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(54) **AUTOMATIC MARKER FOR BOOKS, AGENDAS AND THE LIKE, AND FABRICATION PROCESS**

(57) Automatic marker for books, agendas and the like, appropriate for signalling the last page read/written by the user and comprised of three parts: an indicator segment (1); a fixing element (2) fixed to one of the covers, pages or spine and a union means or flexion arm (3) between said segment (1) and said element (2). Said parts (1, 2, 3) are conformed into a single piece (20), the indicator segment (1) and flexion arm (3) being obtained by a cut/separation through weakening-precut lines of one area of said part (20) with fixing points which are separable when using the marker. The remainder of the part (20) forms the fixing part (2), used as support which is fixed interleaved between the pages of the assembly, one edge bearing on the spine and remains fixed due to the pressure of the pages. It includes a stop (9) for an adequate positioning of its top edge.

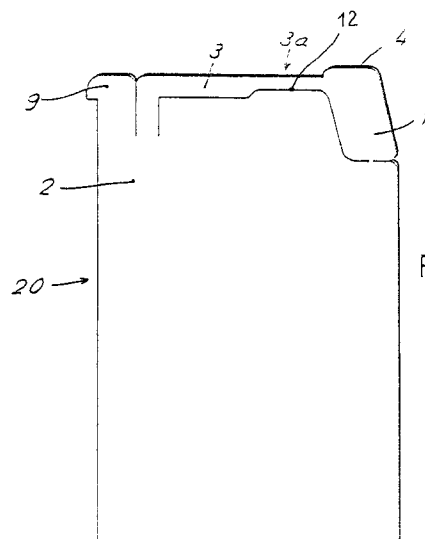


FIG. 3

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Description

This application for a patent refers to an automatic marker for books, agendas and the like, appropriate for signalling and provide an easy access to the last page read in a book or written in an agenda, the special construction, shape and design characteristics thereof meeting the function for which it has specifically been designed, with maximum safety and effectiveness.

The most traditional example of a marker used since ancient times is the classic strip or cord attached to the book by one end and which is manually placed in the page of interest to be signalled.

A system used in some agendas comprises the cut of a little part of a corner, already marked, of the current page. In this manner all the used pages lack of said paper portion while the unused ones remain complete thus facilitating to find the current page in a next use.

A clamp, a clip or a bit of paper, optionally self-adhesive protruding from a page edge are, in the largest part of the cases, the practical solutions which are adopted to solve the problem.

All the mentioned methods are of a limit efficacy as being dependent of a voluntary initiative of the book's reader, who in many occasions forgot to change the position of the marker before closing the book or agenda, this being practically unavoidable in situations analogous to the one of reading a novel in a subway or bus and it arrives the moment to step down.

German Patent DE-A-29 31 263 discloses an automatic marker for books, having a simple construction, basically including three operating parts: a banderole-like indicator segment, a flexing arm and a clamp-shaped fixing element, considering the possibility of being made as a synthetic, metal or cardboard sheet as well as a wire single part. However said marker has following drawbacks:

- as the assembly is not compact (protruding signalling and fixing end parts and body: weak intermediate arm) this marker can offer serious difficulties for its packing, carriage and handling, the arm being easily impaired;
- fixing means are not workable at a profitable economic cost, because the clamp is not suitably locked or is very expensive and an alternative solution by means of adhesive rises fabrication cost and, in general, hinders marker correct positioning;
- the limited performances of the flexing arm entailing that if the tab remains fixed between two pages, the arm is damaged or impaired or the marker skips;

With the marker disclosed in said patent DE-A-29 31 263, it is advised, for a correct operation that the marker arm length being the same as the sheet width, because it is mainly based on the capability a sheet has to bend under the marker arm pressure, without considering flexing matched with torsion and slippage charac-

teristics which are included in this invention as stated below. This marker for books therefore has drawbacks for adapting itself to the book size and significant deficiencies for working conditions. To overcome the former, in another of the preferred embodiments of this marker, an extensible arm type is mentioned which is formed by two parts which can move with respect to each other and which facilitates through this movement the arm length adjustment, which, however increases the fabrication cost. On the other hand, it is to be pointed out that no sufficient working surface is available for advertising purposes. For all the above, said marker could sustain deformations when someone is glancing through the book from the sheets further to the one bearing the marker or easily skip it.

