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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/385,238	07/26/2021	Ethan S. Kramer	057664-369001US	1444

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EXAMINER	
TRAN, THIEN S	

ART UNIT	PAPER NUMBER
3761	

NOTIFICATION DATE	DELIVERY MODE
04/03/2023	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 17/385,238	Applicant(s) Kramer et al.	
	Examiner THIEN S TRAN	Art Unit 3761	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 7/26/2021.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-22 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-22 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 7/26/2021 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date 1/25/2022.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Priority

2. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

Claim Objections

3. Claim 16 is objected to because of the following informalities: line 2-3 recites "are selectively energized clean" which should be changed to "are selectively energized to clean". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6 and 13 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor (or for applications subject to pre-AIA 35 U.S.C. 112, the applicant), regards as the invention.

6. The term "about; approximately" in claims 6 and 13 are relative terms which renders the claim indefinite. The term "about; approximately" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Does "about 50%; approximately three times" mean that a deviation of 1, 5, 10, 15, 20% is acceptable? It is suggested to delete the phrase "about, approximately" or define the requisite degree in the claims.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.
>
> (a)(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

8. Claims 1-3, 7-9, 12 and 18-22 are rejected under 35 U.S.C. 102(a)(1) / (a)(2) as being anticipated by Rohrl (US 3,984,578).

9. With respect to the limitations of claim 1, Rohrl teaches a cooking system (Fig 1, electric baking oven, Col 3, Lines 34-65) positionable on a support surface (floor or countertop), the cooking system comprising: a housing (muffle 11, Col 3) having a hollow chamber including an internal cooking chamber (cooking space 10, Col 3) for receiving a food item; at least one radiative heating element (grill heater 16, Col 3) arranged within said hollow interior and operable to heat said cooking chamber (10); and a convection heater (annular electric air heater 27, Col 3) disposed within said hollow chamber and operable to heat said cooking chamber; the cooking system is operable in a convection cooking mode (Col 3, Lines 26-31, preferable to circulate the heated air within the cooking space), and during said convection cooking mode said at least one radiative heating element is selectively energized (Col 3, Lines 25-30, preferable to circulate the heated air within the cooking space during the entire baking time; Col 4, Lines 28-30, control 17 may be coupled to both the air heater 27 and grill heater 16 for controlling these heat sources simultaneously; Col 5, Lines 1-11)

10. With respect to the limitations of claims 2, 3, 7, 8, 9, 12, 18, 19, 20, 21 and 22, Rohrl teaches a cooking cycle of said convection cooking mode includes at least one convection cooking segment during which said convection heater is energized, and at least one pulsing segment during which said at least one radiative heating element is energized (Col 5, Lines 13-15, air heater 27 and grill heater 16 may be simultaneously activated and deactivated); said convection heater includes a convective heating element (27), and during said at least one pulsing segment, said convective heating element is de-energized (Col 5, Lines 1-5, it deactivates the air heater (and electric motor, if desired) shortly after grill heater is activated); a time of said at least one pulsing

segment is shorter than a time of said at least one convection cooking segment (Fig 2, shows 1 pulse segment shorter than convection cooking segment of 140 mins); said at least one pulsing segment occurs at a predetermined interval within said cooking cycle (Fig 2, shows pulsing at predetermined interval); said at least one pulsing segment is initiated in response to a detection of a sensed condition (Col 5, Lines 13-22); a time of said pulsing segment is less than a time of said convection cooking segment (Fig 2, shows 1 pulse segment shorter than convection cooking segment of 140 mins); said hollow interior (10) includes a convective chamber (chamber behind baffle plate 22, Col 3) in fluid communication with said cooking chamber, said convection heating (air heater 27, fan wheel 21) being arranged within said convective chamber; further comprising a fan shroud (baffle plate 22) mounted within said hollow interior (10), said fan shroud forms a partition that separates said cooking chamber (10) and said convective chamber (chamber behind baffle plate 22, Col 3); the cooking system is operable in a radiative cooking mode (Col 5, Lines 39-40, if mere grilling of food within space 10 is desired to be carried out, only grill heater 16 need to be utilized); in the radiative cooking mode, only the at least one radiative heating element is energized (Col 5, Lines 39-40); the cooking system has a maximum power of 1800W (Col 4, Lines 1-5, air heater 27 is generally at least 100 watts, and preferably 1240 watts).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have

> been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claim 4 is are rejected under 35 U.S.C. 103 as being obvious over Rohrl (US 3,984,578) as applied to claim 2, further in view of Swayne (US 2020/0229639).

