

[54] **PILFER PROOF DISPLAY UNIT FOR PACK MERCHANDISE**

[76] Inventor: **Jay Manheim**, 860 United Nations Plaza, New York, N.Y. 10017

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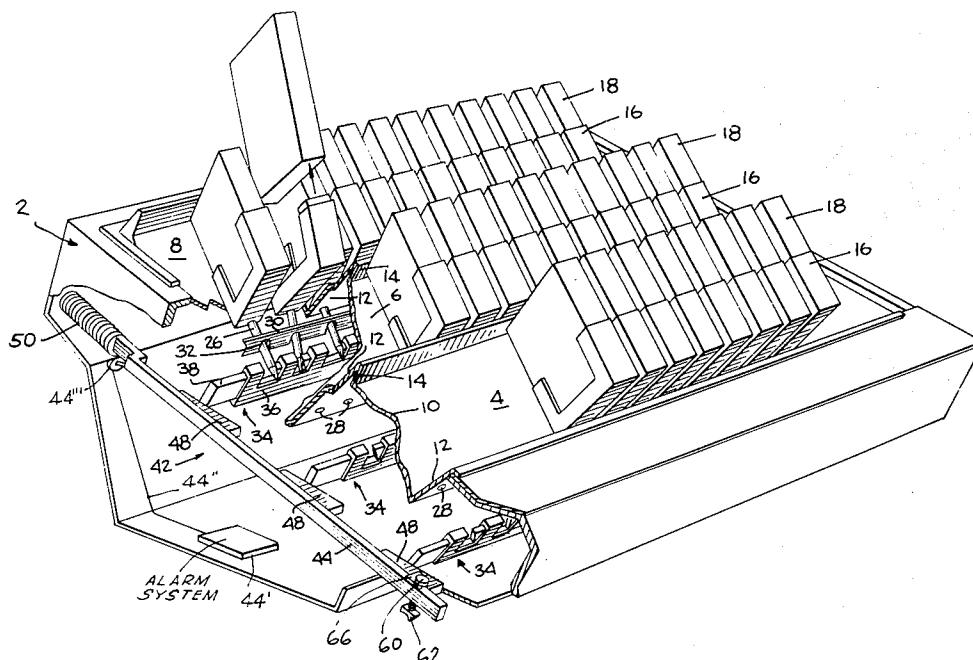
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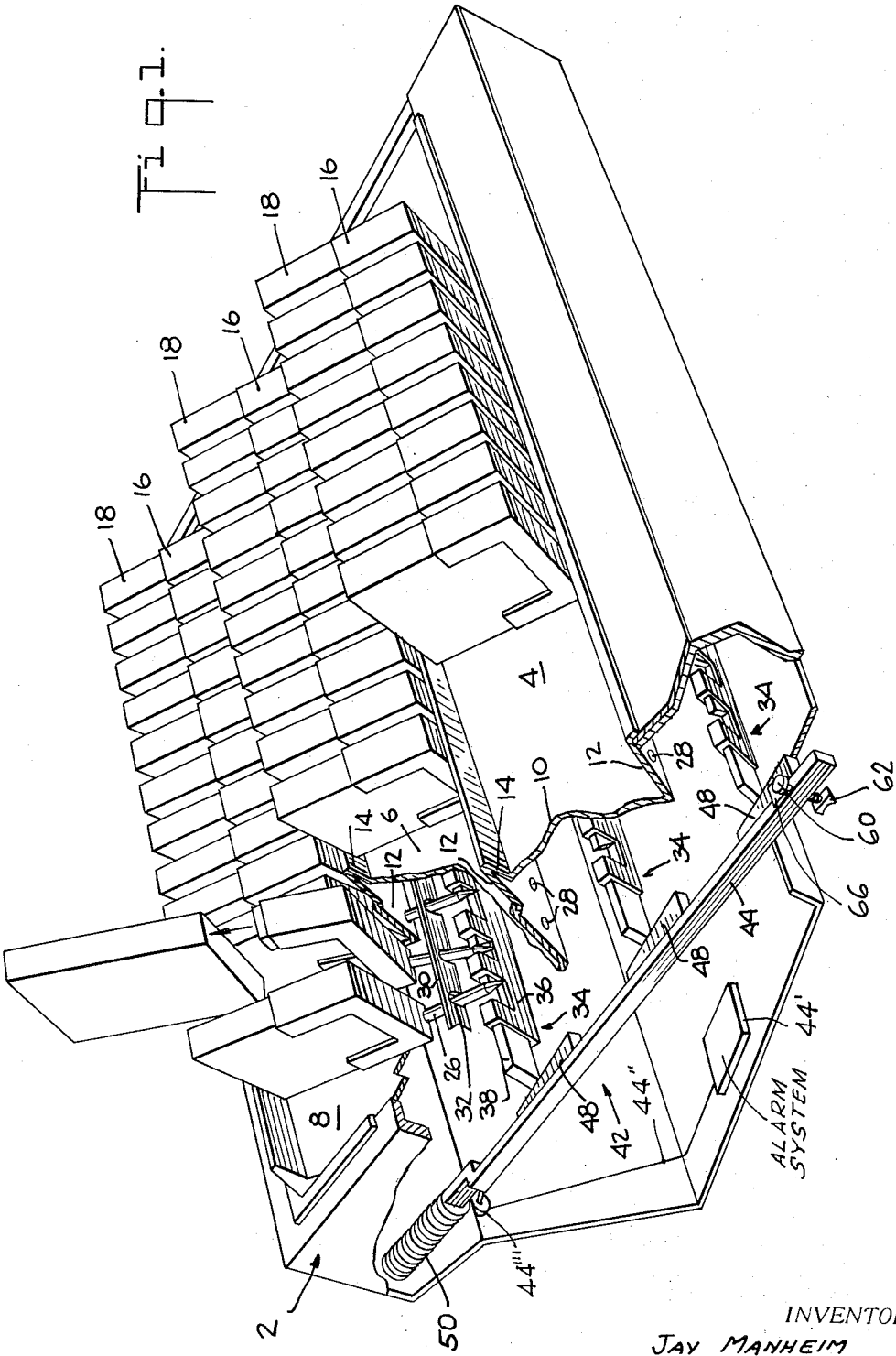
Primary Examiner—Ramon S. Britts
Assistant Examiner—Thomas J. Holko
Attorney, Agent, or Firm—Laurence H. Pretty

