

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RJ Brands, LLC, d/b/a CHEFMAN,
Petitioner

v.

SharkNinja Operating LLC,
Patent Owner

Case IPR2025-01530
U.S. Patent No. 11,672,377

**Petition for *Inter Partes* Review of
U.S. Patent No. 11,672,377**

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PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 11,672,377 (“the ’377 Patent”)
1002	Expert Declaration of David Smith (“Smith Declaration”)
1003	<i>Curriculum Vitae</i> of David Smith
1004	File History of U.S. Patent Application 17/837,768 that issued as the ’377 Patent
1005	U.S. Provisional Application No. 62/874,193 (“the ’193 Provisional”), filed July 15, 2019
1006	<i>SharkNinja Operating LLC v. RJ Brands, LLC</i> , No. 1:24-cv-08984-CPO-MJS, Dkt No. 1 (DNJ, Sept. 5, 2024)
1007	<i>SharkNinja Operating LLC v. RJ Brands, LLC</i> , No. 1:24-cv-08984-CPO-MJS, Dkt No. 4 (DNJ, Sept. 5, 2024)
1008	PCT Publication No. WO2021011642A1 (“the ’642 PCT”)
1009	<i>SharkNinja Operating LLC v. RJ Brands, LLC</i> , No. 1:24-cv-08984-CPO-MJS, Dkt No. 49DNJ, Sept. 5, 2024)
1010	Chinese Utility Model Patent No. CN110664270A (“Zhang”) with Certified English Translation
1011	Chinese Utility Model Patent No. CN210354396U (“Guo”) with Certified English Translation
1012	PCT Publication No. WO2018095949A1 (“Philips”)
1013	US Publication No. 2017/0231430A1 (“Moon”)
1014	PCT Publication No. WO2019068193A1 (“Conrad”)
1015	U.S. Patent No. 7,708,008 (“Elkasevic”)

LISTING OF CHALLENGED CLAIMS

Claim 1	
1[pre]	A cooking system comprising:
1[a]	a housing having a first internal compartment and a second internal compartment,
1[b]	the first internal compartment and the second internal compartment being separated by a dividing wall extending upward from a base of the housing;
1[c]	a first cooking container defining a first cooking volume, said first cooking container being removably receivable within said first internal compartment to completely close off an opening to said first internal compartment when fully inserted therein, and
1[d]	a second cooking container defining a second cooking volume, said second cooking container being removably receivable within said second internal compartment to completely close off an opening to said second internal compartment when fully inserted therein;
1[e]	a first heating element and a second heating element disposed in said housing, said first heating element being in thermal communication with said first cooking volume and said second heating element being in thermal communication with said second cooking volume,
1[f]	the first and second heating elements being independently operable to independently cook food contained within the first and second cooking containers; and
1[g]	a first fan and a second fan disposed in said housing,
1[h]	said first fan being in fluid communication with said first cooking volume and said second fan being in fluid communication with said second cooking volume.
Claim 2	
2[pre]	The cooking system of claim 1,
2[a]	wherein said first cooking container and said second cooking container are individually insertable into said first internal compartment and said second internal compartment respectively.
Claim 3	
3[pre]	3. The cooking system of claim 1,
3[a]	wherein said first internal compartment and said second internal compartment are fluidly separate.
Claim 4	

4[pre]	The cooking system of claim 1,
4[a]	wherein said first fan is stacked vertically relative to said first heating element within said housing and
4[b]	said second fan is stacked vertically relative to said second heating element within said housing.
Claim 7	
7[pre]	The cooking system of claim 1,
7[a]	wherein said first cooking container includes a first handle and said second cooking container includes a second handle.
Claim 8	
8[pre]	The cooking system of claim 1, further comprising
8[a]	a motor operably coupled to each of said first fan and said second fan.
Claim 9	
9[pre]	The cooking system of claim 8,
9[a]	wherein said motor is located externally from said first internal compartment and said second internal compartment.
Claim 10	
10[pre]	The cooking system of claim 8,
10[a]	wherein said motor is positioned between said first internal compartment and said second internal compartment.
Claim 11	
11[pre]	The cooking system of claim 1,
11[a]	wherein the housing has a first opening extending into the first internal compartment and a second opening extending into the second internal compartment, and
11[b]	wherein said first cooking container is removably receivable within said first internal compartment to seal the first opening to said first internal compartment when inserted therein, and
11[c]	wherein said second cooking container is removably receivable within said second internal compartment to seal the second opening to said second internal compartment when inserted therein.
Claim 12	
12[pre]	A cooking system, comprising:
12[a]	a housing
12[b]	having a first internal cooking compartment with a first cooking container removably disposed therein and
12[c]	a second internal compartment with a second cooking container removably disposed therein,

12[d]	the first internal compartment including a first heating assembly comprising a first fan and a first heating element configured to cook food disposed in the first cooking container, and
12[e]	the second internal cooking compartment including a second heating assembly comprising a second fan and a second heating element configured to cook food disposed in the second cooking container,
12[f]	the first and second heating assemblies being independently operable to independently cook food contained within the first and second cooking containers, and
12[g]	the first and second heating assemblies being programmable to simultaneously cook food in separate cooking modes,
12[h]	wherein the first and second internal cooking compartments are separated by a dividing wall extending upward from a base of the housing,
12[i]	wherein the first and second cooking containers are horizontally coplanar when disposed in the first and second internal cooking compartments respectively.
Claim 13	
13[pre]	The cooking system of claim 12,
13[a]	wherein the first cooking container includes a first external handle attached thereto and the second cooking container includes a second external handle attached thereto.
Claim 14	
14[pre]	The cooking system of claim 12,
14[a]	wherein the first internal cooking compartment and the second internal cooking compartment are independently operable to cook food using at least one of conduction, convection, radiation, and induction.
Claim 15	
15[pre]	The cooking system of claim 12, further comprising
15[a]	a control system configured to operate the first and second cooking assemblies,
15[b]	the control system being configured to receive inputs corresponding to at least one of a temperature, a cook time, and a food type.
Claim 16	
16[pre]	The cooking system of claim 12, further comprising
16[a]	a motor operably coupled to each of the first and second fans, the motor configured to operate the first and second fans at the same speed or at different speeds.

Claim 17	
17[pre]	The cooking system of claim 12,
17[a]	wherein the housing has a first opening extending into the first internal compartment and a second opening extending into the second internal compartment, and
17[b]	wherein said first cooking container is removably receivable within said first internal compartment to seal the first opening to said first internal compartment when inserted therein, and
17[c]	wherein said second cooking container is removably receivable within said second internal compartment to seal the second opening to said second internal compartment when inserted therein.
Claim 18	
18[pre]	A cooking system, comprising:
18[a]	a housing having first and second internal independently removable cooking containers disposed therein,
18[b]	the first and second cooking containers being separated from each other by a dividing wall extending upward from a base of the housing,
18[c]	each of the first and second cooking containers defining a cooking volume therein,
18[d]	the first and second cooking containers being configured to engage with first and second respective channels inside the housing to define first and second respective air ducts therein, and
18[e]	first and second heating elements disposed in the housing adjacent the cooking volume of the first and second cooking containers, respectively, the first and second heating elements being independently operable; and
18[f]	first and second fans disposed in the housing adjacent the first and second heating elements, respectively,
18[g]	the first and second fans being independently operable, and
18[h]	the first and second fans being configured to circulate air through the first and second cooking volumes, respectively.
Claim 19	
19[pre]	The cooking system of claim 18, further comprising
19[a]	a control system configured to operate cooking processes of food contained in the first and second cooking containers.
Claim 20	
20[pre]	The cooking system of claim 19,

20[a]	wherein the control system is configured to independently operate the first and second heating elements and
20[b]	the first and second fans.
Claim 21	
21[pre]	The cooking system of claim 19,
21[a]	wherein the control system is configured to receive inputs corresponding to at least one of a temperature, a cook time, and a food type.
Claim 22	
22[pre]	The cooking system of claim 19,
22[a]	wherein the control system is configured to adjust cooking parameters based on sensed data without user input.

I. INTRODUCTION

Petitioner RJ Brands, LLC (“Petitioner”) request *inter partes* review of claims 1-4 and 7-22 of U.S. Patent No. 11,672,377 (“the ’377 patent”) assigned to Patent Owner SharkNinja Operating LLC (“Patent Owner”). The ’377 patent is directed to a dual air fryer and claims straightforward layout parameters placing two cooking chambers side-by-side with a divider. None of the layout parameters contribute any inventive feature over the well-known in the art before the earliest priority date of the ’377 Patent.

II. REQUIREMENTS UNDER 37 C.F.R. § 42.104

A. Grounds for Standing (37 C.F.R. § 42.104(a))

Petitioner certifies that the ’377 Patent is eligible for IPR.

B. Identification of Challenge (37 C.F.R. § 42.104(b))

Pursuant to 37 C.F.R. §42.104(b), Petitioner requests the Challenged Claims be found unpatentable on the following grounds.

Ground	Basis	Reference(s)	Claims	Exhibits
1	103(a)	Guo	1-4, 7-10, and 18	1011
2	103(a)	Guo and Conrad	12-15 and 19-21	1011 & 1014
3	103(a)	Philips	1-4, 8-10, and 18-22	1012
4	103(a)	Philips and Moon	7 and 11–17	1012 & 1013

**III. THE '377 PATENT IS NOT ENTITLED TO A JULY 15, 2019,
PRIORITY DATE**

A. Priority Claim

The '377 Patent was filed on June 10, 2022 as a continuation application of U.S. Patent Application No. 17/219,238, which is a continuation application of U.S. Patent Application No. 17/159,414, which was a national stage of PCT Application No. PCT/US2020/042120, filed on July 15, 2020, and published as PCT Publication No. WO2021011642A1 (“the '642 PCT”). As discussed below, 642 PCT added new matter that all claims of the '377 Patent rely upon. The '642 PCT claimed priority to U.S. Provisional Application No. 62/874,193 (“the '193 Provisional”), filed July 15, 2019. The '193 Provisional does not contain written description support for the challenged claims and therefore the '377 patent is not entitled to the July 15, 2019, priority date.

B. Specification of the '377 Patent

The '377 patent is directed to a cooking system having a housing with two internal compartments for receiving cooking containers. EX1001, 5:32-39. Each of the internal compartments has a heating element and fan. EX1001, 5:49-54. The '377 Patent provides that the “first internal compartment being fluidly separate from the second internal compartment.” EX1001, 5:20-22. The '377 Patent

achieves this separation by using a divider 130 as shown in FIGS. 14 and 15.

EX1001, 13:4-27.

C. Prosecution History

On July 15, 2020, Patent Owner added new disclosure, including new figures and new description, to the '193 Provisional upon filing the '642 PCT related to the divider wall. EX1008. The '193 Provisional was filed with FIGS. 1-12. EX1005. No discussion of the divider wall or its equivalent was mentioned prior to the '642 PCT filing on June 15, 2020. EX1002, ¶27. On July 15, 2020, FIGS. 13-15 were added along with the accompanying description for the divider. EX1008, ¶[0110].

The disclosure of the '193 Provisional does not disclose a divider wall. EX1002, ¶28. Upon filing, Patent Owner introduced the claims with the dividing wall. EX1004, pg.328. The only potential support for the amendment adding the “dividing wall” limitation is found in FIG. 14 and 15 and accompanying disclosure, all of which was added on July 15, 2020. EX1002, ¶28. During prosecution, Patent Owner amended claims 2, 11, and 14 to address claim informalities and added two new dependent claims. The remaining claims were granted without any amendments.

D. The '193 Provisional Does Not Contain Written Description Support for Divider Wall in the Challenged Claims

The '377 Patent claims priority to the '193 Provisional filed on July 15, 2019. However, “because the PTO does not examine priority claims unless necessary, the Board has no basis to presume” that claims are entitled to the alleged earliest priority date. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1380 (Fed. Cir. 2015). A patent is only entitled to claim the benefit of the filing date of an early provisional application if the disclosure of the provisional application provides support for the claims as granted in compliance with 35 U.S.C. § 112(a). *Id.* at 1381.

Moreover, a claim is not entitled to the priority date of an earlier application unless that earlier application describes the full scope of the later claimed subject matter sufficiently to meet the requirements of 35 U.S.C. § 112(a). *See Anascape, Ltd. v. Nintendo of Am. Inc.*, 601 F.3d 1333, 1337-39 (Fed. Cir. 2010). Here, as in *Anascape*, Patent Owner added disclosure in the '377 Patent that was not present in the '193 Provisional. As shown below, only the disclosure added on July 15, 2020, supports the divider wall limitation recited in the claims of the '377 Patent.

First, all challenged claims recite the “divider wall” limitation. EX1001. The specification of the '377 Patent uses the term “divider” and does not use the term “dividing wall.” EX1001, 13:4-27. Further, neither the terms “divider” or “dividing

wall” appear in the ’193 Provisional. The term “divider” was added in July of 2020 to the ’642 PCT. EX1008, ¶[0110]. The following paragraph, which accompanies newly added figures 13-15, shows the revisions made from the ’193 Provisional to the ’642 PCT:

With reference now to FIGS. 8-158-12, in an embodiment of the cooking system **20**, the housing **22** includes a plurality of internal compartments arranged within the interior of the housing **22**. For example, as best shown in FIGS. 8, 14, and 15, the housing **22** is illustrated as having a first internal compartment **28a** and a second internal compartment **28b**, separated from one another at least in part by a divider or wall 130. The divider 130 extends vertically from a base of the housing or liner 30 and forms a sidewall of a bottom portion of two adjacent internal compartments 28a, 28b. In an embodiment, the divider 130 extends to a lower edge of an upper portion of each internal compartment 28a, 28b, the upper portion of each internal compartment containing the respective heating element 70a, 70b, and air movement mechanism 76a, 76b associated therewith. As shown, the plurality of internal compartments **28a, 28b** (both the upper and lower portions) are fluidly separate from one another.

EX1002, ¶29; *compare* EX1008, ¶[0110] to EX1005, ¶[0101]. Subsequently, the

“dividing wall” limitation was added to the claims upon filing the ’377 Patent.

EX1004, 328. The only support in the ’377 Patent for the claim feature of a

“dividing wall” is the newly added disclosure to the ’642 PCT. EX1002, ¶29. This

newly added disclosure was not included in the ’193 Provisional. *Id.*; EX1005,

¶[0101].

Second, Patent Owner’s revisions from the provisional to the PCT refers to “FIGS. 8, 14 and 15” as shown above. EX1004, pg.323. Although FIG. 8 was included in the ’193 Provisional, Patent Owner did not label any feature in FIG. 8 (or any other figure) as a divider wall 130. EX1005, pgs.12-23. FIG. 8 of the ’193 Provisional, reproduced below, does not disclose a divider wall:

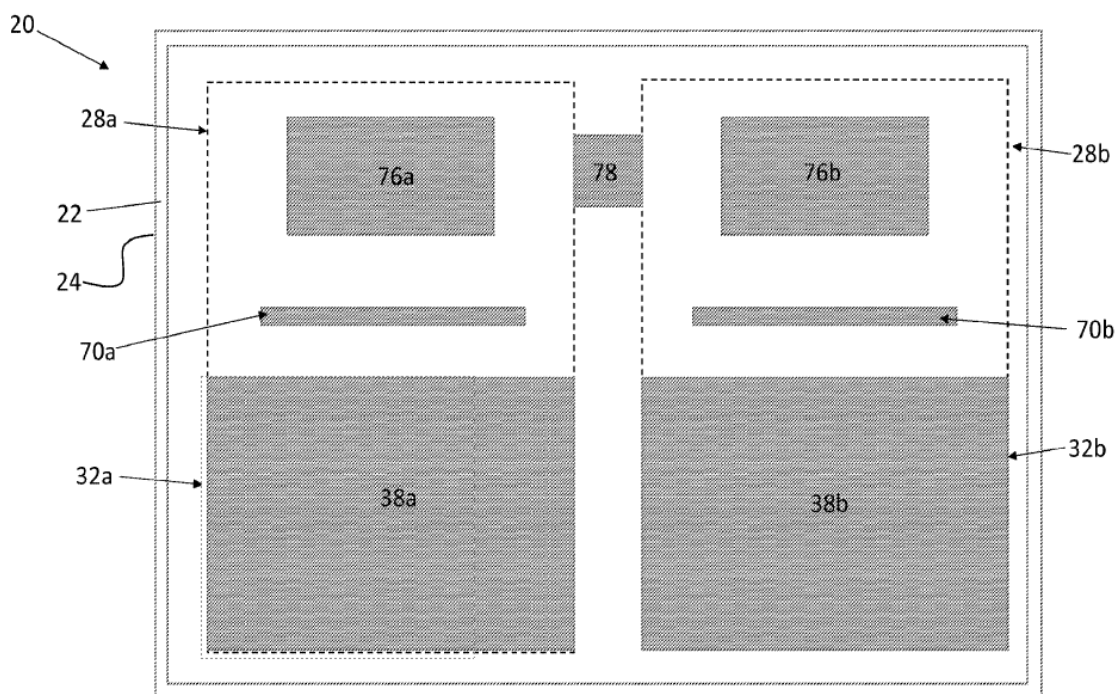
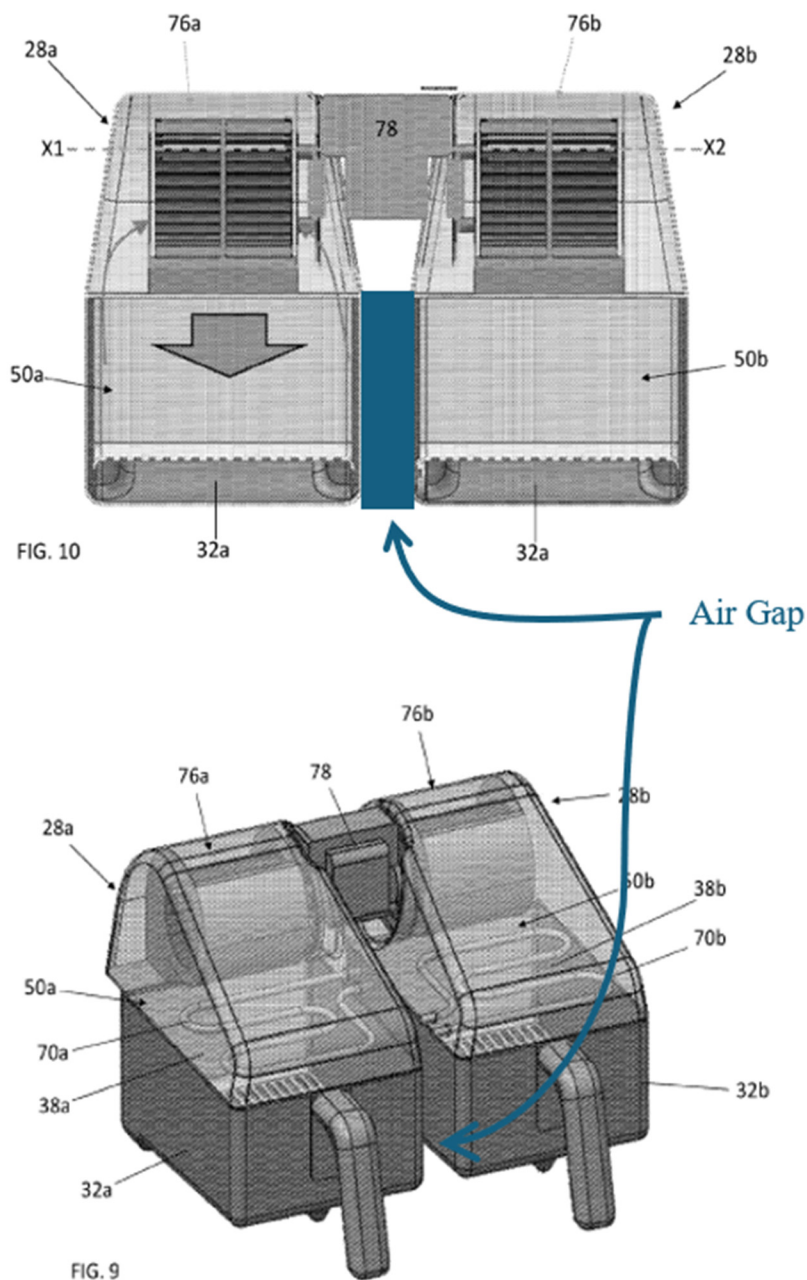


FIG. 8

EX1002, ¶30; EX1005, FIG. 8. Instead of showing or describing a divider wall 130, as Patent Owner did in the ’642 PCT, the ’193 provisional merely indicates that the “two internal compartments **28a**, **28b** are fluidly separate from one another.” EX1005, pg.45:¶[0101]. Not only does FIG. 8 of the ’193 Provisional lack a divider wall, FIG. 8 also lacks “a base of the housing or liner 30.” EX1002,

¶31. This is clear from FIGS. 9-11 of the Provisional, which are described as different views of FIG. 8. *Id.*; EX1005, pgs.36-37:¶¶[0075]-[0079]. For example, Figures 9-10, which are described as perspective views of Fig. 8, do not disclose a divider wall and instead show an air gap between the claimed compartments:



EX1002, ¶31; EX1005, Fig. 9-10. Patent Owner cannot infer the divider wall from an absence of disclosure from the '193 Provisional, when newly added FIGS. 14 and 15, along with the newly provided disclosure are the only support for the claimed divider wall limitation. EX1002, ¶32. The '193 Provisional, which discloses a dual air-fryer separated by an air gap, is insufficient to provide support for at least the divider wall limitation in all challenged claims.

The only purported support for the divider wall was added on July 15, 2020, with the filing of the '642 PCT. EX1002, ¶33. Accordingly, the earliest priority date for the '377 Patent that should be used for evaluating the grounds is July 15, 2020.

IV. OVERVIEW OF THE PRIOR ART REFERENCES

A. Guo

Chinese Utility Model Patent No. CN110664270A, filed March 16, 2019, published on April 21, 2020, and lists Xin Guo as inventor (hereinafter “Guo”). EX1011. Guo is prior art under 35 U.S.C. § 102(a)(1) because the '377 Patent is not entitled to its provisional filing date as discussed in section III, above.

Guo discloses a multi-chamber food processor that in vertical (Fig. 1) or horizontal (Figs. 2-4) configuration. 36. Guo discloses its “main body 1 is provided with a plurality of installation chambers 10, a fryer assembly 2 is installed in each corresponding installation chamber 10.” EX1011, ¶[0026]. Each “fryer assembly 2

comprises a fryer 21, a fry basket (not shown in the figure) inside the fryer 21, and a handle 22 connected to the fryer 21. Fryer assembly 2 is horizontally inserted into the installation chamber 10 on the main body to achieve detachability of the fryer assembly 2.” EX1011, ¶[0027].

Above each fryer assembly 2 is “a fan assembly 4 that blows air to the heating devices 3, and each heating device 3 operates independently.” EX1011, ¶[0026].

A horizontal configuration shown in Fig. 4, reproduced below, including two fryer sub-assemblies (not labeled). EX1002, ¶38.

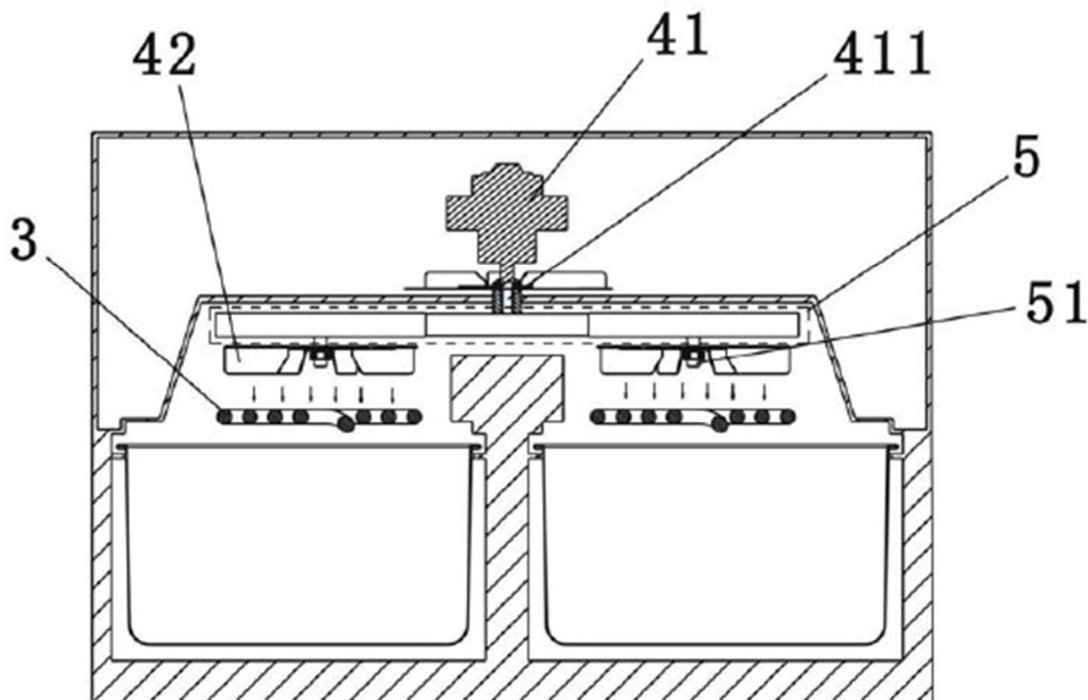


图4

EX1011, Fig. 4. In this embodiment,

the fan assembly comprises a motor 41, the end of the motor shaft 411 is installed with a transmission device 5 (shown by the dotted line in FIG. 4). The transmission device 5 has two output shafts 51, each output shaft 51 is installed with a circulating fan 42, and each circulating fan 42 is located at the air inlet of the air duct and above the heating device 3.

