

May 26, 1953

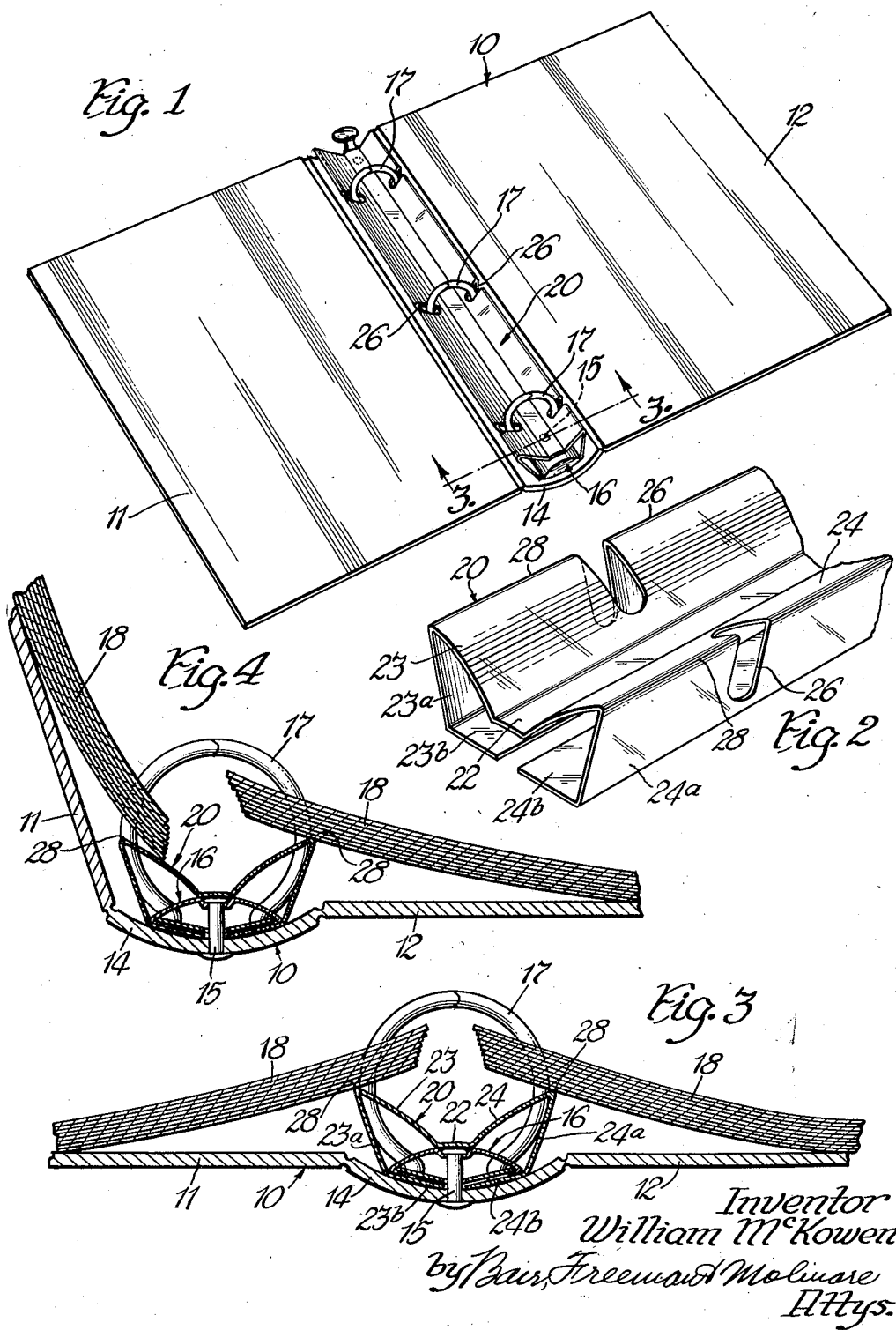
W. MCKOWEN

2,639,713

FILLER BLOCK FOR LOOSE-LEAF BINDERS

Filed Aug. 18, 1951

3 Sheets-Sheet 1



May 26, 1953

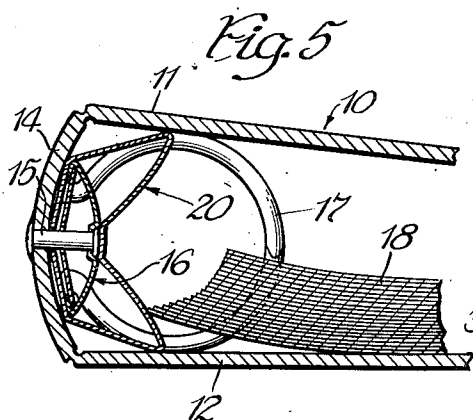
