Jan. 12, 1932. J. SCHADE 1,840,743

LOOSE LEAF BOOK

Filed Jan. 17, 1931

Fig. 1.

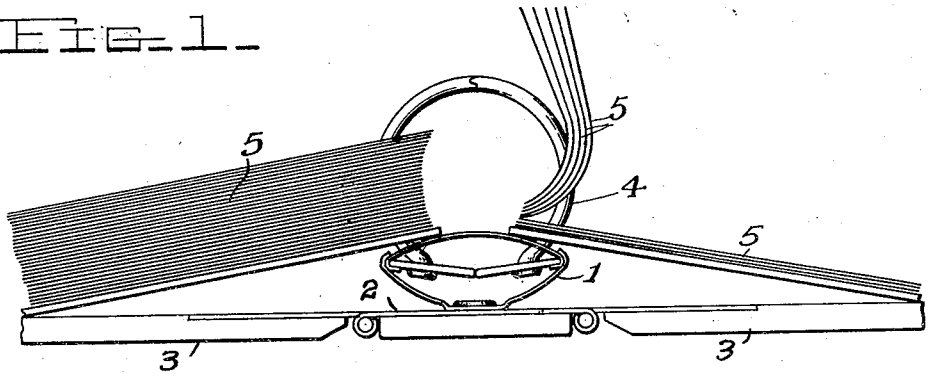


Fig. 2.

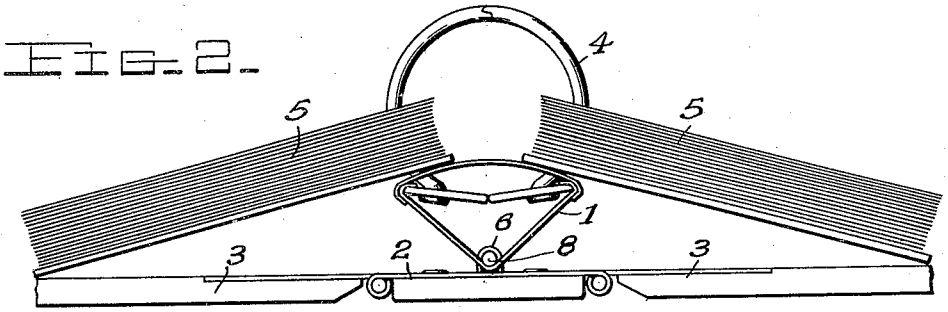


Fig. 3.

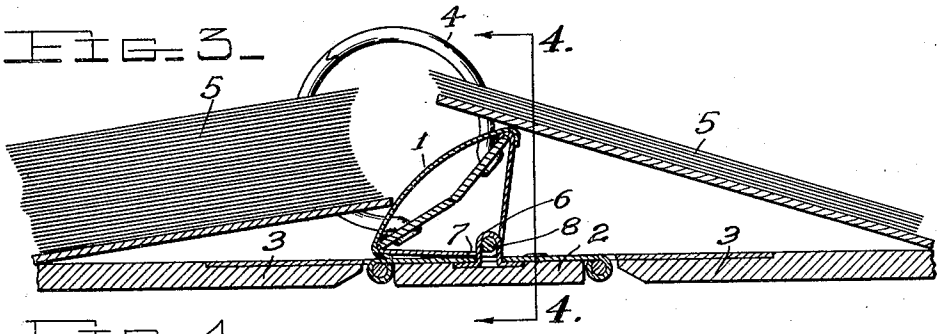
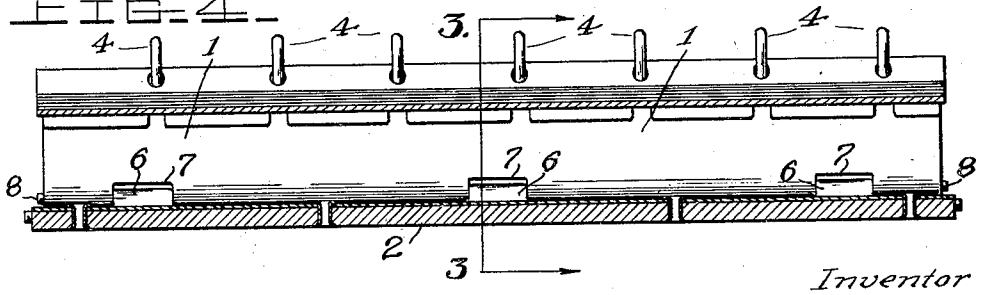


Fig. 4.