EX1011, ¶[0034].

Fig. 4, above, further shows that each of Guo's fryer subassemblies are located in a respective cavity, wherein each respective cavity is formed by the outer housing, and a dividing wall extending from the bottom of the housing (all shown integral cross-hatched). EX1011, Fig. 4. As Fig. 4 is a cross-sectional view, the interface between the outer housing and the outer portion of the fryer sub-assembly is not expressly shown. However, it is understood that this interface is the same as Fig. 1 (vertical configuration) because Guo indicates the differences are only in the horizontal configuration, and the blower assembly configuration.

EX1002, ¶40; EX1011, [0032], [0034] (describing differences between each embodiment of Guo).

B. Philips

International Publication WO2014/189185 A1 (hereinafter "Philips") published on May 31, 2018, is prior art under at least 35 U.S.C. § 102(a)(1).

EX1012.

Philips discloses a cooking appliance having two separate cooking compartments that can operate independently and simultaneously. Each compartment includes its own heating element and airflow path, enabling the preparation of different food items at the same time without flavor transfer.

EX1012, 3:10-25; 5:3-20.

The two compartments are physically separated by an internal divider, and each contains a respective fan for circulating heated air within that compartment. *Id.*, 6:5-15; 17, Fig. 2, Fig. 6. This separation allows isolation of airflow, reducing cross-contamination and maintaining optimal cooking conditions in each. *Id.*, 6:16-28.

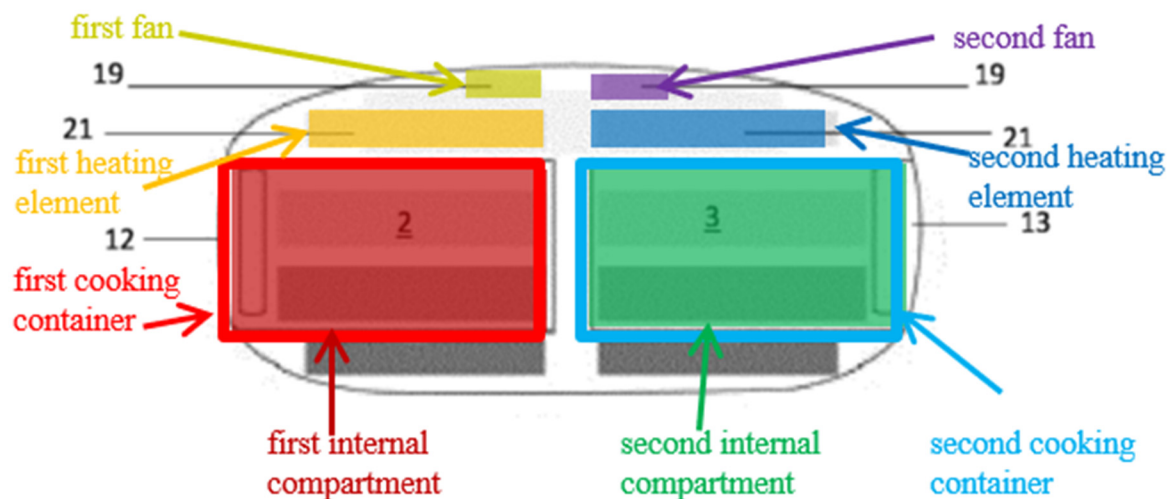


FIG. 6

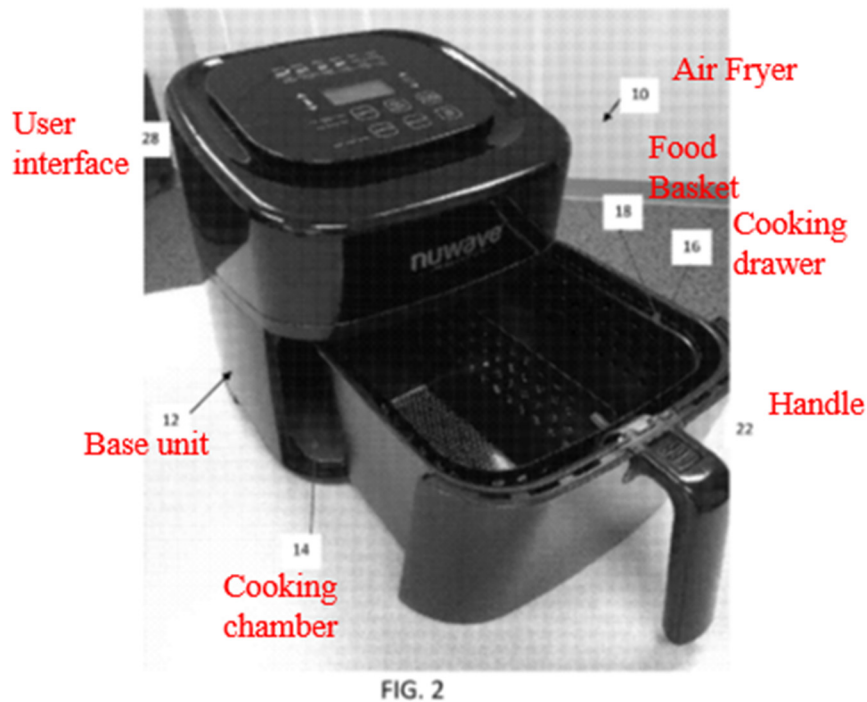
Philips, Fig. 6 annotated above, teaches that each compartment has independent control of cooking time and temperature, enabling different settings for different food types. EX1012, 4:12-30. Control may be achieved via separate

user interfaces for each compartment or through a single interface allowing toggling between compartments. *Id.*, 7:1-14.

C. Moon

United States Patent Application Publication No. US 2017/0231430 A1 by Moon (hereinafter “Moon”) published on August 17, 2017, and is prior art under 35 U.S.C. § 102(a)(1). EX1013. Moon was filed on February 13, 2017, and discloses an air fryer system comprising a base having a heating source and an air source located therein. EX1013, ¶[0009]. The fryer includes a cooking chamber defined within the base and a cooking drawer which fits securely within the chamber and substantially seals the chamber against heat loss during use. *Id.*, ¶[0009]; ¶[0038].

The cooking drawer, in the closed position, forms a continuous outer surface with the base, such that the cooking chamber is fully enclosed and heat is retained. EX1002, ¶47. When closed, the drawer is detected by a safety sensor that allows the heating source to operate; opening or improper positioning causes the controller to shut off heating. EX1013, ¶[0038]. The sealing and continuous-surface configuration ensures temperature consistency and energy efficiency by minimizing thermal leakage.



As shown in Moon’s Fig. 2 annotated above, Moon further describes a removable handled food basket positioned within the cooking drawer, which may include a divider, and openings on all surfaces for directing heated airflow. EX1013, ¶¶[0038]-[0039]. The bottom surface of the drawer includes a contour configured to direct air in a controlled flow pattern through the basket, contributing to even heating. *Id.*, ¶¶[0039]-[0040].

D. Conrad

International Publication WO2019/068193A1 (hereinafter “Conrad”), published on April 11, 2019, and is prior art under at least 35 U.S.C. § 102(a)(1). EX1014. Conrad is directed to a table-top kitchen device comprising a first and

second food preparation chamber. These chambers are physically separated from each other such that each chamber includes an autonomous cooking environment.

Conrad discloses an air fryer with dual cooking zones where “each ‘cooking zone’ is a distinct volumetric region within cooking chamber 104 that can be selectively subjected to different cooking conditions from the other cooking zone(s).” EX1014, ¶[00145]. Conrad teaches that within “each cooking zone 180, these cooking devices may be selectively activated and deactivated according to a cooking program (e.g. set temperature, humidity, convection speed) independently of the cooking devices in the other cooking zone 180.” EX1014, ¶[00149].

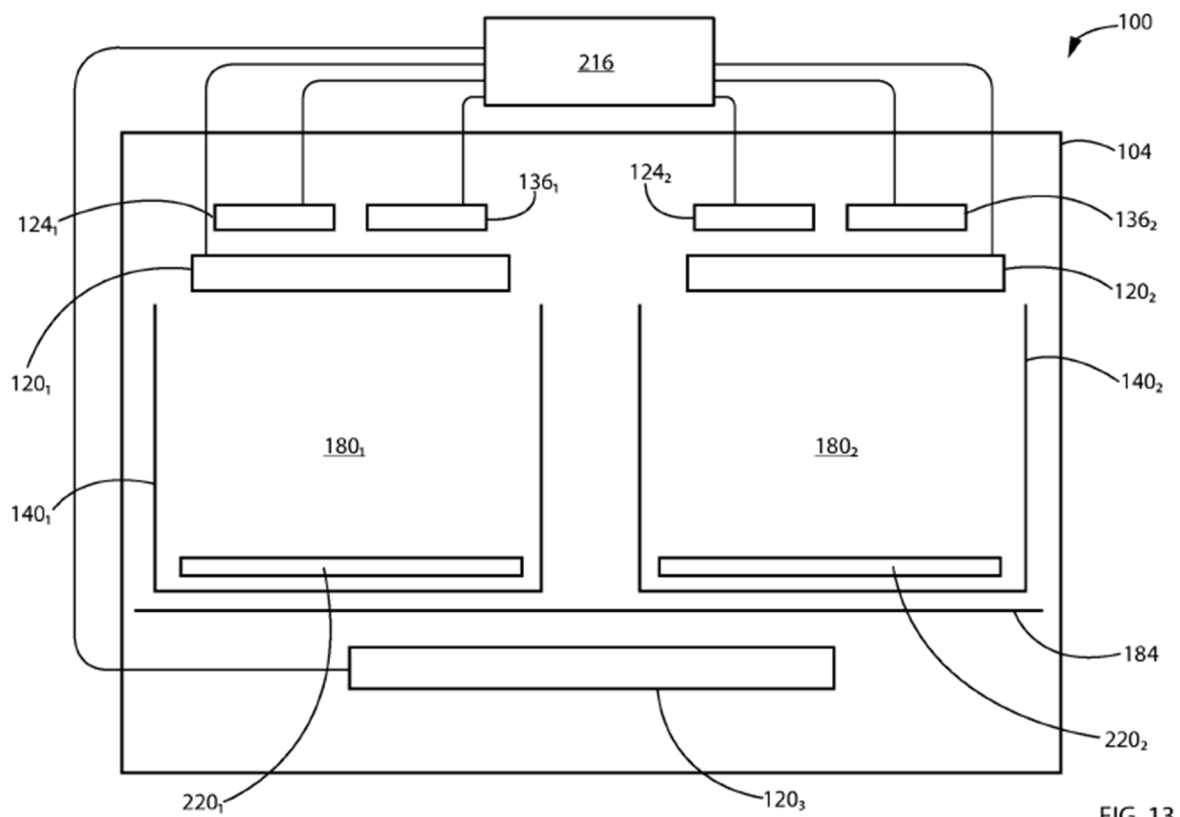


FIG. 13

Conrad's Fig. 13, reproduced above, includes: "controller 216 which is communicatively coupled to the cooking devices (e.g. heating elements 120, air movers, 124, and steam generators 136) associated with the plurality of cooking zones (e.g. first and second zones 180₁ and 180₂) defined within cooking chamber 104." The cooking program may be selected by a user. EX1014, ¶[00162].

Conrad's controller 216 produces "different cooking conditions (temperature, convective air speed, and/or humidity) in the two cooking zones 180." EX1014, ¶[00164]. Conrad teaches receiving inputs through the controller 216 to execute a cooking program, which may be "stored in memory within controller 216, and selected by the user." EX1014, ¶[00223].

V. LEVEL OF ORDINARY SKILL IN THE ART

A POSITA as of the earliest claimed priority date for the '377 Patent would have had at least a bachelor's degree in mechanical engineering, industrial design, product design, or electrical engineering (or an equivalent field) or at least two years of work experience involving research and development or new product development of cooking devices, electronic enclosures, or kitchen appliances. More education can supplement practical experience and vice versa.

VI. CLAIM CONSTRUCTION

The Board construes claims in accordance with *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). The Petition “need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). In this proceeding, Petitioners submit that no terms require express construction. To the extent further comments on claim terms are warranted, however, they are provided below in the relevant sections when addressing how the claims read on the prior art. Petitioner is also unaware of any “prior claim construction determination” related to the ’377 patent. *See* 37 C.F.R. § 42.100(b).

VII. GROUND 1: GUO RENDERS OBVIOUS CLAIMS 1-4, 7-10 AND 18

As discussed above, the ’377 Patent is not entitled to the priority date of the ‘193 Provisional at least because of the language “dividing wall”. As such, Guo renders obvious Claims 1-4, 7-10, 12-14, 16 and 18 of the ’377 Patent.

A. Claim 1¹

Claim 1[pre]

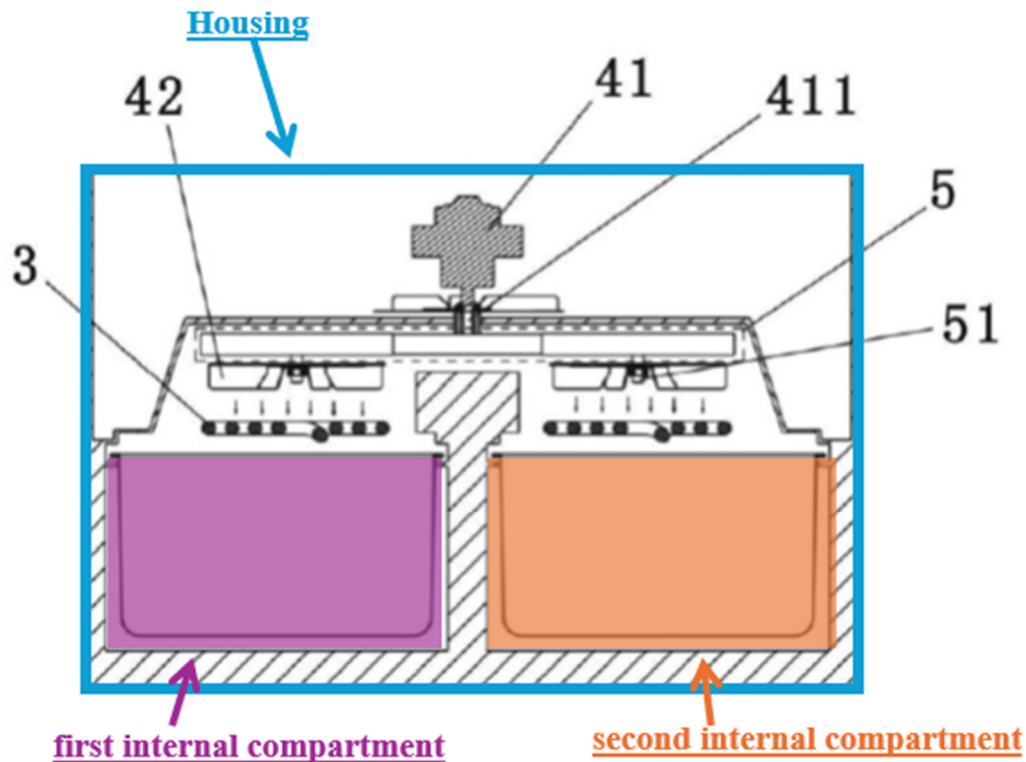
To the extent the preamble is limiting, Guo discloses a “a multi-chamber food processor that has multiple chambers to accommodate a plurality of fryer assemblies.” EX1011, ¶[0004]. Air fryers are a type of cooking system that would be within Claim 1. EX1002, ¶54.

Claim 1[a]

Guo discloses “a housing having a first internal compartment and a second internal compartment.” Guo explains “main body 1 is provided with a plurality of installation chambers 10”. EX1011, ¶[0026]. The installation chambers are the

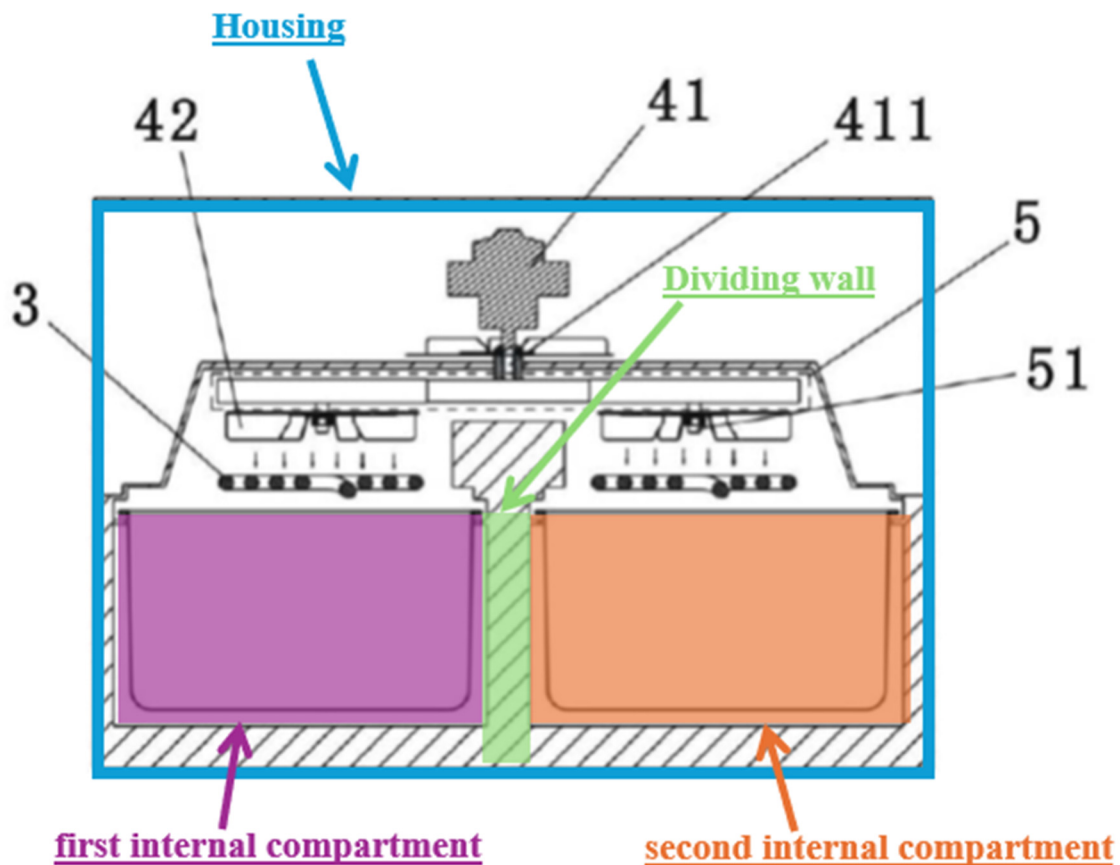
¹ Reference to the claim language in the subsections below is the same as in the chart of challenged claims above.

internal compartments. EX1002, ¶55.



Claim 1[b]

Guo discloses “the first internal compartment and the second internal compartment being separated by a dividing wall extending upward from a base of the housing.” Guo shows a divider wall between the two internal compartments in FIG. 4 to have independent cooking compartments. EX1011, ¶[0038]. A POSITA would understand that a divider wall is shown as an obvious separator for the internal compartments. EX1002, ¶56.

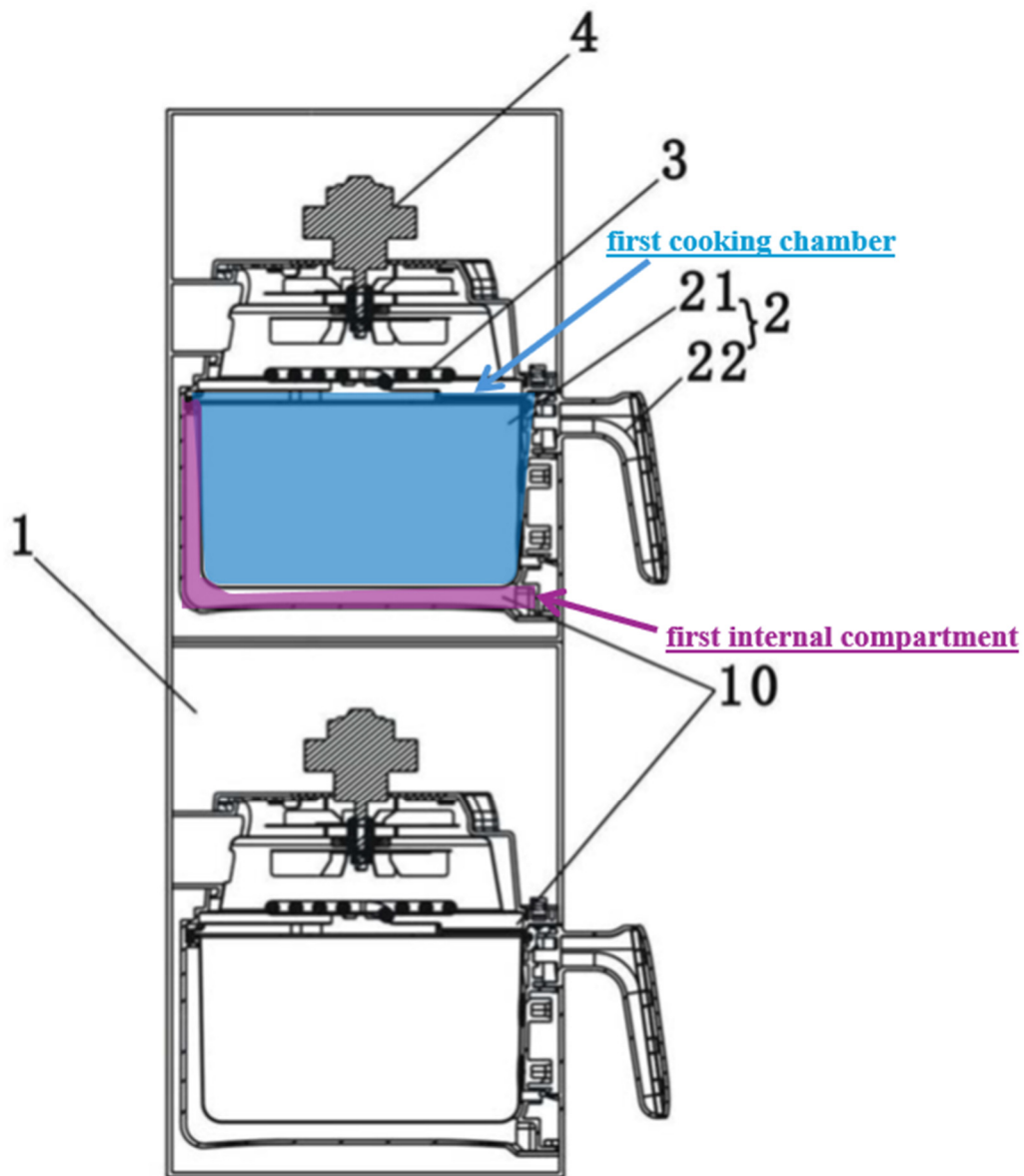


A POSITA would recognize this is as a divider wall based on Guo’s disclosed functions of operating the heating devices independently, as well as Guo’s teaching of the inhibition of “smell channeling”. EX1002, ¶57; EX1010, ¶[0017](“because each fryer component works separately, the problem of smell channeling does not occur in the process of making food.”) A POSITA would recognize that to prevent smell channeling, or the odors from foods cooking in each compartment intermingling, a divider wall that prevents airflow between each compartment is necessary. Moreover, Guo discloses that each fryer subassembly is

placed within an “installation cavity.” EX1010, ¶[0026]. A POSITA would recognize that in order to have multiple installation cavities, a wall has to separate the cavities to allow fryer assemblies to be placed and allow independent cooking. EX1002, ¶57.