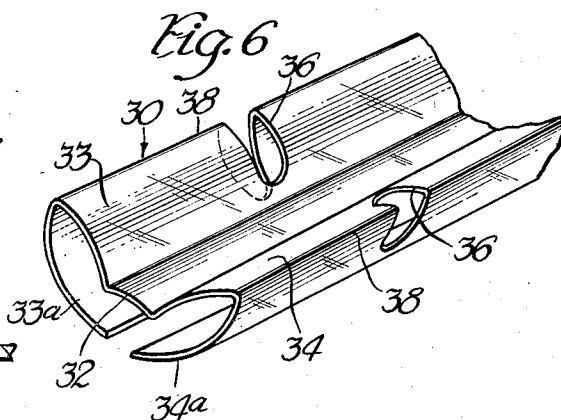
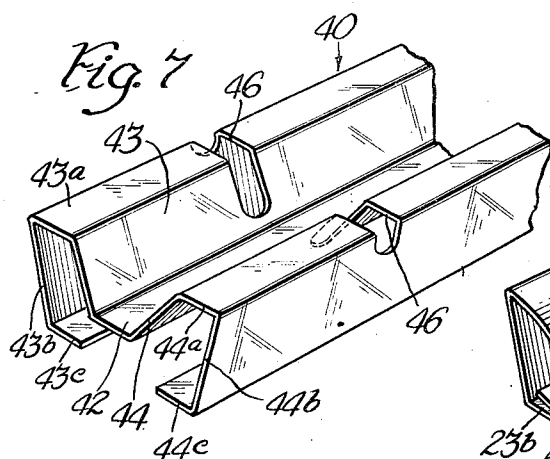
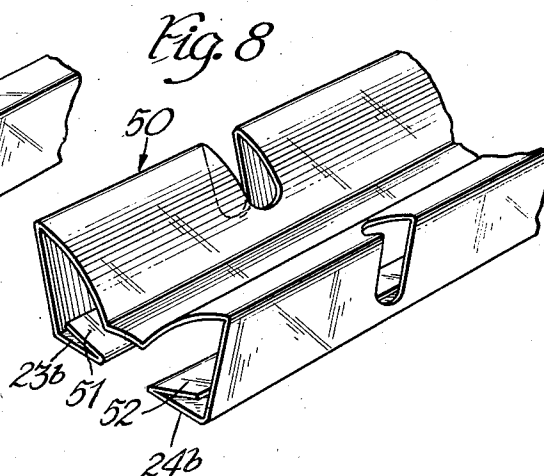
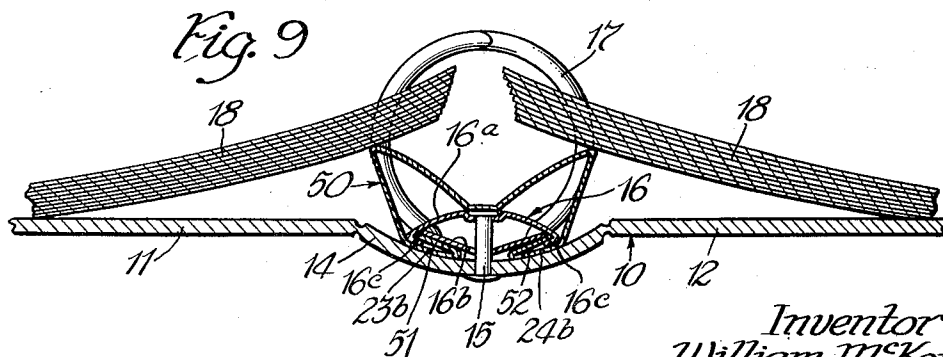
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2,639,713

