

## DESCRIPTION

### HOUSEHOLD TYPE BREAD SLICING AND TOASTING MACHINE

#### Technical Field

- 5 The invention relates to a machine that can be used for purposes such as bread cutting/slicing, storing and toasting in households and other various areas as needed.

#### State of the Art

In this day and time, there are various machines used for slicing and toasting of all types bread. For the slicing of bread there are slicing machines and toasters for toasting.

- 10 For bread slicing operation in restaurants, hotels, bakeries and general stores industrial type slicing machines are used. In households however, cutting boards and knives are used for slicing bread. Slicing bread at home could be rather troublesome and inconvenient. People might not have the proper utensils such as bread knives and in such cases, they try to cut or slice their bread by using different types of knives which makes the action of slicing even  
15 more difficult. While performing this action with improper tools, people might cut their hands or their fingers or cannot slice the bread properly.

Because slicing bread is mostly difficult and inconvenient, bought breads are either sliced at the general store or bakery or simply broken by hands at households.

- In the current state of the art, sliced bread can be reheated in toasters or toaster ovens later  
20 on. In such cases individuals carry out the reheating operation in different machines which brings extra costs.

Again, in the current state of the art, daily leftover bread is usually stored in bags or in storage boxes which can be in different shapes and sizes. Bread storage boxes are quite diverse, and individuals can obtain these storage boxes according to their wishes.

- 25 As described above, people must utilize different products in order to slice, toast or store their bread which results in higher costs and requires extra space in the kitchen.

Consequently, due to abovementioned drawbacks and the inadequacy of the existing solutions, it is necessary to come up with a household type bread slicing and toasting machine.

## **Brief Disclosure of the Invention**

The present invention relates to a household type bread slicing and toasting machine that meets the abovementioned requirements, eliminates all the disadvantages and brings in additional advantages.

- 5     The invention unites slicing, toasting and storing actions in one machine body and takes up less space in the kitchen of household.

The primary object of the invention is to enable individuals to slice their bread in the comfort of their home in shorter time and in desired sizes. The machine can slice bread in the needed amounts which provides individuals saving of time and a tidier-looking environment.

- 10    One of the objects of the invention is to allow individuals to toast their bread which is also sliced on the same machine. There is a toasting part next to the slicer which can toast sliced bread in the desired amount.

One of the objects of the invention is to store the leftover bread in the same machine which eliminates the need for separate storage boxes.

- 15    Structural and characteristic features of the invention and all the advantages thereof will be more clearly understood by means of the following figures and the detailed description given by referring to these figures. Therefore, the evaluation should be done by taking these figures and the detailed explanation provided below into consideration.

## **20     Figures to Assist in Comprehension of the Invention**

The subject matter of our application "Household Type Bread Slicing and Toasting Machine" is shown in the annexed figures. These figures are;

**Figure 1:** Perspective view of the subject matter invention "Household Type Bread Slicing and Toasting Machine" from the top.

- 25    **Figure 2:** Perspective view of the subject matter invention "Household Type Bread Slicing and Toasting Machine" from the right.

**Figure 3:** Perspective view of the subject matter invention "Household Type Bread Slicing and Toasting Machine" from the left.

- 30    **Figure 4:** Figurative disassembled view of the subject matter invention "Household Type Bread Slicing and Toasting Machine".

*"Drawings that are subject to figures are generally representative and do not require scaling. Details that are not necessary to understand the present invention may be omitted. Furthermore, elements that are at least substantially identical or at least have substantially identical functions are indicated by the same number."*

5

### **Disclosure of Part References**

Our subject matter invention bearing the title of "Household Type Bread Slicing and Toasting Machine" is enumerated in the annexed figures as seen. The corresponding part names for these numbers are provided below;

10

- 1.** Lower Tray
- 2.** Crumb Grating
- 3.** Crumb Tray
- 4.** Vertical Motion Spring