Claim 1/c/

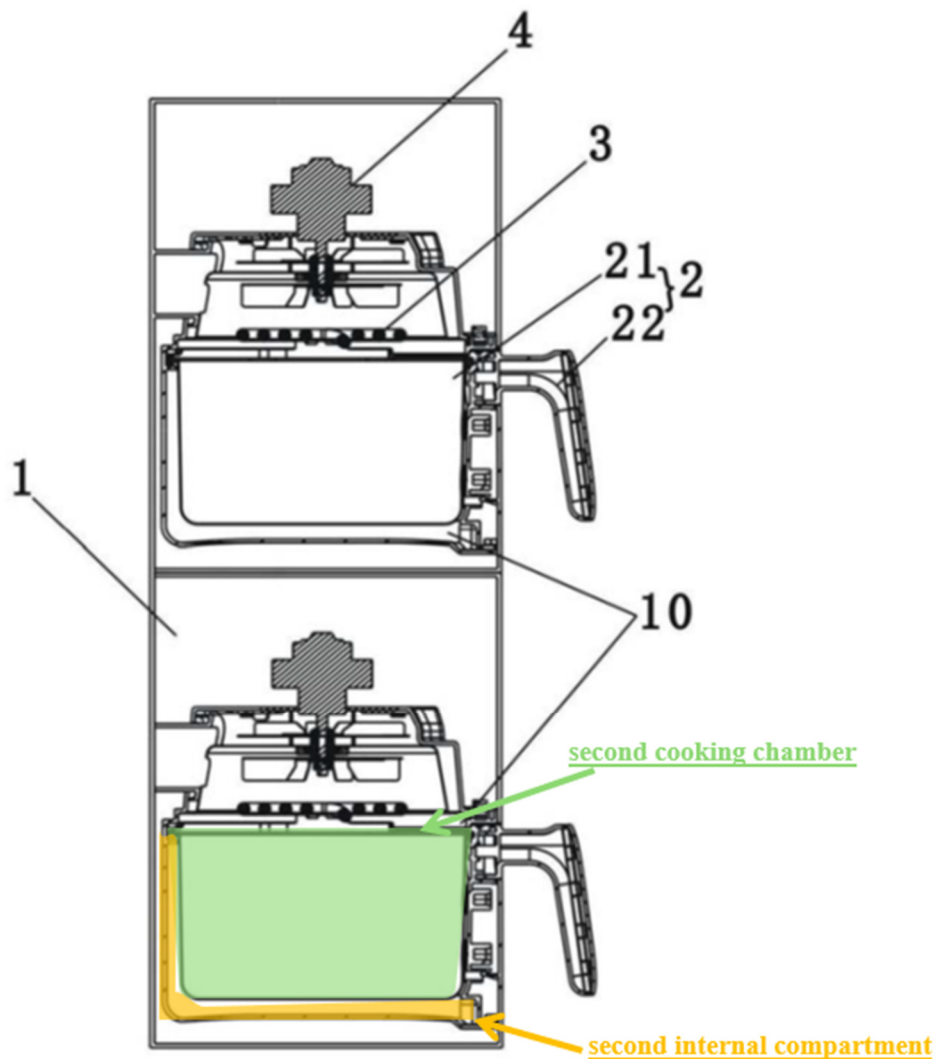
Guo discloses “a first cooking container defining a first cooking volume, said first cooking container being removably receivable within said first internal compartment to completely close off an opening to said first internal compartment when fully inserted therein.” Guo discloses the first internal compartment is capable of receiving the first cooking chamber. EX1011, ¶[0027] (“fryer assembly 2 is horizontally inserted into the installation chamber 10 on the main body to achieve detachability of the fryer assembly 2.”). Although the first cooking chamber has a handle 22 to insert the cooking chamber, the handle does not need to close off the compartment. EX1002, ¶58. A POSITA would understand that based on the figures that the first cooking chamber would completely close off an opening to the first cavity and has a cooking volume defined by the bottom and two sides. EX1002, ¶58-59.



Claim 1[d]

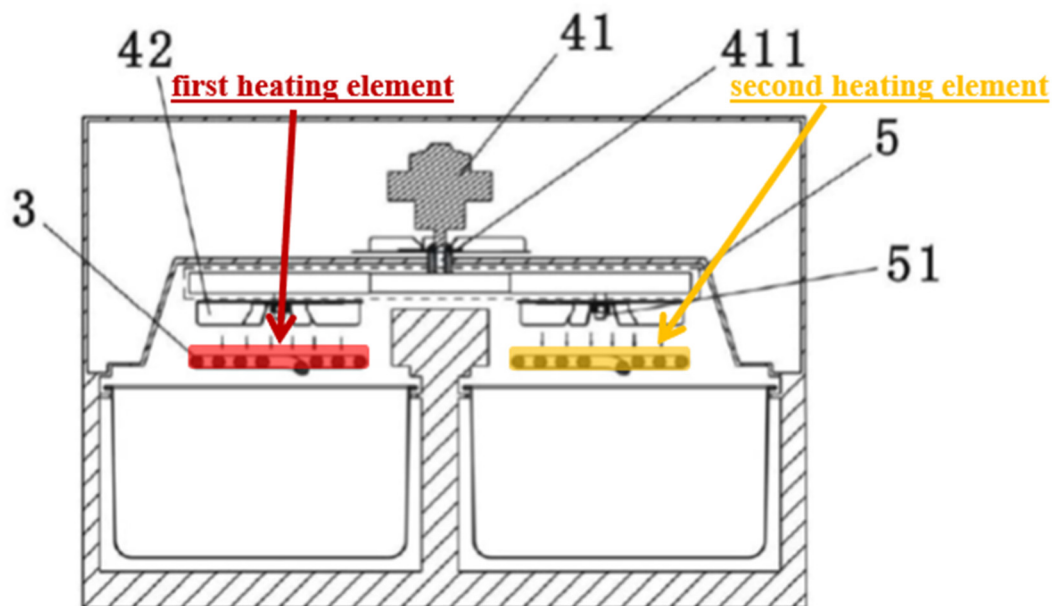
Guo discloses “a second cooking container defining a second cooking volume, said second cooking container being removably receivable within said second internal compartment to completely close off an opening to said second internal compartment when fully inserted therein.” Explained in 1[c], Guo provides

a plurality of chambers that are integrated on a main body and that the second internal compartment is capable of receiving the second cooking chamber. EX1011 ¶[0026]-[0027]. A POSITA would understand that based on the figures that there is shown a second cooking chamber that is receivable in the compartment to completely close off an opening. EX1002, ¶60-61.



Claim 1[e]

Guo discloses “a first heating element and a second heating element disposed in said housing, said first heating element being in thermal communication with said first cooking volume and said second heating element being in thermal communication with said second cooking volume.” Guo discloses that “each circulating fan 42 is located at the air inlet of the air duct and above the heating device 3.” EX1011, ¶[0034]. Moreover, in each embodiment, Guo discloses that each installation cavity has a “corresponding heating device.” EX1011, ¶[0026]. A POSITA would understand that each heating element is in thermal communication with each respective cooking chamber to independently cook the food. EX1002, ¶62.

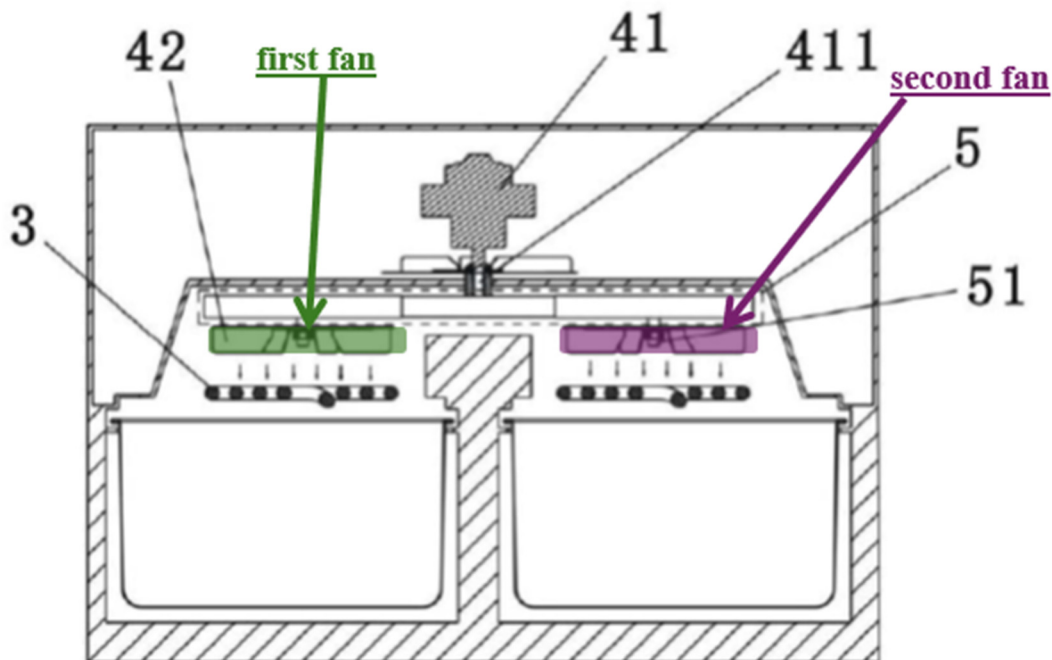


Claim 1[f]

Guo discloses “the first and second heating elements being independently operable to independently cook food contained within the first and second cooking containers.” Guo states “each heating device 3 operates independently.” EX1011, ¶[0026]; Claim 2. A POSITA would understand that operating a heating device independently would allow the user to cook different types of foods in each cooking chamber. EX1002, ¶63.

Claim 1[g]

Guo discloses “a first fan and a second fan disposed in said housing.” EX1011, ¶39. The fan assemblies 4 of Guo would move air over the heating elements and function as a first and second fan. EX1002, ¶64.



Claim 1[h]

Guo discloses “said first fan being in fluid communication with said first cooking volume and said second fan being in fluid communication with said second cooking volume.” EX1011, ¶[0034], [0040] (“making the circulating fans 42 to operate and blowing air to the heating device 3 for circulation”). A POSITA would understand each fan would be in fluid communication with the respective cooking volumes in order to cook the food. EX1002, ¶65.

Accordingly, Guo renders obvious claim 1 under 35 U.S.C. § 103(a). EX1002, ¶66.

B. Claim 2

Guo discloses claim 2, which recites “wherein said first cooking container and said second cooking container are individually insertable into said first cooking compartment and said second cooking compartment respectively.” Guo states each of its fryer assemblies (cooking containers) operate independently and can be inserted and removed, it would be expected that each cooking container may be individually insertable. EX1011, Abstract, ¶[0018], [0027]. EX1002, ¶68.

C. Claim 3

Guo discloses claim 3, which recites “wherein said first internal compartment and said second internal compartment are fluidly separate.” In FIG. 4, Guo shows a dividing wall between the compartment. EX1011, Fig. 4, ¶[0028].

Moreover, Guo states there is no “smell channeling” problem when the fryer components work independently. A POSITA would recognize that this dividing wall keeps the compartment fluidly separate and that the inhibition of smell channeling requires fluidly separate compartments. EX1002, ¶70.

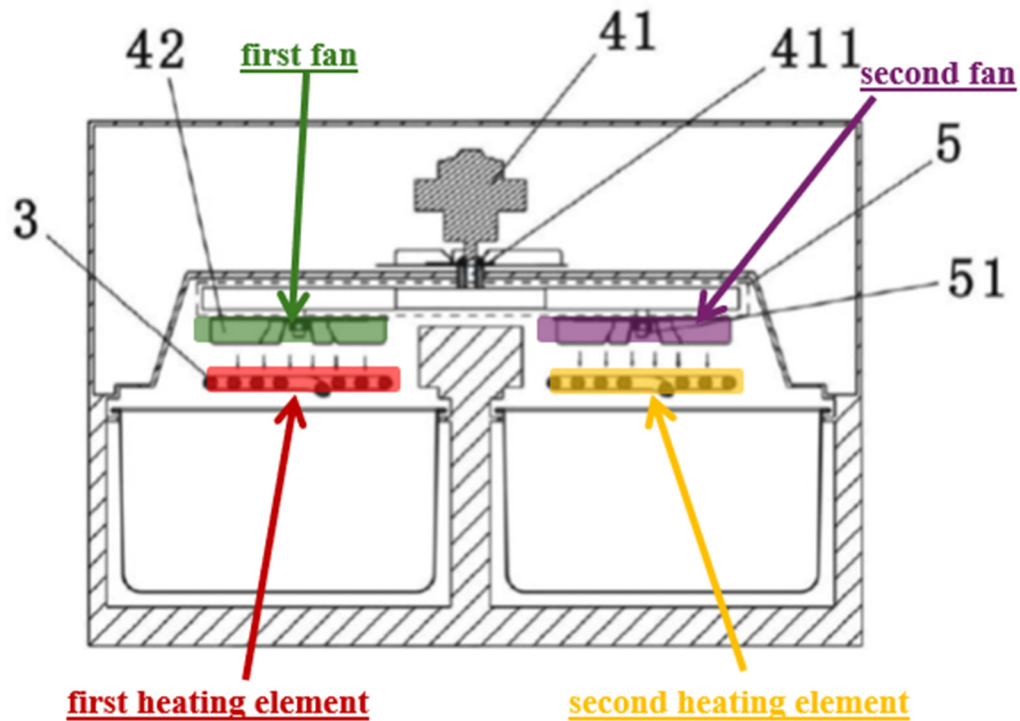
D. Claim 4

Claim 4[a]

Guo discloses “wherein said first fan is stacked vertically relative to said first heating element within said housing.” Guo shows that the air fan is position above the heating element in each of the figures. EX1011, Figs. 1-5, ¶[0026]. Based on the configuration shown in at least Figs. 1-5, a POSITA would see that the vertical stacking of the fan and heating element is taught by Guo. EX1002, ¶72.

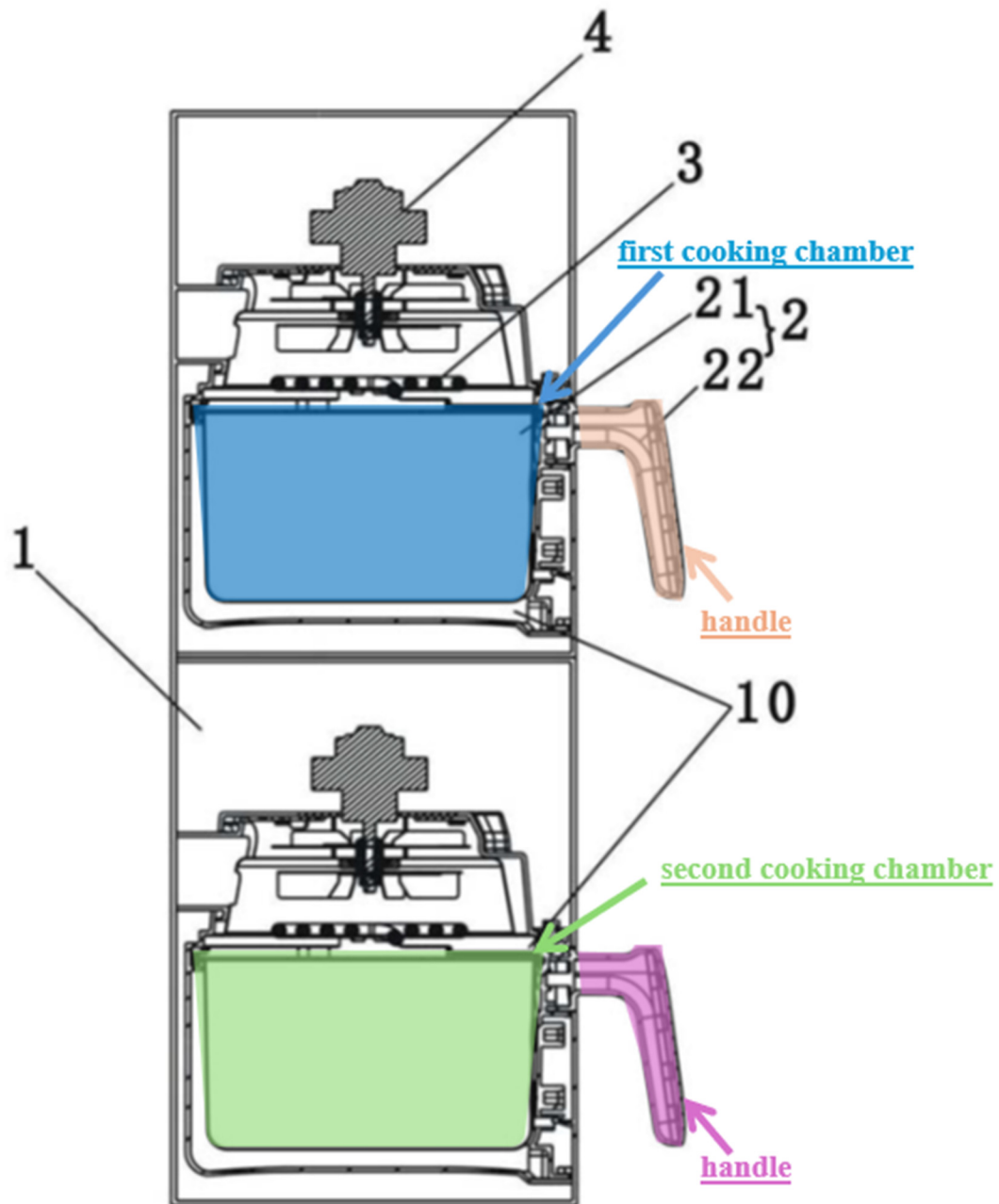
Claim 4[b]

Guo discloses “said second fan is stacked vertically relative to said second heating element within said housing.” Guo shows that the air fan is position above the heating element in each of the figures. EX1011, Figs. 1-5, ¶[0026]. Based on the configuration shown, a POSITA would see that the vertical stacking of the fan and heating element is taught by Guo. EX1002, ¶73.



E. Claim 7

Guo discloses claim 7, which recites “wherein said first cooking container includes a first handle and said second cooking container includes a second handle.” As shown in FIG. 1, a handle 22 is connected each cooking chamber. EX 1011, Fig. 1, ¶[0027]. Thus, Guo discloses this limitation. EX1002, ¶75-76.

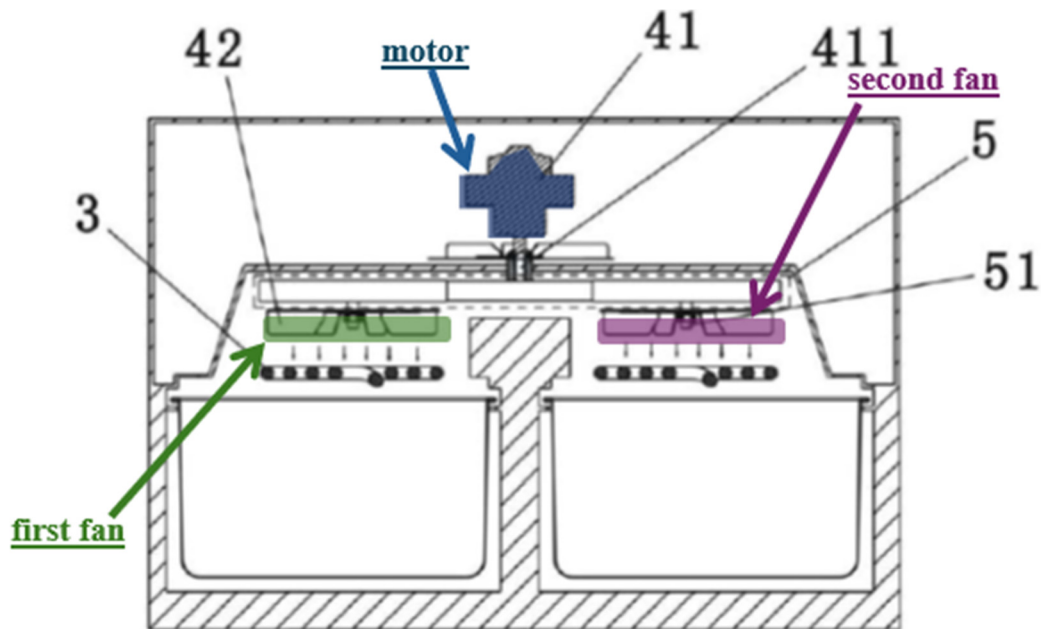


F. Claim 8

Guo discloses claim 8, which recites “a motor operably coupled to each of said first fan and said second fan.” EX1011, ¶[0034] (“motor 41 drives the transmission device 5 to operate, the transmission device 5 drives the two output

shafts 51 to rotate, thereby making the circulating fans 42 to operate and blowing air to the heating device 3 for circulation.”). Thus, Guo discloses this feature.

EX1002, ¶78.



G. Claim 9

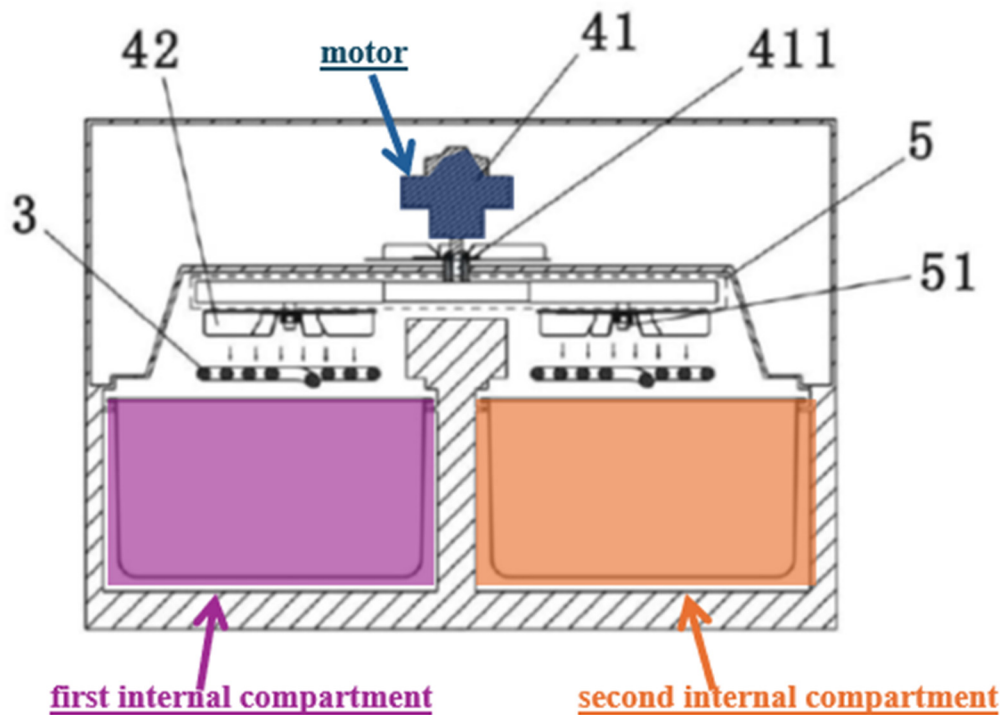
Guo discloses claim 9, which recites “wherein said motor is located externally from said first internal compartment and said second internal compartment.” This is shown in each of the figures and Guo discloses that the motor is external from the internal compartments. EX1002, ¶80. For example, Figure 1 and the Figure 4 above illustrates the motor above the compartment and the fryer assembly once assembled. A POSITA would recognize the motor needs to be external from the compartments to allow the containers to be removably receivable. *Id.*

H. Claim 10

Guo discloses claim 10, which recites “wherein said motor is positioned between said first internal compartment and said second internal compartment.”

Guo teaches that the same motor drives to fans through a transmission device.

EX1011, ¶¶[0034]-[0036]. Accordingly, Guo discloses that the motors is between the internal compartments. EX1002, ¶82.