FILLER BLOCK FOR LOOSE-LEAF BINDERS

Filed Aug. 18, 1951

3 Sheets-Sheet 2



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May 26, 1953

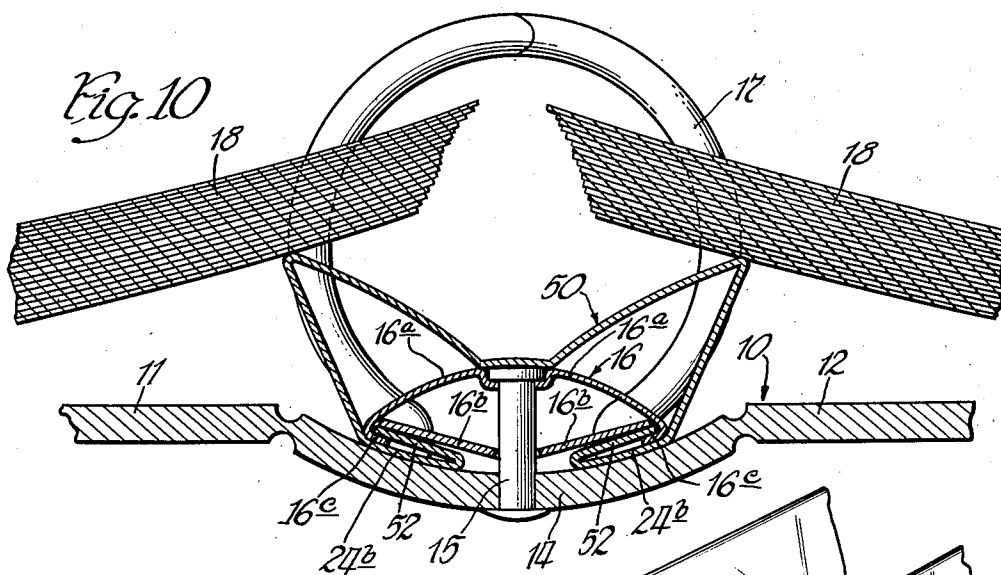
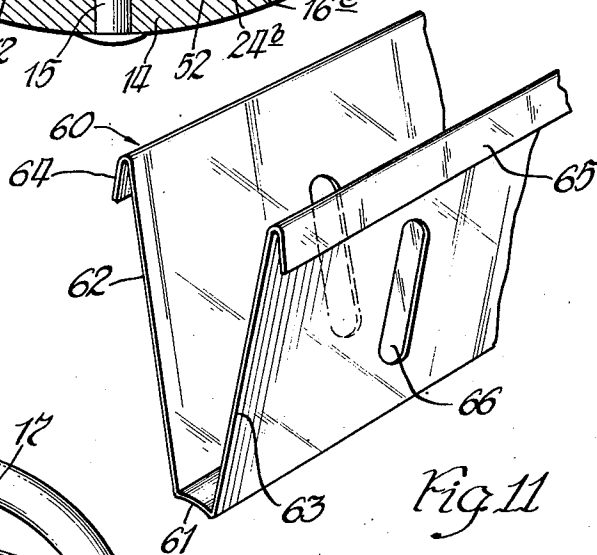
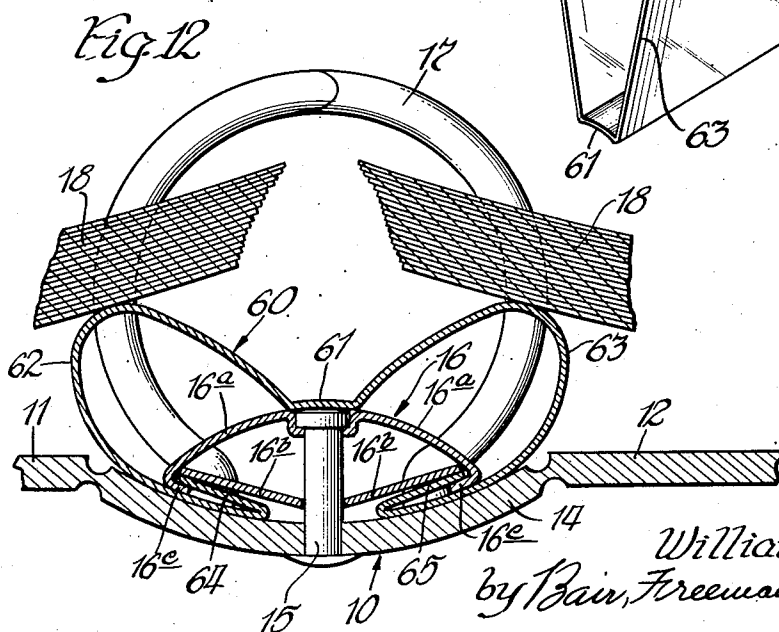
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2,639,713

FILLER BLOCK FOR LOOSE-LEAF BINDERS

Filed Aug. 18, 1951

3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

2,639,713

FILLER BLOCK FOR LOOSE-LEAF BINDERS

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Application August 18, 1951, Serial No. 242,448

7 Claims. (Cl. 129—1)

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The present invention relates to improvements in loose leaf binders of the ring type, adapted for accommodation therein of a quantity of apertured filler sheets. More specifically, the present invention is directed to a novel and improved filler block construction for use in conjunction with such binders.

Heretofore, loose leaf binders of the ring type, due to the construction thereof, always presented difficulties in the efficient use thereof. Due to the inherent constructional features of such binders, the filler sheets are caused to jam, catch, bind, tear or become damaged as a result of the binder being moved from an open to a closed position.

Binders of the general type to which the present invention is directed, in the main, include a series of spaced apart rings which are of generally circular formation, with the exception of the portion secured directly to a backing plate. Due to the form of such rings, the movement of the filler sheets, in the process of closing the binder, is subjected to two main actions. As the binder is moved to a closed position, one of the cover elements, in the process of being moved, causes a lifting of the filler sheets, which previously were resting on said cover element, and by moving of the outer portion of the cover element in an upward direction, toward the other cover element, results in a tendency for the inner marginal edges of the filler sheets to move downwardly along the lower portions of the rings. Such movement in the opposite direction, as compared to movement of the outer free edges of the filler sheets, causes the edges of the apertures of the filler sheets to catch or bind on the rings, and sometimes results in damaging or tearing of the sheets adjacent the apertures. Sometimes such binding action that occurs as a result of a body of filler sheets moving downwardly along the rings, is caused to be transmitted to the back or cover elements of the binder and causes damage thereto.

It is recognized that there have been numerous attempts made to reduce or eliminate the above mentioned difficulties. It has heretofore been proposed, as one solution to the problem, to employ what is sometimes referred to as a booster sheet or lifter, formed of relatively heavy, rigid stock, and which is sometimes connected by hinge elements directly to the backing plate. Such a construction, in addition to being relatively expensive to embody in a binder, is bulky and awkward, and reduces the potential maximum capacity of filler stock to be used in the binder,

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as well as presenting an unsightly appearance.

