



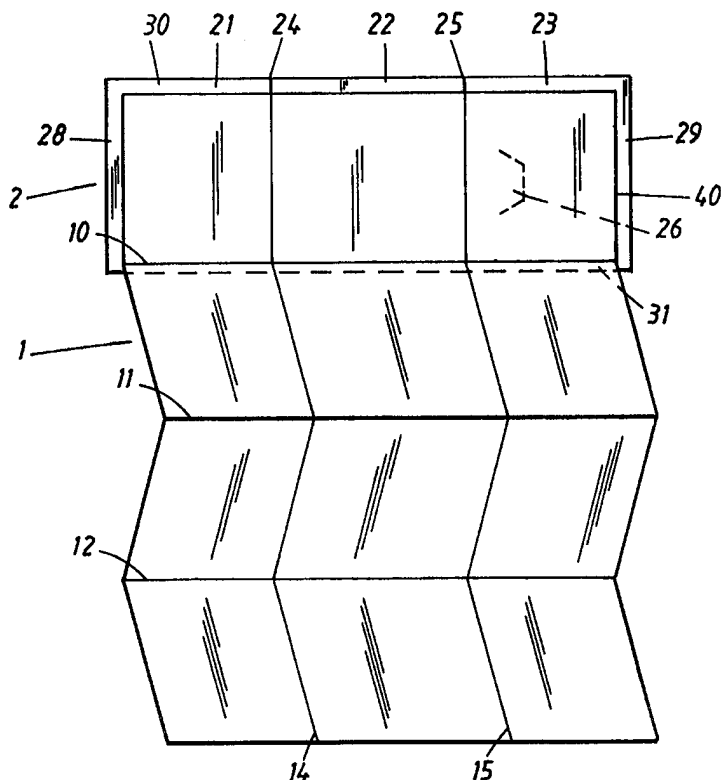
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : <b>G09B 29/04, G09F 3/02</b></p>	<p><b>A1</b></p>	<p>(11) International Publication Number: <b>WO 98/54686</b></p> <p>(43) International Publication Date: 3 December 1998 (03.12.98)</p>
<p>(21) International Application Number: PCT/SE98/01024</p> <p>(22) International Filing Date: 29 May 1998 (29.05.98)</p> <p>(30) Priority Data: 9702051-5 30 May 1997 (30.05.97) SE</p> <p>(71)(72) Applicants and Inventors: NILSSON, Eric [SE/SE]; Öregrundsgatan 4, S-115 59 Stockholm (SE). OTTENST-EDT, Magnus [SE/SE]; Blåhammarvägen 10, S-132 42 Saltsjö-Boo (SE).</p> <p>(74) Agents: SUNDSTRÖM, Per et al.; Stenhagen Patentbyrå AB, P.O. Box 4630, S-116 91 Stockholm (SE).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report. In English translation (filed in Swedish).</i></p>	

(54) Title: A FOLDER

(57) Abstract

A folder comprising a sheet (1) which is pleated in a concertina-like fashion (10, 11, 12) and which, in a pleated state, is folded around fold lines (14, 15) that extend perpendicularly to the pleat line (10, 11, 12) in said pleated sheet, wherein the sheet (1) is surrounded by a protective cover (2) when in a fully folded-up state. The two sheet fold-lines (14, 15) extending perpendicular to the pleat lines (10, 11, 12) face in mutually the same direction, so as to enable the two end-panels of the pleated sheet (1) to be folded in overlapping relationship with the centre panel. The cover (2) is a paperboard cover against which one pleated panel (40) of the sheet is fastened in a centered position on one side of the cover (2), wherein the cover also includes fold lines (24, 25) which coincide generally with the fold lines (14, 15) on the sheet (1). The cover is provided on the inner (23) of the two mutually overlapping outer panels (21, 23) a tongue (26) which receives therebeneath the free end of the outer (21) of the two mutually overlapping outer panels (21, 23), which panels also overlap the centre panel (22) when the folder is in a fully folded-up state.



