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(54) **Title:** PRESS MOLD TYPE HEATING (FOR BREAD ETC.) AND/OR PRESSING (FOR TOAST ETC.) APPARATUS FOR ALL HEATING CONTAINERS (POT ETC.) HAVING SIMILAR LOGIC WITH THE SYSTEMS AT "BETWEEN TEAPOT AND TEAPOT", "BETWEEN KETTLE AND TEAPOT", "ONTO KETTLE OR TEAPOT", OR "UNDER KETTLE OR TEAPOT".

(57) **Abstract:** This pressing mold type apparatus designed to be placed between small (6) and big (5) part of double teapot (5) and teapots (S) or kettles (5) are used in combination with the teapot (6) or another apparatus on the top. This press mold type essentially consists of a lower (2) and an upper (1) grill plates (containers), pins (3), limiting pin housings, and segments (4) that allow the movement of these parts up and down in the plane without an axis shift problem. After this apparatus is placed at the place of use, then bread, toast material or other food to be heated (product) which is desired to be squeezed is placed between this apparatus and then the teapot (6) is placed on this apparatus to help for pressing and heating processes. In this way, it is an apparatus that aims to save electrical energy by not using toasters and similar heating devices, to reduce carbon emission and to ensure that the heated product (bread etc.) is subjected to the necessary treatment without being burned (heated by steam). In addition, this press mold type apparatus can also be placed under the kettle (5) or the teapot (6) on a stove, and can perform its function. Furthermore, lid and pressing apparatuses of similar design can also be produced for heaters like cookware. Details can be found in the description and claims.

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PRESS MOLD TYPE HEATING (FOR BREAD ETC.) AND/OR PRESSING (FOR TOAST ETC.) APPARATUS FOR ALL HEATING CONTAINERS (POT ETC.) HAVING SIMILAR LOGIC WITH THE SYSTEMS AT "BETWEEN TEAPOT AND TEAPOT", "BETWEEN KETTLE AND TEAPOT", "ONTO KETTLE OR TEAPOT", OR "UNDER KETTLE OR TEAPOT"

Technical Field and Application Format to Industry:

Apparatus is designed to be used in all kettle, small and big parts of double teapot, all electrical, non-electrical household appliances, or equipments used for cooking or boiling, and in all devices that emit steam and / or heat after heating. However, it can be applied to other industries with the same usage logic (utilization of existing heat). Since production costs will be low, people will be positive about purchasing. It is also an environmentally-friendly and electricity-saving product and can be used by single people or people who have an extra few minutes to wait preparation of steam toast etc. (Considering the time taken from the room temperature of the toast machine/heaters to the desired temperature, there is a possibility that this designed system will complete the task sooner). While brewing tea or heating water etc., the desired product can be heated-pressed at the same time and thus, time and money can be saved. In addition, cold products can be reheated using this apparatus instead of using a toast machine or other heaters. To make toast, to heat bread, or for a similar requirement, if a product is to be pressed and heated, probably a hot drink such as tea, coffee or soup is also being prepared, and there is also a boiling water-containing mixture. The aim is to prevent the use of the toas machine or other machines when there is an available energy. At the same time, manufacturers of kitchen tools will be able to offer this product as an option to their customers and will be able to go one step further.

State of The Art:

A similar application was not found in the preliminary searches.

Purpose of Invention:

This pressing mold type apparatus mentioned in this description designed to be placed between small(6) and big(5) part of double teapot (5) and teapots(5) or kettles (5) are used in combination with

the teapot (6) or another apparatus on the top. After this apparatus is placed at the place of use, then bread, toast material or other food to be heated (product) which is desired to be squeezed is placed between this apparatus and then the teapot (6) is placed on this apparatus to help for pressing and heating processes. In this way, it is an apparatus that aims to save electrical energy by not using toasters and similar heating devices, to reduce carbon emission and to ensure that the heated product (bread etc.) is subjected to the necessary treatment without being burned (heated by steam). In addition, this press mold type apparatus can also be placed under the kettle (5) or the teapot (6) on a stove, and can perform its function.

