A case for consumer products having the dual functions of enclosing a product and displaying the same. The case includes a body having a bottom wall and circumferential body wall attached thereto, and a lid having a top wall and circumferential lid wall attached thereto. Hinge portions having a projection for pivotal and slidable movement are formed in left and right sides of the circumferential lid or body wall. Mating portions having a track for receiving the projection and allowing the projection to move pivotal and slidably are formed in the left and right sides of the circumferential lid or body wall not containing the hinge portions. The hinge and mating portions cooperate to provide pivotal and slidable movement of the body relative to the lid to move the case between a closed case position for enclosing a product and an open case position for displaying the product.
DUAL FUNCTION CASE

BACKGROUND OF THE INVENTION

1. Field of the Invention

One aspect of the present invention relates to a case for consumer products which has the dual functions of enclosing a product and displaying the same.

2. Background Art

Cases for enclosing products for shipping to a retailer are commonplace. Common configurations include a rectangular box with a removable or hinged lid. After these cases are shipped to a retail store, the product may be removed entirely from the case to be displayed and the case discarded. Alternatively, the lid may be removed from the case and discarded before the product is displayed. Moreover, a box with a hinged lid may be opened and placed on a shelf for display.

Purpose of a display case include not only housing a consumer product, but also attracting consumers to purchase the product. When rectangular boxes with removable or hinged lids are placed on a store shelf, it may be difficult for a consumer to view the product. This is especially true if the consumer is quickly passing through the aisle where the product is located, or if the product is located on a high shelf or at the back of a shelf. Furthermore, if the price tag or other product information is placed on the underside of the display cases, this information will not serve to attract the attention of consumers. Similarly, placing a separate sign containing product information next to the display cases is ineffective because the sign may be destroyed, lost, or moved to an unfavorable location. A separate sign also increases the cost of the display.

In light of the foregoing, what is needed is a case for consumer products which has the dual functions of enclosing a product and displaying the same in an attractive manner.

SUMMARY OF THE INVENTION

Therefore, one aspect of the present invention provides a case that effectively performs the dual functions of shipping consumer products and prominently displaying consumer products to attract the attention of consumers. Another aspect of the invention provides cases that can be packaged and shipped together in large crates. It is a further aspect of the invention to provide cases which can be easily opened and displayed once they arrive at a retail store. Moreover, another aspect of the invention provides a case comprising a lid which slides and rotates around the body but is not removable from the body and therefore will not be separated from the body of the case at the retail store. Yet another aspect of the invention provides a case that is attractive to consumers when on display at the retail store by means of a variable angle of display, a tab with a face suitable for receiving a sticker imprinted with product information, a cushioning material to receive the product, and an attachment to hold the product securely in place. A further aspect of the invention provides a case that the consumer can easily close to transport the product upon purchase, keep the product undamaged, and possibly use the case as a storage device for the product.

Accordingly, a dual function case is provided. The case has a body and a lid. The body has a bottom wall, a circumferential body wall attached to the bottom wall, and a body cavity defined by the bottom wall and circumferential wall. The lid has a top wall, a circumferential lid wall attached to the top wall, and a lid cavity defined by the top wall and circumferential wall. Hinge portions are formed in the left and right sides of the circumferential lid or body wall. Each lid hinge portion has a projection for pivotal and slidable movement. Mating portions are formed in the left and right sides of the circumferential lid or body wall not containing the hinge portions. Each mating portion has a track for receiving the projection and allowing the projection to move pivotally and slidably. Furthermore, the case has a closed position for enclosing a product and an open position for displaying the product. The hinge and the mating portions cooperate to provide pivotal and slidable movement of the body relative to the lid to move between the closed and open positions.

In accordance with other embodiments of the present invention, the circumferential wall includes a front wall, a back wall, and two side walls. The front and back walls have a rectangular shape, and the left and right side walls are at least partially tapered. The track on each body mating portion is recessed from the side wall of the body and bounded on its sides by walls formed into the side wall of the body and a raised protrusion. Furthermore, at least one slat is formed into each track.

