(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 696 520 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
14.02.1996 Bulletin 1996/07

(51) Int. Cl.[6]: **B42C 9/00**, B42C 11/06

(21) Application number: **94112439.8**

(22) Date of filing: **09.08.1994**

(84) Designated Contracting States:
CH DE IT LI

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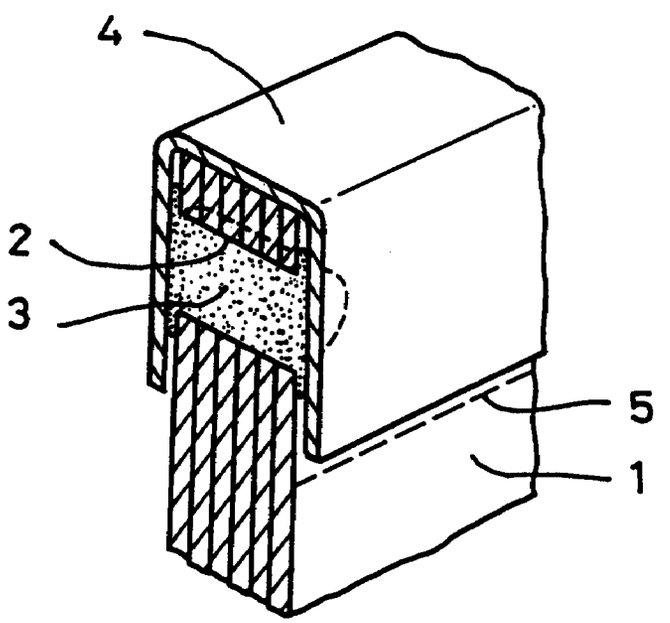
(54) Book-binding structure

(57) A relatively small number of sheets of paper (1) are bound together into a calender or the like. A plurality of through holes (2) are formed in the sheets of paper (1) near the edges thereof in alignment with the holes (2) in the other sheets of paper (1). An adhesive (3) is poured into the through holes (2) to bind the sheets of paper (1) together.

FIG. 3



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Description

This invention relates to a book-binding structure suitable for binding a relatively small number of sheets of paper into a book type printed material such as a calendar.

A book type calendar is made up of a relative small number (e.g. seven or 13 including the cover) of sheets of paper.

Thus, when forming a book type calendar, it is impossible to securely bind such a small number of sheets by what is known as "back gluing". The sheets of paper had to be bound together with a metal binder attached to the top edges of the sheets.

New year's calendars become practically worthless some time after the new year has begun. Thus, manufacturers of such book type calendars have to dispose of a vast number of calendars at the beginning of every year.

If the sheets of paper forming such book type calendars can be recycled instead of disposing of them, it is possible to greatly save paper resources.

In order to recycle the sheets of paper forming book type calendars, the metal binders used to bind the top edges of the sheets have to be removed.

But since it takes a lot of time and money to remove such metal binders from each and every book type calendar, such calendars were heretofore disposed of by burning. Precious paper resources were thus wasted to ashes.

Metal binders also have the drawback that when people handle them carelessly, they may hurt their hands.

It is an object of this invention to provide a book-binding structure which can securely bind even a relatively small number of sheets of paper together without the need of a metal binder and which is safe to handle.

The book-binding structure for binding a plurality of sheets of paper according to this invention comprises a plurality of through holes formed in each of the sheets of paper along top edge thereof, the through holes in each sheet of paper being aligned with the through holes in the other sheets, and an adhesive poured into the through holes to bind the sheets of paper together.

When the adhesive poured into the through holes formed in the sheets hardens, it will act like support pillars, thus securely binding the sheets of paper together.

According to this invention, even a relatively small number of sheets of paper can be bound together into a book type calender or the like without using a metal binder.

Since no metal binder is used, the sheets of paper forming calendars or the like are recyclable. Thus, it is possible to save a great deal of paper resources.

Also, a book type printed material that uses no metal binder is safe to handle.

Other features and objects of the present invention will become apparent from the following description made with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a book type calender having the book-binding structure according to this invention;

Fig. 2 is a partial front view of the same;

Fig. 3 is a partial vertical sectional perspective view of the same; and

Fig. 4 is a partial vertical sectional perspective view of the same as seen from back.

Figs. 1-4 show one embodiment of this invention.

Fig. 1 shows a book type calendar comprising six sheets of paper 1 bound together. Each sheet 1 is formed along its top edge with a plurality of through holes 2 that are aligned with the holes 2 formed in the other sheets 1. According to the present invention, the sheets 1 are bound together by pouring an adhesive 3 into the holes 2.

The adhesive 3 may be a hot-melt type thermoplastic resin adhesive.

