



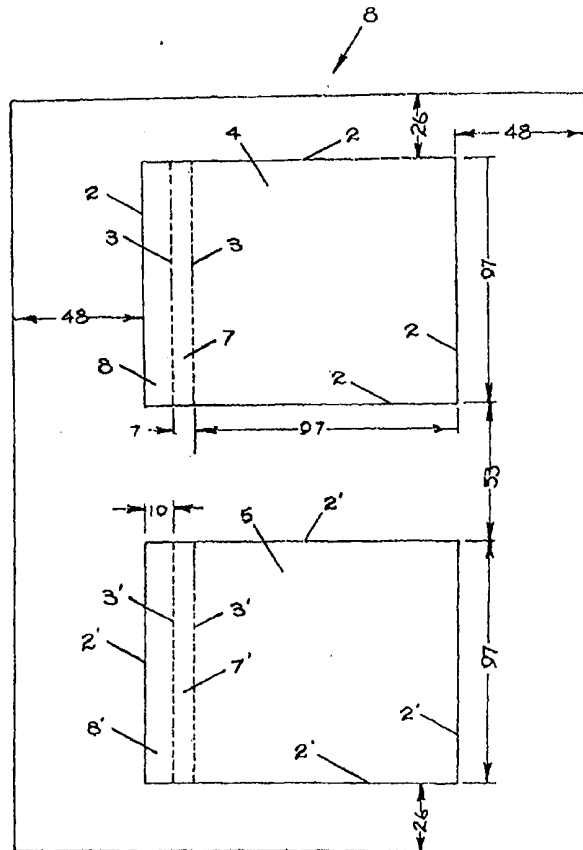
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : G11B 23/40</p>	<p>A1</p>	<p>(11) International Publication Number: WO 00/13183 (43) International Publication Date: 9 March 2000 (09.03.00)</p>
<p>(21) International Application Number: PCT/EP98/06170 (22) International Filing Date: 29 September 1998 (29.09.98) (30) Priority Data: 09/141,878 26 August 1998 (26.08.98) US (71) Applicant (for all designated States except US): NEATO (UK) LIMITED [GB/GB]; College House 17, King Edward's Road, Ruislip, Middlesex H84 7AE (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): TRACY, Peter [US/GB]; College House 17, King Edward's Road, Ruislip, Middlesex H84 7AE (GB). PIRES, Selwyn [GB/GB]; College House 17, King Edward's Road, Ruislip, Middlesex H84 7AE (GB). (74) Agent: ALTENBURG, Udo, W.; Bardehle, Pagenberg, Dost, Altenburg, Geissler, Isenbruck, Galileiplatz 1, D-81679 München (DE).</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, GM, HR, 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, GW, ML, MR, NE, SN, TD, TG). Published With international search report.</p>

(54) Title: PERFORATED STOCK FOR LABELING TRAY LINERS AND AUDIO CASSETTE CASES

(57) Abstract

A paper sheet having a defined foldable pattern or patterns of reduced strength, allowing separation along said defined pattern, said pattern defining by scorelines printable insert to identify the contents of a container for an electronic device, such as an audio-cassette tape, a ZIP or DAT drive. The sheet is preferably a letter size sheet.



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PERFORATED STOCK FOR LABELING TRAY LINERS
AND AUDIO CASSETTE CASES

FIELD OF INVENTION

The present invention relates to the field of perforated sheet suitable for use in a computer printer, and more particularly, to perforated sheets designed for use as an identifying label for various electronic devices, such as audio cassettes, ZIP and DAT, drives, housed within a complimentary-shaped transparent storage container.

BACKGROUND OF THE INVENTION

The proliferation of compact disks (discs), also known as laser disks, in the form of music as well as CD-ROM products has become extensive. In recent years, recordable compact disks such as those produced by SONY, 3M and KODAK have grown in popularity. Further, these disks are being used for archival data storage, immediate distribution of data, and for demonstration purposes. Similar Products with similar uses include ZIP and DAT drives and audiocassettes.

With this recent use has grown a need to label these products and their storage containers once they have been produced.

For example, a CD-ROM is placed in a so-called jewel case, which must be labeled, particularly if the disk is obscured. While manufacturers of large numbers of identical

disks have their labels or identifying information lithographed, this method is impractical for short runs of disks, as is the case with ZIP and DAT drives and audio cassettes.

Ink markers may also be used to label such containers, but this manual method lacks precision.