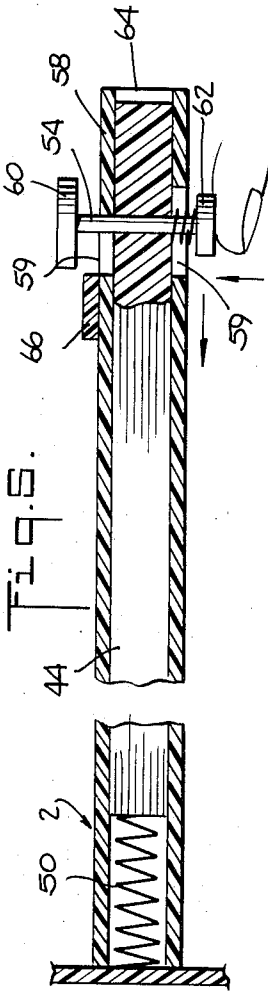
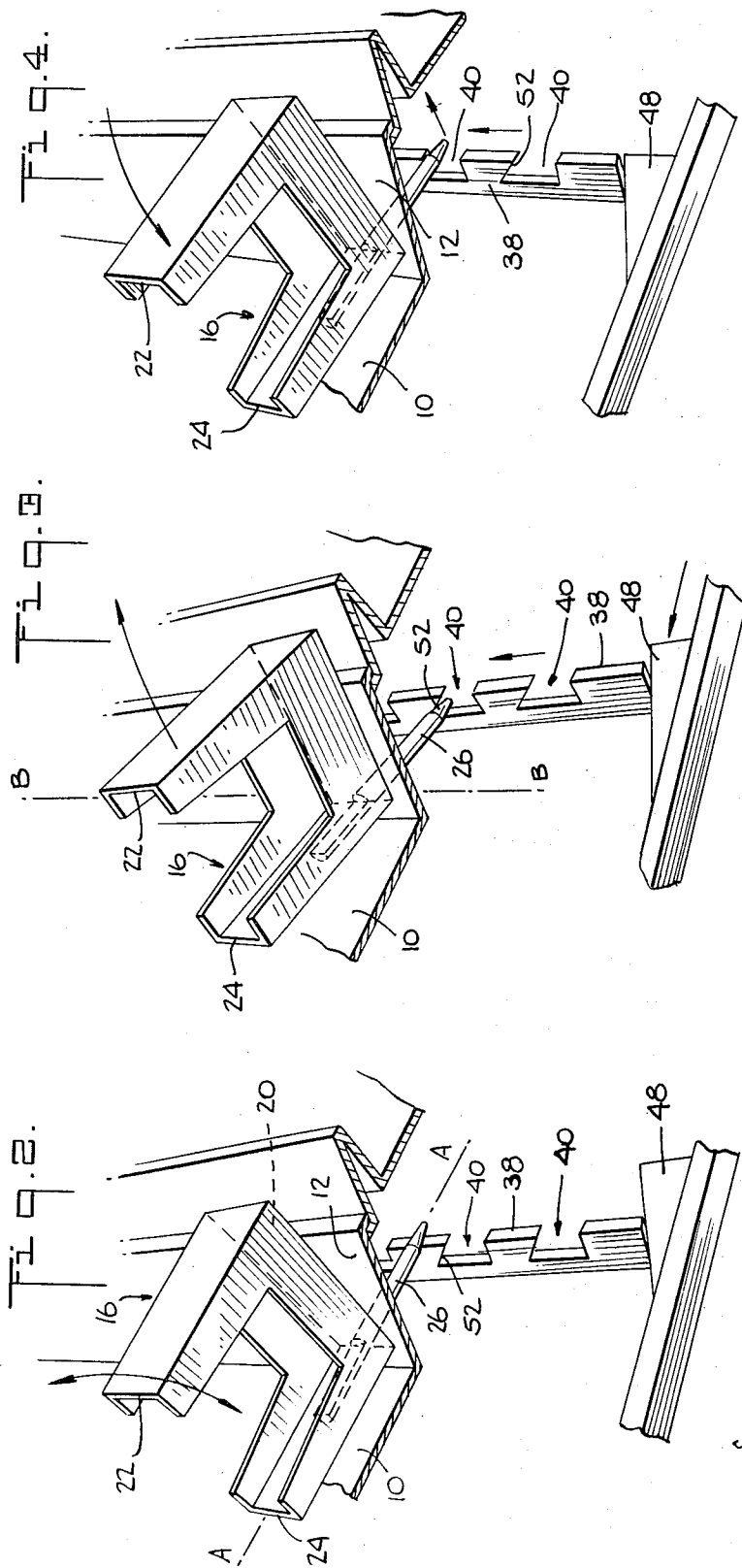
[57] **ABSTRACT**

A display unit for merchandise in packs which is intended to prevent pilfering. The unit includes a housing for supporting a plurality of holders. Each holder is adapted to hold one of the packs and to permit its removal upon movement of the pack in a predetermined path relative to the holder. Each holder is connected with the housing for pivoting motion about a generally horizontal pivot axis, to facilitate browsing. Each pack is normally prevented from removal from its holder by a limit member connected with the housing projecting into the predetermined path of the pack from its holder when the holder is in a secured, first position, which limits movement of the pack to less than that necessary for removal. Each holder can, however, be tilted about a tilt axis generally perpendicular to the pivot axis to a released, second position in which the predetermined path of removal of the pack relative to the holder is moved out of the way of the limit member so that the pack can be removed. Tilting of the holders to the released position is normally prevented by a selectively operable, concealed keeper hidden within the housing.

