

[72] Inventors **Bunichi Okuda;**  
**Akio Nobata; Noboru Ogawa; Isamu**  
**Okabe; Yoshimasa Tsuruya, Nigga-gun,**  
**Gunma Prefecture; Michitaka Oosuga,**  
**Kamakura, Kanagawa Prefecture, Japan**

[21] Appl. No. **811,152**

[22] Filed **Mar. 27, 1969**

[45] Patented **June 28, 1971**

[73] Assignee **Mitsubishi Denki Kabushiki Kaisha**  
**Tokyo, Japan**

[32] Priority **Mar. 27, 1968, July 9, 1968, Aug. 28, 1968**

[33] **Japan**

[31] **43/24146, 43/58306 and 43/74183**

[50] Field of Search..... 220/4;  
 40/62, 64, 62 (U), 64 (T); 99/385, 390, 391, 388  
 (D)

[56] **References Cited**

UNITED STATES PATENTS			
2,935,221	5/1960	Mitchell .....	220/4
3,057,506	9/1962	Wetlesen.....	40/64X
3,392,663	7/1968	Williams.....	99/391X

*Primary Examiner*—George E. Lowrance  
*Attorneys*—Robert E. Burns and Emmanuel J. Lobato

[54] **BREAD TOASTER**  
**5 Claims, 7 Drawing Figs.**

[52] U.S. Cl..... 220/4,  
 40/64, 99/385

[51] Int. Cl..... **G09f 7/10,**  
**A47j 37/08**

**ABSTRACT:** The disclosed toaster has two opposite sidewalls each formed of an ornamental panel slidable into grooves on two end walls through a slot on top or bottom wall. Two holders are disposed at both ends of each groove to hold the associated panel in the grooves. The holders are released to remove the panels from the toaster. Alternatively the two panels may slide into the grooves from below and is supported by two power holders screwed to the toaster.

