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Description

[0001] The present invention relates to articles of luggage, more specifically, but not exclusively to a plurality of articles of luggage which can be towed, whilst securely connected one to another. Such an article of luggage is known from DE3636064.

[0002] Luggage is any number of bags, cases and/or containers which hold a traveller's articles during transit. Luggage has changed over time. Historically the most common types of luggage were chests or trunks made of wood or other heavy materials. These would have hinges and locks and would be shipped by professional movers. In more recent times, smaller and more lightweight suitcases and bags that can be carried by an individual have become the main form of luggage.

[0003] A suitcase is a general item that might be a wheeled or non-wheeled luggage, as well as soft or hard sided luggage. Suitcases are often somewhat flat, generally rectangular-shaped with rounded/square corners, and are made from materials that more or less keep their intended shape. In modern times, the main body of a suitcase is usually formed from a number of panels, or at a minimum, two moulded clam-like shells with a zip fastener along the peripheral edge of one panel, or across a number of panels to form an opening. Many modern suitcases have built-in set or sets of wheels enabling them to be pulled along on hard flat surfaces by a fixed or extendable handle or by a retractable or stowable leash, wherein the towing handle structure is moveable between an extended user case towing position and a retracted stowage position. Furthermore, suitcases come in a variety of sizes, the smallest being known as a "trolley bag".

[0004] Such wheeled luggage enables a traveller to easily manoeuvre luggage from one destination to another without having to lift the luggage. However, occasionally some travellers need to travel with more than one article of luggage at a time and when they do so, they need to use both hands, as it is difficult to manoeuvre multiple articles of luggage with one hand. This is a particular problem if the traveller is infirm, has a stick, or needs to hold a small child's hand, for example.

[0005] Some prior art articles of luggage have connecting means on their upper panel, located near to the trolley handle to attach additional articles of luggage. However in practice, the result of using such an arrangement is that the arrangement quickly becomes inherently unstable, and, therefore, relatively hard to manoeuvre compared to a single piece of luggage (please see Figure 1 and description for a further explanation of the particular problems). This causes problems for a traveller in that he/she will still be required to use two hands to steady the luggage whilst manoeuvring the luggage when opening doors, moving through gaps, turning corners and ascending/descending escalators etc. This problem almost entirely obviates the apparent usefulness of the connecting means.

[0006] Some larger items of luggage are capable of hanging smaller articles on top of the luggage casing, but such an arrangement involves a traveller having to lift the smaller second article of luggage quite a height off the ground, in order to hang it from the first article. Another commonly used way of travelling with more than two cases is to lift at least one of the articles of luggage, and placing it on top of another. Such lifting may cause injury to certain travellers, such as the elderly or infirm. Furthermore, parents holding a small child cannot risk placing the child down in a public place in order to lift an article of luggage onto another.

[0007] Another prior art suit case as disclosed in US2010/0059323 A1, comprises a back-to-back connector system; however the natural pivot of the arrangement will mean when one tows the larger case, the smaller case will fall flat and therefore will get in the way when towed and will not add convenience. Furthermore, this arrangement of the connected articles of luggage does not allow a user to walk directly in front or behind the articles of luggage when towing the arrangement, which is highly awkward and inefficient for a user, especially if the user is in a hurry e.g. to catch a train or a plane, or trying to manoeuvre around a barrier or object. Also, due the inherent back to back nature of this system, only two articles of wheeled luggage can be connected in this way.

[0008] Some of these and other problems with prior art luggage systems are discussed further with reference to Figure 1 following.

[0009] The present invention therefore seeks to provide an article of luggage which overcomes, or at least reduces some of the above-mentioned problems of the prior art.

[0010] Thus, there is provided a wheeled suitcase according to appended independent claim 1 comprising two separate securing means located in opposed orientations for connecting more than one further item of luggage; one item to each of the two opposed sides of the wheeled suitcase, wherein the further items do not need to be lifted up to be secured one to another.

[0011] In accordance with the present invention, there is provided an article of luggage, wherein the article of luggage comprises: a base portion; a lid portion hingedly attached to the base portion and wherein the base and lid portions are arranged to open and close; a trolley handle arrangement located at a first end of the article of luggage; a set of wheels located at or about an opposed end of the article of luggage to the trolley handle arrangement; a first complementary portion of a first two-part connector means; and in an opposed orientation, a first complementary portion of a second two-part connector means; and wherein in use the first complementary portion of the first two-part connector means is operable to connect to a second complementary portion of the first two-part connector means located on a second article of luggage, and wherein the first complementary portion of the second two-part connector means is operable to connect to a second complementary portion of the second

two-part connector means located on a third article of luggage, wherein at least one of the second or third articles of luggage can be secured to the first article of luggage whilst both articles of luggage are standing on their wheels on the ground.

[0012] In accordance with a second aspect of the present invention, there is provided a set of two articles of luggage, wherein both the articles of luggage comprise: a base portion; a lid portion hingedly attached to the base portion and wherein the base and lid portions are arranged to open and close; a trolley handle arrangement located at a first end of each of the articles of luggage; a set of wheels located at or about an opposed end of each of the articles of luggage to the trolley handle arrangement; and wherein the first article of luggage further comprises a first complementary portion of a first two-part connector means, and the second article of luggage comprises a second complementary portion of the first two-part connector means, wherein the first and second complementary portions of the first two-part connector means are located on each article of luggage such that the first complementary portion of the first two-part connector can be secured to the second complementary portion of the first two-part connector whilst both articles of luggage are standing on their wheels on the ground, and wherein the first or second articles of luggage further comprise a first complementary portion of a second two-part connector, such that in use, the first or second article of luggage can be secured to a second complementary portion of a second two-part connector of a third article of wheeled luggage, whilst the third article of luggage is standing on its wheels on the ground.

