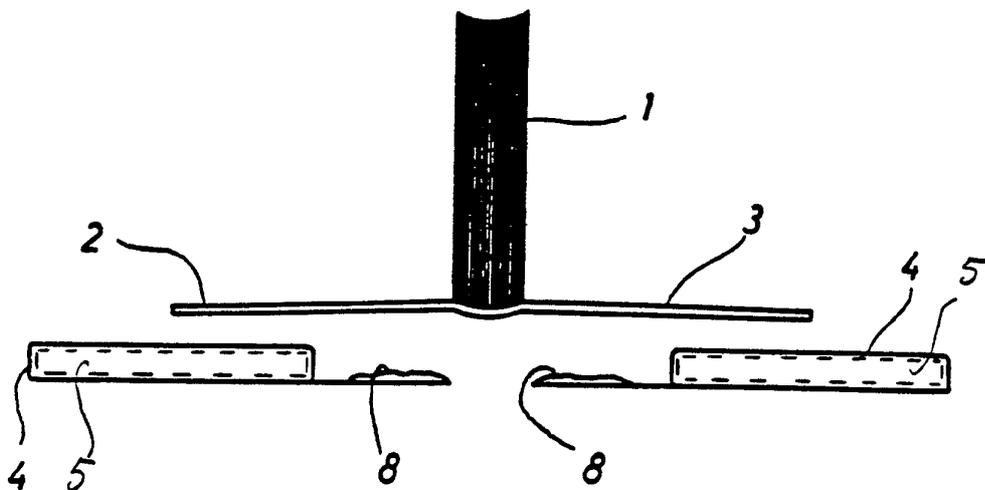




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<p>(21) International Application Number: PCT/DK89/00116 (22) International Filing Date: 9 May 1989 (09.05.89) (30) Priority data: 2569/88 10 May 1988 (10.05.88) DK (71)(72) Applicant and Inventor: BINDNER, Peter [DK/DK]; Rønnebærvej 2, DK-2400 Copenhagen NV (DK). (74) Agent: CHAS. HUDE; H.C. Andersens Boulevard 33, DK-1553 Copenhagen V (DK). (81) Designated States: AT, AT (European patent), AU, BB, BE (European patent), BF (OAPI patent), BG, BJ (OAPI patent), BR, CF (OAPI patent), CG (OAPI patent), CH, CH (European patent), CM (OAPI patent), DE, DE (European patent), DK, FI, FR (European patent), GA (OAPI patent), GB, GB (European patent), HU, IT (European patent),</p>		<p>JP, KP, KR, LK, LU, LU (European patent), MC, MG, ML (OAPI patent), MR (OAPI patent), MW, NL, NL (European patent), NO, RO, SD, SE, SE (European patent), SN (OAPI patent), SU, TD (OAPI patent), TG (OAPI patent), US.  <b>Published</b> <i>With international search report.</i></p>

(54) Title: A STIFFENING MEANS FOR A PAPERBACK BOOK



(57) Abstract

A stiffening means (4) for a paperback book (1) or a similar bound document with soft cover. The stiffening means comprises a stiff board, the outer contour of which substantially corresponds to the outer contour of the front (2) or back (3) end page. There are provided means for fastening the board to the end page. The stiffening means (4) has substantially parallel, blunt, non-projecting edges. As a result, a paperback book, such as a telephone book, subjected to heavy wear is able to maintain its shape for a long time. The user has thus a solid paperback, which can be easily removed from and replaced on a conventional shelf.

