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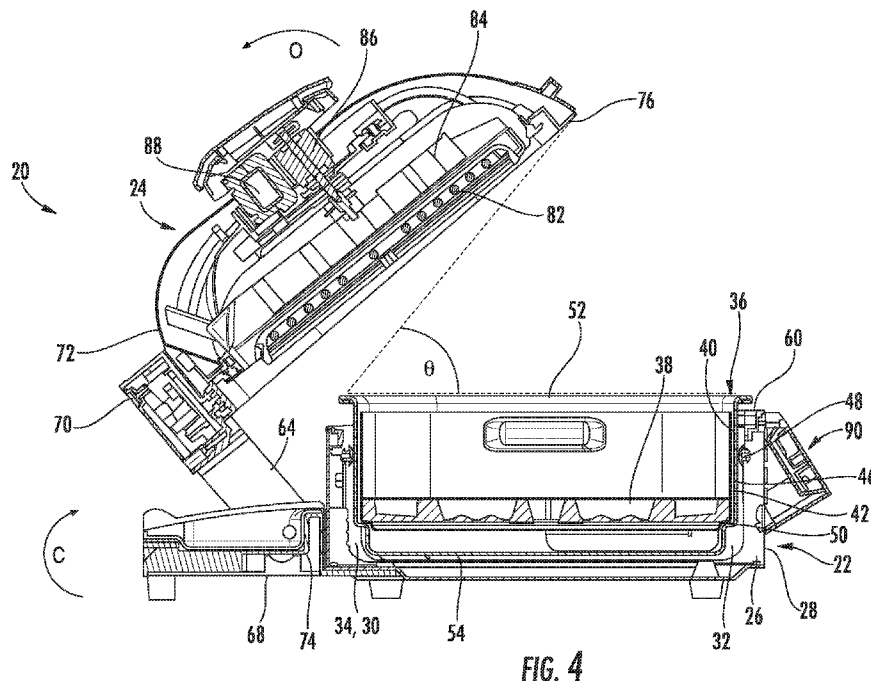
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(71) Applicant: **SHARKNINJA OPERATING LLC**  
[US/US]; 89 A Street, Suite 100, Needham, Massachusetts  
02494 (US).

(72) Inventors: **ANTHONY, Joshua D.**; 11 Melody Lane, Billerica, Massachusetts 01821 (US). **MARTIN, Christopher T.**; 333 Fairhaven Road, Concord, Massachusetts 01742 (US). **GUERIN, Thomas**; 109 D St. #5, Boston, Massachusetts 02127 (US). **STEINMETZ, John M.**; 267 Commonwealth Ave, Apt. 10, Boston, Massachusetts 02116 (US). **BROWN, Ethan T.**; 165 Cambridgepark Dr., Apt. 242, Cambridge, Massachusetts 02140 (US). **WOODROW, Chad P.**; 48 Waterhouse St., Apt. 1, Somerville, Massachusetts 02144 (US). **DUBEAU, Michaela**; 89 Aldrich Street, Uxbridge, Massachusetts 01569 (US). **MARSDEN, Jennifer Kathryn**; 15B Montpelier Road, London SE15 2HB (GB). **JACKSON, Roger Neil**; The Lodge, Hillside, Treburley, Launceston, Cornwall PL159PU (GB). **CROWLEY, Christina J.**; 2nd Floor Gillingham House, 38-44 Gillingham Street, London SW1V 1HU (GB). **ELLISTON, Rupert**; 5th Floor, Gillingham House, 38-44 Gilling-

(54) Title: COOKING DEVICE AND COMPONENTS THEREOF



(57) Abstract: A cooking system includes a housing having a hollow interior including a cooking zone for receiving food to be cooked, a heating element associated with said housing, and a grill plate having a support surface for supporting food within said hollow interior. The grill plate has a thermal mass sufficient to maintain a temperature required to achieve a Maillard reaction of said food. At least a portion of said cooking zone is disposed between said support surface and said heating element. Said heating element is operable to heat said support body to impart contact cooking from said support surface to food supported thereby in said cooking zone.



ham Street, London SW1V IHU (GB). **TATTERSFIELD, Andrew John Roy**; 49a Saltoun Road, Brixton, London SW2 1EW (GB).

(74) **Agent: GIBSON, Daniel R.**; Cantor Colburn LLP, 20 Church Street, 22nd Floor, Hartford, Connecticut 06103 (US).

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**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

**Published:**

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) **Date of publication of the international search report:**

07 January 2021 (07.01.2021)

# INTERNATIONAL SEARCH REPORT

International application No PCT/US2020/019685
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**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. A47J37/06  
 ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 A47J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2013/156906 A1 (RAGHAVAN J K [US] ET AL) 20 June 2013 (2013-06-20) paragraphs [0002], [0040] - [0053]; figures 1-4 -----	1-13, 16-30
X	WO 2018/104351 A1 (KONINKLIJKE PHILIPS NV [NL]) 14 June 2018 (2018-06-14) figure 1 -----	1-5,7-30
X	WO 99/30086 A1 (QUADLUX INC [US]) 17 June 1999 (1999-06-17) figures 1,2 -----	1-13, 15-30

Further documents are listed in the continuation of Box C.       See patent family annex.

\* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&amp;" document member of the same patent family</p>
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Date of the actual completion of the international search  <b>1 October 2020</b>	Date of mailing of the international search report  <b>08/12/2020</b>
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  <p style="text-align: center; font-size: 1.2em;">Fritsch, Klaus</p>
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2020/019685

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-30

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-30

Cooking system and method of cooking food using a cooking system, the cooking system comprising a support body having a thermal mass sufficient to maintain a temperature required to achieve a Maillard reaction of said food, wherein at least a portion of said cooking zone is disposed between said support surface and said heating element.  
This feature solves the objectively determined problem to achieve a better browning of the food to be cooked.

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2. claims: 31-52

Cooking system wherein the support body includes a plurality of channels formed between said plurality of diffuser ribs, at least one of said plurality of diffuser ribs and said plurality of channels being operable to deflect a relatively downward flowing fluid relatively horizontally across said support body.  
This feature solves the objectively determined problem of better directing fluid in the hollow interior of the housing.

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3. claims: 53-69

Cooking system comprising a temperature sensor for monitoring a temperature of said support body, said temperature sensor being located remotely from said heating element.  
This feature solves the objectively determined problem of better monitoring the temperature in the hollow interior of the housing.

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4. claims: 70-79

Cooking system comprising a food container in said hollow interior, said support body being positionable within an interior of said food container.  
This feature solves the objectively determined problem of cooking food in a separate food container.

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5. claims: 80-97

Cooking system comprising a ledge formed about said hollow interior, said container being supportable by said ledge, and said temperature sensor being mounted at said ledge.  
This feature solves the objectively determined problem of supporting a container and mounting a temperature sensor on

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

a same ledge.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2020/019685

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
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