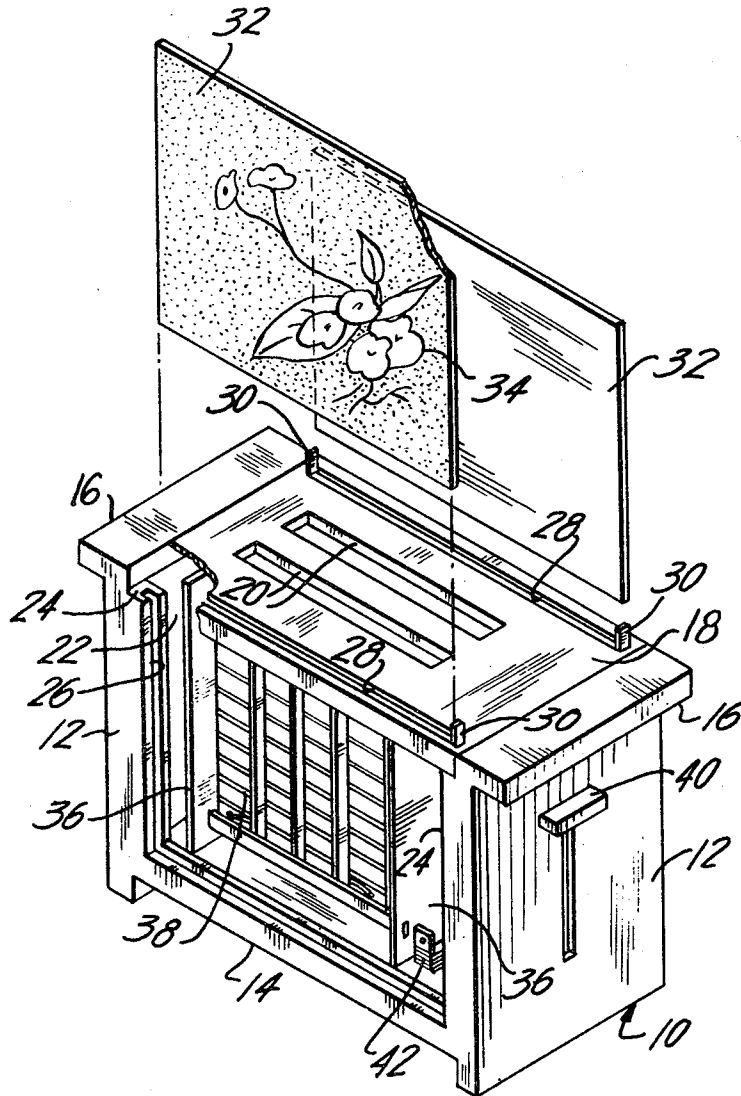


FIG. 1

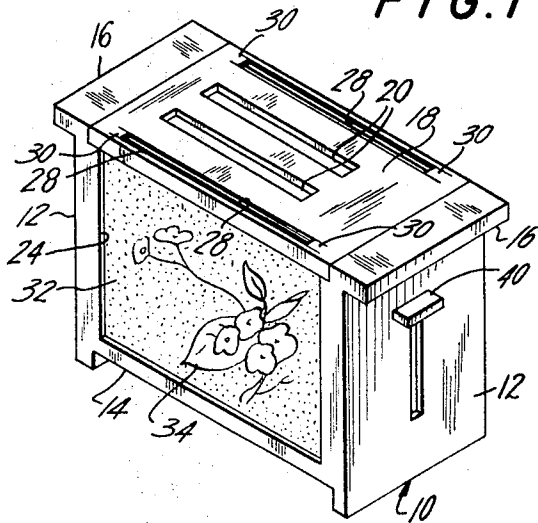


FIG. 2

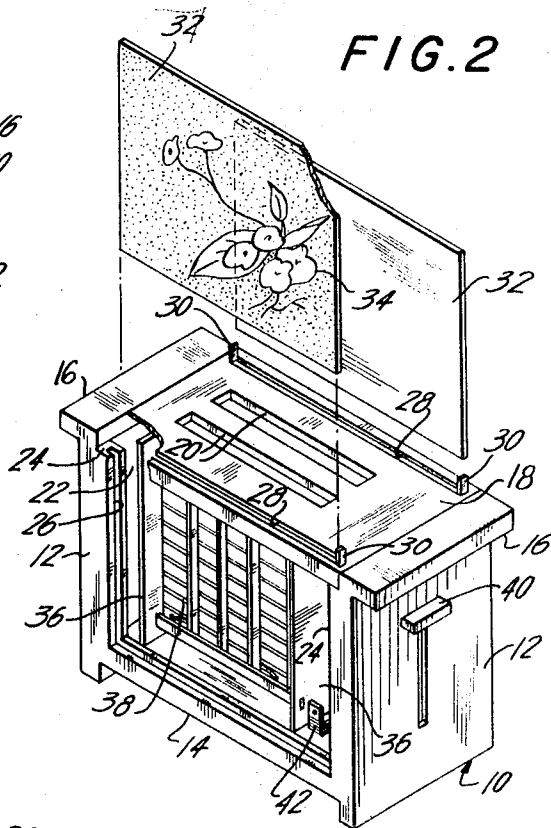


FIG. 3

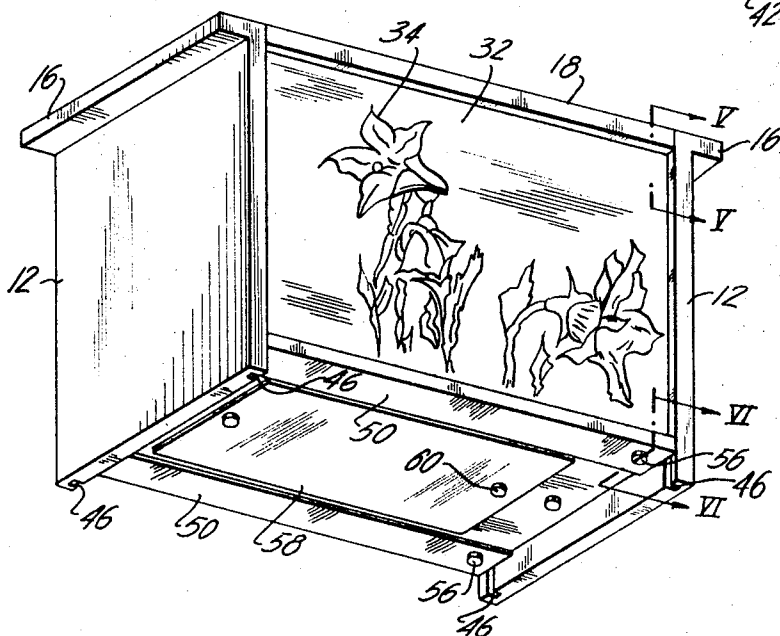


FIG. 4

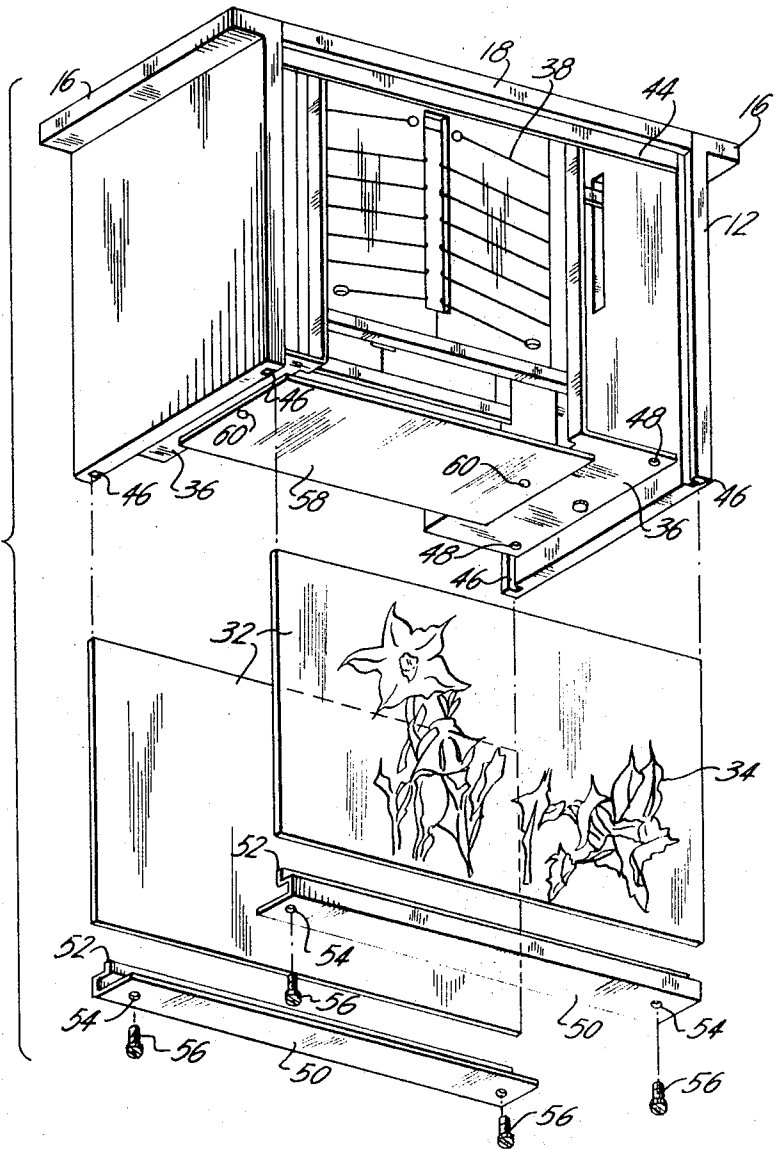


FIG. 5

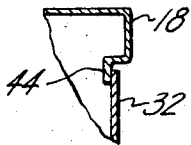


FIG. 6

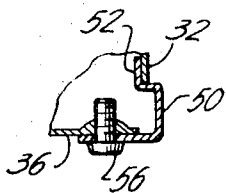
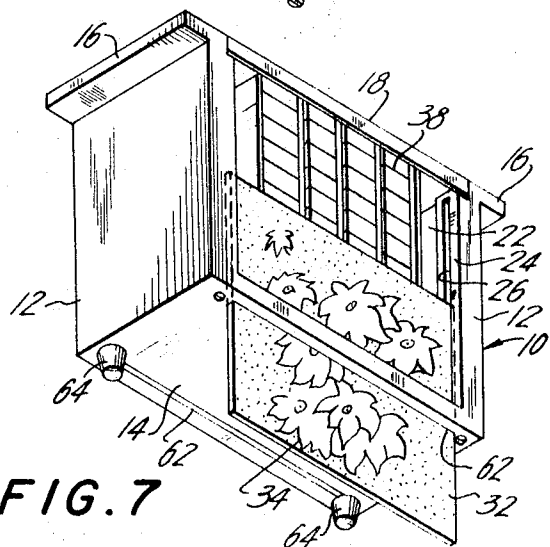


FIG. 7



**BREAD TOASTER****BACKGROUND OF THE INVENTION**

The invention relates to improvements in bread toasters.

Lately, bread toasters have the tendency to include a pair of opposite lateral panels each having a picture, the grain of wood, or flower patterns disposed thereon improve the design effect thereof thereby to provide a pleasant atmosphere at the particular table. The conventional type of bread toasters referred to has generally comprised side and top plates formed of a single bent piece of any suitable sheet metal. This has resulted in the disadvantage that only the side panel is prohibited from being removed at will from the main body of the toaster leading to the restriction of the picture or the patterns to a single kind, and that as the toasters are used on the table butter and/or jam in many cases may incidentally stick to the side panel or panels to contaminate the picture or pictures or the like thereon resulting in troublesome cleaning of the contaminated panel or panels.