Other embodiments of markers for books or the like, more complex and in general of a more complicated handling and higher cost, or having lower performances than those of the marker of this invention are disclosed in following patents: US-A-4793632, US-A-4869529, US-A-4941684, US-A-5286060, EP-A-0061355, EP-A-0338733, NL-8801567 and SE-9301681.

With the invention disclosed herein the usual problem of changing the marker is very effectively overcome, because this operation is automatically carried out when the user turns the sheet. At same time, a very simple material embodiment of the invention is disclosed which as well from the point of view of use as of fabrication, as it can be made of paper, it can be stacked for its packing and it allows it to be retractile for its carriage. All of it make the commercial workability of this innovation.

On the other hand, the disclosed invention results optimally compatible with an advertising support as it offers sufficient visible surface, providing so the innovation with double interest and usefulness.

The automatic marker for books, agendas and the like, object of this invention, can be described as constituted by three differentiated parts from the functional aspect: at one end an indicator segment is shaped which is located inwards the current sheet by one of its edges, provided with sliding properties with respect to the sheet edge. On the other end there is a fixing element which is placed against one of the covers, sheets or back of the book close to an edge and which is basically formed in the preferred embodiment by a surface which acts as a support, its vertical edge distal from the indicator marker being supported between the sheets of the book against the binding, remaining fixed by the sheets pressure and the binding in a similar way as a conventional marker of books is fixed. Finally, an union element between both ends provided with resilient flexing and torsion properties to produce the indicator segment continuous pressure on the last sheet being read or written, allowing at same time spontaneous skip to next sheet when turning the current sheet. This element will be thereafter called flexing arm.

The three functional parts disclosed will form in the preferred embodiment a whole integral assembly without welding nor changes of constituting material, i.e., the automatic marker is constituted by a single part which can be obtained by die-cutting a plate of a suitable material (plastic, bristol, fiber, plastified paper, etc.) or by means of plastic injection in a simple and regular mould, in this later case weakening lines are left. Only in the event book fixing is by adherence, adhesive material would be a different component to be added.

According to another characteristic of the invention, the die-cut forming the automatic marker leaves some small uncut lengths or sections to provide the system with stiffness in its handling and carriage, the marker user being who manually cut them to definitively form the marker before its use.

According to another characteristic of the invention, the die-cut forming the automatic marker forms at same time, on the fixing element surface, a tab or surface which projects at the top of the sheet indicating so where the marker fixing element is located, performing thus as double marker. The cut with the die will be carried out in such a way that the scraps produced by the cut, with the marker located in the book or the like, remains folded, with their protruding edges towards the reader.

According to other characteristics of the invention, the flexing arm comprises, at the end joined to the supporting element, certain geometrical shapes or cuts facilitating the flexing path to make possible opening the book from the pages subsequent to the current one. In a similar way, it can include geometrical shapes or cuts facilitating the torsion by the end joined to the indicator segment, facilitating the skip from one sheet to another.

According to another characteristic of the invention, the fixing element to the book involves a workable visible surface for advertising, which can be extended up to the sheet width and length.

According to another characteristic of the invention, the fixing element to the book has an extension with workable and visible surface which can be extended up to the book back allowing that useful indications are engraved as, for example, the title of the book, the author, a number of order or others.

According to another characteristic of the invention some or all the surfaces forming the marker, have a finish in such a way it allows the user handwriting thereon.

According to another characteristic of the invention, the fixing element to the book contain a support or clamp for ball point pen or the like.

According to another characteristic of the invention, the automatic marker indicator segment comprises an extension which protrudes outwards the book which attempts to facilitate placing the current sheet and opening the book.

According to another characteristic of the invention, the automatic marker indicator segment possess a support, clamp or clip to seize small notes or reminder

sheets.

According to another characteristic of the invention, the automatic marker indicator segment includes a workable surface for handwriting or inserting advertisements which will skip from one page to another.

According to another characteristic of the invention, the automatic marker is die-cut or fabricated in such a way it forms as a whole a post card, for congratulations or the like the marker being formed in one of its faces.

These and other advantages clearly appears from the description below of some embodiment examples, for illustrative purpose only.

Figure 1, is a perspective, schematic view, of a first simplified embodiment of the disclosed marker.

Figure 2, is a schematic perspective of an alternative embodiment of the marker.

Figure 3, shows, also in perspective, a preferred embodiment of the marker including most of the improvements.

Figure 4, is a schematized perspective of the application to a book of the marker disclosed where there is no need of adhesive or clamp as fixing means.