15

- 5.** Toasting Unit
- 6.** Rack and Pinion Gear
- 7.** Connection Rod
- 8.** Crank
- 9.** Horizontal Motion Spring

20

- 10.** Electric Motor 1
- 11.** Blade Holder
- 12.** Blade
- 13.** Electric Motor 2
- 14.** Gear

25

- 15.** Chamber
- 16.** Lid
- 17.** Tightener

## **18. Clamp**

B: Bread

### **Detailed Disclosure of the Invention**

5 In this extensive disclosure, the subject matter invention "Household Type Bread Slicing and Toasting Machine" is disclosed solely for the purpose of better understanding of the invention and not to constitute any restrictive effect.

Furthermore, for better understanding of the invention some elements or process steps may have been used in various ways to provide cohesion within sentences. Elements or process  
10 steps used in different expressions actually represent the same numbered item or process step.

The subject matter invention Household Type Bread Slicing and Toasting Machine comprises the elements of;

- 15 • Lower Tray (1),
- Crumb Grating (2) which gets bread crumbs to fall into the Crumb Tray (3) after the slicing of Bread (B),
- Crumb Tray (3) in which the bread crumbs left on the Bread (b) slicing and toasting (5) units accumulate,
- 20 • Vertical motion spring (4) that drives the blades (12),
- Toasting unit (5) integrated to the chamber (15),
- Rack and pinion gear (6) that drives gear (14),
- Connection rod (7) that provides horizontal motion to the blades (12),
- Crank (8) that drives the connection rod (7),
- 25 • Horizontal motion spring (9) in which blades (12) are supported between bearings,
- Electric motor 1 (10) that provides reciprocating motion to the blades (12),
- Blade holder (11) that fastens blades (12) on the horizontal motion spring (9),

- At least two blades (12) that can move horizontally and slice the bread,
- Electric motor 2 (13) that gives rotational motion to the pinion gear (6),
- Gear (14) that drives blades (12) downwards,
- 5      • Chamber (15) which contains part that performs the bread (B) slicing operation and where the bread (B) is stored,
- Lid (16) that allows the bread (B) to be placed inside the chamber (15) and that allows opening and closing of the chamber (15),
- Tightener (17) that allows the bread (B) to be fastened between the fixed rests located on the crumb grating (2),
- 10   • At least one clamp (18) that starts the toasting operation for each cell on the bread toasting unit (5) and that allows the bread (B) to come out.

Household type bread slicing, and toasting machine can be manufactured to look well in the kitchen which is its usage area.

- 15   Chamber (15) is independent of shape and form. Chamber (15) also provides storage for the leftover bread (B).

Toasting unit (5) is manufactured in a form and shape that will fit to the chamber (15).  
Toasting unit (5) can toast one or more slices of bread.

Crumb tray (3) is located in bread (B) slicing section and in toasting unit (5).

- 20   Clamp (18) starts the toasting operation for each cell on the toasting unit (5) and allows the bread (B) to come out. There is at least one clamp (18) and clamps (18) can function separately.

- The bread (B) is placed on the crumb grating (2) by opening the lid (16). Then the lid is closed (16). The bread (B) is fastened between the fixed rests located on the crumb grating  
25   (2) by using tighteners (18) on the lid (16). The slicing operation is initiated by pressing the button. Blades (12) fixed on the blade holder (11) begin their reciprocating motion through the start of the electric motor 1 (10) that rotates the crank (8) which drives the connection rod (7).

After the blades (12) begin their reciprocating motion, electric motor 2 (13) starts and begins to turn the gear (14). Rotating motion of the gear (14) drives the blades (12) set downwards by utilizing the pinion gear (6). Then bread (B) slicing operation commences.

After blades (12) lean upon the crumb grating (2) securely, the slicing operation ends and blades (12) move upwards back to their initiation point. Blades (12) are then stored in the top part of the chamber (15).