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Title: A stiffening means for a paperback book

Technical Field

5 The invention relates to a stiffening means for a paperback book or a similar bound document with soft cover.

Background Art

10 It is generally known that frequent useage of books with soft covers causes them to collapse. Due to lacking stiffness it is difficult to keep soft-cover books or paperbacks, especially thick, heavy and/or high ones, on conventional shelves. The problem applies in particular to  
15 telephone books, which are frequently consulted by, for example, sales people. This results in extensive wear of the telephone book, which in turn causes difficulties with respect to it standing on a shelf without collapsing. Alternatively the user places the telephone book onto its  
20 largest surface, i.e. either on the front or back side. Another possibility is the storage of telephone books on a specially formed shelf or in cassettes. Frequent users of telephone books are often irritated by the books not being on conventional shelves, as it is more time-consuming  
25 to take the telephone book and thus obtain the desired information, if the item in question is stored in stacks or cassettes.

Attempts have been made to improve the stability of soft-  
30 cover books. DE-PS No. 25 28 151 discloses a protective cover for books in form of a single unit, a separating line being provided between the front and the back portion of the cover. The separating line has the form of a preferably V-shaped groove and is situated closely adjacent  
35 the fastening means.

US-PS No. 3,572,767 discloses an adjustable protective

transparent cover comprising two sections each having a pocket for receiving one end page of a book. One section extends laterally beyond the open edge of the pocket to provide a connecting panel extending around the spine of the book and provided to be fastened to the other section. When used for a paperback book thin stiffening boards are inserted adjacent the inner surfaces of the end pages received within the pockets.

10 GB-PS No. 1 371 149 discloses a protective cover for preserving and enhancing the appearance of paper-covered books or documents by enclosing their end pages between covers, said protective cover comprising two pockets connected by a transparent spine portion and each pocket  
15 containing a removable stiffener in form of a card.

Existing protective covers are disadvantageous in that their edges are welded together, resulting in a projecting, sharp edge. Due to the soft and flexible nature of a  
20 paperback book to be protected, its inner pages drop down and the end pages bend and collapse within a short period of time, thus reducing the life of the book and diminishing its attractive exterior. Neither is it uncommon for the user to injure himself or herself on the sharp edges when  
25 handling a book thus protected.

#### Disclosure of the Invention

The object of the invention is to provide a stiffening  
30 means for a paperback book or a similar document with soft cover, providing such a book with the necessary stiffness and standability to allow it to stand on its own on a conventional shelf, although said book is subjected to frequent useage and thus tends to wear rapidly.

35

The object of the invention is accomplished by a stiffening means characterised in that the stiffening means has

substantially parallel, blunt, non-projecting edges extending at least during use at right angles to the spine of a book.

5 Thus the end pages of a soft-cover book are stiffened without raising its inner pages from the shelf. Moreover, an attractive exterior is maintained during the entire life of the book.

10 In a preferred embodiment of the stiffening means according to the invention the means for fastening the board comprises an envelope with a pocket for receiving the corresponding part of the end page, the board being a stiff inset freely sliding inside the envelope. As a result the  
15 stiff inset is joined with an end page by being inserted in the envelope simultaneous with said end page.

According to the invention the envelope can comprise a flap to overlap the spine of the paperback book resulting  
20 in an improved stiffening of the spine.

According to the invention an adhesive can be applied to the flap to glue the latter to the spine of the paperback, thus stiffening the spine of soft paper or card-  
25 board even if said spine is already broken.

In a further embodiment according to the invention the adhesive can be covered by a tear-off strip so that a permanent or pressure-sensitive adhesive can be used,  
30 which does not require wetting or application prior to using the stiffening means, but only a tearing off of the strip.

According to the invention the stiffening means can be  
35 manufactured by folding a web of film material around a board of cardboard forming the inset, and bending and fastening the side flaps around a part of the sides of

the film material on the opposite side of the inset of cardboard seen with respect to the pocket of the stiffening means. Thus the inset and the film material need neither be of compatible materials nor to be fastened to each other.

Finally, according to the invention, the web of film material can be substantially cross-shaped with four arms or flaps rendering the outer surface of the stiffening means completely smooth, which further facilitates the handling of the book with attached stiffening means.

