

May 20, 1958

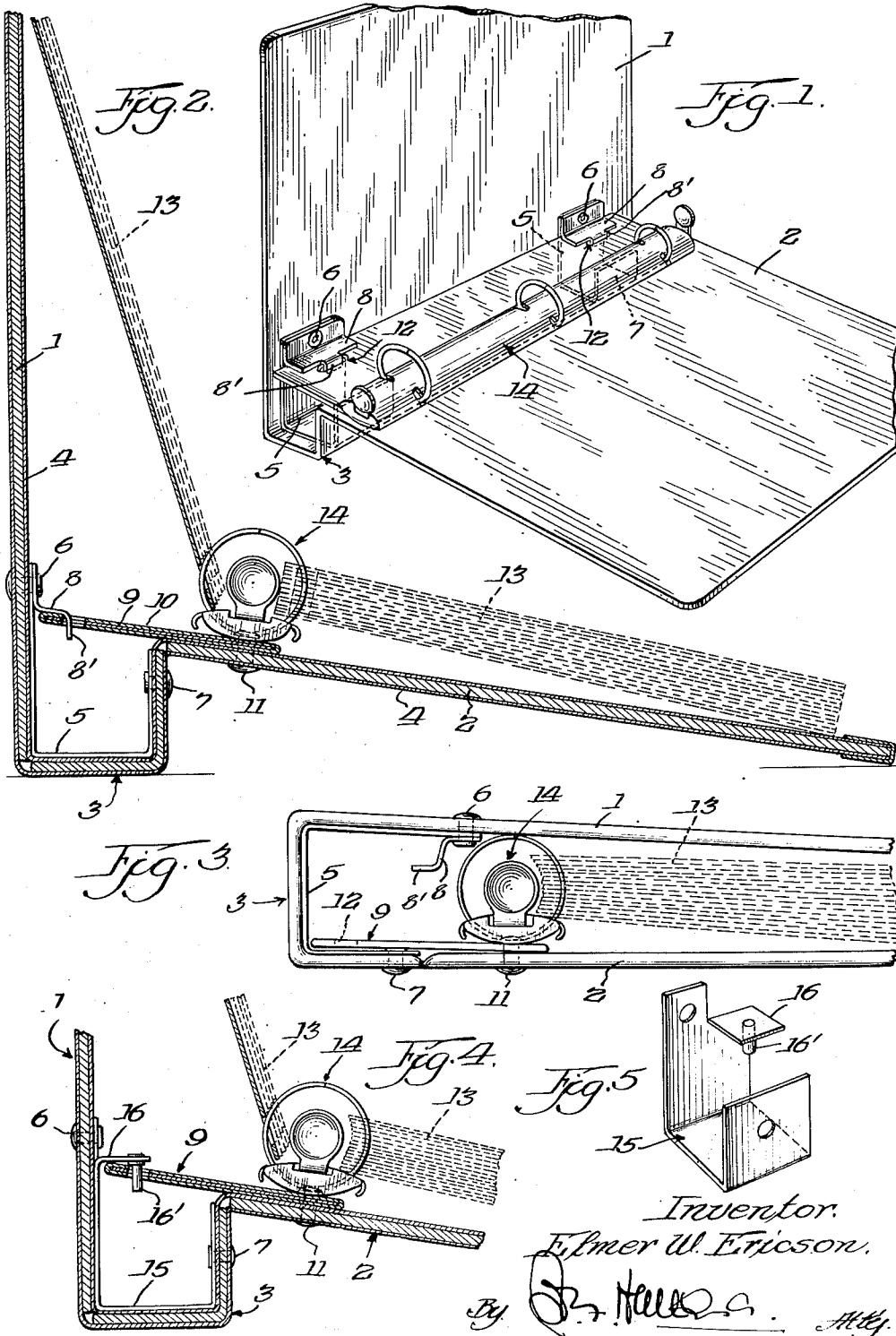
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DISPLAY BINDER