SUMMARY AND OBJECTS OF THE INVENTION

It is therefore an object of the invention to provide a die perforated sheet which is suitable for labeling and identifying such electronic devices when they are housed within a container. By providing a standard sheet, edges need not be manually cut for each label, and standard letter size sheets may be provided for use in standard laser printers, ink jet printers, and copying devices. After printing, these sheets are torn along the perforation and inserted in the container. The quality of presentation is then limited only by the quality of the printing operation.

In a prior patent U.S. 5,789,051, assigned to the same assignee as the present invention a preferred sheet is disclosed which has perforated margins outlining a pair of jewel case face inserts for the front and rear casing, and which may be printed on both sides. The preferred size is 138mm wide, with a 6mm wide "wing" on each side separated from the body of the face insert by a crease line. Each insert is preferably 117.5mm high.

A jewel case also includes a booklet, which is inserted inside the front face insert and above the disk. The disclosure therefore also shows a preperforated and scored booklet having a width of 119.5mm and a height of 241mm, scored 120.5mm from the top for controlled folding. This booklet may also be printed on both sides.

The perforations are preferably of a type known as "microperforation", which leave a relatively clean edge and do not disrupt the operation of a laser printer or other type of printing or copying device, such as an ink-jet printer or photocopier. These perforations need not end at the corners of the insert, and for example may extend to the edges of the page, to allow use of a shear force to commence the separation of the insert from the remainder of the sheet. The stock is preferably 80-100 pound stock; however lighter stocks may be used where the printer does not handle such heavy stocks easily. The stock may be glossy, coated or clay finish.

The same technique is used in this invention to provide perforated sheets on letter size printer paper of the quality indicated which may be scored or creased to provide printed regions which are shaped to fit within confines of ZIP and DAT tray liners, and audio cassette containers, respectively.

BRIEF DESCRIPTION OF THE DRAWING

Fig. 1 shows a pair of perforated and scored outlines on a letter size sheet for a pair of inserts for a ZIP tray liner according to the present invention;

Fig. 2 shows a pair of perforated and scored outlines on a letter size sheet useful for lining an audio cassette container according to the present invention; and

Fig. 3 shows three perforated and scored outlines on a letter size sheet useful for lining a DAT tray liner according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMOIDIMENTS

The invention will now be described by way of the drawings, in which corresponding reference numerals indicate corresponding structures in the Figures.

Fig. 1 shows a preferred layout of a perforated and scored sheet for printing a pair of ZIP tray liner inserts.

A sheet 1 is provided having a defined pattern 2, 2' of reduced strength, allowing separation along the defined pattern 2, 2'. The defined pattern corresponds to a liner or insert for a ZIP drive tray (not shown). The sheet 1 is generally paper, but may be any suitable printable media.

The reduced strength pattern 2, 2' is formed by perforation of the sheet 1, such as with a perforation die.

The defined patterns 2, 2' also include a pair of scored lines 3, 3', each of said pair of scored lines 3, 3' defining a folding axis. The folding scores 3, 3' are preferably imposed during the same operation as the perforation.

The sheet 1 preferably corresponds to a standard paper size, and more preferably letter size or A4 size, and most preferably letter size.

As shown in Fig. 1, two inserts 4, 5 may be provided on a single sheet 1, laid out with three identical, defined regions 6, 7 and 8 defined by perforation line 2 or 2', and a score line 3', score line 3' and score line 3 and score line 3 and another perforated line 2 (or 2'), respectively. Thus, the paper orientation is immaterial during printing. Of course, the sheet 1 may be preprinted, in which case the orientation would matter. The sheet 1 is preferably a heavy weight paper, of at least 25 pound and more preferably 80-100 pound stock.

In order to correspond to a ZIP tray, the dimensions of each pattern are preferably about 124mm by 97mm.

In order to facilitate folding the edges of the inserts 4, 5 to fit into the interior of the ZIP tray, the pattern is folded about each score lines 3, 3' so that the three regions 6, 7, 8 are substantial J-shaped. The two lateral regions 6, 7 are each being about 10mm and 7mm respectively, by 97mm long, and region 8 is a square 97 x 97mm. The patterns 4, 5 may be separated on sheet 1 by about 53mm.

As shown in Fig. 2, the present invention also provides a sheet 10 or lining for an audiocassette container. Sheet 10 has two defined patterns 11 and 11' of reduced strength, allowing separation from sheet 10 along the edges 12 and 12' respectively of the defined patterns 11 and 11', respectively. The defined patterns 11 and 11' are preferably a perforation pattern, formed by perforated lines 12, 12', in a sheet of paper. In this case, the sheet is preferably a heavy stock, 80-100 pound stock, for example. The sheet 10 is preferably a standard size sheet, and more preferably letter size or A4 size, and most preferably letter size.

