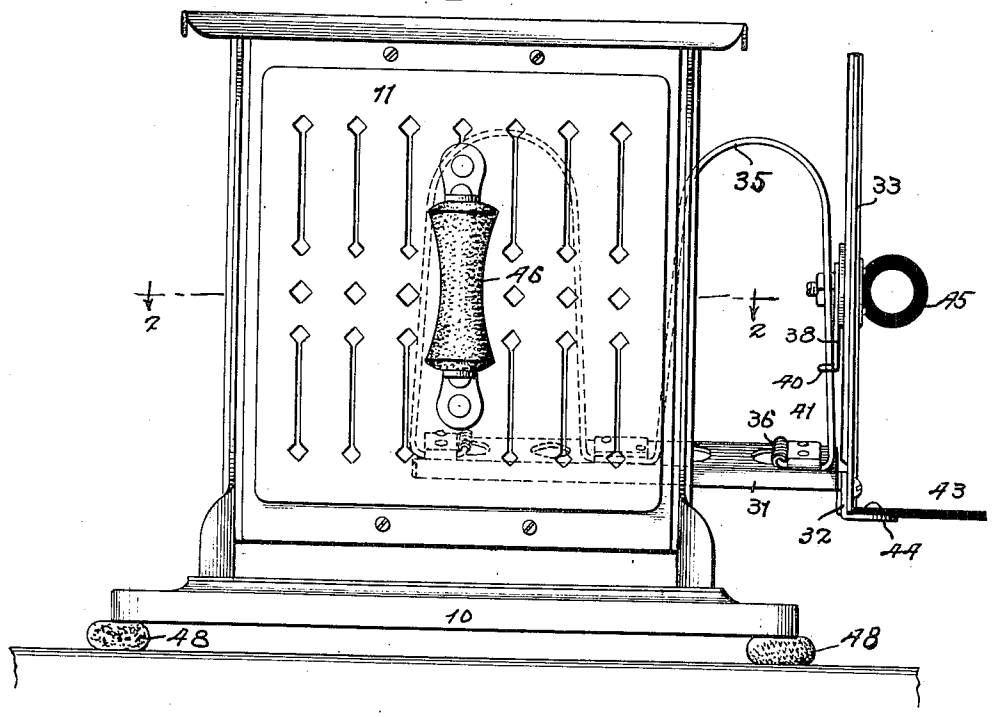
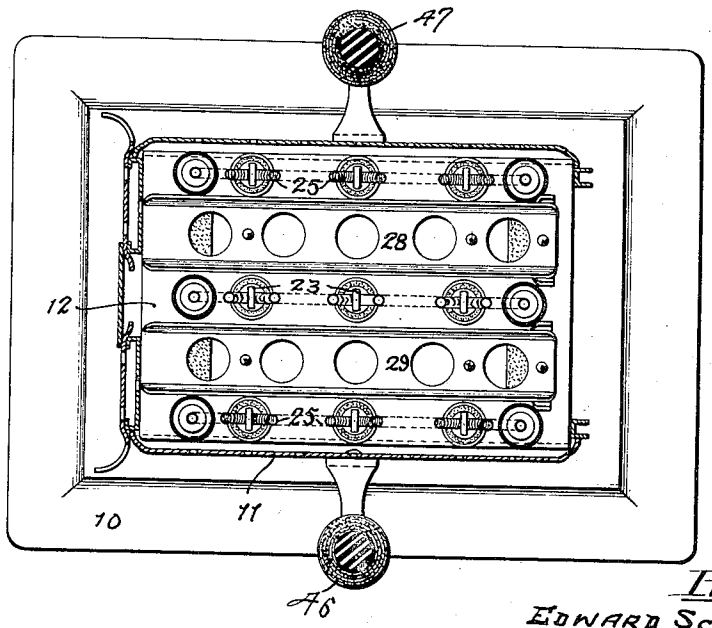


Fig. 2.



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3 SHEETS—SHEET 2.

Fig. 3.