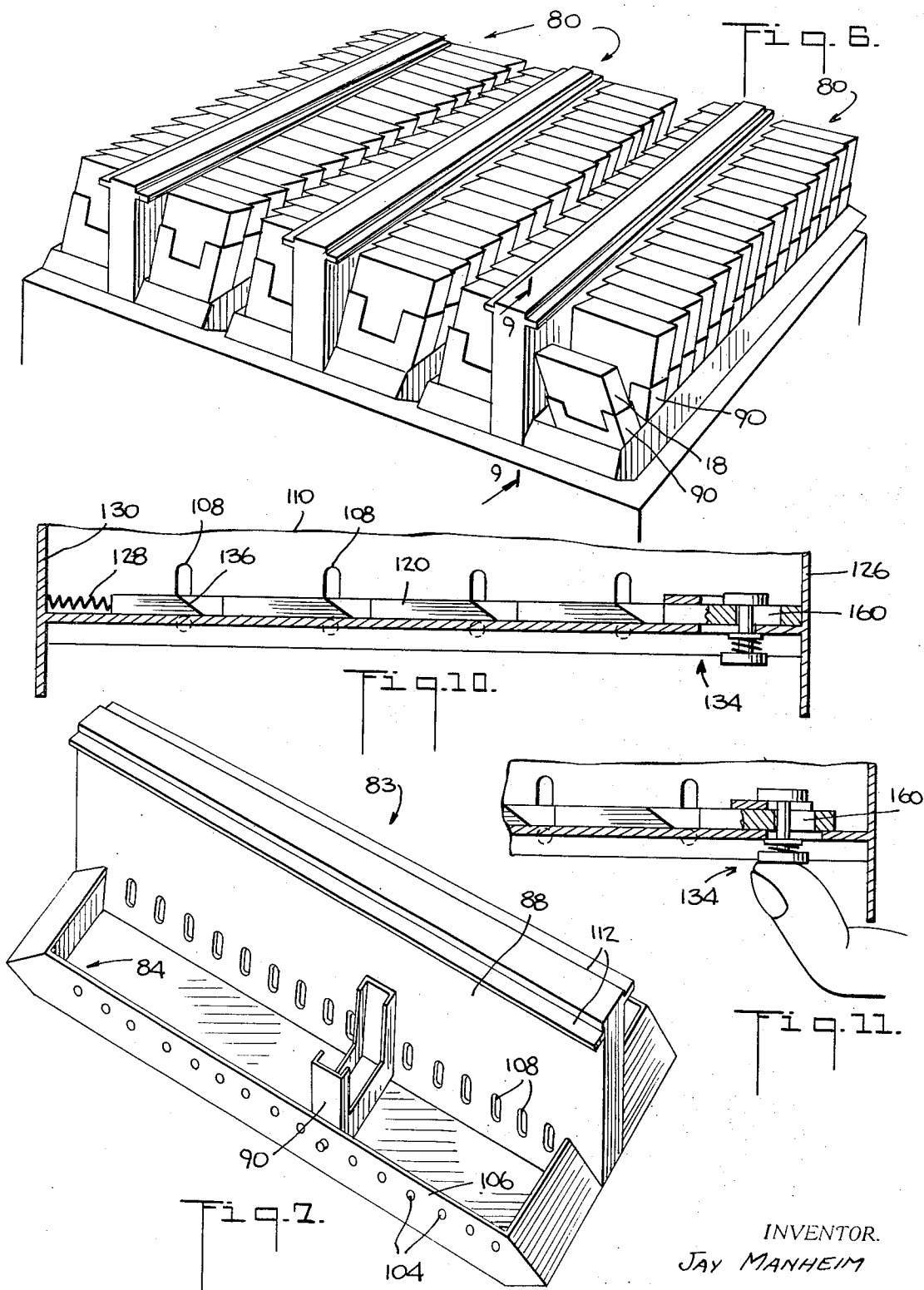
15 Claims, 12 Drawing Figures



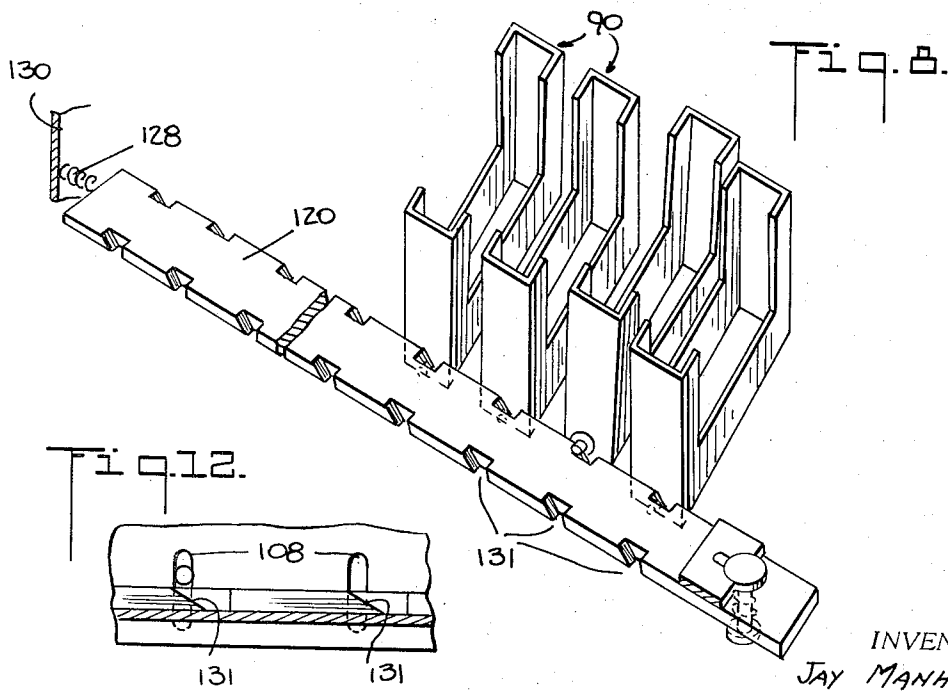
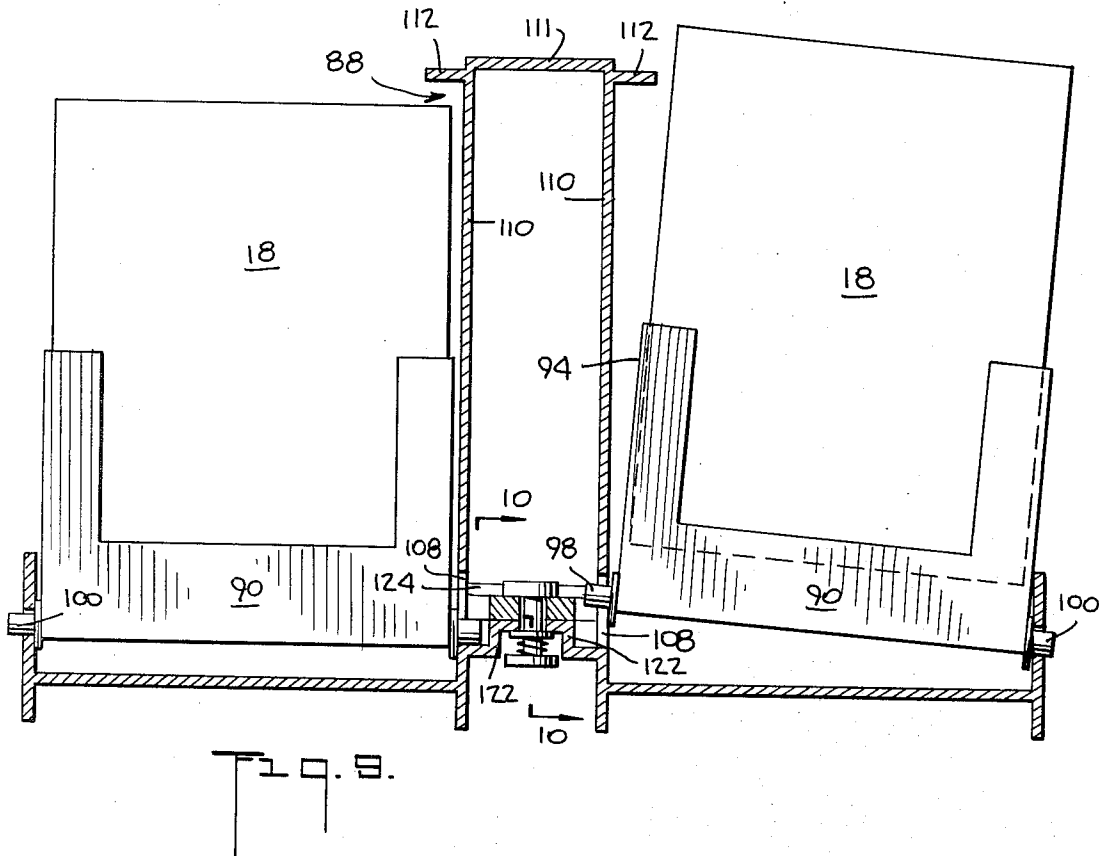




