ABSTRACT
A split compartment system with a first and second compartment fitted with first and second upper adjustment straps and first and second lower adjustment straps as well as first and second shoulder straps. Each upper adjustment strap is fitted with a release connector and adjustment buckle and each lower adjustment strap is fitted with a release connector and adjustment buckle. The upper and lower adjustment straps can be shortened or lengthened using this adjustment buckle in order to increase or decrease the distance between the first and second compartments allowing the compartments to straddle a roller board or other apparatus. In addition the release connectors of the upper and lower adjustment straps may be used to separate the first and second compartments from one another entirely allowing the user to utilize the first and second compartment as two separate bags.
SPLIT COMPARTMENT SYSTEM

BACKGROUND

[0001] Throughout the history of travel, a common and serious problem has been discovering new and improved ways of transporting one's belongings while traveling, especially in the era of stricter baggage regulations, increased baggage fees for checked baggage and limited space for carry-on baggage. In addition, problems arise with regard to the ease of portability especially when traveling long distances to get to one terminal from another in a limited amount of time. Such issues are only amplified for those who travel frequently and those working in the flight industry.

[0002] While there have been improvements in baggage design over the years, there are still issues inherent with traveling with the current baggage and baggage systems. Current systems which include a roller bag with an attached second bag, usually attached to the same roller board above the first bag solve the problem of having to carry two separate bags, but introduce new undesirable effects. For example, adding an additional bag to an existing roller bag in a stacked position can create shifting, sliding and swinging of the bag and roller board itself as well as the loss of the attached bag sometimes when the bag falls off the roller board. This torsion of the bags on a rigid roller board can create torque and center of gravity problems which often result in back, shoulder and elbow injuries to the user. Another problem occurs in that the traveler needs often to stop to resituate the bags and to sometimes resecure them to the roller board which can take unnecessary and precious minutes away from the sometimes already too short layovers travelers experience.

[0003] In addition to potential injury and discomfort to a traveler's body from twisting and falling baggage attached to a roller board, there is also frequently a great deal of wear and tear that occurs to the baggage and roller board itself. When the secondary attached bag or even the main bag on a roller board slits and/or twists the handle and wheel systems of the roller board incur unnecessary wear. Also, the bags themselves can experience wear due to being dragging on the ground before it is noticed that the roller board has flipped which is also undesirable and ultimately unnecessarily costly.

[0004] Yet another longstanding issue with current baggage and roller board systems are their size and rigidity. On commercial flights, there is always an extremely limited, finite amount of room to stow carry on baggage; carry on baggage is also subject to stringent size regulations. Carry on bags must fit in the small space under a traveler’s seat or in the narrow recess of the overhead bins. Many bags with roller boards simply do not fit in these spaces and often need to be checked at the last minute which can result in additional time and money.

[0005] The bags with the roller boards attached are also problematic due to the rigidity of the roller board; if the roller board is even slightly too big, it will not be able to be forced into fitting into a small defined space.

[0006] Finally an issue of convenience arises with current baggage systems. If a traveler brings only one carry on bag and an additional bag, for example, a handbag, the standard carry on allowance has been met. If this same traveler wants to bring a laptop, he or she is going to have to pack the laptop and any clothing items in the same bag. If that same traveler then has business meetings, he or she does not have an easy solution to transport the laptop to the meetings if the same bag has to be used for other personal items. There is simply limited variability in today’s baggage systems.

SUMMARY

[0007] In accordance with the following disclosure, the problem of portability of baggage, the corresponding risk of injury and the inconvenience of stowing certain carry on baggage can be avoided by a baggage system which is convertible in nature. This split compartment system allows for a bag to straddle a roller board at an adjustable height and allows the bag to placed lower than other bags, closer to the wheel base of a roller board, which transfers the main bulk of the weight low on the roller board. This low weight placement lowers the center of gravity toward the wheel base which results in the bag and roller board feeling and pulling lighter than if it were attached closer toward the handle like most traditional systems. The convertibility and adjustability of this baggage system also accommodates a large variety of roller bags so that the traveler can adjust the bag to straddle larger bags, check the larger roller bag and then unattach the baggage system to carry or to wear as a vest to the gate and board with it as a carry on. Additionally, once aboard an aircraft, the baggage system can split into two separate compartments; one compartment, which may contain fragile items, may be stored underneath a seat and the other, which may contain sturdier items may be stored in the overhead bin adding to the safety and security of the user’s belongings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a side view of a split compartment system in accordance with the current disclosure.

[0009] FIG. 2 is a side view of a split compartment system in accordance with the current disclosure.

[0010] FIG. 3 is a top view of a split compartment system in accordance with the current disclosure, depicted in a second exemplary application of use.

[0011] FIG. 4 is a plan view of a split compartment system in accordance with the current disclosure, depicted in a third exemplary application of use.

