BOX WITH A SLIDABLE COVER

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ABSTRACT

A box includes a box body and a cover that is mounted slidably on an open distal end of the box body and that is formed with a pair of slits and an elastic arm between the slits. The elastic arm has a free end with a hook that is elastically engageable with the open distal end of the box body so that disengagement of the hook from the open distal end of the box body can be performed using only one hand.
FIG. 1
PRIOR ART
FIG. 2
PRIOR ART
BOX WITH A SLIDABLE COVER

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a box, more particularly to a plastic box with a slidable cover.

2. Description of the Related Art

FIG. 1 illustrates a conventional box 1 for storing small articles, such as nails, screws, and the like. The box 1 includes a box body 11 with two opposite sides that are folded to form a pair of rail grooves 113, and a cover 12 that has two opposite first side edges 121 which are slidably and respectively received in the rail grooves 113 so as to permit sliding movement of the cover 12 between open and closed positions. The aforesaid box 1 is disadvantageous in that engagement between the cover 12 and the box body 11 is relatively loose and that undesired removal of the cover 12 can happen quite often.

FIG. 2 illustrates another conventional box 2 that includes a box body 21 and a cover 22 that is pivotally connected to a side edge of a distal end of the box body 21. An interlocking member 221 is formed on the distal end of the box body 21 and the cover 22 so as to lock the cover 22 upon closing the same. The box 2 can eliminate the aforesaid loose problem as encountered in the aforesaid box 1. However, both boxes 1, 2 are difficult to open using only one hand. Moreover, opening of the conventional box 2 of FIG. 2 to a desired extent is difficult to control.

SUMMARY OF THE INVENTION

Therefore, it is an object of the present invention to provide a box that is capable of overcoming the aforementioned drawbacks of the prior art.

According to this invention, there is provided a box that comprises: an open box body including a base wall and a peripheral wall that projects from the base wall in a transverse direction relative to the base wall and that has a distal end which is distal from the base wall and which confines a box opening, the peripheral wall including opposite first side wall portions that extend in a longitudinal direction, and a second side wall portion transverse to and interconnecting the first side wall portions; a cover mounted slidably on the distal end of the peripheral wall so as to be slidable in the longitudinal direction between a closed position, in which the cover covers the box opening, and an open position, in which the cover is moved away from the second side wall portion to expose the box opening, the cover having two opposite first side edges that extend in the longitudinal direction, and a second side edge that interconnects the first side edges, the cover being formed with a pair of slits disposed between the first side edges and extending from the second side edge in the longitudinal direction so as to form an elastic arm therebetween, the elastic arm having a base end and a free end that is opposite to the base end and that is elastically turnable relative to the base end so as to permit movement of the free end toward and away from the second side wall portion of the peripheral wall of the box body, the cover further having a hook that projects from the free end of the elastic arm in a direction toward the base wall of the box body so as to engage elastically the second side wall portion in a snap engagement manner when the cover is positioned at the closed position; and a rail unit formed on the first side edges of the cover and the first side wall portions of the peripheral wall of the box body so as to permit sliding movement of the cover along the distal end of the peripheral wall of the box body in the longitudinal direction.

BRIEF DESCRIPTION OF THE DRAWINGS

In drawings which illustrate an embodiment of the invention,

FIG. 1 is an exploded perspective view of a conventional box;

FIG. 2 is a perspective view of another conventional box;

FIG. 3 is a perspective view of a box embodying this invention;

FIG. 4 is an exploded perspective view of the box of FIG. 3;

FIG. 5 is a sectional view of the box of FIG. 3, with a cover thereof illustrated at a closed position;

FIG. 6 is a sectional view of the box of FIG. 3, with the cover illustrated at an open position; and

FIGS. 7 and 8 are schematic views to illustrate how the cover can be moved using only one hand.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

FIGS. 3 to 5 illustrate a box embodying this invention. The box 3, which is preferably made from a plastic material, includes: an open box body 31 having a base wall 30 and a peripheral wall 35 that projects from the base wall 30 in a transverse direction relative to the base wall 30 and that has a distal end 350 which is distal from the base wall 30 and which confines a box opening 351, the peripheral wall 35 including two opposite first side wall portions 311 that extend in a longitudinal direction, and a second side wall portion 314 transverse to and interconnecting the first side wall portions 311; a cover 32 mounted slidably on the distal end 350 of the peripheral wall 35 so as to be slidable in the longitudinal direction between a closed position (see FIGS. 5 and 8), in which the cover 32 covers the box opening 351, and an open position (see FIGS. 6 and 7), in which the cover 32 is moved away from the second side wall portion 314 to expose the box opening 351, the cover 32 having two opposite first side edges 327 that extend in the longitudinal direction, and a second side edge 328 that interconnects the first side edges 327, the cover 32 being formed with a pair of slits 322 disposed between the first side edges 327 and extending from the second side edge 328 in the longitudinal direction so as to form an elastic arm 323 therebetween, the elastic arm 323 having a base end 320 and a free end 329 that is opposite to the base end 320 and that is elastically turnable relative to the base end 320 so as to permit movement of the free end 329 toward and away from the second side wall portion 314 of the peripheral wall 35 of the box body 31, the cover 3 further having a hook 325 that projects from the free end 329 of the elastic arm 323 in a direction toward the base wall 30 of the box body 31 so as to engage elastically the second side wall portion 314 in a snap engagement manner when the cover 32 is positioned at
the closed position; and a rail unit formed on the first side edges 327 of the cover 32 and the first side wall portions 311 of the peripheral wall 35 of the box body 31 so as to permit sliding movement of the cover 32 along the distal end 350 of the peripheral wall 35 of the box body 31 in the longitudinal direction.