One of the objects of this invention is to provide an improved filler block for loose leaf binders which is constructed and arranged so as to eliminate jamming, binding, tearing and damage to the filler sheets at the apertures which surround the ring members of the binder, as well as eliminating damage to the inner marginal edges of the filler sheets during the process of opening and closing of the binder.

Another object is to provide an improved filler block of the character indicated, which is constructed and arranged so as to provide guidance and support for the inner marginal edges of the filler sheets during the process of opening and closing of the binder.

A further object is to provide an improved filler block of the character indicated, having the top surface thereof, which is disposed within the rings, formed with a longitudinally extending groove or trough for accommodating free movement of the inner marginal edges of the filler sheets.

Still another object is to provide a novel filler block of elongated form, having its top portion disposed within the rings and formed with sloping surfaces extending downwardly from abutment portions immediately adjacent opposite portions of certain or all of the respective ring members, for readily accommodating free sliding movement of the inner edges of the filler sheets during the time the binder is being moved to open or closed position.

A still further object is to provide an improved filler block of the character indicated, provided with locking features adapted for co-acting with the back plate assembly of the binder for permanently connecting the filler block to said back plate assembly.

A further object is to provide an improved filler block for loose leaf binders, which is relatively simple in construction, durable and efficient in use, and which is capable of being economically manufactured.

Other objects and advantages of this invention will be apparent from the following description, taken in connection with the accompanying drawings in which:

Figure 1 is a perspective view, in open position, of a ring type loose leaf binder, provided with a filler block embodying the present invention;

Figure 2 is an enlarged, fragmentary, perspective view of the filler block;

Figure 3 is an enlarged, fragmentary, trans-

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verse sectional view through the binder, in open position, with the filler block in place, and a stock of filler sheets mounted therein, taken substantially as indicated at line 3—3 on Figure 1;

Figure 4 is an enlarged, fragmentary, sectional view, similar to Figure 3, showing the binder with the filler sheets therein, in process of closing the binder;

Figure 5 is an enlarged, fragmentary, sectional view, taken in the same plane as Figure 3 on Figure 1, showing the binder in closed position;

Figures 6 and 7 are enlarged, fragmentary, perspective views of two modified forms of filler blocks;

Figure 8 is an enlarged, fragmentary, perspective view of a further modified form of filler block, provided with locking features for permanently securing the filler block to a back plate assembly of a loose leaf ring type binder;

Figure 9 is an enlarged, fragmentary, sectional view through a loose leaf ring binder, corresponding in general to Figure 3, but showing the modified form of filler block as represented in Figure 8 in permanently connected relation to the back plate assembly of the binder;

Figure 10 is a greatly enlarged, fragmentary sectional view, similar to Figure 9, and showing in detail the manner of locking of the filler block to the back plate assembly of the binder;

Figure 11 is an enlarged, fragmentary, perspective view of another modified form of filler block provided with locking features for permanently securing the filler block to a back plate assembly of a loose leaf ring type binder; and

Figure 12 is a greatly enlarged, fragmentary sectional view, similar to Figures 9 and 10, showing the modified form of filler block, as represented in Figure 11, in permanently connected relation to the back plate assembly of the binder.

For purposes of illustration, I have shown in the drawings, a more or less conventional type of ring binder to which the present invention is applied. The binder includes a back indicated generally at 10, having a top cover element 11, a bottom cover element 12, which cover elements are hingedly connected in a conventional manner to a central back member 14. Secured on the inner surface of, and substantially centrally of the back member 14, as by rivets 15, is a conventional back plate assembly 16, provided with a plurality of longitudinally spaced apart, transversely disposed, split ring retainers 17 of conventional form. The rings 17 are connected to the back plate assembly 16 in a usual manner, so as to permit separation and closing of the two halves of the rings for insertion or removal of a quantity of filler sheet stock indicated at 18.

The filler block embodying the present invention, as represented in Figures 1 to 5 of the drawings, and indicated generally at 20, is of elongated form, and is preferably produced from a flat, rectangular sheet of material which may be either paper, metal, plastic, or other suitable material, and is preferably of a length approximating the length of the filler sheets 18. I have found that by forming the filler blocks of a relatively thin sheet acetate material, produces a highly satisfactory construction, capable of economical manufacture. As will hereinafter be referred to, the inherent resilient and flexible characteristics of the acetate material, when formed into a filler block, provide certain definite and important advantages. The purpose of the filler block is to provide adequate support and guidance for the inner marginal portions of the filler sheets, dur-

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ing movement, incident to closing and opening of the binder, while at the same time insuring against possible jamming, catching, binding, tearing, and damage to the filler sheets during such movement.

As may be seen in Figures 1-5 of the drawings, the filler block is somewhat of tubular formation, and includes a top main central area 22, of slightly convex contour, which is adapted, when the filler block is assembled in the binder, to be seated directly upon and conforming to the top of the back plate assembly 16, as may be clearly seen in Figures 3 to 5 of the drawings. Extending laterally from opposite edges of the central area 22, is a pair of upwardly and outwardly sloping walls 23 and 24, preferably of slightly convex formation, which, together with the central area 22 form an open groove or trough for freely accommodating the inner marginal edges of the filler sheets 18 therein when the binder is moved to closed position, as may be seen in Figure 4 of the drawing. The outer marginal edges of the curved, sloping walls 23 and 24, merge into downwardly extending walls 23a and 24a, which in turn terminate in a pair of inwardly extending flanges or legs 23b and 24b, the inner edges of which are in close spaced apart relation.

