

(19)



(11)

EP 3 153 779 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
12.04.2017 Bulletin 2017/15

(51) Int Cl.:
F24C 3/14 (2006.01)

(21) Application number: **15197352.6**

(22) Date of filing: **01.12.2015**

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
 GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
 PL PT RO RS SE SI SK SM TR**
 Designated Extension States:
BA ME
 Designated Validation States:
MA MD

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(30) Priority: **08.10.2015 KR 20150141545**

(54) **PORTABLE GAS STOVE COMPRISING LID WITH INSULATING LAYER OF AIR AND PERFORATIONS**

(57) Disclosed herein is a portable gas stove equipped with a dual-layered cover (110). The portable gas stove includes a gas can reception unit (100) configured to include the dual-layered cover (110) having a top surface portion formed of a dual layer (111) in such a way as to be open or closed and to have a gas can attached to or detached from the gas can reception unit (100) and a burner unit (200) configured to be ignited by fuel supplied by the gas can mounted on the gas can

reception unit (100). One side of the dual layer (111) which comes into contact with the burner unit (200) is sealed, and one or more first through holes (115) are formed on the other side of the dual layer (111) so that heat within the dual layer (111) is discharged to the first through holes (115). Accordingly, the upper side of a gas can can be prevented from being overheated by heat from an excessive hot grill when the excessive hot grill is used in the portable gas stove.

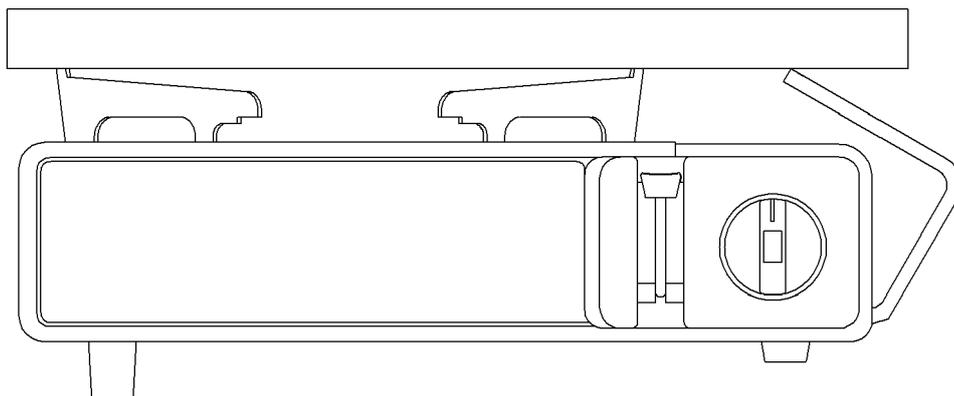


FIG. 1

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Description

BACKGROUND OF THE INVENTION

1. Technical Field

[0001] The present invention relates generally to a portable gas stove equipped with a dual-layered cover and, more particularly, to a portable gas stove equipped with a dual-layered cover, which is capable of preventing an accident in which a gas can explodes due to increased pressure within the gas can attributable to the overheating of the gas can because the upper side of the gas can is overheated by heat from an excessive hot grill or the heat is transferred to the gas can through a boundary surface on the burner unit side of a housing and a gas can reception unit when the excessive hot grill is used in an existing portable gas stove.

2. Description of the Related Art

[0002] The present invention relates to a portable gas stove equipped with a dual-layered cover.

[0003] In general, a portable gas stove using flammable liquefied butane gas charged in a disposable gas can as fuel is one of a variety of types of cookware which is usefully used in the open air in addition to the interiors, such as homes or restaurants, because it has a relatively small volume and light weight and can be easily carried. Liquefied butane gas is usefully used that much, but careful attention must be paid in order to use liquefied butane gas vulnerable to heat and pressure it is easily expanded by heat and has a danger of a possible explosion. The most dangerous accident when the portable gas stove is used is an explosion accident attributable to the overheating of a disposable gas can in which flammable liquefied butane gas is filled in the nature of liquefied butane gas as described above. Accordingly, special attention must be paid because the explosion force of liquefied butane gas expanded by heat corresponds to an explosion which may kill or injure people around 10 m or more. One of the causes of the generation of most accidents attributable to the explosion of the disposable gas can may include the use of an excessive hot grill. If a hot grill or a frying pan is placed higher than the top of a gas can reception unit in which the disposable gas can is received, the upper side of the disposable gas can is overheated by heat from the excessive hot grill or the heat is transferred to the disposable gas can through a boundary surface on the burner unit side of a housing and the gas can reception unit. Accordingly, there is a problem in that an accident in which the gas can explodes because pressure within the gas can is increased due to the overheating of the gas can.