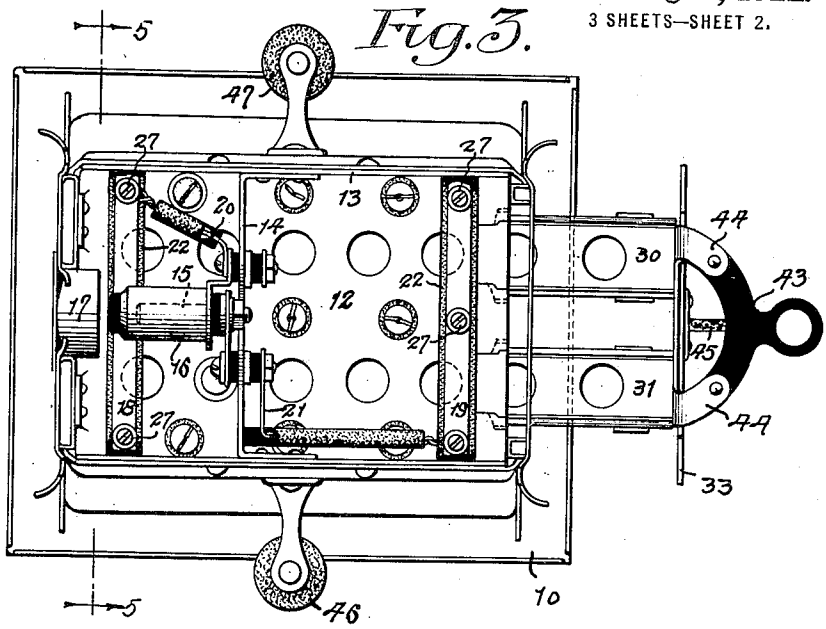
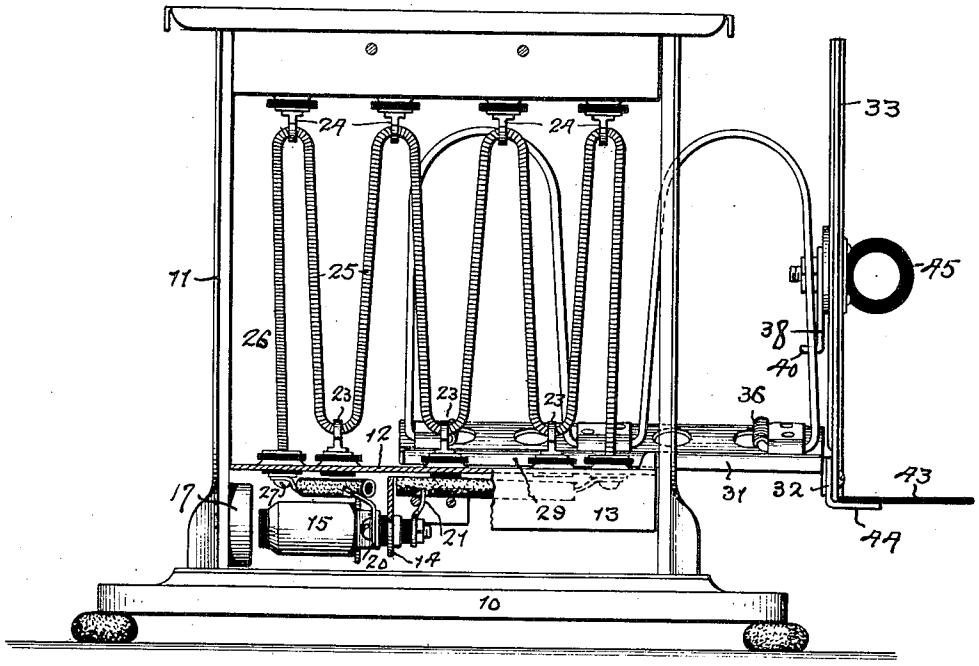


Fig. 4.



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3 SHEETS—SHEET 3.

Fig. 5.

