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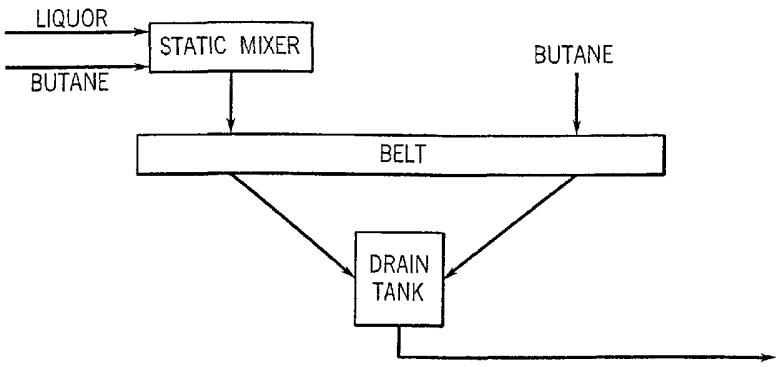
Declarations under Rule 4.17:
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
23 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR PRODUCING COCOA BUTTER AND COCOA POWDER BY LIQUEFIED GAS EXTRACTION



(57) Abstract: A process for treating cocoa mass which includes mixing cocoa mass with a saturated hydrocarbon solvent to provide a slurry and separating the slurry to provide a stream enriched in cocoa butter and a stream enriched in cocoa solids is provided. The mixing may advantageously be carried out under passive mixing conditions, at relatively low temperature, and/or with short mixing times.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/32636

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A23G1/00 A23G1/04

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)
IPC 7 A23G

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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 066 350 A (GUSEK TODD WALTER ET AL) 23 May 2000 (2000-05-23) column 3, line 35 - column 4, line 38; claims; figures 1,2	1,41,45, 67
A	US 2002/006459 A1 (BODENHEIM FRANS WALTER ET AL) 17 January 2002 (2002-01-17) paragraphs [0020] - [0028]; claims 1,2; figures 1,2	1,41,45, 67
A	US 2002/127316 A1 (TROUT RICHARD B) 12 September 2002 (2002-09-12) paragraphs [0018] - [0025]; claims 1,14; figures 2,3	
A	FR 1 274 872 A (CORN PRODUCTS CO) 27 October 1961 (1961-10-27) abstract	1,41,45, 67

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in 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 document 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)

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"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	Date of mailing of the international search report
26 March 2004	23. 07. 2004

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Gaiser, M

Form PCT/ISA/210 (second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/071858 A (ZENG YUANTONG ; BOLLER EDWIN (CH); BUEHLER AG (CH)) 19 September 2002 (2002-09-19) abstract; figure 1	1,2,41, 45,46, 67,68
A	US 3 985 607 A (SCHMITT ARMIN) 12 October 1976 (1976-10-12) column 2, line 44 - line 53 column 3, line 24 - line 36; figures 1,2	1,2,41, 45,46, 67,68

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/32636

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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 II Observations where unity of invention is lacking (Continuation of item 2 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 fee, this Authority did not invite payment of any additional fee.

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- 21, 41- 55, 67- 85

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ 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: 1-21, 41-55, 67-85

   De-oiling of cocoa by solvent extraction utilising a passive mixer.

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2. claims: 22-44, 56-66, 86-102

   De-oiling of cocoa by solvent extraction utilising relatively short mixing times

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 03/32636

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