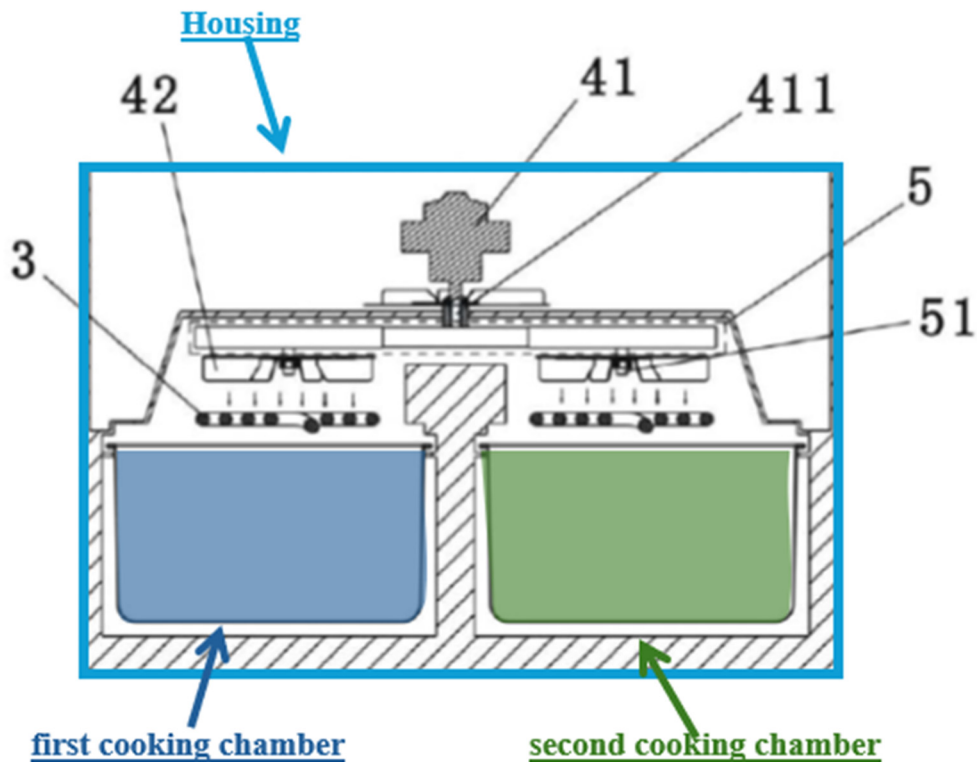
I. Claim 18

Claim 18[pre]

Same as 1[pre] in Ground 1. EX1002, ¶83.

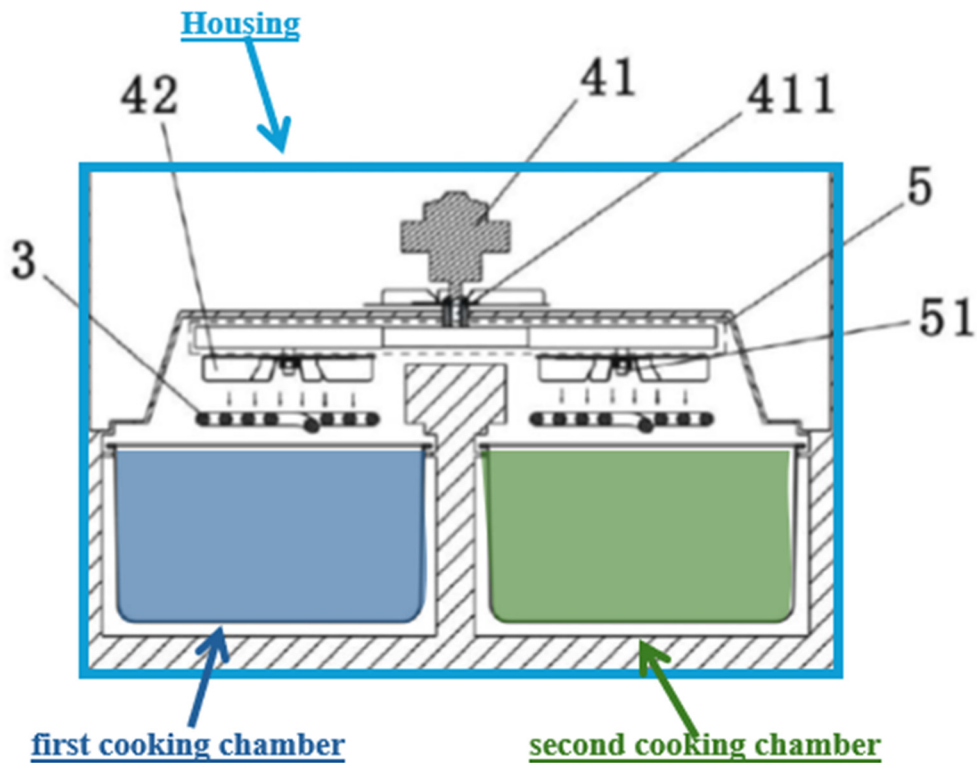
Claim 18[a]

Guo discloses “a housing having first and second internal independently removable cooking containers disposed therein.” Guo explains that “main body 1 is provided with a plurality of installation chambers 10, a fryer assembly 2 is installed in each corresponding installation chamber 10” and that each fryer assembly 2 is detachable from the main body. EX1011 ¶[0026]-[0027]. Thus, Guo teaches this feature. EX1002, ¶84.



Claim 18[b]

Guo discloses “the first and second cooking containers being separated from each other by a dividing wall extending upward from a base of the housing.” For the same reason as 1[b], Guo shows a divider wall between the two internal compartments in FIG. 4 each which house cooking containers. EX1011, ¶[0038]. A POSITA would recognize this is as a divider wall based on Guo’s disclosed functions of operating the heating devices independently, as well as the inhibition of “smell channeling” which does not occur in Guo. EX1002, ¶86; EX1010, ¶[0017]. Incorporating the arguments above in 1[b] A POSITA would recognize that in order to have multiple installation cavities, a wall has to separate the cavities to allow fryer assemblies to be placed and allow independent cooking. EX1002, ¶85-86.



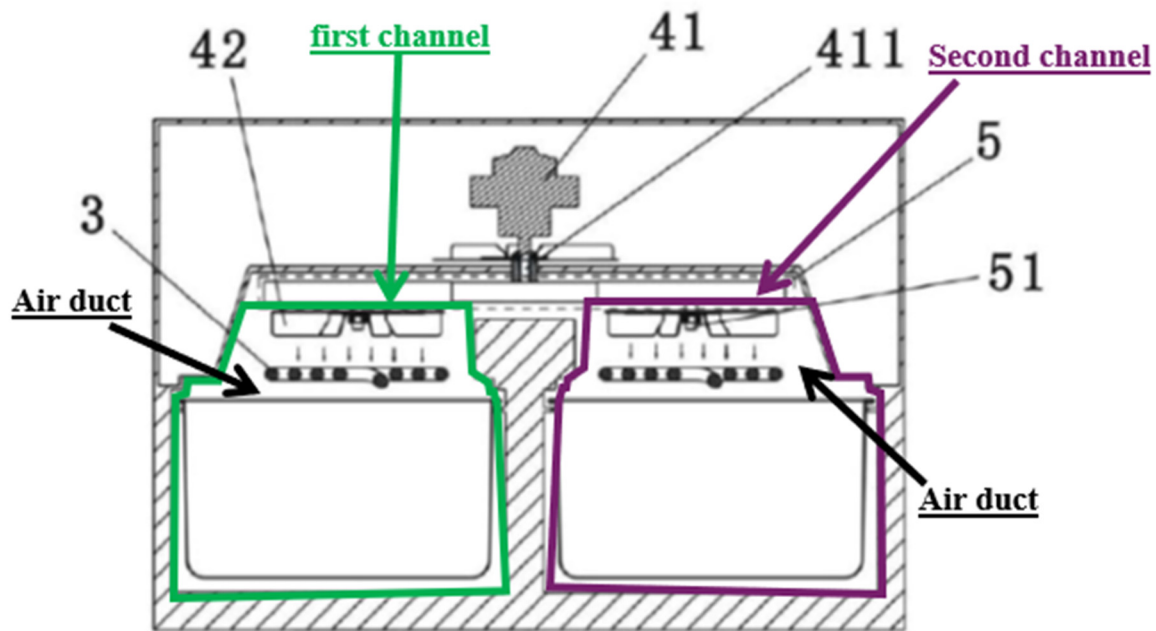
Claim 18[c]

Petitioner incorporates its discussion in 1[c] and 1[d] from Ground 1 which illustrates how Guo discloses “each of the first and second cooking containers defining a cooking volume therein.”

Claim 18[d]

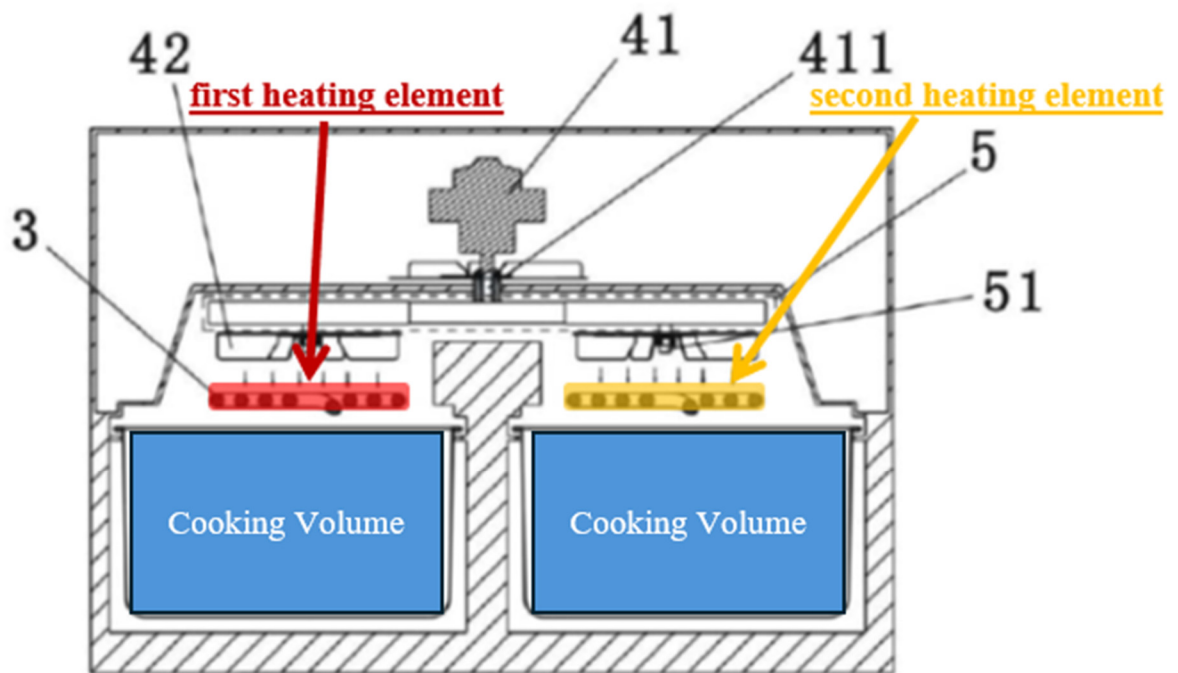
Guo discloses “the first and second cooking containers being configured to engage with first and second respective channels inside the housing to define first and second respective air ducts therein.” Guo teaches that the cooking containers by being separate engage with the internal cavities, which correspond to the channels. EX1011, ¶[0034]-[0036], Fig. 4. This relationship defines the air ducts.

EX1002 ¶89. Air ducts function to allow the air from the fan to pass over the heater and into the cooking chamber to cook the food. *Id.* Accordingly, there is an expectation of, and this feature is obvious to a POSITA. *Id.*



Claim 18[e]

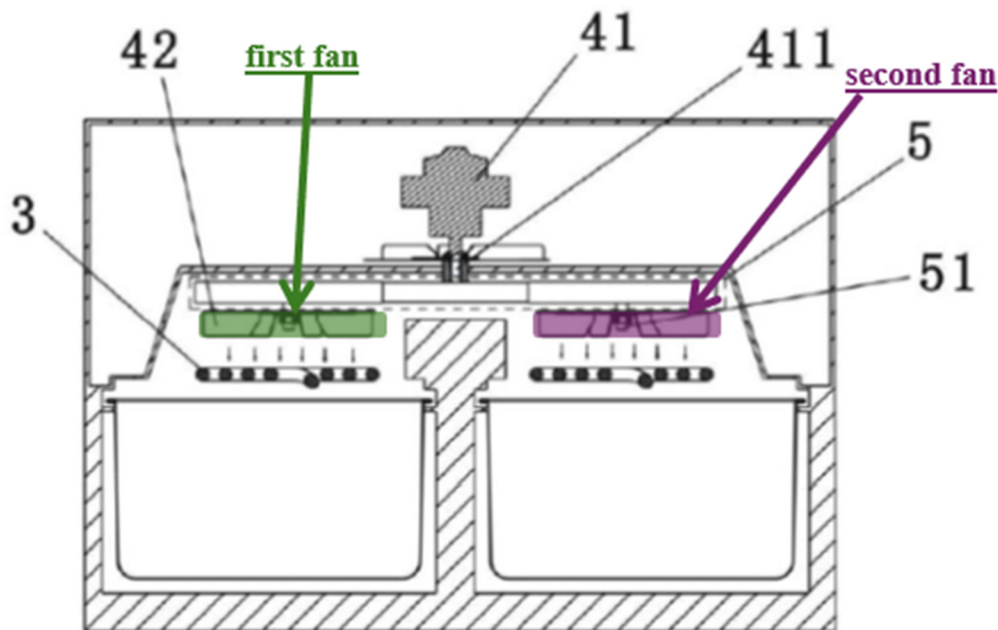
Guo discloses “first and second heating elements disposed in the housing adjacent the cooking volume of the first and second cooking containers, respectively, the first and second heating elements being independently operable”. As shown in the annotated Guo FIG. 4, below, the heating elements 3 are adjacent to the cooking volumes. EX1002, ¶90.



Regarding “being independently operable”, Guo discloses this for the reasons explained in Claim 1[e] in Ground 1. EX1011 ¶[0018], [0028]; EX1002, ¶90.

Claim 18[f]

Guo discloses “first and second fans disposed in the housing adjacent the first and second heating elements, respectively.” The fan assembly of Guo would move air over the heating elements and functions as a fan. Guo includes first and second fans as shown below in annotated Fig. 4. EX1002, ¶91. The fans are adjacent to the heating elements.



Claim 18[g]

Guo discloses “the first and second fans being independently operable.” Guo states “each fryer assembly and heating device operate independently.” EX1011 ¶[0018], [0028]. Guo teaches an embodiment with dual-motors (e.g., Figs. 1-2) which each independently operate a given fan. EX1002, ¶92, EX1011, FIG. 1-2. A POSITA would understand that operating fans independently would allow the user to cook different types of foods in each cooking chamber. EX1002, ¶92.

Claim 18[h]

Guo discloses “the first and second fans being configured to circulate air through the first and second cooking volumes, respectively.” Guo teaches that air blown over the food in the cooking cavities. EX1011, ¶[0034]. Accordingly, a

POSITA would understand that the air is circulating in the cooking volumes.

EX1002, ¶93.

Accordingly, Guo renders obvious claim 18 under 35 U.S.C. § 103(a).

EX1002, ¶94.

**VIII. GROUND 2: GUO IN VIEW OF CONRAD RENDERS CLAIMS
12-16, AND 19-21 OBVIOUS**

A. Claim 12

Claim 12[pre]

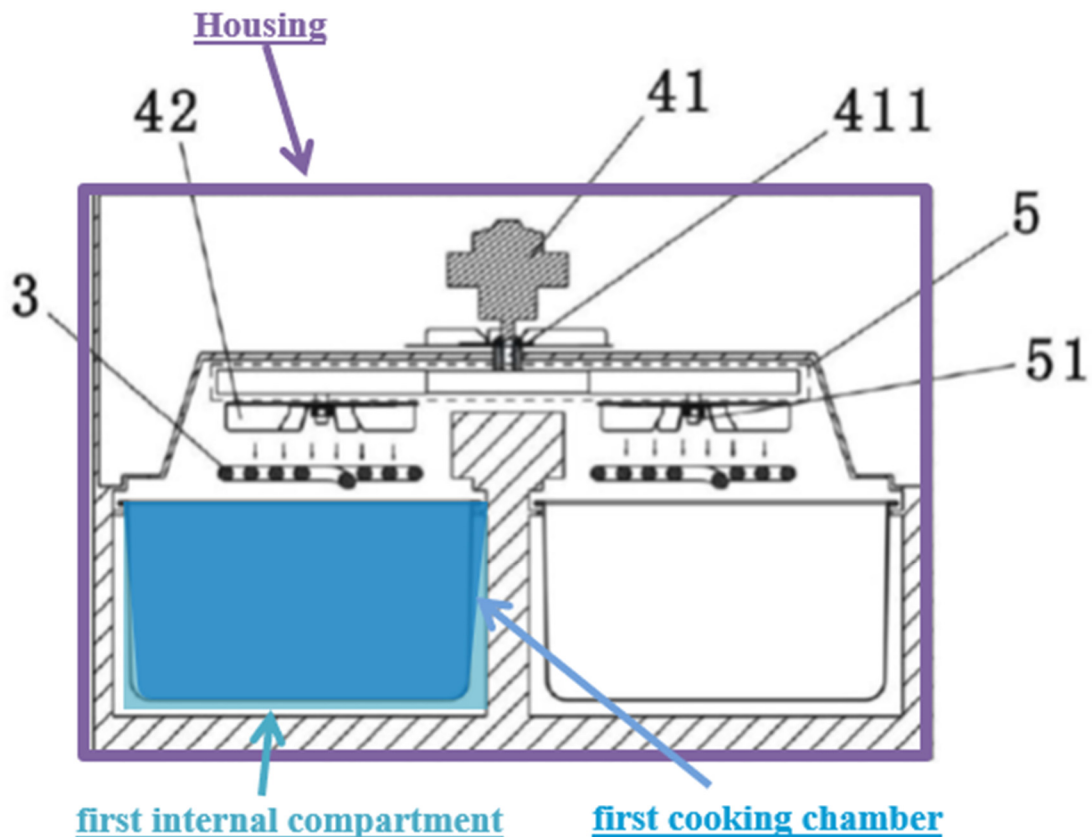
Same as 1[pre] in Ground 1 incorporated herein. EX1002, ¶95.

Claim 12[a]

Guo discloses “a housing.” Guo has a main body shown in each of the figures. EX1011, ¶[0026]. Thus, Guo teaches this feature. EX1002, ¶96.

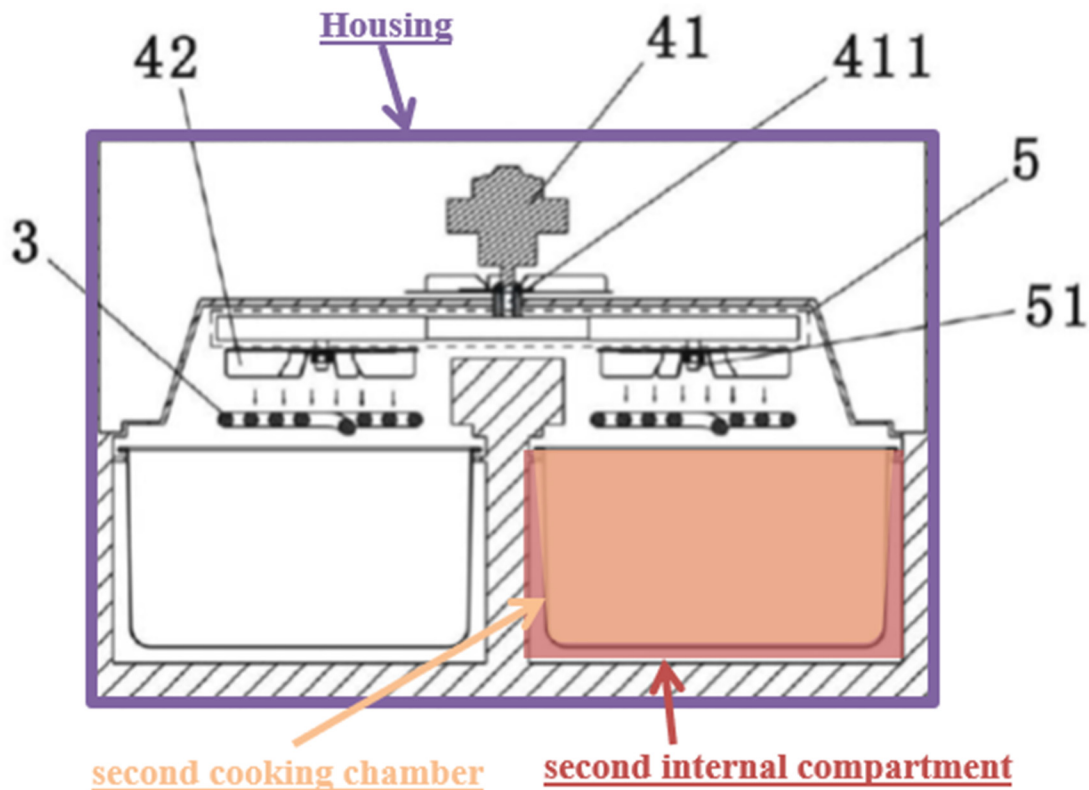
Claim 12[b]

Guo discloses “having a first internal cooking compartment with a first cooking container removably disposed therein.” Guo explains that “main body 1 is provided with a plurality of installation chambers 10” and that fryer assemblies 2 are detachable therein from the main body. EX1011, ¶[0026]-[0027]. Thus, Guo teaches this feature. EX1002, ¶97.



Claim 12[c]

Guo discloses “a second internal compartment with a second cooking container removably disposed therein.” Guo explains that “main body 1 is provided with a plurality of installation chambers 10” and that fryer assemblies 2 are detachable therein from the main body. EX1011, ¶[0026]-[0027]. Thus, Guo teaches this feature. EX1002, ¶98.



Claim 12[d]

Guo discloses “the first internal compartment including a first heating assembly comprising a first fan and a first heating element configured to cook food disposed in the first cooking container.” Guo discloses that “there are a plurality of fan assemblies 4, and each heating device 3 is provided with a corresponding fan assembly 4” and “the circulating fans 42 to operate and blowing air to the heating device 3 for circulation.” EX1011, ¶[0027], [0034]. A POSITA would understand that each heating element is in thermal communication with each respective cooking chamber to independently cook the food. EX1002, ¶99.

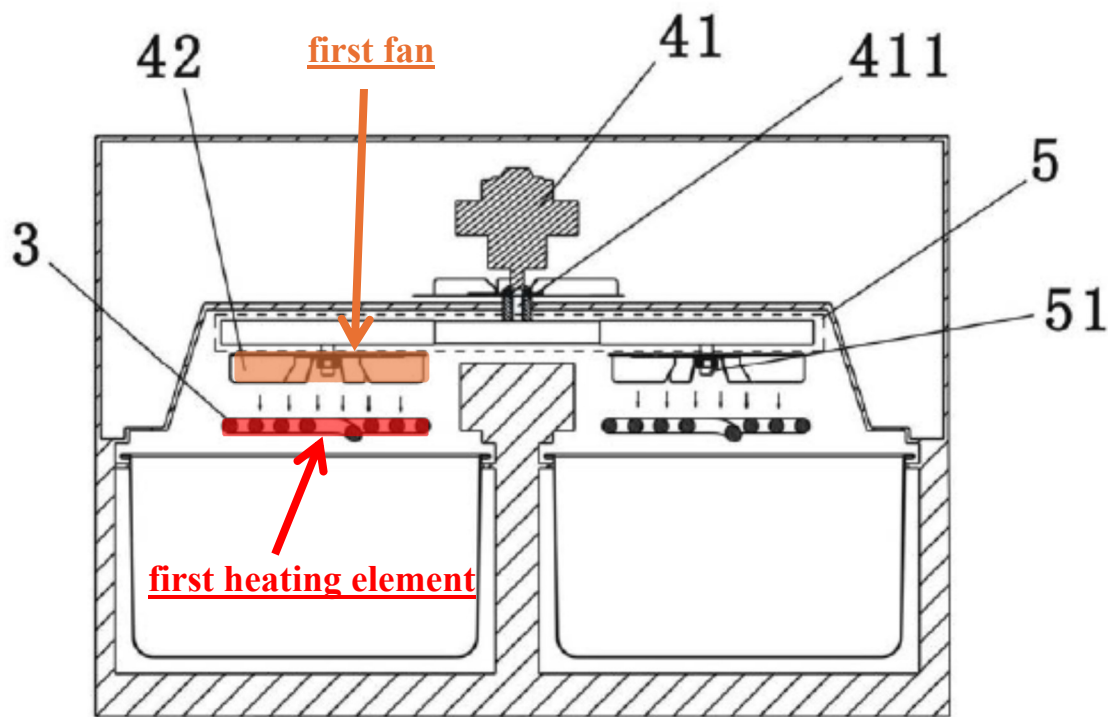
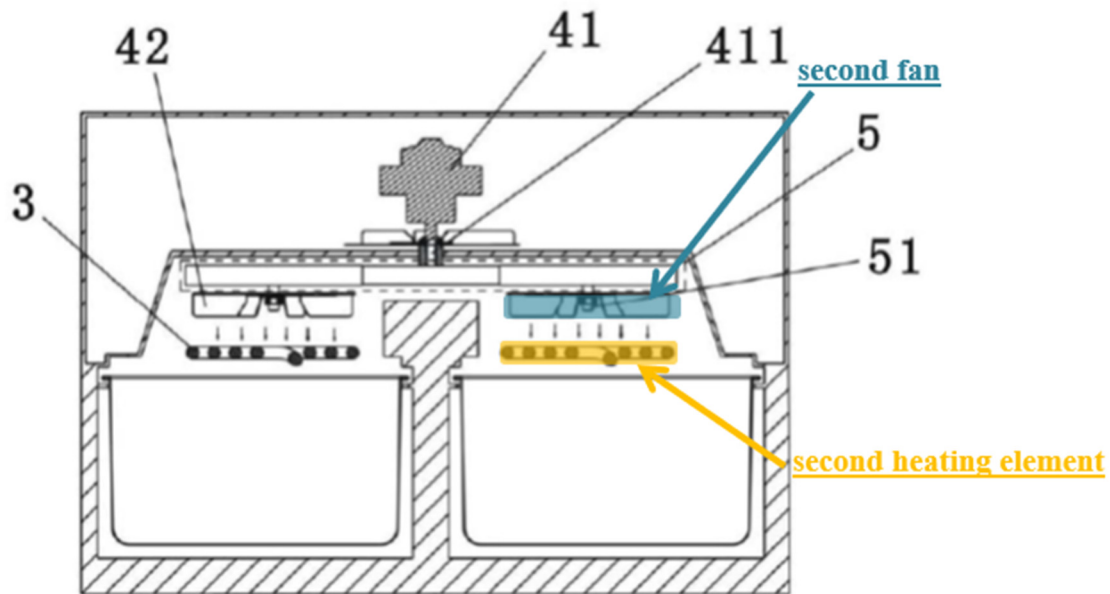


图4

Claim 12[e]

Guo discloses “the second internal cooking compartment including a second heating assembly comprising a second fan and a second heating element configured to cook food disposed in the second cooking container.” Guo discloses that “there are a plurality of fan assemblies 4, and each heating device 3 is provided with a corresponding fan assembly 4” and “the circulating fans 42 to operate and blowing air to the heating device 3 for circulation.” EX1011, ¶[0027], [0034]. A POSITA would understand that each heating element is in thermal

communication with each respective cooking chamber to independently cook the food. EX1002, ¶100.



