(12) UK Patent Application (19) GB (11) 2 318 763 (13) A

(43) Date of A Publication 06.05.1998

(21) Application No 9622838.2

(22) Date of Filing 01.11.1996

(51) INT CL^6
B42F 13/00

(52) UK CL (Edition P)
B6E EDG

(56) Documents Cited
GB 1342271 A GB 1336697 A

(58) Field of Search
UK CL (Edition P) B6E EDG
INT CL^6 B42F 13/00

(71) Applicant(s)
Folders Galore Limited

(Incorporated in the United Kingdom)

The Windsor Centre, Windsor Grove, Crystal Palace, LONDON, SE27 9LT, United Kingdom

(72) Inventor(s)
Leslie Paine

(74) Agent and/or Address for Service
Bromhead & Co
19 Buckingham Street, LONDON, WC2N 6EF, United Kingdom

(54) A binder cover having a single hinge and bent cover portions

(57) A metal or plastic cover for a ring binder comprises front and rear cover portions 12,14 joined by a single hinge 16 with the cover portions being bent or curved along lines 30,32 parallel to the hinge so that when closed the cover has a diamond-shaped cross-section. The hinge comprises interlocking castellations 18,20.

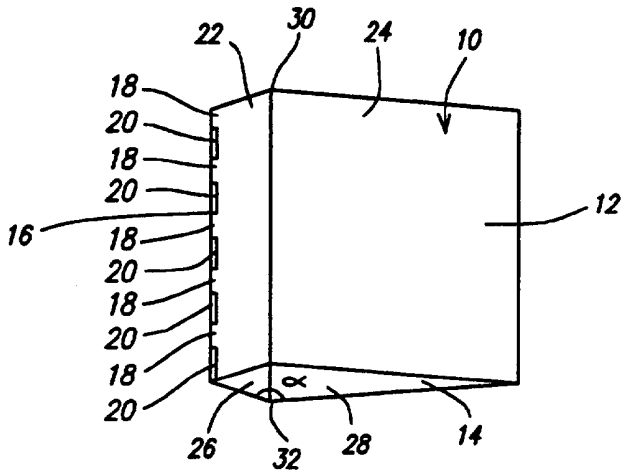

FIG. 1

GB 2 318 763 A

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1995

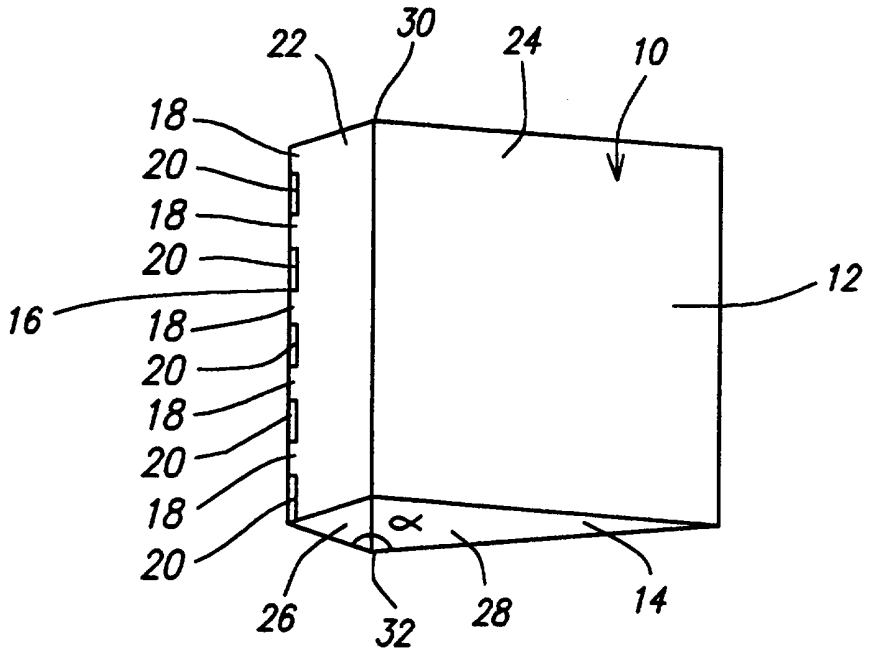
22
30
24
10
18
20
18
20
16
18
20
18
20
18
20
12
α
26
32
28
14

