Aug. 10, 1943. A. M. MARTIN 2,326,241

VISIBLE RECORDS DEVICE

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Fig. 1

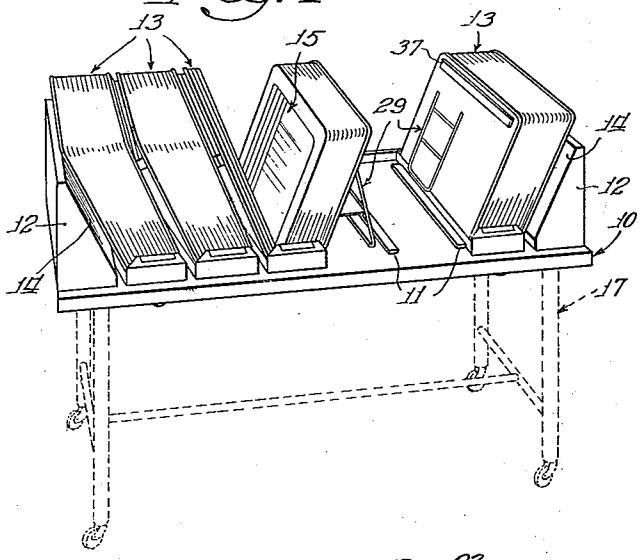


Fig. 1a

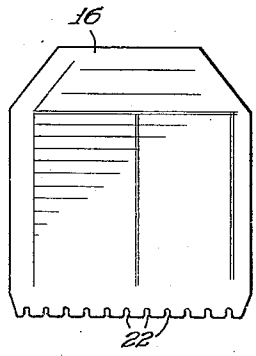


Fig. 2

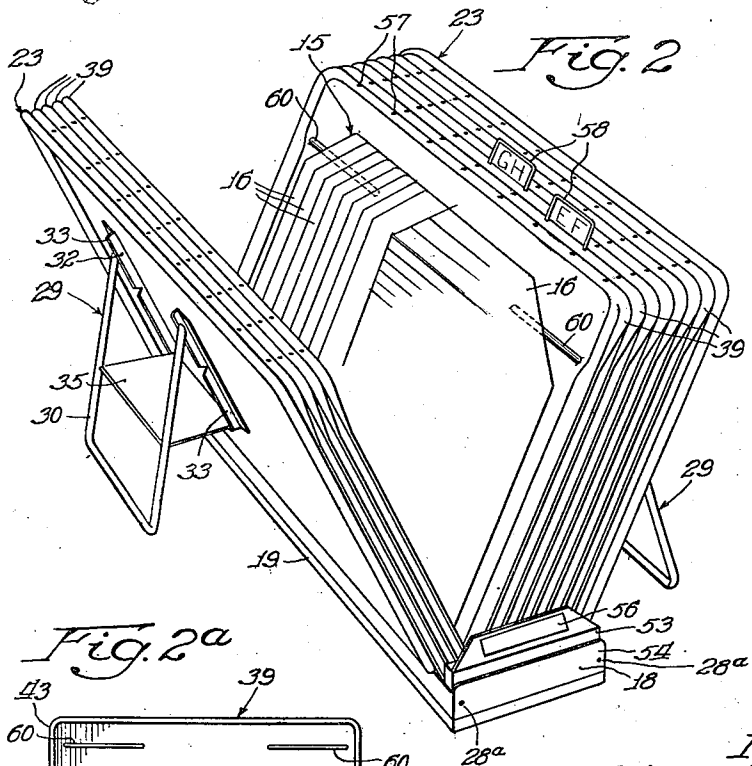
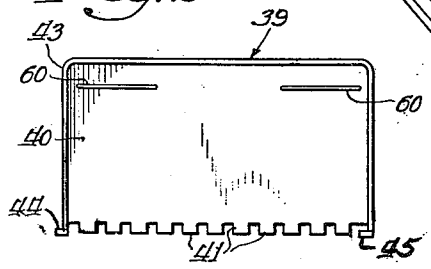