Filed June 5, 1957

2 Sheets-Sheet 1



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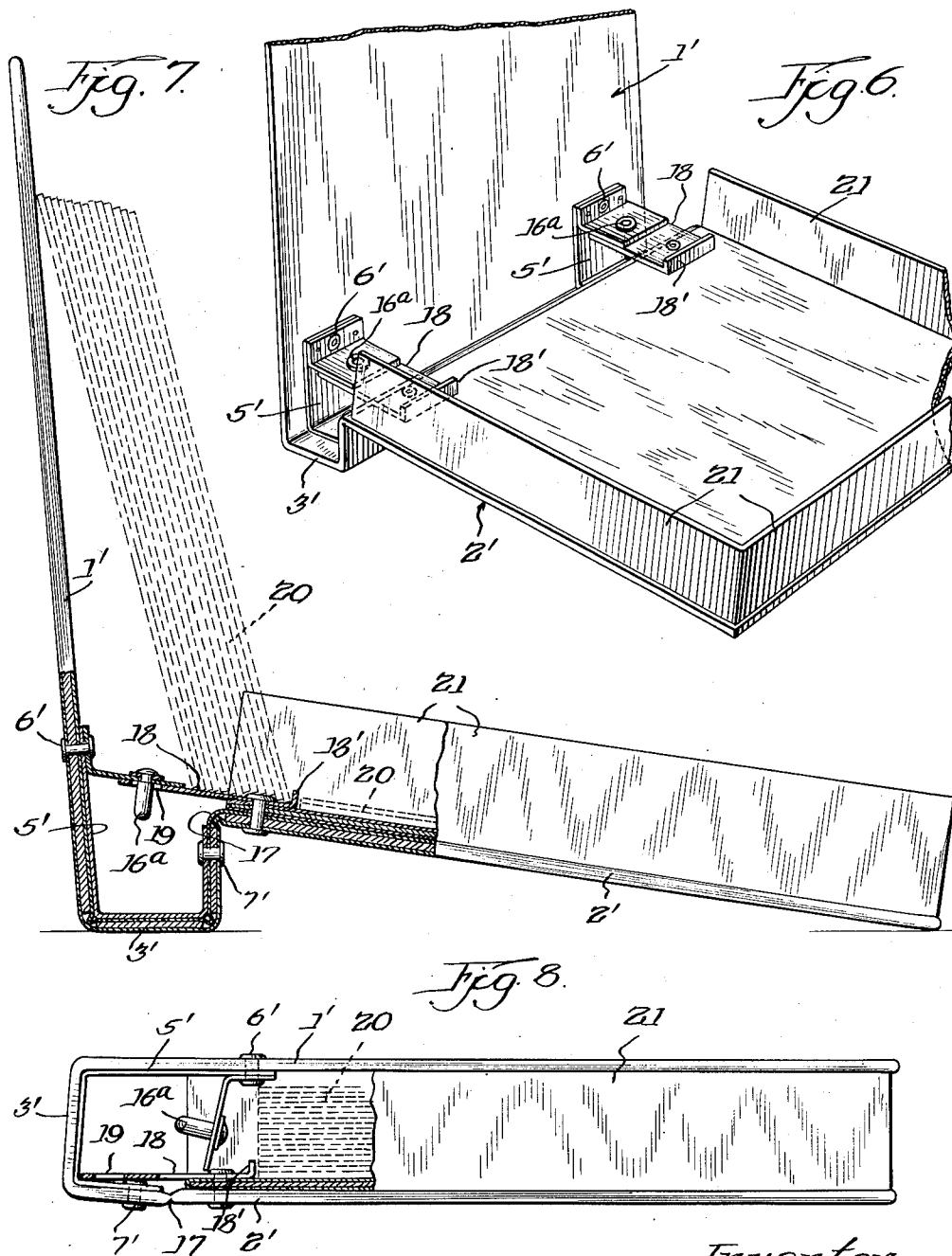
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DISPLAY BINDER

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Application June 5, 1957, Serial No. 663,820

15 Claims. (Cl. 281—33)

This invention relates to improvements in display types of binders, particularly, it relates to a new, novel and useful improvement of that kind of display binder illustrated and described in the joint application for Letters Patent Serial Number 550,667, filed December 2, 1955, by Elmer W. Ericson and Rudolph E. Brauer.