10

15

20

25

## CLAIMS

1. The invention is a household type bread slicing and toasting machine that can be used for purposes such as bread cutting/slicing, storing and toasting in households and other various areas as needed, **characterized by** comprising the elements of;

- Lower tray (1) that covers the base of the chamber (15),
- Crumb Grating (2) which gets bread crumbs to fall into the Crumb Tray (3) after the slicing of Bread (B),
- Crumb Tray (3) in which the bread crumbs left on the Bread (B) slicing and toasting units accumulate,
- Vertical motion spring (4) that drives the blades (12) downwards,
- Toasting unit (5) integrated to the chamber (15),
- Rack and pinion gear (6) that drives gear (14),
- Connection rod (7) that provides horizontal motion to the blades (12),
- Crank (8) that drives the connection rod (7),
- Horizontal motion spring (9) in which blades (12) are supported between bearings,
- Electric motor 1 (10) that provides reciprocating motion to the blades (12),
- Blade holder (11) that fastens blades (12) on the horizontal motion spring (9),
- At least two blades (12) that can move horizontally for slicing the bread (B),
- Electric motor 2 (13) that gives rotational motion to the pinion gear (6),
- Gear (14) that drives blades (12) downwards,
- Chamber (15) which contains part that performs the bread (B) slicing operation and where the bread (B) is stored,
- Lid (16) that allows the bread (B) to be placed inside the chamber (15) and that allows opening and closing of the chamber (15),
- Tightener (17) that allows the bread (B) to be fastened between the fixed rests located on the crumb grating (2),
- At least one clamp (18) that starts the toasting operation for each cell on the bread toasting unit (5) and that allows the bread (B) to come out.

2. Household type bread slicing and toasting machine according to claim 1, **characterized by** comprising chamber (15) in which the leftover bread (B) is stored.

3. Household type bread slicing and toasting machine according to claim 1, **characterized in that** the aforesaid chamber (15) is independent of shape and form.

4. Household type bread slicing and toasting machine according to claim 1, **characterized by** comprising toasting unit (5) that can toast one or more slices of bread (B).

5

5. Household type bread slicing and toasting machine according to claim 1 or claim 4, **characterized in that** the aforementioned toasting unit (5) is manufactured in a form and shape that will fit to the chamber (15).

- 10 6. Household type bread slicing and toasting machine according to claim 1, **characterized by** comprising at least one clamp (18) that initiates the toasting operation for each cell on the toasting unit (5), that allows the bread (B) to come out and that can function separately.

15

20

25

30



## ABSTRACT

### HOUSEHOLD TYPE BREAD SLICING AND TOASTING MACHINE

5 The present invention relates to a household type bread slicing and toasting machine that can be used for purposes such as bread cutting/slicing, storing and toasting particularly in households and other various areas as needed and comprises the elements of lower tray (1) that covers the base of the chamber (15), crumb grating (2) which gets bread crumbs to fall into the crumb tray (3) after the slicing of bread (B), crumb tray (3) in which the bread  
10 crumbs left on the bread (B) slicing and toasting (5) units accumulate, vertical motion spring (4) that drives the blades (12) downwards, toasting unit (5) integrated to the chamber (15), rack and pinion gear (6) that drives gear (14), connection rod (7) that provides horizontal motion to the blades (12), crank (8) that drives the connection rod (7), horizontal motion spring (9) in which blades (12) are supported between bearings, electric motor 1 (10) that  
15 provides reciprocating motion to the blades (12), blade holder (11) that fastens blades (12) on the horizontal motion spring (9), at least two blades (12) that can move horizontally for slicing the bread (B), electric motor 2 (13) that gives rotational motion to the pinion gear (6), gear (14) that drives blades (12) downwards, chamber (15) which contains part that performs the bread (B) slicing operation and where the bread (B) is stored, lid (16) that  
20 allows the bread (B) to be placed inside the chamber (15) and that allows opening and closing of the chamber (15), tightener (17) that allows the bread (B) to be fastened between the fixed rests located on the crumb grating (2) and clamp (18).