INVENTOR.
JAY MANHEIM



INVENTOR.
JAY MANHEIM



INVENTOR.
JAY MANHEIM

PILFER PROOF DISPLAY UNIT FOR PACK MERCHANDISE

BACKGROUND OF THE INVENTION

This invention relates to a display unit for pack merchandise, (e.g. packaged tape cartridges and the like) which is intended to facilitate browsing through the merchandise while minimizing the opportunity for pilferage.

As is well known many items are packaged for merchandising purposes in rigid rectangular packs. For example tape cartridges and cassettes are usually packaged for sale in this manner as are many other, very diverse items. In displaying taped cartridges or cassettes for sale the retailer may find it necessary to display a large number of packs in such a manner that prospective customers may easily browse through them to make their selection. At the same time the retailer wishes to insure that pilferage of the packs is made as difficult as possible.

One prior display case for tape cartridge packs includes a rectangular box having a hinged transparent lid. Mounted in parallel, transverse rows within the box are a plurality of holders for supporting the packs, each holder comprising a vertical wall with a U-shaped channel along its lower edge for receiving several of the packs in side-by-side relation. Each holder is hinged to the sidewalls of the box for pivoting motion about a horizontal transverse axis. The holders are provided with individual levers by which any selected holder can be pivoted forwardly or rearwardly by a viewer standing in front of the box to expose the tape cartridges supported by that holder for viewing through the transparent lid. Pilferage is prevented by providing a latch which holds the transparent lid closed until released by the retailer.

Although generally satisfactory, certain disadvantages may be associated with a display unit of the type just described. For example, because all the packs are kept in the box beneath the normally locked transparent lid, the prospective customer is unable to get as close to the merchandise to inspect it as he may wish (particularly a customer with poor reading vision). In addition the prospective customer cannot see the reverse side of each pack, which may also contain information in which he is interested, because it is held flush against the wall portion of the holder. There is also the possibility that a really determined vandal may make an opening in the transparent lid and make off with packs before he is detected.

Another prior device for displaying merchandise for sale comprises a horizontal base having a plurality of spaced vertical slots extending through it for receiving the lower ends of a plurality of holders, each adapted to hold one item of merchandise. A concealed keeper bar slidably mounted within the base is provided with arms which extend across the slots passing through aligned openings in the lower portions of the holders to prevent the holders being removed vertically from the slots. The keeper bar may be slid longitudinally by one knowing of its presence (e.g. the retailer) to move the arms out of engagement with the holders so that each may be selectively withdrawn. The keeper bar is returnable to the engaged position by a bias spring.

Such a device would not, however, be suitable for displaying merchandise packs requiring that they be mounted pivotally to enable the prospective customer

to browse through numerous of the packs, reading information on the front and sometimes the rear of each, to make his selection. This is because the construction described, with the vertical slot and holder construction substantially precludes forward and rear pivoting motion of the holders.

SUMMARY OF THE INVENTION

The present invention provides a display unit for merchandise retailed in packs, which obviates or minimizes problems of the type previously described. In particular it provides a display unit which facilitates easy browsing through a plurality of the packs by a prospective customer, while minimizing the opportunity for pilferage of the packs displayed.

In more detail the invention provides a display unit for merchandise packaged in rigid rectangular packs of generally uniform dimension (e.g. tape cartridges or cassettes in the form in which they are commonly packaged for merchandising). Although the invention will be particularly discussed with respect to the merchandising of tape cartridges and cassettes, it will be understood that it is not to be considered so limited, but is of general applicability to merchandise retailed in rigid rectangular packs regardless of whatever particular contents the packs may contain.

A display unit, according to the invention, includes a housing in which at least one holder is mounted. The holder is adapted to hold one of the packs to permit removal of the pack from the holder only upon movement of the pack along a predetermined path relative to the holder. The holder is connected with the housing for movement relative thereto between a first, secured position and a second, released position. In its first position, the holder is supported for pivoting motion relative to the housing about a pivot axis. A limit member, connected with the housing, is adapted to intersect the predetermined path of the pack relative to the holder when the holder is in its first position to prevent removal of the pack. However movement of the holder to its second position is adapted to position the predetermined path of the pack relative to the holder out of contact with the limit member, so that the pack may be removed.