Claim 12[f]

Guo discloses “the first and second heating assemblies being independently operable to independently cook food contained within the first and second cooking containers.” Guo states “each fryer assembly and heating device operate independently.” EX1011 ¶[0018], [0028]. A POSITA would understand that operating a heating device independently would allow the user to cook different types of foods in each cooking chamber. EX1002, ¶101.

Claim 12[g]

Guo discloses “the first and second heating assemblies being programmable to simultaneously cook food in separate cooking modes.” Guo states “the food

processor of the utility model can prepare various foods simultaneously without mutual influence, so it can be commercialized, significantly improving the efficiency of food preparation.” EX1011, ¶[0018]. A POSITA would understand that to cook food separately the compartments can cook in separate modes. EX1002, ¶102.

To the extent that Patent Owner incorrectly disputes whether Guo explicitly discloses “the first and second heating assemblies being programmable to simultaneously cook food in separate cooking modes,” Conrad discloses this feature. Like Guo, Conrad discloses an air fryer with dual cooking zones where “each ‘cooking zone’ is a distinct volumetric region within cooking chamber 104 that can be selectively subjected to different cooking conditions from the other cooking zone(s).” EX1014, ¶[0145]. For example, Conrad teaches that within “each cooking zone 180, these cooking devices may be selectively activated and deactivated according to a cooking program (e.g. set temperature, humidity, convection speed) independently of the cooking devices in the other cooking zone 180.” EX1014, ¶[0149]. The cooking program may be selected by a user. EX1014, ¶[00162]. Accordingly, Conrad discloses “the first and second heating assemblies being programmable to simultaneously cook food in separate cooking modes.” EX1002, ¶103.

A POSITA would have been motivated to use the cooking programs disclosed in Conrad with the air fryer in Guo. EX1002, ¶104. Indeed, a POSITA would recognize the benefits of having each of the heating assemblies be programmed to cook the food in each container in different modes. *Id.* The air fryer of Guo is designed for this very purpose. EX1011 ¶[0028]. A POSITA would have a reasonable expectation of success (“REOS”) in doing so because using two cooking operations at the same time in a dual air fryer arrangement of Guo would necessitate a programmable control of Conrad. EX1002, ¶104.

For at least these reasons, a POSITA would have understood that the combination of Guo and Conrad would render obvious claim limitation 12[g]. EX1002, ¶105.

Claim 12[h]

Same as 1[b] in Ground 1 incorporated herein. EX1002, ¶106.

Claim 12[i]

Guo discloses “wherein the first and second cooking containers are horizontally coplanar when disposed in the first and second internal cooking compartments respectively.” Guo states “the main body can also have a horizontal structure (as shown in FIG. 2), and a plurality of installation chambers on the main body are arranged horizontally in a line.” EX1011 ¶[0029]. Thus, Guo teaches this feature. EX1002, ¶107.

Accordingly, Guo in view of Conrad renders obvious claim 12 under 35 U.S.C. § 103(a). EX1002, ¶108.

B. Claim 13

Same as 7 in Ground 1 incorporated herein. The inclusion of Conrad does not change the analysis. EX1002, ¶109.

C. Claim 14

Guo discloses claim 14, which recites “wherein the first internal cooking compartment and the second internal cooking compartment are independently operable to cook food using at least one of conduction, convection, radiation, and induction.” Guo discloses cooking by passing heated air over food. EX1011, ¶[0032]-[0034], [0040]. A POSITA understands that this type of cooking is known as convection. EX1002, ¶110.

D. Claim 15

Claim 15[a]

Guo discloses “a control system configured to operate the first and second cooking assemblies.” Guo states the air fryer allows user to simultaneously cook food without mutual interference. EX1011, ¶[0018]. A POSITA would recognize that cooking simultaneously food would be achieved by a control system. EX1002, ¶112.

To the extent that Patent Owner incorrectly disputes whether Guo explicitly discloses “the first and second heating assemblies being programmable to simultaneously cook food in separate cooking modes,” Conrad discloses this feature. Like Guo, Conrad discloses an air fryer with dual cooking zones where “each ‘cooking zone’ is a distinct volumetric region within cooking chamber 104 that can be selectively subjected to different cooking conditions from the other cooking zone(s).” EX1014, ¶[0145]. For example, Conrad teaches that within “each cooking zone 180, these cooking devices may be selectively activated and deactivated according to a cooking program (e.g. set temperature, humidity, convection speed) independently of the cooking devices in the other cooking zone 180.” EX1014, ¶[0149]. The cooking program may be selected by a user. EX1014, ¶[0162]. Accordingly, Conrad discloses “the first and second heating assemblies being programmable to simultaneously cook food in separate cooking modes.” EX1002, ¶113.

The motivation to combine Conrad with Guo discussed above regarding limitation 12[g] is repeated and incorporated by reference here. EX1002, ¶114.

For at least these reasons, a POSITA would have understood that the combination of Guo and Conrad would render obvious Claim limitation 15[a]. EX1002, ¶115.

Claim 15[b]

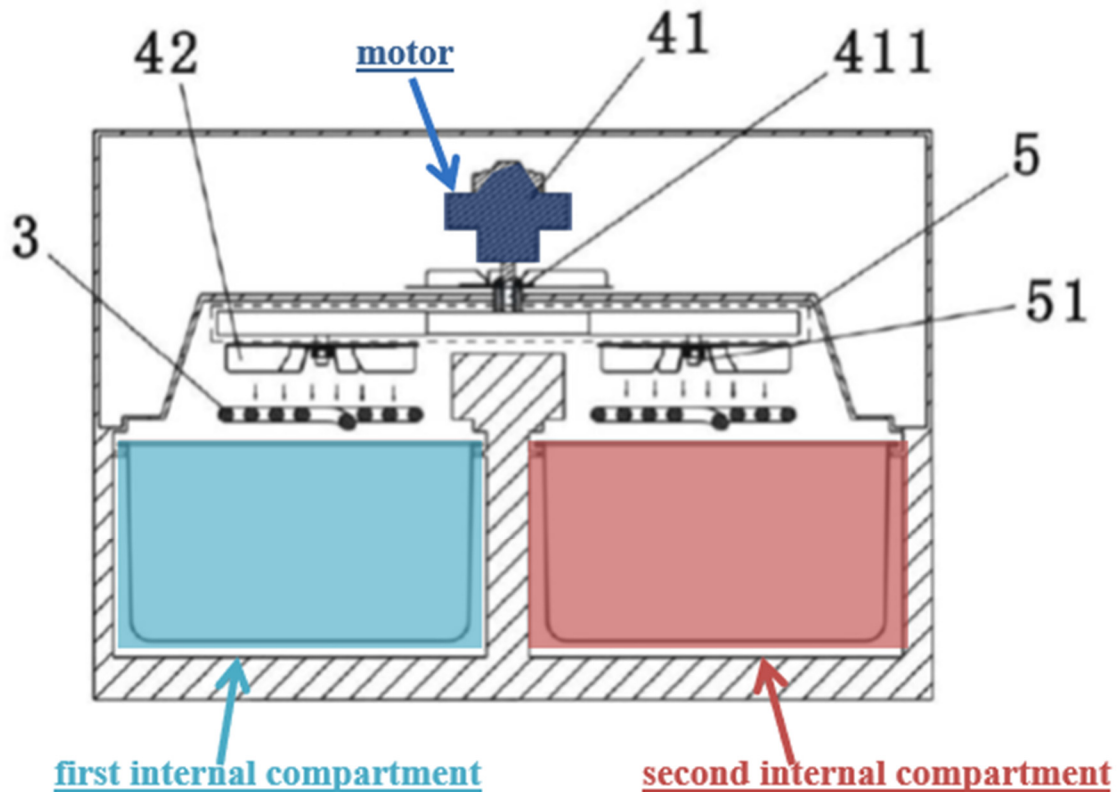
To the extent that Patent Owner incorrectly disputes whether Guo explicitly discloses “the control system being configured to receive inputs corresponding to at least one of a temperature, a cook time, and a food type” Conrad discloses this feature. Conrad discloses that the controller 216 produces “different cooking conditions (temperature, convective air speed, and/or humidity) in the two cooking zones 180.” EX1014, ¶[0164]. In particular, Conrad teaches receiving inputs through the controller 216 to execute a cooking program, which may be “stored in memory within controller 216, and selected by the user.” EX1014, ¶[0223]. A POSITA would recognize the benefits of having the controller receive inputs that correspond to a temperature since the temperature is necessary for cooking food. EX1002, ¶[0116].

For at least these reasons, a POSITA would have understood that the combination of Guo and Conrad would render obvious Claim 15. EX1002, ¶117.

E. Claim 16

Guo discloses claim 16, which recites “a motor operably coupled to each of the first and second fans the motor configured to operate the first and second fans at the same speed or at different speeds.” Guo teaches that the motor is between the said first internal compartment and said second internal compartment in FIG. 4.

EX1011, ¶[0034]. Guo discloses that the motors is between the internal compartments. EX1002, ¶118.



To the extent Guo does not directly disclose a motor operably coupled to multiple fans that move at the same or different speeds, a POSITA would have been motivated to combine Guo with Conrad for this feature. Conrad teaches that there can be different cooking conditions such as air speed in two cooking zones. EX1014, ¶¶[0164]-[0165]; EX1002, ¶119.

A POSITA would have been motivated to modify Guo’s dual-chamber air fryer to employ a single motor driving multiple circulation fans, as taught by

Conrad. EX1002, ¶120. Guo discloses dual cooking chambers, each with its own fan, but does not explicitly disclose an embodiment where the fans operate at different speeds. Conrad, however, teaches arrangements where a single motor shaft or coupled transmission distributes power to multiple fans, enabling coordinated operation at the same or different speeds. EX1014, ¶¶[0164]-[0165]; [0305]. Applying Conrad’s approach to Guo would have reduced cost and size by eliminating redundant motors and control electronics, simplified assembly, and increased reliability. EX1002, ¶120.

A POSITA also would have reasonably expected success in implementing this modification. EX1002, ¶121. Coordinating multiple fans from a single motor was a known engineering solution in appliances and HVAC equipment, and the predictable result is efficient, synchronized airflow with reduced energy consumption. Incorporating Conrad’s multi-speed system into Guo would have predictably improved cooking efficiency, minimized heat loss between chambers, and provided flexibility to vary airflow distribution—whether operating both fans at the same speed for uniform convection or adjusting relative speeds to accommodate different food loads. *Id.* These benefits flow directly from the known functions of multi-fan single-motor systems and would have been obvious to pursue, yielding foreseeable and advantageous results. *Id.*

F. Claim 19

Same as 15[a] in Ground 2. EX1002, ¶123.

G. Claim 20

Claim 20[a]

To the extent that Patent Owner incorrectly disputes whether Guo explicitly discloses “wherein the control system is configured to independently operate the first and second heating elements” of claim 20, Conrad discloses this feature. EX1014, ¶[0007] (“the controller is operable adjust the distribution of energy to the IR cooking element “). A POSITA would be motivated to combine Guo with Conrad for the reasons explained in Claim 15. EX1002, ¶125.

Claim 20[b]

To the extent that Patent Owner incorrectly disputes whether Guo explicitly discloses “wherein the control system is configured to independently operate... the first and second fans” of claim 20, Conrad discloses this feature. EX1014, ¶[0006] (“a controller operable to adjust the energy provided to a fan assembly wherein the fan assembly is operable at a first power level for a first portion of a cooking cycle and the fan assembly is operable at a second power level for a second subsequent portion of the cooking cycle wherein the second power level is higher than the first power level,”). EX1002, ¶126.

H. Claim 21

Guo, in view of Conrad renders obvious Claim 21. To the extent Patent Owner incorrectly disputes whether Guo explicitly discloses “the control system being configured to receive inputs corresponding to at least one of a temperature, a cook time, and a food type” of claim 21, Guo in view of Conrad discloses this feature. Conrad discloses that the controller 216 produces “different cooking conditions (temperature, convective air speed, and/or humidity) in the two cooking zones 180.” EX1014, ¶[00164]. In particular, Conrad teaches receiving inputs through the controller 216 to execute a cooking program, which may be “stored in memory within controller 216, and selected by the user.” EX1014, ¶[00223]. A POSITA would recognize the benefits of having the controller receive inputs that correspond to a temperature for cooking. EX1002, ¶[00128]. A POSITA would be motivated to combine Guo with Conrad for the reasons explained in Claim 15. *Id.*

For at least these reasons, a POSITA would have understood that the combination of Guo and Conrad would render obvious Claim 21. EX1002, ¶129.

IX. GROUND 3: PHILIPS RENDERS OBVIOUS CLAIMS 1-4, 8-10, AND 18-22

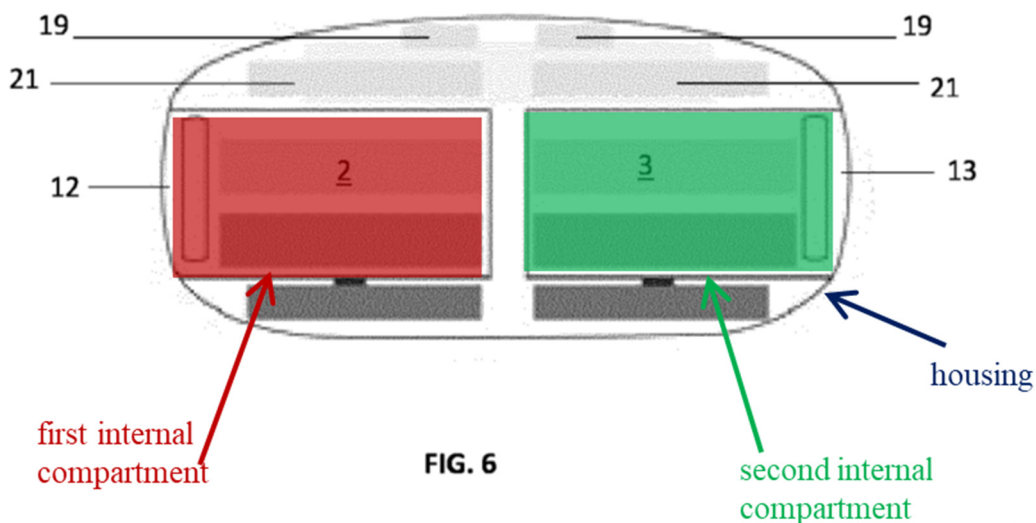
A. Claim 1

Claim 1/pre/:

To the extent the preamble is limiting, Philips discloses a cooking system, disclosing a “table top cooking device” comprising two food preparation chambers that can operate simultaneously to prepare food. EX1012, 4:19-25, Fig. 6; 10:9-22. EX1002, ¶130.

Claim 1[a]:

Philips discloses a housing having a first internal compartment and a second internal compartment:



EX1012, Fig. 6. Philips discloses “table top kitchen device with two food preparation chambers 2,3, both chambers being arranged for air frying food that in use may be disposed therein. EX1012, 11:9-13. As shown in Figure 6, the food chambers are within a housing. EX1012, 11:23-25. A POSITA would recognize that the preparation chambers are held within a housing. EX1002, ¶131. As stated in the ’377 Patent, the housing 22 is the outer portion of the fryer.

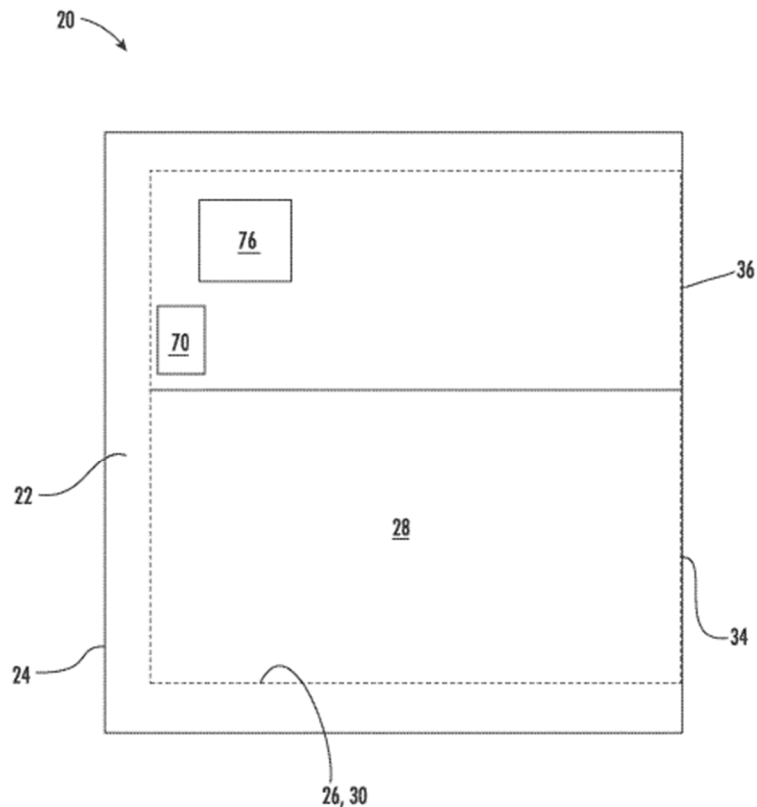


FIG. 3

EX1001, 7:65-8:7; FIG. 3. Moreover, Philips is clear that the housing has a first internal compartment 2 and a second internal compartment 3 as shown in FIG. 6.

EX1012, FIG. 6 (annotated above); 11:9-25. Philips further states the food preparation chambers 2,3 “may be accommodated in a container 12,13 which may for instance be removably mounted in a **support structure** 8... like a drawer.”

EX1012, 11:23-25. Although not drawn in FIG. 6, this support structure is a housing that holds the cooking containers in other embodiments:

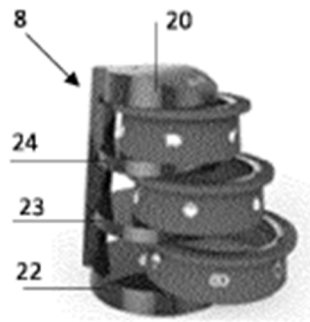


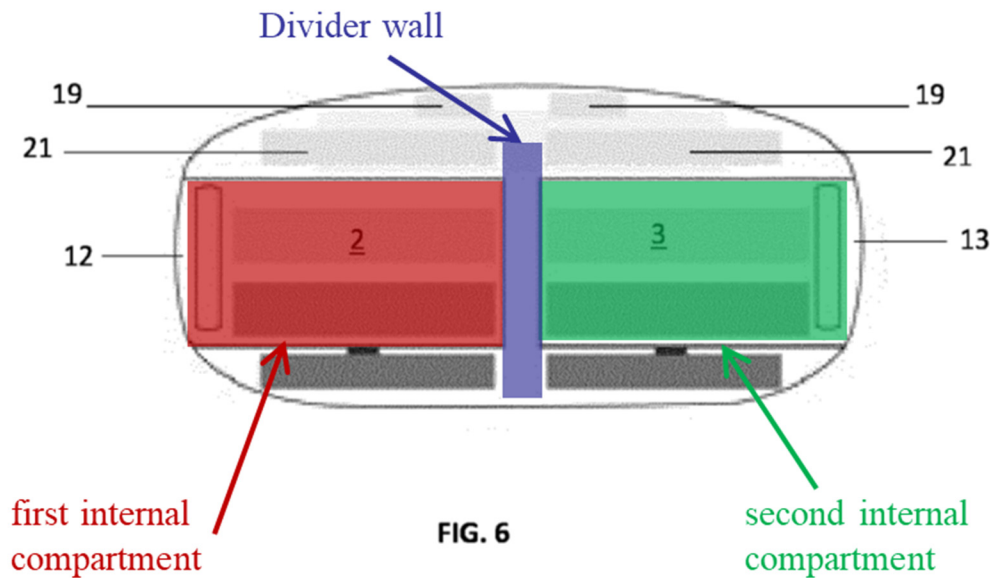
FIG. 7B

A POSITA would recognize this support structure to meet the limitations of the claimed housing. EX1002, ¶132. Thus, Philips discloses this limitation. EX1002, ¶133.

Claim 1[b]:

Philips discloses “the first internal compartment and the second internal compartment being separated by a dividing wall extending upward from a base of the housing.” Philips states the “chambers are arranged side by side and are physically separated such that the cooking parameters in the food preparation chambers 2, 3 can be set independently.” EX1012, 9:11-13. Philips further teaches that a permeable wall or partition may separate the chambers. EX1012, 6:30-31. A POSITA would understand that the physical separation taught by Philips would

include a wall. EX1002, ¶134.



To the extent a divider wall is not directly disclosed, a POSITA would have been motivated to reconfigure Philips’ dual air-fryer to include a divider wall separating the first and second internal cooking compartments. Philips already discloses multiple chambers positioned side by side, each configured for receiving a respective food container with physical separation. EX1002, ¶135; EX1012, 8:22-28.