[0013] Preferably, the first complementary portions of the first and second two-part connector means are located in an opposed orientation.

[0014] The following preferable features are with reference to both the first and second aspects.

[0015] Preferably, wherein all articles of luggage are orientated in the same direction.

[0016] Preferably, the first article of luggage further comprises a first complementary portion of a third two-part connector means and a first complementary portion of a fourth two-part connector means.

[0017] Further preferably, the second article of luggage comprises a second complementary portion of the third two-part connector means.

[0018] Preferably, the third article of luggage comprises a second complementary portion of the fourth two-part connector means.

[0019] Preferably, the first complementary portion of each two-part connector means comprises a fabric strap coupled to a male connector portion and the second complementary portion of each two-part connector means is a fabric strap coupled to a female connector, and wherein the male and female connector portions are plastic.

[0020] Preferably, the length of the complementary portions are adjustable.

[0021] Preferably, the base portion is formed as a tray-like portion and comprises, a major panel portion and four minor side panel portions.

[0022] Preferably, the lid portion is formed as a tray-like portion and comprises, a major panel portion and four minor side panel portions.

[0023] Preferably, the lid and tray portion are formed each as single shell-like portions. Preferably, both the articles of luggage comprise a second set of wheels, located at or about an opposed end of the article of luggage to the trolley handle arrangement.

[0024] Preferably, the articles of luggage comprise connector pockets, wherein at least one part of the two-part connectors is retained within the connector pocket when fully closed.

[0025] Preferably, the connector pockets comprise a closure mechanism located around their periphery, wherein the closure mechanism is a zip-mechanism. Preferably, the first and second complementary portions of the first two-part connector means are co-located at the same height when the first and second articles of luggage are adjacent each other.

[0026] Preferably, the first and second complementary portions of the second two-part connector means are co-located at the same height when the first and third articles of luggage are adjacent each other.

[0027] Preferably, the first and second complementary portions of the third two-part connector means are co-located at the same height when the first and second articles of luggage are adjacent each other.

[0028] Preferably, the first and second complementary portions of the fourth two-part connector means are co-located at the same height when the first and third articles of luggage are adjacent each other.

[0029] Three embodiments of the invention will now be more fully described, by way of example, with reference to the drawings, of which:

Figure 1 is a diagram showing a side view of two articles of luggage connected together as known in the art;

Figure 2A is a diagram showing a perspective view of an individual article of luggage according to one embodiment of the present invention;

Figure 2B is a diagram showing a rear view of the article of luggage of Figure 2A;

Figure 2C is a diagram showing a front view of the article of luggage of Figure 2A.

Figure 3 is a diagram showing a side view of a number of individual articles of luggage of Figure 2A, which vary in size;

Figure 4 is a diagram showing a side view of the individual articles of luggage of Figure 3 when coupled together;

Figure 5 is a diagram showing a side view of the coupled articles of luggage of Figure 4, when being towed;

Figure 6 is a diagram showing a side view of an article of luggage according to a second embodiment of the present invention;

Figure 7 is a diagram showing a perspective view of an article of luggage according to a third embodiment of the present invention;

Figure 8 is a diagram showing a side view of the connector pockets; and

Figure 9 is a diagram showing a side view of the individual articles of luggage when being towed.

[0030] Figure 1 is a diagram showing a side view of first article of luggage 1 as known in the art, which is arranged to tow a second article of luggage 10. The first article of luggage 1 comprises a handle 2, wheels 4, a case body 6, and female connector 8; and the second article of luggage comprises wheels 12, case body 14 and male connector 16. Upon connecting the male connector 8 to the female connector 16, the cases are joined in a towable arrangement, whereby the second article of luggage is manoeuvred using the handle 2 of the first article of luggage 1 when the articles of luggage 1, 10 are in an inclined position.

[0031] However, one problem with this arrangement is that, the centre of gravity of the cases is such that a user must expend a great deal of energy to place the second article of luggage 10 into an inclined position, in order to firstly attach the two articles together. This is because the weight of the second article 10 naturally pulls the first article 1 towards it as they are being coupled together. Therefore in order to couple these articles 1, 10, a user literally needs more than one pair of hands, the first to lift the second article 10 and then a second pair of hands to couple them together. As the two articles of luggage 1, 10 are coupled together, again the weight of the second article of luggage 10 tries to pull both articles of luggage 1, 10 over and they have to be immediately stabilised by pulling back on the handle 2 of the first article 1 (as shown by the arrows marked on Figure 1).

[0032] The result of using such an arrangement being that it is naturally unstable, and, therefore, hard to manoeuvre compared to a single piece of luggage. This causes problems for a traveller in that he/she will still be required to use two hands to stabilise the two pieces when manoeuvring the luggage when opening doors, moving through gaps, turning corners and ascending/descending escalators etc. Therefore, articles of luggage having such connection means are unsuitable for parents with very young children, the elderly and/or the infirm.

[0033] Figure 2A is a diagram showing a perspective view of an article of luggage 17 according to one embodiment of the present invention, Figure 2B is a diagram showing the rear view of the article of luggage 17, and Figure 2C is a diagram showing the front view of the article of luggage 17. The same numbering is used for like features throughout these figures.

