A foldable wheeled traveling case assembly includes a soft traveling case and a base formed from a rear wheel support and a front leg member. The leg member is fixedly connected to a lower front side of a rigid bottom plate of the traveling case and includes two rearward extended horizontal bars for detachably connecting to two connecting brackets mounted to a front side of the wheel support. When the bottom plate is turned to an extended position, the horizontal bars and the connecting brackets are firmly joined for the base to support the traveling case; and when the horizontal bars are disengaged from the connecting brackets, the bottom plate may be turned upward to bear against the traveling case and thereby reduces an overall volume of the wheeled traveling case assembly.
FOLDABLE WHEELED TRAVELING CASE ASSEMBLY

FIELD OF THE INVENTION

[0001] The present invention relates to a wheeled traveling case assembly, and more particularly to a wheeled traveling case assembly, a base of which may be turned into a folded position to largely reduce an overall volume of the assembly to facilitate storage and transport of the assembly at reduced warehousing and shipping costs.

BACKGROUND OF THE INVENTION

[0002] A wheeled traveling case assembly typically includes a traveling case, two wheels, and an extendable handle mechanism. When the traveling case is made of a rigid material, it is always in a state having the largest possible volume thereof, even if it does not have anything loaded therein. This rigid type of traveling case therefore requires considerably high warehousing and shipping costs to relatively reduce its competition ability in the market.

[0003] To reduce the warehousing and shipping costs of the wheeled traveling case assembly, a compressible soft traveling case has been developed to enable reduction of an overall volume of the wheeled traveling case assembly when the same is not in use. However, since the soft traveling case usually includes a rigid bottom plate having a fixed area, it would still have a considerably large volume even if it has been compressed.

SUMMARY OF THE INVENTION

[0004] A primary object of the present invention is to provide a foldable wheeled traveling case assembly, a base of which may be turned to a folded position to bear against the traveling case when the latter is not in use, allowing the wheeled traveling case assembly to have a largely reduced overall volume that facilitates storage and/or transport thereof at reduced warehousing and shipping costs.

[0005] To achieve the above and other objects, the foldable wheeled traveling case assembly of the present invention mainly includes a traveling case made of a compressible soft material, a base formed from a rear wheel support and a front leg member to support the traveling case thereon, and a handle mechanism fixed to an upper side of the wheel support. The wheel support has two open-topped connecting brackets located in front of two wheels mounted to two lower ends of the wheel support. The leg member is fixedly connected to a lower front side of a rigid bottom plate of the traveling case and includes two horizontal bars rearward extended from two supporting legs to detachably connect to the two connecting brackets via engagement of elastic fastening devices on the horizontal bars with openings on the connecting brackets.

[0006] When the bottom plate of the traveling case is turned to an extended position, the horizontal bars are firmly received in the connecting brackets for the base to support the traveling case; and when the elastic fastening devices of the horizontal bars are disengaged from the openings on the connecting brackets, the bottom plate may be turned upward to bear against the traveling case and thereby reduces an overall volume of the wheeled traveling case assembly.

[0007] In an embodiment of the present invention, the horizontal bars of the leg member are rotatably connected at rear ends to pivot pins provided at inner ends of the connecting brackets of the wheel support, so that the horizontal bars of the leg member do not completely separate from the connecting brackets when the bottom plate and accordingly the base are turned upward about the pivot pins to the folded position.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The structure and the technical means adopted by the present invention to achieve the above and other objects can be best understood by referring to the following detailed description of the preferred embodiments and the accompanying drawings, wherein

[0009] FIG. 1 is a perspective view of a foldable wheeled traveling case assembly according to a first embodiment of the present invention in an extended state for use;

[0010] FIG. 2 shows the foldable wheeled traveling case assembly of FIG. 1 in a folded state;

[0011] FIG. 3 is a fragmentary, enlarged, and partially sectioned side view of a base of the foldable wheeled traveling case assembly of FIG. 1 in the extended state;

[0012] FIG. 4 is a sectional view taken along line 4-4 of FIG. 3;

[0013] FIG. 5 is a perspective view of a foldable wheeled traveling case assembly according to a second embodiment of the present invention, wherein a traveling case thereof is removed from the assembly to better show the structure of a base and a handle mechanism thereof;

[0014] FIG. 6 is a fragmentary, enlarged, and partially sectioned side view of the base of the foldable wheeled traveling case assembly of FIG. 5 in an extended state; and

[0015] FIG. 7 is a fragmentary, enlarged, and partially sectioned side view of the base of the foldable wheeled traveling case assembly of FIG. 5 in a folded position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0016] Please refer to FIGS. 1 and 2 that are perspective views of a foldable wheeled traveling case assembly 1 according to a first embodiment of the present invention in extended and folded states, respectively. As shown, the foldable wheeled traveling case assembly 1 mainly includes a traveling case 10, a base 20, and a handle mechanism 21. The traveling case 10 is made of a compressible soft material and includes preferably a rigid bottom plate 11. The base 20 includes a wheel support 22 and a leg member 23 forming a rear and a front part, respectively, of the base 20. The handle mechanism 21 is fixedly connected to an upper side of the wheel support 22.