Each of the outer longitudinal edges of the filler block is provided with a series of spaced apart slots 26, which extend partially into the sloping walls 23 and 24 and into their adjacent or contiguous walls 23a and 24a, as seen in Figure 2 of the drawings. These slots 26 are spaced longitudinally at a distance corresponding to the spacing of the retaining rings 17 of the binder.

The filler block is placed in position in the binder, prior to the introduction of the filler stock, with its slots 26 registering with the rings 17 of the back plate assembly, with the flanges or legs 23b and 24b projected beneath the back plate assembly 16, and with their free edges of said flanges terminating adjacent the rivets 15, as clearly seen in Figures 3-5 of the drawings. The connection of the sloping walls 23 and 24, to their respective contiguous walls 23a and 24a, form relatively acute corners at the upper portion of opposite sides of the filler block, as indicated at 28, and which corners, for convenience, may be termed abutment portions for supporting the inner marginal portions of the filler sheets 18 when the binder is in partial or completely open position, as seen in Figures 3 and 4 of the drawings.

Preferably the width of the slots 26 in the filler block is such that when the block is mounted in position in the binder, the filler block is totally out of contact with the retaining rings 17. The filler block is so dimensioned and formed as to effectively block off at least the lower third of the normal circumferential extent of the retaining rings. It is to be understood that the portion blocked off by the filler block, as defined by the abutment portions 28, at opposite sides of the respective rings, is at least 120° arcuate extent, as measured about the axis defining the normal curvature of the ring. Thus, the upper remaining usable portion of the ring should, preferably, be no greater than 240° arcuate extent. By blocking off at least the lower third portion of the retaining rings, the portion below and between the abutment portions 28 of the filler block, will at all times insure free movement of the filler sheets 18, incident to closing of the binder, without possibility of jamming, binding, tearing, or damaging of the filler sheets, as well

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as insuring elimination of possible binding action which usually results in damaging or deforming of the back 10 of the binder.

By virtue of the novel filler block embodying the present invention, it will be apparent that the filler sheets 18 will be caused to freely follow the contour of the rings 17, while the sheets are being moved relatively to said rings. It will be noted that in the process of opening or closing of the binder, as may be seen in Figure 4 of the drawings, the inner marginal edges of the filler sheets project a substantial distance below the apertures in the filler sheets. Due to the trough or groove formation in the top of the filler block, the inner marginal edges of the filler sheets are permitted free, unrestricted movement, except as limited by contact with the retaining rings. Possible damage to the inner marginal edges of the filler sheets is eliminated, by reason of said edges contacting the sloping walls 23 and 24 of the filler block. The inner marginal edges of the filler sheets slide along the sloping walls 23 and 24 in the process of opening or closing of the binder. It will be noted that the sloping walls 23 and 24 have a tendency to lift the filler sheets in the process of closing of the binder, and thereby eliminates strain on the filler sheets at the zone where the edges of the apertures are in contact with the rings.

It will be noted that when the binder is in process of being closed, or is in closed position, the inner marginal edges of the filler sheets slide down along the sloping walls 23 and 24 and are readily accommodated in the trough or groove between said sloping walls and thereby permits accommodating maximum capacity of filler stock in the normal usable area of the retaining rings of the binder. The filler block also serves as a corrective medium in that it corrects the defects present in the usual ring type binder, namely the reaction on the filler sheets, which normally takes place in the lower third area of the rings. By reason of the central area 22 of the top of the filler block directly engaging the back plate assembly, it creates stability and rigidity in the filler block structure, while permitting the use of flexible sheet material in the formation of the filler block, so as to obtain the benefit of the resilient or spring-like action of the material, particularly in the sloping walls 23 and 24 thereof, to assist in lifting of the filler sheets without damage thereto, and eliminating strain on the filler sheets in the process of closing the binder. By virtue of the filler block construction herein disclosed, it is now possible, if desired, to employ extremely light weight filler stock, in a loose leaf binder of the ring type, without possible tearing or damaging of the same in normal use.

Desirably, the filler block is formed of sheet material possessing resilient characteristics, so as to permit a limited amount of flexing of the body of the filler block, incident to pressure, which may be exerted by the inner marginal edges of the filler stock sliding down along the sloping walls 23 and 24 in the process of closing the binder. It has been found that a thin sheet of acetate, formed as a filler block, is highly satisfactory for the purpose. By reason of flexible, resilient characteristics, of the material when formed as a filler block, it readily accommodates pressures that are exerted on the sloping surfaces incident to closing of the binder. The filler block made of sheet acetate may be quickly and easily formed, by the use of heat, to the desired contour, which form is retained for

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substantially the normal life of use of the filler block.