[0034] In the illustrated embodiment, the article of luggage 17 comprises a base portion and a lid portion in which the base and lid portions are formed from two moulded clam-like shell portions, a front shell portion 24 and a back shell portion 26. Other constructions of the base portion and lid portion are envisaged and are disclosed by way of example in relation to Figures 6 to 9 below. The shell portions 24, 26 may be formed in any way as known in the art and may be made from any material traditionally used to make hard or soft style cases; that is they may be made from moulded plastic, or a foamed plastics material such as EVA, or from composite fabric and board layers, for example. The front and back shell portions 24, 26 are hingedly attached and are openable with respect to each other, by means of an opening zip fastener arrangement 27 located around their peripheral edge. The article of luggage 17 may incorporate further features not described in the figures, such as suitcase expander capabilities and/or other features applicable to luggage which are well known in the art.

[0035] A trolley handle arrangement 20 is located on the back shell portion 26, and comprises two extendable, rigid vertically upright members 42. The trolley handle arrangement 20 is generally centred longitudinally on the back shell portion 26, of the article of luggage 17. The trolley handle arrangement 20 also comprises a cross-piece 44, which spans the top of the upright members 42. A recess 441 is fabricated into the back shell portion (Figure 2B only) such that the trolley handle arrangement 20 is stored in the recess 441 when not required by a user. Inserted into the cross piece 44 is a button 29 which is used to unlock and lock the cross piece 44 into place. Such a locking mechanism is known in the art. A user defined grip (not shown) may also be incorporated into the cross piece 44. The article of luggage 17 also comprises two sets of wheels 28, which are located on the front and back shell portion 24, 26 at the opposite end of the shell portions 24, 26 to the trolley handle arrangement 20.

[0036] Two connector straps 30, each having a female connector 36, are attached to either side of the back shell portion 26 (both shown in Figure 2B only), whilst two connector straps 31 having male connectors 34, are attached to either side of the front shell portion 24 (shown in Figures 2A and 2C only). The connection straps 30, 31 are positioned at or above the mid-point of the vertical height of the article of luggage 17, conveniently on the same horizontal axis as each other.

[0037] The connection straps 30, 31 are fabricated from durable and flexible material, such as nylon, cotton, plastic and/or other such material. The connection straps 30, 31 are attached to the shell portions 24 and 26 by means of glue, stitching, staples or by any other known

method for attaching a piece of flexible material to an article of luggage.

[0038] The connection straps 30, 31 are attached to the female and male connectors 36, 34 using a length adjustment buckle 35 such that when the straps 30 and/or 31 are pulled relative to their respective connectors 36, 34, the length of the strap 30 and/or 31 will lengthen or shorten, depending on the direction of the applied force. Such length adjustment mechanisms 35 are known in the art.

[0039] The male and female connectors 34, 36 can be engaged and disengaged from each other by a user as known in the art.

[0040] Figure 3 is a diagram showing a side view of a number of individual articles of luggage 17, 18, 19, which vary in size. In the illustrated embodiment, each of the articles of luggage 17, 18, 19 comprise two moulded clam-like shell portions, a front shell portion 24 and a back shell portion 26, as described in Figures 2A, 2B & 2C above.

[0041] Each of the individual articles of luggage 17, 18 and 19 has connection straps 30, 31 also as described in Figures 2A, 2B & 2C above. The connection straps 30, 31 are located on the articles of luggage 17, 18 and 19 such that when the articles of luggage are located adjacent each other, the connection straps 30, 31 on article of luggage 17, 18 and 19 are located at the same vertical height as connection straps 30, 31 on the adjacent articles of luggage 17, 18 or 19. This is so that the male connector 34 on one article of luggage 17, 18 or 19 can readily connect to the female connector 36 on a second article of luggage 17, 18 or 19 (see Figure 4).

[0042] The connector straps 30, 31 and connectors 34, 36 may be covered by material (not shown) such that they are hidden from view when not connected to the connector means of an adjacent article of luggage 17, 18 or 19, or they may be neatly stowed by being connected to each other, as shown in Figure 3, or in a zip pocket, as shown in Figure 7.

[0043] Figure 4 is a diagram showing a side view of the individual articles of luggage 17, 18, 19 of Figure 3 coupled together. In order to connect a first article of luggage 18 to a second article of luggage 17, the back shell portion 26 of the first article of luggage 18 is placed adjacent the front shell portion 24 of the second article of luggage 17, by using its trolley handle arrangement 20 and wheels 28, thereby removing the necessity to lift an article of luggage 17, 18 or 19 at any time.

[0044] Quite easily, and without having to lift the articles of luggage, the male connectors 34 of the second article of luggage 17 can then be inserted into the female connectors on the first article of luggage 18, and are retained in position as described in Figure 2A above. A further article of luggage 19 may as easily be attached to the second article of luggage 18, using the above process, thereby forming an arrangement of three articles of luggage 17, 18 and 19. The length of the connection straps 30, 31 may also be adjusted, as described in figure 2 above, such that the adjacent articles of luggage 17, 18, 19 when connected, can be tensioned to ensure the articles of luggage 17, 18, 19 are maintained adjacent each other in use.

[0045] Importantly, at no point in time during this connecting process do any of the articles of luggage need to be lifted up. They are simply manoeuvred by use of their wheels and trolley handle.

[0046] Using the method described above in Figures 2A, 2B and 2C, The articles of luggage 17, 18 and/or 19 can be coupled to or uncoupled from, any other article of luggage 17, 18 and/or 19 in an arrangement. It should also be evident that one advantage of the invention is that any number of articles of luggage of differing sizes can be added to the arrangement. All articles of luggage in the arrangement do not necessarily need wheels 28 and/or a trolley handle arrangement 20, so long as the article of luggage, which is used to tow the other article(s) of luggage in the arrangement has such features.