[0012] FIG. 5 is a plan view of another embodiment of the split compartment system in accordance with the current disclosure.

[0013] FIG. 6 is a plan view of the split compartment system in accordance with the current disclosure.

DETAILED DESCRIPTION

[0014] FIG. 1 depicts the split bag system 100 with first compartment 102 and second compartment 104. Upper adjustment straps 120 and 122 can each be provided with an upper strap release connector 128 and an upper strap length-adjustment buckle 142. Likewise, lower adjustment straps 130 and 132 can each be provided with a lower strap release connector 134 and a lower strap length-adjustment buckle 136. Upper adjustment strap release connectors 128 allow the upper adjustment straps 120 and 122 to be separated into two parts, while lower adjustment strap release connectors 134 allow the lower adjustment straps 130 and 132 to be separated into two parts. In this way release connectors 128 and 134 can be used to release the first compartment 102 from the second compartment 104. First upper shoulder strap 124 and second upper shoulder strap 126 can be located above either first respective upper adjustment strap 120 and second respective adjustment strap 122 in order to conceal the adjustment straps...
Hook and loop fastener patches 172 are provided and located on the first compartment 102 to contact respective hook and loop fastener areas located on the second compartment 104 when the split bag system 100 is unexpanded and utilized with the first compartment 102 and the second compartment 104 in direct contact to one another as one bag with a first compartment 102 and second compartment 104.

Additional pockets or compartments can also be affixed to first compartment 102 and second compartment 104 as well as inner pockets to provide for additional storage and organization. Also, plastic or other rigid inserts may be placed in the lining of the bottom of each bag to create a more stable bottom.

FIG. 2 depicts the split bag system 100 with first compartment 102 and second compartment 104. Upper adjustment strap 120 is fitted with a release connector 128 and adjustment buckle 142. The adjustment buckle 142 can be used to adjust the distance between first compartment 102 and second compartment 104. Likewise, lower adjustment strap 132 is fitted with a release connector 134 and adjustment buckle 136 which can also be adjusted in order to increase or decrease the distance between first compartment 102 and second compartment 104. In this way, the split bag system 100 can be adjusted to accommodate a variety of situations the user may encounter.

In another embodiment, the first compartment 102 can be completely separated from second compartment 104 using upper release connector 128 and lower release connector 134 resulting in a user having two separate bags. In this embodiment, the user can utilize first loop handle 106 by grasping loop grip 110 and carrying one bag by hand and utilize the second bag as a cross section type bag by connecting first upper adjustment strap 120 with lower adjustment strap 132 utilizing upper release connector 128 and lower release connector 134.

Alternatively, a user could also utilize first loop handle 106 and loop grip 110 and second loop handle 108 and carry both separated first compartment 102 and second compartment 104 by hand.

In order to additionally secure first compartment 102 to second compartment 104, hook and loop fastener patches 172 are provided and located on the first compartment 102 to contact respective hook and loop fastener areas located on the second compartment 104 when the split bag system 100 is unexpanded and utilized with the first compartment 102 and the second compartment 104 in direct contact to one another as one bag with a first compartment 102 and second compartment 104.

FIG. 3 depicts the split bag system 100 mounted to a roller bag or roller board 190 in such a way as to allow roller bag or roller board extension bars 192 to extend between first compartment 102 and second compartment 104 which are separated and held in place by first upper adjustment strap 120 and second upper adjustment strap 122 and lower adjustment straps 130. In this embodiment, the split bag system 100 is able to be strapped onto the existing roller board or roller bag 190 in such a way that it straddles the bag with the first compartment 102 and the second compartment 104 on either respective side of the existing roller bag or roller board 190.

FIG. 3 further depicts the split bag system with first shoulder strap 124 and second shoulder strap 126 including a first respective hook-and-loop fastener 152 and second respective hook-and-loop fastener 156 which can contact with first respective hook-and-loop fastener area 154 and second respective hook-and-loop fastener area 158 on respective second upper adjustment strap 122 and first upper adjustment strap 120.

In this embodiment, the first upper adjustment strap 120 and second upper adjustment strap 122 can be adjusted using upper strap adjustment buckles 142. Likewise, the lower adjustment strap 130 can be adjusted using lower strap adjustment buckles 136. In this way, the split bag system 100, can be adjusted to fit several different shapes and sizes of roller bags.

In mounting the split bag system 100 to the roller board or roller bag 190, the center of gravity of the bag is lowered due to the added weight of the split compartment system and distribution of said weight which can be adjusted to be positioned closer to the wheel base of the roller board. This shift in the center of gravity allows a user to avoid the usual issues of the bag twisting and turning when being utilized which in turn saves time and helps prevent injury to the user.

