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(54) **A COOKING DEVICE COMPRISING A COOKING STONE**

(57) The present invention relates to a cooking device (1) comprising a body (2); a cooking chamber (3) which is disposed in the body (2) and wherein the foodstuffs are cooked; a casing (4) in the form of a box with the front side open which surrounds the cooking chamber (3); a heater (5) which is provided in the cooking chamber (3) and which provides the heating of the foodstuffs; a

cooking stone (6) which is positioned above the heater (5) and whereon the foodstuffs are placed to be cooked; a washing system (7) for delivering water into the cooking chamber (3); and a door (8) which is provided on the body (2) and which interrupts the contact between the cooking chamber (3) and the outer environment.

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Description

[0001] The present invention relates to a cooking device comprising a cooking stone.

[0002] In ovens, the cooking process is performed by dissipating the heat generated by the heater into the cooking device by means of the fan. The cooking process is performed by dissipating the hot air into the cooking device. Therefore, foodstuffs are cooked by means of air without getting into contact with a hot surface. This causes difficulties in cooking dough foods such as pizza, etc., and the cooking process takes a long time. This causes the dough to harden or fail to be cooked as desired. In the state of the art cooking stones for cooking dough foods are used. Generally the state of the art cooking stones are produced from refractory materials, such as ceramic or stone, which have a high capacity of storing heat and releasing the heat slowly over time, thus allowing to directly heat the base of the dough food which is in contact with the tray. However, the cooking stones which are used frequently get dirty in the course of time. As the dirt accumulates on the surface, the cooking process cannot be performed with high efficiency, causing the foodstuffs to be undercooked or overcooked. The cooking stones have to be cleaned by the user at certain intervals. However, the need for continuously cleaning the cooking stones causes difficulty of use. Therefore, in the state of the art, cooking devices which performing the washing process are known. The washing process is performed by means of the spraying members which can spray water into the cooking chamber. However, the accumulation of dirty water on the cooking stone during the washing process causes problems of hygiene, and in the long term, forces the user to perform the cleaning process. This causes difficulty of use.

[0003] In the state of the art Korean Patent Document No. KR101313682, a cooking device comprising a cleaning system is disclosed.

[0004] The aim of the present invention is the realization of a cooking device which provides ease of use.

[0005] The cooking device realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, comprises a body; a cooking chamber wherein the foodstuffs are cooked; a casing which surrounds the cooking chamber; a heater which is provided in the cooking chamber and which provides the heating of the foodstuffs; a cooking stone which is produced from a refractory material and whereon the foodstuffs are cooked; a washing system for cleaning the interior of the cooking chamber; and a door which interrupts the contact between the cooking chamber and the outer environment. The cooking stone is heated by means of the heater provided thereunder. The cooking stone is produced from a material with high thermal capacity. Thus, the cooking stone has high heat retention. The heated cooking stone enables the foodstuffs to be homogeneously cooked.

[0006] The cooking device of the present invention

comprises the cooking stone which is smaller than the base of the cooking chamber, and a reservoir wherein the water delivered from the washing system and trickling from the cooking stone is accumulated. As the cooking stone is smaller than the base of the cooking stone, the water delivered from the washing system onto the cooking stone trickles from the cooking stone and leaves the cooking stone. The water trickles from the cooking stone to be transferred to the reservoir.

[0007] In an embodiment of the present invention, the heater comprises an electrical connection point which extends from under the cooking stone and passes through the gap between the cooking stone and the side wall of the cooking chamber so as to be positioned at a level on the side wall higher than the cooking stone. By means of the higher level of the electrical connection point than the cooking stone, the safety of the user is improved.

[0008] In an embodiment of the present invention, the cooking device comprises a filter through which the water delivered from the reservoir passes and a base which enables the water in the reservoir to be transferred to the filter. By means of the filter, the water delivered from the reservoir is filtered. Thus, the water is cleansed of oil and dirt and then delivered to the washing system. The base has an inclined structure so as to guide the water towards the filter. Thus, the water is guided towards the filter without waiting on the base.