A keeper is movably connected with the housing and contacts the holder to permit it being moved from the first to the second position. When the keeper is moved selectively out of contact with the holder, then the holder is freed for movement to its second position in which the pack can be withdrawn from the holder.

The keeper is concealed within the housing so that only a person knowing in advance of the existence of the keeper, can release the holder for movement to the second position in which the pack can be removed from the holder.

BRIEF DESCRIPTION OF THE DRAWINGS

A display unit constructed in accordance with a preferred embodiment of the invention, is illustrated in the accompanying drawings in which:

FIG. 1 is a perspective view, partially in cross-section, of a display unit and associated holders, constructed in accordance with the preferred embodiment of the invention;

FIG. 2 is a perspective view of one of the holders shown in FIG. 1 and associated portions of the display unit, with the holder being shown in a secured position;

FIG. 3 is a perspective view of the holder and associated structure shown in FIG. 2 but with the holder tilted to a release position;

FIG. 4 is a perspective view of the holder shown in FIG. 2 with the holder being restored to a secured position;

FIG. 5 is a cross-sectional side view of a portion of a release bar mechanism forming a part of the display unit shown in FIG. 1;

FIG. 6 is a perspective view of three, identical display units and associated holders, each display unit constructed in accordance with a second embodiment of the invention;

FIG. 7 is a perspective view of one of the display units shown in FIG. 6 but showing only one of the holders illustrated in FIG. 6;

FIG. 8 is a perspective view of four of the holders shown in FIG. 7 in association with a keeper preventing removal of the holders;

FIG. 9 is a cross-sectional end view of one of the display units shown in FIG. 6 taken along the lines 9—9 therein;

FIG. 10 is a cross-sectional side view of a portion of the display unit shown in FIG. 9 taken along the lines 10—10 therein;

FIG. 11 is a cross-sectional side view of a forward end portion of the keeper shown in FIG. 8; and

FIG. 12 is an additional side view of a portion of the keeper shown in FIG. 8 further illustrating the locking action thereof.

DETAILED DESCRIPTION

Referring to FIG. 1 of the drawings, a display unit constructed in accordance with the preferred embodiment of the invention, is there shown.

The display unit includes a housing generally designated 2 configured to provide a bottom tray 4, an intermediate tray 6 and an upper tray 8 disposed in parallel, vertically staggered, ascending relation from front to rear of the unit. The trays 4, 6 and 8 which are of similar configuration each include a longitudinally extending floor 10 disposed at an inclination to the horizontal, and front and rear sidewalls 12 and 14 extending upwardly along the longitudinal edges of the floor 10. Each of the trays 4, 6 and 8 receives a plurality of identical pack holders 16, each of which holds one of the packs 18 to be displayed.

The packs 18, which may be packaged tape cartridges or cassettes, are rigid and of rectangular shape and uniform dimensions. It will be understood that many items of merchandise are packaged for sale in this manner and a display unit according to the present invention is applicable to any merchandise sold in packs regardless of the particular contents of the packs, be it taped music or goods of an entirely unrelated nature such as for example nails, ladies' stockings or other highly diverse articles.

Each of the previously mentioned pack holders 16 (FIG. 2) includes an end wall 20 and spaced, parallel, upper and lower side walls 22 and 24 extending perpendicularly from opposite extremities of the end wall. Flanges extending along the edges of the end and sidewalls 20, 22 and 24 provide a U-shaped cradle with a central channel extending across the bottom and up the sides of the cradle for slidably and snugly receiving the lower and side edges of the associated pack 18 while leaving the central and upper portions of the pack

unobscured for easy reading and viewing. To remove the pack 18 it is necessary to slide it outwardly of the holder 16 for a sufficient distance to permit the lower end of the pack to completely clear the upper extremities of the holder. In a first, or secured, position of the holder, its lower sidewall 24 and adjacent portions of the pack 18 rest against the floor 10 of the tray within which the holder is positioned.

Fixedly secured to each holder 16 is an associated axle 26 positioned at the lower end of the end wall 20 on the centerline thereof. The axle 26 extends perpendicularly from the end wall 20 generally on a level with the lower sidewall 24 in the opposite direction therefrom. The front sidewall 12 of each of the trays 4, 6 and 8, are each provided with a row of uniformly spaced circular openings 28 (FIG. 1) through which the axles 26 of the various holders 16 are loosely passed to locate and align the holders in uniform ranks within the trays.

To maintain parallel alignment of the holders extending transversely perpendicularly across the trays, three alignment walls 30 are fixedly secured to the housing 2 disposed in spaced, parallel adjacent relation to the front walls 12 of the three trays. Rows of vertical U-shaped slots 32 each aligned with an adjacent one of the previously mentioned openings 28 are provided in the alignment walls 30. Each of the axles 26 thus passes through one of the openings 28 in the adjacent front wall 12 and through one of the slots 32 in the adjacent alignment wall 30. In this way, each axle 26 is contacted at two spaced points and prevented from pivoting movement about a vertical axis in a direction perpendicular to its length, thereby maintaining the alignment of the holder with the adjacent holders.

With the arrangement described, when each holder and its pack are resting in a first, secured position, the pack and holder can be pivoted from side to side as a unit (FIG. 2) on the pivot axle 26 about a pivot axis A-A which is generally parallel to the floor 10 of the associated one of the trays extending transversely thereacross. The customer can thus readily browse through the packs reading the informational material provided on the front and rear of each pack, in order to make his choice. Illicit removal of a pack from its holder is however prevented because the pack cannot be slid sufficiently outwardly of its holder for removal because it will impinge upon the rear wall 14 of the tray, which acts as a limit.

To enable a pack to be removed it is necessary to tilt the holder 16 upwardly (FIG. 3) about a horizontal tilt axis B-B extending longitudinally of the tray in perpendicular relation to the pivot axis to a second, or released, position. This enables the lower outer end of the pack to clear the rear wall 14 of the tray so that the pack can be moved a sufficient distance outwardly of its holder to be removed. During such tilting action, the lower end of the hole 28 in the front wall 12 acts as a fulcrum for the tilting action about the tilt axis B—B, while the axle 26 is free to move downwardly in the vertical elongate slot 32 in the alignment bar 30. The front wall 12 of each tray is inclined sufficiently away from perpendicular relation to the floor 10 to provide clearance for this tilting motion.