[0047] Figure 5 is a diagram showing a side view of the articles of luggage 17, 18, 19 of Figure 3 when being towed. The arrangement of Figure can be placed in an inclined position by a user pulling the trolley handle arrangement 20 in the direction of the arrow. This particular arrangement of coupled articles of luggage 17, 18, 19 is such that it is easily manoeuvrable using one hand when the articles of luggage 17, 18, 19 are in an inclined position. Indeed, in the illustrated embodiment as all articles of luggage 17, 18, 19 have been provided with a set of wheels it is possible to tow the coupled the articles of luggage 17, 18, 19 without inclining the articles of luggage 17, 18, 19 - though they are less manoeuvrable than when inclined.

[0048] Due to the positioning of the connector means and the fact there are two sets of per suitcase, the arrangement is now much more stable, such that a user can turn corners, open doors, and use escalators/elevators using only one hand to manoeuvre the arrangement of multiple articles.

[0049] Depending on the size of the articles of luggage in an arrangement, the tightness of the connection straps 34, 36 when coupled together, and the angle of incline □, the wheels 28 on each article of luggage 17, 18 and/or 19 may be in constant contact with the floor when being towed. The fact that the wheels 28 of some articles of luggage are not in contact with the floor will not impact on the manoeuvrability of the arrangement due to the fact that there are two points of coupling with two connectors. Furthermore, there is a low centre of gravity because the connection straps 34, 36 are located on the side of the shell panels 24, 26, and not, as with the prior art, located at the top of the shell panels 24, 26.

[0050] Figure 6 is a diagram showing a perspective view of an article of luggage 117 according to a second embodiment of the present invention.

[0051] The article of luggage 117 comprises a tray-like base portion 125 and a lid portion 124. The tray-like base portion comprises a major panel 126, a first side panel

127 (and opposite second side panel not shown), bottom panel 122 and top panel 123. The lid portion 124 is hingedly attached to the tray-like base portion 125 by a zip fastener arrangement 121 located on the periphery of the first side 127, second side, top and bottom panels 123 and 122 of the tray-like base portion 125. The tray-like base portion 125 and lid portion 124 may be formed in any way as known in the art and may be made from any material traditionally used to make hard or soft style suitcases; that is they may be made from moulded plastic, or a foamed plastics material such as EVA, or from composite fabric and board layers, for example. The lid and tray-like base portions 124, 125 are hinged together and are openable with respect to each other, by means of the opening zip fastener arrangement 121. The article of luggage 117 may incorporate further features not described in the figures, such as storage pockets, suitcase expander capabilities and/or other features applicable to luggage which are well known in the art.

[0052] A trolley handle arrangement 120 is located on the major panel 126, and comprises two extendable, rigid vertically upright members 142. The trolley handle arrangement 120 is generally centred longitudinally on the major panel 126, of the article of luggage 117. The trolley handle arrangement 120 also comprises a cross-piece 144, which spans the top of the upright members 142. Inserted into the cross piece 144 is a button 129 which is used to unlock and lock the cross piece 144 into place. Such a locking mechanism is known in the art. A user defined grip (not shown) may also be incorporated into the cross piece 144. The article of luggage 117 also comprises two sets of wheels 128, which are located on each corner of the bottom panel 122.

[0053] The article of luggage 117 also comprises two connector straps 130 and 131, each coupled to male and female connectors 134 and 136 respectively. Figure 6 shows only one of each male and female connector 134, 136. The connection straps 130, 131 are positioned at or above the mid-point of the vertical height of the article of luggage 117 on the same horizontal axis as each other. Only one set of connector straps are shown in Figure 6.

[0054] The connection straps 130, 131 are fabricated from durable and flexible material, such as nylon, cotton, plastic and/or other such material. The connection straps 130, 131 are attached to the side panels 127 by means of glue, stitching, staples or by any other known method for attaching a piece of flexible material to an article of luggage.

[0055] The connection straps 130, 131 are attached to the male and female connectors 134, 136 using a length adjustment buckle 135 such that when the connection straps 130, 131 are pulled relative to the connectors 136, 134, the length of the strap 130 or 131 will lengthen or shorten depending on the direction of the applied force. Such length adjustment mechanisms 135 are well known to those skilled in the art of luggage.

[0056] The male and female connectors 134, 136 can be engaged and disengaged from each other by a user as known in the art.

[0057] The article of luggage of the second embodiment would be connected one to another as previously described with reference to Figure 5. The difference between the first and second embodiments of the present invention is the precise location of the connector straps in relation to the physical parts of the articles of luggage. In the first embodiment (Figures 2a to 5), the connector straps are located one on the first shell-like portion, the other on the second shell-like portion. In the second embodiments (Figure 6) the connector straps are both located on the tray-like base portion.

[0058] Figure 7 is a diagram showing a perspective view of an article of luggage 217 according to a third embodiment of the present invention, whereby the article of luggage 217 comprises closable connector pockets 250. The connector pockets 250 are described in greater detail below in Figure 8.