**SUMMARY OF THE INVENTION**

Accordingly it is a general object of the invention to provide a new and improved bread toaster including a pair of ornamental side panels detachably secured to the main body thereof for the purpose of permitting the user to selectively expose various pictures and/or patterns to the external surfaces of the toaster, to select from a plurality of pictures and patterns one for each lateral panel suiting his or her taste, or to alternately use a plurality of pictures and patterns preliminarily prepared for the purpose of imparting a variety of variations in appearance to the toaster.

It is another object of the invention to provide a new and improved bread toaster in which either or both of ornamental lateral panels to which butter and/or jam might stick to contaminate a picture or pictures or patterns or patterns thereon can rapidly be removed from the main body of the toaster and washed with water for the purpose of continuously maintaining the toaster clean through the rinsing of the contaminated panel or panels.

It is an additional object of the invention to provide a bread toaster having a pair of ornamental lateral panels detachably secured to the main body thereof, and improved means for fixing the ornamental lateral panels to the main toaster body in simple manner.

The invention accomplishes these and other objects by the provision of a bread toasting device comprising a pair of end wall plates disposed in opposite relationship to maintain a predetermined distance therebetween, a bottom wall plate connecting the pair of end wall plates at the lower ends to each other, a top wall plate extending across the upper ends of the end wall plates and having centrally disposed thereon opening means for inserting a piece of bread into the device. A pair of ornamental lateral panels having ornamental articles are disposed on the outer surfaces thereof respectively, characterized in that each of the end wall plates is provided on the opposite lateral edges of that surface thereof facing the other end wall plate with a pair of longitudinal grooves facing those on the other end wall plate respectively. One of the ornamental lateral panels is detachably slidable into each pair of the facing grooves on the end wall plates to cover each of opposite open lateral faces of a toasting compartment defined by the end wall plates, the bottom wall plate and the top wall plate, and holding means are provided for detachably holding the ornamental side panels in their locations.

The top wall plate may be preferably provided on the opposite lateral edges with a pair of elongated slots through which the respective ornamental lateral panels are inserted into the associated pairs of the grooves on the end wall plates and a pair of turnable holding members may be disposed at both ends of each of the elongated slots on the top wall plate. Each of the holding members has its operating position where it is substantially flush with the outer surface of the top wall plate to restrain the upper end of the associated ornamental

lateral panel inserted into the grooves on the end wall plates and its in operative position erected substantially perpendicularly to the outer surface of the top wall plate to permit the associated ornamental lateral panel to be pulled out from the device.