[0009] In an embodiment of the present invention, the cooking device comprises a strainer which is arranged on the base. The strainer is positioned so as to cover the filter. By means of the strainer, solid particles are filtered. The strainer can be easily detached, washed and cleaned by the user.

[0010] In an embodiment of the present invention, the cooking device comprises at least one fan which is disposed on the side wall of the cooking chamber. By means of the fan, the water on the cooking stone is guided towards the reservoir from the cooking stone. Thus, formation of stains on the cooking stone is prevented.

[0011] In an embodiment of the present invention, the washing system comprises a pump which sucks the water passing through the filter and a spraying member which enables the water to be delivered onto the cooking stone. By means of the pump, the water passing through the filter is sucked and taken into the washing system. By means of the spraying member, the water is delivered onto the cooking stone.

[0012] In an embodiment of the present invention, the cooking device comprises a conductivity sensor which is disposed at the outlet of the pump and a control unit which guides the water according to the data received from the conductivity sensor.

[0013] By means of the present invention, a cooking device is realized, comprising a reservoir wherein the sprayed water is accumulated by trickling down from the cooking stone.

[0014] The cooking device realized in order to attain

the aim of the present invention is illustrated in the attached figures, where:

Figure 1 - is the perspective view of the cooking device.

Figure 2 - is the sideways view of the cooking chamber.

Figure 3 - is the perspective view of the cooking chamber.

[0015] The elements illustrated in the figures are numbered as follows:

1. Cooking device
2. Body
3. Cooking chamber
4. Casing
5. Heater
6. Cooking stone
7. Washing system
8. Door
9. Reservoir
10. Electrical connection point
11. Filter
12. Base
13. Strainer
14. Fan
15. Pump
16. Spraying member
17. Conductivity sensor
18. Control unit

[0016] The cooking device (1) comprises a body (2); a cooking chamber (3) which is disposed in the body (2) and wherein the foodstuffs are cooked; a casing (4) in the form of a box with the front side open which surrounds the cooking chamber (3); a heater (5) which is provided in the cooking chamber (3) and which provides the heating of the foodstuffs; a cooking stone (6) which is positioned above the heater (5) and whereon the foodstuffs are placed to be cooked; a washing system (7) for delivering water into the cooking chamber (3); and a door (8) which is provided on the body (2) and which interrupts the contact between the cooking chamber (3) and the outer environment. The foodstuffs to be cooked are placed onto the cooking stone (6). By means of the heater (5) heating the cooking stone (6), the cooking process is performed. The cooking stone (6) is produced from a material with high thermal capacity. Thus, the cooking stone (6) has high heat retention. The heated cooking stone (6) enables the foodstuffs to be homogeneously cooked. After the cooking process, the cooking stone (6) is cleaned by means of the washing system (7).

[0017] The cooking device (1) of the present invention comprises the cooking stone (6) which is smaller than the base (T) of the cooking chamber (3), and a reservoir (9) wherein the water delivered from the washing system (7) and trickling from the cooking stone (6) is accumulat-

ed. The water delivered onto the cooking stone (6) by means of the washing system (7) trickles down from the cooking stone (6) to be delivered to the reservoir (9). By means of the cooking stone (6) smaller than the cooking chamber (3), the water can trickle down through the gap between the cooking stone (6) and the side walls (Y) of the cooking chamber (3).

[0018] In an embodiment of the present invention, the cooking device (1) comprises the heater (5) having an electrical connection point (10) which extends from under the cooking stone (6) towards the region between the cooking stone (6) and the side wall (Y) of the cooking chamber (3) so as to be positioned at a level higher than the cooking stone (6). As the cooking stone (6) is smaller than the cooking stone (6), the heater (5) can pass through the region remaining between the side wall (Y) and the cooking stone (6). Thus, the electrical connection point (10) can be moved away from the water, increasing the safety of the user.

[0019] In an embodiment of the present invention, the cooking device (1) comprises the reservoir (9) having a filter (11) which filters the water delivered from the reservoir (9) and a base (12) which is inclined such that the water in the reservoir (9) is delivered from the reservoir (9) towards the filter (11). By means of the filter (11), the water delivered from the reservoir (9) is cleansed of oil particles and dirt. By means of the inclination of the base (12) towards the filter (11), the water is delivered without accumulating on the base (12). Thus, impurities which may be caused by the still water are prevented.