Tilting of the pack and holder in this manner is however normally prevented by three, similarly constructed, keeper mechanisms 34 each associated with one of the trays 4, 6 and 8 (FIG. 1). Each keeper mechanism 34 includes a longitudinally extending hollow

channel member 36 fixedly secured to the housing 2 in spaced parallel relation to the adjacent alignment bar 30 on an opposite side thereof from the adjacent front wall 12 of the associated tray. Slidably and snugly received within the interior of each of the channel members 36 is a longitudinally movable keeper bar 38. Vertical cut-out openings 40 spaced along each channel member 36 expose the keeper bar 38 within, in the regions adjacent each of the axles 26 of the holders 16.

With the holders in their secured, first position and with the keeper bars 38 in a first secured position (FIG. 2) of the keeper bars, the underside of each axle 26 adjacent its free extremity, rests on the upper edge of the adjacent keeper bar 38 and is thus prevented from moving downwardly. In this way tilting of the associated holder about the tilt axis is prevented, and so the holder remains in its secured position in which it can be pivoted about the pivot axis for browsing but in which the associated pack cannot be removed by a pilferer.

To free the axles 26 for tilting motion, each keeper bar 38 is provided along its length with a series of uniformly spaced openings 40 extending downwardly into the keeper bar. By longitudinal displacement of the keeper bar 38 in a direction longitudinally of the housing from left to right to a second, or release, position, each of the openings 40 may simultaneously be moved into alignment with each of the axles 26 of the holders in the associated tray, thereby freeing those holders for tilting motion so that the packs within the holders may be removed.

Movement of each of the three keeper bars 38 from the secured to the released position is effected by a release mechanism 42 (FIG. 1). The release mechanism 42 includes a release bar 44 positioned within the housing 2 adjacent the left end thereof and mounted for sliding motion transversely of the housing 2 between a first, or secured, position and a second, or released, position. Fixed to the release bar 44 adjacent each of the keeper bars 38 are three wedge-shaped cams 48 each of which engages a correspondingly inclined surface at the forward end of each of the adjacent keeper bars 38. By manual transverse motion of the release bar 44 in a direction from the front to the back of the housing 2, the three cams 48 move the associated keeper bars 36 longitudinally to the right to their released positions (FIG. 3).

As soon as manual pressure is released from the release bar 44 it is returned forwardly to its secured position by a spring 50 positioned between the back wall of the housing 2 and the adjacent end of the release bar. Similar springs (not shown) positioned between the right end wall of the housing 2 and the adjacent right ends of the keeper bars 38 return each of the keeper bars to their secured position.

Each of the previously mentioned openings 40 in each keeper bar 38 has a right-hand edge 52 extending at an inclination downwardly and to the right in a longitudinal direction. Thus if a tilted holder 16 is restored to a tray at a time when the associated keeper bar 38 is already in its secured position, the free end of the axle 26, after passing through the openings 28 and 32, passes into the opening 40 in a region underhung by the inclined right edge 52. The forward end of the axle 26 is pointed facilitate this entry. If pressure is then applied in a downward direction (FIG. 4) to the upper wall 22 of the holder, the resulting upward tilting motion of the free end of the axle 26 exerts a camming ac-

tion against the right edge 52 of the opening. This causes the keeper bar 36 to be moved to the right so that the axle 26 can move upwardly to the secured position. During this motion the left end of the keeper bar 38 is moved out of contact with the adjacent cam 48. As the axle 26 reaches its secured position above the keeper bar, the associated spring restores the keeper bar 38 to its secured position underlying the axle (FIG. 2) so the holder is now secured.

The structure by which the release bar 44 may be moved to its release position includes a press button release (FIG. 5) which requires that a concealed button first be elevated vertically before the release bar can be moved transversely to the rear. The press button release includes a vertical shaft 54 which is mounted for vertical sliding motion in a mating vertical opening 58 through the release bar and passes through vertical, transversely elongate openings 59 in adjacent portions of the housing 2. The shaft 54 is provided with enlarged, horizontal disks 60 and 62 at its upper and lower ends respectively. A coil spring 64 between the release bar 44 and the lower disk 62 biases the shaft 54 downwardly so that the upper disk 60 is pressed against the upper surface of the portions of the housing surrounding the slot 59. In this lower position, the upper disk 60 abuts a transverse stop member 66 secured to the housing 2, which prevents rearward sliding motion of the release bar to the released position.

Upward pressure of a finger on the lower disk 62 elevates the upper disk above the level of the transverse member 66 so that the release bar may be slid rearwardly to its released position. Positive location of the release bar 44 at its release position is achieved by abutment of the shaft 54 against the closed ends of the slots 59.

As the release bar is entirely concealed from view, it will be appreciated that a person not acquainted with the release mechanism will not be able to free even one of the packs 18 from its associated holder, so that the opportunity for pilferage is prevented. This desirable result is however achieved without any reduction in the ease with which a prospective customer may browse through a large number of the packs attractively and conveniently stored in the display unit. In addition, the avoidance of any overall lid or equivalent structure, permits the customer to handle the packs directly and to inspect both sides of them thereby stimulating his interest in making a purchase.

Additionally the combination of first an upward and then a rearward motion before the holders can be released is sufficiently complex to elude discovery by a would-be thief not familiar with the mechanism and usually limited, through fear of surveillance or of creating a suspicious disturbance, in his capacity to investigate and solve the hidden release mechanism. The structure therefore provides a powerful deterrent to pilfering and significantly reduces the chance of loss from this cause.

The release bar 44 may also be incorporated into an electrical alarm system 44' to actuate either an audible signal such as a buzzer or a visual signal such as a lamp by causing the release bars to complete a switching circuit 44'' including a switch 44''' initiating operation of the alarm whenever it is moved from its secured to its released position.

Three display units 80 each constructed in accordance with a second embodiment of the invention, are

shown in FIG. 6 resting on a suitable supporting surface such as a table.

Each of the display units 80 includes a housing 83 (FIG. 7) comprising a longitudinally extending, rectangular shallow tray 84 divided into two equal longitudinal compartments 86 by a centrally positioned, hollow, partition unit 88. Each compartment 86 receives a plurality of identical pack holders 90 (FIG. 6), each of which holds one of the packs 18 of the type previously described.