In Figure 6, I have disclosed a modified form of elongated filler block indicated at 30, having a central top area 32 of slightly convex contour, to conform to the top of the back plate assembly. The side edges of the central area merge into upwardly extending, slightly convexly curved sloping walls 33 and 34, which continue into downwardly extending convex walls 33a and 34a, with their inner free edges disposed in close, spaced apart relation for accommodating the rivets 15 of the binder when the filler block is mounted in position therein. Two series of longitudinally spaced apart slots 36 are formed in opposite sides of the filler block, having portions extending into the sloping walls 33—34, and their respective, contiguous walls 33a and 34a, as clearly seen in the drawings for accommodating the retaining rings 17 of the binder. The juncture of the sloping walls 33—33a and 34—34a form abutment portions 38 on which the filler sheets are adapted to be supported when the binder is in open position, and serve as a fulcrum, about which the filler sheets rock in movement about the retaining rings 17 in process of closing the binder. The filler block disclosed in Figure 6 is adapted to be assembled in the binder in a manner substantially as described above in connection with filler block 20.

Figure 7 depicts a further modified form of elongated filler block indicated at 40, the top portion of which is formed with a central flat area 42, the side edges of which continue into upwardly and outwardly sloping side walls 43 and 44, defining a trough or groove therebetween. The upper edge of the walls 43—44 merge into substantially horizontally extending walls 43a and 44a, which, in turn, are contiguous with downwardly extending flat walls 43b and 44b, the lower ends of which latter walls merge into inwardly projecting flanges or legs 43c and 44c terminating in spaced apart relation. The filler block is provided at opposite sides, at the top, with two series of longitudinally spaced apart slots 46, formed in the sloping walls 43 and 44, and extending through the top walls 43a and 44a, and extending a short distance downwardly into the side walls 43b and 44b. The top portions of the respective sides of the filler block, and more particularly the surfaces 43a, when the filler block is mounted in position, constitute abutment portions for supporting the filler stock when the binder is in open position, and also serve to support the filler stock for a fulcruming action, so that the inner marginal edges thereof are free to project into the trough or groove of the block, incident to movement of the binder to a closed position. The slots 46 serve to accommodate the retaining rings 17 of the binder when the filler block is mounted therein. It is to be understood that the filler block is adapted to be assembled and connected to the back plate assembly 16 of the binder in a manner substantially as described in connection with the filler block designated at 20.

In the construction represented in Figures 8 and 9 of the drawings, I have shown a further modified form of filler block indicated generally at 50, which is of the same identical contour and conformation as the filler block 20, except the inwardly extending flanges or legs 23b and 24b continue into reversely bent, outwardly extending locking flanges or legs 51 and 52, disposed immediately above the respective flanges 23b and

24b, in a slightly inclined relation thereto. Due to the resilient characteristics of the sheet material from which the filler block is formed, the locking flanges 51—52 tend to assume the position seen in Figure 8 of the drawing.

The construction represented in Figure 8, and more particularly the provision of the locking flanges, is for use in conjunction with loose leaf binders of the type wherein there is a substantial amount of space between the back plate assembly and the back portion 14 of the binder proper. As may be seen in Figures 9 and 10 of the drawings, the back plate assembly 16 is composed of a top plate member 16a of convex contour, the longitudinal edges of which are folded around a bottom plate member 16b, to which the retaining rings 17 are secured in a conventional manner. The assembly of the top plate 16a and 16b of the back plate assembly is such that the terminal portion of the inturned flanges, designated at 16c at the marginal edges of the top plate, are spaced downwardly a short distance from the bottom plate 16b, and forming therewith a relatively narrow groove, as clearly seen in Figure 10.

When the filler block 50 is mounted in position on such a back plate assembly, and fitted over retaining rings 17, the leg portions 23b—51 and 24b—52 are projected beneath the back plate assembly, until the free edges of the locking flanges 51 and 52 extend inwardly beyond the terminal edges of the inturned flanges 16c of the underside of the top plate 16a, at which time the resilient locking flanges 51 and 52 snap upwardly, and due to the natural resiliency of the material of the filler block to attain the form seen in Figure 8 of the drawings, the marginal edge portions of said flanges 51 and 52 seat in the shallow grooves formed between the inturned flanges 16c of the top plate and the bottom plate member 16b, as clearly seen in Figures 9 and 10 of the drawings. Thus, the filler block, when so connected to the back plate assembly, becomes a permanent connection, and cannot be removed without destroying the same. Thus, there is no possibility for the filler block to become misaligned or in any way disconnected with respect to the back plate assembly.

In Figure 11, there is shown a further modified form of filler block indicated at 60, which is provided with locking features of the general type disclosed in the construction represented in Figure 8 of the drawings, so that the filler block may be permanently connected to the back plate assembly of the loose leaf binder. The filler block, as in the construction above described, is formed of a thin, flexible sheet of material having a narrow, central area 61, extending lengthwise of the block. The two long opposite edges of said area continue into a pair of normally flat side walls 62 and 63, the opposite edges of which walls terminate respectively in reversely bent flanges 64 and 65. The side walls 62 and 63 are formed with aligned series of longitudinally spaced apart apertures 66 for fitting over the rings 17 of the binder.