SUMMARY OF THE INVENTION

[0004] Accordingly, the present invention has been

made keeping in mind the above problems occurring in the conventional art, and an object of the present invention is to provide a portable gas stove equipped with a dual-layered cover, which is capable of preventing the upper side of a gas can from being overheated by heat from an excessive hot grill when the excessive hot grill is used in the portable gas stove.

[0005] Another object of the present invention is to provide a portable gas stove equipped with a dual-layered cover, which is capable of preventing a gas can from being overheated because heat from an excessive hot grill is transferred to the gas can through a burner unit and a boundary surface between the burner unit and a gas can reception unit when the excessive hot grill is used in the portable gas stove.

[0006] In accordance with an aspect of the present invention, there is provided a portable gas stove equipped with a dual-layered cover, including a gas can reception unit configured to include the dual-layered cover having a top surface portion formed of a dual layer in such a way as to be open or closed and to have a gas can attached to or detached from the gas can reception unit and a burner unit configured to be ignited by fuel supplied by the gas can mounted on the gas can reception unit. One side of the dual layer which comes into contact with the burner unit is sealed, and one or more first through holes are formed on the other side of the dual layer so that heat within the dual layer is discharged to the first through holes.

[0007] The burner unit includes a partition formed in a face coming into contact with the gas can reception unit and one or more second through holes perforated and formed in the remaining faces other than the face coming into contact with the gas can reception unit.

[0008] The dual-layered cover further includes one or more second through holes formed in a side portion hinged with the gas can reception unit.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The above and other objects, features and advantages of the present invention will be more clearly understood from the following detailed description taken in conjunction with the accompanying drawings, in which:

FIG. 1 shows an example in which an excessive hot grill is used in an existing portable gas stove;

FIG. 2 is a cross-sectional view showing the moving route of radiation heat in the dual-layered cover of a gas can reception unit according to an embodiment of the present invention;

FIG. 3 is a perspective view of the dual-layered cover of the gas can reception unit according to an embodiment of the present invention;

FIG. 4 shows the state in which the dual-layered cover is open in a perspective view of a portable gas stove equipped with the dual-layered cover according to an embodiment of the present invention;

FIG. 5 shows the state in which the dual-layered cover is closed in a perspective view of a portable gas stove equipped with the dual-layered cover according to an embodiment of the present invention; and FIG. 6 is a perspective view of the portable gas stove equipped with the dual-layered cover according to an embodiment of the present invention, which is seen from the back.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0010] The merits and characteristics of the present invention and a method for achieving the merits and characteristics will become more apparent from embodiments described in detail later in conjunction with the accompanying drawings.

[0011] However, the present invention is not limited to the disclosed embodiments, but may be implemented in various different ways. The embodiments are provided to only complete the disclosure of the present invention and to allow those skilled in the art to understand the category of the present invention. The present invention is defined by the category of the claims. The same reference numbers will be used to refer to the same or similar parts throughout the drawings.

[0012] Hereinafter, a portable gas stove equipped with a dual-layered cover 110 according to embodiments of the present invention is described below with reference to the accompanying drawings.

[0013] FIG. 1 shows an example in which an excessive hot grill is used in an existing portable gas stove. When the excessive hot grill is used in the existing portable gas stove, the upper side of a gas can is overheated by heat from the excessive hot grill. Alternatively, the heat is transferred to the gas can through the burner unit 200 and a boundary surface between the burner unit 200 and a gas can reception unit 100, thereby overheating the gas can. Accordingly, pressure within the gas can may be increased, thus generating an accident in which the gas can explodes.