[0059] The article of luggage 217 comprises a tray-like base portion 225 and a lid portion 224. The tray-like base portion comprises a major panel 226, a first side panel 227 (and opposite second side panel not shown), bottom panel 222 and top panel 223. The lid portion 224 is hingedly attached to the tray-like base portion 225 by a zip fastener arrangement 221 located on the periphery of the first side 227, second side, top and bottom panels 223 and 222 of the tray-like base portion 225. The tray-like base portion 225 and lid portion 224 may be formed in any way as known in the art and may be made from any material traditionally used to make hard or soft style suitcases; that is they may be made from moulded plastic, or a foamed plastics material such as EVA, or from composite fabric and board layers, for example. The lid and tray-like base portions 224, 225 are hinged together and are openable with respect to each other, by means of the opening zip fastener arrangement 221. The article of luggage 217 may incorporate further features not described in the figures, such as storage pockets, suitcase expander capabilities and/or other features applicable to luggage which are well known in the art.

[0060] A trolley handle arrangement 220 is located on the major panel 226, and comprises two extendable, rigid vertically upright members 242. The trolley handle arrangement 220 is generally centred longitudinally on the major panel 226, of the article of luggage 217. Inserted into the cross piece 244 is a button 229 which is used to unlock and lock the cross piece 244 into place. Such a locking mechanism is known in the art. A user defined grip (not shown) may also be incorporated into the cross piece 244. The article of luggage 217 also comprises two sets of wheels 228, which are located on each corner of the bottom panel 222.

[0061] The article of luggage 217 also comprises two connector straps 230 and 231, each coupled to male and female connectors 234 and 236 respectively.

[0062] The connector straps 230, 231 are attached to the first and second side panels 227 and are located inside the connector pockets 250 such that when the zip-

mechanism 254 on a connector pocket 250 is fully closed, the connector straps 230, 231 are fully containable within the respective connector pockets 250. Figures 7 to 9 illustrates that the connector straps 230,231 need not be attached to the first and second side panels 227 of adjacent articles of luggage 227 on the same horizontal axis as one another.

[0063] The connection straps 230, 231 are fabricated from durable and flexible material, such as nylon, cotton, plastic and/or other such material. The connection straps 230, 231 are attached to the side panels 227 by means of glue, stitching, staples or by any other known method for attaching a piece of flexible material to an article of luggage.

[0064] The connection straps 230, 231 are attached to the male and female connectors 234, 236 (Figure 8) using a length adjustment buckle 235 such that when the connection straps 230, 231 are pulled relative to the connectors 236, 234, the length of the strap 230 or 231 will lengthen or shorten depending on the direction of the applied force. Such length adjustment mechanisms 235 are well known to those skilled in the art of luggage.

[0065] The male and female connectors 234, 236 can be engaged and disengaged from each other by a user as known in the art.

[0066] Figure 8 shows the closable connector pockets in greater detail. The connector pockets 250 are located towards the top of each of the side panels 227 of the articles of luggage 217, 218 and are fabricated from the same material as the articles of luggage 217, 218. However, it should be obvious to a person skilled in the art that such connector pockets 250 are not required to be fabricated from the same material as the article of luggage, and can, in fact, be fabricated from other suitable materials attached to the article of luggage known in the art of suitcase manufacture. The connector pockets 250 are openable/closable by means of a closure mechanism. The closure mechanism described in this embodiment is a zip-mechanism 254, comprising a zip handle 255 and a zip-track 257, which is located around the periphery of two sides of the connector pocket 250. Alternatively, the closure-mechanism may be a hook and eye fastener (VELCRO™), button mechanism or other such closing means known to those skilled in the art.

[0067] A stitch pattern 251, is applied to the material forming the connector pocket 250 and to the side 227 of the article of luggage 217, 218, thereby defining the depth and shape of the connector pockets 250.

[0068] The article of luggage of the third embodiment would be connected one to another as previously described with reference to Figure 5. The difference between the first, second and third embodiments of the present invention is the precise location of the connector straps in relation to the physical parts of the articles of luggage. In the first embodiment (Figures 2a to 5), the connector straps are located one on one shell-like portion, the other on the second shell-like portion. In the second embodiments (Figure 6) they are both located on the tray-like base portion, whilst in the third embodiment (Figures 7, 8 & 9), they are contained within closable connector pockets.

[0069] Figure 9 is a diagram showing a side view of the articles of luggage 217, 218 when being towed. The arrangement can be placed in an inclined position by a user pulling the trolley handle arrangement 220 in the direction of the arrow. This particular arrangement of coupled articles of luggage 217, 218 is such that it is easily manoeuvrable using one hand when the articles of luggage 217, 218 are in an inclined position.

[0070] Due to the positioning of the connector means and the fact there are two sets of per suitcase, the arrangement is now much more stable, such that a user can turn corners, open doors, and use escalators/elevators using only one hand to manoeuvre the arrangement of multiple articles of luggage in a "train". For example, it is, therefore, possible to have more than 2 wheeled articles of luggage in the train, or 2 wheeled and 1 non wheeled article of luggage, or other such configurations.

[0071] Depending on the size of the articles of luggage in an arrangement, the tightness of the connection straps 230, 231 when coupled together, and the angle of incline □, the wheels 228 on each article of luggage 217 and/or 218 may be in constant contact with the floor when being towed. The fact that the wheels 228 of some articles of luggage are not in contact with the floor will not impact on the manoeuvrability of the arrangement due to the fact that there are two points of coupling with two connectors.

[0072] The difference between the first, second and third embodiments of the present invention is the precise location of the connector straps in relation to the physical parts of the articles of luggage. In the first embodiment (Figures 2a to 5), the connector straps are located one on one shell-like portion, the other on the second shell-like portion. In the second embodiments (Figure 6) they are both located on the tray-like base portion. In the third embodiment (Figures 7, 8 & 9), the connectors are locatable within connector pockets on the article of luggage but extend from the closable pockets when the closable pockets are opened.

