(19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 5 June 2003 (05.06.2003)

(10) International Publication Number WO 2003/045704 A3

- (51) International Patent Classification⁷: B44C 1/17, 1/16, B41M 3/12, A23G 3/28, C09D 11/00
- (21) International Application Number:

PCT/US2002/030170

(22) International Filing Date:

23 September 2002 (23.09.2002)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

09/996,006

28 November 2001 (28.11.2001)

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US 09/996,006 (CON) Filed on 28 November 2001 (28.11.2001)

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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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: 12 February 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: TRANSFER PRINTING PROCESS WITH EDIBLE INKS

(57) Abstract: A decorating kit including a transfer sheet having printed thereon a substantially non-tacky layer of an edible ink. The ink may be used in a transfer printing process for forming an image layer on a surface of an edible article. The transfer process includes providing a transfer sheet with a substantially non-tacky layer of an edible ink thereon; contacting the layer of edible ink with the surface of the edible article; and removing the transfer sheet such that the ink releases therefrom and forms an image layer on the surface of the edible article.

Intermediation No PCT/US 02/30170

A CLASSIFICATION OF SUBJECT MATTER IPC 7 B44C1/17 B44C1/16 B41M3/12 C09D11/00 A23G3/28 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) IPC 7 B44C B41M A23G C09D 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, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. 1-3,15, 17-21,24 WO 02 085995 A (WRIGHT ANGELA ; CANDLER Ε ANDREW (GB); RUSSELL JOHN (GB); DECOPAC INC) 31 October 2002 (2002-10-31) page 7, line 25 - page 8, line 28 claim 37 WO 95 01735 A (STEWART DOUGLAS ROBERT) 1 Χ 19 January 1995 (1995-01-19) page 4, line 12 - line 20 2,3, A 15 - 24page 5, line 3 - line 17 page 10, line 3 - page 11, line 19 Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "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 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) "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 docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 1 8, 12, 03 5 September 2003 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Patosuo, S. Fax: (+31-70) 340-3016

Intermedial Application No
PCT/US 02/30170

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Category °	Citation of document, with indication, where appropriate, of the relevant passages	· · · · · · · · · · · · · · · · · · ·	Relevant to claim No.
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A	US 5 435 840 A (HILBORN G ROLAND) 25 July 1995 (1995-07-25) column 2, line 16 - line 27		1-3, 15-24
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International application No. PCT/US 02/30170

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
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
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.:
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.: 1-3, 15-24
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: 1-3, 15-24

Independent claims 1 and 21 define a decoration kit comprising a transfer sheet having printed thereon a substantially non-tacky layer of an edible ink.

Independent claim 15 defines a transfer printing process comprising the following steps:

(a) providing a transfer sheet with a substantially non-tacky layer of an edible ink thereon;

(b) contacting the layer of edible ink with the surface of the edible article; and

(c) removing the transfer sheet such that the ink releases therefrom and forms an image layer on the surface of the edible article.

Independent claim 20 defines an edible article comprising an image layer on a surface, wherein the image layer is applied with the transfer printing process of claim 15.

Independent claim 24 defines a process for making a decorated edible article, comprising the following steps:

- (a) providing an edible article;
- (b) applying a coating to a surface of the edible article;
 - (c) contacting the coating with a substantially non-tacky ink layer on a transfer sheet; and
 - (d) removing the transfer sheet such that the ink releases therefrom and forms an image layer on the coating.

2. claims: 4-14

Independent claim 4 defines an edible ink comprising a film former, an emulsifier, a humectant and a drying agent.

Independent claim 10 defines an ink composition comprising water, a pigment, about 15% by weight to about 25% by weight of a film former, about 10% by weight to about 15% by weight of an emulsifier, about 0.5% by weight to about 5% by weight of a humectant, and less than about 1% by weight of a non-aqueous drying agent, with the total of 100% by weight.

Information on patent family members

Intermonal Application No
PCT/US 02/30170

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