[0020] In an embodiment of the present invention, the cooking device (1) comprises a strainer (13) which is arranged on the base (12) so as to cover the filter (11). By means of the strainer (13) provided on the base (12), solid particles are prevented from moving towards the filter (11). The strainer (13) can be easily detached from the base (12) and cleaned by the user.

[0021] In an embodiment of the present invention, the cooking device (1) comprises at least one fan (14) which is disposed on the side wall (Y) of the cooking chamber (3) and which enables the water on the cooking stone (6) to be delivered to the reservoir (9). The fan (14) enables the water on the cooking stone (6) to be delivered to the reservoir (9). Thus, problems of hygiene which may be caused by the accumulation of water on the cooking stone (6) are prevented.

[0022] In an embodiment of the present invention, the cooking device (1) comprises the washing system (7) having a pump (15) which sucks the water filtered by the filter (11) from the reservoir (9), and a spraying member (16) which enables the water to be delivered into the cooking chamber (3). By means of the pump (15), the water cleaned by the filter (15) is sucked and taken into the washing system (7). The spraying member (16) enables the water to be delivered onto the cooking stone (6) and the cooking chamber (3) to be washed.

[0023] In an embodiment of the present invention, the cooking device (1) comprises a conductivity sensor (17)

which is disposed at the outlet of the pump (15) and a control unit (18) which guides the water according to the data received from the conductivity sensor (17). If the conductivity value at the pump (15) outlet is higher than the conductivity value predefined by the producer on the control unit (18), the water is discharged. If the conductivity value is smaller than the reference value, the water is delivered to the spraying member (16) and used again for the washing process. Consequently, savings in water consumption are provided.

[0024] By means of the present invention, a cooking device (1) which can be easily cleaned and which has improved security is realized, comprising a cooking stone (6) smaller than the cooking chamber (3). By means of the heater (5) passing through the region remaining between the cooking stone (6) and the side walls (Y) of the cooking chamber (3), the electrical connection point (10) is positioned at a level higher than the water surface. Moreover, the water flow is provided through the region remaining between the cooking stone (6) and the side walls (Y) of the cooking chamber (3).

Claims

1. A cooking device (1) comprising a body (2); a cooking chamber (3) which is disposed in the body (2) and wherein the foodstuffs are cooked; a casing (4) in the form of a box with the front side open which surrounds the cooking chamber (3); a heater (5) which provides the heating of the foodstuffs; a cooking stone (6) which is positioned above the heater (5) and whereon the foodstuffs are placed to be cooked; a washing system (7) for delivering water into the cooking chamber (3); and a door (8) which is provided on the body (2) and which interrupts the contact between the cooking chamber (3) and the outer environment, **characterized by** the cooking stone (6) which is smaller than the base (T) of the cooking chamber (3), and a reservoir (9) wherein the water delivered from the washing system (7) and trickling from the cooking stone (6) is accumulated.
2. A cooking device (1) as in Claim 1, **characterized by** the heater (5) comprising an electrical connection point (10) which extends from under the cooking stone (6) towards the region between the cooking stone (6) and the side wall (Y) of the cooking chamber (3) so as to be positioned at a level higher than the cooking stone (6).
3. A cooking device (1) as in Claim 1 or Claim 2, **characterized by** the reservoir (9) comprising at least one filter (11) which filters the water delivered from the reservoir (9) and a base (12) which is inclined such that the water in the reservoir (9) is delivered from the reservoir (9) towards the filter (11).
4. A cooking device (1) as in Claim 3, **characterized by** a strainer (13) which is arranged on the base (12) so as to cover the filter (11).
5. A cooking device (1) as in any one of the above claims, **characterized by** at least one fan (14) which is disposed on the side wall (Y) of the cooking chamber (3) and which enables the water on the cooking stone (6) to be delivered to the reservoir (9).
6. A cooking device (1) as in any one of the Claims 3 to 5, **characterized by** the washing system (7) comprising a pump (15) which sucks the water filtered by the filter (11) from the reservoir (9), and a spraying member (16) which enables the water to be delivered into the cooking chamber (3).
7. A cooking device (1) as in Claim 6, **characterized by** a conductivity sensor (17) which is disposed at the outlet of the pump (15) and a control unit (18) which guides the water according to the data received from the conductivity sensor (17).

