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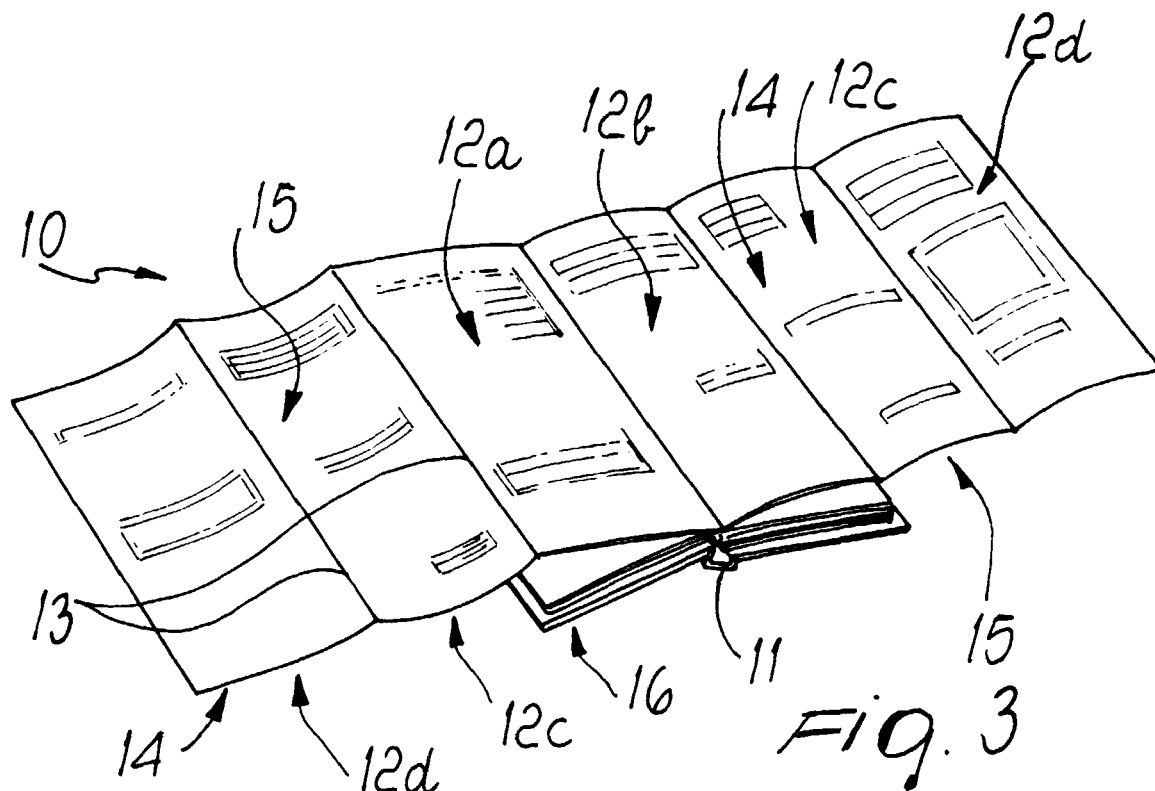
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(54) **Improved book structure**

(57) An improved book structure (10) comprising a plurality of bound pages (12) enclosed by a cover (11), at least some of the pages being constituted by sheets which are wider than the cover in the reading direction. Each one of the sheets (12) has a part of the signature (12a) which is pasted to the directly preceding sheet

(12) and at least one vertical folding line (13) which forms adjacent sheet sides (12a-12d) which are adapted to be folded onto each other so that the part of sheet that protrudes laterally retracts into the area covered by the cover (11).



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Description

[0001] The present invention relates to an improved book structure.

[0002] In the publishing trade, and particularly in the field of books for young readers, the current trend is generally to give great prominence to illustrations and drawings.

[0003] Children and adolescents in fact are always highly attracted by illustrations, to the point that said illustrations are used increasingly not only in story books and fairy-tale books but also in school books for educational purposes.

[0004] On the other hand, the need to provide books which are compact, not too bulky and easy to handle, cannot be ignored.

