H. A. RICE.

COMBINED ELECTRIC STOVE AND TOASTER.

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1,263,927.

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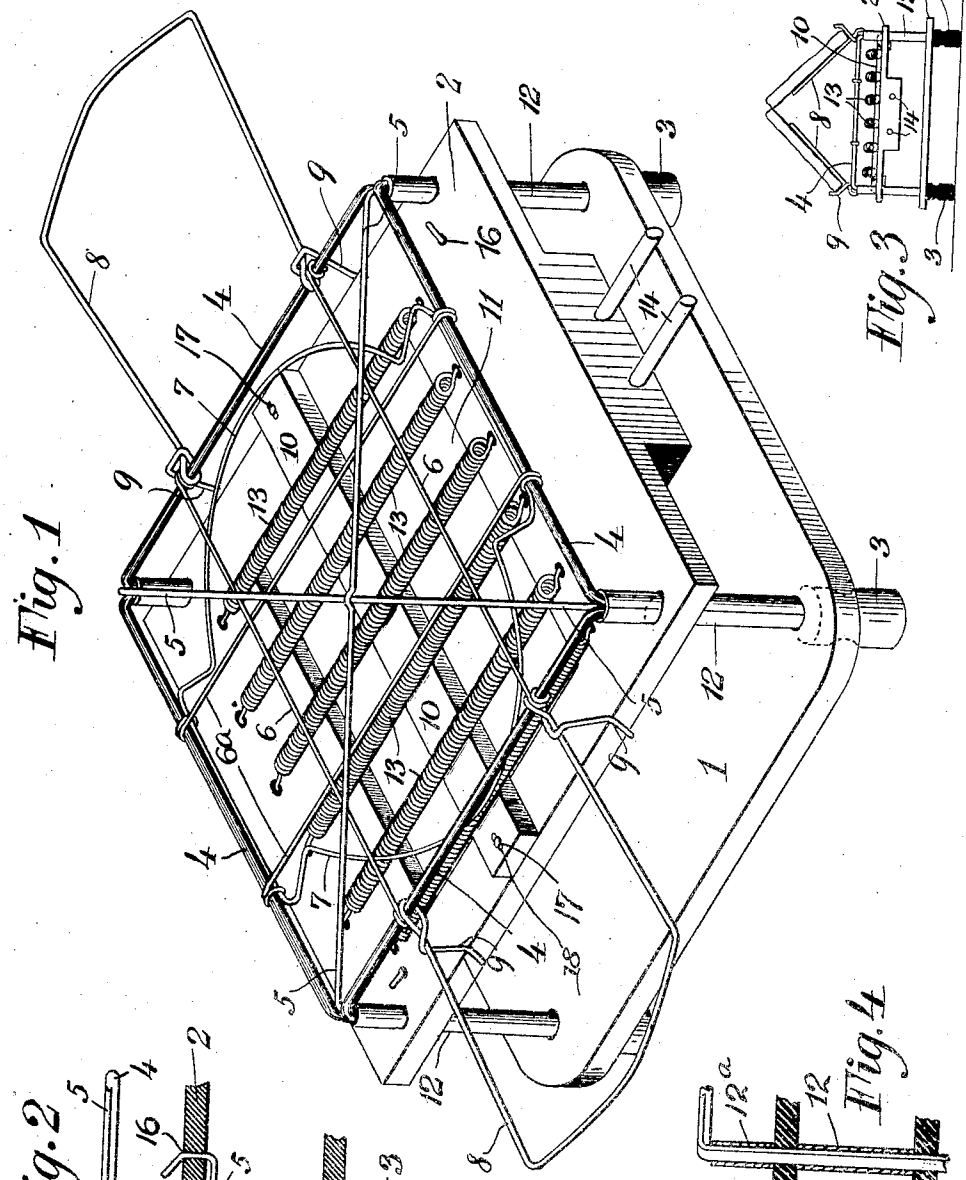

Fig. 1

Fig. 3

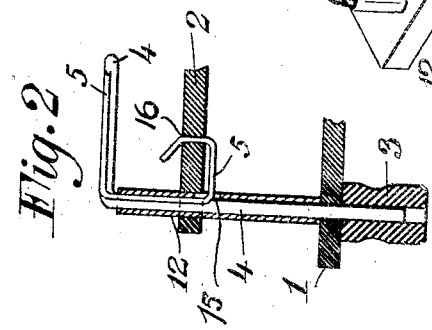

Fig. 2

Fig. 4

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COMBINED ELECTRIC STOVE AND TOASTER.