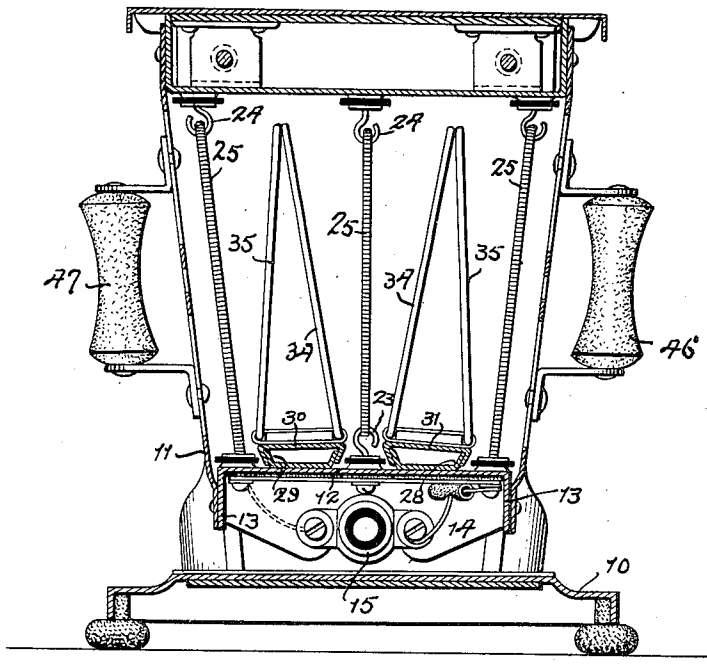
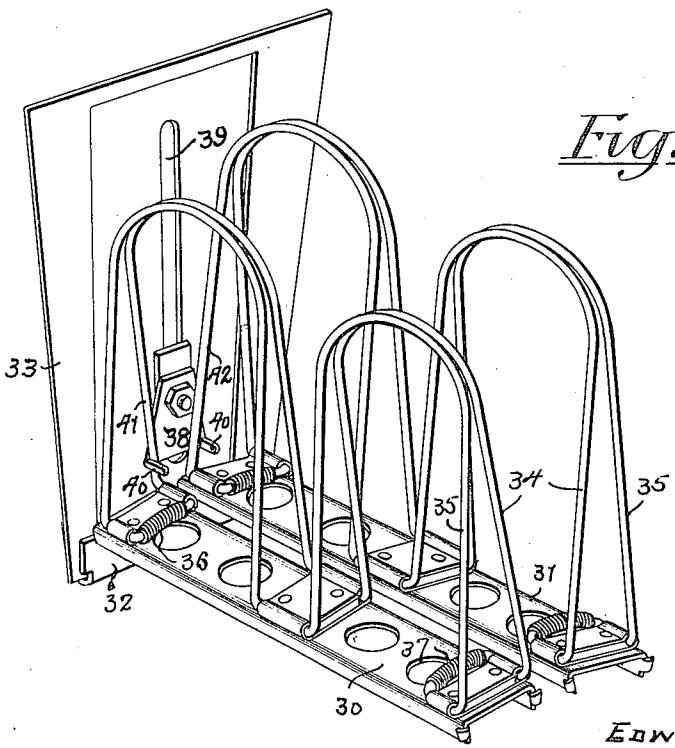


Fig. 6.



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UNITED STATES PATENT OFFICE.

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ELECTRIC TOASTER.

1,425,344. Specification of Letters Patent. Patented Aug. 8, 1922.

Application filed June 30, 1919. Serial No. 307,614.

To all whom it may concern:

Be it known that I, EDWARD SCHWARTZ, a citizen of the United States of America, and residing in the city, county, and State of New York, have invented certain new and useful Improvements in Electric Toasters, of which the following is a specification.

My invention relates to electric appliances, and particularly to an electric toaster, the object of my invention being to provide a convenient portable appliance adapted to be arranged on a serving table and connected to a source of power by an attachment plug for toasting bread, crackers, etc., at the table.

In the accompanying drawings—

Fig. 1 is a side elevation of a toaster in which my invention is embodied in one form;

Fig. 2 is a horizontal section therethrough on the line 2—2 of Fig. 1;

Fig. 3 is an inverted plan with the bottom removed;

Fig. 4 is a broken side elevation;

Fig. 5 is a section on the line 5—5 of Fig. 3; and

Fig. 6 is a perspective view of the toast carrier detached.

While the present invention may be embodied in constructions of various types, I have here shown the appliance as comprising a stand 10 upon which a housing 11 of any suitable construction is mounted to encase the electrical conductors and form a toasting chamber. Within the housing is arranged a base plate 12 with down turned side and end flanges 13, to which the housing 11 is secured. Beneath the base plate and extending between the flanges 13 is a cross web 14 on which are supported in horizontal position the terminals 15 and 16 of a receptacle adapted to be engaged by the cooperating contacts of an attachment plug. In order to guide the attachment plug into engagement with these terminals I have mounted a collar 17 in axial alignment with the receptacle terminals and carried by one end of the housing 11.

At opposite ends of the base plate 12 and also beneath the latter, I have mounted terminal straps 18 and 19, to which lead wires 20 and 21 respectively connect the receptacle terminals 15 and 16. Strips of insulating material 22 separate these straps from the base. On the upper face of the base plate I have arranged three series of hooks 23, while corresponding series of hooks 24 depend from the top of the casing, all of the hooks being suitably insulated from their supports. Three resistance coils 25 are arranged in parallel within the toasting chamber 26 and are looped zigzag over the hooks 23 and 24, their ends being passed through insulating bushings in the base plate 12, and connected by screws 27 to the terminal plates 18 and 19. Between adjacent coils I have mounted on the base plate 12 a pair of channels 28 and 29 with spread flanges forming slideways.