[0017] The rail unit includes a pair of rails 33 that are respectively formed on the first side edges 327 of the cover 32. Each rail 33 defines a rail groove 330 that extends in the longitudinal direction. The rail unit further includes a pair of rail guides 34 that are respectively formed on the first side wall portions 311 of the peripheral wall 35 of the box body 31 and that are respectively and slidably received in the rail grooves 34.

[0018] The cover 32 further has a third side edge 321 that is opposite to the second side edge 328 in the longitudinal direction, and a pair of stoppers 324 projecting toward the base wall 30 of the box body 31 and disposed adjacent to the third side edge 321 and respectively adjacent to the first side edges 327 of the cover 32 in such a manner that the stoppers 324 abut respectively against the rail guides 34 so as to arrest further closing movement of the cover 32 when the cover 32 is moved to the closed position.

[0019] Referring to FIGS. 7 and 8, the cover 32 can be moved between the closed and open positions using only one hand. As illustrated in FIG. 7, disengagement of the hook 325 from the second side wall portion 314 of the peripheral wall 35 of the box body 31 can be easily performed by using a finger to pull the elastic arm 323 away from the second side wall portion 314 of the peripheral wall 35.

[0020] The hook 325 has a curved guide face 326 (see FIG. 6) that faces toward an edge of the second side wall portion 314 of the peripheral wall 35 of the box body 31 so as to permit snap engagement between the hook 325 and the second side wall portion 314 when the cover 32 is moved from the open position (see FIG. 7) to the closed position (see FIG. 8).

[0021] A hanging tab 36 (see FIG. 4) projects from the second side wall portion 314 of the peripheral wall 35 of the box body 31, and is formed with a hole 312 so as to permit hanging of the box 3 on a wall.

[0022] With the inclusion of the elastic arm 323, the box 3 can be opened using only one hand, thereby eliminating the drawbacks as encountered in the aforementioned prior art.

[0023] With the invention thus explained, it is apparent that various modifications and variations can be made without departing from the spirit of the present invention.

I claim:

1. A box comprising:

an open box body including a base wall and a peripheral wall that projects from said base wall in a transverse direction relative to said base wall and that has a distal end which is distal from said base wall and which confines a box opening, said peripheral wall including opposite first side wall portions that extend in a longitudinal direction, and a second side wall portion transverse to and interconnecting said first side wall portions;

a cover mounted slidably on said distal end of said peripheral wall so as to be slidable in said longitudinal direction between a closed position, in which, said cover covers said box opening, and an open position, in which, said cover is moved away from said second side wall portion to expose said box opening, said cover having two opposite first side edges that extend in said longitudinal direction, and a second side edge that interconnects said first side edges, said cover being formed with a pair of slits disposed between said first side edges and extending from said second side edge in said longitudinal direction so as to form an elastic arm therebetween, said elastic arm having a base end and a free end that is opposite to said base end and that is elastically turnable relative to said base end so as to permit movement of said free end toward and away from said second side wall portion of said peripheral wall of said box body, said cover further having a hook that projects from said free end of said elastic arm in a direction toward said base wall of said box body so as to engage elastically said second side wall portion in a snap engagement manner when said cover is positioned at said closed position; and

a rail unit formed on said first side edges of said cover and said first side wall portions of said peripheral wall of said box body so as to permit sliding movement of said cover along said distal end of said peripheral wall of said box body in said longitudinal direction.

2. The box of claim 1, wherein said rail unit includes a pair of rails that are respectively formed on said first side edges of said cover, each of said rails defining a rail groove that extends in said longitudinal direction, said rail unit further including a pair of rail guides that are respectively formed on said first side wall portions of said peripheral wall of said box body and that are respectively and slidably received in said rail grooves.

3. The box of claim 2, wherein said cover further has a third side edge that is opposite to said second side edge in said longitudinal direction, and a pair of stoppers projecting toward said base wall of said box body and disposed adjacent to said third side edge and respectively adjacent to said first side edges of said cover in such a manner that said stoppers abut respectively against said rail guides so as to arrest further closing movement of said cover when said cover is moved to said closed position.

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