[0014] FIG. 2 is a cross-sectional view showing the moving route of radiation heat in the dual-layered cover 110 of the gas can reception unit according to an embodiment of the present invention. FIG. 3 is a perspective view of the dual-layered cover 110 of the gas can reception unit according to an embodiment of the present invention.

[0015] The portable gas stove equipped with the dual-layered cover 110 according to an embodiment of the present invention includes the gas can reception unit 100 and the burner unit 200.

[0016] In the gas can reception unit 100, the dual-layered cover 110 having a top surface portion formed of a dual layer 111 is installed in such a way as to be open and shut, and a gas can is attached to or detached from the gas can reception unit 100.

[0017] The burner unit 200 is supplied with fuel from the gas can mounted on the gas can reception unit 100

and ignited.

[0018] In this case, one side of the dual layer 111 which comes into contact with the burner unit 200 is sealed and one or more first through holes 115 are formed in the other side of the dual layer 111 so that heat within the dual layer 111 is discharged to the first through holes 115.

[0019] Accordingly, when an excessive hot grill is used in a portable gas stove, the upper side of a gas can can be prevented from being overheated by heat from the excessive hot grill.

[0020] FIG. 4 shows the state in which the dual-layered cover 110 is open in a perspective view of the portable gas stove equipped with the dual-layered cover 110 according to an embodiment of the present invention. FIG. 5 shows the state in which the dual-layered cover 110 is closed in a perspective view of the portable gas stove equipped with the dual-layered cover 110 according to an embodiment of the present invention. FIG. 6 is a perspective view of the portable gas stove equipped with the dual-layered cover 110 according to an embodiment of the present invention, which is seen from the back.

[0021] Furthermore, the burner unit 200 includes a partition 210 and a second through hole 215. The partition 210 is formed in a face coming into contact with the gas can reception unit 100. The partition 210 functions to block heat generated from the burner unit 200 from reaching the gas can reception unit 100. The one or more second through holes 215 are perforated and formed in the remaining faces other than the face coming into contact with the gas can reception unit 100. The second through hole 215 functions to externally discharge heat generated from the burner unit 200.

[0022] Furthermore, the dual-layered cover 110 further includes one or more second through holes 215 formed in a side portion hinged with the gas can reception unit 100.

[0023] Accordingly, when an excessive hot grill is used in a portable gas stove, the portable gas stove equipped with the dual-layered cover 110 can be provided, which can prevent a gas can from being overheated because heat is transferred to the gas can through the burner unit 200 and a boundary surface between the burner unit 200 and the gas can reception unit 100.

[0024] As described above, the present invention can provide the portable gas stove equipped with the dual-layered cover, which is capable of preventing the upper side of a gas can from being overheated by heat from an excessive hot grill when the excessive hot grill is used in the portable gas stove.

[0025] Furthermore, the present invention can provide the portable gas stove equipped with the dual-layered cover, which is capable of preventing a gas can from being overheated because heat is transferred to the gas can through the burner unit and a boundary surface between the burner unit and the gas can reception unit when an excessive hot grill is used in the portable gas stove.

[0026] Those skilled in the art to which the present invention pertains will understand that the present inven-

tion may be implemented in other detailed forms without changing the technical spirit or indispensable characteristics of the present invention. Accordingly, it will be understood that the aforementioned embodiments are illustrative and not limitative from all aspects. The scope of the present invention is defined by the appended claims rather than the detailed description, and the present invention should be construed as covering all modifications or variations derived from the meaning and scope of the appended claims and their equivalents.

Claims

1. A portable gas stove equipped with a dual-layered cover (110), comprising:

a gas can reception unit (100) configured to comprise the dual-layered cover (110) having a top surface portion formed of a dual layer (111) in such a way as to be open or closed and to have a gas can attached to or detached from the gas can reception unit (100); and a burner unit (200) configured to be ignited by fuel supplied by the gas can mounted on the gas can reception unit (100), wherein a first side of the dual layer (111) which comes into contact with the burner unit (200) is sealed, and one or more first through holes (115) are formed on a second side of the dual layer (111) so that heat within the dual layer (111) is discharged to the first through holes (115).