Description of The Figures:

Fig. 1 – Top and Bottom Grill Plates Disassembled View

Fig. 2 – Top and Bottom Grill Plates Mounted View

Fig. 3 – Top and Bottom Grill Plates Mounted View (Max. Opened)

Fig. 4 – Top and Bottom Grill Plates Mounted View (Max. Opened)

Fig. 5 – Locking Segment Assembly View

Fig. 6 – Bottom Grill Plate Lower Isometric View

Fig. 7 – Top Grill Plate Side View

Fig. 8 – Bottom Grill Plate Full Section Side View

Fig. 9 – Whole System Assembly

Fig. 10 – Image of movement of upper grill plate moving down over the pins with the weight of teapot

Fig. 11 – System Components and Descriptions

Description of References in the Figures:

1: Top Grill Plate

2: Bottom Grill Plate

3: Pin

4: Locking Segment

5: Big part of double teapot (Teapot)

6: Small part of double teapot (Teapot)

7: Teapot cover

Disclosure of The Invention:

Contact section of the bottom grill plate (2) on the teapot(5) is designed in stepped shaped to be able to use in the teapots of different sizes and a column is formed towards the grill surface from the smallest step for resistance against bending. The bottom grill (2) has 3 pin slots and 3 pins (3) fixed to these slots (pim adedi ve tipi farklı tasarımlarda farklılık gösterebilir veya aynı işlevi yerine getirebilecek benzeri bir mekanizma kullanılabilir) and the purpose of these pins is to ensure that no strain-imbalance occurs after the teapot has been placed and that the pressing operation can be carried out in the vertical plane. Another purpose of the pin housings is to create a maximum pressing height limit with the height they have. The first of the 3 pins is located directly opposite the entrance of the product (toast etc.) and the other two are on either side of the entrance. These two pins and slots are designed not to exceed the half spring angle for safety reasons. As the top and bottom parts (grids) move over each other, besides the pins, neighbour surfaces of grills will also support centering. After the teapot is placed, the entrance angle should not exceed the half spring diameter against the risks that may occur due to the center of gravity. However, pin slots can also be positioned at angles below the half-spring angle in different designs. Herringbone-shaped pressing surfaces in the bottom (2) and top (1) grills (covers) will be selected from granite or a better material for heat conduction. On the bottom (2) and top grill (1) plate side surfaces, 2 channels at the left and right sides are designed for easy movement of the teapot handle. The pin transition housing on the outer-lower surface of the top grill(1) also has a certain height and also determines the maximum(total) pressing limit together with pin slot height at the bottom grill(2). After the top grill plate(1) is fully inserted into the bottom grill plate(2), the locking segment (4) will be inserted into the upper limiting channel on the pins (3) and thus, a secure contact surface continuity between the top and bottom grills (1, 2) will be ensured in terms of balance and safety and the risk of interrupting the grills' contact with each other will be eliminated. With a continuously applied weight from above (small part of double teapot, etc.), bread, toast and so on. the amount of pressure and friction on the products will increase and consequently the time will be saved as the heat inside will be increased more quickly.

It is possible to design in different options without changing the logic of the existing product, design and mechanism. For example:

In order to place the product (bread, etc.) more easily, mechanism can be designed in 2 different way, first, top grill can lift up(1) and then turned to the side and product can be put into bottom grill plate easily. As second option, Baffle or nested type top-bottom grills(1,2) opening sideways and upwards, can be designed.

While risks may occur, a different grills group(bottom and top) can be designed without changing the logic and in this design, no-pins are available, there is very small gap between side surfaces of top and bottom grills(clearance fit) and there is an upper limit of which is determined by a limiting mechanism not letting to seperate both grills.

