

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 June 2006 (22.06.2006)

PCT

(10) International Publication Number
WO 2006/065492 A3

- (51) International Patent Classification:
B60R 25/10 (2006.01) *G08G 1/123* (2006.01)
G08B 1/08 (2006.01) *G01C 21/30* (2006.01)
G08B 13/14 (2006.01)
- (21) International Application Number:
PCT/US2005/042711
- (22) International Filing Date:
23 November 2005 (23.11.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
11/015,243 17 December 2004 (17.12.2004) US

- (72) Inventors: **HORTON, Mark**; 10010 Bixton Place, Suwanee, Georgia 30024 (US). **OLSEN, John**; 4540 Beckwith Place, Cumming, Georgia 30328 (US).
- (74) Agents: **McNIFF, Stephen, G.** et al.; Alston & Bird LLP, Bank of America Plaza, 101 South Tryon Street, Suite 4000, Charlotte, North Carolina 28280-4000 (US).
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant: **UNITED PARCEL SERVICE OF AMERICA, INC.** [US/US]; 55 Glenlake Parkway, N.E., Atlanta, Georgia 30328 (US).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: ITEM-BASED MONITORING SYSTEMS AND METHODS

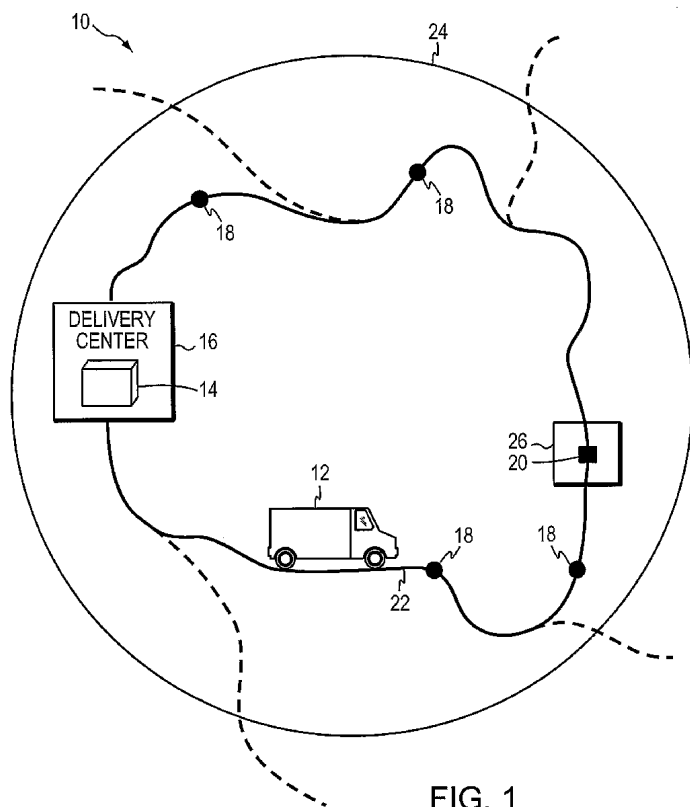


FIG. 1

(57) Abstract: The present invention is generally directed to systems and methods for monitoring whether an item is properly delivered to a designate delivery point. According to one aspect of the invention, location data and time stamp data is generated in association with the transport and delivery of an item (14) to delivery point (16). The location and timestamp data can be compared to at least one predetermined geographic boundary that defines a geographic are encompassing the designated delivery point, and to a scheduled time window within which delivery of the item is to occur. The system is configured to generate one or more alerts if it is determined that a particular item (14) has been transported or delivered in an unauthorized manner.

WO 2006/065492 A3



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

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

2 April 2009

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/42711

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **B60R 25/10**(2006.01);**G08B 1/08**(2006.01),**13/14**(2006.01);**G08G 1/123**(2006.01);**G01C 21/30**(2006.01)
 B60R 25/10(2006.01),08B 1/08,13/14;G08G 1/123(2006.01);G01C 21/30(2006.01)
 USPC: 340/988,572.1,426.1,426.19,426.22,538.13;701/208
 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)
 U.S. : 340/988,572.1,426.1,426.19,426.22,538.13;701/208

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)
 EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 20040243452 (BARTON et al.) 02 December 2004, fig 1	1-4, 7-11, and 14
Y	US 7,273,172 (OLSEN et al.) 25 September 2007, col. 7 lines 25-45	6 and 13
Y	US 2005/0065719 (KHAN et al.) 24 March 2005, para. [0071]	5 and 12

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	"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 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 23 July 2006 (23.07.2006)	Date of mailing of the international search report 18 APR 2008
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Julie Lieu Telephone No. 571-272-2600 