14. With respect to the limitations of claim 4, Rohrl teaches said convection heating system further includes an air movement device (fan wheel 21, Col 3) and a convective heating element (annular electric air heater 27, Col 3) for heating an air flow moved by said air movement device. Rohrl discloses the claimed invention except for during said at least one pulsing segment said air movement device is energized, while said convective heating element is de-energized. However, Swayne discloses during said at least one pulsing segment (0006, cycling two or more heating elements on and off) said air movement device is energized, while said convective heating element is de-energized (0061, The fan 24 also is operated for the full 60-second duty cycle, concurrently with operation of each of the bake heating element 18 and the broil heating element 16. The convection heating element is not active during any portion of the entire duty cycle) is known in the art. It would have been obvious for one having ordinary skill in the art before the effective filing date of the invention to adapt the cooking system of Rohrl having an air movement device and convective heating element silent to said air movement device is energized, while said convective heating

element is de-energized with the during said at least one pulsing segment said air movement device is energized, while said convective heating element is de-energized of Swayne for the purpose of providing a known air movement configuration that allows that cooking system to operate in an “Air Fry” mode (0059-0061), thereby improving the overall versatility of the device.

15. Claims 5, 6, 11, 13, 14, 15 and 16 are rejected under 35 U.S.C. 103 as being obvious over Rohrl (US 3,984,578) as applied to claims 2 and 12, further in view of Smith (US 2016/0327280).

16. With respect to the limitations of claims 5, 6, 14, 15 and 16, Rohrl discloses the claimed invention except for during said at least one pulsing segment, a power provided to said at least one radiative heating element is less than a full power associated with operation of said at least one radiative heating element; during said at least one pulsing segment, said at least one radiative heating element is operated at about 50% of said full power; said at least one radiative heating element includes a first radiative heating element arranged adjacent a ceiling of said cooking chamber and a second radiative heating element arranged adjacent a floor of said cooking chamber; during said convection cooking mode, said second radiative heating element is selectively energized to clean said second radiative heating element; during said convection cooking mode, both said first radiative heating element and said second radiative heating element are selectively energized clean said second radiative heating element.

17. However, Smith discloses during said at least one pulsing segment, a power provided to said at least one radiative heating element (Figs 2, heating elements 114,

0032) is less than a full power associated with operation of said at least one radiative heating element (0032, control unit 118 begins modulating the electrical current to the heating elements 114 between the following two amounts in order to maintain the air in the compartment at the desired temperature: (1) providing enough current to operate the heating elements 114 at the selected fraction of rated power (e.g., 60% rated power)); during said at least one pulsing segment, said at least one radiative heating element is operated at about 50% of said full power (0032) is known in the art. It would have been obvious for one having ordinary skill in the art before the effective filing date of the invention to adapt the cooking system of Rohrl having at least one radiative heating element providing said at least one pulsing segment silent to the power requirements with the during said at least one pulsing segment, a power provided to said at least one radiative heating element is less than a full power associated with operation of said at least one radiative heating element; during said at least one pulsing segment, said at least one radiative heating element is operated at about 50% of said full power of Smith for the purpose of providing a known heater operating configuration that allows for the cooking of the food product to begin immediately after the heating elements have been powered ON, while also maintaining a desired temperature within the compartment, thereby reducing the overall cooking time (0033).