The modified filler block represented in Figure 11 of the drawings is of extremely simplified construction, requiring a minimum number of operations in its formation. When the filler block is applied to a loose leaf binder, the side walls 62 and 63 are folded downwardly and outwardly so that their free marginal edges may be projected beneath the marginal edges of the back plate assembly 16 of the binder and inserted therein until the free edges of the locking flanges 64 and 65

have been moved inwardly beyond the terminal edge of the inturned flanges 16c of the top plate 16a of the back plate assembly. Said flanges 16c usually terminate in slightly spaced apart relation with respect to the bottom plate 16b of the back plate assembly, and forming therewith relatively narrow grooves into which the terminal edges of the locking flanges 64 and 65 are urged into seated locking engagement by the resiliency and tension set up in the side walls 62 and 63, which have been bent in arcuate formation as clearly seen in Figure 12 of the drawing.

When the filler block 60 is mounted in position on the back plate assembly and fitted over the retaining rings, with the apertures 66 registering with the rings, said filler block becomes permanently connected to the back plate assembly, and precludes the possibility of the filler block becoming misaligned or in any way becoming disconnected with the back plate assembly. As may be readily noted in Figure 12 of the drawings, by reason of the arcuate formation of the side walls 62 and 63 of the filler block, when mounted in position, there is formed immediately above the narrow flat central area 61, a relatively wide, open mouth groove or channel for freely accommodating the inner marginal edges of the filler sheets 18 in the process of opening and closing of the binder. It would also be noted that the portions of the side walls extending from the zones of opposite portions of the ring, slope in an inwardly and downwardly direction to provide proper guidance and support for the inner marginal edges of the filler sheets in manipulation of the binder.

It will be noted that in Figures 3, 4, 5, 9 and particularly Figures 10 and 12 of the drawings, for purposes of clarity, various parts of the construction have been shown exaggerated. More specifically, the thickness of the material constituting the filler block is represented by two lines, whereas as above pointed out, the thickness of the flexible sheet of material from which the filler blocks are formed, is relatively thin, such as approximately the thickness of a sheet of paper. It will, therefore, be more readily understood that, although the terminal flanges 16c of the top plate of the back plate assembly are disposed in close relation to the bottom plate 16b, there is, as a matter of fact, a slight clearance between these parts forming thereby, relatively narrow grooves, sufficient, however, for readily accommodating the thin section of material of the locking flanges constituting a part of the filler blocks represented in Figures 8 and 11 of the drawings.

It will be manifest that if desired, locking flanges may be provided on filler block structures of the type represented in Figures 6 and 7 of the drawings. It will also be manifest that a filler block embodying the present invention may be produced in various cross sectional contours and still provide a groove or trough formation for accommodating free movement of the inner marginal portions of the filler sheets, as well as sloping surfaces for engaging the free inner marginal edges of the filler sheets in the process of opening and closing the binder.

Although I have herein shown and described certain preferred embodiments of my invention, manifestly it is capable of further modification without departing from the spirit and scope thereof. I do not, therefore, wish to be understood as limiting this invention to the precise form herein disclosed, except as I may be so limited by the appended claims.

I claim as my invention:

1. A loose leaf binder comprising a pair of cover members hinged to a back member and adapted to be swung to open and closed positions, a plurality of spaced apart substantially circular retaining rings adapted to receive filler sheets provided with apertures at their inner marginal edges for fitting over said rings, said retaining rings being split and portions thereof being swingable toward and away from each other to close or open the rings, a shield plate mounted on and spaced away from said back member to provide a substantially enclosed chamber for positioning therein a ring operating mechanism for supporting said rings and for opening and closing the rings, said shield plate having apertures through which the rings extend with more than two-thirds of the arc of the circle of each ring exposed, an elongated filler block member separate and apart from said shield plate, said filler block member having portions adjacent its longitudinal edges positioned between said shield plate and said back member and extending from adjacent said shield plate to intersect the axial projection of said rings at two points so as to block off at least one-third of the arc of the ring circles with said shield plate positioned symmetrically within said blocked off one-third, said filler block member having series of apertures for fitting over said rings and accommodating opening and closing movement of said rings, and a portion of the filler block member within the confines of the axial projection of the rings forming a longitudinally extending trough having upwardly extending sides and a central bottom strip engaging said shield plate.

2. A loose leaf binder comprising a pair of cover members hinged to a back member and adapted to be swung to open and closed positions, a plurality of spaced apart substantially circular retaining rings adapted to receive filler sheets provided with apertures at their inner marginal edges for fitting over said rings, said retaining rings being split and portions thereof being swingable toward and away from each other to close or open the rings, a shield plate mounted on and spaced away from said back member to provide a substantially enclosed chamber for positioning therein a ring operating mechanism for supporting said rings and for opening and closing the rings, said shield plate having apertures through which the rings extend with more than two-thirds of the arc of the circle of each ring exposed, an elongated filler block member separate and apart from said shield plate, said filler block member having portions adjacent its longitudinal edges positioned between said shield plate and said back member and extending from adjacent said shield plate to intersect the axial projection of said rings at two points so as to block off at least one-third of the arc of the ring circles with said shield plate positioned symmetrically within said blocked off one-third, said filler block member having series of apertures for fitting over said rings and accommodating opening and closing movement of said rings, and a portion of the filler block member within the confines of the axial projection of the rings forming a longitudinally extending trough having upwardly extending sides and a central bottom strip engaging said shield plate, said filler block member being formed of resilient material, so as to permit distortion thereof when the cover members of the binder engage said filler block member when said cover members are swung to the closed position.

