United States Patent

Mullins

[15] **3,638,967**

[45] **Feb. 1, 1972**

[54] LOOSE LEAF RING BINDER

[72] Inventor: **Donald L. Mullins**, Wichita, Kans.

[73] Assignee: **Sanderson Films, Inc.**, Denver, Colo.

[22] Filed: **Oct. 13, 1970**

[21] Appl. No.: **80,287**

[52] **U.S. Cl.** **281/33**

[51] **Int. Cl.** **B42d 3/18**

[58] **Field of Search** 281/33, 29, 36, 37; 40/102, 40/104.10, 104.18; 402/74, 75; 248/441, 451, 459, 460, 463

[56] **References Cited**

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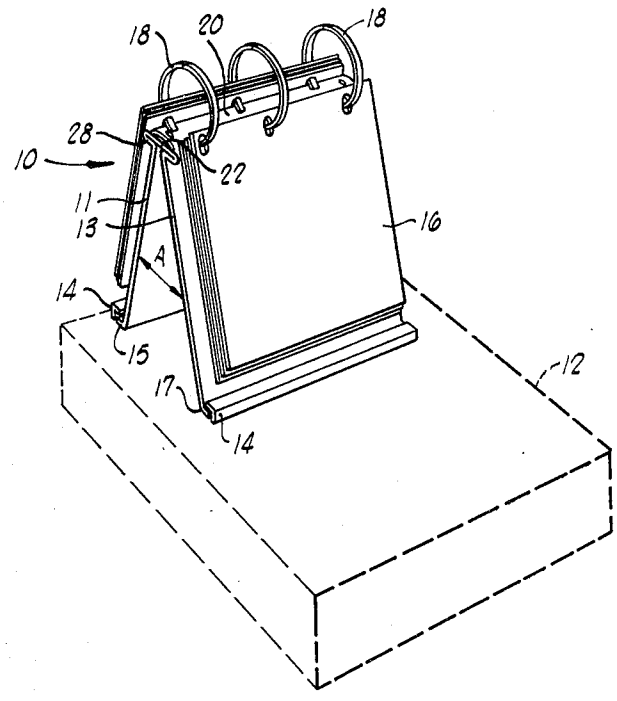
Primary Examiner—Jerome Schnall

Attorney—Miller & Brown

[57] **ABSTRACT**

A loose leaf ring-type binder which also functions as a rigid viewing stand for a plurality of pages or flipover cards. The two covers of the binder include offset leg portions terminating at the hinge points with the back of the binder. When the covers are folded back at a certain angle, the leg portions of the covers are brought into juxtaposed contact with the back of the binder thereby restricting any movement of the back about the two hinge points to provide a rigid support for the cards carried in the binder.

9 Claims, 3 Drawing Figures



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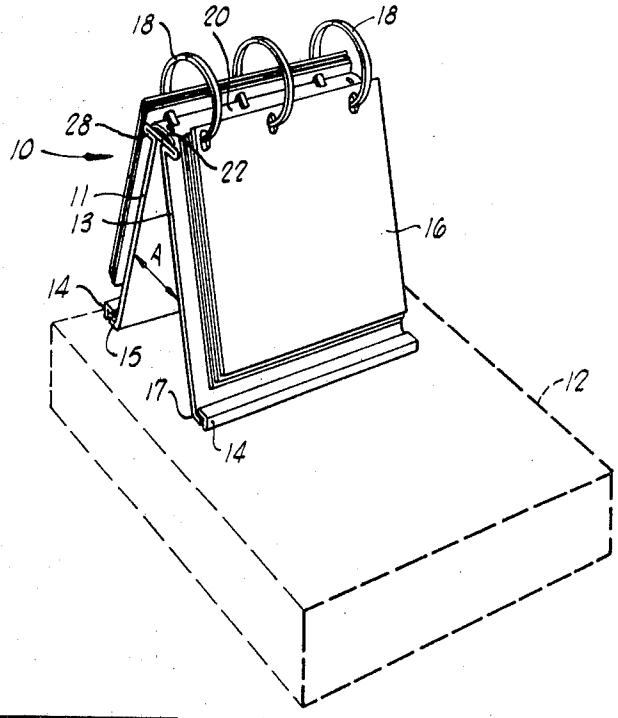