The bottom wall plate may be advantageously provided on the opposite lateral edges with a pair of elongated slots through which the respective ornamental lateral panels are inserted into the associated pairs of the grooves on the end wall plate respectively, and a pair of supporting legs are detachably secured to the bottom wall plate at both ends of each of the elongated slots to restrain the lower end of the associated ornamental lateral panel.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The invention will become more readily apparent from the following detailed description taken in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of a bread toaster constructed in accordance with the principles of the invention as viewed obliquely from above;

FIG. 2 is an exploded perspective view of the toaster shown in FIG. 1 illustrating both the ornamental side panels pulled upwardly from the main body thereof with a part broke away;

FIG. 3 is a perspective view of a modification of the invention as viewed obliquely from below;

FIG. 4 an exploded perspective view of the device shown in FIG. 3;

FIG. 5 is a sectional view taken along the line V-V of FIG. 3;

FIG. 6 is a sectional view taken along the line VI-VI of FIG. 3; and

FIG. 7 is a perspective view of another modification of the invention as viewed obliquely from below.

Throughout the various FIGS. of the drawing like reference numerals designate the corresponding or similar components.

**DESCRIPTION OF THE PREFERRED EMBODIMENTS**

Referring now to the drawings and FIGS. 1 and 2 in particular, there is illustrated a bread toaster constructed in accordance with the principles of the invention. The arrangement illustrated comprises a main body generally designated by the reference numeral 10 formed of any suitable plastic such a phenol resin into a substantially U-shaped cross section by a moulding technique. The main body 10 includes a pair of opposed end wall plates 12, 12 and a bottom wall plate 14 connecting the end wall plates to each other, with a handle 16 projecting outwardly beyond the upper end of each end wall plate. An upper wall plate 18 of any suitable sheet metal is fixedly secured at both ends to the end wall plates 12, 12 so as to extend across and be substantially flush with the latter plates. The upper wall plate 18 is provided with a pair of elongated slots 20 centrally disposed in spaced parallel relationship providing a pair of openings through which pieces of bread are placed in the toaster for toasting.

The main body 10 or the end and bottom wall plates 12 and 14 along with the upper wall plate 18 define a toasting compartment 22 having a pair of opposite open lateral faces. The end and bottom wall plates 12 and 14 respectively have a U-shaped frame 24 inwardly projecting therefrom an each of the opposite lateral edges or an each of the opposite open lateral faces of the toasting compartment 22 and having centrally disposed thereon a continuous groove 26 for the purpose as will be apparent hereinafter. The top wall plate 18 is provided on the opposite lateral edges with a pair of elongated slots 30 extending in spaced parallel relationship and aligned with the bottom portions of the U-shaped groove 26. The slot 28 is substantially equal in width to the holding groove 26 and extends from the bottom of one of the leg portions to that of the other leg portion of the "U" 26.

A pair of pivotable holding members 30 are disposed at both extremities of each slot 28 and have their operative posi-

tion where they are substantially flush with the outer surface of the top wall plate 18 to cover both end portions of that slot as shown in FIG. 1 and another operative position where they are disposed substantially perpendicularly to the outer surface of the top wall plate 18 to render the slot substantially equal in length to the bottom portion of the U-shaped groove 24 as shown in FIG. 2. The holding members 30 may be preferably made from those portions adjacent to the ends of the slots 30 of the top plate 18 upon forming the slots.

A pair of ornamental lateral panels 32 are slidable into the respective holding grooves 24 through the associated slots 28 to close the opposite open faces of the toasting compartment 22. The ornamental panel can be prepared by cutting a suitable sheet metal into a dimension just sufficient to be held by the U-shaped groove 24 and printing any desired ornamental article 34 such as a colored picture or flower patterns on the outer surface of cut sheet followed by the application of a clear lacquer on that surface.