Figure 1

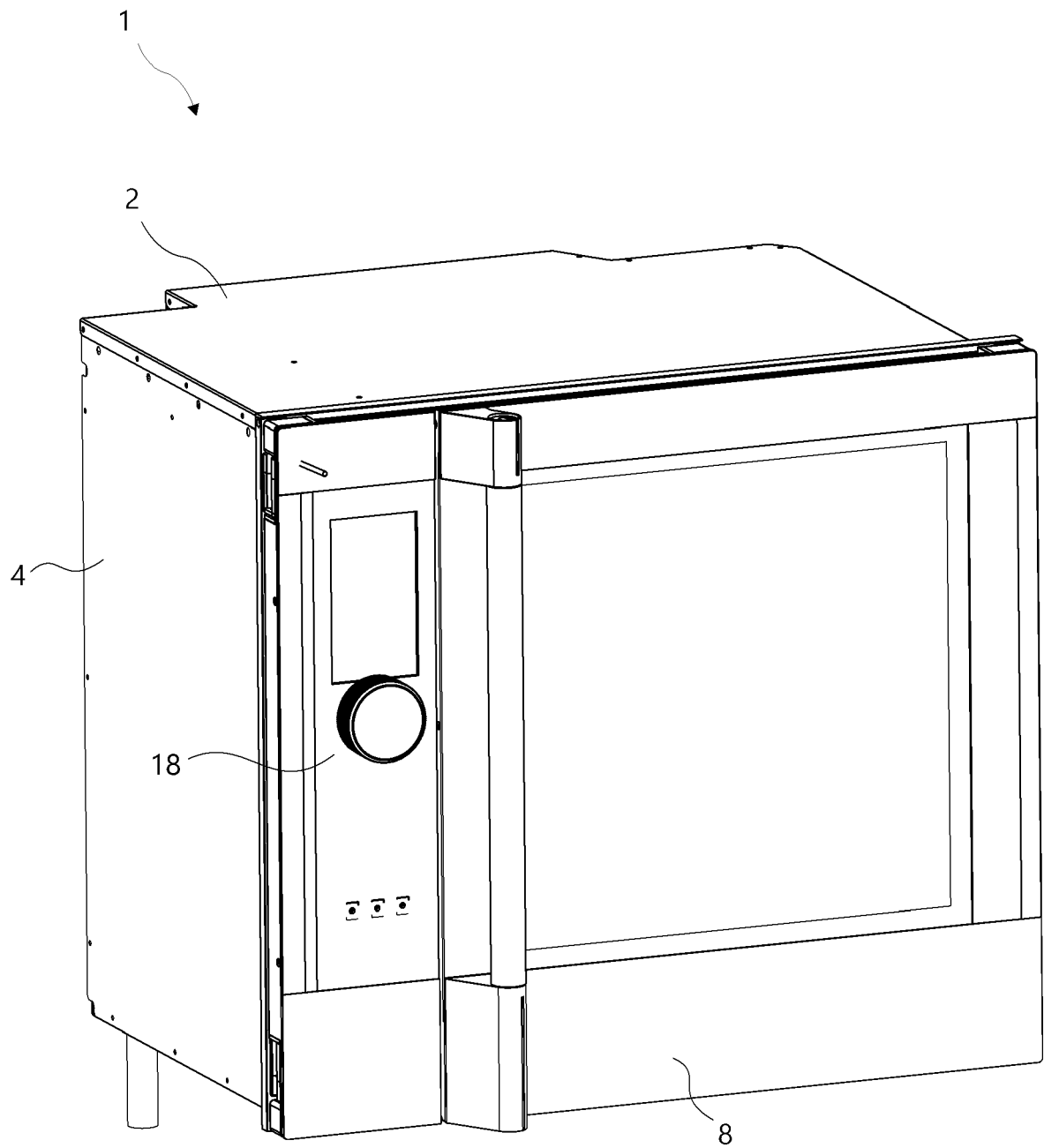


Figure 2