A back cover 4, made of cardboard or the like, is applied around the top edges of the six sheets 1 thus bound together and bonded to them. The adhesive 3 may be poured into the holes 2 in such an amount that it will partially overflow from the holes 2 on both sides. Thus, the back cover 4 can be bonded to the sheets with the adhesive that overflowed from the holes 2. Otherwise, the back cover 4 may be glued to the sheets with an adhesive other than the adhesive poured into the holes 2 or bonded thereto through a double-sided adhesive tape.

Each sheet 1 has perforations 5 as a tear-off line near its top edge.

On the back of the back cover 4 is provided a hook 6 for hanging the calendar, which is formed by cutting and raising a part of the back cover 4.

Claims

1. A book-binding structure for binding a plurality of sheets of paper into a book type calendar or the like, said structure comprising a plurality of through holes formed in each of said sheets of paper along top edge thereof, said through holes in each sheet of paper being aligned with the through holes in the other sheets, and an adhesive poured into said through holes to bind said sheets of paper together.

FIG. 1

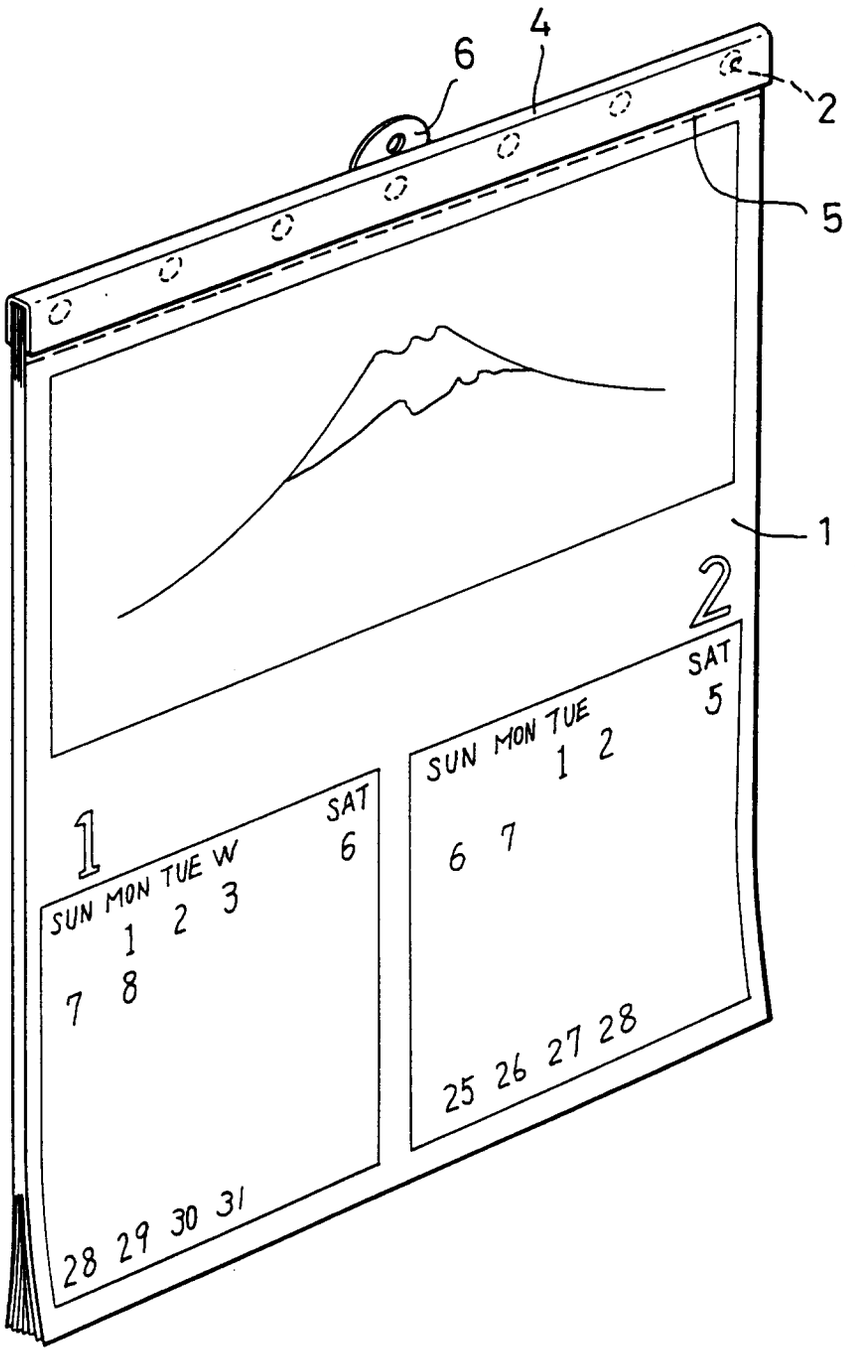