#### Brief Description of the Drawing

The invention is described in greater detail below and with reference to the accompanying drawing, in which

Fig. 1 illustrates a paperback book as well as two stiffening means,

20

Fig. 2 is a view of the side of a stiffening means to be placed inside a paperback book, and

Fig. 3 is a sectional view through the stiffening means of Fig. 2 along the line II-II.

#### Best Mode for Carrying Out the Invention

Fig. 1 illustrates a paperback book 1 with a front 2 and a back 3 end page usually of a material only slightly thicker than the material of the other pages. An example of such a paperback book is a telephone book. To be stiffened the front and back end pages of a telephone book are inserted into a stiffening means 4 the size of which corresponds to that of the telephone book. The stiffening means 4 is provided with a flap 6 with an adhesive 7, cf. Fig. 2, said adhesive being covered by a

tear-off strip 8. The width of the adhesive ranges from a few millimeters to the entire width of the flap 6.

Fig. 2 illustrates a stiffening means in form of an envelope seen from the side to be placed inside a paperback book. The stiffening means is made of a film material 9 surrounding a thin board 5 in form of one or more insets. At least one side of the stiffening means has a flap 6 of such a size allowing it to extend around the spine of the paperback book to be stiffened. Both the flap 6 and the rest of the film material 9 can be made of transparent plastics so that the information printed on the end pages remains visible. The inset 5 optionally carrying information differing from what is printed on the end pages can be inserted when inserting the paperback book into the envelope. Moreover, the two flaps 6 on each stiffening means - one for the front end page and one for the back end page - can optionally hold a marking to the stiffened spine when said flaps overlap each other. Such a marking can, for example, indicate ownership of the paperback book, optionally in form of a telephone number and/or an extension. The film material 9 is provided with two further flaps 10, 11 projecting from the two sides at right angles to the side carrying the flap 6. The flaps 10, 11 are bent around the edge of the inset 5 and fastened to a flap 12, thus forming the pocket of the envelope. The fastening is performed in a manner known per se, for instance by glueing, welding or the like.

Fig. 3 is a sectional view through a stiffening means illustrating the envelope-like form. The end of the web of film material 9 opposite the flap 6 is provided with the flap 12 bent over the inset 5. Bending the flap 12 over the inset 5 reduces its slideability inside the envelope 4, although the inset 5 is not fastened to the envelope. Moreover the inset 5 is held against the end page of the paperback book 1. The inset 5 can be made of cardboard or

similar material of sufficient stiffness, such as corrugated plastics or corrugated cardboard. Usually the inset 5 is made of transparent plastics. It may optionally be provided with perforations with the proviso that the strength of the inset is not considerably weakened.

The stiffening means 4 is attached to the paperback book by folding out one end page, for instance the front end page 2, and inserting it in the opening between the flaps 6 and 12, so that the inset 5 is positioned such that it faces the inner surface of the end page 2. The paperback book is then closed, the tear-off strip 8 removed and the flap 6 is folded around the spine and fastened thereto. Then the other end page of the book, i.e. in this case the back end page 3, is folded out and correspondingly inserted in a second stiffening means, whereupon the paperback book is again closed, the tear-off strip 8 removed and the flap 6 of the second stiffening means is folded over the first flap and fastened thereto. This results in a solid, esthetically pleasing paperback book having a long life.