FIG. 1

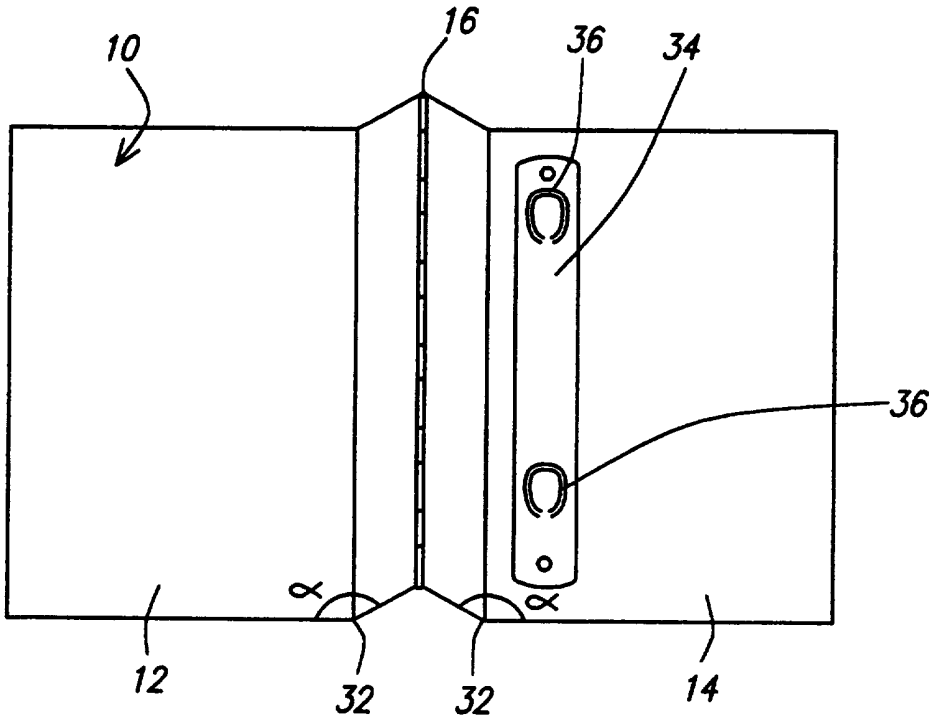
10
16
36
34
36
α
α
12
32
32
14

FIG. 2

2318763

A binder

The present invention relates to a binder for holding loose material, such as paper, brochures, etc.

In the past, such binders have been used to store papers and brochures in a secure form. It has been found that for some binders, it is preferable that the material from which they are made is metal. A previous design for such a metal binder comprises three parts, a front flap, a back flap and a spine. The front and back flaps are both joined to respective sides of the spine by two hinges. This design has the disadvantage that it involves the manufacture of two different pieces, namely, a flap and a spine. Furthermore, the binder lacks stability owing to the presence of two hinges.

It is an aim of the present invention to produce a binder which overcomes the aforementioned disadvantages and is easy to produce.

Accordingly, the present invention is directed to a binder for holding loose-leaf material, comprising a front and a back flap, in which the two flaps are joined along one edge by a hinge, both flaps are bent or curved along a line parallel to the hinge and spaced apart therefrom, and in which the binder is further equipped with binding means.

The present invention provides the advantage that the binder produced has greater stability owing to the presence of only one hinge, while still providing space to fit the

binding means, such as a ring binder in the enlarged space between the two flaps provided by the bends in both front and back flaps.

Preferably, the two flaps are identical. This provides the advantage that it is only necessary to manufacture one part. Furthermore, the one part can be printed with information while it is still flat before it is bent to form part of the binder. This again provides the added advantage that only one printing process is involved rather than the two that have been necessary to print the cover and the spine of previous designs.

Advantageously, the angle of the bend in the flap can be varied to accommodate different sizes of binding means. This provides the advantage that the diamond shape of the binder can be varied to accommodate different sizes of ring binders to enable different volumes of, for example, paper to be held by the binder.

Advantageously, the binder is made of metal. Preferably the binder is made of plastics material. This provides the advantage that the present invention can be used in different environments where either a metal or plastics material binder may be appropriate.