Figure 5, shows in perspective special durability conditions of the marker disclosed, thanks to flexing and torsion properties of its connection sector with the supporting-fixing part.

Figure 6, is another schematized perspective of the application of the marker to a book cover or page in folded position (inverted lower position) before using it to pass to a working position when it is used (straight top position). Said marker can be die-cut on the cover or flap or fixed with adhesive to the book by a part of its supporting sector.

Figure 7 is a schematized perspective of the application of the marker to a writing pad or agenda, by means of a set of markers having different arm lengths.

Figure 8 shows a congratulation card in which a marker has been formed, providing the gift with a double value.

The element indicated with numeral 1 corresponds to what has been mentioned as indicator segment. This element is approximate rectangular, trapezoid or diamond-shaped, more or less elongated and it can admit a figure as an arrow or akin and include a printed message which skips from page to page. The element 1 has advantageously a slight angle of inclination with respect to the edge of the book, outwards the sheet so as to facilitate a sliding thereof with the sheet of paper. The indicator segment can constitute an extension protruding outwards the book with the aim of facilitate to locate the current page and the aperture of the book. Likewise the indicator segment can include or build a clamp, clip or adhesive means in order to fix reminder notes (this detail has not been illustrated in the drawings).

The numeral 2 corresponds to what has been mentioned as support-fixing element. As it can be appreciated in Fig. 3 it essentially has a rectangular shape and

it may include, although in general it is unnecessary, a fixing means such as an adhesive material in one of its faces, while the face of faces which are visible can be used as a support for an advertising message. By means of extensions of this fixing element, or through attached fittings it can incorporate other useful elements such as a support for a ball-point pen, glasses, notes, etc. and also a surface to be marked with some interesting data such as a set number, title, etc. Mentioned fittings are not disclosed in the drawings.

Both elements 1 and 2 previously disclosed are connected by an elongated member which has been beforehand referred as flexing arm 3. Thanks to its bending and torsion properties the indicator segment remains pressed on the current page and skips to the next page when manually turning said page. With the aim to ameliorate the action of said element 3, it can be devised with two transversal differentiated sections, a narrow one in the part 3a adjoining the element 1 which assist in the torsion moment of said part 3a and the part immediate to the element 2 having a wider section in order to resist the flexion stress. Instead of having two sections of different extent the arm 3 can entail a similar shape in which the section changes in a continuous way from one end of great extent, adjacent the fixing element, towards one small section in the part 3a contiguous to the indicator element 1.

At the end of the flexing arm which connects with the fixing element several geometrical profiles or cuts 5 and 7 can be provided giving an elbow portion which facilitates the flexion movement of the automatic marker while providing a feature of torsion-flexion (see Fig. 5). This elastic feature allows the opening of the book for the pages following the current one, without causing distortion in the material of the marker. Neither is the arm 3 damaged as a result of being substantially bent if by an error is pulled while retained between two pages of the book 10.

The skip of the pages is in part assisted, thanks to the lower stiffness of a single page of paper which slightly turn under the pressure of the flexing arm 3 allowing the skip of the indicator segment 1 to the next page. Another important factor in the features of the skip is the torsion ability of the flexing arm 3 with regard to the indicator segment. This torsion ability can be increased and to be controlled by using geometrical shapes or cuts alike to the referred by the numerical references 6 and 8 or as it is shown in Fig. 2, through weakening of the flexing arm 3 produced through holes on said arm. The last meaningful component which contributes to the page skip conditions is due to the sliding of the indicator segment 1 over the page edge when one tries to turn said page. Said sliding can be assisted by a particular angle of inclination of the indicator segment 1 with respect to the page.

In order to obtain an accurate location of the marker by the user when said marker is not already included in the book the fixing element can include at its left top cor-

ner a protuberance 9 with link through a step, said step when being supported against an end or the back or pages of the book allow an alignment and a suitable location with respect to the edge of the pages, of the assembly arm 3 and marker 1.

Another form to adapt the marker to the book consist in incorporate the marker to the book in such a way that the support part 2 of the piece 20 can be folded on itself and remain the marker folded in the cover of the book 10 when this is in a bookshop to be marketed and when in use it can be unfolded and placed in a working position as it is indicated in Fig. 6, so that the marker is incorporated to the book and can be employed when the user operates it.

