

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
1 November 2007 (01.11.2007)

PCT

(10) International Publication Number
WO 2007/124129 A3

(51) International Patent Classification:
G08B 13/08 (2006.01) **G08B 21/00** (2006.01)

(21) International Application Number:
PCT/US2007/009793

(22) International Filing Date: 20 April 2007 (20.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/793,569 20 April 2006 (20.04.2006) US

(71) Applicant (for all designated States except US): **NVE CORPORATION** [US/US]; 11409 Valley View Road, Eden Prairie, MN 55344 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DAUGHTON, James, W.** [US/US]; c/o NVE Corporation, 11409 Valley View Road, Eden Prairie, MN 55344 (US). **DEAK, James, G.** [US/US]; c/o NVE Corporation, 11409 Valley View Road, Eden Prairie, MN 55344 (US).

(74) Agents: **NEILS, Theodore, F.** et al.; Kinney & Lange, PA, Kinney & Lange Building, 312 South Third Street, Minneapolis, MN 55415-1002 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, 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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, 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, MT, 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:
9 April 2009

(54) Title: ENCLOSURE TAMPER DETECTION AND PROTECTION

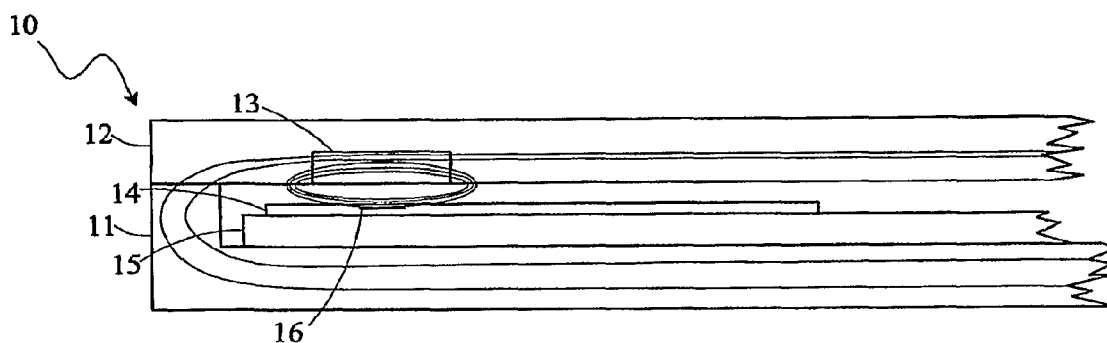


Fig. 1A

(57) Abstract: A tamper detecting enclosure arrangement for enclosures (10) containing an interior space (11) in which a protected item (14) is positioned having a magnetoresistive sensing memory storage cell (16) positioned in or near the protected item (14) in the enclosure (10) having a two state offset magnetoresistance versus externally applied magnetic field. A magnet (13) is positioned at a selected separation distance from the magnetoresistive sensing memory storage cell (16) to thereby provide a magnetic field about the magnetoresistive sensing memory storage cell (16) if said enclosure (10) has not been opened in such a manner as to result in substantially increasing said separation distance.



WO 2007/124129 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/09793

A. CLASSIFICATION OF SUBJECT MATTER IPC: G08B 13/08(2006.01),21/00(2006.01) USPC: 340/686.6.545.2,547 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. : 340/686.6.545.2,547 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)																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 6,784,796 B2 (JOHNSTON et al.) 31 August 2004 (31.08.2004), entire document.</td> <td>1-6</td> </tr> <tr> <td>Y</td> <td>US 2001/0030839 A1 (ZHONG et al.) 18 October 2001 (18.10.2001), entire document.</td> <td>1-6</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 6,784,796 B2 (JOHNSTON et al.) 31 August 2004 (31.08.2004), entire document.	1-6	Y	US 2001/0030839 A1 (ZHONG et al.) 18 October 2001 (18.10.2001), entire document.	1-6									
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																		
Y	US 6,784,796 B2 (JOHNSTON et al.) 31 August 2004 (31.08.2004), entire document.	1-6																		
Y	US 2001/0030839 A1 (ZHONG et al.) 18 October 2001 (18.10.2001), entire document.	1-6																		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																				
<table border="0"> <tr> <td colspan="2"> * Special categories of cited documents: </td> <td> "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 </td> </tr> <tr> <td> "A" document defining the general state of the art which is not considered to be of particular relevance </td> <td> "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 </td> <td></td> </tr> <tr> <td> "E" earlier application or patent published on or after the international filing date </td> <td> "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 </td> <td></td> </tr> <tr> <td> "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) </td> <td> "&" document member of the same patent family </td> <td></td> </tr> <tr> <td> "O" document referring to an oral disclosure, use, exhibition or other means </td> <td></td> <td></td> </tr> <tr> <td> "P" document published prior to the international filing date but later than the priority date claimed </td> <td></td> <td></td> </tr> </table>			* 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 invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"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		"E" earlier application or patent published on or after the international filing date	"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		"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)	"&" document member of the same patent family		"O" document referring to an oral disclosure, use, exhibition or other means			"P" document published prior to the international filing date but later than the priority date claimed		
* 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 invention																		
"A" document defining the general state of the art which is not considered to be of particular relevance	"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																			
"E" earlier application or patent published on or after the international filing date	"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																			
"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)	"&" document member of the same patent family																			
"O" document referring to an oral disclosure, use, exhibition or other means																				
"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 21 June 2008 (21.06.2008)		Date of mailing of the international search report 04 AUG 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 George Bugg Telephone No. 571-272-2600 