A POSITA would have recognized that inserting a divider wall between the adjacent cooking compartments would improve cooking efficiency by reducing undesired thermal transfer between chambers, thereby maintaining more consistent and independent temperatures. A divider wall would also reduce heat loss during operation, as each compartment would retain thermal energy more effectively and

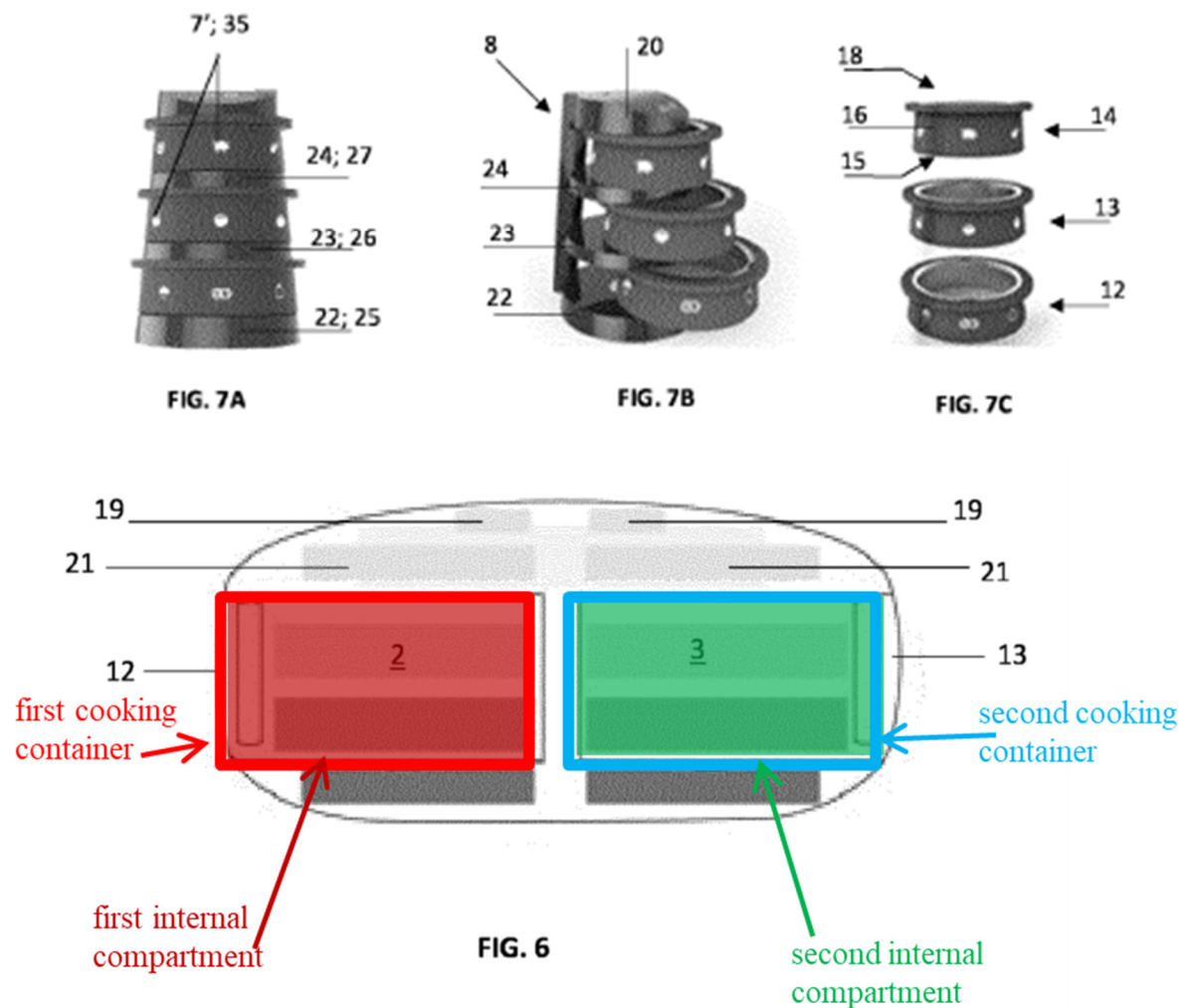
avoid “bleed-through” between chambers. This structural modification would further improve the overall cooking performance by allowing foods with different temperature or cooking-time requirements to be cooked simultaneously without interference. EX1002, ¶136.

In addition, the modification is a predictable use of known elements according to their established functions. Kitchen appliances, including ovens and grills, commonly employ physical barriers or partitions to isolate cooking zones, thereby enhancing energy efficiency and food quality. A POSITA, aware of these common practices, would have reasonably expected success in implementing a divider wall in Philips because Philips already discloses two physically separated cooking containers within a common housing. Given this existing separation, reconfiguring the housing to incorporate a permanent divider wall would have been straightforward and yielded predictable results. EX1002, ¶137.

Claim 1[c] and 1[d]:

Philips “a first cooking container defining a first cooking volume, said first cooking container being removably receivable within said first internal compartment to completely close off an opening to said first internal compartment when fully inserted therein,” and “a second cooking container defining a second cooking volume, said second cooking container being removably receivable within said second internal compartment to completely close off an opening to said

second internal compartment when fully inserted therein.”” Philips states “each food preparation chamber may be accommodated in a container 12, 13 which may for instance be removably mounted in a support structure 8 *for instance like a drawer.*” EX1012, 11:19-23; FIG. 6 (annotated); FIG. 7.



A POSITA would recognize that the first and second container of Philips when closing off like a “drawer” meets the limitation of closing off an opening of the

first compartment when inserted. EX1002, ¶139. As disclosed in the other embodiments of Philips which are also described as “drawers” it is clear that the containers when inserted close off openings shown above in platforms 22, 23 and *Id.*; EX1012, 8:16-20 (the containers 12,13,14 can be mounted in a support structure 8 like drawers. The support structure 8 may be provided with platforms 22, 23 and 24 (see FIGS 7A-C)”. Philips teaches circulating air through its containers 12, 13, 14, and back through base, which further evidences that its containers are “closed off” thereby preventing leaking air. EX1002, ¶140.

Claim 1(e):

Philips “a first heating element and a second heating element disposed in said housing, said first heating element being in thermal communication with said first cooking volume and said second heating element being in thermal communication with said second cooking volume.” Heating elements 21 and 23 are located above respective cooking volumes 2 and 3. EX1002, ¶141; EX1012, 11:14-17 Figure 6. As shown below, Philips discloses “the chambers 2,3 may each include their own heating element 21.” EX1012, 11:15-16.



FIG. 6

Philips discloses that “each food preparation chamber 2,3” may include suitable air guide elements to guide the air circulation according to a predetermined pattern, wherein preferably the air flow is evenly distributed through the food so that *the heat* from the air flow is evenly transferred.” EX1012, 11:20-22. As stated in previous limitations, the heating elements are located above each chamber “for forcefully circulating hot air through the food.” EX1012, 11:14-17. A POSITA would understand the heating elements above each cooking volume (chambers 2,3 of Philips) would be in thermal communication to be able to circulate *hot air* within the container that is placed within the chamber. EX1002, ¶142.

Claim 1(f):

Philips “the first and second heating elements being independently operable to independently cook food contained within the first and second cooking containers.” Philips states dual arrangement of the air fryers allows two cooking

operations at the same time (two food chambers can be set independently. EX1012, 11:12-15, Fig. 6, Claim 1. Each food chamber has “its own heating element 21.” EX1002, ¶143.



FIG. 6

Philips states "In some embodiments, at least one of the following cooking parameters can be set and controlled independently per food preparation chamber: the temperature, the air flow rate, the cooking time, the humidity, the pressure." EX1012, 6:9-11. A POSITA would understand that Philips Fig. 6 embodiment allows to set and control “temperature” differently, and the device would independently operate the heating element according to the set temperature. EX1002 ¶144; EX1012, Claim 7.

Claim 1[g]:

Philips “a first fan and a second fan disposed in said housing.” Philips describes that “the fan 19 and heating element 21 may for instance be situated

above or in an upper part of each chamber 2,3.” EX1012, 11:14-15, Fig. 6;
EX1002, ¶145.

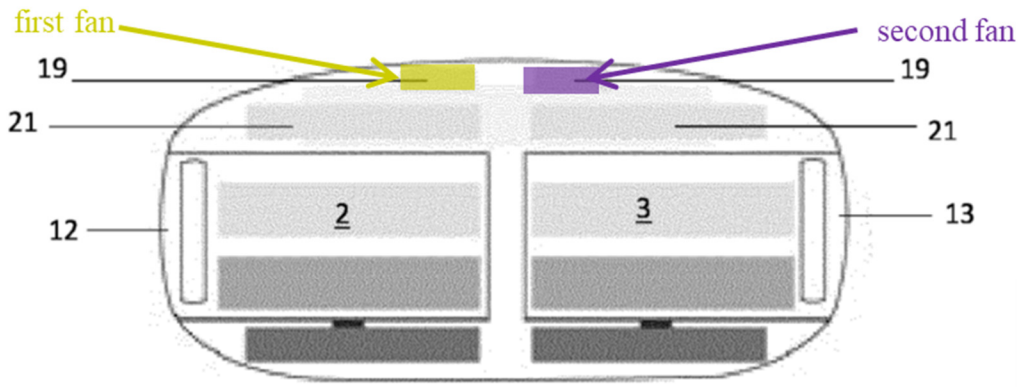


FIG. 6

Claim 1[h]:

Philips “said first fan being in fluid communication with said first cooking volume and said second fan being in fluid communication with said second cooking volume.” Philips discloses that each fan is attached so that “each food preparation chamber 2,3 may include suitable air guide elements to guide the air circulation according to a predetermined pattern.” EX1012, 11:19-20. A POSITA would understand that the fan 19 is in fluid communication with first cooking volume (e.g. food preparation chamber 2) which allows air flow from the fan to be “evenly distributed.” EX1002 ¶146.

According, Philips anticipates Claim 1 under 35 USC § 102(a)(1). EX1002 ¶147.

B. Claim 2

Philips renders obvious claim 2, which recites “wherein said first cooking container and said second cooking container are individually insertable into said first cooking compartment and said second cooking compartment respectively.” Philips teaches that each food preparation chamber 2, 3 may be accommodated in a container 12 and 13 which may “be removably mounted into a support structure 8 of the device, for instance like a drawer.” EX1012, 11:23-25. A POSITA would understand that the food preparation containers of Philips, which are physically separated, are individually insertable. EX1002 ¶149.

C. Claim 3

Philips discloses claim 3, which recites “wherein said first internal compartment and said second internal compartment are fluidly separate.” Philips states each food preparation chamber are “arranged side by side and are “physically separated” such that food can be set (cooked) independently. EX1012, 11:11-12. Further, Philips states each chamber can circulate air via air guide elements. EX1012, 11:19-22. A POSITA would recognize the physical separation, complemented with the respective air guide elements would keep the first and second food preparation chambers of Philips fluidly separate. EX1002 ¶151.

D. Claim 4

Claim 4[a]

Philips discloses “wherein said first fan is stacked vertically relative to said first heating element within said housing.” Philips states the “fan 19 and heating element 21 may for instance be situated above... each chamber 2,3.” EX1012, 13-14. Based on FIG. 6, a POSITA would see that the vertical stacking is taught by Philips. EX1002, ¶153.

Claim 4[b]

Philips discloses “said second fan is stacked vertically relative to said second heating element within said housing.” Philips states the “fan 19 and heating element 21 may for instance be situated above... each chamber 2,3.” EX1012, 13-14. Based on FIG. 6, a POSITA would see that the vertical stacking is taught by Philips. EX1002, ¶154.

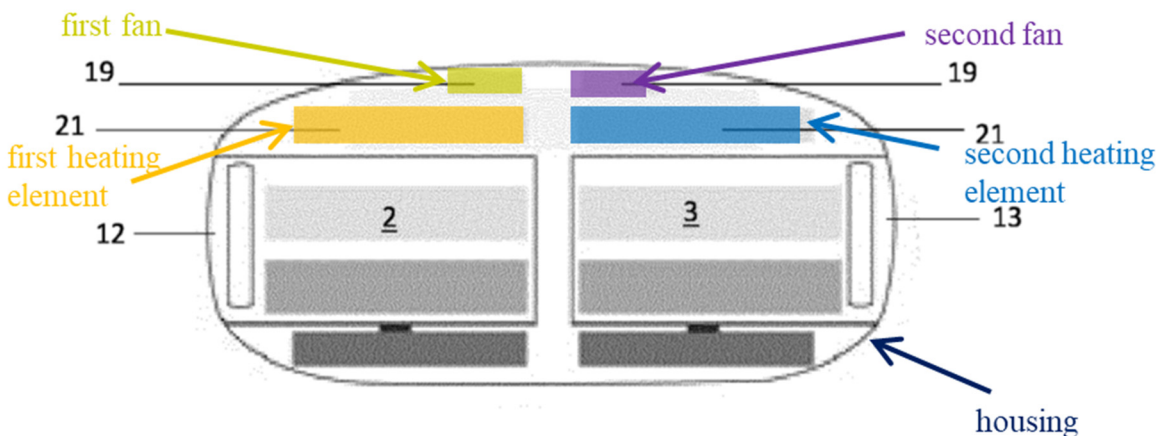


FIG. 6

E. Claim 8

Philips renders obvious claim 8, which recites “a motor operably coupled to each of said first fan and said second fan.” Philips teaches the fan provides air flow which is evenly distributed over the food. EX1012, 15-21. EX1002 ¶156. A POSITA understands these fans are coupled to one or more motors to allow air flow to occur. EX1002, ¶156.

To the extent the Philips reference does not expressly disclose a motor, a person of ordinary skill in the art (“POSITA”) would have understood that a motor is inherently included. EX1002, ¶157. Philips describes a fan for circulating hot air within the cooking chamber. EX1012, 11:15-21. A POSITA would know that such a fan cannot operate without a motor to drive it. EX1002, ¶157.

At the time of the invention, it was well established in the field of cooking appliances that air fryers and convection ovens rely on forced air circulation. EX1002, ¶158. Heating elements generate hot air, and a motor-driven fan distributes that air evenly throughout the cooking volume. Thus, to the extent not expressly disclosed, the motor is inherently present in the Philips device, because the described functionality cannot occur without it. Here, the operation of the fan to circulate heated air necessarily requires a motor.

F. Claim 9

Philips renders obvious claim 9, which recites “wherein said motor is located externally from said first internal compartment and said second internal compartment.” Philips teaches that the fans and heating elements are external to the food containers. EX1012, Fig. 6; 11:9-25. A POSITA would understand that the motors are needed to power the fans and external from the internal compartments. EX1002, ¶160.

G. Claim 10

Philips renders obvious claim 10, which recites “wherein said motor is positioned between said first internal compartment and second internal compartment.” Philips states, in reference to Figure 6, “the chambers 2, 3 may each include their own heating element 21 and share a single fan 19.” EX1012, pg.15-18. A POSITA would understand that the motor is needed to power the fan and would be placed adjacent to the single fan embodiment described in Philips. EX1002, ¶162.

H. Claim 18

Claim 18[pre]:

Same as 1[pre] in Ground 3 incorporated herein. EX1002, ¶163.

Claim 18[a]:

Philips discloses “housing having first and second internal independently removable cooking containers disposed therein”:

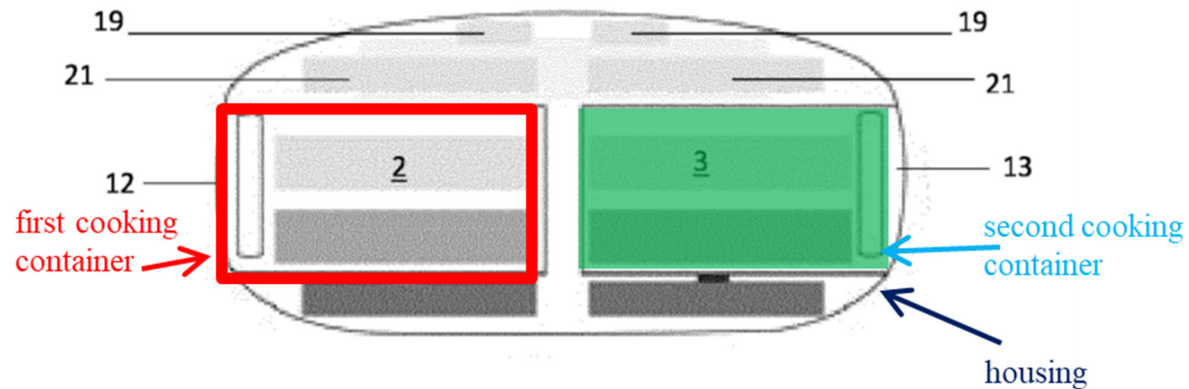


FIG. 6

EX1012, Fig. 6. Philips discloses table top kitchen device with two food containers 12, 13 in a housing being arranged for air frying food. EX1012, 11:9-13. Philips states “each food preparation chamber may be accommodated in a container 12, 13 which may for instance be removably mounted in a support structure 8 *for instance like a drawer.*” EX1012, 11:19-23; FIG. 6 (annotated). As shown in Figure 6, the food containers 12, 13 are within a housing and a POSITA would recognize as much. EX1002, ¶165. As stated in the ’377 Patent, the housing 22 is the outer portion of the fryer.

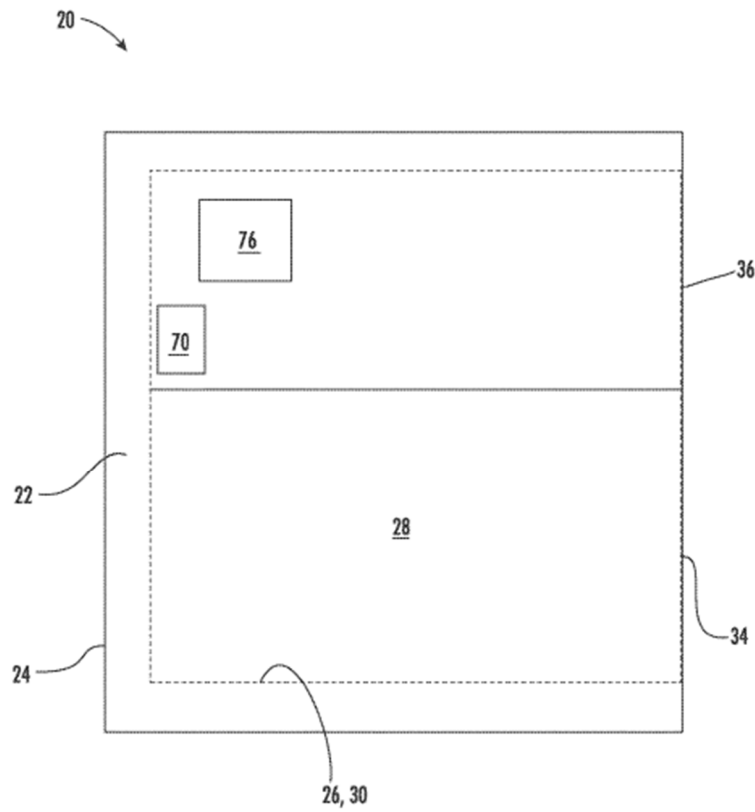


FIG. 3

EX1001, 7:65-8:7; FIG. 3. Moreover, Philips is clear that the housing has a first cooking container 12 and a second cooking container 13 as shown in FIG. 6.

EX1012, FIG. 6 (annotated above); 11:23-25. Although not drawn in FIG. 6, this support structure is a housing that holds the cooking containers in other embodiments:

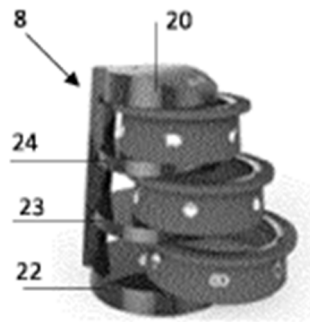
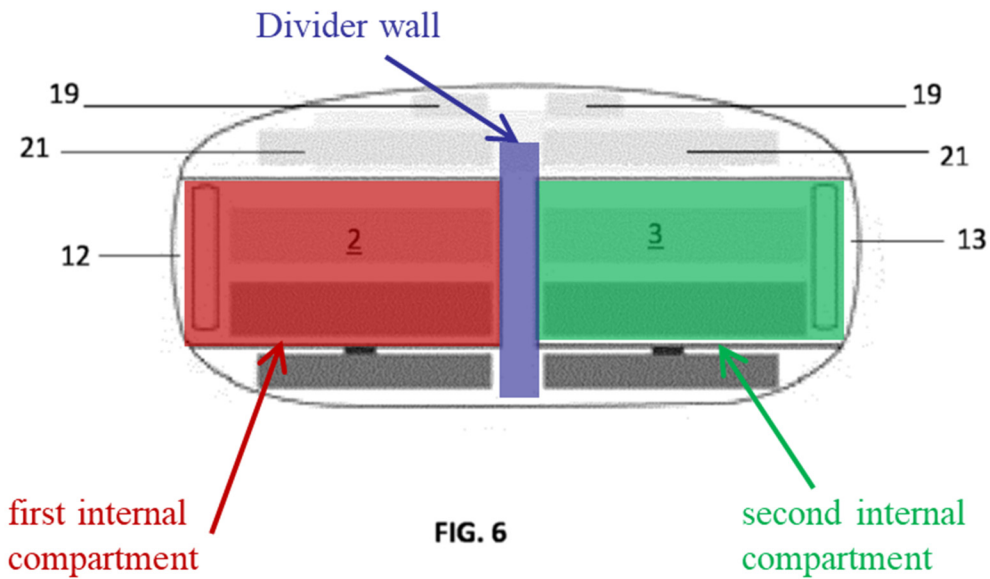


FIG. 7B

A POSITA would recognize this support structure to meet the limitations of the claimed housing. EX1002, ¶165-166. Thus, Philips discloses this limitation. EX1002, ¶166.

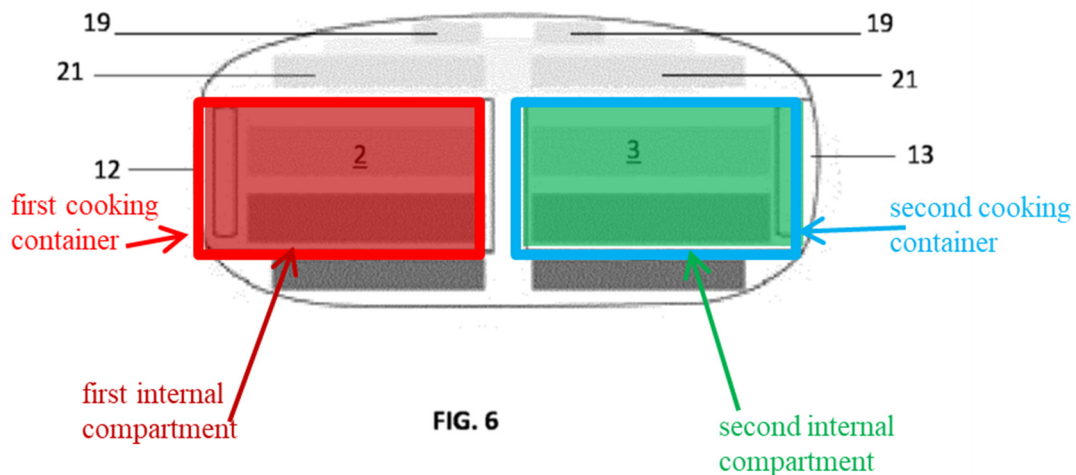
Claim 18[b]:

Philips discloses “the first and second cooking containers being separated from each other by a dividing wall extending upward from a base of the housing.” Philips states the “chambers are arranged side by side and are physically separated such that the cooking parameters in the food preparation chambers 2, 3 can be set independently.” EX1012, 9:11-13. Philips further teaches that a permeable wall or partition may separate the chambers. EX1012, 6:30-31. A POSITA would understand that the physical separation taught by Philips would include a wall separating the cooking containers and the compartments. EX1002, ¶167.



Claim 18[c]:

Petitioner incorporates its discussion in 1[c] and 1[d] from Ground 3 which illustrates how Philip discloses “each of the first and second cooking containers defining a cooking volume therein.”



Claim 18[d]:

Philips discloses “the first and second cooking containers being configured to engage with first and second respective channels inside the housing to define first and second respective air ducts therein.” Philips discloses that “each food preparation chamber 2,3” may include suitable air guide elements to guide the air circulation according to a predetermined pattern, wherein preferably the air flow is evenly distributed through the food so that *the heat* from the air flow is evenly transferred.” EX1012, 11:20-22. Philip teaches that the cooking chambers which creates separate channels EX1002, ¶170. This relationship defines the air ducts. *Id.* A POSITA would understand the cooking chambers engage with channels to define the air ducts. *Id.*

Claim 18[e]:

Philips discloses “first and second heating elements disposed in the housing adjacent the cooking volume of the first and second cooking containers, respectively, the first and second heating elements being independently operable.” As shown below, the heating elements are above (or adjacent) to cooking containers 12 and 13. Petitioner refers to Claim 1[e] of Ground 3 which discuss how Philips first and second heating elements are independently operable. EX1012, 11:12-15, Fig. 6, Claim 1; EX1002 ¶171-172; EX1012, Claim 7.



FIG. 6

Claim 18[f]:

Philips discloses “first and second fans disposed in the housing adjacent the first and second heating elements, respectively.” Philips describes that “the fan 19 and heating element 21 may for instance be situated above or in an upper part of each chamber 2,3.” EX1020 11:14-15, Fig. 6; EX1002 ¶173.