Cooperating with these fixed channels 28 and 29 I have provided a toast carrier comprising a pair of channels 30 and 31 of slightly greater width, and having their flanges bent inward to engage the flanges of the fixed channels 28 and 29 and slide thereon. These channels are secured in any suitable way, as by means of brackets 32, to the housing end 33, which is independent of the body of the housing 11, but conforms to its end contour. Upon the channels 30 and 31 I provide a toast support, which may be of any suitable construction, but is here shown as comprising for each of the channels a pair of wire loops 34 and 35 pivoted at their lower ends to clips riveted to the channels. In order to hold these loops in engagement with the bread I have provided springs 36 and 37 which engage the wire ends and tend constantly to draw each pair of loops together, as illustrated in Figs. 5 and 6. In order to separate the loops so that bread may be inserted between the same I provide a slide 38 working in a slot 39 in the end plate 33 and having a pair of lugs 40 which engage the strands 41 and 42 of the inner loop wire of each pair of bread holders. When the slide 38 is lifted in its slot 39 the lugs 40 draw the strands 41 and 42 toward each other and against the action of the springs 36 and 37. The bread may be then inserted and the slide again pushed down, whereupon the springs 36 and 37 close the loops against the opposite sides of the bread and hold it in proper position with relation to the resistance coils.

In the construction here shown I have shown the outer resistance coils spaced from the central coil a greater distance at the top

of the casing than at the bottom, the object of this arrangement being to render more even the heat distribution throughout the chamber 26, since the heat from the lower portion of the coils naturally rises to the top of the chamber and the bread is apt to burn at the upper edge before the lower edge is properly toasted if the coils be arranged in parallel. This outward inclination of the side coils necessitates a corresponding inclination of the holder loops on the bread carrier, and to this end the channels 30 and 31 are oppositely inclined slightly, their adjacent edges being somewhat higher than their outer edges. It is obvious that the bread is supported by the loops in mid position on opposite sides of the central coil and between the latter and the two side coils.

In order to withdraw the toast carrier from the toasting chamber I provide a handle 43 of insulating material riveted to lugs 44 at the base of the end plate 33. An insulating handle 45 is also provided to raise and lower the slide 38. On the sides of the housing I provide further insulating handles 46 and 47 by which the appliance may be lifted as a whole and moved from place to place conveniently. Insulating feet 48 may also be provided for the stand 10 to insulate the latter from the table or other support.

The underlying thought of my invention is to provide a toaster in which the resistance coils are arranged on opposite sides of the piece of bread so as to toast both sides simultaneously. Obviously the particular shape and arrangement of the housing is immaterial, and in fact it might be omitted entirely, although it is preferred since it prevents heat loss and thus expedites the toasting operation and economizes current consumption. Similarly the particular method of introducing the bread between the coils is immaterial, and it might be possible to entirely dispense with a removable carrier, the slices being inserted and removed directly by hand. A carrier or some device for removing the toasted bread facilitates, however, the use of the appliance. Moreover, while I have shown a toaster adapted to operate upon two slices at once, a single pair of coils may be used, or the number may be multiplied to form as many toasting compartments as may be desired. Again, the central coil may have a greater heating capacity than the side coils.

I claim—

1. An electric toaster comprising a pair of upright, laterally spaced, resistance units arranged in vertical zigzag, and means for removably supporting on edge between the same a piece of bread, the upper portions of said resistance units being spaced further apart than the lower portions thereof for the purpose specified.

2. In an electric toaster, a bread carrier comprising a base, a pair of supporting wings hinged thereon, and slide means for moving said wings together to engage the opposite sides of a piece of bread deposited therebetween.

3. In an electric toaster, a bread carrier comprising a base, wings thereon, and slide means tending to close said wings upon an interposed piece of bread.

4. In an electric toaster, a bread carrier comprising a base, wings thereon, and slide means tending to close said wings upon an interposed piece of bread, together with means for spreading said wings apart to permit the introduction of a piece of bread therebetween.

5. In an electric toaster, a housing having a toasting chamber, spaced resistance coils arranged therein, and a bread carrier adapted to move into said chamber and present a slice of bread between said coils, said carrier comprising a plate adapted to complete the housing in the inserted position of the carrier in combination with the bread-engaging device on the slide, and an operating member therewith supported by the end closure.

6. An electric toaster, a base plate, a pair of parallel slideways thereon, resistance coils arranged intermediate and on opposite sides thereof, in combination with a bread carrier straddling the intermediate resistance unit and engaging said slideways, together with means on said slide for supporting pieces of bread between the several resistance units.

In testimony whereof I have signed my name to this specification.

EDWARD SCHWARTZ.