[0073] It should now be evident that any article of luggage of either embodiment of the present invention, having two sets of male and/or female connectors or may tow, or be towed by, any other article of luggage having such an arrangement of male and/or female connectors and/or and a handle and wheels. Furthermore, any number of articles maybe easily coupled to, or decoupled from an arrangement such that a user does not have to struggle to lift or manoeuvre the multiple articles of luggage in a row.

[0074] The present invention allows a user to create an arrangement of articles of luggage to be towed without having to struggle to couple the articles of luggage. Unlike the prior art, there is no need for the user to have to lift articles of luggage into place before coupling them together because the positioning of the connection straps

ensures that the male and female connectors can be easily engaged when the articles of luggage are placed adjacent each other. The articles can be easily placed adjacent each other using the trolley handle arrangement and wheels, thereby removing the necessity to lift anything.

[0075] The positioning of the connection straps on the sides of the articles of luggage, means that the centre of gravity of coupled articles of luggage is lower than that which is available on articles of luggage known in the prior art. The low centre of gravity means that an arrangement, of coupled articles of luggage, can be easily placed into an inclined position, by the old, weak, frail, people carrying luggage and/or minding children. The low centre of gravity also means that the articles of luggage can be easily manoeuvred with one hand, thereby allowing a user to tow the arrangement with one hand whilst opening doors, carrying a child/ holding a child's hand, using escalators/elevators and/or carrying further suitcases.

[0076] The two connection straps on each article of luggage in an arrangement ensure a secure coupling is achieved, meaning that a user can tow the arrangement and turn corners at speed without the arrangement wobbling or toppling over. This is particularly useful if a user is late for a plane or a train and is required to run. Having two sets of straps on each suitcase means that any configuration of suitcases/trolley bags can be used, and furthermore, multiple articles can be connected together as shown in Figure 5.

Claims

1. A first article of luggage (17; 117; 217), wherein the article of luggage comprises:

   a base portion (25; 125; 225);
   a lid portion (24; 124; 224) hingedly attached to the base portion (25; 125; 225) and wherein the base and lid portions are arranged to open and close;
   a trolley handle arrangement (20; 120; 220) located at a first end of the article of luggage;
   a set of wheels (28; 128; 228) located at or about an opposed end of the article of luggage to the trolley handle arrangement;
   wherein the first article of luggage comprises sides that extend between the first end and the opposed end **characterised in that** a first side of the first article of luggage comprises a first complimentary portion of a first flexible two-part connector means (30; 130; 230) ; and in an opposed orientation, a first complimentary portion of a second flexible two-part connector means (31; 131; 231); and
   wherein in use the first complimentary portion of the first flexible two-part connector means (30; 130; 230) is operable to connect to a second complimentary portion of the first flexible two-part connector means (30; 130; 230) located on a side of a second article of luggage (18; 118; 218), and wherein the first complimentary portion of the second flexible two-part connector means (31; 131; 231) is operable to connect to a second complimentary portion of the second flexible two-part connector means (31; 131; 231) located on a side of a third article of luggage (19; 119; 219), wherein at least one of the second or third articles of luggage (18, 19; 118, 119; 218, 219) comprises wheels (28; 128; 218) and can be secured to the first article of luggage (17; 117; 217) whilst both articles of luggage are standing on the ground.

2. A set of two articles of luggage, comprising the first article of luggage of claim 1 and the second article of luggage with which the first article of luggage is operable.:

3. Articles of luggage according to claim 2, wherein the first complimentary portions of the first and second flexible two-part connector means (30, 31; 130, 131; 230, 231) are located in opposed orientations.

4. Articles of luggage according to any preceding claim, wherein the first article of luggage (17; 117; 217) further comprises a first complimentary portion of a third flexible two-part connector means and a first complimentary portion of a fourth flexible two-part connector means.

5. Articles of luggage according to claim 4, wherein the second article of luggage (18; 118; 218) comprises a second complimentary portion of the third flexible two-part connector means.

6. Articles of luggage according to claim 4 or 5, wherein the third article of luggage (19; 119; 219) comprises a second complimentary portion of the fourth flexible two-part connector means.

7. Articles of luggage in accordance with any of the preceding claims, wherein the first complimentary portion of each flexible two-part connector means (30, 31; 130, 131; 230, 231) comprises a fabric strap coupled to a male connector portion (34; 134; 234) and the second complementary portion of each flexible two-part connector means is a fabric strap coupled to a female connector (36; 136; 236).

8. Articles of luggage in accordance with claim 2, wherein the length of the complimentary portions are adjustable.

9. Articles of luggage in accordance with any preceding claim, wherein the articles of luggage (217, 218, 219)

comprise connector pockets (250), wherein at least one part of the flexible two-part connectors (230, 231) is retained within a connector pocket (250) when the connector pocket (250) is fully closed.

10. Articles of luggage in accordance with claim 9, wherein the connector pockets (250) comprise a closure mechanism (254) located around their periphery.

11. Articles of luggage in accordance with any preceding claim, wherein the first and second complimentary portions of the first flexible two-part connector means (30; 130; 230) are co-located at the same height when the first (17; 117; 217) and second (18; 118; 218) articles of luggage are adjacent each other.

12. Articles of luggage in accordance with any preceding claim, wherein the first and second complimentary portions of the second flexible two-part connector means (31; 131; 231) are co-located at the same height when the first (17; 117; 217) and third (19; 119; 219) articles of luggage are adjacent each other.