Further, in this embodiment, the straddling placement of the split compartment system 100 over the roller board 192 allows the user to remove in one movement and without detachment of upper adjustment straps 120 and 122 and without detachment of lower adjustment straps 130 to remove the split compartment system 100 in one movement from the roller board 192 such that the user can hold the split compartment system in one hand while having one hand free to maneuver the rolling board 192 and, for instance, check the roller board 192 while continuing on with the split compartment system 100 as a carry on.

FIG. 4 depicts the split bag system shown being worn by a user. In this embodiment, first compartment 102 is connected by first shoulder strap 124 and second shoulder strap 126 and further connected by lower adjustment straps 132. Lower adjustment straps 132 are fitted with lower strap release connectors 134 in order that the split bag system can be worn as a backpack. In addition, looped handle 108 allows for portability of the split bag system when it is not being worn by the user.

First compartment 102 and second compartment 104 can also be fitted with a pocket or pockets to provide more storage. For example, when worn as a backpack type vest, the compartment worn on the front of the user can have a pocket in which valuable items might be kept in order to prevent pick pocketing and thieves.

In an alternative embodiment, first shoulder strap 124 and second shoulder strap 126 can be positioned below upper respective adjustment strap 120 and second respective adjustment strap 122. First shoulder strap 124 and second shoulder strap 126 which can be in direct contact with the user's shoulders can also be padded in order to be more comfortable to the user.

In another embodiment, friction-type open-end adjustment buckles can be used as a substitute for first upper strap length-adjustment buckle 142 and lower strap length adjustment buckle 136.

FIG. 5 shows the unexpanded split bag system 100 with first compartment 102 and second compartment 104. In this embodiment, first compartment 102 and second compartment 104 are in contact to create a dual compartment briefcase. First loop handle 106 and second loop handle 108 include hand grips 110 which allow for ease in portability.
In another embodiment, hand grips 110 can include a fold over snap which will allow first loop handle 106 and second loop handle 108 to be secured together to form one handle.

FIG. 6 shows the back of the compartment 102 with a flap 170 which is attached by hook and loop fastener patches 178. The flap functions to conceal and store upper adjustment straps 120 and lower adjustment straps 132 when not in use by a user and also to create a smooth and streamlined back panel of the compartment 102.

In this embodiment, the flap 170 can be a booked flap, vertically sewn down the center which opens to both sides to both access both the upper adjustment straps 120 and lower adjustment straps 132 and conceal the upper adjustment straps 120 and lower adjustment straps 132 when not in use. This embodiment allows the stored upper adjustment straps 120 and lower adjustment straps 132 to lay flat under the flap 170 when not in use.

The flap 170 can also be used to conceal and store any other additional straps.

In another embodiment, the flap 170 may be secured by a zipper system or other attachment mechanism alternatively to the hook and loop fastener patches 178.

The apparatus of claim 1, wherein said first and second lower adjustable straps are fitted with at least one length-adjustment buckle such that said first and second adjustable straps may be adjusted to increase or decrease the distance between the first and second compartments.

The apparatus of claim 1, wherein said first and second compartments are fitted with a flap secured by hoop and loop fasteners securing said first and second upper adjustment straps and said first and second lower adjustment straps.

The apparatus of claim 1, wherein said first and second compartments are fitted with a flap secured by hoop and loop fasteners securing any additional straps which may be attached to said first and second compartments.

The apparatus of claim 1, wherein said first and second compartments are fitted with a booked flap, secured by hoop and loop fasteners and sewn vertically through the center such that two openings on either side can be used to secure first and second upper adjustment straps and first and second lower adjustment straps.

The apparatus of claim 1, wherein said first and second compartments are fitted with a booked flap, secured by hoop and loop fasteners and sewn vertically through the center such that two openings on either side can be used to secure any additional straps which may be attached to said first and second compartments.

The apparatus of claim 1, wherein said first and second compartments are fitted with internal or external pockets or other internal organizational storage devices.

An apparatus comprising:

a first compartment and second compartment with first and second upper adjustable straps and first and second lower adjustable straps;

first and second upper shoulder straps connected to the tops of the first and second compartments in essentially parallel, spaced apart relationship to one another, and

first and second lower adjustable straps connecting the bottoms of the first and second compartments in essentially parallel, spaced apart relationship from one another.

The apparatus of claim 1, wherein said first and second lower adjustable straps are fitted with at least one release connector such that said first and second adjustable straps are releasable from one another.

The apparatus of claim 1, wherein said first and second lower adjustable straps are fitted with at least one release connector such that said first and second adjustable straps are releasable from one another, entirely separating the first and second compartment from each other.

The apparatus of claim 1, wherein said first and second upper adjustable straps are fitted with at least one length-adjustment buckle such that said first and second adjustable straps may be adjusted to increase or decrease the distance between said first and second compartments.

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