Another alternative embodiment of the automatic marker is the one illustrated in Fig. 7. In this case a set of several markers having different arm lengths are stepwise placed in a writing pad 10a in each of the departments thereof in such a way that said markers also act as classifiers of the different matters.

Once described in a sufficient way the features of this invention subject, as well as the way to be put into practice, it is declared that all which does not change, alter or modify its chief principle, can be submitted to a feasible modifications.

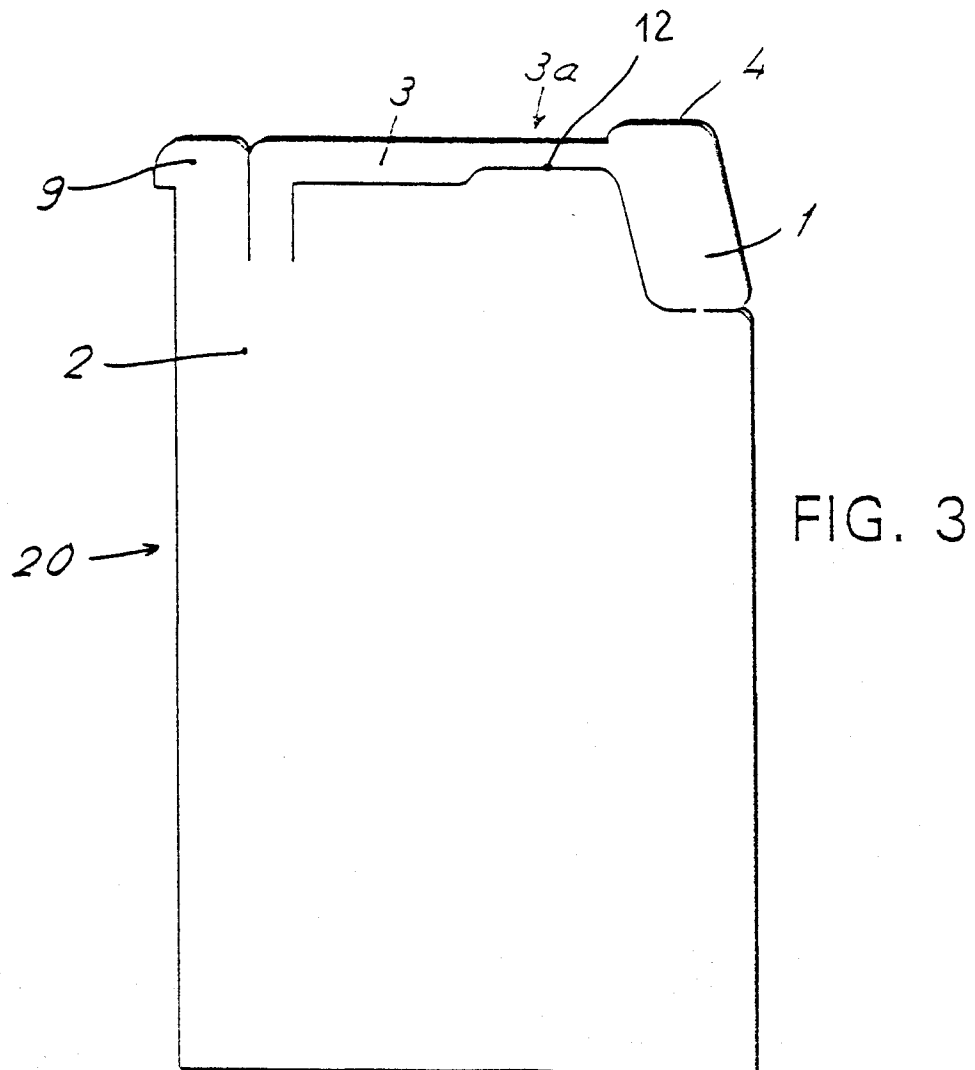
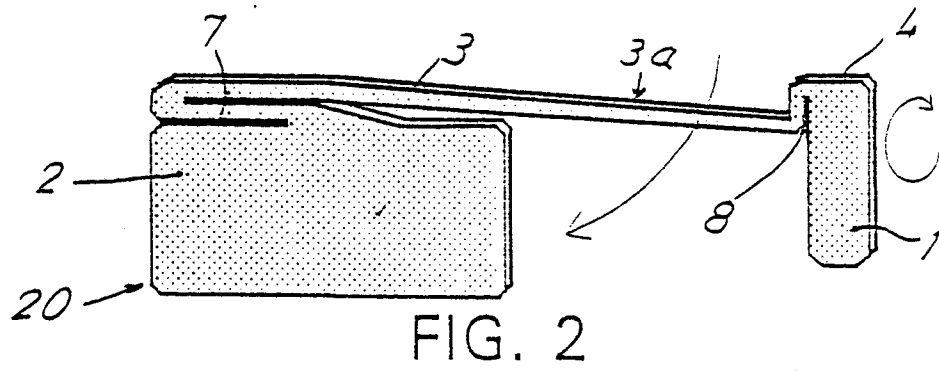
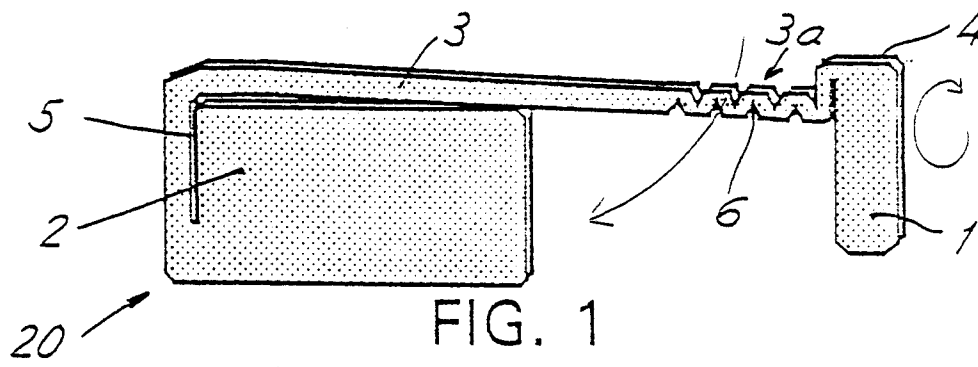
Claims