In further accordance with other embodiments, the open position for displaying a product is an inclined display position. The open position may also be where the bottom wall of the body and top wall of the lid are substantially perpendicular. The open position may also be where the bottom wall of the body and top wall of the lid are substantially parallel.

In further accordance with other embodiments, the case may be made from a plastic material. The body cavity and the lid cavity may be hollow. A cushioning material may be affixed to the interior of the bottom wall of the body by means of a fastener. Furthermore, a tab may be located within the body cavity, and the face of the tab may receive a sticker imprinted with product information. Material suitable for printing of product information may be affixed to the interior side of the top wall of the lid. An attachment capable of receiving products may be situated substantially within the body cavity and affixed to the body by means of a fastener. The attachment may secure one or more writing instruments or other objects placed in the body. Product information may be etched on the attachment and on the exterior side of the top wall of the lid.

In further accordance with other embodiments, a method is provided for forming a dual function case. The method includes a step of forming a body with a bottom wall and a circumferential body wall and a body cavity defined by the bottom wall and the circumferential body wall. The method includes a step of forming a lid with a top wall and a circumferential lid wall and a lid cavity defined by the top wall and the circumferential lid wall. The method includes a step of forming hinge portions in the left and right sides of the circumferential lid or body wall, where each portion has a projection for pivotal and slidable movement. The method includes a step of forming mating portions in the left and
right sides of the circumferential lid or body wall not containing the hinge portions, where each mating portion has a track for receiving the projection and allowing the projection to move pivotally and slidably. In accordance with this method, the case has a closed position for enclosing a product and an open position for displaying the product, and the hinge and mating portions cooperate to provide pivot and slidable movement of the body relative to the lid to move between the closed and open positions.

In a further embodiment, a dual function case is provided. The case includes a body with a bottom wall and a circumferential body wall and a body cavity defined by the bottom wall and the circumferential body wall. The case also includes a lid with a top wall and a circumferential lid wall and a lid cavity defined by the top wall and the circumferential lid wall. Hinge means for pivot and slidable movement are formed in the left and right sides of the circumferential lid wall. Mating means for receiving the hinge means and allowing the hinge means to move pivotally and slidably are formed in the left and right sides of the circumferential body wall. In accordance with this embodiment, the case has a closed position for enclosing a product and an open position for displaying the product, and the hinge and mating means cooperate to provide pivot and slidable movement of the body relative to the lid to move between the closed and open positions.

These and other aspects of the present invention will be better understood in view of the attached drawings and following detailed description of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS
[0015] FIG. 1 is a top perspective view of a case in a carrying case position;

[0016] FIG. 2 is a top perspective view of the case in an inclined display position;

[0017] FIG. 3 is a front elevational view of the case in a first level display position;

[0018] FIG. 4 is a top perspective view of the case in a second level display position;

[0019] FIG. 5 is a cross section of a case in the positions depicted in FIGS. 1-4, taken along line 5-5 of FIG. 2;

[0020] FIG. 6 is a top perspective view of the case in the inclined display position for displaying a product within the use according to one embodiment of the present invention;

and

[0021] FIG. 7 is a bottom plan view of the case in the carrying case position according to one embodiment of the present invention.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE PRESENT INVENTION
[0022] Referring to FIGS. 1-4, a dual function case in accordance with the present invention is shown and indicated by reference numeral 10. FIG. 1 shows case 10 in a closed carrying case position. FIG. 2 shows the case 10 in an inclined display position. FIG. 3 shows case 10 in a first level display position. FIG. 4 shows case 10 in a second level display position. Case 10 includes body 12 and lid 14. Body 12 and lid 14 can be constructed from a plastic material. With reference to FIGS. 1-4, body 12 includes a rectangular bottom wall 16 and a circumferential wall formed by four adjoining side walls 18, 20, 22 and 24 attached to bottom wall 16. Cavity 25 defined by the bottom wall 16 and the circumferential wall receives consumer products such as, but not limited to, writing instruments. Lid 14 includes a rectangular top wall 26 and a circumferential wall formed by four adjoining side walls 28, 30, 32 and 34 attached to top wall 26. Cavity 27 is defined by top wall 26 and the circumferential lid wall. As shown in FIG. 1, when case 10 is in the carrying case position, lid 14 overlaps body 12. Cases 10 in the carrying case position can easily be packed in a crate and shipped to a retail store. When a consumer purchases case 10 containing a product, the consumer can conveniently transport case 10 in the carrying case position to protect the product from damage.

