

Sept. 3, 1957

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2,804,872

LOOSELEAF BOOK

Filed April 6, 1954

FIG. 1

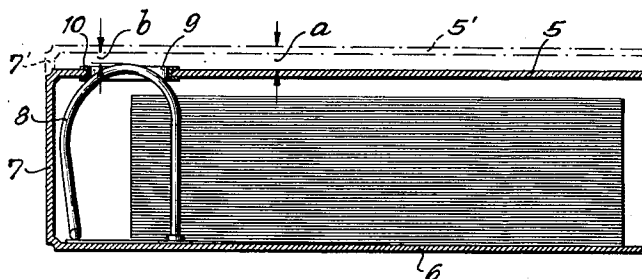


FIG. 2

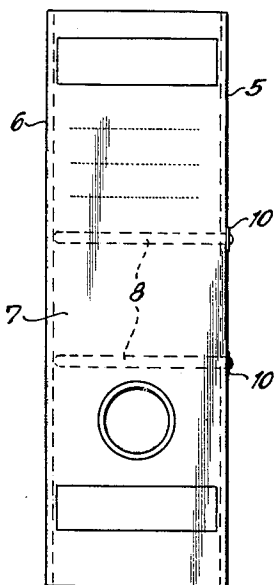


FIG. 3

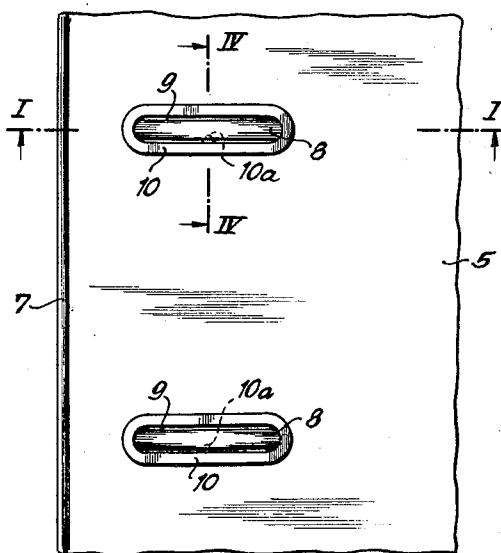
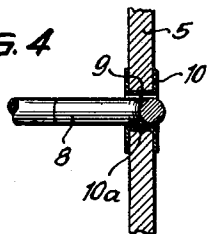


FIG. 4



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2,804,872

LOOSELEAF BOOK

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Application April 6, 1954, Serial No. 421,283

Claims priority, application Germany April 10, 1953

1 Claim. (Cl. 129—4)

The present invention relates to looseleaf books, such as looseleaf notebooks.

With books of this type the looseleaf binder mechanism is mounted with considerable clearance within the confines of the book so that there is a substantial dead space about the looseleaf binder mechanism of such conventional constructions. As a result, these conventional books consume more shelf space than is absolutely necessary, particularly when one considers the fact that the stack of pages held by the looseleaf binder mechanism does not extend into this dead space.

One of the objects of the present invention is to overcome the above drawbacks by providing a looseleaf book which has absolutely no dead space located about the looseleaf binder.

Another object of the present invention is to provide a looseleaf book which while being capable of holding as many pages as a conventional looseleaf book at the same time has a lesser total thickness than such a conventional looseleaf book.

A further object of the present invention is to provide a means which enables one of the covers of the book to accommodate part of a looseleaf binder mechanism when the book is closed so that in this way the total thickness of the book is reduced to an absolute minimum.

An additional object of the present invention is to provide a means for releasably locking a book of the above type.

A still further object of the present invention is to provide a book of the above type which is capable of accomplishing all of the above objects and at the same time is capable of reinforcing the hooks of the looseleaf binder mechanism and limiting the extent to which the front and rear covers of the book approach each other.

With the above objects in view the present invention mainly consists of a looseleaf book having a first cover member and a back member turnably connected to each other. A looseleaf binder mechanism is fixed to one of these members and has a plurality of hook means for releasably holding looseleaf sheets in the book. A second cover member is turnably connected to the back member at the edge thereof distant from the first cover member and, in the closed position of the book where the second cover member is substantially parallel to the first cover member, this second cover member has its inner face directed toward the first cover member and located nearer thereto than portions of the hook means which are located most distant from the first cover member.