[0005] Accordingly, there is a contrast between the handiness and convenience of a compact book, on the one hand, and the possibility to view a beautiful illustration or a full geographical map, for which it is necessary to have large sheets available, on the other hand.

[0006] The aim of the present invention is to provide an improved book structure which is capable of combining small book dimensions with the possibility to contain large sheets therein.

[0007] Within the scope of this aim, an object of the present invention is to provide a book structure in which the large sheets can be examined simply and rapidly by the user and at the same time are not particularly subject to deterioration.

[0008] A further object of the present invention is to provide a book structure which can be manufactured in a simple manner with an automated process and by resorting to per se known manufacturing plants and equipment.

[0009] A further object of the present invention is linked to the possibility to provide a book structure which is strong, so that it can also be used in pocket manuals or travel guides.

[0010] A still further object of the present invention is to provide an improved book structure which can be used even in very different fields.

[0011] This aim, these objects and others which will become apparent hereinafter are achieved by an improved book structure according to the present invention, characterized in that it comprises a plurality of bound pages enclosed by a cover, at least some of said pages being constituted by sheets which are wider than the cover in the reading direction, each one of said sheets having an outer part of the signature which is pasted to the directly preceding sheet and at least one vertical folding line which forms adjacent sheet sides and allows to fold onto each other sheet sides that constitute a part of the sheet that protrudes laterally from the area covered by the cover.

[0012] Further characteristics and advantages of the present invention will become apparent from the following detailed description of an embodiment thereof,

which is illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a perspective view of a book with improved structure, according to the present invention, with a fully opened-out sheet;

Figure 2 is a bottom view of the book of Figure 1 in the closed configuration;

Figure 3 is a perspective view of the book of Figure 1 with two fully opened-out sheets;

Figure 4 is a top view of sheets of the book of Figure 1 in the pre-assembly step;

Figure 5 is a schematic view of the step for folding a sheet of the book of Figure 1;

Figure 6 is a perspective view of a sheet of the book of Figure 1.

[0013] With particular reference to the above figures, a book with improved structure, according to the present invention, is generally designated by the reference numeral 10 and comprises a plurality of bound pages enclosed by a cover 11.

[0014] In this case, the book 10 has a predominantly vertical extension, so that it is narrow and tall.

[0015] Each page is constituted by a sheet 12 whose dimensions are larger than those of the cover 11 and in particular, with reference to the direction in which the book 10 is read, its height is the same as that of the cover 11, while its width is much greater.

[0016] In this case, each one of the sheets 12 can be divided, by means of three vertical folding lines 13, into a first portion 12a, a second portion 12b, a third portion 12c and a fourth portion 12d in the direction in which the book 10 is read.

[0017] Each one of portions 12a, 12b, 12c and 12d accordingly has the same vertical dimensions as the cover 11 and substantially the same width as the front 16 of the cover 11 and thus constitutes one sheet side of the book 10.

[0018] For the sake of simplicity, a distinction is made herein, on each sheet 12, between an upper side 14 and an opposite lower side 15 thereof.

[0019] The first portion 12a of each sheet 12 constitutes, with its lower side 15, the signature thereof and is pasted to a corresponding lower side 15 of the second portion 12b of the sheet 12 that directly precedes it.

[0020] In particular, the sheet 12 has a folded configuration, in which it is fully contained within the cover 11, and an unfolded configuration, in which its portions 12c and 12d also are frontally visible and constitute the part of the sheet that protrudes laterally from the cover 11.

[0021] In use, in the folded configuration of the sheet 12 the fourth portion 12d is folded onto the third portion 12c, which is in turn folded onto the second portion 12b, as shown in Figures 5 and 6.

[0022] In order to read the book 10, as shown in Figure 1, the user can completely unfold the sheet 12 at

which the book 10 has been opened, taking care to expose first the second portion 12b and then the other portions 12c and 12d.