1,263,927. Specification of Letters Patent. Patented Apr. 23, 1918.

Application filed September 22, 1915. Serial No. 51,955.

To all whom it may concern:

Be it known that I, HAROLD A. RICE, a subject of the King of Great Britain, and a resident of the borough of Manhattan, city, county, and State of New York, have made certain new and useful Improvements in Combined Electric Stoves and Toasters, of which the following is a specification.

The object of my invention is to produce a combined electric stove and toaster which will be simple in construction, easily and quickly assembled and effective in operation.

In the following I have described, with reference to the accompanying drawings, a structure illustrating one way of practising my invention, the features thereof being more particularly pointed out hereinafter in the claims.

In the drawings, Figure 1 is a perspective view of a combined electric stove and toaster illustrating one way of carrying out my invention; Fig. 2 is a vertical sectional view through one corner showing a detail of construction; Fig. 3 is an end view of the structure shown in Fig. 1, on a somewhat smaller scale, showing the toast rack raised, and Fig. 4 is a broken sectional view showing a modification.

Similar numerals of reference indicate similar parts throughout the several views.

In the drawings 1 and 2 indicate respectively lower and upper plates of suitable material, such as that formed with asbestos as a foundation, non-conducting electrically, non-inflammable and preferably non-conducting thermally as well. The bottom plate 1 may however be made of metal if desired.

3, 3 indicate the feet of the stove. 4, 4 indicate the side frames preferably made of wire. 5, 5 indicate diagonal braces, 6, 6 and 6^a, 6^a, indicate cross braces and 7, 7 indicate intermediate connections, all preferably made of wire. The toast racks are indicated by 8, each carried by one of the side frames 4 and provided with return bends 9 adapted, when the racks are spread out, as shown in Fig. 1, to rest against the adjacent edge of upper plate 2. 10 indicates a cross support or bridge, preferably made of the same material as upper plate 2, bridging a centrally disposed opening 11 in upper plate 2. 12, 12 indicate tubes or envelops for holding certain of the braces and the side frame together. 13 indicates the electrical resistance or heating elements mounted on upper plate 2 and electrically connected preferably in series in the usual manner. 14 indicates the electric terminals for elements 13. 15 indicates an opening in envelops 12 providing for the passage of one end of cross brace 5 therethrough, and 16 indicates a perforation in upper plate 2 for receiving said end of said cross brace as hereinafter set forth. The cross bridge 10 is preferably loosely attached to plate 2 so as to have slight freedom of motion for expansion and contraction under heat. This may be done by means of pins 17 fast in plate 2 but loose in openings 18 in bridge 10.

In assembling the device I proceed as follows: The various side frames, braces, intermediate connections and toast racks being formed up as shown I take two of the side frames 4, 4 and thread on the cross braces 6^a, 6^a and the intermediate connections 7, 7 on one set of side frames and the toast racks 8, 8 and cross braces 6, 6 on the other set of side frames. These four side frames are then laid with the upper side down, on top of diagonal braces 5, 5. Tubes or envelops 12 are then slipped over the upturned ends of side frames 4 and diagonal braces 5, 5 and the ends of braces 5 brought through openings 15 in envelops 12. Upper plate 2, carrying the heating elements and connections is then placed within the four corners, held at the desired distance from the braces and fastened in position by the ends of braces 5 being brought through openings 16 in plate 2. Envelops or tubes 12 are preferably of such length that they extend from the angular bends in the side frames and diagonal braces to the upper face of lower plate 1, and the openings in lower plate 1 to receive the ends of side frames 4, adapted to extend therethrough, are at less distance from each other than the edges of the perforations through the upper plate 2 are from each other. Consequently in the next step of the assembling, when the lower plate 1 is forced over the ends of side frames 4, 4 the effect is to stretch or bend the side frames and diagonal braces over the edges of the perforations through the upper plate 2 and hence stretch all the braces taut. The feet 3 of the stove are then made fast to the ends of the side frames in any convenient way as by tapping them, and the stove is ready for use.