A steam circulating system (steam circulation hose, metal heat conduction band, a steam circulating channel, etc.) between the bottom (2) and top (1) grills and associated with the teapot/kettle (5) can be formed to heat up the top grill (1) faster.

If only the kettle/teapot(5) is used, the same function can be achieved with a water-filled teapot(6) or a balanced and heat-resistant weight. Also in such a case, lower and upper surface heat balance of product can be achieved faster by changing the direction of the heated product.

A spring-loaded mechanism for self-lifting of the top grill (1) when the teapot(6) is taken, a mini-piston mechanism with spring mechanism inside, etc. systems can be used. However, these options may be considered unnecessary if the toast is required to remain under a continuous load.

If the apparatus is to be used with the teapot(5) on it, a handle can be designed to prevent bending and falling.

Apparatus can be put on stove and can perform its function by under teapots(5, 6) (can be placed between stove and teapots)

According to the design, another form may also be used in the pressing surfaces instead of the herringbone surface form.

Dimensions (teapot side step diameter-height, internal compression chamber depth, etc.) can be varied if mass production is started.

The product provides flexibility as well as energy saving. For example, apparatus can be used when having picnic or doing other activities outside, when heating water with a picnic tube without looking for an electrical connection or by removing the segments (4), the bottom grill (2) can be used as a teapot lid, or both the bottom (2) and the top (1) grill can be used as a frying pan and this type of usage can be supported by a portable arm. A material such as pin shaft lock-buckle lock, alternative to the segment(4), may also be used to facilitate disassembly.

CLAIMS

1. An apparatus designed to be used in all kettle/teapot (5), small teapot (6), all electrical and non-electrical appliances used for cooking or boiling, and in all devices emitting steam and / or heat after heating; comprising,

a) a bottom grill (2) base and top grill (1) base designed in a stepped and cascaded shaped, flexible enough to be placed between the teapot/kettle (5) and small teapot(6) of different sizes,

b) nested type top-bottom grills(containers)(1,2),

c) a pin system(3) which allows said two grills to move along the same (vertical) axis,

d) a locking segment (4)

e) system which ensures that the grills are not separated from each other as they move on said pin (3) system,

f) a safe contact distance is maintained and the maximum opening limit is determined,

g) a pin-slot system of a certain height that determines the minimum closing limit,

h) a mechanism which applies heat and / or pressure to the product(bread, toast etc.) placed between the bottom and top grills(2, 1) with heat applied from the bottom grill(2) direction and / or the load applied from the top grill(1) direction, and

i) a cavity-channel (on the grill side surfaces) that prevents people to contact surfaces of bottom/top grills(2, 1) when they move up-down to kettle/teapot(5) or small teapot(6) by holding its handle.

2. Apparatus as recited in claim 1, characterized in that, this comprises a bottom grill (2) base designed in stepped-cascaded having functionallity to be placed on different sized teapot/kettle (5) ot small teapot(6), a top grill base (1) on which a kettle/teapot (5) or small teapot (6) can be placed and a bottom grill (2) base having heat-fire resistant as to be placed on a heater directly.

3. Apparatus as recited in claim 1, characterized in that, this has a flexible structure which can also be designed for containers(pot etc.) other than teapot / kettle (5) and small teapot (6).

4. Apparatus as recited in claim 1, characterized in that, this has a design that makes use of existing heat sources (such as water boiled in the stove) and does not require an external energy source such as electricity, and can be used in all kinds of nature conditions(picnic etc.) outside the house and home.

5. Apparatus as recited in claim 1, characterized in that, this comprises a column system for increasing resistance to bending from the portion where the smallest step at the base of the bottom grill (2)surface, toward the grill, which is the bottom part of the apparatus.

6. Apparatus as recited in claim 1, characterized in that, apart from the exemplary design in the description, the apparatus and parts of the apparatus may be positioned differently(position on the grill), have different shapes(cylindrical, oval, spring, etc.), have different numbers of pins(3), veya may have an alternative guiding(centering) mechanism capable of providing up and down movement in the vertical axis.