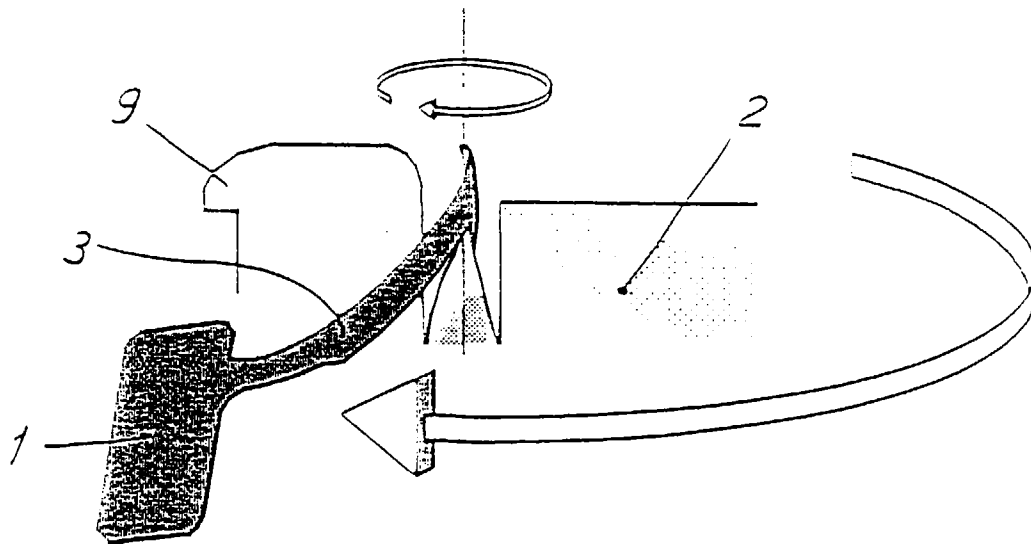
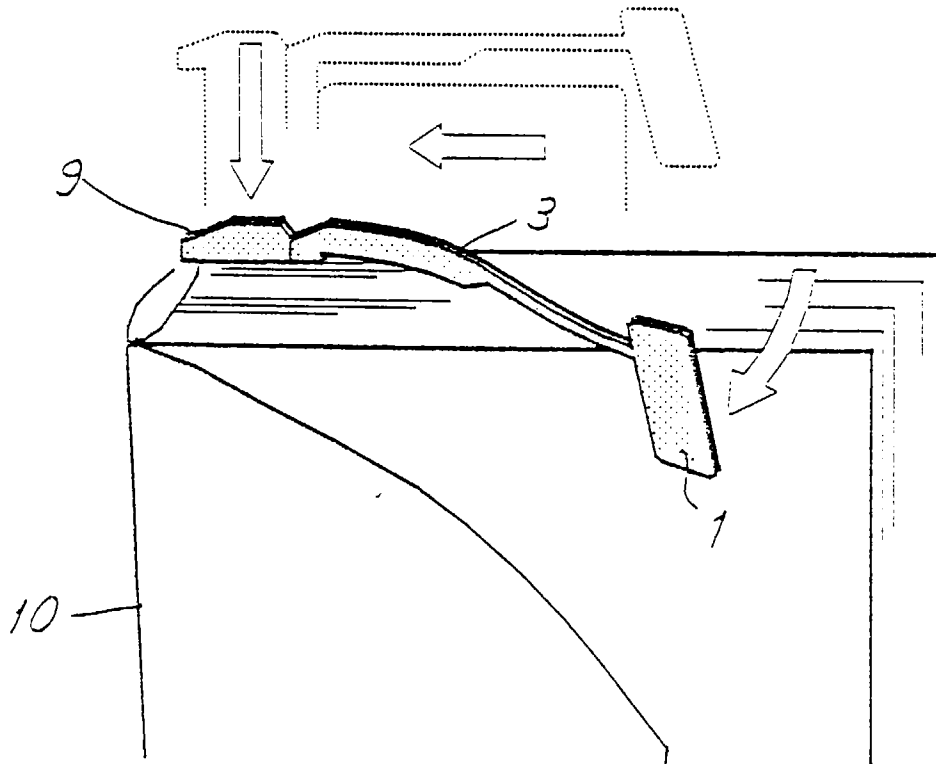
1. Automatic marker for books, agendas and the like, used for signalling last page read/written by the user, of the type basically constituted by three functionally differentiated parts: an indicator segment (1) which is introduced inwards the current sheet, by one of its edges, with a portion which projects from the page to be signalled, provided with sliding properties with respect to said page edge, a fixing element (2) placed against one of the covers, pages or back of the whole and a means of union or flexing arm (3) between said segment (1) and said fixing element, provided with flexing properties to produce the indicator segment (1) continuous pressure on the sheet which is being read or written, allowing at same time spontaneous skip to next page when the current page is turned CHARACTERIZED in that:

