Nov. 29, 1932. H. R. McCLEARY 1,889,560

RING BOOK

Filed Dec. 17, 1927

FIG. 1

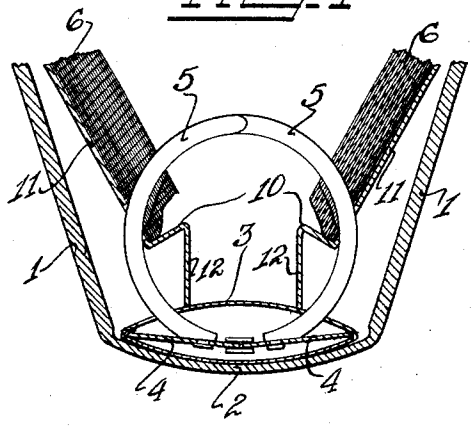
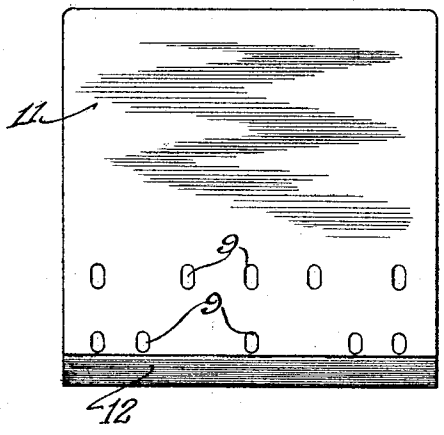


FIG. 2



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UNITED STATES PATENT OFFICE

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RING BOOK

Application filed December 17, 1927. Serial No. 240,913.

This invention relates to a ring book.

In ring books as now constructed, especially when the same are made of large dimensions, there is a tendency for the leaves to bind with respect to the ring hooks when the binder is opened and closed, and it frequently happens that the loose sheets are torn in the manipulation of the ring book.

At the present time, eyelets or the like are pasted in the apertures of the outermost sheets to protect the same against tearing. Such eyelets unduly increase the thickness of the sheets at the rings, a feature which not only decreases the capacity of the binder but also makes the same lop-ended.

It is an object of this invention to overcome the binding and tearing of the leaves with respect to the ring hooks in the provision of means for supporting the lower edges of the outermost sheets where the severest binding occurs and where the sheets are likely to be torn during the opening and closing movements of the binder.

The invention comprises the novel structure and combination of parts hereinafter described and more particularly pointed out and defined in the appended claims.

In the accompanying drawing, which illustrates a preferred embodiment of this invention and in which similar reference numerals refer to similar features in the different views:

Figure 1 is a fragmentary sectional view of a loose leaf binder involving this invention.

Figure 2 is an elevational view of the sheet support.

The ring book in connection with which this invention is illustrated is shown as consisting of a cover member comprising the side flaps 1 and the back 2 to which the side flaps are hinged. The usual elliptical housing 3 is secured to the back of the ring book. This housing 3 supports the usual toggle plates 4 in a manner well known in the art. The toggle plates carry the ring hooks 5 in the customary way. A plurality of loose sheets 6 are shown upon the ring hooks.

In the manipulation of the ring book as above described, especially where the ring hooks are of large diameter, there is always more or less binding between the leaves and the rings, especially the outermost leaves which will be often bent and torn in closing the ring book. In order to overcome this objection, suitable shields or supports 11 are threaded upon the ring hooks adjacent the cover members 1 so that the loose sheets 6 are confined between the supports. Each support embodies one or more rests 10 for supporting the outermost sheets.

It will be noted that each sheet support consists of a flat portion against which the loose sheets may recline and which terminates in an integral rest or ledge 10 for supporting the lower edges of the outermost sheets. The rest or ledge for supporting the lower edges of the outermost sheets terminates in a downwardly extending and inclined portion 12 that is adapted to rest and slide over the elliptical housing to form a prop for the support 11 to prevent the same from undue binding upon the ring hooks. These supports 11 may be provided with a plurality of series of slots 9 to fit different ring hooks.

In opening and closing a ring book involving this invention, the outermost sheets are supported and guided. It will be obvious that if these outermost sheets were not thuswise supported, they would sag and bind upon the rings. This arises from the fact that the outermost sheets descend the farthest when the binder is opened and encounter the most and sharpest curvature. However, the supports prevent the sheets from binding or flexing at the ring hooks and the rests thereon prevent the sheets from sagging upon the hooks. Consequently the sheets will freely move upon the ring hooks without any binding or tearing effect.

I am aware that many changes may be made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art and appended claims.

I claim as my invention:

1. In a loose sheet binder having a metal casing with an upwardly curved top with ring hooks projecting from said casing, a pair of leaf flippers threaded upon said ring hooks, each flipper comprising a sheet like portion having an integral rest for sustaining the lower edges of the outermost sheets, each rest terminating at its outer end in a downwardly directed flange adapted for engaging and riding over the top of said casing.

2. A leaf flipper comprising a member having a flat portion provided with slots, said flat portion being bent adjacent the lower portions of said slots to provide a rest; the outer end of said rest terminating in a downwardly directed portion for the purpose set forth.

In testimony whereof I hereunto subscribe my name.

HENRY R. McCLEARY.