[0023] Once this has been done, the reader has as many as four sheet sides available for reading (the lower side 15 of the first portion 12a and the upper sides 14 of the other portions 12b, 12c and 12d).

[0024] Moreover, the reader can also unfold the directly preceding sheet 12, so that two more sheet sides are available (the lower sides 15 of the third and fourth portions 12c and 12d).

[0025] In this case, the first vertical folding line 13 of each sheet 12 substantially coincides with the lateral edge of the cover 11, but in other cases it can be moved inward so as to obtain narrower sheet sides.

[0026] As a whole, therefore, the book 10 has two separate operating states: a folded one, in which the excess portions 12c and 12d overlap the second portion 12b so that they are all within the area covered by the cover 11, and an unfolded one, in which the sheet 12 can be read frontally on its entire surface, including the excess portions 12c and 12d.

[0027] In practice it has been found that the present invention has more than satisfactorily solved the intended aim and objects.

[0028] It should in fact be observed that the improved book structure, according to the present invention, indeed allows to provide books whose overall dimensions are very compact but in which it is possible to bind even pages constituted by large sheets.

[0029] This ensures continuity for large images that can be printed on small-size books thanks to the presence of said larger sheets which, when necessary, can be easily unfolded to allow reading.

[0030] It should also be observed that the sheets are also folded very simply and handily for the user.

[0031] The book according to the present invention is in fact capable of passing from the folded state to the unfolded state for use, during which reading can occur, and vice versa with a small number of simple operations.

[0032] It should also be observed that the improved book structure presented with the present invention is particularly adapted for the provision of books for children and also for pocket manuals and/or travel guides.

[0033] Another considerable advantage has been achieved in that an improved book structure has been provided in which the sheets, in the folded configuration, are not subject to deterioration.

[0034] Finally, the book provided by means of the present invention can be produced in practice by resorting to per se known technologies and equipment.

[0035] The present invention is susceptible of numerous modifications and variations, all of which are within the scope of the same inventive concept.

[0036] All the details may also be replaced with other technically equivalent elements.