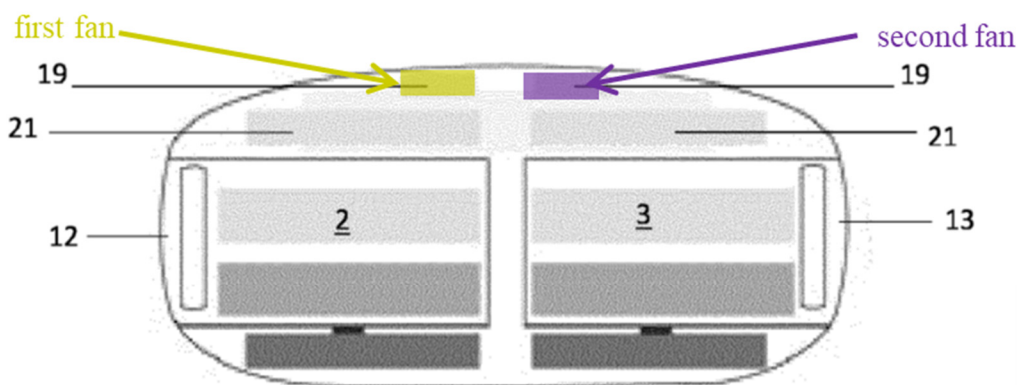


FIG. 6

Claim 18[g] and 18[h]:

Philips discloses “the first and second fans being independently operable.” Philips states each cooking chamber “may comprise a heating element 21 and a fan 19, for forcefully circulating hot air through the food.” EX1012, 11:12-15, Fig. 6, Claim 1; EX1002 ¶174.

I. Claim 19

Philips discloses “control system configured to operate cooking processes of food contained in the first and second cooking containers,” Philips states the user interface allows users to put in cooking parameters. EX1012, 12:20-21. Philips discloses a cooking parameter can include “temperature, cooking time, air flow rate, humidity, pressure.” EX1012, 4:6-7. POSITA would have been motivated to provide a single user interface to control both chambers of a dual-chamber air fryer in order to simplify operation, reduce component cost, and improve user experience. EX1002 ¶176. Dual-chamber air fryers for users may require coordination of temperature and timing settings for each chamber. *Id.* Prior to the priority date, it was well known that user interfaces in consumer appliances (e.g., ovens) commonly controlled multiple heating or processing zones from a single integrated panel. *Id.* A POSITA would have recognized that duplicating separate interfaces for each chamber would be unnecessarily complex and confusing to the

user, while a single interface could readily allow independent or synchronized control of both chambers through selectable menus or inputs. *Id.*

Moreover, integrating a single user interface aligns with established design practices to minimize parts, reduce manufacturing cost, and conserve space on the appliance housing. EX1002 ¶177. It would have been straightforward for a POSITA to adapt known programmable control elements (e.g., digital displays, keypads, or rotary selectors) to allow chamber-specific selection within a single panel. The use of a single interface to control multiple cooking compartments would thus represent the predictable application of known technology to achieve recognized benefits. *Id.*

A POSITA would have had a REOS in implementing such a configuration. At the time, single interfaces controlling multiple functions were ubiquitous in household appliances, and both the hardware and software required to enable chamber-specific control were readily available and routinely applied. EX1002 ¶178. Incorporating a single control panel to operate two cooking chambers would not have required inventive skill but instead would have been a matter of routine design choice yielding predictable results. *Id.*

J. Claim 20

Claim 20[a]:

Philips discloses “the control system is configured to independently operate the first and second heating elements.” Philips states “at least one of the following cooking parameters can be set and controlled independently per food preparation chamber: the temperature, the air flow rate, the cooking time, the humidity, the pressure.” EX1012, 6:9-11. A POSITA would understand that Philips Fig. 6 embodiment allows to set and control “temperature” differently, and the device would independently operate the heating element according to the set temperature. EX1002, ¶180; EX1012, Claim 7.

Claim 20[b]:

Philips discloses “the control system is configured to independently operate ... the first and second fans.” Philips discloses that the air flow rate of each chamber “can be set and controlled independently.” EX1012, Claim 7. Philips further states the chambers in a side by side arrangement are separated such that cooking parameters (such as air flow from the fans) can be set independently. EX1012, 11:11-15. A POSITA would recognize that the user interface of Philips along with the processor of Philips comprises a control system configured to independently operate the first and second fans. EX1002, ¶181.

K. Claim 21

Philips discloses “the control system being configured to receive inputs corresponding to at least one of a temperature, a cook time, and a food type,”

Philips states the user interface allows users to put in cooking parameters. EX1012, 12:20-21. Philips discloses a cooking parameter can include “temperature, cooking time, air flow rate, humidity, pressure.” EX1012, 4:6-7. Philips states “at least one of the following cooking parameters can be set and controlled independently per food preparation chamber: the temperature, the air flow rate, the cooking time, the humidity, the pressure.” EX1012, 6:9-11. A POSITA would understand that Philips Fig. 6 embodiment allows to set and control “temperature” differently, and the device would independently operate the heating element according to the set temperature. EX1002, ¶183; EX1012, Claim 7.

A POSITA would have been motivated to provide a single user interface to control both chambers of a dual-chamber air fryer in order to simplify operation, reduce component cost, and improve user experience. EX1002, ¶184. Dual-chamber air fryers for users may require coordination of temperature and timing settings for each chamber. *Id.* Prior to the priority date, it was well known that user interfaces in consumer appliances (e.g., ovens, microwaves, dishwashers, and washing machines) commonly controlled multiple heating or processing zones from a single integrated panel. *Id.* A POSITA would have recognized that duplicating separate interfaces for each chamber would be unnecessarily complex and confusing to the user, while a single interface could readily allow independent or synchronized control of both chambers through selectable menus or inputs. *Id.*

Moreover, integrating a single user interface aligns with established design practices to minimize parts, reduce manufacturing cost, and conserve space on the appliance housing. EX1002, ¶185. It would have been straightforward for a POSITA to adapt known programmable control elements (e.g., digital displays, keypads, or rotary selectors) to allow chamber-specific selection within a single panel. The use of a single interface to control multiple cooking compartments would thus represent the predictable application of known technology to achieve recognized benefits.

A POSITA would have had a REOS in implementing such a configuration. At the time, single interfaces controlling multiple functions were ubiquitous in household appliances, and both the hardware and software required to enable chamber-specific control were readily available and routinely applied. EX1002 ¶186. Incorporating a single control panel to operate two cooking chambers would not have required inventive skill, but instead would have been a matter of routine design choice yielding predictable results. EX1002 ¶186.

L. Claim 22

Philips discloses that the control system is configured to adjust cooking parameters based on sensed data without user input. Philips discloses a processor which “automatically” may set cooking parameters, such as temperature and time

using calculations. EX1012, 12:25-27. Further, Philips discloses that the device can automatically prepare several dishes at the same time “without further user input and/or coordination needed to have the dishes ready at the same time.” A POSITA would recognize the processor’s calculations to allow multiple dishes to be ready at the same time without further user input is based on sensed data, such as food type to allow the processor to implement cooking to allow multiple food chambers to finish cooking in each respective chambers at the same time. EX1012, 12:16:31; EX1002, ¶188.

X. GROUND 4: PHILIPS IN VIEW OF MOON RENDERS CLAIMS 7 AND 11-17 OBVIOUS

The combination of Philips in view of Moon discloses claims 7, 11, 13, 16, 17.

A. Claim 7

Philips discloses “wherein said first cooking container includes a first handle” and “wherein said second cooking container includes a second handle.” As shown in FIG.6, a handle is attached to the removable containers that are placed within the dual food preparation chambers.

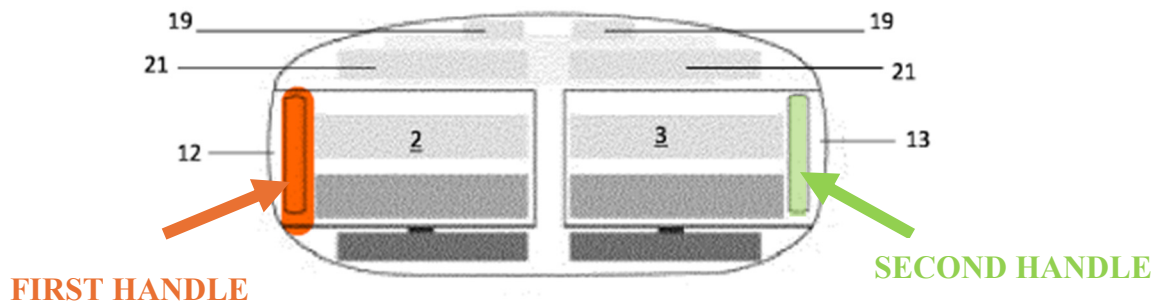


FIG. 6

To the extent a first and second handle is not expressly disclosed, Moon expressly discloses a handle, and it would be obvious to include a handle on each of Philips’ system. Moon describes a “handled food basket” which detachably secures to the cooking drawer. EX1013, abstract, [0009], Figs. 2, 10-13, [0033] and [0038].

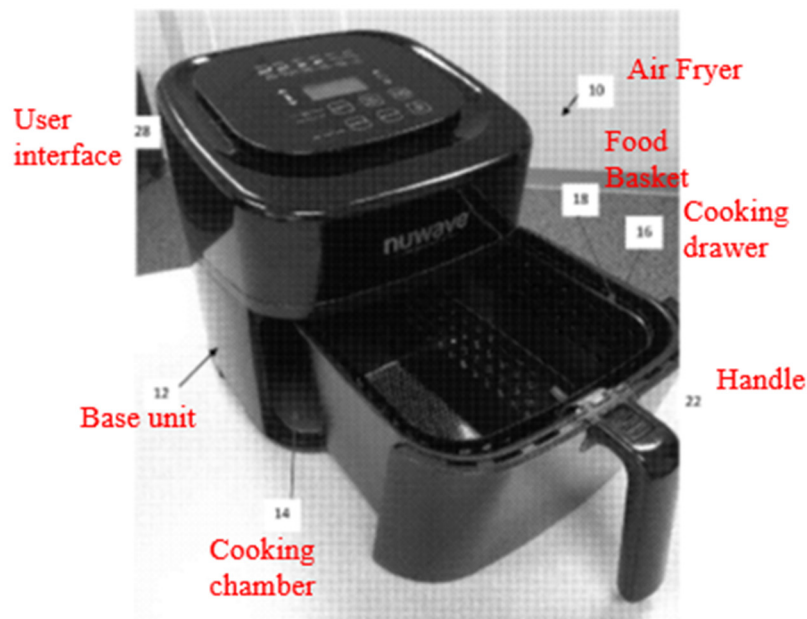


FIG. 2

EX1013, Fig. 2 (annotated).

A POSITA would have been motivated to modify the Philips air fryer reference to include a handle on the containers that hold food in each air fryer chamber. EX1002 ¶192. A POSITA would be motivated to add a handle to each container in order to increase safety for the user to avoid having to directly handle the container that is exposed to internal heat. As demonstrated by Moon, it was well known in the art of cooking appliances to provide handles on food containers, baskets, or trays exposed to high heat to facilitate safe insertion, removal, and transport of food. For example, deep fryer baskets, roasting pans, and convection oven trays each incorporate handles for this very purpose. *Id.* A POSITA would have understood that adding a handle to the food container of Philips' air fryer would provide the predictable and desirable benefits of improved safety, ease of use, and consumer convenience. *Id.*

Further, manufacturers of consumer kitchen appliances faced strong design incentives to enhance ergonomics and user safety. As stated in Moon, air fryers operating at high temperatures can create safety issues. EX1013, ¶[0006]. A POSITA would therefore have been motivated to apply the well-known handle feature to Philips' air fryer containers so that each chamber could be accessed independently without risk of burning or requiring auxiliary tools such as oven mitts or tongs. EX1002, ¶193. This modification would have been nothing more

than the predictable application of a known design element to an analogous device.
Id.

A POSITA would also have had a REOS in implementing this modification of adding Moon’s handle to each container in the dual air fryer disclosed in Phillips. EX1002, ¶194. Handles were a routine and predictable structural feature in the field, and adding a handle to the food container in Philips would not require undue experimentation or inventive skill. The modification would not interfere with the air fryer’s heating, air circulation, or cooking functions as the handle is external to the food container (EX1013, claim 1) and suitable heat-resistant handle materials were readily available at the time of the invention. Thus, a POSITA would have expected that adding a handle would predictably result in a safe and convenient means for manipulating the food container, consistent with the purposes and functions of Philips’ air fryer. *Id.*

B. Claim 11

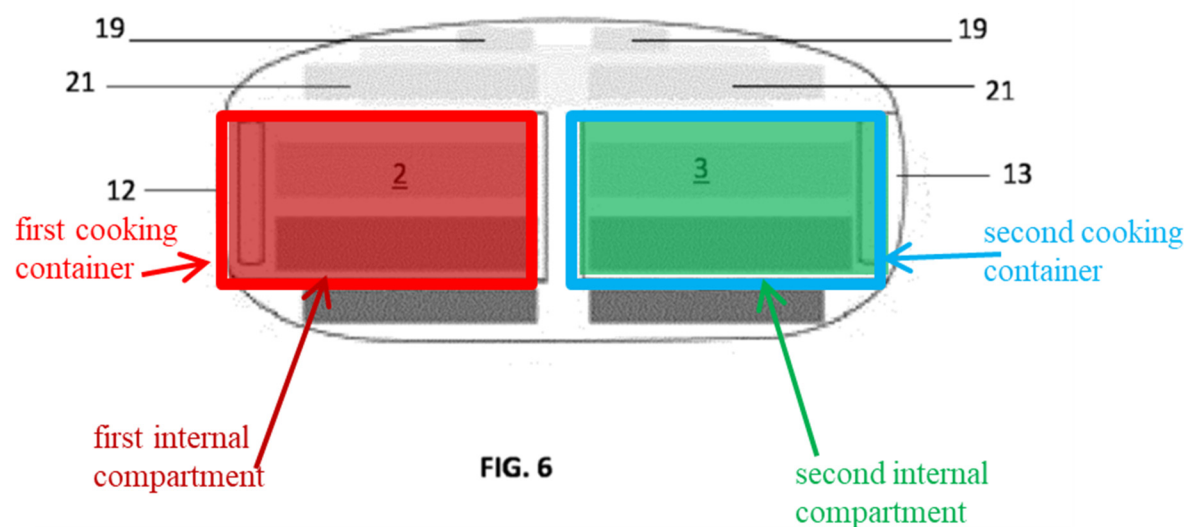
Claim 11[a]

Philips discloses “wherein the housing has a first opening extending into the first internal compartment and a second opening extending into the second internal compartment.” As Philips includes removable food preparation chambers, there must be an opening for each food preparation container to enter. EX1012, 11:23-

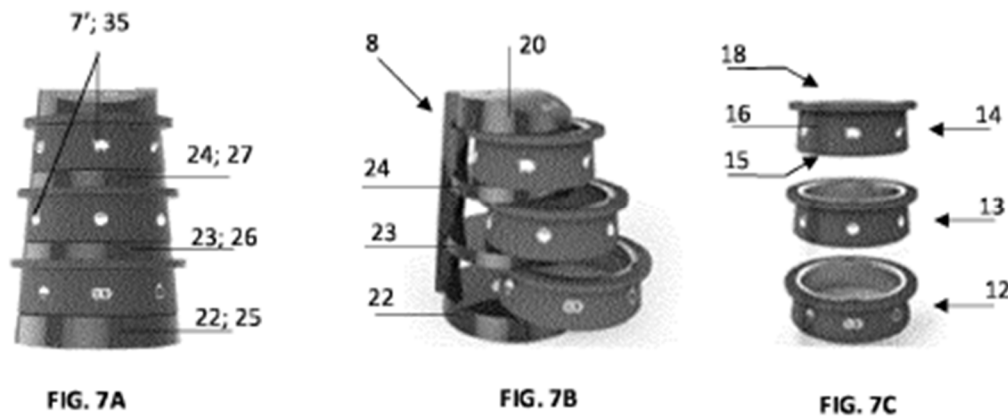
25. A POSITA would see that an opening would be needed to install the cooking container. EX1002, ¶196.

Claim 11[b]

Philips discloses “wherein said first cooking container is removably receivable within said first internal compartment to seal the first opening to said first internal compartment when inserted therein.” The ’377 patent uses the term “completely closed off” in claim 1 and “seal” in claim 11. Although the term “seal” is not used in the specification of the ’377 patent, the term seal should be understood to be closed securely. Philips states “each food preparation chamber may be accommodated in a container 12, 13 which may for instance be removably mounted in a support structure 8 *for instance like a drawer.*” EX1012, 11:19-23; FIG. 6 (annotated)



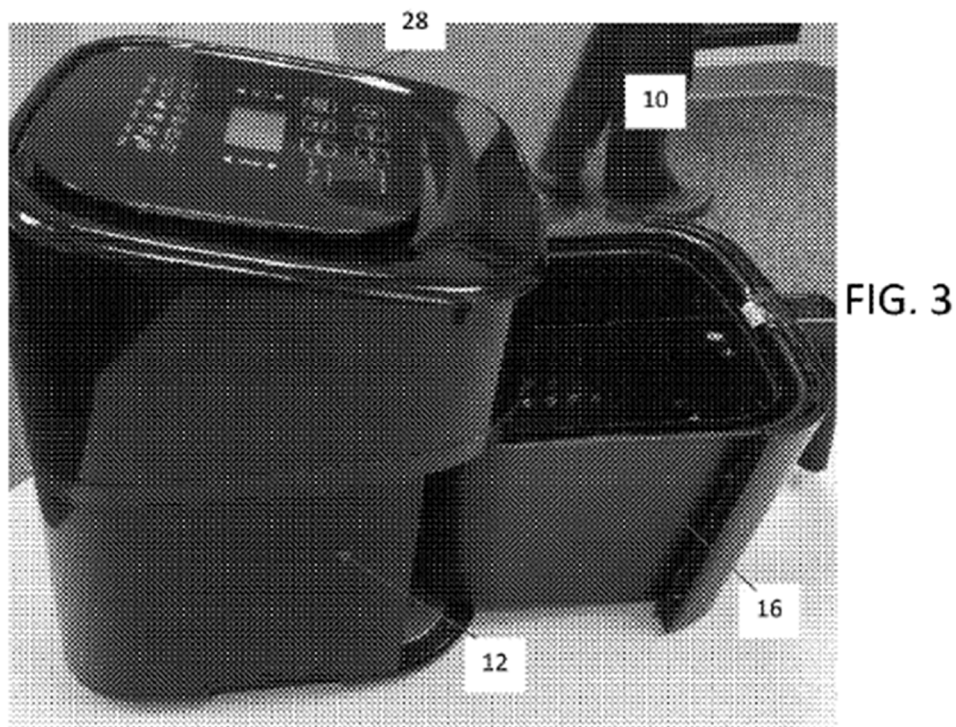
A POSITA would recognize that the first and second container of Philips when closing off like a “drawer” meets the limitation of closing off an opening of the first compartment when inserted. EX1002, ¶196-197. As disclosed in the other embodiments of Philips which are also described as “drawers” it is clear that the containers when inserted close off openings shown above in platforms 22, 23 and EX1002, ¶197.



EX1012, 8:16-20 (the containers 12,13,14 can be mounted in a support structure 8 like drawers. The support structure 8 may be provided with platforms 22, 23 and 24 (see FIGS 7A-C)”. Philips teaches circulating air through its containers 12,13, 14, and back through base, which further evidences that its containers are “closed off” thereby preventing leaking air. EX1002, ¶198.

To the extent Philips does not expressly disclose the limitation of “wherein said first cooking container is removably receivable within said first internal compartment to seal the first opening to said first internal compartment when

inserted therein,” Philips in view of Moon renders obvious this feature. EX1002, ¶199. Moon describes a drawer-style cooking container that “fits securely within the cooking chamber and substantially seals the chamber against heat loss during use,” thereby sealing the cooking container to the internal compartment. EX1013 Claim1; [0038]; Fig. 3. Moon states “the cooking chamber 14 is fully occupied by the fitted cooking drawer 16. In a closed position, the drawer seals the chamber 14 to prevent the escape of heat.” EX1013, [0038].



A POSITA would have understood that modifying the sealed drawer design of Moon into Philips system would achieve the claimed configuration and created

cooking containers that when closed into the housing seal the cooking chamber in the internal compartment. EX1002, ¶199.

A POSITA would have been motivated to make this combination because a continuous outer surface provides a tighter seal, which in turn reduces air leakage, improves internal air circulation, and increases heating efficiency. EX1002, ¶201. Philips shares the concern of assuring air flow is sufficient and stable when cooking. EX1011, ¶41. As discussed by Moon, creating a seal prevents the escape of heat. EX1013 ¶0038. The sealed design also enhances safety by reducing exposure to hot air. EX1002, ¶201. Further, as Moon shows, drawer-style continuous-surface designs were commonplace in countertop air fryers at the time of the alleged invention. *Id.* A POSITA would have viewed the integration of Moon’s drawer configuration into Philips as a predictable application of known design principles to achieve expected benefits. *Id.*

A POSITA also would have had a REOS in combining these teachings. Drawer-style continuous-surface designs were well known and required only routine adaptation to implement in Philip’s multi-container system. EX1002 ¶202. Nothing in either reference teaches away from such a modification; to the contrary, both references emphasize reducing heat loss and improving cooking performance. EX1002 ¶202; EX1011 ¶41. Thus, a POSITA would have reasonably expected that

combining Moon’s drawer configuration with Philips air fryer would yield the predictable result of a seal between the cooking chamber and internal compartment with improved thermal performance and user safety. *Id.*

Claim 11[c]

Philips discloses “wherein said second cooking container is removably receivable within said second internal compartment to seal the second opening to said second internal compartment when inserted therein.” As stated above, Philips states “each food preparation chamber may be accommodated in a container 12, 13 which may for instance be removably mounted in a support structure 8 *for instance like a drawer.*” EX1012, 11:19-23; FIG. 6 (annotated). Based on the configuration shown, a POSITA would see that the fryer assembly 2 would be closed securely in the internal compartment is taught by Guo. EX1002, ¶203.

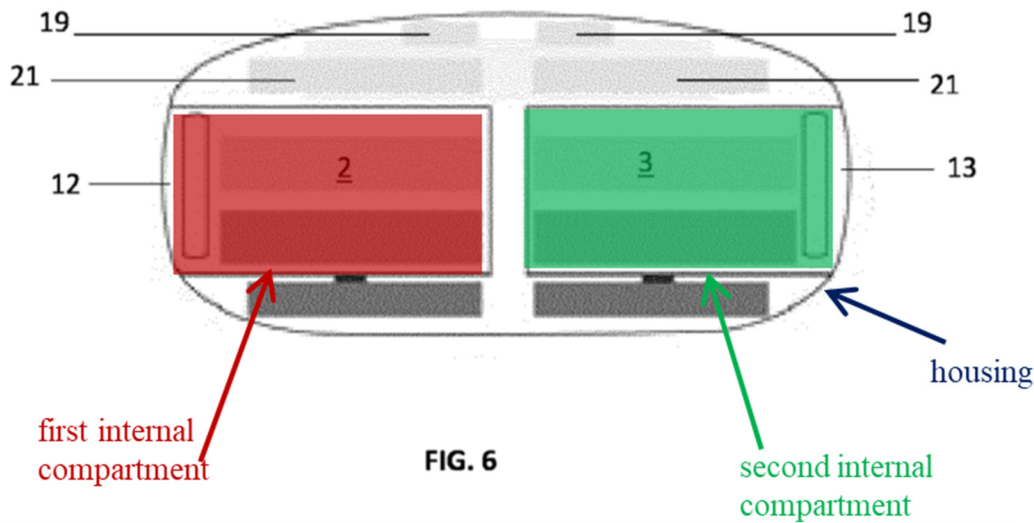
C. Claim 12

Claim 12[pre]:

Same as 1[pre] in Ground 3 incorporated herein. EX1002, ¶204.