The novel features which are considered as characteristic for the invention are set forth in particular in the appended claim. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantage thereof, will be best understood from the following description

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of specific embodiments when read in connection with the accompanying drawings, in which:

Fig. 1 is a partly sectional view taken along line I—I of Fig. 3 in the direction of the arrows transversely through a book constructed in accordance with the present invention and diagrammatically illustrating the looseleaf mechanism of this book as well as showing in dot-dash lines a part of a conventional looseleaf book for the purpose of comparison with the present invention;

Fig. 2 is an elevational end view of the book constructed in accordance with the present invention;

Fig. 3 is a fragmentary view of the book as seen from the front cover thereof; and

Fig. 4 is a fragmentary sectional view taken along the lines IV—IV of Fig. 3 in the direction of the arrows.

Referring now to the drawings, it will be seen that the book of the invention includes a back member 7 which has turnably connected to its opposite side edges a front cover 5 and a rear cover 6, the looseleaf binder mechanism being fixed to the inner face of the rear cover 6 adjacent the back member 7 and having a plurality of hook means 8 directed toward the front cover 5. Each of these hook means, as is well known, is in the form of a pair of members which assume the position shown in Fig. 1 when they are in their closed position and which may be moved apart from each other to receive looseleaf sheets.

As is apparent from the drawings, the front cover 5 is formed with a plurality of cutout portions 9 respectively corresponding in number to the number of hook means 8, and the plurality of hook means respectively extend into these cutouts when the book is closed, as illustrated in Fig. 1.

Referring to Fig. 1, the conventional location of the front cover 5 is shown at 5', the back member 7 being elongated as shown at 7', and there is thus provided in such a conventional construction a free space *b* between the hook means 8 and the inner face of cover 5'. With the present invention, not only is this free space *b* eliminated, but in addition the total width of the end book is reduced by the distance *a* shown in Fig. 1. Actual comparisons have shown that this represents a saving in width of about 12%, so that with the looseleaf books of the invention it is possible to place a greater number of books in a given space without lessening the number of pages held by the books. Furthermore, it will be noted that the location of the cover 5 about the end portions of the hook means 8 most distant from the cover 6 reinforces these hook means to prevent twisting thereof, and at the same time these hook means extend beyond the ends of the cutouts 9 to limit movement of the cover 5 toward the cover 6.

In accordance with the present invention each cutout 9 may be lined with a member 10 made of thin sheet metal or the like, and one or more of these members 10 may be provided with a projection 10a which snaps over the hook means 8 during closing of the book so as to releasably maintain the book in its closed position. Furthermore, it has been found that if the book is full the pressure of the pages which tends to open the book causes the projection 10a to exert on the hook means 8 a force which tends to maintain these hook means in their closed position so that in this way also the book of the invention is advantageous over conventional looseleaf books.

It should be understood that the invention is capable of constructions different from that shown in the drawings. For example, the cover 5 may be provided with bulged portions into which the hook means 8 respectively extend, or the cover 5 may be provided with a single elongated bulged portion into which the hook means 8 extend.

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It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of looseleaf books differing from the types described above.

While the invention has been illustrated and described as embodied in means for decreasing thickness of looseleaf books, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claim.

What is claimed as new and desired to be secured by Letters Patent is:

A loose-leaf binder comprising, in combination, a pair of substantially rigid cover members; a substantially rigid back member flexibly interconnected with said cover members, one of said cover members being formed adjacent said back member with a plurality of mutually spaced elongated cutout portions of a given length; linings formed from substantially rigid material and fixed to said one cover member, respectively surrounding said elongated cutout portions and having each substantially parallel elongated side faces; a looseleaf binder mechanism, fixed to the other of said cover members, being located adjacent said back member, and having a plurality of U-shaped members for releasably holding looseleaf sheets in the binder, said plurality of U-shaped members being directed away from said other cover member

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toward said one cover member and respectively extending into the spaces between said side faces of said linings, when the binder is in closed position, and the legs of each U-shaped member being spaced from each other a distance greater than said given length of said elongated cutout portions so that said cutout portions limit the extent to which the arches of said U-shaped members respectively extend beyond the inner face of said one cover member and locate said cover members in said closed position thereof in substantially parallel relationship to each other; and means for releasably locking said one cover member to said U-shaped members when said binder is closed, said releasable lock means consisting of a short rigid projection integrally formed with one of said side faces of one of said linings and extending partly across the U-shaped member between the side faces of said one lining and engaging said arches of said U-shaped member, when the binder is brought to said closed position, for firmly but releasably holding the latter in said closed position so that said cover members are securely held in said closed position of said binder substantially parallel to each other regardless of the amount of looseleaf sheets inserted in said binder.

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