By way of improvement of or upon the invention disclosed in the aforesaid application, the present invention provides a display binder whose construction is of greater simplicity, whose production cost is comparatively less, and whose operation and/or usage, when opened to a display position, is more stable and secure, thus, making for better display of those matters contained thereby in that such displayed matters will be firmly and surely retained in display position and the opened binder prevented from annoying collapsing or tipping as and when in displaying use.

Another object of the invention is to provide a binder having a simple, durable and positive stop or motion check and arresting means which automatically operates, upon the swinging of one of the binder panels to its open and display position away from the other of its cover panels, to firmly and securely retain the same in that position, yet permit the first noted panel to be easily and freely swung or returned to its initial and closed position, as and when desired.

It is also an object of the invention to provide a binder cover panel motion stop which will in no manner detract from or interfere with usage of the binder as such, to wit, engaging and retaining the contents thereof in book leaf-like form between the cover panels thereof; permitting the usual insertion and/or removal of the same; and their selective turning, as desired.

A further object of the invention is to provide a display binder of the stated character wherein when one of its cover panels is swung away from the other to a substantially vertical position, said other cover panel will be firmly or solidly supported in a position inclined to the horizontal, the better to display the leaf-like sheets or other matters contained by and connected to the binder rings or binder mechanism, hence, increasing the display value of the device.

The foregoing, as well as other objects, advantages and meritorious teachings of my invention, will be in part obvious and in part pointed out in the following detailed disclosures thereof, when taken in conjunction with the accompanying drawings, it being understood that the forms of the invention presented herein are precise and what are now considered to be the better modes of embodying its principles, but that other modifications and changes may be made without departing from its essential features.

In the drawings:

Figure 1 is a perspective of my improved display binder in an opened or display position, portions of its cover panels being broken away.

Figure 2 is an enlarged vertical transverse section

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through the display binder in an opened or display position showing the leaf binder mechanism or rings and (in dotted lines) sheets engaged therewith and in display position, a part of one cover panel being broken away.

Figure 3 is an end elevation of the display binder in its closed position with the sheets shown in dotted lines; portions of the sheets and the cover panels being broken away.

Figure 4 is a fragmentary vertical transverse section, similar to Figure 2, showing a slightly modified form of panel motion stop.

Figure 5 is a perspective of one of the modified panel motion stops.

Figure 6 is a perspective of another modified form of the invention particularly advantageous for use in containing and displaying cards, portions of the panels being broken away.

Figure 7 is an enlarged vertical transverse section through the form of display binder shown in Figure 6, and,

Figure 8 is an end elevation of the form of binder shown in Figure 6 in its closed position with a portion thereof shown in section.

Referring in detail to the drawings (Figures 1-3) the invention consists of a book-like binder including front and back stiff panels 1 and 2 of substantially corresponding lengths, and a stiff back 3. The width of the front panel 1 is greater than that of the back panel 2, and the panels and back are arranged in edgewise adjacent relation and are hingedly connected by a suitable sheet-like material 4 engaged over and about the same, all as shown in the Figures 2 and 3.

The back 3 is of cross-sectionally right angular form (see Figure 2).

The width of the front panel 1 equals the combined width of the back panel 2 and the side wall of the back 3 to which it is hingedly connected.

Complemental substantially U-shaped bodies made of light metal or other suitable material, indicated by the numeral 5 are set transversely into and snugly received in that space between the back 3 and the extended inner end portion of the front panel 1 in longitudinally spaced relation, as shown in Figure 1. The wider side of each body is riveted, at 6, or otherwise permanently joined to an adjacent portion of the front panel, while the narrower and remaining side of each is similarly joined, at 7, to an adjacent portion of the side wall of the back 3. Said remaining side or sides of the body or bodies 5 preferably correspond substantially in depth or width to that of the back side wall.