FIG. 1

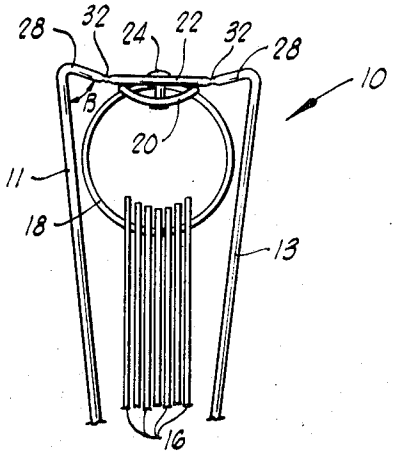


FIG. 2

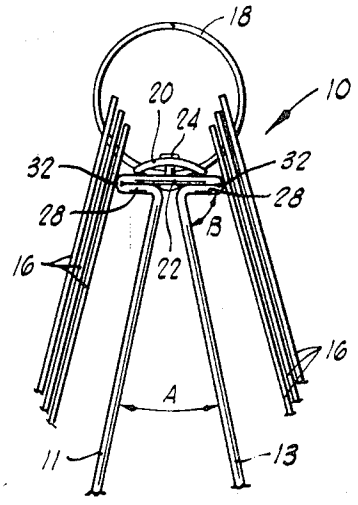


FIG. 3

INVENTOR
DONALD L. MULLINS

BY Miller & Bram

ATTORNEY

LOOSE LEAF RING BINDER

The invention relates to a loose leaf binder and more particularly a binder having covers which when folded back at a set angle provide a rigid support stand for illustrated cards or pages which can be flipped back and forth.

The conventional loose leaf binder has a separate hinge point for each cover. When the covers are folded back at an acute angle towards each other, the binder back or rings are very unstable and are free to move back and forth due to the double-hinge points. For this reason a conventional ring binder is not used as a stand unless there is some way to hold each of the covers completely rigid with respect to the binder back.

The present invention alleviates this unstable problem by the addition of an offset leg portion on each cover. When the covers are folded back at a certain angle, the leg portion comes in contact with the binder back preventing any additional pivotal movement of the cover about the binder back.

In a conventional ring binder the binder back is essentially the same width as the rings. When the covers are folded back, the cards in the binder will not lie flush with the covers due to their contact with the binder back. With the present invention this problem is avoided since the offset leg portion allows the use of rings that are substantially wider than the binder back. Due to this overhang of the larger rings, the cards lie flush with the covers.

It is therefore the principal object of the present invention to provide a loose leaf ring binder readily adaptable to a rigid viewing stand for the material contained in the binder.

Another object of the present invention is to provide a viewing stand containing a series of graphic illustrations which can be used in conjunction with a tape recorder in an audiovisual teaching course.

Further objects and advantages of the invention will be apparent when the following description is read in connection with the accompanying drawings in which:

FIG. 1 is a perspective view of the loose leaf binder positioned as a viewing stand on top of a tape recorder shown in dotted line;

FIG. 2 is an enlarged end view of the binder in the closed position with portions of the cover and cards broken away; and

FIG. 3 is an enlarged end view similar to FIG. 2 with the binder positioned as a viewing stand.

Referring to the drawings for a more detailed description of the invention and more specifically to FIG. 1, a loose leaf binder utilized as a viewing stand is generally identified by reference numeral **10**. The binder **10** is positioned on a base **12**, with its two covers **11** and **13** folded back, acting as supporting legs. The base **12**, which is in the present illustration a tape recorder, carries a pair of mounting flanges **14** which engage the flanges **15** and **17** on the free edge of the covers **11** and **13**. Any type of holding means could be used which would restrain the covers from outward movement. The tape recorder **12** is used in conjunction with the graphic illustrations on the cards **16** which are flipped as the tape progresses, to provide an audiovisual teaching course. The binder, by itself, has numerous applications as a teaching aid.