7. Apparatus as recited in claim 1, characterized in that, In the exemplary design in the description, although the pressing surface in the top(1) and bottom(2) grills is herringbone shaped, this optionally includes the flexibility to choose different surface shapes (trapezoidal, triangular, flat, etc.) in different designs.

8. Apparatus as recited in claim 1, characterized in that, as stated in the description, the printing surfaces can be selected as granite or have the flexibility to use another material according to the design(in terms of heat conduction, compressive strength, heat resistance and other mechanical properties) requirements.

9. Apparatus as recited in claim 1, characterized in that, optionally, in order to place the product (bread, etc.) more easily, mechanism have flexibility to be designed in 2 different way, first, top grill can lift up(1) and then turned to the side and product can be put into bottom grill plate easily. As second option, Baffle or nested type top-bottom grills(1,2) opening sideways and upwards, can be used.

10. Apparatus as recited in claim 1, characterized in that, this comprises a flexible structure for an another design without changing the core logic of the existing design and in this design, no-pins are available, there is very small gap between side surfaces of top and bottom grills(clearance fit) and there is an upper limit of which is determined by a limiting mechanism not letting to seperate both grills.

11. Apparatus as recited in claim 1, characterized in that, this comprises a flexible structure that allows a steam circulating system (steam circulation hose, metal heat conduction band, a steam circulating channel, etc.) between the bottom (2) and top (1) grills and associated with the teapot/kettle (5) can be formed to heat up the top grill (1) faster.

12. Apparatus as recited in claim 1, characterized in that, this comprises a flexible structure in which the water-filled teapot (6) or a balanced and heat-resistant weight can provide the necessary pressure when only the kettle (5) is used.

13. Apparatus as recited in claim 1, characterized in that, this comprises a flexible structure in which a mini-piston mechanism with spring mechanism inside, etc. systems can be used, optionally, if the top grill(1) is to be lifted(to take product etc.) as soon as the load(teapot(6) etc.) on the product(toat, bread etc.) is lifted.

14. Apparatus as recited in claim 1, characterized in that, this comprises a flexible structure that allows changes on design to prevent apparatus to side lay-fall with a ergonomic handle preferably fixed to the bottom(2) or top(1) grill, If users want to use the kettle with the apparatus on it.

15. Apparatus as recited in claim 1, characterized in that, in the light of the exemplary design in the description, the apparatus optionally comprises a flexible structure that allows the dimensions (teapot side step diameter-height, internal compression chamber depth, etc.) to be varied if mass production is carried out without changing the operating logic.

16. Apparatus as recited in claim 1, characterized in that, this comprises an optional design structure that allows the bottom grill (2) to be used as a teapot-kettle lid or both the bottom (2) and the top (1) grill as a frying pan (this type of usage can be supported by a portable arm) if the segments (4) are removed.

17. Apparatus as recited in claim 1, characterized in that, this comprises a flexible structure that may allow the use of a material such as pin shaft lock-buckle lock alternative to the segment(4) to facilitate disassembly if the segments(4) are to be removed for the reasons specified in claim 16 or for other reasons.