Each holder 90 (FIG. 9) is of similar construction to the previously described holders 16 and includes inner and outer (or first and second) vertically extending sidewalls 94 and 96 which have fixedly secured to them adjacent their lower extremities, sidewardly projecting inner and outer, dowel-like axles 98 and 100, respectively, aligned with the center line of the holder to provide balanced support.

Each outer axle 100 is loosely received within one of a plurality of circular openings 104 (FIG. 7) provided in one of two longitudinally and vertically extending outer, sidewalls 106 of the previously mentioned tray 84. Each inner axle 98 is received within a transversely aligned one of a plurality of vertically extending elongate, slots 108 provided in two, spaced opposed, longitudinally and vertically extending, inner sidewalls 110 forming a part of the previously mentioned center partition 88 and joined at their upper extremities by a horizontal top wall 111. The openings 104 and 108 are arranged in transversely aligned groups spaced at uniform intervals along the length of the display unit, for mounting the successive holders 90 in uniformly spaced parallel rows within the compartments 86 (FIG. 6). The lower closed extremities of each slot 108 and its adjacent aligned opening 104 are on the same horizontal level so that one of the holders 90 positioned between them with its axles received in the aligned openings, is supported for forward and backward pivoting motion about a horizontal, transverse, pivot axis. In this position, hereinafter referred to as the first position, a prospective customer may readily rotate the pack in the holder toward and away from him to facilitate browsing through the merchandise in the display unit. As can be seen from FIG. 8 there is sufficient longitudinal spacing between adjacent holders 10 to permit free and easy pivoting motion of each without binding or interference with the adjacent holders.

To prevent illicit removal of any of the packs 18, each inner wall 110 adjacent its upper extremity is provided with a transversely and longitudinally projecting, ledge-like, abutment 112 which overlies and is spaced closely above the adjacent upper portions of the packs 18. The abutments 112 intercept the path of vertical upward movement of each pack 18 from its associated holder 90 when that holder is in its first position, to limit the upward path of travel of the pack to less than that necessary to enable the pack to be lifted clear out of and from the holder. Thus with the holders 90 in their horizontal position, customers can browse through the packs but are unable to remove them, thereby discouraging pilferage.

To permit removal of one of the packs 18 from its holder 90, it is necessary to tilt the holder about a horizontal tilt axis generally perpendicular to the pivot axis, as shown in FIG. 9, by raising its inner end upwardly so that the inner, first axle 98 of the holder moves upwardly within the associated elongate slot 108. The

lower part of the opening 104 receiving the outer axle 100 provides a fulcrum for vertical tilting motion of the holder 90 in this manner. The vertical extent of the slot 108 is sufficient to permit the holder 90 to tilt to a second, or release position relative to the housing in which it is inclined at a sufficient angle from the vertical such that the outward path of movement of the pack 18 from the holder 90 is no longer intercepted by the abutment 112, so that the pack may be withdrawn without obstruction.

Tilting of the holder 90 in this way to permit withdrawal of the pack 18 is, however, normally prevented by a horizontal, longitudinally extending keeper bar 120 (FIGS. 8 and 9) concealed from view within the interior of the central partition unit 88. When each holder 90 is in its first position its inner axle 98 projects through and beyond the inner wall 110 with its upper surface in underlying abutting contact with the lower surface of the keeper bar 120. The bar 120 thus prevents upward motion of the inner axle so that the holder cannot be tilted to the second position, and as a result the pack cannot be released from the holder.

The keeper bar 120 (FIG. 9) extends transversely between the inner walls 110, which locate it for longitudinal sliding motion, and is supported on an underlying, horizontal longitudinal wall 122 fixedly connected with the walls 110 and the remainder of the housing. Upward motion of the keeper bar 120 is prevented by an overlying cross member 124 secured between the sidewalls 110, with its lower surface in contact with the upper surface of the keeper bar 120.

The keeper bar 120 (FIG. 10) is biased to a first (or secure) position relative to the housing in which its forward end abuts the inner surface of a forward, vertical end wall 126 of the central partition unit 88, by a biasing spring 128 positioned between the rear of the keeper bar 120 and a rear vertical end wall 130 of the central partition unit 88. In the first position of the keeper bar 120 its lower surface overlies and contacts all the inner axles 98 to prevent tilting of the holders.

To release the holders 90 for tilting, so that the packs may be freed for removal, the keeper bar 120 (FIG. 11) can be slid rearwardly to a second position relative to the housing (as will be described hereinafter) in which a plurality of vertical channels 131 extending vertically through the keeper bar along both of its transverse edges (FIG. 8) are moved into vertical alignment with all the inner axles 98. At this time each holder may be tilted as previously described because its inner axle 98 is now free for unobstructed vertical motion.

The structure by which the keeper bar 120 may be moved to its second position includes a press-button release mechanism 134 (FIGS. 10 and 11) similar to that previously described for the first embodiment of the invention.

To facilitate returning individual holders to the first, engaged position to a locked condition within the housing, each of the previously mentioned channels or openings 131 in the keeper bar is provided, along its rear edge, with an inclined, upwardly and rearwardly extending chamfered surface 136 (FIG. 10). The upper end of each surface 136, when the keeper bar 120 is in its first position is aligned with the rearward end of the adjacent one of the vertical slots 108. To replace a holder 90, its outer axle 100 is slotted into one of the vacant openings 104 and its inner axle 98 is slotted into the upper end of the aligned one of the elongate slots

108. The inner axle 98 is then moved downwardly in the slot until it contacts the upper end of the adjacent one of the inclined faces 136 (FIG. 12). Continued downward pressure, because of the inclination of the face 136, forces the keeper bar 120 rearwardly to the second position so that the axle 98 can pass vertically through the opening 131 to the bottom of the slot 108, after which the spring 128 returns the keeper bar 120 forwardly to its second position. To enable the keeper bar 120 to move to the second position, in view of the fact that the button structure is in its lower position at this time, a slot 160 in the keeper bar 120 through which the button shaft passes is longitudinally elongated in a direction forwardly of the shaft, so that the keeper bar 120 may have space to move rearwardly without interference with the button shaft (FIG. 10).