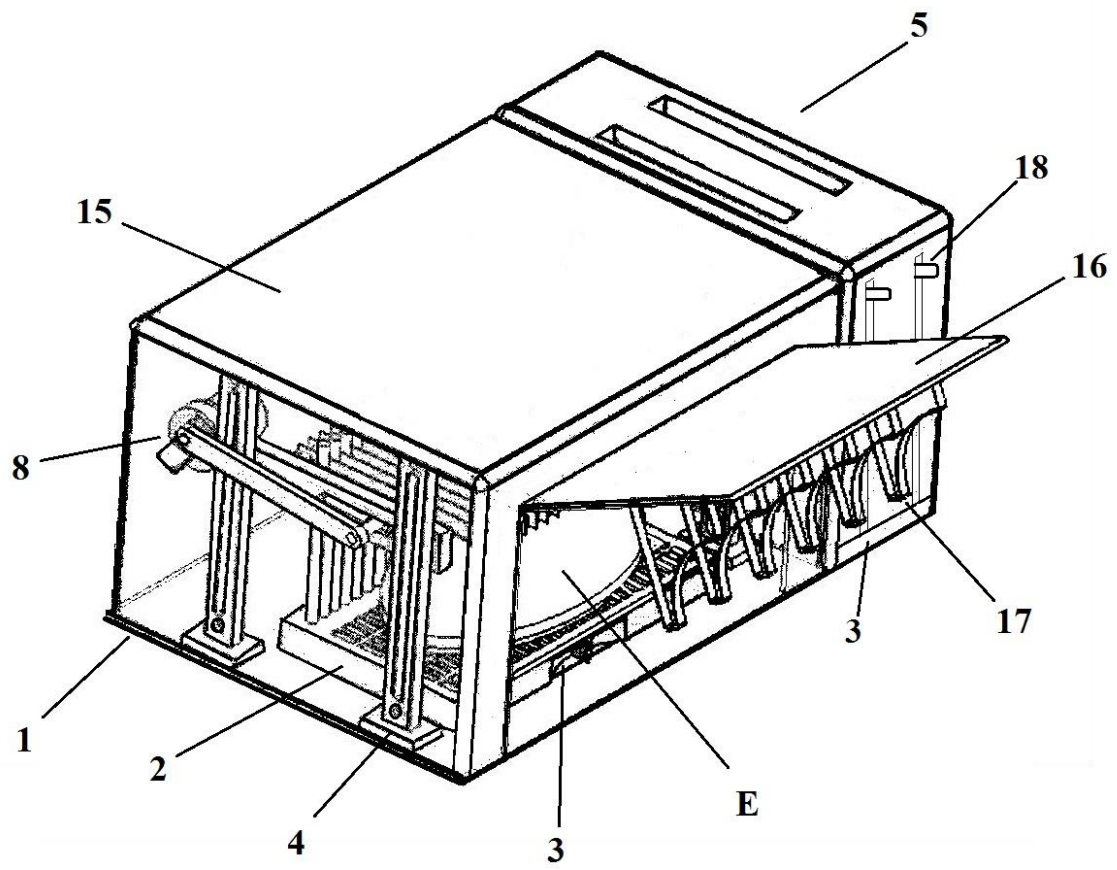


Figure 1