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

## A FOLDER

The present invention relates to a folder that includes a pleated sheet which, in a pleated state, is folded to a form that comprises three mutually overlapping panels, and also a sheet cover.

Maps, information sheets and the like are often of significant information value but must be capable of being folded-up to a small size between times of use, for instance into a thin, flat and rectangular product, and preferably a product that corresponds in size to a cash card (CR80), so as to enable the product to be kept in a cash-card pocket of a wallet.

However, it is necessary to be able to produce the folder cheaply, meaning that the sheet must also be capable of being produced at lost cost and to allow the cover and sheet to be easily joined together with the least possible folding of the sheet and product.

EP-B1-0 288 472 teaches a product of this kind where the map/sheet is folded together with concertina-like pleats in one direction and which when extended in a concertina-like fashion has two mutually parallel and mutually separated fold lines that are perpendicular to the pleat-lines on the extended sheet and divide the sheet into three panels which have mutually the same width and which can be Z-folded. Both of the exposed main surfaces of the sheet are then covered by a respective rigid cover sheet, these cover sheets together enclosing the map/sheet. One of the problems remaining, however, is that two separate covers are required and that these covers must be accurately fastened to the associated sheet-panels. Furthermore, expensive fastener means in the form of magnets or touch-and-close fasteners are required around the perimeter of respective covers, in order to hold

the covers together and therewith enclose the folded sheet therebetween. It is also required that the fastener devices are in accurate alignment with one another.

5 FR-A-2 722 665 teaches a product similar to that taught in EP-B1-0 288 472, although in this case the two cover sheets are hinged together, and the information sheet is connected solely to one of said covers. The problems, however, are essentially the same.

10

Accordingly, an object of the present invention is to provide a folder that can be produced with practical pleating or folding of the sheet and with a simple single-piece cover, and with fastener means for holding the product together that  
15 can be produced readily and in a simple manner.

This object is achieved with a folder of the design defined in Claim 1.

20 Further developments of the inventive folder are set forth in the dependent Claims.

One advantage afforded by the invention is that the cover can be produced from a single piece of paperboard which can be  
25 fastened to an end-edge of the concertina-like pleats of the sheet in one single fastening operation. The fold lines that extend perpendicular to the concertina-like pleats can be imprinted in the pleated sheet and the cover sheet simultaneously.

30

Another advantage afforded by the invention is that the cover-holding tongue can be stuck onto the cover, or more preferably cut-out in the cover paperboard. Still another advantage is that when in a folded state, the two main  
35 surfaces of the inventive product will be covered by material parts of the single cover sheet, such as bridging with a

spine part, so as to enable the product to be inserted into a cash-card pocket of a wallet with the spine part of the product between said main cover-surfaces located foremost, without risk of the product being "split". The risk of the product "splitting" when inserted in the opposite direction is slight, since the centre region of the exposed end-edge of the cover is covered by the tongue.

Other significant features of the inventive product and advantages afforded thereby will be apparent from the following description of an exemplifying embodiment thereof.

Fig. 1 illustrates the folder in a fully extended state.

Fig. 2 is an end view of the folder in a concertina-like folded state but extended around the fold lines.

Fig. 3 is a front view of the folder when in a fully folded state.

Fig. 4 is a view taken on the line IV-IV in Fig. 3.

Fig. 5 is a view corresponding to the view of Fig. 3 but showing a cover panel with an associated part of the concertina-like sheet in an extended state.