- said three parts (1, 2, 3) are formed from a single piece (20), the indicator segment (1) and flexing arm (3) parts being obtained by weakening - pre-cut lines separation or cut, of an area of the piece (20) outline, with at least a fixing point, removable in the moment of using the marker, the rest of said piece (20) forming the part (2) or fixing element constituted as a support and its fixing to the assembly may be carried out intercalating said piece (20) between the pages of the whole sheets, in such a way that a vertical edge of said piece (20), distal

from the indicator segment (1), is supported against the back of the whole, remaining fixed by the sheets pressure, a stop reference or member (9) having been provided for a suitable positioning of its top edge, where it integrates the arm (3) and the indicator segment (1), allowing its movement.

2. Marker for books, according to claim 1 characterized in that the flexing arm (1) include at the end joined to the fixing element (3), an elbow shaped portion, with a sector of said elbow entering in the piece (20) body, delimited by cuts which allow a torsion (15) (Fig. 5) and increase the extent of the flexing arm (3) possible angular path without this arm sustains deformations or breakages. 10
3. Marker for books, according to preceding claim characterized in that the indicator segment (1) of the automatic marker has a certain angle of inclination with respect to the arm (3), in such a way that it remains slant oriented, outwards the sheet to help sliding between both of them, said indicator segment (1) being constituted by a tab or banderole of different shapes. 20
4. Marker for books, according to claim 1, characterized in that the flexing arm (3) possesses at the end sector (3a) which is joined to the indicator segment (1) cuts, thinings or narrowings which increase the torsion capacity of said sector (3a) when said indicator segment (1) tilts, facilitating the arm (3) flexion, including namely at least two sectors of different extent, one close to the indicator segment (1), having a narrow section and another close to the fixing part (2) having a larger section which provide strengthness, the variation between both sectors being gradual or continuous, progressive. 30
5. Marker for books, according to claim 4, characterized in that the die-cut or weakening lines forming the automatic marker form at same time on the top edge of the piece (20) a tab or surface (12) which projects at the top part of the book (10) sheet or the like, allowing thus to easily locate where is placed the main marker support part the tab (12) of which can be obtained at the expense of said shorter section of the end close to the indicator segment (1) of the flexing arm (3), at the die-cut or separation by weakening lines of the piece (20). 40
6. Marker for books, according to preceding claims, characterized in that at a top summit of the part (20) a protuberance (9) has been provided with link through a step which is supported against the end of the back or set of sheets constituting said stop reference or member for suitably positioning the top edge of said piece (20) which integrates the arm (3) 50
7. Marker for books, according to preceding claims, characterized in that it is integral to the book (10) or the like the supporting part (2) of the piece (20) having in an area far from parts (1 and 3) an horizontal folding line or fold, in such a way that the marker may be folded outwards the book (10) for its carriage and to be unfolded outwards when the marker is to be used, parts (1 and 3) may be constituted by simple die-cut of a flap or page of the book (10) or the like, or to be joined to it through a part under said folding line or fold fixed on the book (10) with an adhesive. 55
8. Marker for books, according to preceding claims, characterized in that it has available a set of several markers having different arm lengths, which are stepwise placed in a book (10), writing pad, notebook (10a) or the like, at each section thereof, in such a way that the markers also act as classifiers of the different matters.
9. Method to fabricate an automatic marker for books (10), agendas and the like characterized in that the three functional parts (1, 2, 3) integrating the marker are formed in a single piece (20) to provide the system with stiffness in its handling and carriage, the indicator segment (1) and the flexing arm (3) may be separated by a cut line, breaking at least one union point between said three parts (1, 2, 3) in the moment of using the marker, said piece (20) having a regular and simple shape and said division in three parts (1, 2, 3) is obtained by means of a simple fabrication process such as die-cutting a flexible material plate, such as plastified paper, bristol, plastic or the like, of opaque, translucent or transparent character or by the plastic injection of a suitable material, and in that in the case of die-cut, the cut with the die is made in such a way that the scraps produced by the cut, with the marker located in the book (10) or the like, remain folded with their protruding edges towards the user.
10. Method, according to the claim 9, characterized in that the automatic marker is die-cut or fabricated in a way that the whole forms a postal card, for congratulation, diptych, triptych or the like (14) the marker remaining formed on one of its faces, the positioning stop or reference element may be formed of one face or sheet different from the flexing arm.





