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(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,

BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,
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(54) Title: SELECTIVE SHREDDING, SIEVING, AND/OR SEPARATING DEVICE CONNECTED TO A HYGIENIC PRODUCTION OR OPERATING IN AN OFF-LINE LOCATION

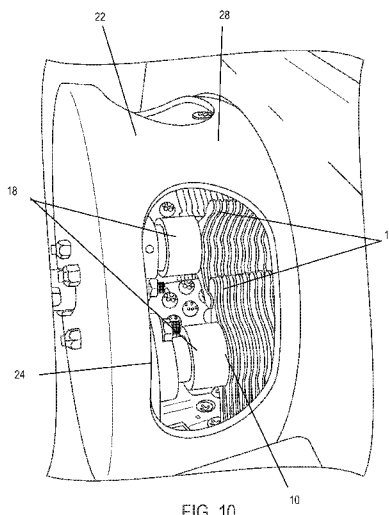


FIG. 10

(57) Abstract: System having an apparatus (10) for shredding hygiene products (12), which operates within a revolving device (22).



INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2014/000667

A. CLASSIFICATION OF SUBJECT MATTER

INV. B02C13/06 B02C13/20 B02C13/28 B02C17/00 B02C17/02
B02C18/00 B03B9/06

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)

B02C B03B

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)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CH 676 938 A5 (BUERKLIN WERNER) 28 March 1991 (1991-03-28)	1,4-6
Y	column 2, line 52 - column 4, line 27; figures 1,2	7-12

X	US 5 322 792 A (PEGUY GUY [FR]) 21 June 1994 (1994-06-21)	1,4-6
Y	column 10, line 10 - column 10, line 66; figures 6-7B	7-12

X	US 4 243 183 A (EIRICH WILHELM ET AL) 6 January 1981 (1981-01-06)	1-3
Y	column 8, line 46 - column 12, line 46; figures 1-23	7-12

Y	US 2008/099592 A1 (SHARP RODNEY WARWICK [NZ]) 1 May 2008 (2008-05-01) paragraph [0077]	7,8

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Further documents are listed in the continuation of Box C.



See patent family annex.

* 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

"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)

"O" document referring to an oral disclosure, use, exhibition or other means

"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

"&" document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2014/000667

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2012/085848 A1 (SHARP RODNEY WARWICK [NZ]) 12 April 2012 (2012-04-12) paragraph [0057]; figures 1-3 -----	9-12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2014/000667

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.:

1-12

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: 1-12

A system comprising an apparatus for shredding hygiene products which operates within a revolving device

2. claims: 13-24

A system for shredding comprising fingers, without using a shear cut or crimp cut

3. claims: 25-28

A system for shredding hygiene products comprising one or more shafts on which an impeller, or fingers or objects such as T-hammer, flat hammer or flying knife are attached.

4. claims: 29-36

A system comprising an in-line shredding device connected directly to a hygiene product production process

5. claim: 37

A hygiene product diverting device

6. claims: 38-42

A hygiene product transport device

7. claims: 43-45

An auger comprising a cleaning device

8. claims: 46-54

A hygiene product buffer device

9. claim: 55

A system comprising a revolving cylinder or drum provided with apertures

10. claim: 56

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A system comprising a revolving cylinder into which product particles are introduced against an electrostatically charged conveyor

11. claim: 57

A system comprising a revolving cylinder with an air stream passing through it

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2014/000667

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
CH 676938	A5	28-03-1991	NONE	

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