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Patented Jan. 12, 1932 1,840,743

UNITED STATES PATENT OFFICE

JOHN SCHADE, OF HOLYOKE, MASSACHUSETTS, ASSIGNOR TO NATIONAL BLANK BOOK COMPANY, OF HOLYOKE, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS

LOOSE LEAF BOOK

Application filed January 17, 1931. Serial No. 509,336.

My invention relates to loose leaf books of the kind commonly known as ring books, but has nothing to do either with the ring book structure or the nature of the rings themselves.

The sole object of my invention is to overcome the defect in loose leaf books that employ the large size of leaf-holding rings, said defect, in the present construction of such books, consisting of the failure of the leaves to readily turn over the rings when shifted from one side to the other of the book, owing to the fact that those sheets falling below the center line of the rings have a tendency to drag.

In the accompanying drawings, which are to be read as a part of the following description:—

Figure 1 is an end view of the present style of these books in which the loose leaf structure is immovably fastened to the book, and showing in a somewhat exaggerated degree the position which the leaves assume when shifted for the purpose of making notations thereon, and the tendency of the lower sheets to drag on the rings;

Figure 2 is an end view of a book constructed in accordance with the present invention, with the loose leaves equally divided into two masses that are respectively supported on opposite sides of the book;

Figure 3 is a view similar to Figure 2 but showing a preponderance of the leaves supported on one side of the book, the loose leaf structure having automatically assumed the position due to the peculiar relation between such structure and the book provided for by the present invention, and

Figure 4 is a segregated section at the line 4—4 of Figure 3.

Similar numerals of reference will be used to denote like parts in the several figures of the drawings.

In the first place I wish it to be understood that my invention resides solely in the broad idea of rockably securing the loose leaf structure to the book, and it is immaterial what the shape of the rings may be, whether circular, arch-shaped or any other conventional shape.

In ring books generally that employ small rings or prongs, there is no difficulty experienced in the turning of the leaves when shifted, but, as above noted, in books that have the larger sizes of such rings or prongs, this difficulty occurs so often that it is a real annoyance, occasioning waste of time, and, due to complaints from users of these books, efforts have been made to overcome this defect by giving the rings a contour or shape that is not truly circular, but these efforts have been in vain, and the present invention has completely solved the problem.

Referring to Figure 1, 1 is the loose leaf structure that is immovably fixed to the back 2 of the book, the latter having the usual hinged covers 3, and 4 are the rings which hold the leaves 5, and it will be observed that the few leaves which have been shifted to the right of the book have been caught by the rings and the top surface of the structure 1 and have not automatically coursed around the rings to the opposite side.

Figure 2 shows the loose leaf structure pivoted or rockably secured to the back 2, by means of hinge eyes 6 projecting upwardly from each back, the structure 1 being cut away as shown at 7 so as to straddle these eyes, and a pintle 8 being passed through these eyes to rockably secure the structure 1 to the back 2.

By referring to Figures 3 and 4 it will be noted that the hinge eyes 6 are elements separate from the book back and are forced through suitable openings in said back and clinched at the bottom, but I desire it to be distinctly understood that my invention is not limited to any special manner of pivoting or rockably securing the loose leaf structure to the book back, since it will be obvious to anyone that the manner of rockably securing such structure to the back is well within the range of ordinary mechanical skill.

Again, referring to Figure 2, it will be observed that the leaves are evenly divided, and that therefore the structure 1 is balanced, and that the top sheets are approximately on a level with the center of the ring, but as soon as one side of the book gets heavier,

owing to the shifting of the leaves, as shown at Figure 3, the structure 1 will topple until arrested by the top plate of such structure, and thereafter the leaves near the bottom of the ring, which in the old type would have a tendency to drag, are lifted to a level sufficient to enable them to turn readily.

What is claimed is:—

1. A loose leaf book having a rigid back and a loose leaf ring structure rockably secured to said back on a central pivot.

2. A loose leaf book having a rigid back with side covers hinged thereto, and a sheet-holding structure of the ring type transversely and rockably mounted on said back on a central pivot.

3. A loose leaf book composed of a rigid back with side covers hinged thereto and a sheet-holding structure of the ring type hingedly mounted to oscillate on said back to either side as the sheets are passed from one side of the book to the other.

4. A loose leaf book having a rigid back with side covers hinged thereto and a sheet-holding structure transversely and rockably mounted on said back on a central pivot.

5. A loose leaf book having a rigid back with side covers hinged thereto and a structure having impaling prongs for holding sheets, said structure being transversely and rockably mounted on said back on a central hinge.

In testimony whereof I affix my signature hereto.

JOHN SCHADE.