[0017] The leg member 23 is fixedly connected to a lower front side of the rigid bottom plate 11 of the traveling case 10 and includes two vertical supporting legs 24 and two horizontal bars 25 extended from the supporting legs 24 toward the wheel support 22. Each of the two horizontal bars 25 is provided at two lateral sides with two elastic fastening devices 251. Since the traveling case 10 is made of a soft material, the bottom plate 11 and accordingly the front leg member 23 fixed thereto can be pivotally turned upward to
bear against the traveling case 10 when the same is collapsed to a folded state, as shown in FIG. 2.

[0018] The wheel support 22 has two wheels 26 connected to two lower ends thereof, and two open-topped connecting brackets 27 located in front of the two wheels 26. The two connecting brackets 27 are so located that the two horizontal bars 25 of the leg member 23 are allowed to move into and out of the open-topped connecting brackets 27 when the rigid bottom plate 11 of the traveling case 10 is turned about a rear edge relative to the wheel support 22. Each of the two connecting brackets 27 is provided at two lateral walls with two openings 271 for engaging with the elastic fastening devices 251 on one corresponding horizontal bar 25 of the leg member 23 when the traveling case 10 is in the extended state, as shown in FIG. 4, so as to firmly hold the horizontal bar 25 to the connecting bracket 27 without the risk of easily separating therefrom, enabling the leg member 23 and the wheel support 22 to join together and form a structurally solid and horizontally extended base 20 and allowing the traveling case 10 supported on the base 20 to be fully expanded for holding things therein.

[0019] To collapse the foldable wheeled traveling case assembly 1 to the folded state, first compress the elastic fastening devices 251 on each horizontal bar 25 to disengage them from the openings 271 on the corresponding connecting bracket 27, so that the horizontal bars 25 are disengaged from the open-topped connecting brackets 27. Then, pivotally turn the bottom plate 11 of the traveling case 10 upward about the rear edge to bear against the traveling case 10 that can be then compressed and collapsed, as shown in FIG. 2, to largely reduce an overall volume of the wheeled traveling case assembly 1. Since the collapsed traveling case 10 with the bottom plate 11 in the upward turned position occupies a smaller room, more pieces of the folded wheeled traveling case assembly 1 may be loaded and shipped in one container to lower the freight and accordingly an overall cost thereof and therefore increase the competition ability of the wheeled traveling case assembly 1 in the market.

[0020] FIG. 5 shows a base 20 and a handle mechanism 21 for a foldable wheeled traveling case assembly according to a second embodiment of the present invention. The foldable wheeled traveling case assembly in the second embodiment is structurally similar to that in the first embodiment, and has a base 20 including a wheel support 22 and a leg member 23' that form rear and front parts, respectively, of the base 20'. The wheel support 22' has two connecting brackets 27' that are mounted to a lower front side of the wheel support 22' and have two openings 271' provided at two lateral walls thereof. The leg member 23' has two horizontal bars 25' extended toward the connecting brackets 27' and provided at two lateral sides with two elastic fastening devices 251'. Please refer to FIGS. 6 and 7. The base 20' is different from the base 20 in that the two horizontal bars 25' of the leg member 23' are rotatably connected at respective rear ends to two pivot pins 28 separately provided at inner ends of the two connecting brackets 27'. When the elastic fastening devices 251' are disengaged from the openings 271' on both connecting brackets 27' and the bottom plate 11 is pivotally turned upward to bear against the collapsed traveling case 10, the horizontal bars 25' are simultaneously turned upward about the pivot pins 28 to move out of the connecting brackets 27' without completely separating therefrom, as shown in FIG. 7.

[0021] With the above arrangements, the foldable wheeled traveling case assembly 1 has the advantages of being collapsible to a smallest possible volume to facilitate storage and transport thereof at reduced warehousing and shipping costs, and having leg member 23, 23' and wheel support 22, 22' adapted to detachably connect each other and form a fixed and solid base 20, 20' for the wheeled traveling case assembly 1 to function normally without the risk of easily becoming deformed.

What is claimed is:

1. A foldable wheeled traveling case assembly, comprising a traveling case made of a compressible soft material and having a rigid bottom plate, a base formed from a leg member and a wheel support that constitute front and rear parts, respectively, of said base, and a handle mechanism fixedly mounted to an upper side of said wheel support, said wheel support having two wheels connected to two lower ends thereof and two open-topped connecting brackets located in front of said two wheels, each of said two connecting brackets being provided at two lateral walls with two openings;

said leg member being fixedly connected to a lower side of said rigid bottom plate of said traveling case, and including two vertical supporting legs, and two horizontal bars extended from said two supporting legs toward said wheel support; each of said two horizontal bars being provided at two lateral sides with two elastic fastening devices; and

said two horizontal bars being separately received in said two open-topped connecting brackets with said elastic fastening devices firmly engaged with said openings on said connecting brackets when said traveling case is in an extended state and said bottom plate thereof is turned to a horizontal extended position; and said two horizontal bars being movable out of said two open-topped connecting brackets by disengaging said elastic fastening devices from said openings on said connecting brackets and upward turning said bottom plate to bear against said traveling case, and thereby allowing a reduced overall volume of said wheeled traveling case assembly.

2. The foldable wheeled traveling case assembly as claimed in claim 1, wherein said two horizontal bars of said leg member are rotatably connected at rear ends to two pivot pins provided at inner ends of said two connecting brackets.

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