2. The portable gas stove of claim 1, wherein the burner unit (200) comprises:

a partition (210) formed in a face coming into contact with the gas can reception unit (100); and one or more second through holes (215) perforated and formed in remaining faces other than the face coming into contact with the gas can reception unit (100).

3. The portable gas stove of claim 1, wherein the dual-layered cover (110) further comprises one or more second through holes 215 formed in a side portion hinged with the gas can reception unit (100).

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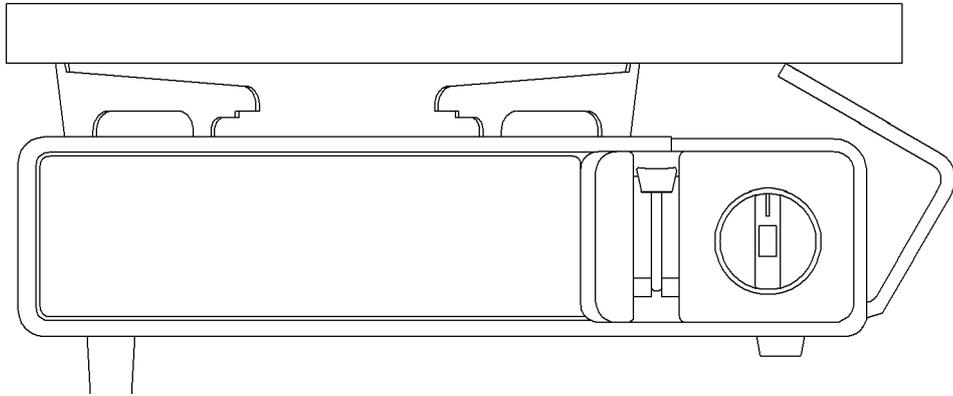