Fixedly carried on the inner faces of the upwardly extended end portions of the wider sides of the bodies 5 are motion arresting or stop arms 8, each extending inwardly or laterally thereof and each carrying a fixed and right angularly disposed finger 8'.

A flat and elongated stiff plate 9 which may be provided with a suitable covering material 10, is flatly or flushly engaged with a portion of the inner face of the back panel 2. It is in coplanar relation thereto and is fixedly secured thereto, as by rivets 11. A portion of the plate (see Figures 1 and 2) substantially corresponding in width to that of the side wall of the back 3, extends from and beyond the back panel 2 inner and hinged end. Openings 12 are formed in the plate extended portion in transverse juxtaposed relation to the fingers 8' of the motion stop or arresting arms, aforesaid.

While I have herein illustrated and described a pair of motion arresting or stop means comprised of the bodies 5, arms 8 and fingers 8', it will be understood that more or less thereof may be used, such as manufacturing conditions or preference may dictate; moreover, that the

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number of openings 12 in the stiff plate 9 will correspond to said fingers 8'.

That leaves, sheets or the like, shown in dotted lines and designated by the numeral 13 may be swingably and detachably connected to and carried within the binder, I fixedly mount a conventional form of ring binder mechanism 14 on and longitudinally of the inner face of the back panel 2 parallel to and preferably spaced outwardly of or from its inner edge and the side wall of the back 3. If desired, the rivets 11 securing the elongated plate 9 to said back panel may be used to secure the binder mechanism thereto.

In the Figures 4 and 5 I have shown a slightly modified form of motion arresting or stop means. Herein, the body 15 of said means is also of substantially U-shaped formation and made of material suitable therefor. One side wall of the body, i. e., that wall which is connected to the extended end of the front panel 1, is of greater width or depth than the other. An upper portion of this side wall is struck or bent inwardly into substantially right angular relation and constitutes a motion arresting or stop arm 16 similar to the arms 8, shown and described in the preceding embodiment of my invention. A pin or finger 16' is fixedly carried by the arm 16, being disposed inwardly of the body 15 and substantially parallel to the near body side wall.

In usage of my invention, and particularly, that form of the same illustrated by the Figures 1-3, it is assumed that the display binder embracing the same is in its closed position (see Figure 3). A user to open the binder to its display position, as shown in the Figures 1 and 2, merely grasps a forward portion of the front panel 1, raising the same and swinging it away from the back panel 2. In so doing, the back 3 of the display binder moves simultaneously or collectively with the front panel 1, hinging at and along its opposite side wall at the point of its hinged connection with the back panel 2. As and when the front panel is moved to a vertical position, or upright position, the U-shaped back will too be in an upright or vertical position, i. e., in angular relation to the back panel 2. Thus, it is seen that the back panel 2 is supported from or by the narrower side wall of the back 3 in a position inclined to the horizontal.

As and when the front panel 1 is swung to its aforesaid upright and open position, the binder will be ready for display usage.

Also, as and when said front panel has been swung to and assumes the above indicated upright position, it will be understood and appreciated that the stiff elongated plate 9 will have been fulcrumed or swung upwardly so that the fingers 8' on the arms 8 of the motion arresting or stop means will be engaged in and through the stiff plate openings 12. Thus, the adjacent end portion of said stiff elongated plate will be brought into abutting engagement with the arms 8. Consequently, the now upright front panel 1 will be secured or interlocked with the plate 9, the back panel 2 and the back 3. It will, thereby, be prevented from movement beyond the vertical or near vertical.

Because the binder mechanism 14 is positioned on the back panel 2 in spaced relation to the binder back 3, it will be understood that sufficient incline will be afforded to the leaves or sheets 13 when they are upwardly swung so as to retain them in the dotted line position illustrated in Figure 2; moreover, to effect their efficient and satisfactory display. It is furthermore to be noted that because of the above described positioning and/or mounting of the binder mechanism 14 on the back binder 2, a counterbalancing weight will be provided to the opened display binder which will offer a material resistance to if not prevent the rearward tipping over of the binder.