As shown in FIG. 2, a pair of L-shaped mounting brackets 36 are fixedly secured in opposite relationship to the inner surface of the bottom wall plate 14 adjacent the opposite end and a heating element 38 of the conventional construction is sandwiched between the brackets 36 for toasting. An operating knob 40 movably extends through one of the end wall plates 12 in this example the right-hand plate as viewed in FIGS. 1 or 2 for vertical movement and serves to raise and lower pieces of bread within the toasting compartment 22. A switch 42 is suitably disposed between the end wall plate 12 associated with the knob 40 and the adjacent bracket 36 in order to turn ON and OFF an electric circuit with the heating element 38 in response to the lowering and raising of a piece or pieces of bread within the toasting compartment 22.

With the holding members 30 in their erected or vertical position as illustrated in FIG. 2, the pair of ornamental lateral panels 32 are slid into the respective slots 28 until they are held on the two sides and at the bottom by the U-shaped holding groove 26 thereby to close both the open lateral faces of the toasting compartment 22 defined by the U-shaped frame 24 while at the same time the pictures or patterns 34 are exposed to areas enclosed by the frames 24 and the top plate 18. Then the individual stops or holding members 30 are put in their inoperative position within the associated slots 28 to push the upper ends of the ornamental panels 32 downwardly ensuring that those panels are fixed in place on the main toaster body 10. If it is desired to remove the ornamental panel or panels for washing or exchanging purpose, it is required only to raise the associated holding members 30 after which the panel or panels can be manually pulled out from the main toaster body 10.

In FIGS. 3 through 6 wherein a modification of the invention is illustrated, the top wall plate 18 includes a pair of opposite lateral end portions each downwardly bent to form a lower edge 44 of inverted L-shape as shown in FIG. 5. Each of the end wall plates 12 is provided on the internal surface or that surface facing the other end plate with a pair of holding groove 46 longitudinally running in parallel relationship or the opposite lateral edges. Each of the grooves 46 reaches one end, in this case, the lower end of the end wall plates 12 and terminates short of the upper end thereof. Also, the holding grooves 46 on each of the end wall plates 12 are face those on the other end plate.

A pair of L-shaped brackets 36 are fixedly disposed in opposite relationship between the end plates by having the respective cross legs of the "U"s secured to the inner surfaces of the associated end wall plates rather than to the bottom surface of the device. The cross leg of the "U" is provided adjacent the end with three spaced threaded holes 48 (see FIG. 4).

An ornamental lateral panel 32 similar to that previously described in conjunction with FIGS. 1 and 2 are slid into each pair of facing grooves 46 on the end wall plates 12 from below until it abuts on the inside of the upper end portion against the inverted L-shaped edge 44 of the top wall plate 18 as shown in

FIG. 5. Then a lower ornamental plate generally designated by the reference numeral 50 abuts against the lower end of each panel 32. The lower ornamental plate 50 is formed of any suitable sheet metal bent into a generally L-shaped cross section having an L-shaped upwardly directed extension 52 disposed at the upper end. The lower leg of the "U" 50 is provided adjacent both ends with a pair of holes 54 respectively. As shown in FIG. 6, the lower ornamental plate 50 has the extension 52 abutting against the inside of the lower end portion of each panel 32 and rigidly secured to the brackets 36 by mounting screws 56 extending through the holes 52 on the plate 50 and screw threaded into the threaded holes 48 on the brackets 36. This ensures that the ornamental lateral panels 32 is prevented from moving longitudinally of the end wall plates 12. Also the lower ornamental plates 50 serve to reinforce the power portion of the main toaster body because they are screwed to the brackets. In addition the plates 50 attain the ornamental purpose.

Between the lower ornamental plates 50, a bottom plate 58 is detachably secured to the brackets 36 by locking screws 60 screw threaded into the central holes 54 on the brackets to close the bottom of the toaster. In other respects, the arrangement is substantially identical to that illustrated in FIGS. 1 and 2.