Each pattern 11, 11' further includes vertical score lines 13, 14, 15 and 13', 14', 15' respectively, defining a folding axis of the audio cassette lining; so that when each pattern is folded it contains a region 16, 17, 18, 19 and 16', 17', 18' and 19', respectively to form a J-shaped insert having regions 18 and 19 folded over one another to provide a booklet which can contain printing on one or both sides of each region, with region 17 perpendicular to region 18 and 16 perpendicular to region 17 overlying in spaced relation, region 18 and 19. Region 16 is defined by perforated line 12 and score line 13, while region 17 is bounded by score lines 13, 14, region 18 by score lines 14, 15 and region 19 by score line 15 and second perforated line 12, the width dimension of each region 18 being bounded by a perforated line 12. The primed numerals of defined pattern 11' have a corresponding function.

Each audio cassette lining is preferably defined as a rectangular pattern having dimensions of about 172mm by 102mm, with the individual regions 16, 16' being 26mm x 102mm, region 17, 17' 12mm x 102mm; region 18, 18' 67mm x 102mm; and region 19, 19' 67mm x 102mm. Each pattern has a perforated score line, 2 inserted 19mm from the edge of sheet 10 and 44mm inward from the top and bottom of the sheet.

As shown in Fig. 3, the present invention also provides a sheet 20 for lining a DAT container. Sheet 2 has three two defined patterns 21, 21' and 21" of reduced strength, allowing separation from sheet 20 along the edges 22, 22' and 22" of the defined patterns 21, 21' and 21", respectively. The defined patterns 21, 21' and 21" are preferably a perforation pattern, formed by perforated lines 12, 12', in a sheet of paper. In this case, the sheet is preferably a heavy stock, 80-100 pound stock, for example. The sheet 20 is preferably a standard size sheet, and more preferably letter size or A4 size, and most preferably letter size.

Each pattern 21, 21' and 21" further includes vertical score lines 23, 24, 25; and 23', 24', 25' and 23", 24" and 25" respectively, defining a folding axis of the DAT lining; so that when each pattern is folded it contains a region 26, 27, 28, 29, 26', 27', 28' and 29' and 26", 27", 28" and 29", respectively to form a J-shaped insert having regions 28 and 29 folded over one another to provide a booklet with region 27 perpendicular to region 28 and region 26 perpendicular to region 27 overlying in spaced relation, region 28 and 29. Region 26 is defined by perforated line 22 and score line 23, while region 27 is bounded by score lines 23, 24, region 18 by score lines 24, 25 and region 29 by score line 25 and

second perforated line 22, the width dimension of each region 18 is bounded by a perforated line 12. The primed numerals of defined pattern 11', 11" have a corresponding function.

Each DAT liner is preferably defined as a rectangular pattern having dimensions of about 130mm by 73mm, with the individuals regions 26, 26' and 26" being 10mm x 73mm, region 27, 27' and 27" 12mm x 73mm; region 28, 28' and 28" 54mm x 73mm; and region 29, 29' and 29" 54mm x 73mm. Each pattern has a perforated score line, 22 or 22", 21mm or 37mm from the edges of sheet 20 and 40mm inward from the top and bottom of the sheet. Each pattern is spaced 10mm from the adjacent pattern.

While the above detailed description has shown, described and pointed out the fundamental novel features of the invention as applied to various embodiments, it will be understood that various omissions and substitutions and changes in the form and details of the device illustrated may be made by those skilled in the art, without departing from the spirit of the invention. Consequently, the full scope of the invention should be ascertained by the appended claims.

CLAIMS:

What is claimed is:

1. A sheet having a defined pattern of reduced strength, allowing separation along said defined pattern, said pattern defining an insert for a container adapted to house an electronic device, said pattern being rectangular and further comprising at least a pair of scored folding lines to provide three regions, two regions each being smaller than the third and the larger third being laterally contiguous to the smaller two.
2. The sheet according to claim 1, wherein said defined pattern is formed by perforation of said sheet.
3. The sheet according to claim 1, comprising of a pair of said defined patterns.
4. The sheet according to claim 3, wherein said pair of defined patterns are identical and arranged symmetrically.
5. The sheet according to claim 1, wherein said sheet is formed of paper.
6. The sheet according to claim 1, wherein said sheet has letter size dimensions.