To close the improved display binder, it is only necessary that the user engage a portion of the now upright front panel 1 and swing it inwardly or downwardly to-

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ward the back panel 2. When so doing, the stiff elongated plate 9 will disengage from the motion arresting or stop means and will move into a position adjacent and substantially parallel to the narrower side wall of the back 3 in a manner shown in Figure 3 of the drawings. The spacing between the front and back panels afforded by the width of the back 3 will be sufficient to permit complete closing of the binder panels without interference from the binder mechanism 14. Also, as and when the binder is closed, it will be observed that the arms 8 and finger 8' of the motion arresting or stop means will be disposed within or between the binder front and back panels.

Operation of a binder provided with the modified form of motion arresting or stop means shown in the Figures 4 and 5 will, of course, correspond to that of the preferred or first described embodiment of my invention.

While the forms of my invention shown in the drawing Figures 1, 4 and 5 have been hereinbefore described for use in connection with display binders containing leaves, sheets or the like, it is to be understood that the invention may be used advantageously for the reception and the displaying of loose and stacked display cards, or their equivalents. To such an end, the adaptation shown in and by the Figures 6-8 may be employed. Therein, still front and back panels 1' and 2' and a stiff back 3' are provided.

Complemental substantially U-shaped bodies 5' of light metal or other suitable material are set transversely into the back 3' in longitudinally spaced relation and are affixed thereto by rivets 7' or the like. One of the sides of each body is deeper or taller than the other. The upper portions of the same are inwardly disposed at substantially right angles. Each portion carries a fixed and downwardly or inwardly disposed finger 16^a.

The inner side portion of the stiff panel 1' is in apposed relation to the deeper sides of the bodies 5' and is affixed thereto as at 6', while the inner side of the stiff panel 2' is hinged to the free or outer side of the back 3' as at 17.

Flat stiff strips 18 are affixed in longitudinally spaced relation, corresponding to that of the bodies 5', to the normally inner face of the inner side portion of the stiff panel 2' and extend therefrom for distances substantially approximating the width of the back 3'. Each has an opening 19 therethrough. Thus, when the binder is in its open or display position said strips will receive the fingers 16^a of the adjacent bodies 5' therethrough and the strips will abut the adjacent inwardly disposed upper portions of said bodies in the manner illustrated by Figures 6 and 7. Consequently, the now upright stiff panel 1' will be interconnected with the inclined stiff panel 2' and afford a substantial easel back-rest.

To receive and confine the display cards 20 in their stacked relation on the stiff panel 2' a tray is provided to its inner face by fixedly mounting walls 21 on and adjacent its outer side and opposite ends (see Figure 6).

It is preferable, though not necessary, that the sizes of the cards 19 shall correspond and shall be such that they will be rather snugly yet loosely received in and by the aforesaid tray, this for obvious reasons.

In order that the cards 20 will be retained in their substantially upright and apposed display positions in the manner shown in Figure 7, the outer end portions of each of the flat stiff strips 18 are formed with angularly disposed flanges or lips 18'. Thus, as and when the display binder is in its easel-like display position, as shown in Figure 7, the cards 20 when turned or positioned in display positions, are, obviously, retained in such positions by means of said lips 18'. Moreover, as and when said cards are returned to their nested positions within the aforesaid tray, they will move or slide downwardly on the inclined back panel 2' and will lie outwardly of or beyond the angularly disposed lips 18'. Thereby, they will not interfere with or impede their turning to the sub-

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stantially upright and/or display positions, above described.

When the above described modified form of the invention is closed, as is shown in Figure 8, it will be seen that the cards 20 will be retained in nested relation within the tray constituted by the walls 21.

I claim:

1. A display binder, consisting of front and back panels, a back between the panels adjacent certain and corresponding ends thereof, the front panel being fixedly connected to one side of the back, the back panel being hinged to an opposite side of said back, a stiff plate fixed to the back panel extended beyond that side hinged to the back, the extended portion of said plate substantially approximating the distance between the sides of the back, and means on the front panel engageable at times with a portion of the plate whereby to limit the extent of hinged movement between the back panel, the back, and the front panel.