If it is desired to remove the ornamental panels 32 from the toaster then it is required only to unscrew the fastening screws 56 and remove the lower ornamental plates 50, leading in readiness for removing the panel from the main toaster body 10.

An arrangement shown in FIG. 7 is substantially similar to that illustrated in FIGS. 1 and 2 except for a pair of elongated slots 62 being disposed in spaced parallel relationship on the opposite lateral edges of the bottom wall plate 14 rather than of the top wall plate 12 for the purpose of sliding the ornamental lateral panels 32 into the grooves 26 on the end wall plates 12 from below. FIG. 7 shows one of the ornamental lateral panels 32 being pulled out from the main toaster body 10. Further one pair of supporting legs 64 are detachably secured to the bottom wall plate 14 at both ends of the each slot 62 by any suitable means.

Thus it will be appreciated that after the ornamental lateral panels 32 have been slid into the associated grooves 26, the legs 64 can be secured to the bottom wall plate 14 to hold the panels 32 inserted into the grooves 26. The removal of the legs 64 permits the panels 32 to be pulled out from toaster for washing or exchanging purpose.

From the foregoing it will be appreciated that the objects of the invention have been accomplished by the provision of ornamental lateral panels adapted to be detachably slid into by lateral grooves on a pair of end wall plates and simple means for holding the panels in place.

We claim:

1. In a bread toasting device comprising a pair of end wall plates disposed in opposite relationship to maintain a predetermined distance therebetween, a bottom wall plate connecting said pair of end wall plates to each other, a top wall plate extending across the upper ends of said end wall plates and having centrally disposed thereon opening means for inserting pieces of bread into the device, and a pair of ornamental lateral panels having ornamental articles disposed on the outer surfaces thereof respectively, the combination of a pair of longitudinal grooves disposed on the opposite lateral edges of that surface of each of said end wall plates facing the other end wall plate, a toasting compartment defined by said end wall plates, said bottom wall plate and said top wall plate having a pair of opposite open lateral faces, one of said ornamental lateral panels being detachably slidable into each pair of facing grooves on said end wall plates to cover each of said open lateral faces, holding means for detachably holding said ornamental lateral panels in their locations said top wall plate having on the opposite lateral edges a pair of elongated slots through which the respective ornamental lateral panels are inserted into the associated pairs of grooves on said end wall

plates, and said holding means comprising pivotable holding members disposed at both ends of each of said elongated slots on said top wall plate and having an operative position where said holding members restrain the upper end of the associated ornamental lateral panel inserted into said grooves on said end wall plates and another position in which the associated ornamental lateral panel is permitted to be pulled out from the device.

2. In a toaster comprising, a pair of end walls, means defining a bottom on the toaster connecting the end walls holding them spaced from each other in opposed relationship, a top extending across a space between the end walls, said top having a pair of laterally spaced slots, for each slot a pivotable holding member for one end of a respective slot operable to a first position for opening an end portion of a respective slot as a continuation of the slot and operable to a second position closing said end portion of said slot and corresponding to a holding position, and for each slot a panel slidable through a respective slot when the holding means in the first position positionable as a sidewall of said toaster extending between the top and the bottom of the toaster, each panel being dimen-

sioned to be engaged and restrained at an upper end thereof and releasably held in position by the holding member of a respective slot when said holding member in its second position corresponding to a holding position, said sidewalls, top, bottom and the side panels defining a compartment for receiving a heating element therein and the top having at least one opening disposed inwardly of said slots providing communication with the interior of said toaster for inserting into said compartment an article to be toasted.

3. In a toaster according to claim 2, in which each panel has a decorative major face surface disposed facing outwardly when the panel is assembled into said toaster.

4. In a toaster according to claim 2, including legs detachable secured to said bottom at ends corresponding to ends at which the end walls are disposed.

5. In a toaster according to claim 2, in which each of said end walls have spaced slots for receiving a respective panel and disposed aligned with a corresponding one of the first mentioned slots for releasably holding a respective panel in assembly with said top, end walls and bottom.

25

30

35

40

45

50

55

60

65

70

75