In a preferred embodiment, the hinge comprises rounded interlocking castellations, through which a pin is pushed.

An example of a binder made in accordance with the present invention will now be described with reference to the accompanying drawing, in which:

Figure 1 shows a perspective view of the binder from the front, and

Figure 2 shows a perspective view of the binder when it is opened and laid flat.

In the drawings, there is a binder 10 which comprises a front flap 12 and a back flap 14. The two flaps 12 and 14 are joined along one side by a hinge 16. The hinge 16 comprises interlocking castellations 18 on the front flap and 20 on the back flap. These castellations 18 and 20 are of a rounded form with a hole in the middle of them. They are joined together by a rod (not shown), which is driven through the holes in the castellations once they are lined-up. Both the front and back flaps 12 and 14 comprise two parts, in the case of the front flap 12, a spine part 22 and a front part 24, and in the case of the back flap 14, a spine part 26 and a back part 28. The flaps 12 and 14 are bent, and produce a concave angle α between the two respective parts 22, 24 and 26, 28 along a line 30 for the front flap 12, and 32 for the back flap 14. Alternatively instead of a sharp bend, the flaps 12 and 14 could be curved in the region of the bend lines 30 and 32 to achieve the angle α. The bend lines 30 and 32 give the binder 10 an elongate diamond shape.

Figure 2 shows the binder 10 in an open position, and the angle α between the two parts 22, 24 and 26, 28 of the front and back flaps 12 and 14 can clearly be seen. Mounted next to the bend line 32 on the back flap 14 is a

ring binder mechanism 34, which has two spring-loaded retaining arms 36 for holding sheets of paper and such like. Obviously, the type of binding mechanism can be any one of a large variety commercially available. The ring binder 34 is preferably mounted close to the bend line 32 to ensure that it in the area of maximum width of the diamond. In this example, the two flaps 12 and 14 are identical. Therefore, they can be produced on the same machine, avoiding the problems of the prior art binder, which would require two machines to produce the spine and the flaps. It is clear from the example that this one hinge binder has a rigid format. In this example, the binder is made of metal. Naturally, there may be occasions when an appropriate hard plastics material is desired. A further advantage of the identical front and back flaps is that they can also be printed on the same machine, again avoiding the necessity for two printing machines as with the prior art binders.

Naturally, it will be obvious to a reader of ordinary skill in the art that the production of such a binder is considerably cheaper. Also, it would be possible for a binding means, other than a ring binder 34, to be used in the present invention, without taking it beyond the scope of the present invention. Furthermore, a reader of ordinary skill in the art would understand that varying the angle α would enable different sizes of binding means to be used and different volumes of loose-leaf material to be held.

Claims:

1. A binder for holding loose-leaf material, comprising a front and a back flap, in which the two flaps are joined along one edge by a hinge, both flaps are bent or curved along a line parallel to the hinge and spaced apart therefrom, and in which the binder is further equipped with binding means.

2. A binder according to claim 1, in which the two flaps are substantially identical.

3. A binder according to claim 2, in which the cross-section of the binder when closed is generally of an elongate diamond shape.

4. A binder according to any preceding claim, in which the flap is such that it can be bent by varying amounts.

5. A binder according to any preceding claim, in which the binder is substantially made of metal.

6. A binder according to any one of claims 1 to 4, in which the binder is substantially made of plastics material.

7. A binder according to any preceding claim, in which the hinge comprises rounded interlocking castellations, through which a pin extends.

8. A binder substantially as described herein with reference to and as illustrated in the accompanying drawings.

9. A set of binders each according to any preceding claim, the diffrerent binders of the set having different

respective sizes of bend or curve about the said line parallel to the hinge.

The Patent Office

1

Application No: GB 9622838.2 **Examiner:** Graham Russell
Claims searched: 1-9 **Date of search:** 11 February 1998

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.P): B6E (EDG)

Int Cl (Ed.6): B42F 13/00

Other:

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	GB 1342271	(ESSELTE) see page 2 lines 4-7 and Figs 1&3	1-3,5,7
X	GB 1336697	(RAPPESTAD) see Figs 1&2	1-3

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.