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[Continued on next page]

(54) Title: ARTICLE VENDING MACHINE AND METHOD FOR AUTHENTICATING RECEIVED ARTICLES

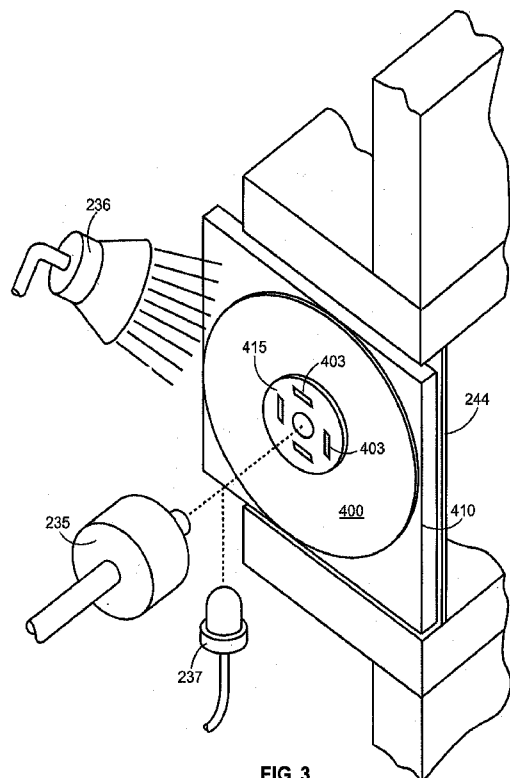


FIG. 3

(57) Abstract: An article dispensing machine, system and method for authenticating an article returned to the article dispensing machine and an article for use in such a machine and system. The article dispensing machine comprises an infrared light for illuminating the surface of the returned article, an image capture device for capturing the image of an authentication code on the returned article, and a processor for comparing the captured image to a master authentication code. The returned article comprises the authentication code printed in a carbon-containing ink and a substantially carbon free ink portion printed ovetop of and at least partially concealing the authentication code, such that the authentication code is not visible in white light, but becomes visible when exposed to infrared light.

WO 2012/031209 A3



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
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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)

G07F 7/10; A47F 1/04; G06Q 30/00; G07F 19/00; G07D 7/20; G07D 7/12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: rent, vend, code, return

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009-0048932 A1 (BARBER WILLIAM H.) 19 February 2009 See paragraphs [0007]-[0075]; claims 1-18 and figures 1-17.	1-23
A	EP 1396824 B1 (PANASONIC CORP.) 14 July 2010 See paragraphs [0005]-[0327]; claims 1-4 and figures 1-43.	1-23
A	WO 2007-012816 A1 (INGENIA TECHNOLOGY LIMITED) 01 February 2007 See page 2, line 1-page 39, line 23; claims 1-32 and figures 1-16.	1-23

 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

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"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

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"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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2011/050339**

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