Fig. 1 shows a sheet 1 in a generally extended state. The sheet 1 carries information, for example has the form of a map either with or without advertisements. The sheet includes a plurality of mutually parallel and equidistantly spaced pleat lines 10, 11, 12 which define a concertina-like pleating of a number of sheet panels of mutually equal width, of which one panel 40 is secured, e.g. glued, to a paperboard cover 2 whose dimensions are slightly greater than the dimensions of the panel 40. The pleated sheet also includes two mutually parallel fold lines 14, 15 which coincide

essentially with corresponding fold lines 24, 25 in the paperboard cover 2 and which may be formed simultaneously in the sheet and cover 2. The fold lines 24, 25 divide the sheet 2 into three panels 21, 22, 23, of which the centre panel is longer than the other two panels 21, 23. Fig. 1 also shows that the perimeter edge 28, 29, 30, 31 of the cover 2 projects slightly beyond the contours of the end panels, or side panels, 40 of the sheet 1, although the edge parts 30, 31 can be minimized.

As will be seen from Figs. 3 and 4, the end-panels 21, 23 of the cover 2 overlap each other over the centre panel 22, so that the paperboard panel 21 will lie outermost on the front side of the product.

It will also be seen that a slot 27 is cut in the paperboard panel 23 so as to form a tongue 26 which extends away from the fold line 25 of the paperboard and which is located in the proximity of said fold line. The edge 28 of the paperboard can be inserted in beneath the tongue 26, so as to hold the product together in a flat, folded-up state.

As will be understood, the tongue 26 may alternatively be a separate paperboard tongue glued to the panel 23 of the paperboard cover 2.

When folded together (Fig. 3), the product will conveniently have a CR80-format, so as to enable the product to be kept in a cash-card pocket of a wallet, said product conveniently being inserted with the fold-line region 24 foremost in the insertion direction. Because the tongue covers a central part of the free end-edge of the panel 21, there is very little risk of the product "splitting" even when inserted in the opposite direction.

## CLAIMS

1. A folder comprising a sheet (1) that is pleated in a concertina fashion (10, 11, 12) and that when in a pleated state is folded around fold lines (14, 15) that extend perpendicular to the pleat lines (10, 11, 12), wherein when in a fully folded state the sheet (1) is surrounded by a protective cover (2) in the form of a paperboard cover, and wherein the two sheet fold-lines (14, 15) that extend perpendicular to the pleat lines (10, 11, 12) face in the same direction so as to enable the two end-panels of the pleated sheet (1) to be folded over the centre panel, **characterised** in that a concertina pleat panel (40) of said sheet (1) is fastened in a centre position on the inside of the cover (2), wherein the concertina pleat panel (40) has a length slightly shorter than the length of the cover and is fastened to the cover along the whole of its length, wherein the paperboard cover has fold lines (24, 25) in alignment with the fold lines (14, 15) of the sheet (1); and in that the paperboard cover has a tongue provided on the inner panel (23) of the two mutually overlapping outer panels (21, 23) at a distance from the end of the paperboard cover, wherein said tongue receives therebeneath the free end of the outer panel (21) of said two mutually overlapping outer paperboard panels (21, 23) which also overlap the centre panel (22) when the folder is in a fully folded state.

2. A folder according to Claim 1, **characterised** in that the tongue (26) is formed by a cut (27) through the cover (2).

3. A folder according to Claim 1, **characterised** in that the tongue (26) is glued to the outside of the cover.

4. A folder according to any one of Claims 1-3, **characterised** in that when the folder is in a fully folded

state, the free end of the inner end-panel (23) is located at the fold line between the two remaining folder panels.

5        5. A folder according to any one of Claims 1-4, **characterised** in that the tongue is located in the proximity of one fold line (25) between the paperboard panels (22, 23).

10       6. A folder according to any one of Claims 1-5, **characterised** in that the folder has a generally CR80-format in a folded-up state.

15       7. A folder according to any one of Claims 1-6, **characterised** in that the width of the sheet is slightly smaller than the length of the cover (2) when extended.

8. A folder according to any one of Claims 1-7, **characterised** in that the pleated panels of the concertina-like pleated sheet (1) have a width corresponding to the width of the paperboard cover (2).