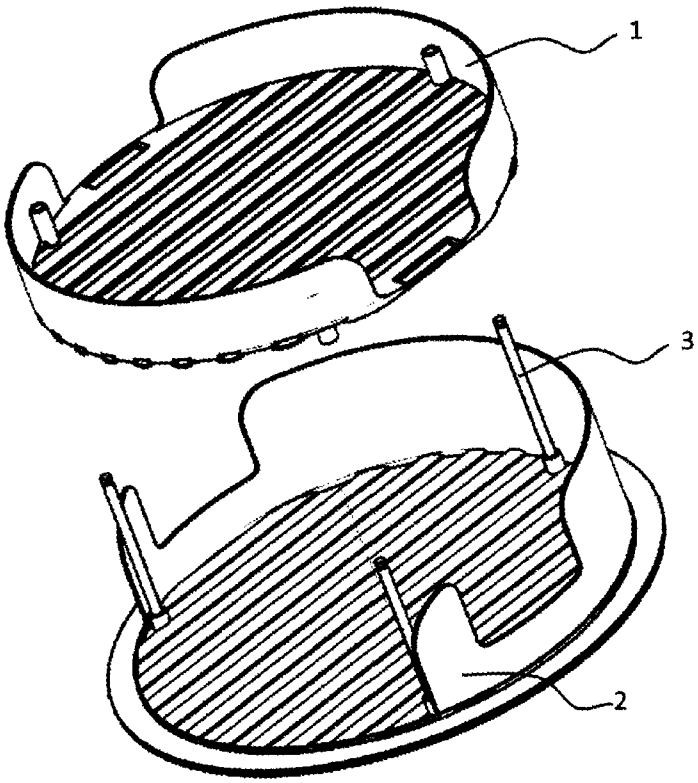

Fig. 1

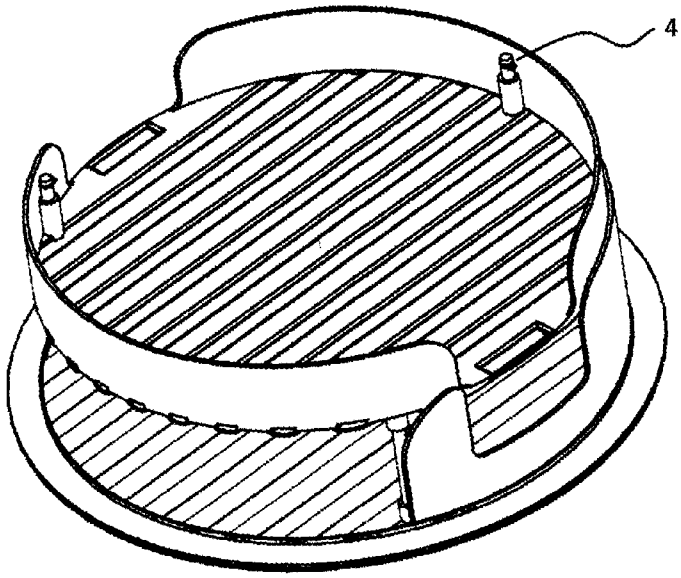

Fig. 2

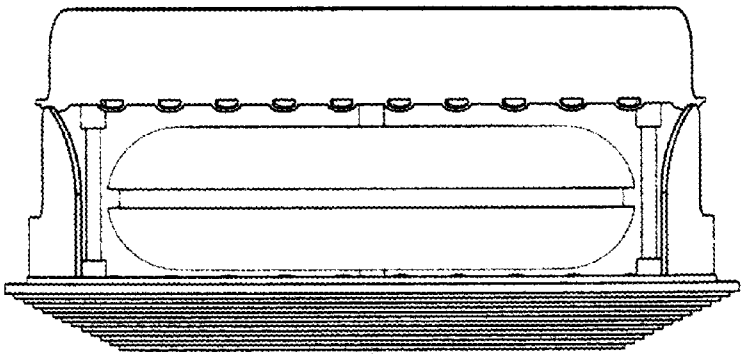