13. Articles of luggage in accordance with any preceding claim, wherein the first and second complimentary portions of the third flexible two-part connector means are co-located at the same height when the first (17; 117; 217) and second (18; 118; 218) articles of luggage are adjacent each other.

14. Articles of luggage in accordance with any preceding claim, wherein the first and second complimentary portions of the fourth flexible two-part connector means are co-located at the same height when the first (17; 117; 217) and third (19; 119; 219) articles of luggage are adjacent each other.

Patentansprüche

1. Erster Gepäckartikel (17; 117; 217), wobei der Gepäckartikel umfasst:

einen Basisabschnitt (25; 125; 225);
einen Deckelabschnitt (24; 124; 224), welcher an dem Basisabschnitt (25; 125; 225) gelenkig angebracht ist, und wobei die Basis- und Deckelabschnitte dazu eingerichtet sind, sich zu öffnen und zu schließen;
eine Trolley-Griffanordnung (20; 120; 220), welche an einem ersten Ende des Gepäckartikels angeordnet ist;
einen Satz von Rädern (28; 128; 228), welcher an oder um ein zu der Trolley-Griffanordnung entgegengesetztes Ende des Gepäckartikels angeordnet ist;
wobei der erste Gepäckartikel Seiten umfasst, welche sich zwischen dem ersten Ende und dem entgegengesetzten Ende erstrecken,
dadurch gekennzeichnet, dass eine erste Seite des ersten Gepäckartikels einen ersten komplementären Abschnitt eines ersten flexiblen zweiteiligen Verbindungsmittels (30; 130; 230); und in einer entgegengesetzten Orientierung einen ersten komplementären Abschnitt eines zweiten flexiblen zweiteiligen Verbindungsmittels (31; 131; 231) umfasst; und
wobei der erste komplementäre Abschnitt des ersten flexiblen zweiteiligen Verbindungsmittels (30; 130; 230) in Verwendung betreibbar ist, um einen zweiten komplementären Abschnitt des ersten flexiblen zweiteiligen Verbindungsmittels (30; 130; 230), welcher an einer Seite eines zweiten Gepäckartikels (18; 118; 218) angeordnet ist,
zu verbinden, und wobei der erste komplementäre Abschnitt des zweiten flexiblen zweiteiligen Verbindungsmittels (31; 131; 231) betreibbar ist, einen zweiten komplementären Abschnitt des zweiten flexiblen zweiteiligen Verbindungsmittels (31; 131; 231) zu verbinden,
welcher an einer Seite eines dritten Gepäckartikels (19; 119; 219) angeordnet ist, wobei wenigstens einer aus den zweiten oder dritten Gepäckartikeln (18, 19; 118, 119; 218, 219) Räder (28; 128; 218) umfasst und an den ersten Gepäckartikel (17; 117; 217) gesichert werden kann, während beide Gepäckartikel auf dem Boden stehen.

2. Satz von zwei Gepäckartikeln, umfassend den ersten Gepäckartikel nach Anspruch 1 und den zweiten Gepäckartikel, mit welchem der erste Gepäckartikel betreibbar ist.

3. Gepäckartikel nach Anspruch 2, wobei die ersten komplementären Abschnitte der ersten und zweiten flexiblen zweiteiligen Verbindungsmittel (30, 31; 130, 131; 230, 231) in entgegengesetzten Orientierungen angeordnet sind.

4. Gepäckartikel nach einem vorhergehenden Anspruch, wobei der erste Gepäckartikel (17; 117; 217) ferner einen ersten komplementären Abschnitt eines dritten flexiblen zweiteiligen Verbindungsmittels und einen ersten komplementären Abschnitt eines vierten flexiblen zweiteiligen Verbindungsmittels umfasst.

5. Gepäckartikel nach Anspruch 4, wobei der zweite Gepäckartikel (18; 118; 218) einen zweiten komplementären Abschnitt des dritten flexiblen zweiteiligen Verbindungsmittels umfasst.

6. Gepäckartikel nach Anspruch 4 oder 5, wobei der dritte Gepäckartikel (19; 119; 219) einen zweiten komplementären Abschnitt des vierten flexiblen zweiteiligen Verbindungsmittels umfasst.

7. Gepäckartikel nach einem der vorhergehenden Ansprüche, wobei der erste komplementäre Abschnitt von jedem flexiblen zweiteiligen Verbindungsmittel (30, 31; 130, 131; 230, 231) ein Textilband umfasst, welches mit einem männlichen Verbindungsabschnitt (34; 134; 234) gekoppelt ist, und der zweite komplementäre Abschnitt von jedem flexiblen zweiteiligen Verbindungsmittel ein Textilband ist, welches mit einem weiblichen Connector (36; 136; 236) gekoppelt ist.

8. Gepäckartikel nach Anspruch 2, wobei die Länge der komplementären Abschnitte einstellbar ist.

9. Gepäckartikel nach einem vorhergehenden Anspruch, wobei die Gepäckartikel (217, 218, 219) Verbindungstaschen (250) umfassen, wobei wenigstens ein Teil der flexiblen zweiteiligen Connectoren (230, 231) innerhalb einer Verbindungstasche (250) gehalten wird, wenn die Verbindungtasche (250) vollständig geschlossen ist.

10. Gepäckartikel nach Anspruch 9, wobei die Verbindungtaschen (250) einen Verschlussmechanismus (254) umfassen, welcher um ihren Umfang angeordnet ist.