18. Additionally, Smith also discloses said at least one radiative heating element includes a first radiative heating element arranged adjacent a ceiling of said cooking chamber (Fig 2, top heating elements 114, 0019) and a second radiative heating element arranged adjacent a floor (bottom heating elements 114) of said cooking chamber; during said convection cooking mode, said second radiative heating element

is selectively energized to clean said second radiative heating element (0022, 0032, 0033, application of heat to heating elements 114 burns grease and contamination from the surface of the heating elements); during said convection cooking mode, both said first radiative heating element and said second radiative heating element are selectively energized clean said second radiative heating element (0022, 0032, 0033) is known in the art. It would also have been obvious for one having ordinary skill in the art before the effective filing date of the invention to adapt the cooking system of Rohrl having at least one radiative heating element with the said at least one radiative heating element includes a first radiative heating element arranged adjacent a ceiling of said cooking chamber and a second radiative heating element arranged adjacent a floor of said cooking chamber; during said convection cooking mode, said second radiative heating element is selectively energized to clean said second radiative heating element; during said convection cooking mode, both said first radiative heating element and said second radiative heating element are selectively energized clean said second radiative heating element of Smith for the purpose of providing a known multiple radiant heating element configuration that drastically increases the heating capacity of the cooking system (0022).

19. With respect to the limitations of claims 11 and 13, Rohrl teaches that the convection cooking segment is longer than the pulsing segment (see figure 2). Smith discloses varying a power delivered to said at least one radiative heating element (0032). Rohrl in view of Smith discloses the claimed invention except for said convection cooking segment is approximately three times as long as a pulsing segment; a power delivered to said at least one radiative heating element during a pulsing

segment is less than a power delivered to said convection heater during said convection cooking segment.

20. However, it would have been obvious for one having ordinary skill in the art before the effective filing date of the invention was made to have said convection cooking segment is approximately three times as long as a pulsing segment; a power delivered to said at least one radiative heating element during a pulsing segment is less than a power delivered to said convection heater during said convection cooking segment, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable cooking segment, pulsing segment duration and an optimal heating element input power involves only routine skill in the art (see MPEP 2144.04).

21. Claim 10 is rejected under 35 U.S.C. 103 as being obvious over Rohrl (US 3,984,578) as applied to claims 2 and 9, further in view of Alvey (US 10,502,430).

22. With respect to the limitations of claim 10, Rohrl discloses the claimed invention except for said sensed condition includes accumulation of a food byproduct on said at least one radiative heating element. However, Alvey discloses said sensed condition includes accumulation of a food byproduct on said at least one radiative heating element (Col 4, Lines 15-30) is known in the art. It would have been obvious for one having ordinary skill in the art before the effective filing date of the invention to adapt the cooking system of Rohrl having a sensor silent to the sensed condition includes food byproduct accumulation with said sensed condition includes accumulation of a food byproduct on said at least one radiative heating element of Alvey for the purpose of

providing a known sensor configuration that detects heating element contamination so that a control system can run a self-cleaning routine by driving the heating element and/or the rest of the heating system to burn off the dirt (Col 4, Lines 15-30).

23. Claim 17 is rejected under 35 U.S.C. 103 as being obvious over Rohrl (US 3,984,578) as applied to claim 1, further in view of Johncock (US 2016/0331175).

24. With respect to the limitations of claim 17, Rohrl discloses the claimed invention except for said convection heating system is located remotely from said internal cooking chamber. However, Johncock discloses said convection heating system (Fig 1, 0014, another sheathed electric heating element is provided behind cover 46) is located remotely from said internal cooking chamber (Fig 1, oven cavity 6, 0013) is known in the art. It would have been obvious for one having ordinary skill in the art before the effective filing date of the invention to adapt the cooking system of Rohrl having a convection heating system with said convection heating system is located remotely from said internal cooking chamber of Johncock for the purpose of providing a known cover configuration that protects a user or food item from coming into direct contact with said convection heating system, thereby improving the overall safety of the device.

Conclusion

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THIEN S TRAN whose telephone number is (571)270-7745. The examiner can normally be reached Monday-Friday [8:00-4:00].

26. Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Wiehe can be reached on 571-272-8648. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/THIEN S TRAN/
Primary Examiner, Art Unit 3761
3/28/2023