FIG. 1

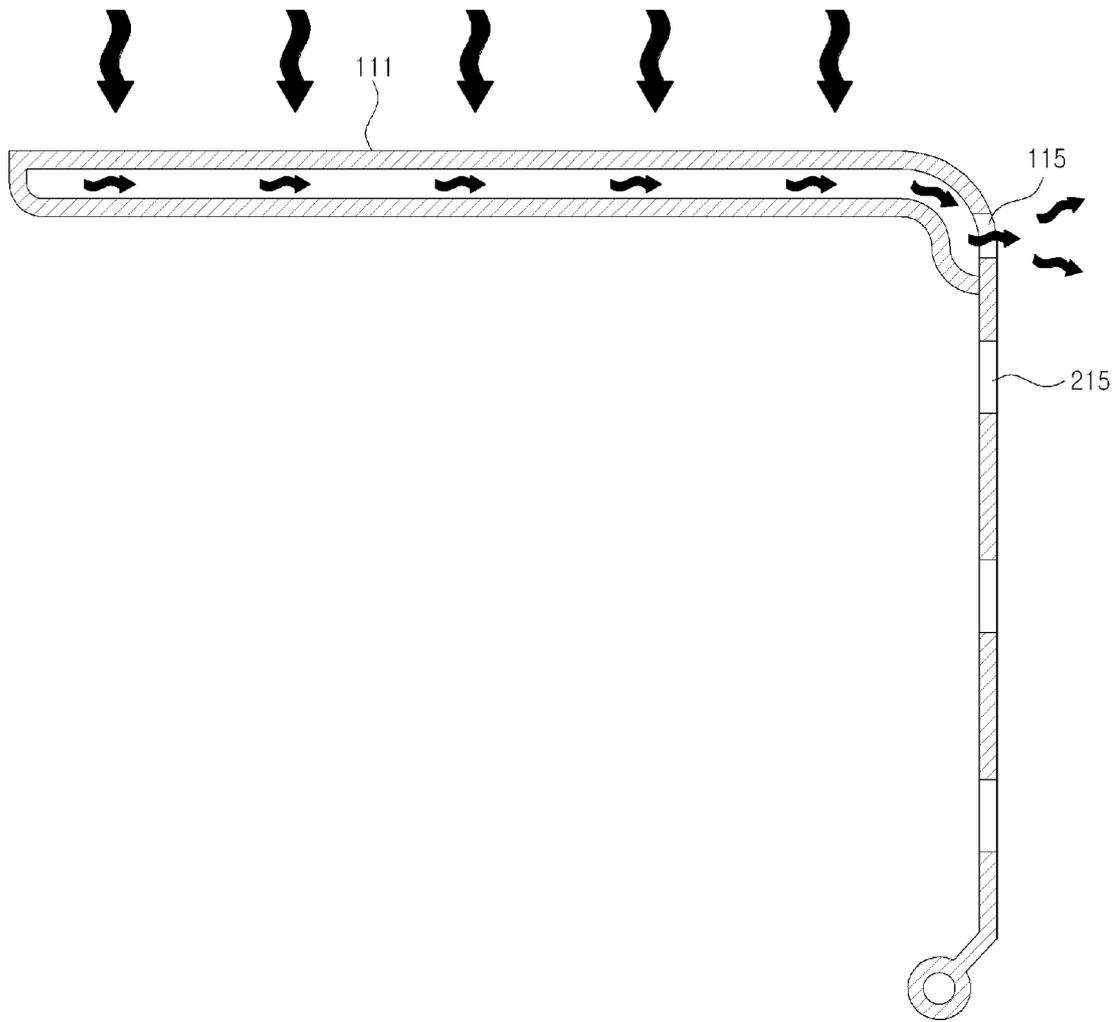


FIG. 2

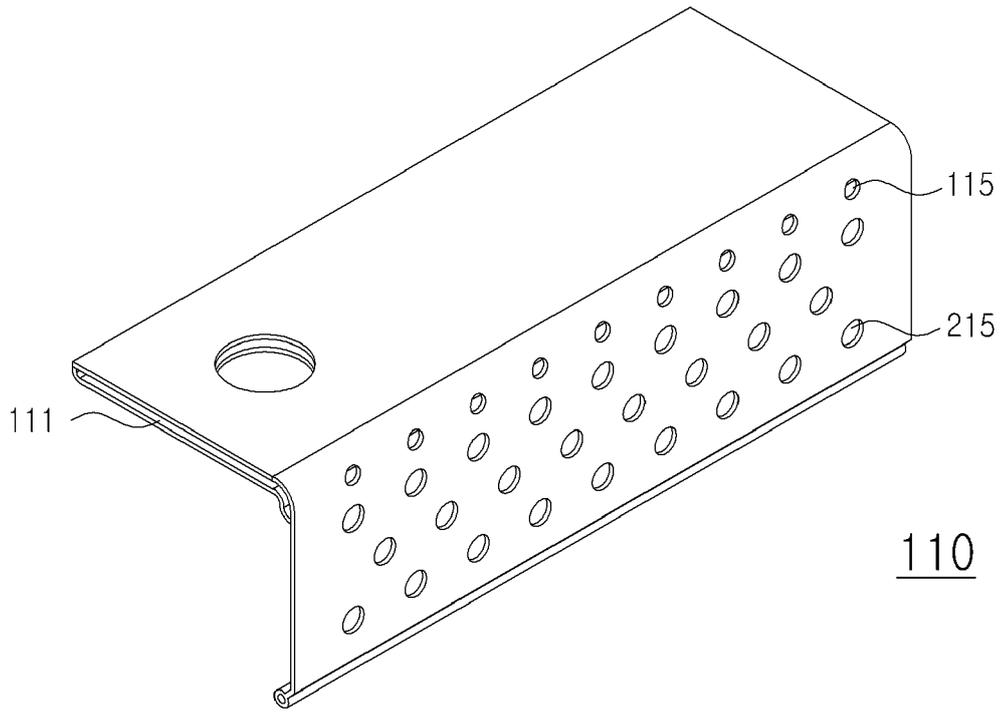


FIG. 3

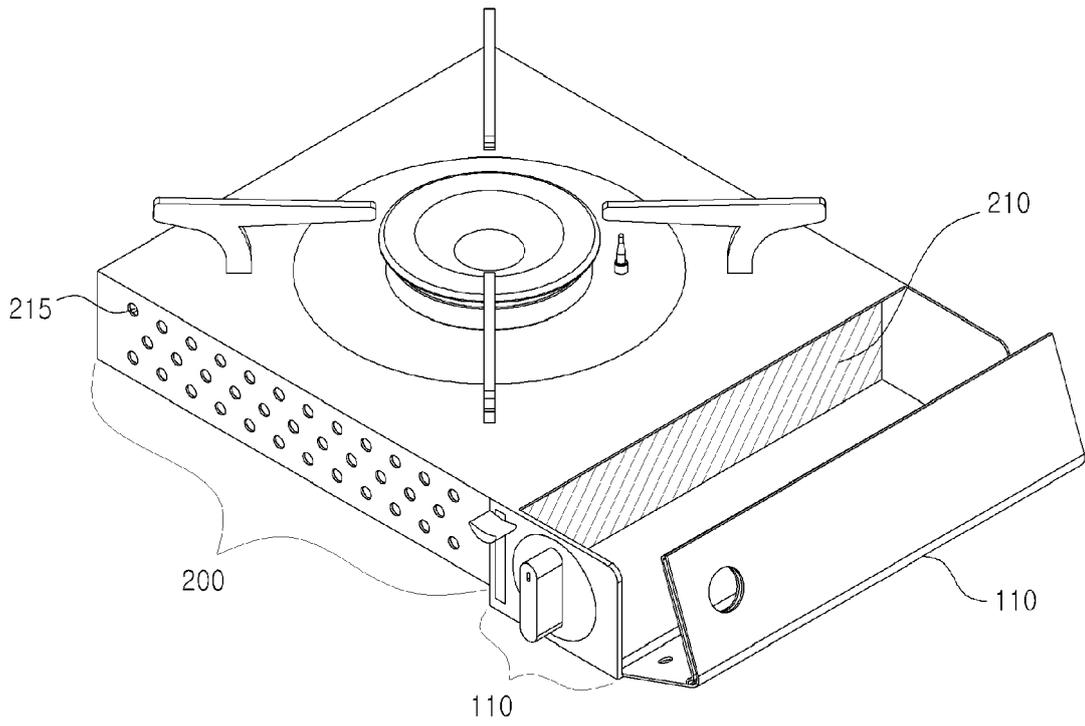


FIG. 4

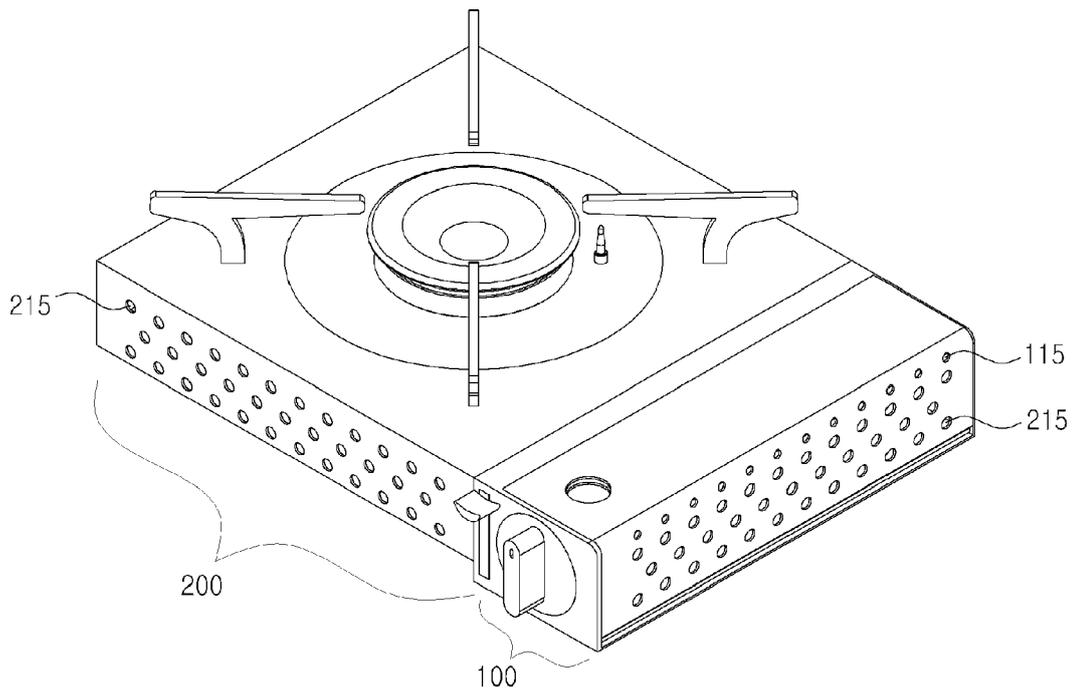


FIG. 5

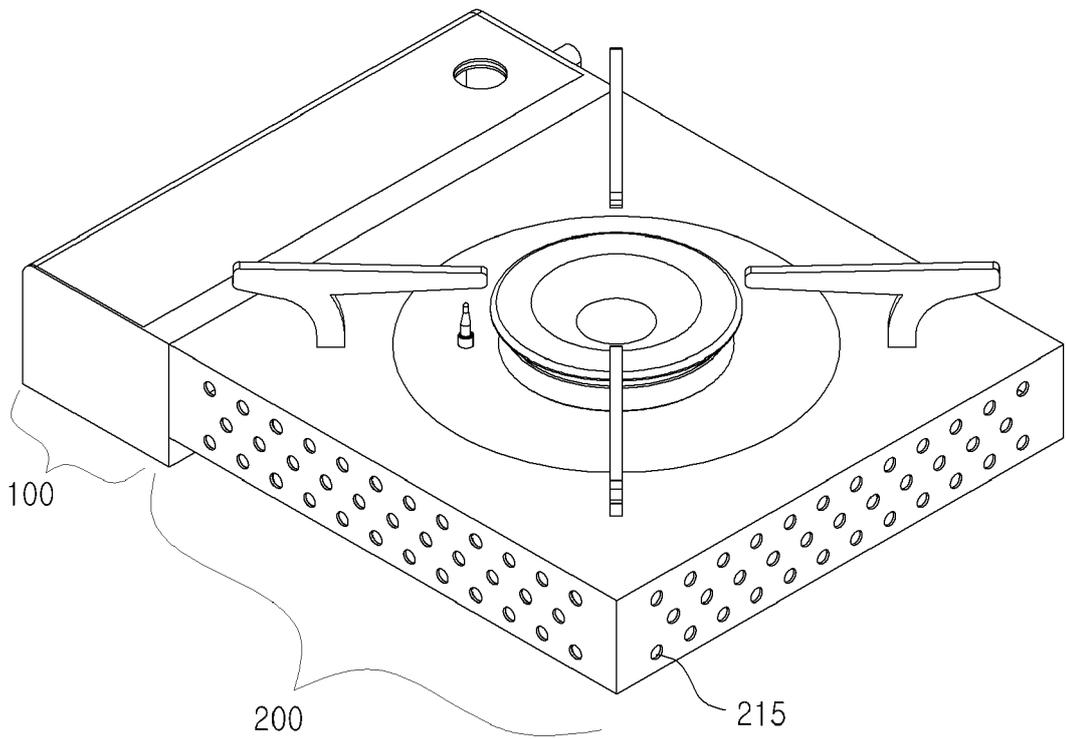


FIG. 6



EUROPEAN SEARCH REPORT

Application Number
EP 15 19 7352

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP H11 351575 A (ASAHI TECHNOS KK) 24 December 1999 (1999-12-24) * figures 1, 5, 6 * * paragraph [0001] * * paragraph [0003] * * paragraph [0007] * * paragraph [0012] * * paragraph [0017] * * paragraph [0019] * * paragraph [0020] * * paragraph [0023] *	1-3	INV. F24C3/14
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A	CN 204 084 493 U (DONGGUAN LONGYI HARDWARE TECHNOLOGY CO LTD) 7 January 2015 (2015-01-07) * abstract * * figure 1 *	1-3	TECHNICAL FIELDS SEARCHED (IPC) F24C A47J
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 January 2016	Examiner Jalal, Rashwan
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82