Fig. 3

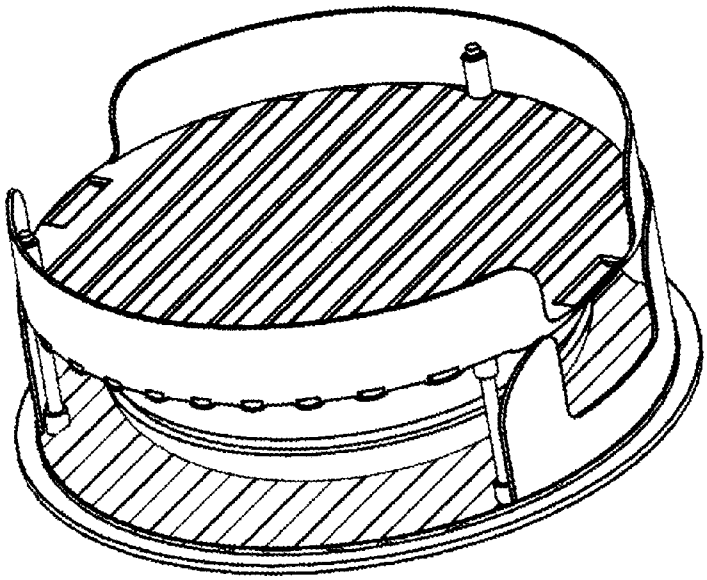

Fig. 4

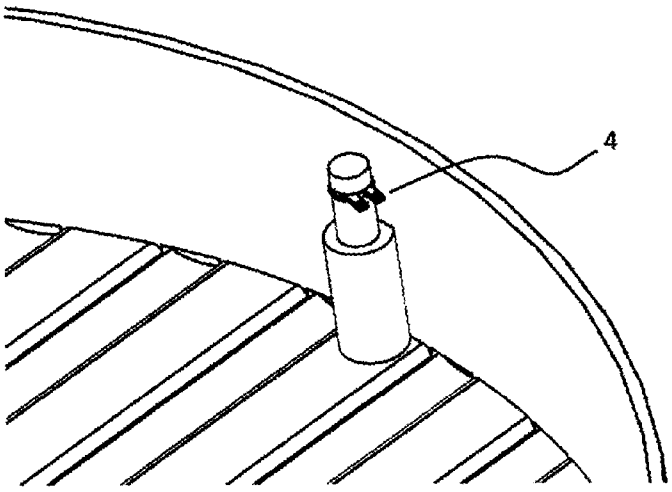

Fig. 5

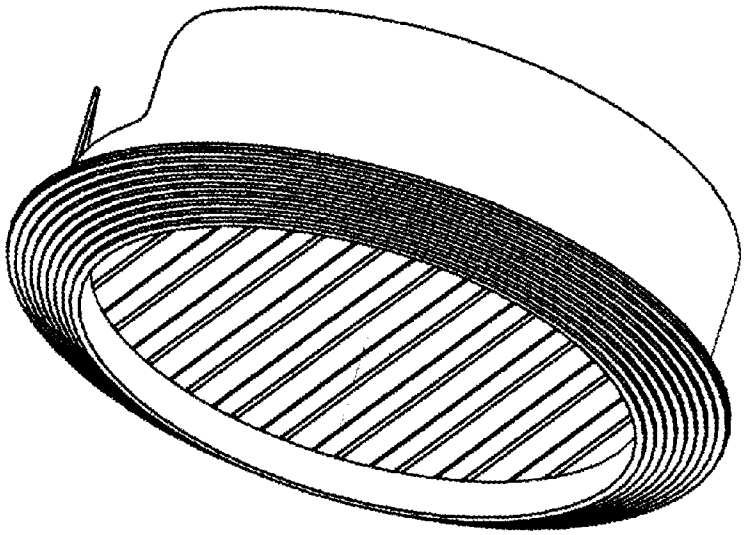