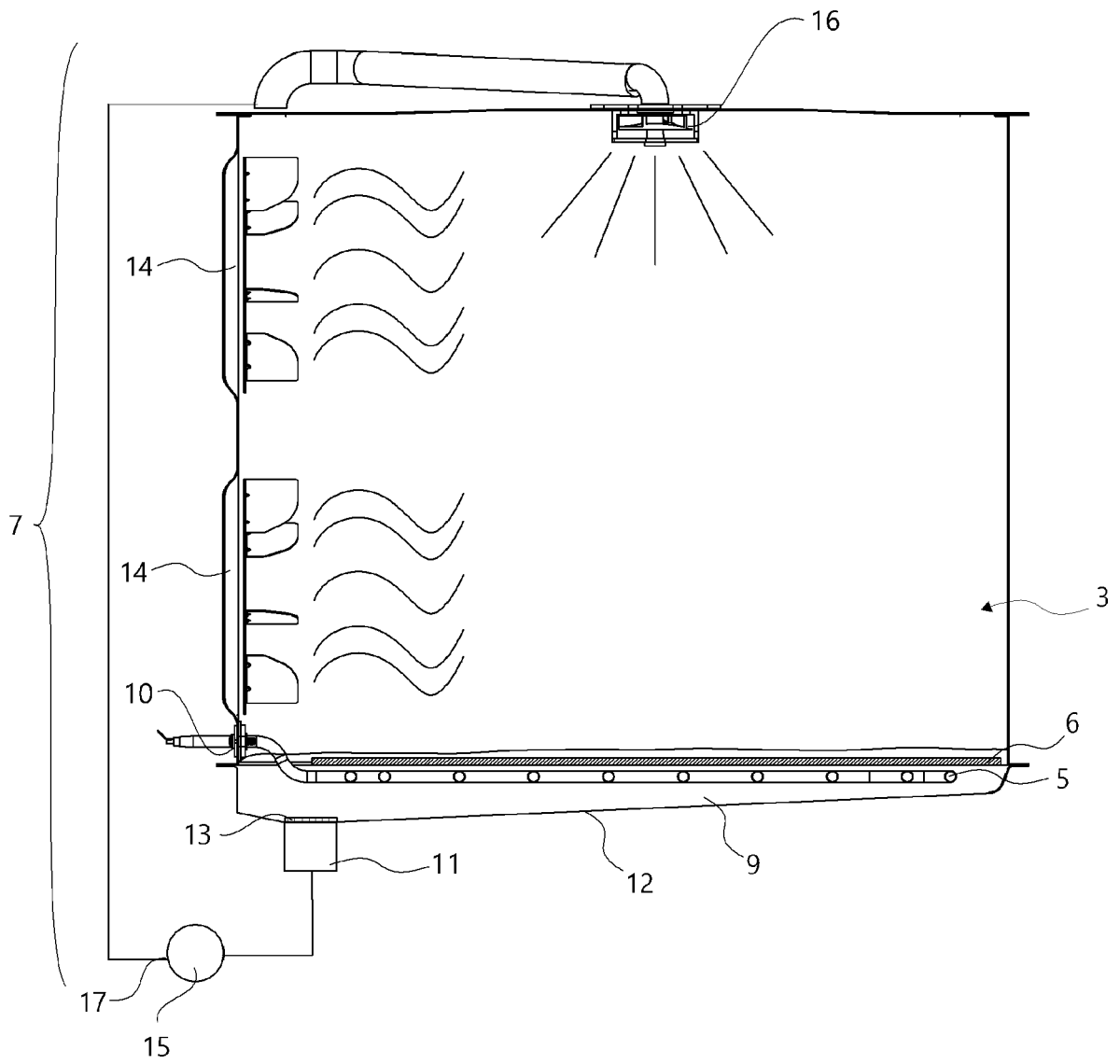
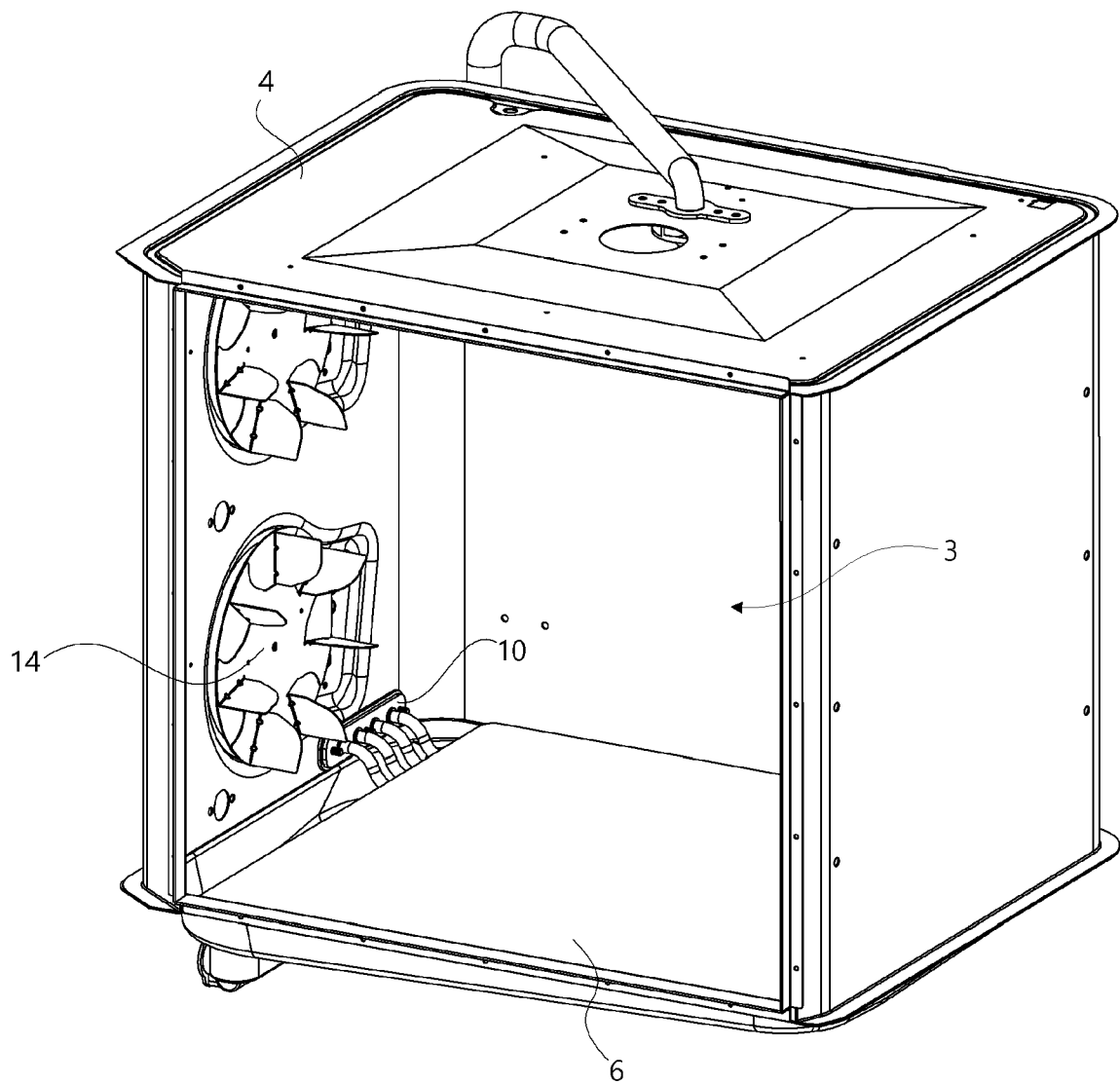


Figure 3





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