The binder **10** is a conventional ring type, having a plurality of split rings **18** attached to a binder back **22** through rivots **24** and a metal base **20**, as seen in FIG. 2. The rings **18** can be snapped open to insert or remove the illustrative cards **16**. Connected to the binder back **22**, are a pair of covers **11** and **13**. Each cover has an offset leg portion **28** which terminates at a hinge point **32**. The hinge points **32** in the present illustration are actually reduced thickness portions of the plastic cover which freely flexes back and forth as a hinge. The leg portions are offset from the covers at an acute angle B.

When the binder **10** is closed, as seen in FIG. 2, the leg portions **28** lie substantially parallel with the binder back **22**. Due to the presence of the offset portions **28**, the binder back **22** can be narrower than the rings **18**, an advantage which will be described hereafter. When the binder **10** is not in use as a stand, the covers **11** and **13** function as any conventional loose leaf ring binder.

When the binder **10** is used as a stand, as shown in detail in FIG. 3, the covers **11** and **13** are folded back until the leg portions **28** come in contact with the binder back **22**. In this position there can be no pivoting movement of the ring portions of the binder since both hinge points **32** are essentially locked. With the conventional binder, the binder back and rings **18** will flop back and forth, due to the two hinge points, as the cards **16** are moved from one side of the binder to the other. The angle B between the planar portion of cover **13** and its leg portion **28** can vary depending on the angle A that is desired between the two covers **11** and **13**. The angle A can be slightly less than the position where the leg portions **28** touch the binder back **22**, to provide a bending movement on the binder back to render the stand more rigid. The binder covers and binder back in the present illustration are molded from a single piece of semirigid plastic. The covers and binder back could be separate members joined by a conventional hinge.

As can be seen in FIGS. 1 and 3, the cards **16** lie substantially parallel in contacting relation with the covers **11** and **13**. If the rings **18** did not have a diameter greater than the width of the binder back **22**, this would not be possible with the covers folded back. This problem would not exist in a conventional binder with flexible paper pages, since they would bend around the binder back and lie against the covers.

It is understood that variations from the form of this invention disclosed herein may be made without departing from the spirit and scope of the invention and that the drawings and specification are to be considered as merely illustrative.

What is claimed is:

1. A loose leaf ring binder for containing and supporting a plurality of cards comprising:

a binder back;

ring means attached to the binder back for supporting the cards;

cover means hingeably attached to opposite sides of the binder back; the cover means including on each side, a planar portion substantially covering the material contained in the binder, and a leg portion extending from the planar portions at an acute angle to the hinge point with the binder back,

said acute angle being such that when the cover means are folded back towards each other at a second angle, the leg portions come into juxtaposed parallel contact with the binder back preventing any pivotal movement between the binder back and the cover means, whereby a rigid support is provided for the cards when the planar portions are held at said second angle.

2. A loose leaf binder as set forth in claim **1**, wherein the leg portions of he cover means extend a distance from the planar portions no greater than one-half the width of the binder book.

3. A loose leaf binder as set forth in claim **1**, wherein the ring means is wider than the binder back.

4. A loose leaf binder as set forth in claim **1**, wherein the ring means has a width at least twice that of the binder back.

5. A loose leaf binder as set forth in claim **1**, wherein the ring means has a width at least twice that of the binder back, and the leg portions of the cover means extend a distance from the planar portions no greater than one-half the width of the binder back.

6. A loose leaf binder as set forth in claim **1**, including mounting means attached to each of the planar portions which can be engaged with a rigid base member so that said second angle between the cover means is maintained.

7. A loose leaf binder as set forth in claim **1**, wherein the planar portions of the cover means have an outer edge at the opposite side from the leg portions; mounting means attached along the outer edge of each planar portion which can releasably engage a base member thereby maintaining a fixed distance between the two outer edges of the cover means.

8. A loose leaf binder as set forth in claim 1, including mounting means releasably attached to each of the planar portions for maintaining said second angle between the cover means.

9. A loose leaf binder as set forth in claim 1, wherein the binder back and cover means are integrally formed from a semiflexible plastic material.

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