[0037] The materials employed, so long as they are

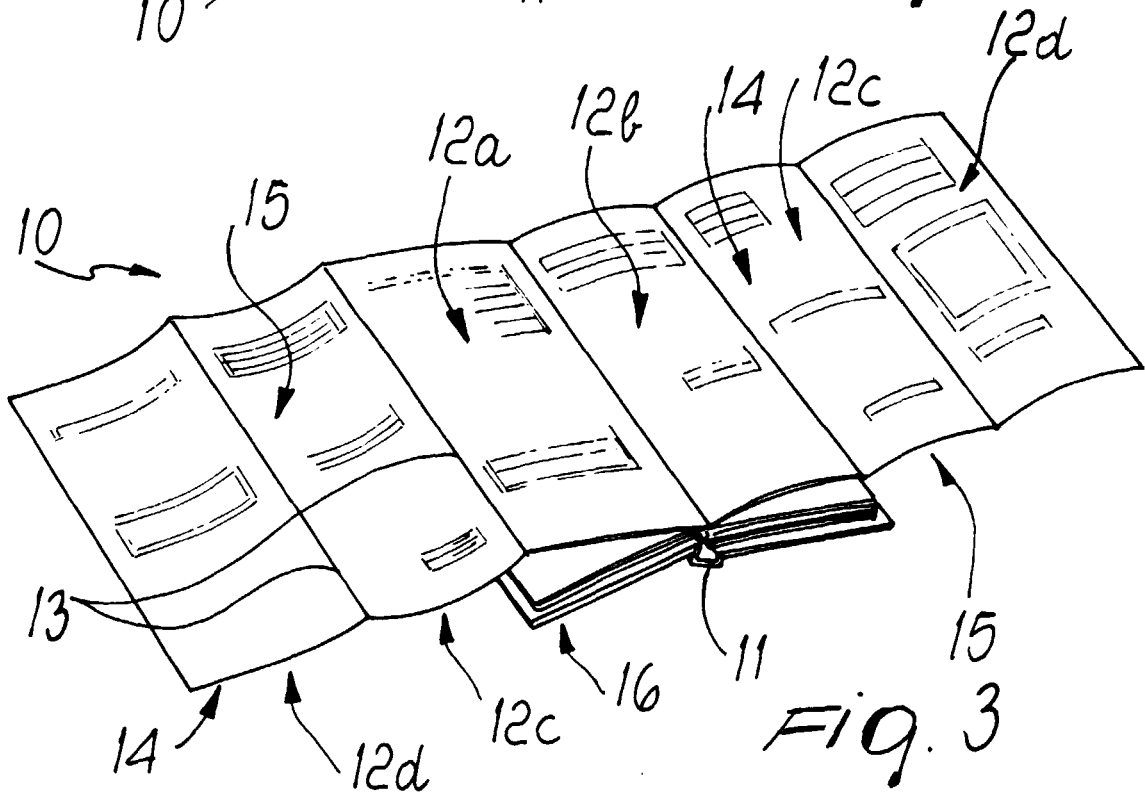
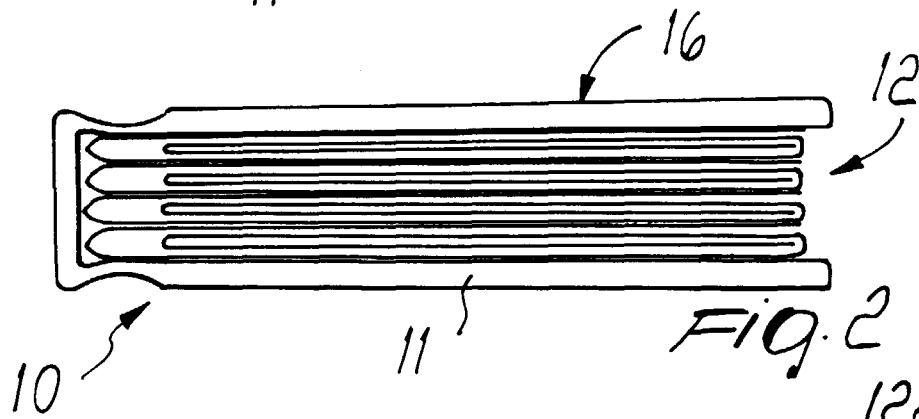
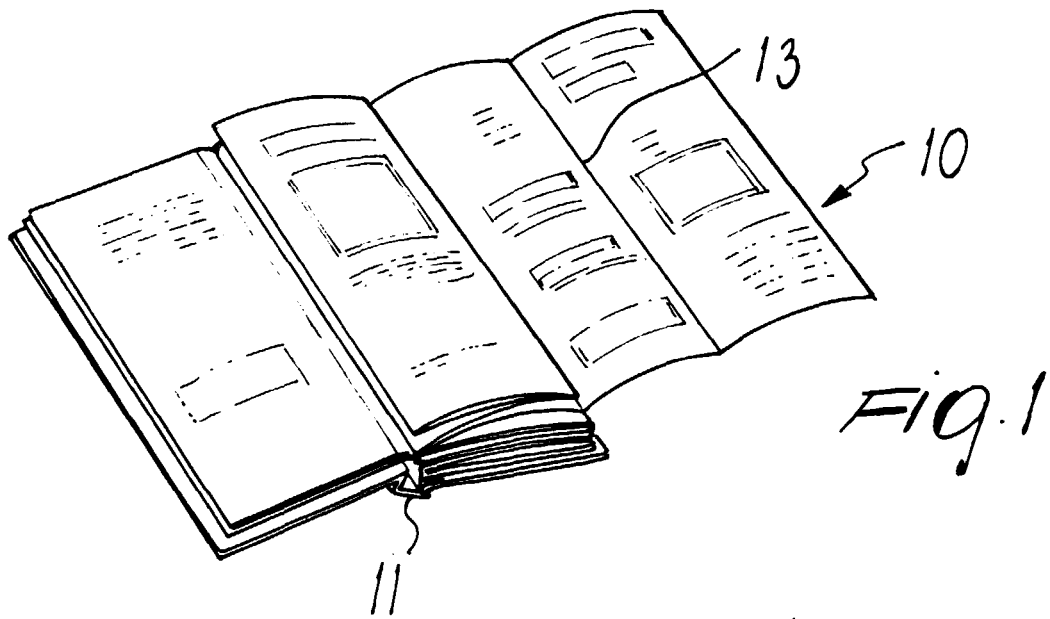
compatible with the contingent use, as well as the dimensions, may be any according to requirements.