Fig. 2a



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Fig. 3

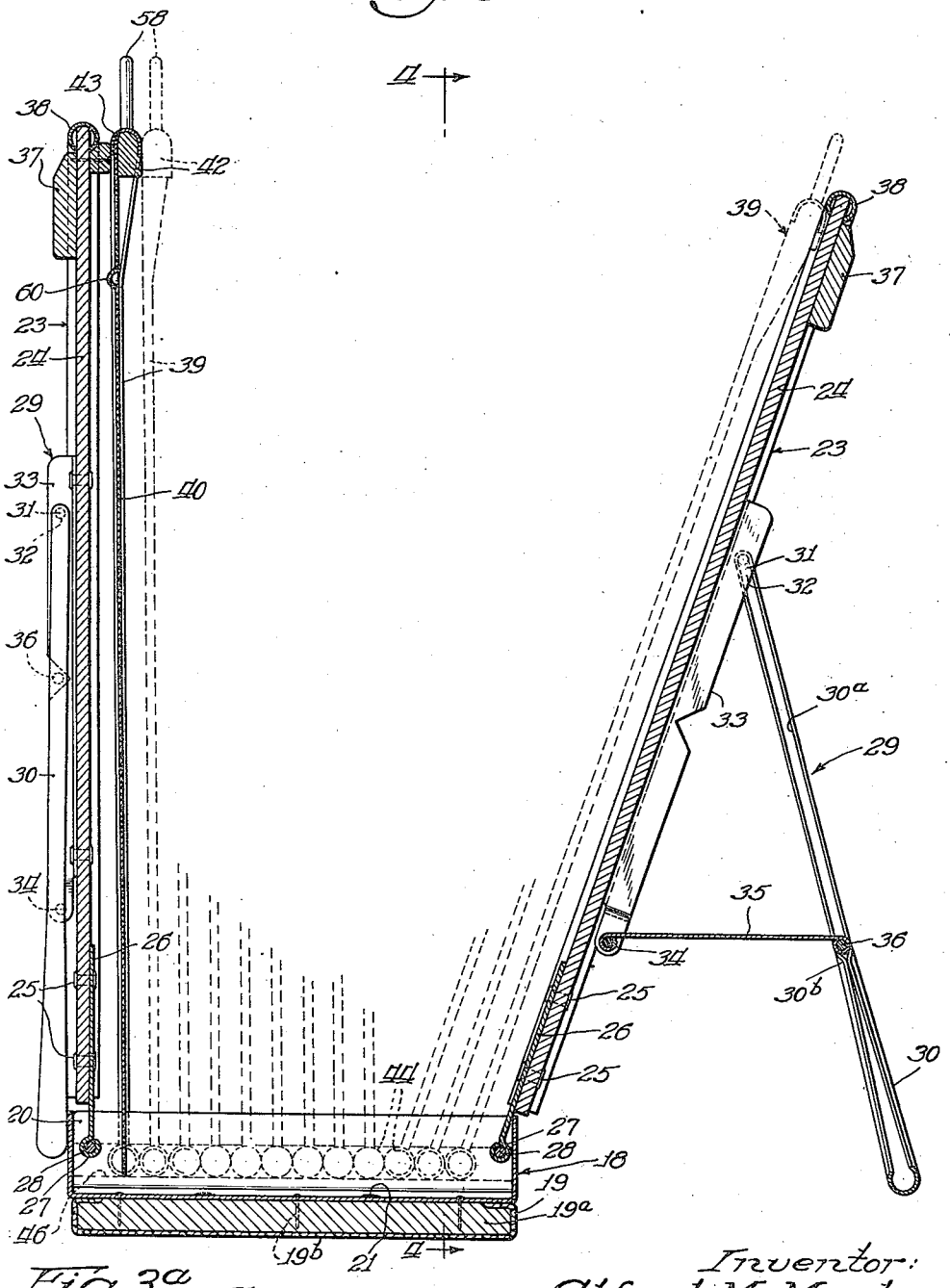
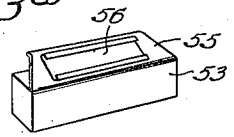