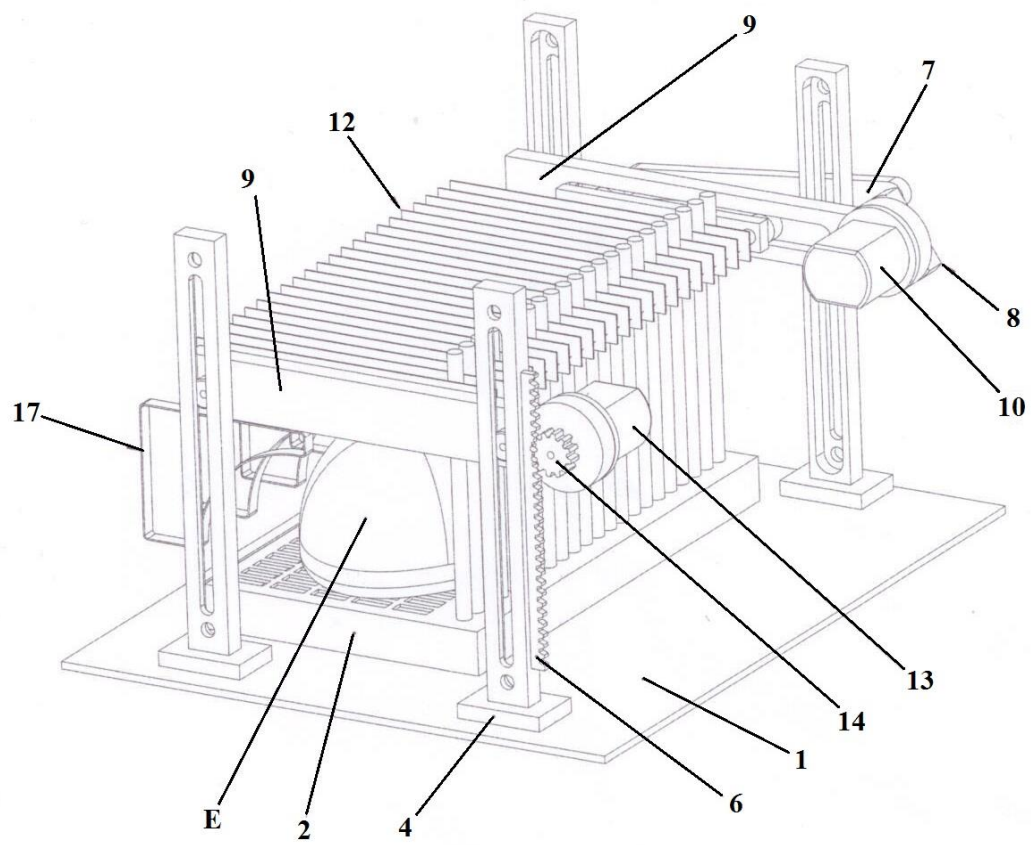


Figure 2

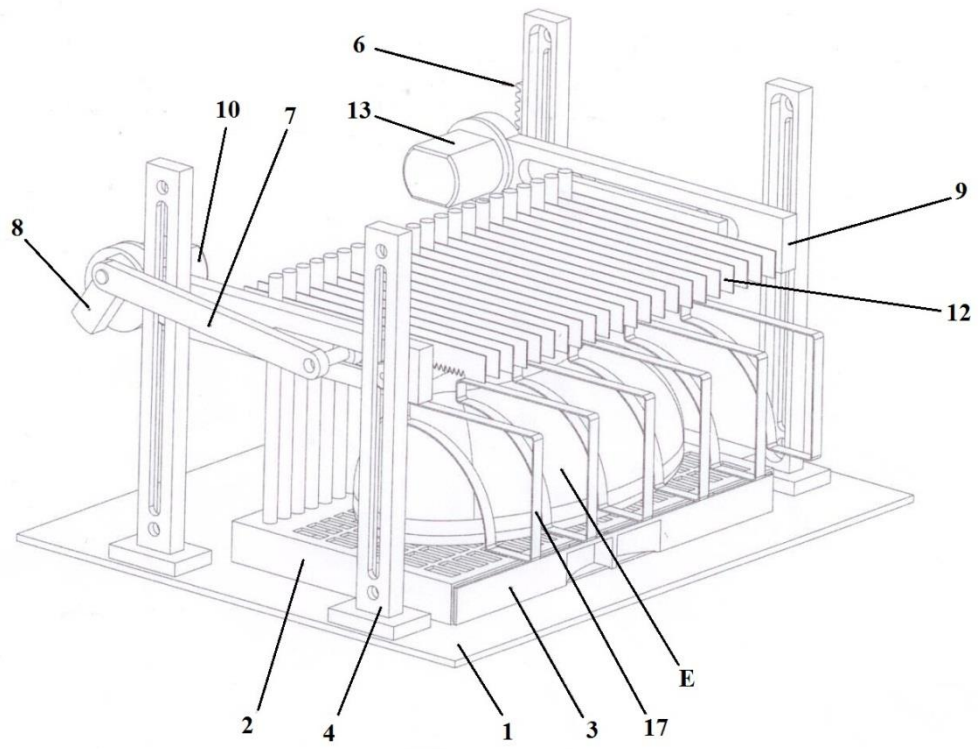