[0023] Referring to FIGS. 1-4, front side wall 18, back side wall 20, left side wall 22 and right side wall 24 of body 12 have a rectangular shape. Front side wall 28 and back side wall 30 of lid 14 also have a rectangular shape. Left side wall 32 and right side wall 34 of lid 14 are tapered according to this embodiment of the present invention. As shown in FIG. 1, the height of tapered side walls 32, 34 increases at an angle from ends 31 of lid 14 to lower edges 33 of lid 14.

[0024] With reference to FIGS. 2 and 5, a cross section of case 10 is taken along line 5-5 of FIG. 2. It is understood that hinge portion 43 can be located on the lid wall or the body wall, and that mating portion 45 can be located on the lid wall or the body wall not containing the hinge portion. However, in this embodiment, hinge portion 43 is located on the lid wall, and mating portion 45 is located on the body wall.

[0025] In general, FIG. 5 shows left hinge unit 41, which includes left lid hinge portion 43 and left body mating portion 45. Case 10 also includes a right lid hinge portion (not shown) and right body mating portion (not shown) that can be structurally equivalent to portions of 43 and 45. Specific reference is made to left portions 43 and 45, however, the description is also applicable to the right portions. Hinge and mating portions 43 and 45 are formed on lid 14 and body 12, respectively, such that lid 14 is connected to body 12, and lid 14 can slide and/ or rotate around body 12. Once a shipping crate filled with cases 10 arrives at a retail store, cases 10 can be removed from the crate, and opened for the purpose of displaying cases 10 in the store to attract consumers.

[0026] Lid 14 can slide and/ or rotate around body 12 to convert case 10 from the carrying case position of FIG. 1 to the first level display position of FIG. 3. As shown in FIG. 3, in the first level display position, bottom wall 16 of body 12 and top wall 26 of lid 14 can be substantially perpendicular. Product secured in cavity 25 of case 10 can be displayed in this position. When lid 14 further slides and/ or rotates around body 12, case 10 converts from the first level display position of FIG. 3 to the second level position of FIG. 4, where bottom wall 16 of body 12 and top wall 26 of lid 14 are substantially parallel. Product secured in cavity 25 of case 10 can also be displayed in this position. When lid 14 further slides and/ or rotates around body 12, case 10 converts to the inclined display position of FIG. 2. Product secured in cavity 25 of case 10 can also be displayed in this position.
FIG. 5 shows a cross section of the case taken along line 5-5 of FIG. 2 when case 10 is in the closed carrying case position (FIG. 5(a)), when case 10 is in the first level position (FIG. 5(b)), when case 10 is in the second level position (FIG. 5(c)), and when case 10 is in the inclined position (FIG. 5(d)). As shown in FIG. 5, left lid hinge portion 43 is formed into the interior left side wall 32 of lid 14 and left body mating portion 45 is formed into the exterior of left side wall 22 of body 12. Hinge portion 43 includes projection 36, plurality of ribs 38, and ledge 40. Mating portion 45 includes track 42, first slat 44, and second slat 47. Track 42 is recessed from left side wall 22 and bounded on its sides by walls formed into left side wall 22 and raised protrusion 46. First slat 44 and second slat 47 are formed into and raised from track 42. Slats 44 and 47 provide support to substantially immobilize body 12 when case 10 is in closed and various open positions. Projection 36 is movable around track 42 for providing linear and rotational movement of body 12 about lid 14.