3. A loose leaf binder comprising a pair of cover members hinged to a back member and adapted to be swung to open and closed positions, a plurality of spaced apart substantially circular retaining rings adapted to receive filler sheets provided with apertures at their inner marginal edges for fitting over said rings, said retaining rings being split and portions thereof being swingable toward and away from each other to close or open the rings, a shield plate mounted on and spaced away from said back member to provide a substantially enclosed chamber for positioning therein a ring operating mechanism for supporting said rings and for opening and closing the rings, said shield plate being provided with flanges extending toward each other, said shield plate having apertures through which the rings extend with more than two-thirds of the arc of the circle of each ring exposed, an elongated filler block member separate and apart from said shield plate, said filler block member having portions adjacent its longitudinal edges positioned between said shield plate and said back member and extending from adjacent said shield plate to intersect the axial projection of said rings at two points so as to block off at least one-third of the arc of the ring circles with said shield plate positioned symmetrically within said blocked off one-third, said filler block member having series of apertures for fitting over said rings and accommodating opening and closing movement of said rings, and the longitudinal edges of said filler block member having portions interlocked with said flanges of the shield plate, to firmly secure the filler block member to the shield plate.

4. A loose leaf binder comprising a pair of cover members hinged to a back member and adapted to be swung to open and closed positions, a plurality of spaced apart substantially circular retaining rings adapted to receive filler sheets provided with apertures at their inner marginal edges for fitting over said rings, said retaining rings being split and portions thereof being swingable toward and away from each other to close or open the rings, a shield plate mounted on and spaced away from said back member to provide a substantially enclosed chamber for positioning therein a ring operating mechanism for supporting said rings and for opening and closing the rings, said shield plate having apertures through which the rings extend with more than two-thirds of the arc of the circle of each ring exposed, an elongated filler block member, separate and apart from said shield plate, having portions adjacent its longitudinal edges positioned between said shield plate and said back member, said filler block member extending from adjacent said shield plate and having formed therein a pair of longitudinal flat horizontal strips which intersect the axial projection of said rings at two points so as to block off at least one-third of the arc of the ring circles with said shield plate positioned symmetrically within said blocked off one-third, said filler block member having series of apertures for fitting over said rings and accommodating opening and closing movement of said rings, and the portion of the filler block member between said flat horizontal strips forming a longitudinally extending trough having upwardly extending sides and a central bottom strip engaging said shield plate.

5. In a loose leaf binder of the class wherein a pair of cover members are hinged to a back member having mounted thereon a plurality of spaced

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apart substantially circular retaining rings and a shield plate spaced from said back member and having apertures through which said rings extend with more than two-thirds of the arc of the circle of each ring exposed, the combination with said loose leaf binder of an elongated filler block member, separate and apart from said shield plate, having portions adjacent its longitudinal edges adapted to be positioned between said shield plate and said back member and adapted to extend from adjacent said shield plate to intersect the axial projection of said rings at two points so as to block off at least one-third of the arc of the ring circles with said shield plate positioned symmetrically within said blocked off one-third, said filler block member having series of apertures therein adapted for fitting over said rings and accommodating opening and closing movement of said rings, and the central portion of the filler block member forming a longitudinally extending trough having a central bottom strip adapted to engage said shield plate.

6. In a loose leaf binder of the class wherein a pair of cover members are hinged to a back member having mounted thereon a plurality of spaced apart substantially circular retaining rings and a shield plate spaced from said back member and having apertures through which said rings extend with more than two-thirds of the arc of the circle of each ring exposed, and said shield plate being provided with flanges extending toward each other, the combination with said loose leaf binder of an elongated filler block member, separate and apart from said shield plate having portions adjacent its longitudinal edges adapted to be positioned between said shield plate and said back member and adapted to extend from said shield plate to intersect the axial projection of said rings at two points so as to block off at least one-third of the arc of the ring circles with said shield plate positioned symmetrically within said blocked off one-third, said filler block member having series of apertures therein adapted for fitting over said rings and accommodating opening and closing move-

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ment of said rings, and the longitudinal edges of said filler block member having reversedly bent flanges adapted to interlock with said flanges on the shield plate.

7. In a loose leaf binder of the class wherein a pair of cover members are hinged to a back member having mounted thereon a plurality of spaced apart substantially circular retaining rings and a shield plate spaced from said back member and having apertures through which said rings extend with more than two-thirds of the arc of the circle of each ring exposed, the combination with said loose leaf binder of an elongated filler block member, separate and apart from said shield plate, having portions adjacent its longitudinal edges adapted to be positioned between said shield plate and said back member, said filler block member having formed therein a pair of spaced longitudinal flat strips, said filler block member adapted to extend from adjacent said shield plate and to have said spaced flat strips intersect the axial projection of said rings at two points so as to block off at least one-third of the arc of the ring circles with said shield plate positioned symmetrically within said blocked off one-third, said filler block member having series of apertures therein adapted for fitting over said rings and accommodating opening and closing movement of said rings, and the portion of the filler block member between said longitudinal flat strips forming a longitudinally extending trough having a central bottom strip adapted to engage said shield plate.

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