6
4
2
5
1
2
SAT
5
SUN MON TUE
1 2
6 7
25 26 27 28
1
SAT
6
SUN MON TUE W
1 2 3
7 8
28 29 30 31

FIG. 2

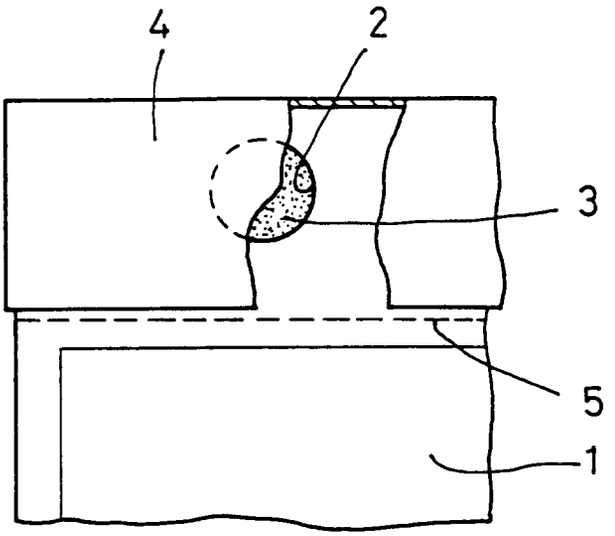


FIG. 3

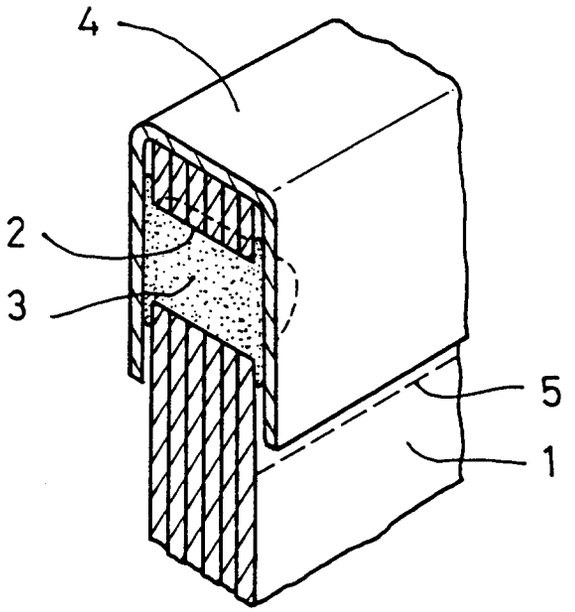
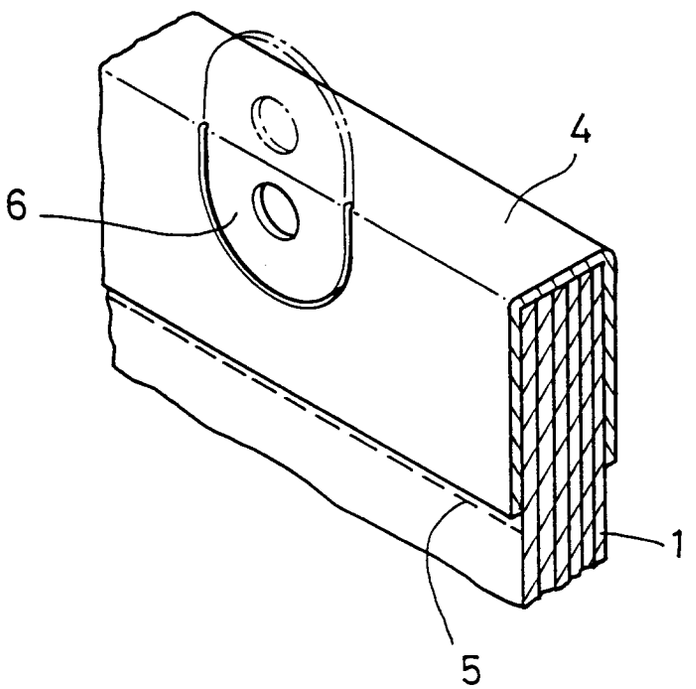


FIG. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 94 11 2439

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION
X	DE-A-21 26 495 (XEROX CORP.) * claims 1-4,7-10; figures 1-5 * * page 3, line 10 - line 21 * * page 4, line 22 - page 5, line 14 * * page 7, line 30 - line 33 *	1	B42C9/00 B42C11/06
X	US-A-3 025 082 (H.A. TOULMIN, JR.) * claim 1; figures 8-10 * * column 2, line 19 - line 24 * * column 3, line 3 - line 12 *	1	
A	FR-A-2 491 392 (STOBB, INC.) * claim 1; figures 2-5 * * page 1, line 1 - line 7 * * page 3, line 36 - page 4, line 18 * * page 6, line 18 - line 23 *	1	
A	FR-A-1 024 121 (PIETRINI & CIE)		
A	US-A-1 766 334 (A.S. GLOSSBRENNER ET AL.)		
A	US-A-3 278 504 (R. ELLS ET AL.)		

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

B42C
B42D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	17 January 1995	Häusler, F.U.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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