Fig. 6

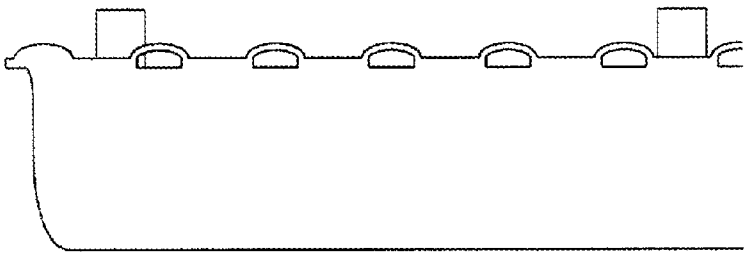

Fig. 7

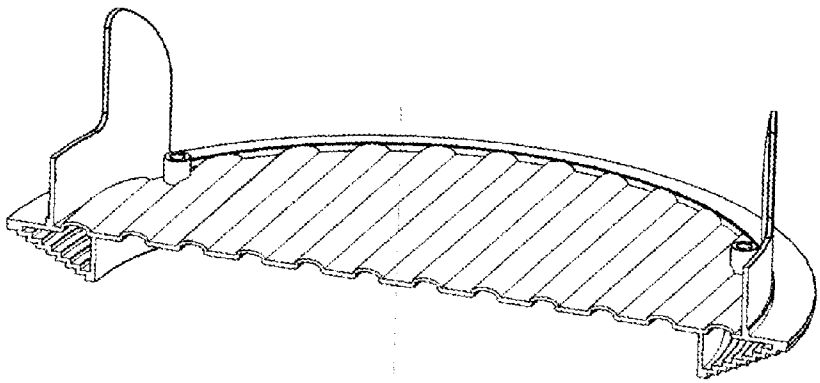

Fig. 8

