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[Continued on nextpage]

(54) Title: AN AUTOMATED FOOD MAKING APPARATUS

(57) Abstract: An automated food making apparatus is described. An automated food making apparatus can include: a carousel; a dispensing apparatus shared among a plurality of canisters on the carousel, wherein at least one canister includes a paddle; and wherein the dispensing apparatus is configured to rotate the canister's paddle to dispense ingredients stored in the canister. A dispensing mechanism for an automated food making apparatus can include: an actuator arm; a motor that is adapted to rotate the actuator arm; one or more magnets embedded in the actuator arm; and one or more sensors configured to detect position of the actuator arm; wherein the actuator arm dispenses ingredients by rotating a pin located on a canister.

Fig. 1
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))
INTERNATIONAL SEARCH REPORT

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC - A47F1/02; A47J44/02; B05B7/24; B65D83/06; B67D7/02 (2017.01)

CPC - A47F1/02; A47J44/02; B05B7/24; B65D83/0083; B67D7/0294

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)

See Search History document

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

See Search History document

Electronic database consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>Y</td>
<td>CN 2812591 Y (XINGTAI SCIENCE &amp; TECHNOLOGY) 2006-09-06; page 4; figures 1, 2</td>
<td>1, 5, 6</td>
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<tr>
<td>X</td>
<td>US 4,058,120 A (CAPARELLI et al.) Nov. 15, 1977; figures 1-7, column 6, lines 60-65</td>
<td>20, 24</td>
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<td>Y</td>
<td>US 6,533,105 B1 (DUTSCHKE, R) Mar. 18, 2003; figures 2, 5, column 4, lines 22-24, 53-54</td>
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<td>Y</td>
<td>GB 588,616 A (FERRANTI LIMITED) May 29, 1947; page 2, lines 15-17, 101-106</td>
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<td>Y</td>
<td>US 2007/01 19688 A1 (BRANDT, E O) May 31, 2007; figures 2, 8, paragraph [0046]</td>
<td>4</td>
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<td>Y</td>
<td>JP 4136297 B2 (YMS KK) 2008-08-20; paragraph [0025], figures 1-4</td>
<td>7</td>
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Further documents are listed in the continuation of this report.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use or exhibition of the invention

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"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

"Z" document member of the same patent family

Date of the actual completion of the international search

09 August 2017 (09.08.2017)

Date of mailing of the international search report

01 SEP 2017

Name and mailing address of the ISA/

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

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Form PCT/ISA/210 (second sheet) (January 2015)
## DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<td>Y</td>
<td>US 2006/001 1141 A1 (BIRD et al.) Jan. 19, 2006; figures 2, 5, paragraphs [0043], [0050]</td>
<td>8</td>
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<tr>
<td>Y</td>
<td>US 4,715,517 A (POTTER et al.) Dec. 29, 1987; columns 1, 2, 5</td>
<td>15</td>
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<tr>
<td>Y</td>
<td>US 7,278,553 B2 (PY et al.) Oct. 9, 2007; abstract, figure 1</td>
<td>16</td>
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<td>A</td>
<td>US 2010/0276442 A1 (QUERFURTH et al.) Nov. 4, 2010; entire document</td>
<td>21</td>
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<tr>
<td>A</td>
<td>US 6,332,100 B1 (SAHAI et al.) December 18, 2001; entire document</td>
<td>9-12</td>
</tr>
</tbody>
</table>
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).

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

> "-Continued Within the Next Supplemental Box."**-"**

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 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.:
This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I: Claims 1-8 are directed toward a food making apparatus, comprising at least one canister includes a paddle.

Group II: Claims 9-12 are directed toward a dispensing mechanism comprising an actuator arm, a motor, one or more magnets, and one or more sensors.

Group III: Claims 13-19 are directed toward a food making apparatus, comprising at least one canister configured to dispense a liquid.

Group IV: Claims 20-24 are directed toward a food making apparatus, comprising at least one canister configured to seal or unseal a food opening.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons.

The special technical features of Group I include a carousel (which is not present in Group II); a dispensing apparatus shared among a plurality of canisters on the carousel (which is not present in Groups II or IV), wherein at least one canister includes a paddle; and wherein the dispensing apparatus is configured to rotate the canister's paddle to dispense ingredients stored in the canister (which is not present in Groups II-IV).

The special technical features of Group II include an actuator arm; a motor that is adapted to rotate the actuator arm; one or more magnets embedded in the actuator arm; and one or more sensors configured to detect position of the actuator arm; wherein the actuator arm dispenses ingredients by rotating a pin located on a canister (which is not present in Groups I, III, or IV).

The special technical features of Group III include a carousel (which is not present in Group III); a dispensing apparatus shared among a plurality of canisters on the carousel (which is not present in Groups II or IV); wherein at least one canister is configured to dispense a liquid; and wherein the dispensing apparatus is configured to dispense said canister's contents by rotational motion of the dispensing apparatus (which is not present in Groups I, II, or IV).

The special technical features of Group IV include a carousel (which is not present in Group III); and at least one canister is configured to seal or unseal a food opening, the at least one canister having a base (which is not present in Groups I-III).

The common technical features of Groups I-IV include a carousel; a dispensing apparatus shared among a plurality of canisters on the carousel.

These common technical features are disclosed by US 6,332,100 B1 (SAHAI); a carousel (50; figure 4); a dispensing apparatus (delivery chute 74) shared among a plurality of canisters on the carousel (canisters 46 within tubes 70 on the rotating carousel 50; figure 4; column 8, lines 5-10; column 9, lines 30-35).

Because the common technical features are disclosed by Sahai, the inventions are not so linked as to form a single general inventive concept. Therefore, Groups I-IV lack unity.