Claim 12[a]:

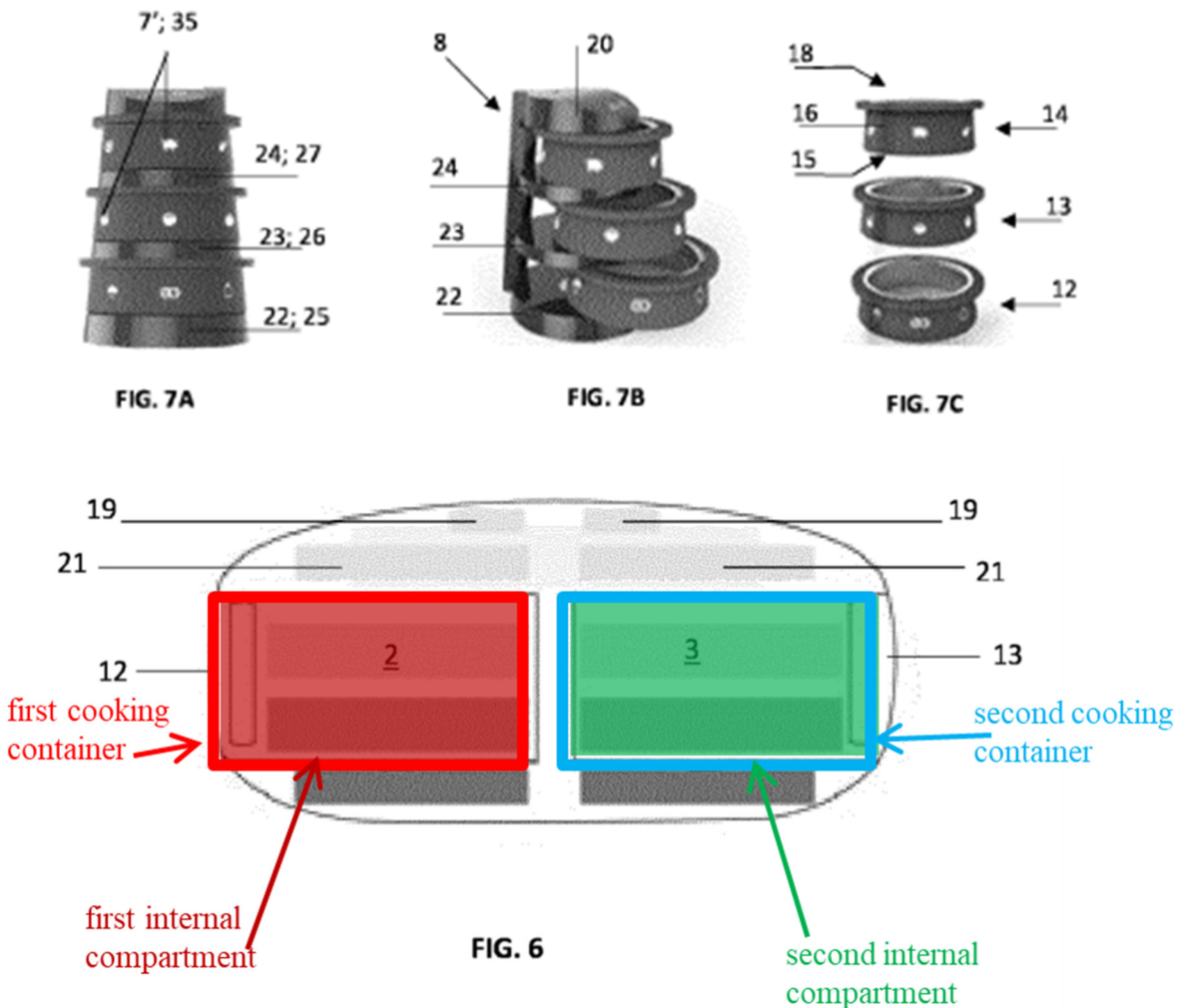
Philips discloses a housing as discussed in regards to limitation 1[a] in Ground 3, which is incorporated by reference here.



EX1012, Fig. 6. A POSITA would recognize that the preparation chambers are held within a housing. EX1002, ¶205.

Claim 12[b]:

Philips discloses “said first cooking container being removably receivable within said first internal compartment to close off an opening to said first internal compartment when inserted therein.” Philips states “each food preparation chamber may be accommodated in a container 12, 13 which may for instance be removably mounted in a support structure 8 *for instance like a drawer*.” EX1012, 11:19-23; FIG. 6 (annotated).

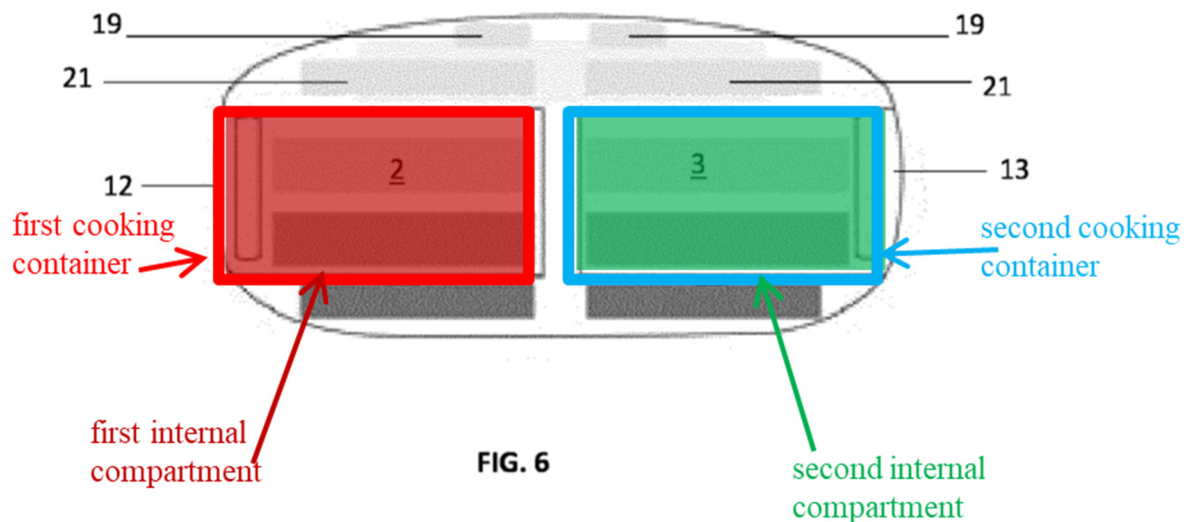


A POSITA would recognize that the first and second container of Philips when closing off like a “drawer” meets the limitation of closing off an opening of the first compartment when inserted. EX1002, ¶207. As disclosed in the other embodiments of Philips which are also described as “drawers” it is clear that the containers when inserted close off openings shown above in platforms 22, 23 and EX1002, ¶206; EX1012, 8:16-20 (the containers 12,13,14 can be mounted in a

support structure 8 like drawers. The support structure 8 may be provided with platforms 22, 23 and 24 (see FIGS 7A-C)". Philips teaches circulating air through its containers 12, 13, 14, and back through base, which further evidences that its containers are "closed off" thereby preventing leaking air. EX1002, ¶207.

Claim 12[c]:

Similar to the first cooking container, Philips also discloses "a second cooking container defining a second cooking volume." Philips discloses that "*each food preparation chambers 2,3 may be accommodated in a container 12, 13 which may for instance may be removable mounted.*" EX1012, 11:19-23; Figure 2 (annotated). As shown below, there are two food containers 12 and 13 disclosed in two food volumes 2 and 3. EX1002, ¶208.



A POSITA would understand that the “second container defining a second cooking volume” would be met by one of the containers 12 and 13 disclosed in Philips (e.g. first container is disclosed by first container 12 and first cooking volume 2 and second container is disclosed by second container 13 and second cooking volume 3. EX1002, ¶209. Thus, Philips discloses this limitation.

Claim 12[d]:

Philips discloses “the first internal compartment including a first heating assembly comprising a first fan and a first heating element configured to cook food disposed in the first cooking container.” Philips states each chamber may comprise “a heating element 21 and a fan 19, for forcefully circulating hot air through the food.” EX1012, 9:13-14. A POSITA would understand that the arrangement shown in FIG. 6 would cook food contained in the chamber. EX1002, ¶210.

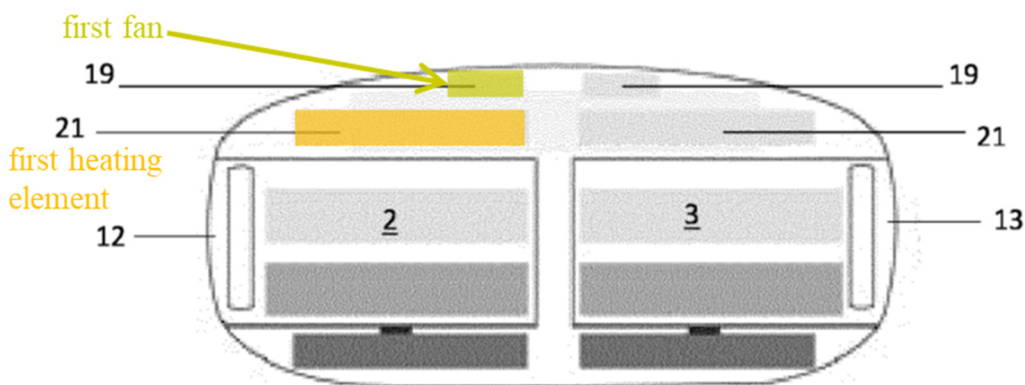


FIG. 6

Claim 12[e]:

Philips discloses “the second internal cooking compartment including a second heating assembly comprising a second fan and a second heating element configured to cook food disposed in the second cooking container.” Philips states each chamber may comprise “a heating element 21 and a fan 19, for forcefully circulating hot air through the food.” EX1012, 9:13-14. A POSITA would understand that the arrangement shown in FIG. 6 would cook food contained in the chamber. EX1002, ¶211.

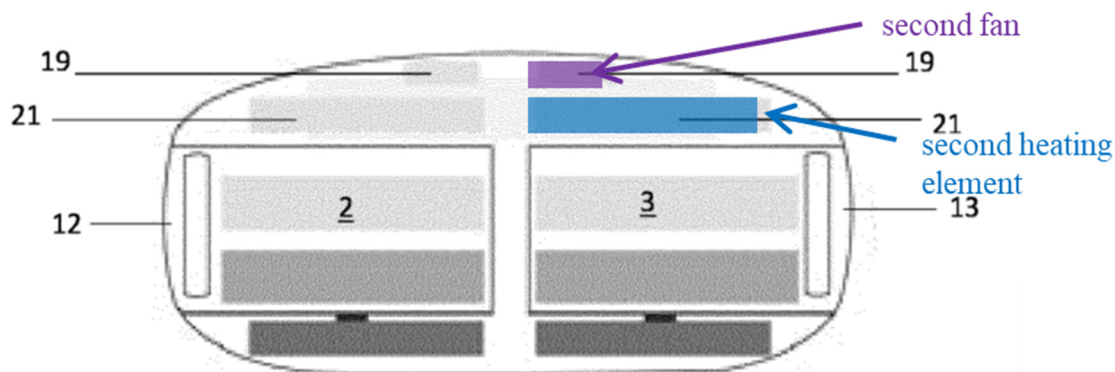


FIG. 6

Claim 12[f]:

Philips discloses “the first and second heating elements being independently operable to independently cook food contained within the first and second cooking containers.” Philips states dual arrangement of the air fryers allows two cooking

operations at the same time (two food chambers can be set independently. EX1012, 11:12-15, Fig. 6, Claim 1. Each food chamber has “its own heating element 21.”



FIG. 6

Philips states "In some embodiments, at least one of the following cooking parameters can be set and controlled independently per food preparation chamber: the temperature, the air flow rate, the cooking time, the humidity, the pressure."

EX1012, 6:9-11. A POSITA would understand that Philips Fig. 6 embodiment

allows to set and control “temperature” differently, and the device would

independently operate the heating element according to the set temperature.

EX1002 ¶212-213; EX1012, Claim 7.

Claim 12[g]:

Philips discloses or renders obvious “the first and second heating assemblies being programmable to simultaneously cook food in separate cooking modes.”

Philips discloses a user interface 7 may allow a user to enter desired cooking conditions (cooking method, cooking parameters) per food preparation chamber and may provide the user with feedback. EX1012, 7:29-32. A POSITA viewing FIG. 1 would understand that the user interface of FIG. 1 could be applied to each compartment disclosed in FIG. 6 and thus the cooking operations are programmable. A POSITA would easily recognize that cooking using a programmable would simultaneously cook food in an independent operation of the heating elements. EX1002, ¶214.

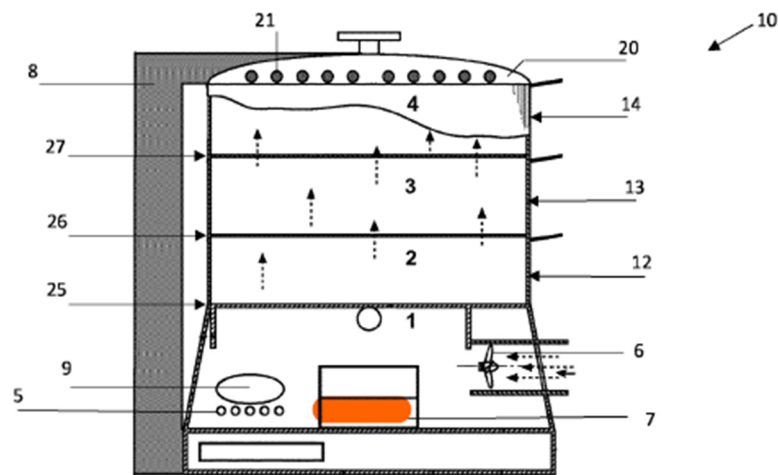


FIG. 1

To the extent the user interface of Philips is not explicitly “programmable,” Philips in view of Moon renders this limitation obvious. Moon discloses a user interface that comprises “programmable time and temperature buttons, as well as a

plurality of preset time and temperature settings and a plurality of programmable buttons.” EX1013, [0011].

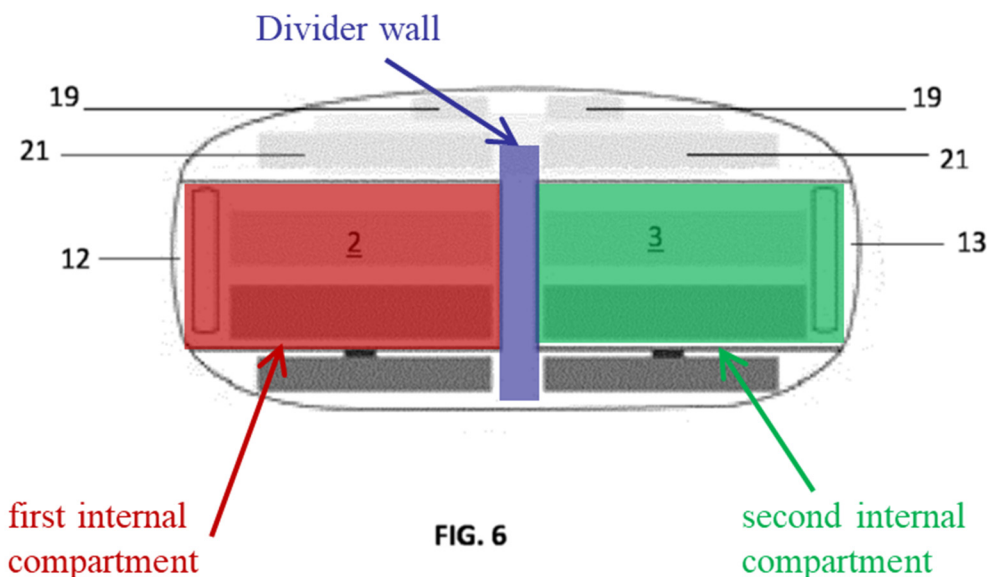
A POSITA would have been motivated to combine Moon’s programmable user interface with a dual-chamber air fryer, such as the Philips design, in order to improve the operability and flexibility of the appliance. EX1002 ¶216. Dual air fryers inherently require coordination of time and temperature settings for two independent cooking compartments as disclosed in Philips. *Id.* A POSITA would recognize that incorporating a programmable interface allows the operator to easily manage each compartment separately or in synchronization, thereby reducing user burden and minimizing error compared to manual adjustment. *Id.*

A POSITA would also have had a REOS in making this combination. Both the hardware (programmable displays, digital controllers) and software (preset storage, compartment-specific controls) were readily available and routinely implemented in consumer cooking devices by the relevant timeframe. EX1002 ¶217. Integrating these known control elements into a dual-compartment air fryer would only require routine adaptation of existing design practices. *Id.*

Claim 12[h]:

Philips discloses “the first internal compartment and the second internal compartment being separated by a dividing wall extending upward from a base of

the housing.” Philips states the “chambers are arranged side by side and are physically separated such that the cooking parameters in the food preparation chambers 2, 3 can be set independently.” EX1012, 9:11-13. Philips further teaches that a non-permeable wall or partition may separate the chambers. EX1012, 8:16-19. A POSITA would understand that the physical separation taught by Philips would include a wall. EX1002, ¶218.



Claim 12[i]:

Philips discloses “wherein the first and second cooking containers are horizontally coplanar when disposed in the first and second internal cooking compartments respectively.” Philips states the food preparation chambers are “arranged side by side as illustrated in FIG. 6.” EX1012, 6:9-11. A POSITA would understand that this arrangement is horizontally coplanar. EX1002, ¶219.

D. Claim 13

Same as 7 in Ground 4 which is incorporated by reference here. EX1002, ¶221.

E. Claim 14

Philips discloses “wherein the first internal cooking compartment and the second internal cooking compartment are independently operable to cook food.” Philips states dual arrangement of the air fryers allows two cooking operations at the same time (two food chambers can be set independently). EX1012, 11:12-15, Fig. 6. “The chambers are arranged side by side and are physically separated such that the cooking parameters in the food preparation chambers can be set independently.” EX1012, 11:12-13.

A POSITA would recognize that two food preparation chambers that can be “set independently” establishes that each food preparation chamber has its own heating element that is independently operable to cook food. EX1002, ¶224.

Philips discloses “using at least one of conduction, convection, radiation, and induction.” Philips uses heating elements, which Philips discloses are for “supplying radiation heat.”. EX1012, 9:9-12. A POSITA would understand that the heating element of Philips discloses at least radiation. EX1002, ¶225.

F. Claim 15

Claim 15[a]

Philips discloses “a control system configured to operate the first and second cooking assemblies,” Philips states the user interface allows users to put in cooking parameters. EX1012, 12:20-21. Philips discloses a cooking parameter can include “temperature, cooking time, air flow rate, humidity, pressure.” EX1012, 4:6-7. A POSITA would have been motivated to provide a single user interface to control both chambers of a dual-chamber air fryer in order to simplify operation, reduce component cost, and improve user experience. EX1002 ¶227. Dual-chamber air fryers for users may require coordination of temperature and timing settings for each chamber. *Id.* Prior to the priority date, it was well known that user interfaces in consumer appliances (e.g., ovens, microwaves, dishwashers, and washing machines) commonly controlled multiple heating or processing zones from a single integrated panel. *Id.* A POSITA would have recognized that duplicating separate interfaces for each chamber would be unnecessarily complex and confusing to the user, while a single interface could readily allow independent or synchronized control of both chambers through selectable menus or inputs. *Id.*

Moreover, integrating a single user interface aligns with established design practices to minimize parts, reduce manufacturing cost, and conserve space on the appliance housing. EX1002, ¶228. It would have been straightforward for a

POSITA to adapt known programmable control elements (e.g., digital displays, keypads, or rotary selectors) to allow chamber-specific selection within a single panel. The use of a single interface to control multiple cooking compartments would thus represent the predictable application of known technology to achieve recognized benefits.

A POSITA would have had a REOS in implementing such a configuration. At the time, single interfaces controlling multiple functions were ubiquitous in household appliances, and both the hardware and software required to enable chamber-specific control were readily available and routinely applied. EX1002 ¶229. Incorporating a single control panel to operate two cooking chambers would not have required inventive skill, but instead would have been a matter of routine design choice yielding predictable results. EX1002 ¶229.

Claim 15[b]

Philips discloses that the “control system being configured to receive inputs corresponding to at least one of a temperature, a cook time, and a food type.” Philips states the user interface allows users to put in cooking parameters. EX1012, 12:20-21. Philips discloses a cooking parameter can include “temperature, cooking time, air flow rate, humidity, pressure.” EX1012, 4:6-7; EX1002 ¶230.

G. Claim 16

Philips and/or Philips in view of Moon discloses “the motor configured to operate the first and second fans at the same speed or at different speeds.” Philips does not explicitly disclose speeds for air circulation. Philips instead states “Alternatively, the chambers 2, 3 may each include their own heating element 21 and share a single fan 19. In such case, suitable control means may be provided to control the air flow rate of said fan to the respective chambers 2, 3.” EX1012, 11:15-18. A POSITA would understand that the “suitable control means” disclosed in Philips single fan embodiment could be applied to the multiple fan embodiments to implement multiple fan speeds. EX1002, ¶232.

To the extent Petitioner asserts Philips does not disclose a motor configured to operate the first and second fans at the same speed or at different speeds, Moon discloses for its fans that a user may set “air speed” via a user interface. EX1013, [0034]; EX1002, ¶233. A POSITA would have been motivated to adapt the motor control functionality of Moon into the Philips dual-chamber system using a single motor with a gearbox mechanism to drive both fans. Gearboxes and transmission systems were well-known in the art to split torque and adjust rotational speeds across multiple outputs from a single motor. EX1002 ¶233; EX1014, [00305]. By coupling a gearbox to the motor shaft, a POSITA would readily recognize that two driven shafts could be configured: (1) to rotate both fans at the same speed, or (2)

to rotate the fans at different speeds, depending on gear ratios or clutching mechanisms. EX1002 ¶233. The '377 Patent is notably silent on how multiple speeds for a single motor is achieved.

The motivation to employ a single motor with a gearbox rather than two separate motors is supported by several factors. First, it reduces cost and complexity by eliminating duplicate motors and associated wiring. EX1002, ¶234. Second, it conserves space within the appliance housing—an important consideration in compact countertop devices such as a tabletop air fryer. *Id.* Third, it ensures synchronized operation when desired, while still enabling differential speeds through selectable gearing, thereby providing flexibility to accommodate different food items in the two chambers. *Id.*

This modification would have been routine for a POSITA because single-motor, multi-output gearbox systems were already in common use in household appliances (e.g., washing machines, mixers, HVAC blowers) where a single motor drives multiple fans, drums, or impellers at different or selectable speeds. EX1002, ¶235. The application of such known mechanical arrangements to the Philips dual-fan configuration would have been a predictable use of known elements to yield expected benefits. *Id.*

A POSITA would also have had a REOS, since both Philips and Moon already disclose electric fans driven by motors, and gearboxes are mature, off-the-shelf components that can readily distribute motion from a single motor to multiple outputs. EX1002, ¶236. The combination would not require inventive skill but instead reflect routine engineering design, producing the predictable improvement of enabling one motor to operate both fans at the same or different speeds depending on cooking needs. *Id.*

H. Claim 17

Claim 17[a]

Same as 11[a] in Ground 4, incorporated by reference here. EX1002, ¶238.

Claim 17[b]

Same as 11[b] in Ground 4, incorporated by reference here. EX1002, ¶239.

Claim 17[c]

Same as 11[c] in Ground 4, incorporated by reference here. EX1002, ¶240.

XI. CONCLUSION

Petitioner respectfully requests inter parts review of the Challenged Claims.

Respectfully submitted,

Cozen O' Connor

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XII. MANDATORY NOTICES

Petitioner provides the following mandatory notices pursuant to 37 C.F.R. § 42.8(a)(1).

A. Real Party-in-Interest (37 C.F.R. § 42.8(b)(1))

The real parties-in-interest are RJ Brands LLC. No other entity is controlling, directing, or funding the submission of this petition.

B. Related Matters (37 C.F.R. § 42.8(b)(2))

To the best of Petitioner's knowledge, the '377 Patent has only been asserted against Petitioner in *SharkNinja Operating LLC v. RJ Brands, LLC*, No. 1:24-cv-08984-CPO-MJS (DNJ, Sept. 5, 2024).

C. Lead and Back-up Counsel (37 C.F.R. § 42.8(b)(3))

Petitioner appoints the following attorneys as lead and back-up counsel from Cozen O'Connor. Filed herewith are a power of attorney in accordance with 37 C.F.R. § 42.10(b).

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D. Service Information (37 C.F.R. §42.8(b)(4))

Petitioner consents to electronic service by email to its lead and back-up counsel at the email addresses shown above.

E. Power of Attorney

A power of attorney is filed herewith according to 37 C.F.R. §42.10(b).

CERTIFICATION OF WORD COUNT

The undersigned certifies pursuant to 37 C.F.R. §42.24 that the foregoing Petition for *Inter Partes* Review, excluding any table of contents, mandatory notices under 37 C.F.R. §42.8, certificates of service or word count, or appendix of exhibits, contains 13,914 words according to the word-processing program used to prepare this document (Microsoft Word).

Dated: September 12, 2025

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CERTIFICATE OF SERVICE ON PATENT OWNER
UNDER 37 C.F.R. §42.105

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(b), the undersigned certifies that on September 12, 2025, a complete and entire copy of this Petition for *Inter Partes* Review and Exhibits were provided via Federal Express to the Patent Owner by serving the correspondence address of record for the '377 Patent:

Mintz Levin/SharkNinja
One Financial Center
Boston, MA 02111
UNITED STATES

Further, a courtesy copy of this Petition for *Inter Partes* Review was sent via email to Patent Owner's litigation counsel:

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