To convert case 10 from one position to another as shown in FIG. 5, a person handling case 10 can push lid 14 around body 12. When lid 14 slides and rotates around body 12, projection 36 moves around track 42 to convert case 10 from one position to another. As shown in FIG. 5, this movement is bounded by ribs 38, ledge 40, the walls bounding track 42, protrusion 46, and slats 44 and 47. In the closed position (FIG. 5(a)) and the first level position (FIG. 5(b)), projection 36 is held substantially stationary by the corner of track 42 and second slat 47. In the second level position (FIG. 5(c)) and the inclined position (FIG. 5(d)), projection 36 is held substantially stationary by the corner of track 42 and first slat 44. However, the position of projection 36 is not absolute, as the projection can move slightly within track 42 without changing the position of case 10. Ribs 38 provide additional support for body 12 when case 10 is in the second level position (FIG. 5(c)) and the inclined position (FIG. 5(d)). Ledge 40 provides additional support for body 12 when case 10 is in the inclined position (FIG. 5(d)).

In one embodiment, cavity 25 defined by bottom wall 16 and circumferential wall of body 12 and cavity 27 defined by the top wall 26 and circumferential wall of lid 14 are hollow. As shown in FIG. 6, cushioning material 50 can be affixed to the interior of bottom wall 16 of body 12 by means of a fastener 52. FIG. 7 shows a bottom view of the case 10 in the carrying case position in the embodiment, where fastener 52 extends to the exterior of bottom wall 16 of body 12. Fastener 52 can be, but is not limited to, a screw with the word “open” and an arrow etched or printed on its face. Other non-limiting examples of fasteners include clips, pegs, and staples. As shown in FIG. 6, this embodiment further includes tab 54 located within cavity 25 of body 12. Face 56 of tab 54 is suitable for receiving a sticker imprinted with product information. Tab 54 has first leg 58 that supports face 56 of tab 54 by contacting cushioning material 50 when tab 54 is depressed into cavity 25. Second leg 60 has foot 62 that slides under cushioning material 50 to support the position of tab 54 in cavity 25. Attachment 64 is located in cavity 25 of body 12 and is affixed to cushioning material 50 and to body 12 by means of fastener 52. Attachment 64 is capable of receiving products and securing products, such as writing instruments 66, placed in cavity 25 of body 12. It is understood that case 10 may be used to enclose other linear and/or cylindrical objects, for example, but not limited to, laser pointers, high-lighters, pencils, and markers.

In one embodiment, material suitable for the printing of product information is affixed to the interior side of top wall 26 of lid 14. Product information can also be etched on the exterior side of top wall 26 of lid 14 and on the top of attachment 64. Attachment 64 may be made from a plastic material with foam on the interior side touching the products to secure the products and prevent the products from being damaged. Cushioning material 50 may be made of cardboard wrapped in nylon, polyester, velvet, foam, or any other type of suitable material. Cushioning material may also be molded to receive the exact shape of the product.

In other embodiments, projection 36, slats 44 and 47, and protrusion 46 may be made out of metal. Face 56 of tab 54 may take many forms, including, but not limited to, circle, star, diamond-shaped, octagonal, or triangle. Tab 54 may extend over one end of cavity 25 of body 12, as shown in FIG. 6, or may extend over any other part of cavity 25 of body 12. Attachment 64 may be altered such that its top face is large enough to receive a sticker imprinted with product information, thereby alleviating the need for tab 54. Stickers imprinted with product information may also be affixed to the exterior of the walls of lid 14 and body 12.

In other embodiments, lid 14 and body 12 may take a square shape. Case 10 may also receive products other than cylindrical objects, such as watches and jewelry of various kinds or any other type of consumer product which can be displayed in a case.

While embodiments of the invention have been illustrated and described, it is not intended that these embodiments illustrate and describe all possible forms of the invention. Rather, the words used in the specification are words of description rather than limitation, and it is understood that various changes may be made without departing from the spirit and scope of the invention.