Fig. 3a



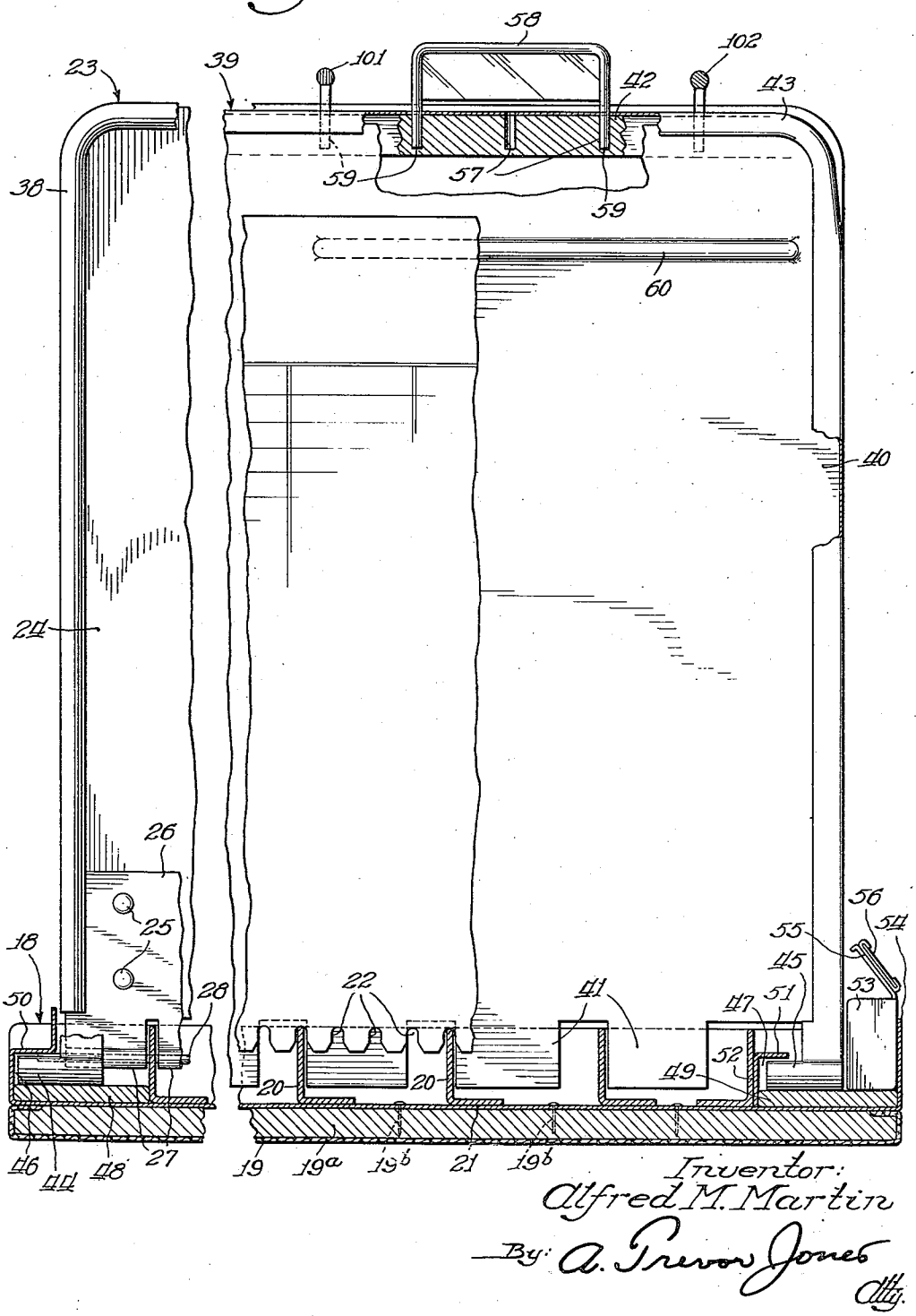
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Fig. 4



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2,326,241

UNITED STATES PATENT OFFICE

2,326,241

VISIBLE RECORDS DEVICE

Alfred M. Martin, Park Ridge, Ill.

Application March 10, 1941, Serial No. 382,499

7 Claims. (Cl. 129—16)

This invention relates to the visible records devices as used in offices and the like for accounting, billing and other informative data to be kept on loose leaves or cards, all of which I have referred to generally as leaves, and in which the leaves have an individual place in echelon for visibility and are at the same time readily removable and replaceable for purposes of machine posting, for example.

