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(54) Security devices for security substrates

(57) A security device (10) for security substrates, such as paper, used for making security documents, such as bank notes, has anti-counterfeitable features. The security device comprises a first opaque layer (14) and a second opaque layer (15), said opaque layers each having a plurality of clear regions (18,19). A first fluorescent layer (16) is positioned between the first and second opaque layers and a second fluorescent layer (17) is po-

sitioned which is separated from the first fluorescent layer by one of the opaque layers. The first and second fluorescent layers exhibit different visible colours under ultraviolet light. The clear regions (18) in the first opaque layer form indicia and the clear regions (19) in the second opaque layer overlap with only some of the clear regions in the first opaque layer such that only a portion of the indicia are visible in transmitted light.

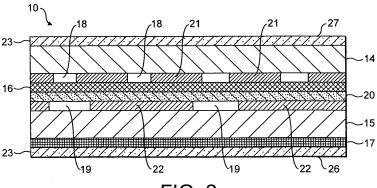


FIG. 2



EUROPEAN SEARCH REPORT

Application Number EP 08 25 2744

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	DOCUMENTS CONSIDERED			
Category	Citation of document with indicatio of relevant passages	n, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A,D	W0 2006/051231 A2 (ARJO [FR]; VAST NATHALIE [FR [FR]) 18 May 2006 (2006 * page 4, lines 12-26 * page 9, line 27 - pag claims 1,14,15; figures]; MALLOL STEPHANE -05-18) e 11, line 19;	1-29	INV. D21H21/42 B42D25/29 B42D25/387 B42D25/351 B42D25/355
A	GB 2 300 596 A (PORTALS 13 November 1996 (1996- * page 11, line 27 - pa figure 4 *	11-13)	1-29	
A	GB 2 338 680 A (RUE DE 29 December 1999 (1999-* figure 6; example 8 *		1-29	
				TECHNICAL FIELDS SEARCHED (IPC)
				B42D D21H
I	The present search report has been dr	•		
	Place of search Munich	Date of completion of the search 15 July 2015	l D'I	Examiner Incecco, Raimondo
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		T : theory or principle E : earlier patent doc after the filing dat D : document cited in L : document cited fo	: theory or principle underlying the invention : earlier patent document, but published on, or after the filing date : document cited in the application : document oited for other reasons	
			& : member of the same patent family, corresponding document	

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EP 08 25 2744

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2006051231 A2	18-05-2006	AT 524610 T BR PI0517712 A CA 2586414 A1 EP 1831461 A2 FR 2877609 A1 PL 1831461 T3 SI 1831461 T1 US 2009008458 A1 WO 2006051231 A2	15-09-2011 21-10-2008 18-05-2006 12-09-2007 12-05-2006 29-02-2012 30-12-2011 08-01-2009 18-05-2006
GB 2300596 A	13-11-1996	AU 697115 B2 AU 5210696 A GB 2300596 A	24-09-1998 21-11-1996 13-11-1996
GB 2338680 A	29-12-1999	AU 741706 B2 AU 4521399 A BR 9911330 A CA 2333417 A1 EP 1094943 A1 GB 2338680 A ID 29551 A WO 9967093 A1	06-12-2001 10-01-2000 03-04-2001 29-12-1999 02-05-2001 29-12-1999 06-09-2001 29-12-1999
P0459			
WHO WE OF The second of the se	Official Journal of the Euro	pean Patent Office, No. 12/82	