The upper plate 2 may be carried between

tubes 12 and tubes 12ª (Fig. 4) instead of by wires 16, being clamped between the two tubes. This latter gives a more finished appearance.

In the use of the device the toasters 8, 8 may be spread out as shown in Fig. 1 to act as supports for the article being heated or cooked or they may be turned up as shown in Fig. 3 to act either as toasters or supports as shown.

The device as described is simple, compact and effective. It is obvious that the details of construction may be varied without departing from the spirit of the invention and I do not, therefore, restrict myself to such details further than the scope of the appended claims demands.

I claim:

1. In a device of the character described a rectangular wire frame work forming the grid and having down turned ends at the corners, an upper plate mounted on said corners and a lower plate mounted on said corners, the distance between the corners in the lower plate being greater than the width of the upper plate.

2. In a device of the character described a rectangular wire frame work forming the grid and having down-turned ends at the corners, diagonal braces crossing said frame work and having down-turned ends adjacent said corners, an upper plate carried by the down-turned ends of the diagonal braces and a lower plate mounted on said corners.

3. In a device of the character described a rectangular wire frame work forming the grid and having down-turned ends at the corners, a toast rack rotatably mounted on said grid on two of the opposite sides thereof, return bends on said toast racks, an upper plate mounted on said corners and adapted to contact with the return bends of the toast racks when the latter are in extended position and a lower plate mounted on said corners.

4. In a device of the character described a rectangular wire frame work forming the grid and having downturned ends at the corners, diagonal braces crossing said frame work and having downturned ends adjacent said corners, means for effecting said downturned ends to form legs and each provided with an opening for the projection of the ends of the diagonal braces, an upper plate mounted on said diagonal brace ends and a lower plate carried by said legs.

5. In a device of the character described, the combination of a plate having an opening, heating elements extending from one side of said plate over said opening to another side of said plate, a bridge for said heating elements, and means for mounting said bridge across said opening to effect free expansion and construction of said bridge relative to said plate.

6. In a device of the character described, the combination of a rectangular plate having a central opening, a plurality of heating elements and means for supporting said heating elements in position across said opening, said means comprising a bridge loosely supported by said plate whereby said bridge may freely expand and contract relatively to said plate.

7. In a device of the character described, the combination of a rectangular plate having a central rectangular opening, a plurality of heating elements and means for supporting said heating elements in position across said opening, said means comprising a bridge loosely mounted on said plate whereby said bridge may freely expand and contract relatively to said plate.

8. In a device of the character described, the combination of a flat plate having an opening, a plurality of heating elements insulatedly carried by said plate and means for supporting said heating elements in position across said opening, said means comprising a bridge loosely mounted over said plate whereby said bridge may freely expand and contract relatively to said plate.

9. In a device of the character described, the combination of a plate having an opening, a plurality of heating elements and means for supporting said heating elements in position across said opening, said means comprising a bridge loosely supported by said plate whereby said bridge may freely expand and contract relatively to said plate, said means comprising a bridge and a lug and slot connection connecting said bridge and said plate, whereby said bridge may freely expand and contract relatively to said plate thereby causing said lug to move in and guided by said slot.

10. In a device of the character described, the combination of a plate having an opening, heating elements extending from one side of said plate over said opening to another side of said plate, a bridge for said heating elements, and means for mounting said bridge across said opening to effect free expansion and contraction of said bridge longitudinally relative to said plate, to guide said bridge laterally with respect to said plate.

11. In a device of the character described, the combination of a plate having an opening, a plurality of heating elements and means for supporting said heating elements in position over said opening, said means comprising a bridge freely supported by said plate, one of said last two named elements having a slot and the other having a lug extending freely within said slot.

12. In a device of the character described, a wire frame work having spaced transversely directed portions, an upper member having spaced mounting means engaging

said space portions and a lower member having spaced mounting means engaging said spaced portions, the distances between said spaced mounting means of said upper member being respectively greater than the distances between said spaced mounting means of said lower members.

13. In a device of the character described, a wire frame work having spaced transversely directed portions, an upper member having spaced openings engaging said spaced portions and a lower member having spaced openings engaging said spaced portions, the distances between said spaced openings of said upper member being respectively greater than the distances between said spaced openings of said lower members.

In testimony whereof I have signed this specification.

HAROLD A. RICE.