In my Patent No. 1,469,798 I disclosed a filing device in which a plurality of series of loose leaves might be so arranged in echelon on transversely running guides, the leaves being notched along the bottom for engagement with the guides and with provision for indicating the absence of a leaf from the series and also plate-like supports against which the leaves might lean, the plate-like supports serving also as partitions between the series of leaves and having thickened edges providing spacing means between the partitions to insure room for the leaves.

In the present invention I have disclosed an improved form of partition and means for retaining it in the file, and have also disclosed a plurality of such files housed together in a multiple reference rack on a table, for example, which may be mounted on wheels so as to be readily rolled alongside a posting typewriter. Moreover, in accordance with the present invention, the files may be removed from the rack and have provision for individual stability.

Other objects and advantages will be apparent from the following description, taken together with the accompanying drawings, in which—

Figure 1 is a perspective view of a multiple reference rack in accordance with my present invention, adapted for holding six files, two of which are absent from the rack;

Figure 1*a* shows an illustrative loose leaf for use with my invention;

Figure 2 is an enlarged perspective view of one of the files shown in Fig. 1, and showing means for effecting individual stability of the file in accordance with the present invention;

Figure 2*a* is a separated view of one of the partition-supports constructed in accordance with the present invention;

Figure 3 is a cross-section of the file of Fig. 2 somewhat enlarged;

Figure 3*a* is a perspective view of a key block used with my invention; and

Figure 4 is a longitudinal section taken on the line 4—4 of Fig. 3.

Referring in detail to the illustrative construction shown in the drawings, the rack 10 may be conveniently made of sheet metal having sections or stalls defined by division strips 11 and end wings 12 for positioning, in this case, six of the files 13. Because the end wings 12 have slanting surfaces 14 forming the end supporting surfaces of the rack for the files 13, any file may be opened while the rack is full to disclose one of the series of loose leaves such as 15, one of which leaves may be 16. The rack 10 may be mounted, for example, as on a truck 17 by which it may be rolled to a convenient position.

It will be understood that each of the individual files 13 may accommodate a selected group of accounts, for example, and that any one of the files may be removed from the rack 10 and may be set up as a single unit, for example, as shown in Fig. 2. The individual file consists as shown of a normally horizontal shallow holder 18 conveniently formed of sheet metal and covered on its bottom with fabric or the like as at 19 superposed on a facing strip of wood 19*a* secured as by tacks 19*b* to the holder 18 to improve the appearance and also to prevent scratching of the desk or the like upon which the file may be set. Running cross-wise, that is, the short direction of the holder 18, are a series of guide bars 20 (Fig. 4) in the form of angle irons welded as at 21 to the inner bottom surface of the holder 18, and spaced apart lengthwise of the holder 18 regularly to provide guide bars for engaging notches 22 (Figs. 1*a* and 4) on the loose leaves 16 to arrange these leaves in a series 15 in echelon, as best shown in Fig. 2, with a margin of each leaf in the series visible for indexing purposes as was described in my Patent No. 1,469,798.

Along each long side of the holder 18 is a member which may be called a cover 23 and which, as best shown in Fig. 3, may comprise a heavy fibre board 24 to the inner lower margin of which is riveted as at 25 a hinge plate 26 bent to form the hinge sleeve 27 through which passes the hinge pin 28. As will be seen from Fig. 4, the hinge sleeve 27 is formed in sections spaced apart sufficiently to miss the guide bars 20, and the hinge pin 28 is inserted in perforations 28*a* (Fig. 2) and passes through appropriate registering perforations in the guide bars 20 as well as through the hinge sleeve 27, being suitably anchored at each end of the holder 18 to retain the covers 23 in hinged relation thereto.

Each of the covers 23, in accordance with the present invention, carries a self acting prop 29 to support the file when it is standing alone and