Figure 3

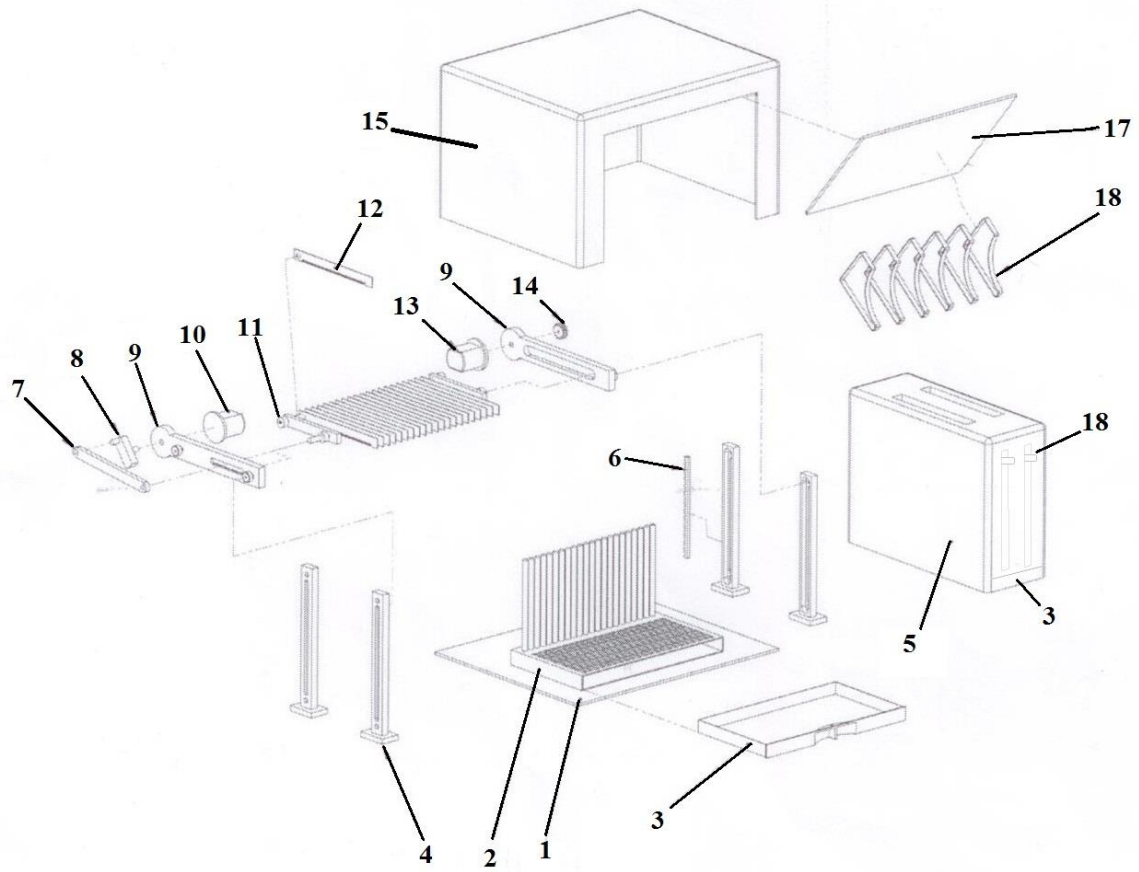


Figure 4