7. The sheet according to claim 1 wherein said sheet has A4 size dimensions.
8. A sheet according to claim 1, wherein said defined pattern on said sheet includes a fourth region attached to said third region by a score line.
9. A sheet according to claim 8 wherein said third and fourth region are of the same size.
10. A sheet according to claim 9 wherein said third and fourth regions of said defined pattern are square in shape.

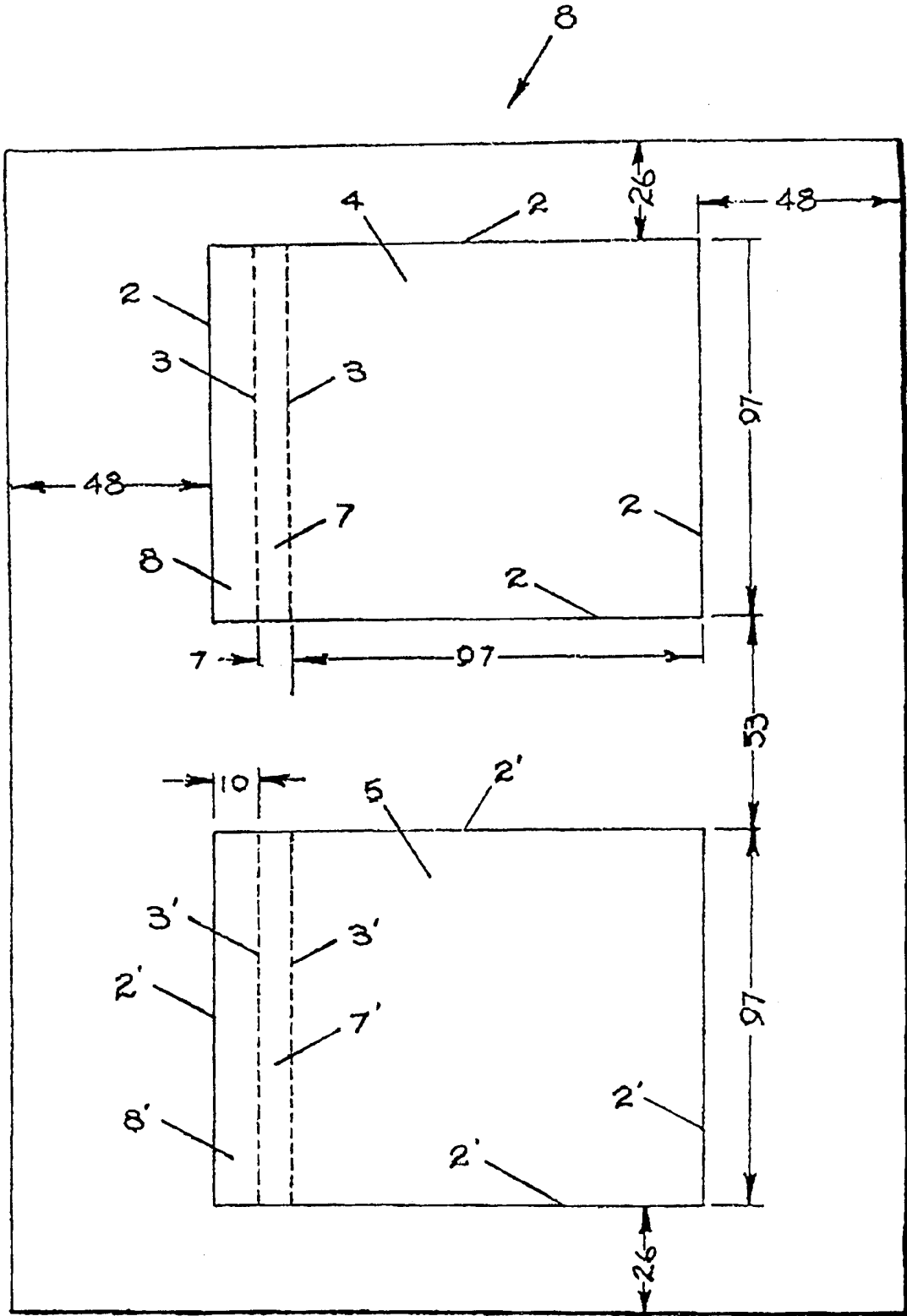


FIG. 1

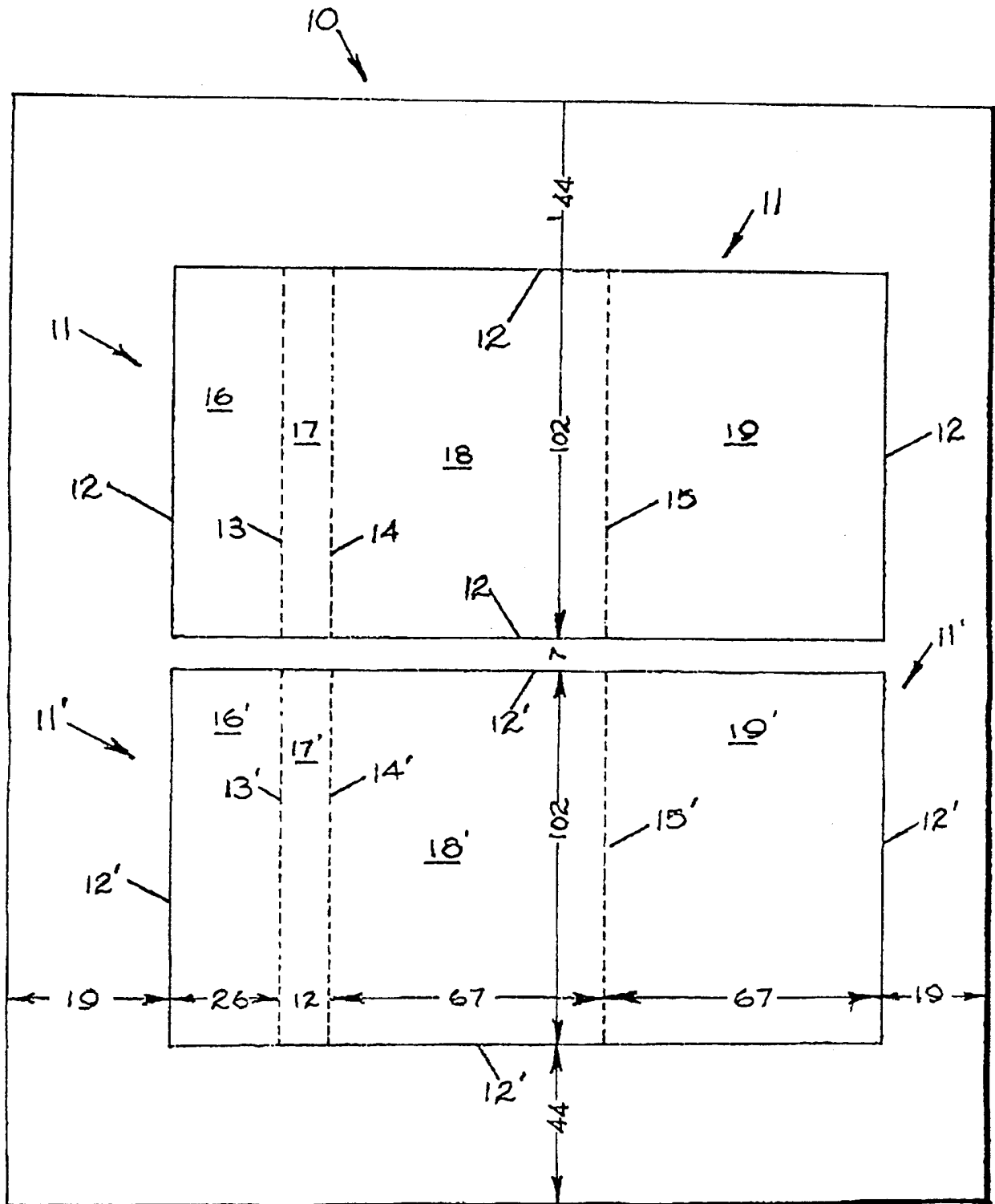


FIG 2

ERSATZBLATT (REGEL 26)