is opened, as shown in Fig. 2, and prevent its capsizing. Desirably the props 29 are staggered at opposite ends of the covers 23 so that the prop of one file will not interfere with the prop of an adjacent file. The prop 29 comprises, as here shown, a metal inverted loop 30, each end of which is hinged as by a hinge lug 31 (Fig. 3) on the member 30 received in holes 32 in brackets 33 suitably secured to the exterior face of the cover 23. At the lower end of the brackets 33 is hinged as by hinge pin 34 a gravity piece 35 which is here shown as a metal plate and which has at its outer end a traveling rotatable rod 36, the ends of which ride in the inwardly facing channels 30a of the loop member 30. When the cover is inclined outwardly the weighted gravity piece 35 will also fall outwardly on its hinge 34 and its traveling rod 36 will slide down the loop 30 forcing this outwardly to a bracing position as shown in the drawings. The gravity piece 35 by reason of its relatively large size and relative weight constitutes a tripping means as well as an extension member. The channel 30a may be pinched as at 30b to limit downward movement of the antifriction rod 36 and maintain the gravity piece 35 in extended or horizontal position until it is manually raised. As here shown, the brackets 33 extend downwardly between the hinges 31 and 34 and between the metal plate 35 and the inverted loop 30, so that the plate is received between the two brackets 33 when the plate is folded parallel with the cover, the brackets being cut away in somewhat V-shape intermediate their lengths to receive the traveling rod 36 to conserve space. A strip 37 which may be of wood or the like along the outer top edge of the cover protects the prop 29, and the cover edge is further protected by a metal binding 38.

My improved form of partition-support is shown at 39 and, as best shown in Fig. 4, may comprise a fibre plate 40 of approximately the same area as the covers 23 and having sections 41 along its lower edge which fit in between the guide bars 20, the members 39 spanning the guide bars. Along its top I desirably widen the partition-support transversely as by a wood strip 42 held thereto in this instance by the metal binding 43 which desirably finishes not only the top edge of the partition-support but also the two ends, and this binding is continued downwardly at each end to desirably terminate in the cylindrical metal trunnions 44 and 45 cooperatively extending in the same direction and not in opposite directions. It will be understood from the drawings that these trunnions are received in transverse channels 46 and 47, respectively, at each end of the holder 18, extending parallel with the guide bars 20 and are slidable therealong in contact one with another. These channels are advantageously floored by wood strips 48 and 49 respectively, and each of the channels 46 and 47 has an overhanging wall under which the trunnions 44 and 45 are adapted to engage to retain the partition support in the holder. At one end (left side of Fig. 4) the channel 46 has the overhanging wall 50 formed by turning inwardly the outer end wall of the holder, spaced above the floor strip 48 and extending partially thereover just sufficiently to receive one end of the trunnion 44 on the strip and beneath the overhanging wall 50 in rotatable contact therewith. At the other end (right-hand end of Fig. 4) an overhanging wall 51 is provided by an angle member similarly located with respect to the wood strip 49 and conveniently welded as at 52 to one of the guide bars 20. When the partition-support 39 is inserted in the holder it is placed with its trunnions in the channels, which are wide enough to one side of the overhanging walls for this purpose and then moved to the left in Fig. 4 to engage the trunnions 44 and 45 under the overhanging walls 50 and 51, and when all of the partition-supports have been so located they are held from moving to the right in Fig. 4 by a key block 53 which, filling as it does the space between the ends of the partition-supports and the end wall 54 of the holder, prevents the partition-supports from being removed from the holder until this key block is first removed. The block 53 may have an inclined face 55 which may have a space for a name plate 56 signifying the character of the contents of the particular file. The thickness vertically of the file of the wood strips 48—49 may be varied to suit trunnions of different diameters, thus rendering the device further adaptable.

The widened tops of the partition-supports, as already described, readily provide for vertical holes 57 in which index tabs 58 may have the legs of their frames inserted as at 59 (Fig. 4) there being enough of these holes spaced along the top so that these tabs may be selectively located to accomplish their function as staggered alphabetical index tabs as here shown, or for other subject designation as desired.

Another result of providing the strips 42 to widen the top of the partition-support is that these strips provide an overhang which, as best shown in Fig. 3, thus space the partition-supports apart to allow room for the series of loose leaves 15 between each pair of partition-supports, and protect the upper edges of these loose leaves which might otherwise be susceptible to exposure and deformation. The overhangs of the strips 42 prevent the leaves from working out, even though they are not bound in.

On their opposite face the partition-supports advantageously are longitudinally ribbed at their ends as at 60 to hold the end leaves slightly away from the face of the partition-support where the series of leaves is thin, and thus make it easier to grasp the leaves when desired. In the middle of the series where the number of leaves overlapping is greatest, the rib 60 may be discontinued.

