



(43) International Publication Date
4 December 2014 (04.12.2014)

- (51) International Patent Classification:
G06K 9/00 (2006.01)
- (21) International Application Number:
PCT/IB2014/000875
- (22) International Filing Date:
27 May 2014 (27.05.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
102013013365 5 29 May 2013 (29.05.2013) BR
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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,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

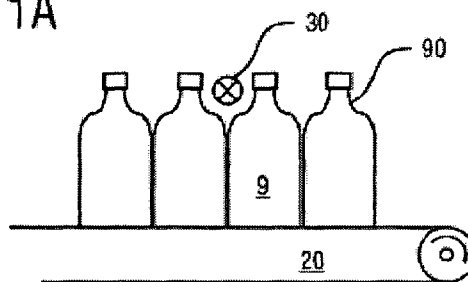
— with international search report (Art. 21(3))

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

9 April 2015

(54) Title: METHOD AND DEVICE FOR COUNTING OBJECTS IN IMAGE DATA IN FRAMES

Fig. 1A



(57) Abstract: A method for counting objects such as cans, bottles, and packaging in image data in frames, a frame of said image data in frames, including an image of at least one object, the method comprising the steps of identification of a most pronounced characteristic for each object in a frame of said image data in frames, tracking of a position of the characteristic in the image data in frames by identifying the characteristic in at least one additional frame, and modification of a count by determining the position is outside a border.

WO 2014/191814 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 14/00875

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G06K 9/00 (2014.01) CPC - G06T 2207/10016 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(8): G06K 9/00 (2014.01) CPC: G06T 2207/10016 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 382/181 or 382/192 or 382/107 or 382/103 or 382/190; IPC(8): G06K 9/00 (2014.01); CPC: G06T 2207/10016 or G06K 9/3241 or G06T 7/2033 or G06T 7/20 or G06K 9/00771 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Patbase; Google (Patents, Scholar); track, object, item, cans, products, bottles, packaging, frame, location, position		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2012/0128212 A1 (Almbladh) 24 May 2012 (24.05.2012) entire document (especially para [0043]-[0044], [0049]-[0054], [0071]-[0072], Fig. 15a-e)	1-7, 13-14
Y	US 2003/0053661 A1 (Magarey) 20 March 2003 (20.03.2003) (para [0037]-[0039], [0085], [0120]-[0121])	1-7, 13-14
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>		
* Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent but published on or after the international filing date	"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
"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 documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search		Date of mailing of the international search report
10 December 2014 (10.12.2014)		30 DEC 2014
Name and mailing address of the ISA/US		Authorized officer:
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Lee W. Young
		PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 14/00875

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.: 8-12, 15-17
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:

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.:

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.