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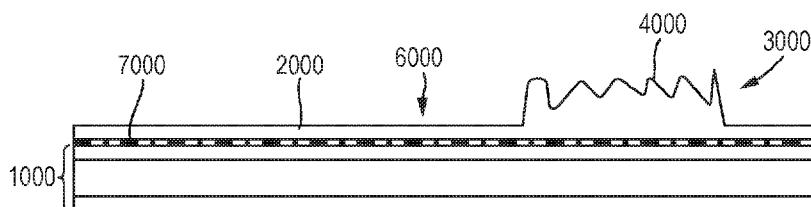
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Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: SECURITY DOCUMENTS AND METHODS OF MANUFACTURE THEREOF

Fig. 6(b)



(57) Abstract: A security document is disclosed, comprising first and second security devices, a document substrate, and a protective layer formed of a cured, at least semi-transparent material on a first surface of the document substrate. The surface of the protective layer distal to the document substrate has an integral surface relief structure. The first security device is defined by the surface relief structure in a first region of the surface relief structure, the second security device is provided at the first surface of the document substrate, and the protective layer covers the second security device.



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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. B42D25/324 B42D25/36 B42D25/328 B42D25/351 B42D25/29
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ADD.
 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)
B42D B41M

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 3 200 995 A1 (ENTRUST DATACARD CORP [US]) 9 August 2017 (2017-08-09)	1-9, 12-16, 19-24, 29-31, 35-41, 43-47
A	paragraph [0005] - paragraph [0068]; claims 1-14; figures 1-5	10, 11, 17, 18, 25-28, 32-34, 42
A	----- WO 2017/009616 A1 (DE LA RUE INT LTD [GB]) 19 January 2017 (2017-01-19) cited in the application page 32, line 22 - page 76, line 18; claims 1-60; figures 1, 4, 5, 10, 12, 13, 16 ----- -/--	1-47

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 5 April 2022	Date of mailing of the international search report 14/04/2022
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Seiler, Reinhold
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2021/052365

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.:
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:

see additional sheet

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 an 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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12, 37-39 (completely); 24-36, 42-47 (partially)

A security document according to claim 1 having a second security device being provided at the first surface of the document substrate and being covered by the protective layer, and a method of forming such a security document.

2. claims: 13-23, 40, 41 (completely); 24-36, 42-47 (partially)

A security document according to claim 13, wherein the protective layer being provided across at least half of the first surface of the document substrate, and a method of forming such a security document.

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2021/052365

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2008/098753 A1 (GIESECKE & DEVRIENT GMBH [DE]; HOFFMUELLER WINFRIED [DE] ET AL.) 21 August 2008 (2008-08-21) page 6, line 9 - page 31, line 13; claims 1-38; figures 6-8 -----	1-47
A	US 2020/009896 A1 (GODFREY JOHN [GB] ET AL) 9 January 2020 (2020-01-09) paragraph [0007] - paragraph [0174]; claims 84-105; figures 1-25 -----	1-47

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2021/052365

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
EP 3200995	A1	09-08-2017	CN 106715603 A	24-05-2017
			EP 3200995 A1	09-08-2017
			US 2016096394 A1	07-04-2016
			WO 2016054329 A1	07-04-2016

WO 2017009616	A1	19-01-2017	AU 2016293291 A1	01-02-2018
			AU 2016293292 A1	25-01-2018
			AU 2016293293 A1	25-01-2018
			AU 2016293294 A1	18-01-2018
			AU 2016293295 A1	25-01-2018
			AU 2016294553 A1	25-01-2018
			AU 2021286372 A1	20-01-2022
			BR 112018000476 A2	18-09-2018
			CA 2991954 A1	19-01-2017
			CA 2991956 A1	19-01-2017
			CA 2991957 A1	19-01-2017
			CA 2991958 A1	19-01-2017
			CA 2991962 A1	19-01-2017
			CN 108025583 A	11-05-2018
			EP 3319806 A1	16-05-2018
			EP 3319807 A1	16-05-2018
			EP 3319808 A1	16-05-2018
			EP 3319809 A1	16-05-2018
			EP 3319810 A1	16-05-2018
			EP 3319813 A1	16-05-2018
			GB 2541794 A	01-03-2017
			GB 2542240 A	15-03-2017
			GB 2542241 A	15-03-2017
			GB 2542243 A	15-03-2017
			GB 2542460 A	22-03-2017
			GB 2542461 A	22-03-2017
			GB 2551092 A	06-12-2017
			GB 2552083 A	10-01-2018
			GB 2557415 A	20-06-2018
			HK 1247896 A1	05-10-2018
			MA 42865 A	16-05-2018
			MA 42894 B1	28-02-2020
			MA 42899 A	16-05-2018
			MA 42904 A	16-05-2018
			MA 42908 B1	28-02-2020
			MA 42909 A	16-05-2018
PL 3319808 T3	27-07-2020			
PL 3319809 T3	18-05-2020			
PL 3319810 T3	15-06-2020			
PL 3319813 T3	31-12-2019			
US 2018178577 A1	28-06-2018			
US 2018186165 A1	05-07-2018			
US 2018186166 A1	05-07-2018			
US 2018194157 A1	12-07-2018			
US 2018315151 A1	01-11-2018			
WO 2017009616 A1	19-01-2017			
WO 2017009617 A1	19-01-2017			
WO 2017009618 A1	19-01-2017			
WO 2017009619 A1	19-01-2017			
WO 2017009620 A1	19-01-2017			
WO 2017009621 A1	19-01-2017			
ZA 201800190 B	31-07-2019			

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2021/052365

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2008098753	A1	21-08-2008	
		CN 101636276 A	27-01-2010
		DE 102007007914 A1	21-08-2008
		EP 2121337 A1	25-11-2009
		HK 1135655 A1	11-06-2010
		KR 20100014396 A	10-02-2010
		US 2010109317 A1	06-05-2010
		WO 2008098753 A1	21-08-2008

US 2020009896	A1	09-01-2020	
		AU 2018215390 A1	08-08-2019
		CA 3052534 A1	09-08-2018
		CN 110248817 A	17-09-2019
		EP 3576957 A1	11-12-2019
		GB 2563187 A	12-12-2018
		JP 2020508899 A	26-03-2020
		US 2020009896 A1	09-01-2020
		WO 2018142129 A1	09-08-2018