It will be understood that each file 13 may be closed entirely somewhat like a book with its cover 23 standing straight up as shown at the left-hand side of Fig. 3. When this is done, the gravity member 35 may be raised to lie flat against the cover with the loop 30 also lying against the cover. This self acting prop 29 will remain in this inactive position until the cover is again caused to lean outwardly as shown at the right-hand side of Fig. 3, whereupon the prop will again come into play as shown, by the loop 30 reaching outwardly urged and held by the gravity member 35.

The holes 57 also readily lend themselves to signal peg system or other short projecting members of variegated colors, if desired, as is well known in the art. For example, if in one group there is an account whose credit bears particular watching a peg of red color such as 101 may be inserted in one of the holes 57 in the partition-support for that group; if in the same or another group there is another account which deserves particular attention for some other reason, a green peg 102, for example, might be inserted

in one of the holes 57 in the partition support for that group, and so on (Fig. 4).

It will be understood that the trunnions 44 and 45 being desirably cylindrical provide both spacing means to afford room for the leaves 15 and also pivots for the partition-supports themselves. Moreover, as so constructed and arranged, the pivot point of the trunnions is relatively close to the upper edges of the guide bars 20 upon which the leaves 16 rest, so that when the partition supports are swung forwardly or rearwardly to disclose a particular series of leaves there is desirably practically no sliding movement of the leaves on the guide bars. This substantial absence of any sliding movement minimizes materially wear on the bottom notched edges of the loose leaves. It will be appreciated that these would be otherwise subject to considerable damage over a course of time by constant usage if the partition supports were pivoted a considerable distance relatively below the upper edges of the guide bars 20, the loose leaves being then forced backwards and forwards on the guide bars to accommodate the arc of swing of the partition supports. This undesirable arc of swing has been practically eliminated by the construction here disclosed.

As clearly shown in the drawings, the overhangs 42 are advantageously at one side only of the partition supports, and at the rear side thereof in each case, looking at the file in its position in Fig. 2 which is the position commonly occupied by the file with respect to the user when the file is in use. Thus, the overhang of the partition support for the series of leaves 15, for example, is on the opposite side of the partition support from this particular series of leaves and thus does not interfere with ready manual engagement by the user of an upper edge of one or more of the leaves 16. In other words, the user does not have to dig under the overhang to grasp a leaf. At the same time, the overhang protects the series of leaves lying aginst the partition support next rearwardly to the partition support against which the series of leaves 15 lies.

Manifestly, the invention is not limited to details of construction shown for purposes of illustration. Furthermore, it is not essential that all features of the invention be used conjointly, as various combinations and sub-combinations may be employed.

Subject-matter not here claimed is claimed in my co-pending divisional application, Serial No. 471,549, filed January 7, 1943.

What I here claim is:

1. In a visible records device which comprises a normally horizontal base-like holder having a plurality of substantially parallel transverse card engaging guides, and a pair of covers hinged along each side of said holder, that improvement therein which comprises a self-acting prop carried by each cover, said prop in one position lying against the face of said cover but being adapted to reach outwardly therefrom when a cover is caused to lean outwardly to support the device from capsizing, said prop comprising an inverted loop having inwardly facing channels hinged to the cover and a weighted member in the form of a plate also hinged to the cover below the hinge of said loop and carrying a rod having limited free traveling engagement in the channels of said loop whereby to cause said loop to reach limitedly outwardly when said gravity member falls under the influence of gravity, the channel walls of the channels of the loop being pinched together to limit movement of the traveling rod, the cover carrying on its face a pair of brackets to which both the loop and the plate are hinged, the brackets extending downwardly on the face of the cover between the plate and the loop and receiving the plate therebetween when the plate is folded to lie parallel to the cover, the brackets being cut away to receive the traveling rod which plays in the channels of the loop.

2. In a visible records device which comprises a normally horizontal base-like holder having a plurality of substantially parallel transverse card engaging guides, and a pair of covers hinged along each side of said holder, that improvement therein which comprises a self-acting prop carried by each cover, said prop in one position lying against the face of said cover but being adapted to reach outwardly therefrom when a cover is caused to lean outwardly to support the device from capsizing, said prop comprising an inverted metal loop hinged at its free ends to the cover and a weighted member in the form of a plate hingedly carried by the loop and cover below the hinge of said loop and adapted to lie either parallel with the cover or under the influence of gravity transverse thereto, the cover carrying on its face a pair of brackets to which the loop is hinged, said brackets being extended downwardly to receive the plate therebetween when the plate is folded to lie parallel to the cover.