2. A display binder, consisting of front and back panels, a stiff back having depth and width positioned between the panels in proximity to certain and corresponding ends thereof, the front panel being fixedly connected to one side of the back, the back panel being hinged to an opposite side of the back and spaced from the front panel, a stiff plate fixed to the back panel extended beyond that side of the same which is hinged to the back, the extended portion of the plate substantially corresponding but being less than the width of the back, and means on the front panel engageable at times with a portion of the plate whereby to limit the extent of hinged movement between the back panel, the back, and the front panel.

3. A display binder, consisting of front and back panels, a stiff back between the panels adjacent certain and corresponding ends thereof, the back panel being hinged to one side of the back, the front panel being of a width substantially equaling the depth of the back and width of the back panel and being fixedly connected to an opposite side of the back in spaced relation to the back panel, a stiff plate fixed to the back panel extended beyond that side of the same which is hinged to the back, the extended portion of the plate substantially approximating but being less than the width of the back, and means on the front panel engageable at times with a portion of said plate whereby to limit the extent of hinged movement between the back panel, the back, and the front panel.

4. A display binder, consisting of front and back panels, a stiff back between the panels adjacent certain and corresponding ends thereof, the width of said front panel substantially approximating the depth of the back and width of the back panel and being fixedly joined to one side of the back, the back panel being hinged to an opposite side of said back in spaced relation to the front panel, a stiff extension from and contiguous with that portion of the back panel hinged to said back, said extension substantially approximating but being less than the width of the back, and means on the front panel engageable at times with a portion of said extension whereby to limit the amount of hinged movement between the back panel, the back, and the front panel.

5. A display binder, consisting of front and back panels and a back, said back panel being hinged to one side of said back at a point inwardly of its normally inner side, said front panel being fixedly connected to an opposite side of the back in spaced relation to the back panel, that portion of the back panel inwardly of its point of hinging to said back being of a width substantially approximating the width of the back but slightly less than the same, and means on said front panel engageable at times with that portion of the back panel inwardly of its hinging to said back whereby to limit the extent of hinged movement between the back panel, the back, and the front panel.

6. A display binder, consisting of front and back panels, a back between the panels in proximity to certain and corresponding ends thereof, the front panel being fixedly

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connected to one side of the back, the back panel being hinged to an opposite side of said back, a stiff extension fixedly carried by the back panel extended beyond that side hinged to the back, the extension substantially approximating the distance between the sides of the back, means on the front panel engageable at times with a portion of said extension whereby to limit the amount of hinged movement by the back panel, the back, and the front panel, and sheet engaging and restraining means carried on the normally inner face of said back panel spaced outwardly of its point of hinging to said back.

7. A display binder, consisting of front and back panels, a back between the panels in proximity to certain and corresponding ends thereof, the front panel being fixedly connected to one side of the back, the back panel being hinged to an opposite side of said back, said back panel having a stiff and inwardly disposed extension therefrom the width of which substantially approximates the distance between the sides of the back, and stop means fixedly mounted on the front panel engageable at times with a portion of said extension whereby to limit the amount of hinged movement between the back panel, the back, and the front panel.

8. A display binder, consisting of front and back panels, cross-sectionally angularly shaped stiff bodies positioned between and in proximity to certain and corresponding ends of said panels, the front panel being fixedly connected to certain of the sides of said bodies, the back panel being hinged to opposite sides of the bodies, said back panel having a stiff extension thereon disposed inwardly of and from that portion of the same hinged to said bodies, the width of said extension substantially approximating but being less than the distance between the sides of said bodies, and means carried by certain of the sides of said bodies engageable at times with a portion of said extension whereby to limit the extent of hinged movement between the back panel, the bodies, and the front panel.