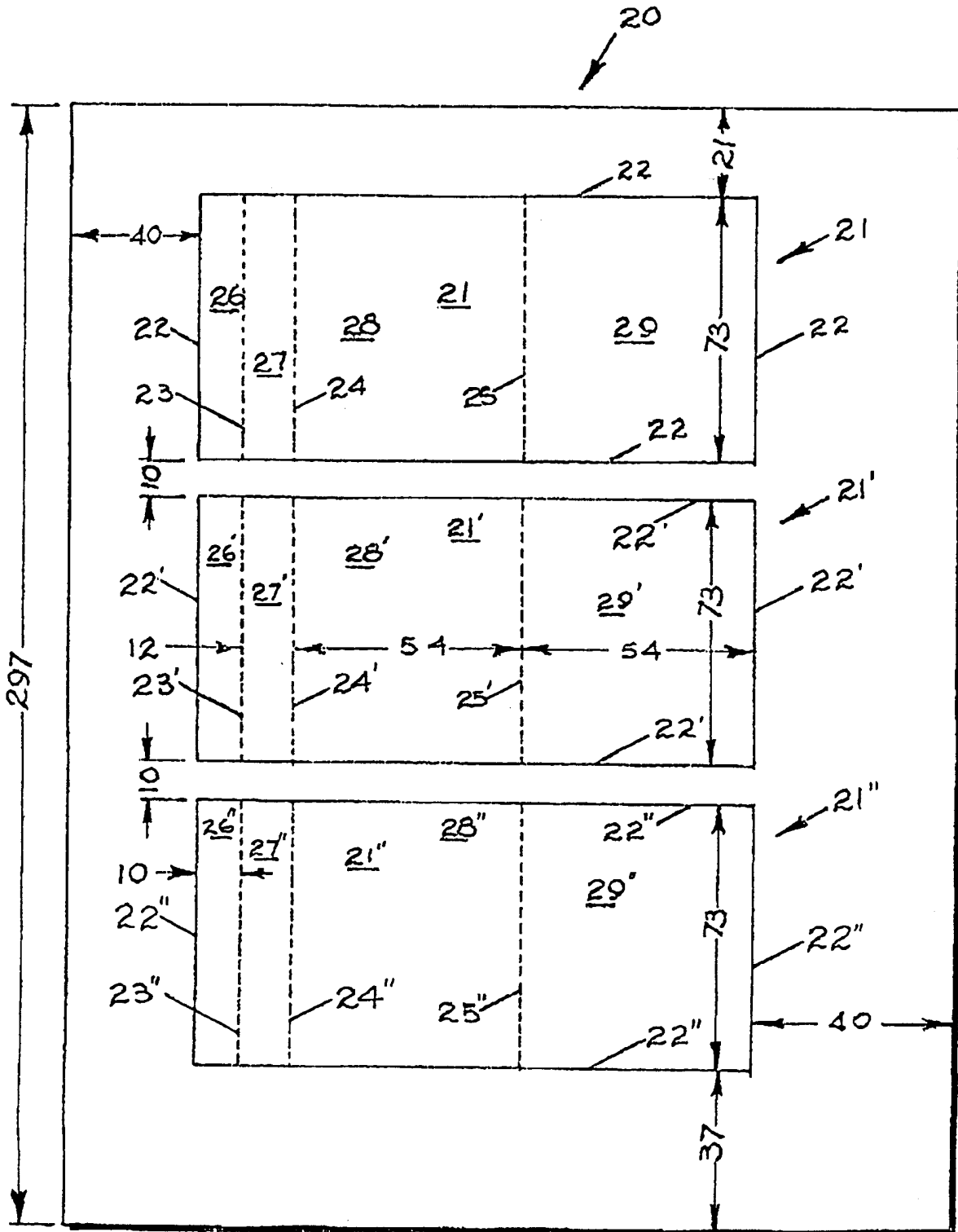


FIG. 3

ERSATZBLATT (REGEL 26)

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 98/06170

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 G11B23/40

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 G11B

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 practical, 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.
Y	EP 0 676 760 A (FUJI PHOTO FILM CO LTD) 11 October 1995 see abstract; figures 3,4 see column 3, line 29 - column 4, line 17 see column 5, line 4 - column 6, line 25 see column 6, line 48 - column 7, line 33 ---	1-10
Y	US 5 789 051 A (TRACY PETER) 4 August 1998 cited in the application see abstract; figures 1,2 see column 2, line 21 - column 3, line 6 ---	1-10
A	DE 91 09 068 U (WEBER CHRISTOPH) 14 November 1991 see figures 1,2 see page 5, line 4 - line 14 see page 7, line 18 - page 8 ---	1,8-10
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

6 April 1999

Date of mailing of the international search report

15/04/1999

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INTERNATIONAL SEARCH REPORT

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 348 216 A (SCOTT JOHN C) 20 September 1994 see abstract; figures 1-3 see column 2, line 50 - column 3, line 54 see column 2, line 60 - column 4, line 21 see column 4, line 51 - column 6, line 7 ----</p>	1-10
A	<p>DE 296 19 143 U (CLAUSNITZER WERNER) 2 January 1997 see figure 1 see page 6, line 31 - line 34 see page 8, line 4 - page 9 -----</p>	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 98/06170

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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