3. In a visible records device which comprises a multiple reference rack, a plurality of files carried on said rack, division strips on the file supporting face of the rack providing stalls for locating files on said rack readily removable therefrom said rack having sloping end walls adapted to engage covers of tilted adjacent files, each said file comprising a normally horizontal holder having transverse guide bars therein for receiving thereon notched loose leaves, and a pair of hinged covers for each holder, that improvement therein including a weighted gravity actuated prop carried by each cover above the division strips and adapted to straddle a strip when a cover is opened and an adjacent file is absent, whereby the files may be closed or opened somewhat as a book with or without removal from said rack while maintaining the covers intermediate between vertical and horizontal position whether or not all of the files receivable by the rack are present therein, said prop including a plate hinged to the cover at one end and free to fall at its other end under the influence of gravity, and means including a pair of legs limiting the falling movement of the plate to a position extending between said legs and said cover.

4. In a visible records device which comprises a multiple reference rack, a plurality of files carried on said rack, division strips on the file supporting face of the rack providing stalls for locating files on said rack readily removable therefrom, said rack having sloping end walls adapted to engage covers of tilted adjacent files, each said file comprising a normally horizontal holder having transverse guide bars therein for receiving thereon notched loose leaves, and a pair of hinged covers for each holder, that improvement therein including a weighted gravity actuated prop carried by each cover above the division strips and adapted to straddle a strip when a cover is opened and an adjacent file is absent, the props being staggered on opposite covers of the various files whereby the files may be closed or opened somewhat as a book with or without removal from said rack while maintaining the covers in-

termediate between vertical and horizontal position whether or not all of the files receivable by the rack are present therein.

5. In a visible records device which comprises a multiple reference rack, a plurality of files carried on said rack readily removable therefrom, said rack having sloping end walls adapted to engage covers of tilted adjacent files, each said file comprising a normally horizontal holder having transverse bars therein for engaging loose leaves, and a pair of hinged covers for each holder, that improvement therein including a weighted gravity actuated prop carried by each cover for maintaining the covers intermediate between vertical and horizontal position whether or not all of the files receivable by the rack are present therein, said props being staggered whereby the prop on one file is spaced longitudinally of a cover with respect to the prop on a next adjacent file to prevent interference of the props.

6. In a visible records device which comprises a normally horizontal base-like holder having a plurality of substantially parallel transverse card engaging guides, and a pair of covers hinged along each side of said holder, that improvement therein which comprises a self-acting prop carried by each cover, said prop in one position lying against the face of said cover but being adapted to reach outwardly therefrom when a cover is caused to lean outwardly to support the device from capsizing, said prop comprising a weighted member in the form of a plate hinged to the cover at one end and free to fall at its other end under the influence of gravity, and means including a pair of legs limiting the falling movement of the plate to a position extending between said legs and said cover.

7. In a visible records device which comprises a multiple reference rack, a plurality of files carried on said rack and readily removable therefrom, each file including a normally horizontal base-like holder having a plurality of substantially parallel transverse card engaging guides, and a pair of covers hinged along each side of said holder, that improvement therein which comprises a self-acting prop carried by each cover, each prop being retractible independently of the other prop to permit the plurality of files to be closely associated on said rack without interference by said props and each prop including a rigid leg element hingedly carried at its upper end by the cover and adapted to lie substantially parallel with and against the face of the cover but being adapted also to reach outwardly therefrom when the file is removed from said rack and a cover is caused to lean outwardly, to support the holder from capsizing, a tripping member in the form of a relatively heavy plate secured at one end to the cover and at its other end connected to the leg element and slidably adjustable therebetween to accommodate retraction and extension of the leg element, anti-friction means operatively associated with the tripping member and leg element whereby the tripping member is adapted and readily normally biased to extend between the cover and leg element below the place where the leg element is hinged to the cover to urge the leg element outwardly, and interengaging means between the tripping member and leg element limiting outward movement of the leg element with respect to the cover.

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