9. A display binder, consisting of relatively opposed front and back panels, a stiff back the depth of which is greater than the thickness of the back panel, the front panel being fixedly connected to one side of the back and extended therefrom, and the back being movable therewith, the back panel being hinged to the opposite side of the back in spaced relation to the fixed connection of the front panel to its first mentioned side, an extension fixedly carried by the back panel adjacent its hinging to the back and disposed inwardly and beyond the same, and means in fixed relation to the front panel and said first mentioned side of the back engageable at times with the extension whereby to limit the amount of hinged movement between the front panel, and back, and the back panel.

10. A display binder, consisting of relatively opposed front and back panels, a stiff back the depth of which is greater than the thickness of the back panel, the front panel being fixedly connected to one side of the back and extended therefrom, and the back being movable therewith, the back panel being hinged to the opposite side of the back in spaced relation to the fixed connection of the front panel to its first mentioned side, an extension fixedly carried by the back panel adjacent its hinging to the back and disposed inwardly and beyond the same, means in fixed relation to the front panel and said first mentioned side of the back engageable at times with the extension whereby to limit the amount of hinged movement between the front panel, and back, and the back panel, and binder means carried on the normally inner face of said back panel substantially parallel to said back and in outwardly spaced relation thereto.

11. A display binder, consisting of relatively opposed front and back panels, a substantially U-shaped body the depth of which is greater than the thickness of the back panel, the front panel being fixedly connected to one side of the body and extended therefrom, and the body

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being movable therewith, the back panel being hinged to the opposite side of the body in spaced relation to the fixed connection of the front panel to its first mentioned side, an extension fixedly carried by the back panel adjacent its hinging to the body side and disposed inwardly and beyond the same, and means in fixed relation to the front panel and the first mentioned side of the body engageable at times with the extension whereby to limit the amount of hinged movement between the front panel and body, and the back panel.

12. A display binder, consisting of front and back panels, a back between the panels in proximity to certain and corresponding sides thereof, the front panel being fixedly connected to one side of the back, the back panel being hinged to an opposite side of said back, said back panel having a stiff and inwardly disposed extension therefrom the width of which substantially approximates the distance between the sides of the back, stop means fixedly mounted on the front panel engageable at times with a portion of said extension whereby to limit the extent of hinged movement between the front panel and back, and the front panel, and a tray carried by and on the normally inner face of said back panel having an open inner side.

13. A display binder, consisting of relatively opposed front and back panels, a stiff back the depth of which is greater than the thickness of the back panel, the front panel being fixedly connected to one side of the back and extended therefrom, and the back being movable therewith, the back panel being hinged to the opposite side of the back in spaced relation to the fixed connection of the front panel to its first mentioned side, an extension fixedly carried by the back panel in proximity to its point of hinging to the back and disposed inwardly and beyond the same, means in fixed relation to the front panel and said first mentioned side of the back engageable at times with the extension whereby to limit the amount of hinged movement between the front panel

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and back, and the back panel, and inwardly and angularly disposed walls carried by the opposite ends and outer side of said back panel.

14. A display binder, consisting of stiff front and back panels, a stiff back between the panels, said back having an angularly disposed stiff side wall the free side of which is hingedly connected to the adjacent and inner side of the back panel, that side of the front panel adjacent the remaining side of the back being fixedly connected to the latter and collectively movable therewith, motion stop means mounted in fixed relation to the normally inner face of the front panel above the bottom of the stiff back, means on that side of the back panel hingedly connected to the stiff back side wall engageable with said motion stop means at a predetermined point of outward hinged movement between the back panel and the stiff back and front panel, and binder means carried on the inner face of the back panel in spaced relation to its inner side.

15. A display binder, consisting of stiff front and back panels, a stiff back between the panels, said back having an angularly disposed stiff side wall the free side of which is hingedly connected to the adjacent and inner side of the back panel, that side of the front panel adjacent the remaining side of the back being fixedly connected to the latter and collectively movable therewith, motion stop means mounted in fixed relation to the normally inner face of the front panel above the bottom of the stiff back, means on that side of the back panel hingedly connected to the stiff back side wall engageable with said motion stop means at a predetermined point of outward hinged movement between the back panel and the stiff back and front panel, and walls carried by and on the normally inner face of the back panel in proximity to the outer side and ends thereof.

No references cited.