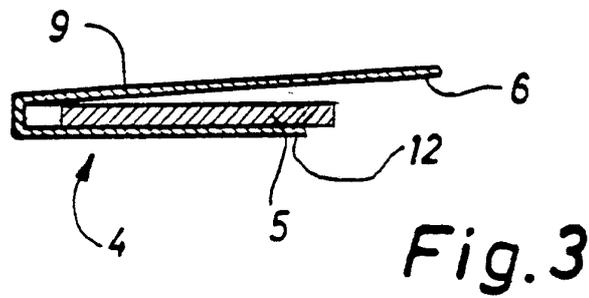
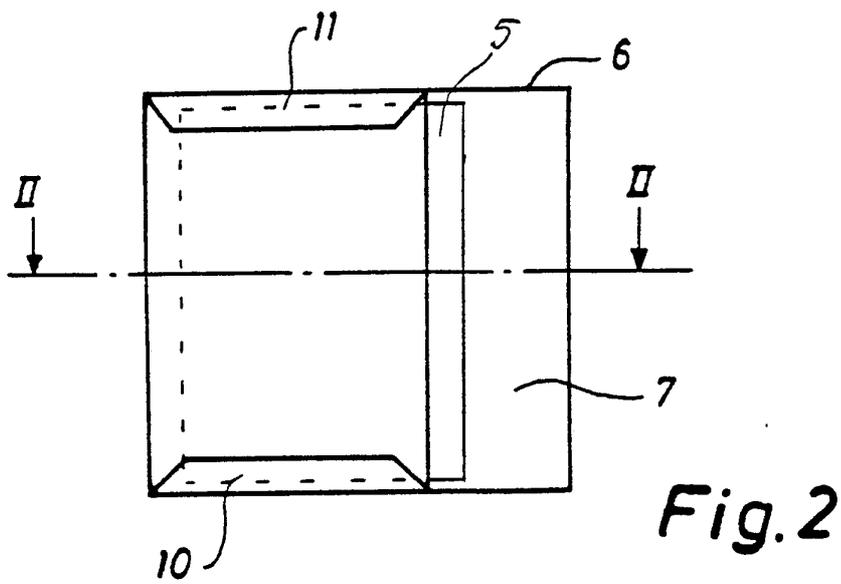
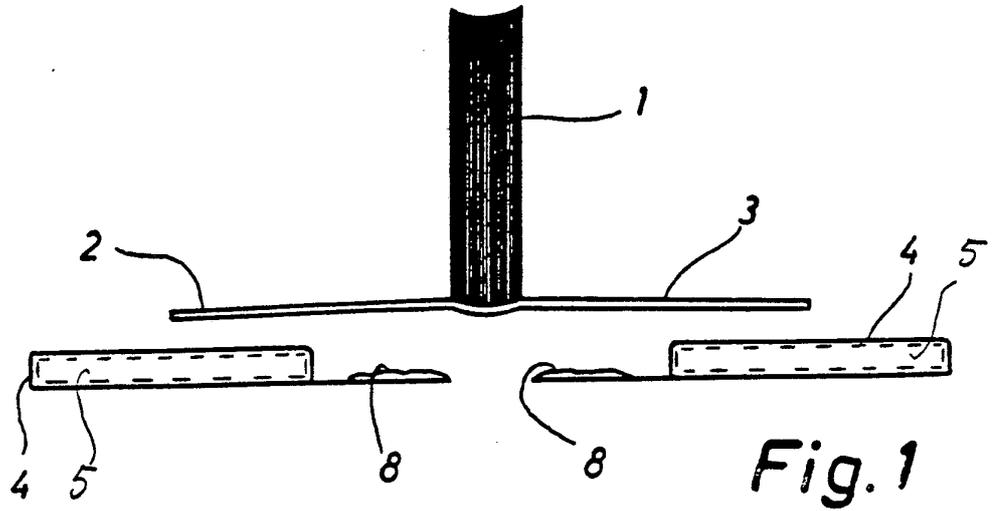
The invention is not limited to the above described embodiment but can be varied in many ways without thereby deviating from the scope of the invention.