What is claimed is:

1. A dual function case comprising:
   a body having a bottom wall and a circumferential body wall attached thereto, and a body cavity defined by the bottom wall and the circumferential body wall;
   a lid having a top wall and a circumferential lid wall attached thereto, and a lid cavity defined by the top wall and the circumferential lid wall;
   hinge portions formed in left and right sides of the circumferential lid or body wall, each hinge portion having a projection for pivotal and slidable movement; and
   mating portions formed in the left and right sides of the circumferential lid or body wall not containing the hinge portions, each mating portion having a track for receiving the projection and allowing the projection to move pivotally and slidably,
   wherein the dual function case has a closed position for enclosing a product and an open position for displaying the product, and the lid hinge and body mating portions
cooperate to provide pivotal and slidable movement of the body relative to the lid to move between the closed and open positions.

2. The case of claim 1, wherein the circumferential lid includes a front wall, a back wall, and two side walls, the front and back walls have a rectangular shape, and the left and right side walls are at least partially tapered.

3. The case of claim 1, wherein the track is recessed from the side wall of the body and bounded on its sides by walls formed into the side wall of the body and a raised protrusion.

4. The case of claim 3, wherein at least one slot is formed into the track.

5. The case of claim 1, wherein the open position for displaying a product is an inclined display position.

6. The case of claim 1, wherein the open position is a position wherein the bottom wall of the body and top wall of the lid are substantially perpendicular.

7. The case of claim 1, wherein the open position is a position wherein the bottom wall of the body and top wall of the lid are substantially parallel.

8. The case of claim 1, wherein the body cavity and the lid cavity are hollow.

9. The case of claim 1, further comprising a cushioning material affixed to the interior of the bottom wall of the body.

10. The case of claim 9, wherein the cushioning material is affixed to the body by means of a fastener.

11. The case of claim 9, further comprising a tab located within the body cavity, wherein the face of the tab is suitable for receiving a sticker imprinted with product information.

12. The case of claim 1, further comprising material affixed to the interior side of the top wall of the lid, wherein the material is suitable for printing of product information.

13. The case of claim 1, further comprising an attachment situated substantially within the body cavity and affixed to the body, wherein the attachment is capable of receiving products.

14. The case of claim 13, wherein the attachment is affixed to the body by means of a fastener.

15. The case of claim 13, wherein the attachment secures one or more writing instruments placed in the body.

16. The case of claim 13, wherein product information is etched on the attachment.

17. The case of claim 1, wherein product information is etched on the exterior side of the top wall of the lid.

18. The case of claim 1, wherein the case is constructed from a plastic material.

19. A method of forming a dual function case comprising:

   forming a body having a bottom wall and a circumferential body wall attached thereto, and a body cavity defined by the bottom wall and the circumferential body wall;

   forming a lid having a top wall and a circumferential lid wall attached thereto, and a lid cavity defined by the top wall and the circumferential lid wall;

   forming hinge portions in left and right sides of the circumferential lid or body wall, each hinge portion having a projection for pivotal and slidable movement; and

   forming mating portions in the left and right sides of the circumferential lid or body wall not containing the hinge portions, each mating portion having a track for receiving the projection and allowing the projection to move pivotally and slidably,

wherein the dual function case has a closed position for enclosing a product and an open position for displaying the product, and the hinge and mating portions cooperate to provide pivotal and slidable movement of the body relative to the lid to move between the closed and open positions.

20. A dual function case comprising:

   a body having a bottom wall and a circumferential body wall attached thereto, and a body cavity defined by the bottom wall and the circumferential body wall;

   a lid having a top wall and a circumferential lid wall attached thereto, and a lid cavity defined by the top wall and the circumferential lid wall;

   hinge means for pivotal and slidable movement, formed in left and right sides of the circumferential lid or body wall; and

   mating means for receiving the hinge means and allowing the hinge means to move pivotally and slidably, formed in the left and right sides of the circumferential lid or body wall not containing the hinge means,

wherein the dual function case has a closed position for enclosing a product and an open position for displaying the product, and the hinge and mating means cooperate to provide pivotal and slidable movement of the body relative to the lid to move between the closed and open positions.