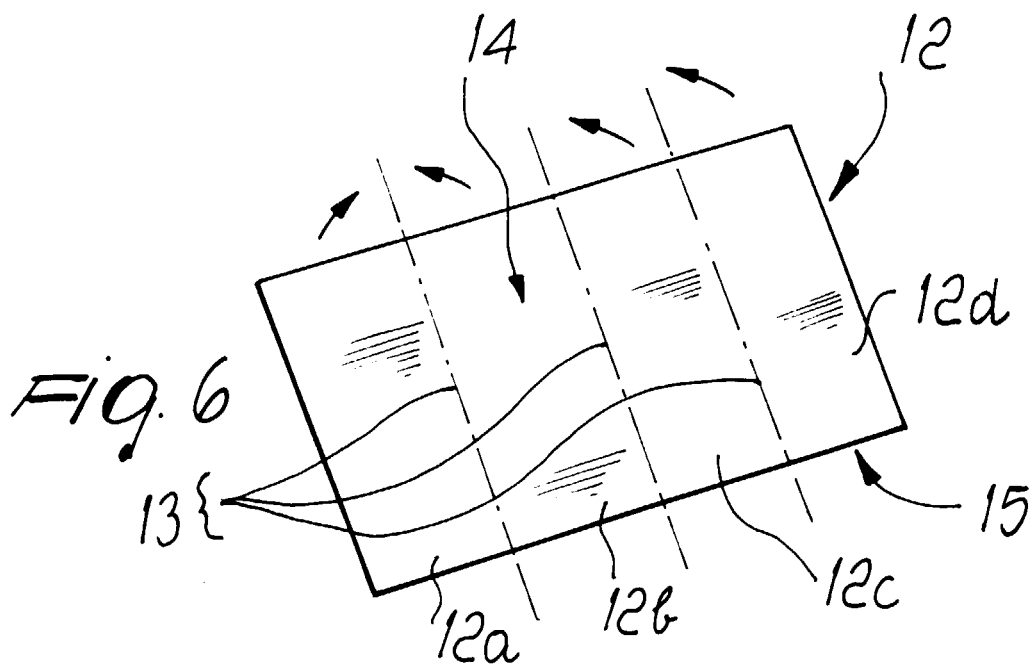
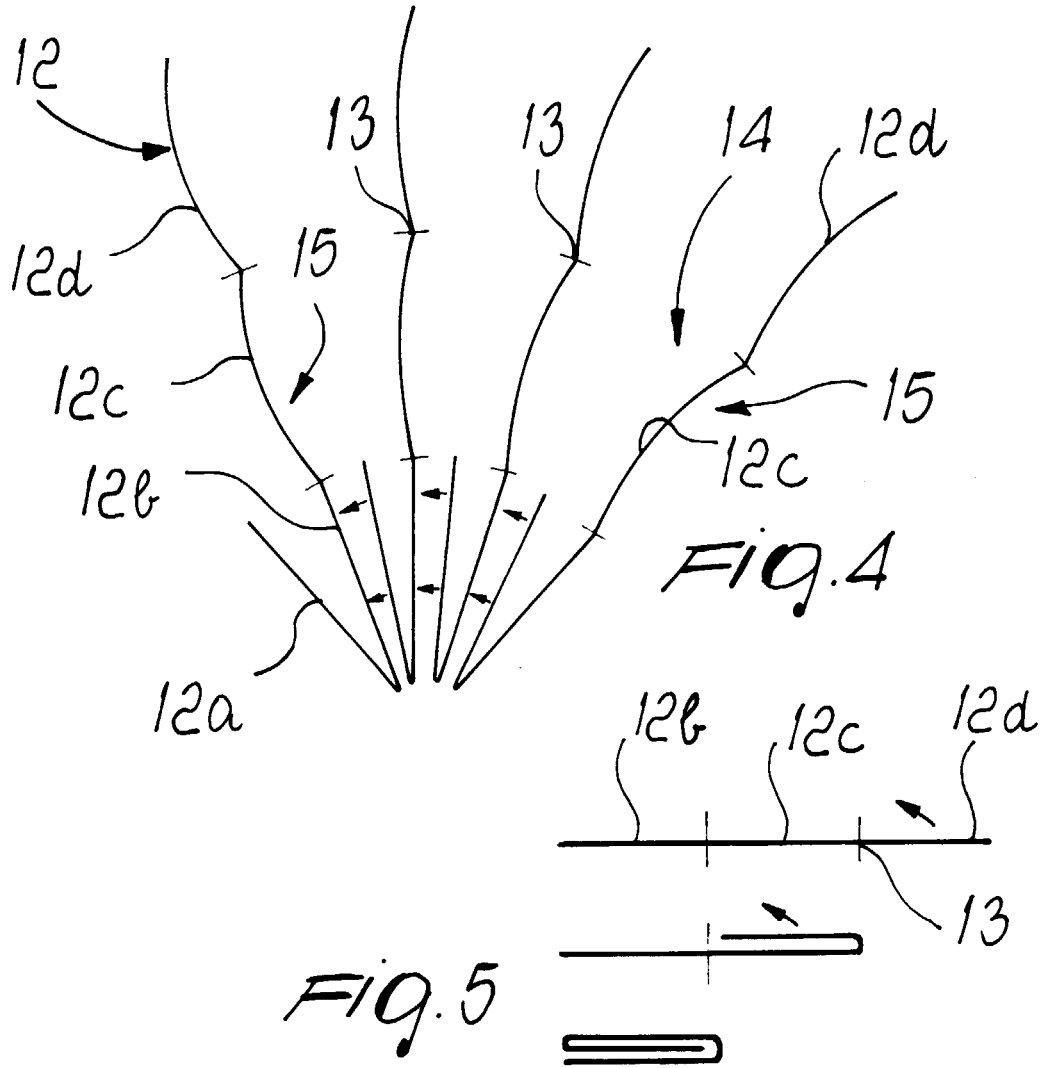
[0038] The disclosures in Italian Utility Model Application No. PD98U000120 from which this application claims priority are incorporated herein by reference.