Claims

1. A stiffening means for a paperback book or a similar bound document with soft cover, the outer contour of which  
5 substantially corresponds to the outer contour of the front or back end page, said cover comprising two pockets each being able to receive a stiffener in form of a board, c h a r a c t e r i s e d in that the stiffening means (4) has substantially parallel, blunt, non-projecting edges,  
10 extending at least during use at right angles to the spine of a book.
2. A stiffening means as claimed in claim 1, c h a r a c t e r i s e d in that the means for fastening the board  
15 comprises an envelope (4) with a pocket for receiving the corresponding part of the end page, the board being a stiff inset (5) freely sliding inside the envelope (4).
3. A stiffening means as claimed in claim 1 or 2,  
20 c h a r a c t e r i s e d in that the envelope (4) comprises a flap (6) to overlap the spine of the paperback book (1).
4. A stiffening means as claimed in claim 3, c h a r a c t e r i s e d in that an adhesive (7) is applied to the  
25 flap (6) to glue the latter to the spine of the paperback.
5. A stiffening means as claimed in claim 4, c h a r a c t e r i s e d in that the adhesive (7) is covered by a  
30 tear-off strip (8).
6. A stiffening means as claimed in one or more of the preceding claims 1-5, c h a r a c t e r i s e d in that it is manufactured by folding a web of film material (9)  
35 around a board of cardboard (5) forming the inset, and bending and fastening the side flaps (10, 11) around a part of the sides of the film material (9) on the opposite

side of the inset of cardboard seen with respect to the pocket of the stiffening means.

7. A stiffening means as claimed in claim 6, characterized in that the web of film material (9) is substantially cross-shaped with four arms or flaps (6, 10, 11, 12).



# INTERNATIONAL SEARCH REPORT

International Application No PCT/DK89/00116

<b>I. CLASSIFICATION OF SUBJECT MATTER</b> (if several classification symbols apply, indicate all) <sup>6</sup>		
According to International Patent Classification (IPC) or to both National Classification and IPC <sup>4</sup>		
B 42 D 1/04, 3/00		
<b>II. FIELDS SEARCHED</b>		
Minimum Documentation Searched <sup>7</sup>		
<b>Classification System</b>	<b>Classification Symbols</b>	
IPC 4	B 42 D 1/00, /04, /06, /08, /10, 3/00, /02, /04, /06, B 42 C 7/00, 9/00, /02, 11/00, /02, 15/00	
US Cl	281:1, 15, 19, 20, 29, 34-37, 412:3-5, 19-21, 26,27	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched <sup>8</sup>		
SE, NO, DK, FI classes as above		
<b>III. DOCUMENTS CONSIDERED TO BE RELEVANT <sup>9</sup></b>		
<b>Category <sup>9</sup></b>	<b>Citation of Document, <sup>11</sup> with indication, where appropriate, of the relevant passages <sup>12</sup></b>	<b>Relevant to Claim No. <sup>13</sup></b>
X Y	FR, A, 793 738 (M. MOLINO) 30 January 1936	1-4, 6-7 5
X Y	FR, A, 1 039 495 (M. RAYMOND BOUSSARD) 7 October 1953	1-2, 6 3-4
A	US, A, 1 819 940 (W.F. BAKER) 18 August 1931	1, 3, 4
X	US, A, 2 706 645 (LLOYD E. PITNER) 19 April 1955	1, 6, 7
Y A	US, A, 3 367 680 (JOSEPH GREENSPAN) 6 February 1968	5 1
X	US, A, 4 209 187 (FORREST) 24 June 1980	1-3, 6
A	US, A. 4 650 216 (CARLSON) 17 March 1987	1-7
Y A	DE, A1, 2 528 151 (DUCORDAY) 20 January 1977	3-4 1
<p><sup>9</sup> Special categories of cited documents: <sup>10</sup></p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document 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</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>"Δ" document member of the same patent family</p>		
<b>IV. CERTIFICATION</b>		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
1989-08-09	1989-08-11	
International Searching Authority	Signature of Authorized Officer	
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III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)		
Category*	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No
A	DE, A1, 2 751 801 (STEINHILBER) 23 May 1979	1
A	GB, A, 2 030 074 (BOOK PROTECTORS & CO) 2 April 1980	1