Fig. 1

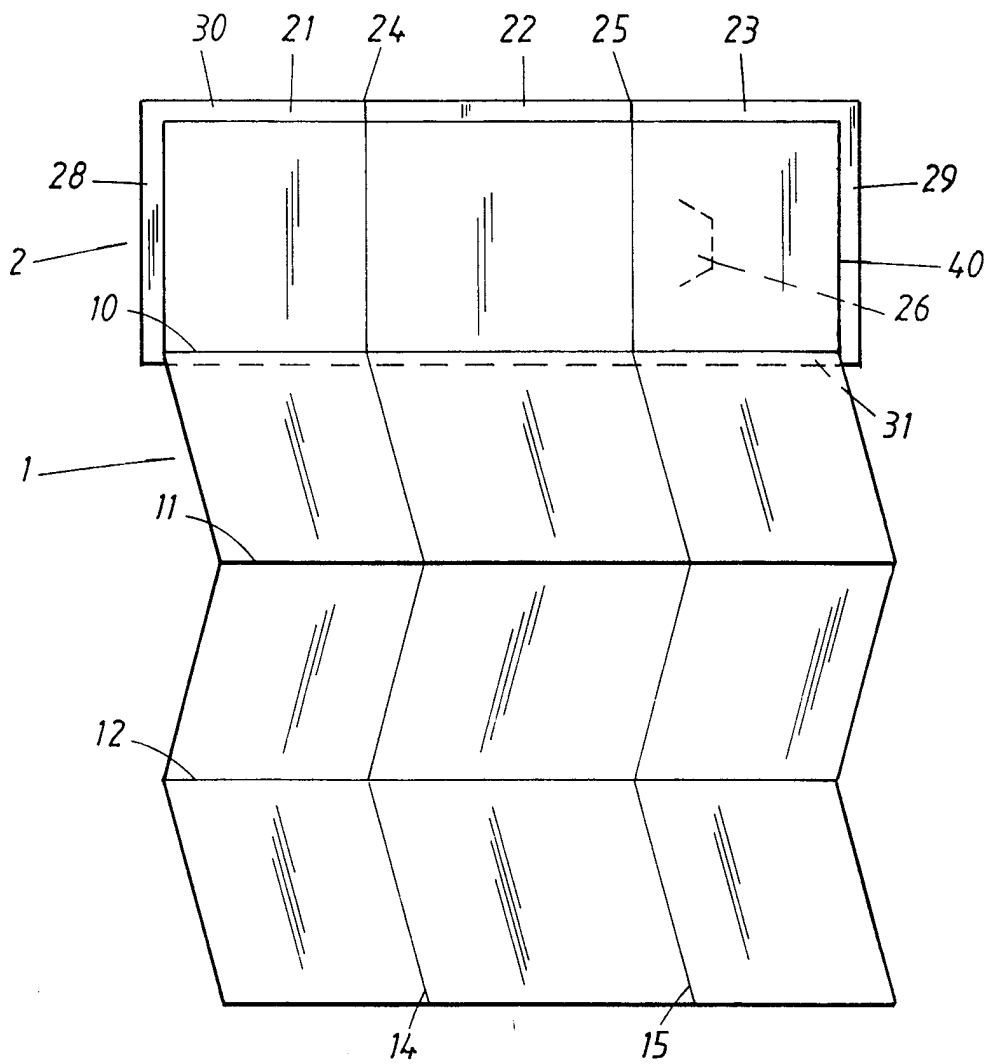


Fig. 2

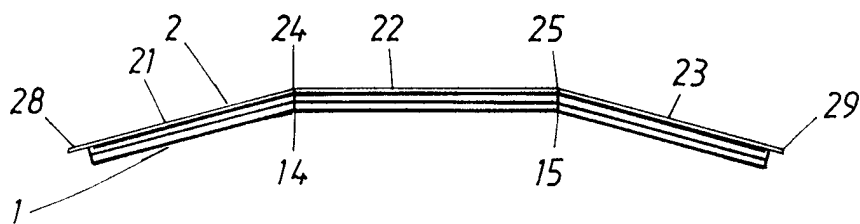


Fig. 3

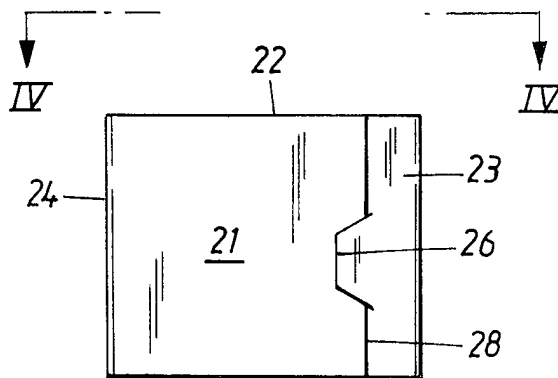


Fig. 4

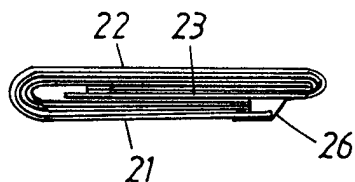
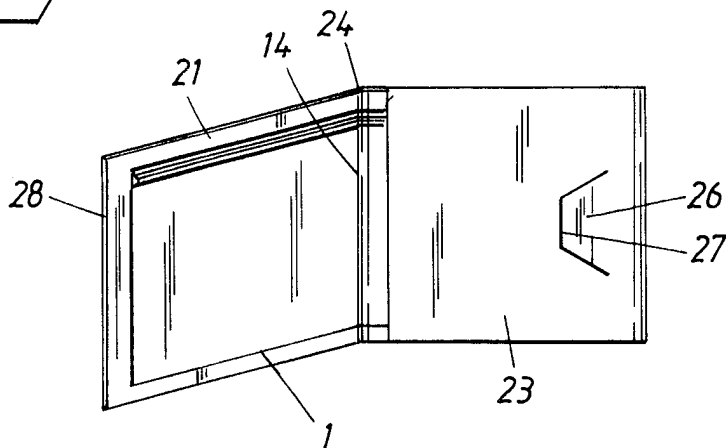


Fig. 5



## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 98/01024

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: G09B 29/04, G09F 3/02

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)

IPC6: G09F, G09B

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

SE,DK,FI,NO classes as above

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

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4606553 A (R. NICKERSON), 19 August 1986 (19.08.86), figures 1-7, abstract, claims --	1-8
A	US 4637633 A (D.J. INSTANCE), 20 January 1987 (20.01.87), figures 1-5, abstract --	1-8
A	US 1506956 A (F.H. THOMPSON), 2 Sept 1924 (02.09.24) --	
A	FR 2722665 A1 (DE BAYNAST ARNAUD), 26 January 1996 (26.01.96) --	

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

"B" earlier document but published on or after the international filing date

"I" 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)

"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

"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

"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

"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

"&" document member of the same patent family

Date of the actual completion of the international search

2 Sept 1998

Date of mailing of the international search report

11 -09- 1998

Name and mailing address of the ISA

Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM  
Facsimile No. +46 8 666 02 86

Authorized officer

Christer Falk  
Telephone No. +46 8 782 25 00

## INTERNATIONAL SEARCH REPORT

International application No. PCT/SE 98/01024
--

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0256672 A1 (INSTANCE, D.J.), 24 February 1988 (24.02.88)  -----  -----	

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

27/07/98

International application No.

PCT/SE 98/01024

Patent document cited in search report			Publication date	Patent family member(s)	Publication date
US	4606553	A	19/08/86	NONE	
US	4637633	A	20/01/87	CA 1220454 A EP 0088597 A,B SE 0088597 T3 GB 2115744 A,B	14/04/87 14/09/83 14/09/83
US	1506956	A	02/09/24	NONE	
FR	2722665	A1	26/01/96	NONE	
EP	0256672	A1	24/02/88	SE 0256672 T3 GB 2192605 A,B HK 138795 A	20/01/88 08/09/95