I claim:

1. A display unit for packs comprising, a housing having at least one tray including a longitudinally extending floor, at least one holder adapted to hold one of the packs, said holder being further adapted for removal of the pack by movement thereof along a predetermined path relative to said holder, said holder having an end wall and a pair of side walls defining a U-shaped cradle to receive a pack and an axle extending from said end wall in parallel relation to said floor of said tray in a first position of said holder in said housing and in an opposite direction from said side walls, connecting means for connecting said holder with said housing for movement relative thereto between said first position and a second position, said connecting means supporting said holder in said first position thereof for pivoting motion about said axle, limit means connected with said housing in facing relation to said U-shaped cradle to intercept the predetermined path of movement of the pack relative to said holder when said holder is in said first position thereof to prevent removal of the pack from said holder with movement of said holder to said second position being adapted to position the predetermined path of movement of the pack relative to said holder out of contact with said limit means whereby the pack may be removed; and keeper means movably connected with said housing and selectively contacting said holder for preventing movement thereof from said first to said second position, said keeper means being selectively movable within said housing out of contact with said holder to free said holder for movement to said second position.
2. A display unit as defined in claim 1 wherein said connecting means further supports said holder for tilting motion between said first and second positions relative to said housing about a tilt axis generally perpendicular to said pivot axis.
3. A display unit as defined in claim 2 wherein said pivot and tilt axis are disposed in generally horizontal planes.
4. A display unit as defined in claim 2 wherein said predetermined path of relative movement for removal of the pack from said holder is generally parallel to said pivot axis.
5. A display unit as defined in claim 2 further including, alarm means operatively associated with said

keeper means for causing an alarm upon movement thereof out of contact with said holder.

6. A display unit for packs comprising, a housing;

at least one holder adapted to hold one of the packs, said holder being further adapted for removal of the pack by movement thereof along a predetermined path relative to said holder;

connecting means for connecting said holder with said housing for movement relative thereto between first and second positions, said connecting means supporting said holder in said first position thereof for pivoting motion about a horizontal pivot axis parallel to said predetermined path and between said first and second positions for tilting motion relative to said housing about a horizontal tilt axis generally perpendicular to said pivot axis, said connecting means including an axle fixedly connected with said holder extending axially in parallel relation to said predetermined path of relative movement for removal of the pack in an opposite direction therefrom, a first wall connected with said housing, said first wall underlying and supporting said holder and the pack when said holder is in said first position thereof; and a second wall connected with said first wall, said second wall having an opening therein through which said axle passes, said opening supporting said axle in axial alignment with said pivot axis for pivoting motion thereabout when said holder is in said first position thereof, portions of said second wall which define said opening further providing a fulcrum for tilting motion of said axle about an axis perpendicular thereto coinciding with said tilt axis;

limit means connected with said housing adapted to intercept the predetermined path of movement of the pack relative to said holder when said holder is in said first position thereof to prevent removal of the pack from said holder with movement of said holder to said second position being adapted to position the predetermined path of movement of the pack relative to said holder out of contact with said limit means whereby the pack may be removed; and

keeper means movably connected with said housing contacting said holder for preventing movement thereof from said first to said second position, said keeper means being selectively movable out of contact with said holder to free said holder for movement to said second position.

7. A display unit as defined in claim 6 further including,

alignment means connected with said housing contacting said axle for preventing rotational movement thereof about an axis perpendicular to said pivot and tilt axes.

8. A display unit as defined in claim 6 wherein said limit means includes,

a third wall connected with said first wall in spaced, generally parallel relation to said second wall, said third wall adapted to be spaced closely adjacent the pack to prevent sufficient motion thereof from said holder for removal of the pack when said holder is in said first position, movement of said holder to said second position permitting the pack to clear said third wall during motion from said holder.

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9. A display unit as defined in claim 6 wherein said keeper means includes,
 a keeper bar slidably connected with said housing for motion between first and second positions of said keeper bar, said keeper bar in said first position thereof contacting said axle to prevent tilting motion thereof in a direction which would move said holder relatively away from said first wall; and
 at least one opening in said keeper bar, said opening registering with said axle when said keeper bar is in said second position thereof, thereby freeing said holder for tilting motion to said second position thereof.
10. A display unit as defined in claim 9 further including biasing means connected with said housing for resiliently biasing said bar to said first position.
11. A display unit for packs comprising
 a housing having at least one tray including a longitudinally extending floor and a pair of spaced parallel walls extending upwardly from said floor;
 at least one holder disposed in said tray for removably mounting one of the packs therein, said holder having an end wall and a pair of side walls defining a U-shaped cradle to receive a pack and an axle extending perpendicularly from said end wall in an opposite direction from said side walls through an aperture in one of said walls to pivotally dispose said holder relative to said one wall about an axis parallel to said one wall, said U-shaped cradle being disposed in facing relation to the other of said walls;
 a keeper mechanism within said housing having movable means for selectively preventing pivoting of said axle of said holder relative to said axis; and
 a release mechanism mounted in said housing for moving said keeper mechanism movable means away from said axle to permit pivoting of said axle of said holder relative to said axis.
12. A display unit as set forth in claim 11 having a plurality of apertures in said wall and a plurality of said

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holders mounted therein, each tray being pivotally mounted about a pivot axis perpendicularly to said wall.

13. A display unit as set forth in claim 12 having a plurality of said trays in said housing to respectively receive a plurality of said holders therein.

14. A display unit for packs comprising
 a housing having at least one tray including a longitudinally extending floor and a wall extending upwardly from said floor;

at least one holder disposed in said tray for removably mounting one of the packs therein, said holder having an axle extending therefrom through an aperture in said wall to pivotally dispose said holder relative to said wall about an axis parallel to said wall;

a keeper mechanism within said housing having movable means for selectively preventing pivoting of said axle of said holder relative to said axis, said movable means including a slidably mounted keeper bar having a cut-out opening in an upper edge thereof, said bar being movable into a first position to have said axle of said holder rest on said upper edge to prevent tilting of said axle and into a second position to have said axle aligned with said cut-out opening to permit pivoting of said axle; and

a release mechanism mounted in said housing for moving said keeper mechanism movable means away from said axle to permit pivoting said axle of said holder relative to said axis.

15. A display unit as set forth in claim 14 which further comprises means for biasing said keeper bar towards said release mechanism and wherein said keeper bar has an inclined edge forming said opening and said axle is pointed to engage said edge and move said keeper bar towards said biasing means upon insertion of said axle through said apertured wall with said keeper bar in said first position.

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