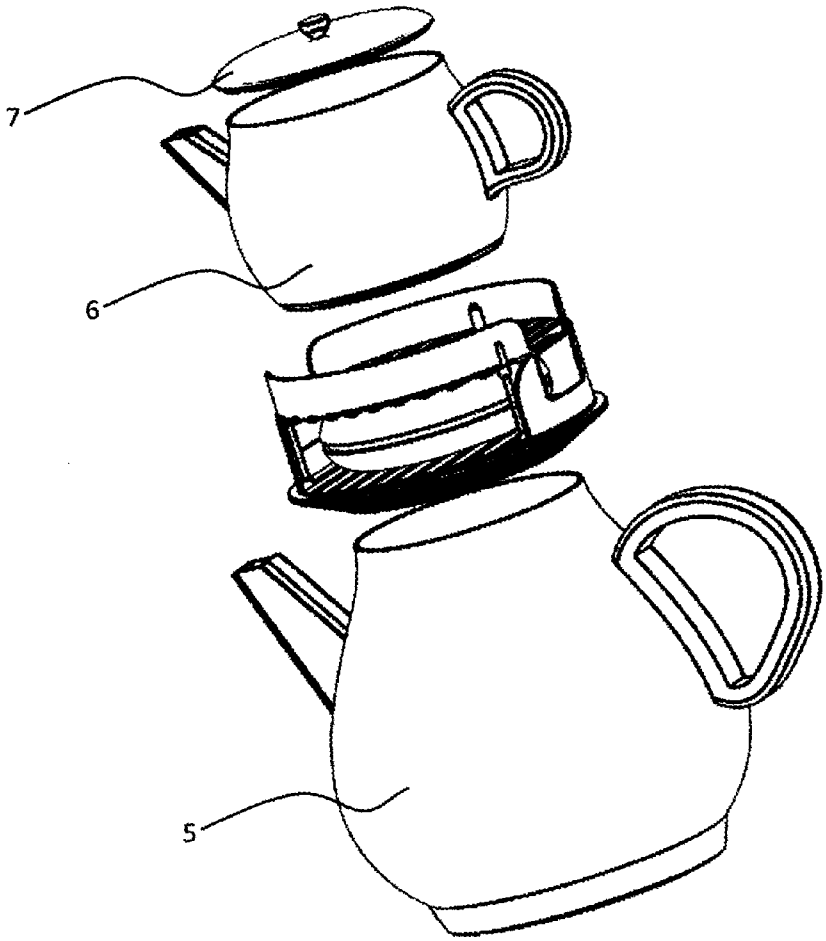

Fig. 9

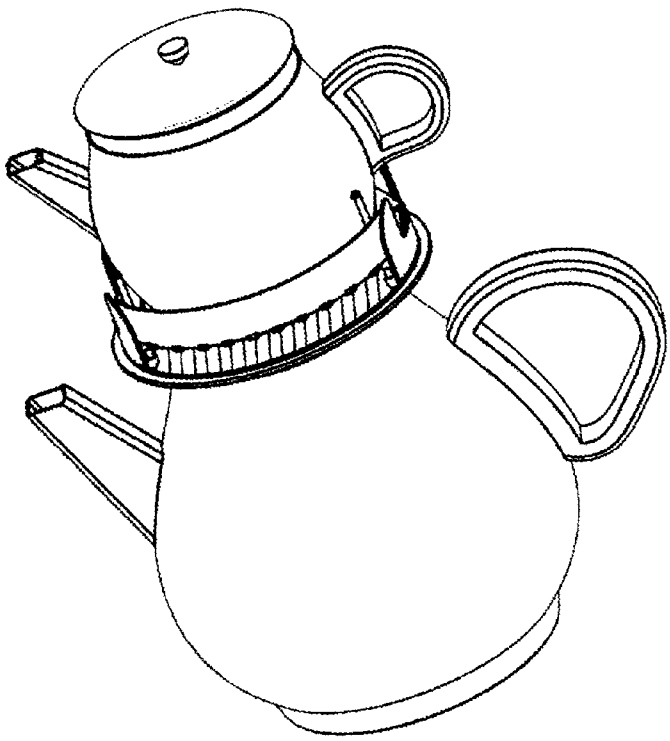

Fig. 10

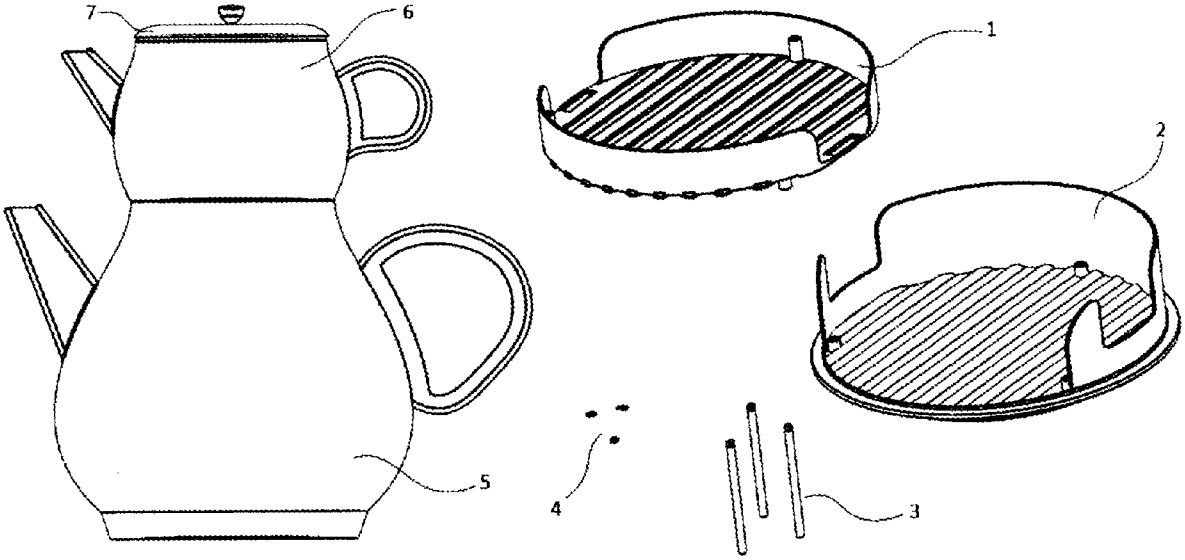

Fig. 11