[0039] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. An improved book structure, characterized in that it comprises a plurality of bound pages enclosed by a cover, at least some of said pages being constituted by sheets which are wider than the cover in the reading direction, each one of said sheets having an outer part of the signature which is pasted to the directly preceding sheet and at least one vertical folding line which forms adjacent sheet sides and allows to fold onto each other sheet sides that constitute a part of the sheet that protrudes laterally from the area covered by the cover.
2. The improved book structure according to claim 1, characterized in that said at least one vertical folding line forms portions of said sheet whose dimensions are at the most equivalent to the dimensions of the front of said book.
3. The improved book structure according to claim 2, characterized in that each sheet has three mutually parallel vertical folding lines, said portions of said sheet that protrude laterally from the area covered by said cover being mutually superimposed in the folded configuration.







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EUROPEAN SEARCH REPORT

Application Number
EP 99 12 3188

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 2 082 503 A (PETER LYNCH) 10 March 1982 (1982-03-10) * the whole document *	1-3	B42D1/00
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X	GB 2 169 849 A (PETER HWEI YANG HSI) 23 July 1986 (1986-07-23) * the whole document *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7) B42D
Place of search THE HAGUE		Date of completion of the search 16 March 2000	Examiner Loncke, J
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 underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 12 3188

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
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16-03-2000

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