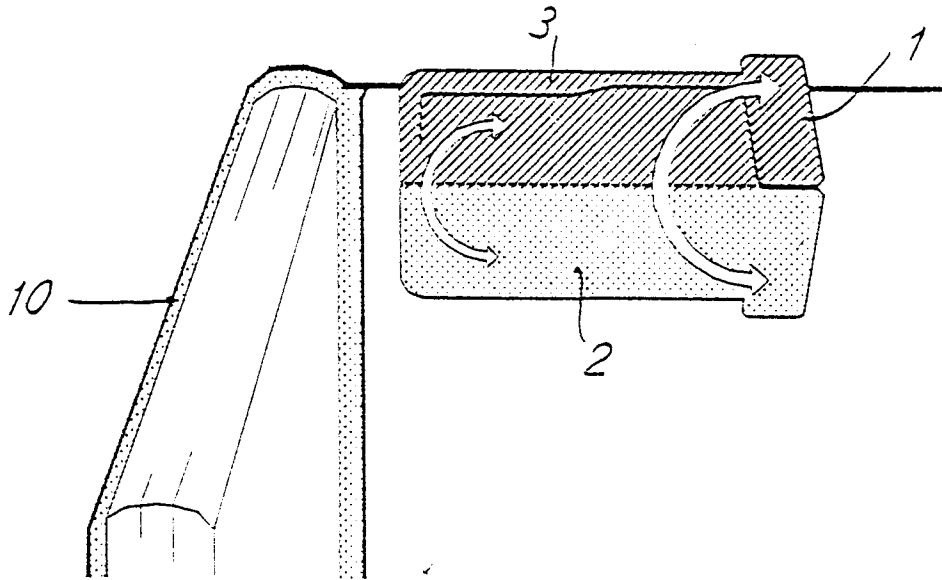


FIG. 6

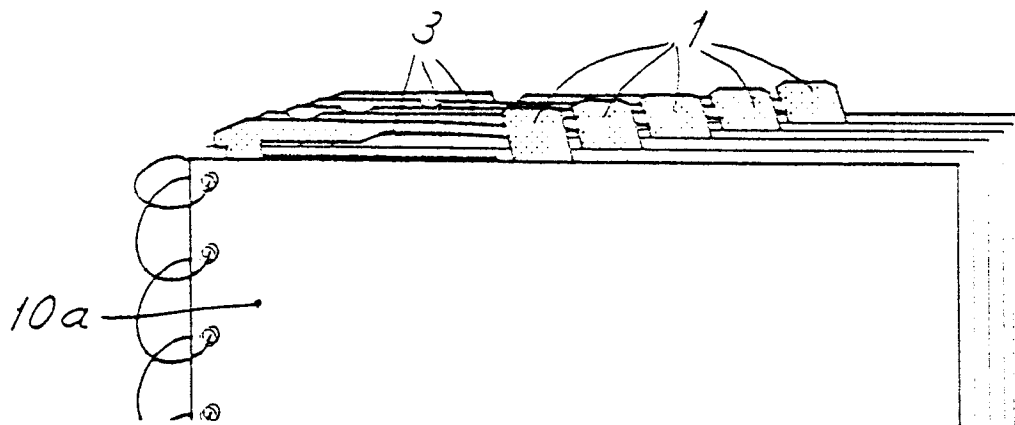


FIG. 7

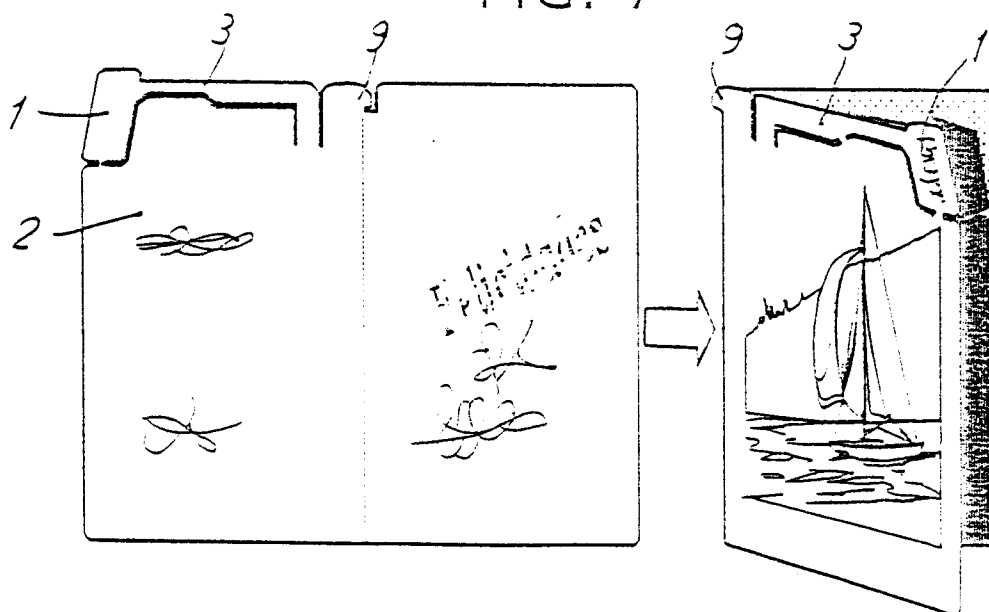


FIG. 8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 96/00221

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6: B42D 9/06

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)

IPC 6: B42F 21/06, B42D 9/06

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)

CIBEPAT, EPODOC, WPIL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 7534421 U (KWIECINSKY, GEORG) 11 March 1976 (11.03.76) the whole document	1
A	EP 61355 A (FROST, B.J.) 29 September 1982 (29.09.82) claim 1	1
A	US 4941684 A (AMOS, F.) 17 July 1990 (17.07.90) column 13, lines 18-27, col. 14, lines 10-27. figures 1-3 figure 13	1, 9 1 8
A	US 2437074 A (CHAPIN, H.E.) 02 March 1948 (02.03.48) col. 2, lines 13-15 lines 45-49	4 1
A	US 3158131 A (SALAYKA, S.J.) 24 November 1964 (24.11.64) the whole document	1
A	GB 316823 A (DALY, FRANCIS) 08 August 1929 (08.08.29)	1

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

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Date of the actual completion of the international search

20 March 1997 (20.03.97)

Date of mailing of the international search report

02 April 1997 (02.04.97)

Name and mailing address of the ISA/

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