11. Gepäckartikel nach einem vorhergehenden Anspruch, wobei die ersten und zweiten komplementären Abschnitte des ersten flexiblen zweiteiligen Verbindungsmittels (30; 130; 230) an der gleichen Höhe mit-angeordnet sind, wenn die ersten (17; 117; 217) und zweiten (18; 118; 218) Gepäckartikel einander benachbart sind.

12. Gepäckartikel nach einem vorhergehenden Anspruch, wobei die ersten und zweiten komplementären Abschnitte des zweiten flexiblen zweiteiligen Verbindungsmittels (31; 131; 231) an der gleichen Höhe mit-angeordnet sind, wenn die ersten (17; 117; 217) und dritten (19; 119; 219) Gepäckartikel einander benachbart sind.

13. Gepäckartikel nach einem vorhergehenden Anspruch, wobei die ersten und zweiten komplementären Abschnitte des dritten flexiblen zweiteiligen Verbindungsmittels an der gleichen Höhe mit-angeordnet sind, wenn die ersten (17; 117; 217) und zweiten (18; 118; 218) Gepäckartikel einander benachbart sind.

14. Gepäckartikel nach einem vorhergehenden Anspruch, wobei die ersten und zweiten komplementären Abschnitte des vierten flexiblen zweiteiligen Verbindungsmittels an der gleichen Höhe mit-angeordnet sind, wenn die ersten (17; 117; 217) und dritten (19; 119; 219) Gepäckartikel einander benachbart sind.

Revendications

1. Premier article de bagage (17 ; 117 ; 217), dans lequel l'article de bagage comprend :

une partie de base (25 ; 125 ; 225) ;
une partie de couvercle (24 ; 124 ; 224) fixée de manière articulée à la partie de base (25 ; 125 ; 225) et dans lequel les parties de base et de couvercle sont agencées pour s'ouvrir et se fermer ;
un agencement de poignée de chariot (20 ; 120 ; 220) situé à une première extrémité de l'article de bagage ;
un ensemble de roues (28 ; 128 ; 228) situées au niveau ou autour d'une extrémité opposée de l'article de bagage par rapport à l'agencement de poignée de chariot ;
dans lequel le premier article de bagage comprend des côtés qui s'étendent entre la première extrémité et l'extrémité opposée, **caractérisé en ce qu'**un premier côté du premier article de bagage comprend une première partie complémentaire d'un premier moyen de connecteur flexible en deux parties (30 ; 130 ; 230) ; et dans une orientation opposée, une première partie complémentaire d'un deuxième moyen de connecteur flexible en deux parties (31 ; 131 ; 231) ; et
dans lequel, en utilisation, la première partie complémentaire du premier moyen de connecteur flexible en deux parties (30 ; 130 ; 230) est opérationnelle pour se connecter à une seconde partie complémentaire du premier moyen de connecteur flexible en deux parties (30 ; 130 ; 230) située sur un côté d'un deuxième article de bagage (18 ; 118 ; 218), et dans lequel la première partie complémentaire du deuxième moyen de connecteur flexible en deux parties (31 ; 131 ; 231) est opérationnelle pour se connecter à une seconde partie complémentaire du deuxième moyen de connecteur flexible en deux parties (31 ; 131 ; 231) située sur un côté d'un troisième article de bagage (19 ; 119 ; 219), dans lequel au moins l'un des deuxième ou troisième articles de bagage (18, 19 ; 118, 119 ; 218, 219) comprend des roues (28 ; 128 ; 218) et peut être fixé au premier article de bagage (17 ; 117 ; 217) pendant que les deux articles de bagage sont debout sur le sol.

2. Ensemble de deux articles de bagage, comprenant le premier article de bagage de la revendication 1 et le deuxième article de bagage avec lequel le premier article de bagage peut être utilisé.

3. Articles de bagage selon la revendication 2, dans lesquels les premières parties complémentaires des premier et deuxième moyens de connecteur flexibles en deux parties (30, 31 ; 130, 131 ; 230, 231) sont situées dans des orientations opposées.

4. Articles de bagage selon l'une quelconque des revendications précédentes, dans lesquels le premier article de bagage (17 ; 117 ; 217) comprend en outre une première partie complémentaire d'un troisième moyen de connecteur flexible en deux parties et une première partie complémentaire d'un quatrième moyen de connecteur flexible en deux parties.

5. Articles de bagage selon la revendication 4, dans lesquels le deuxième article de bagage (18 ; 118 ; 218) comprend une seconde partie complémentaire du troisième moyen de connecteur flexible en deux parties.

6. Articles de bagage selon la revendication 4 ou 5, dans lesquels le troisième article de bagage (19 ; 119 ; 219) comprend une seconde partie complémentaire du quatrième moyen de connecteur flexible en deux parties.

7. Articles de bagage selon l'une quelconque des revendications précédentes, dans lesquels la première partie complémentaire de chaque moyen de connecteur flexible en deux parties (30, 31 ; 130, 131 ; 230, 231) comprend une sangle en tissu couplée à une partie de connecteur mâle (34 ; 134 ; 234) et la seconde partie complémentaire de chaque moyen de connecteur flexible en deux parties est une sangle en tissu couplée à un connecteur femelle (36 ; 136 ; 236).

8. Articles de bagage selon la revendication 2, dans lesquels les longueurs des parties complémentaires sont ajustables.

9. Articles de bagage selon l'une quelconque des revendications précédentes, dans lesquels les articles de bagage (217, 218, 219) comprennent des poches de connecteur (250), dans lesquels au moins une partie des connecteurs flexibles en deux parties (230, 231) est maintenue à l'intérieur d'une poche de connecteur (250) lorsque la poche de connecteur (250) est complètement fermée.

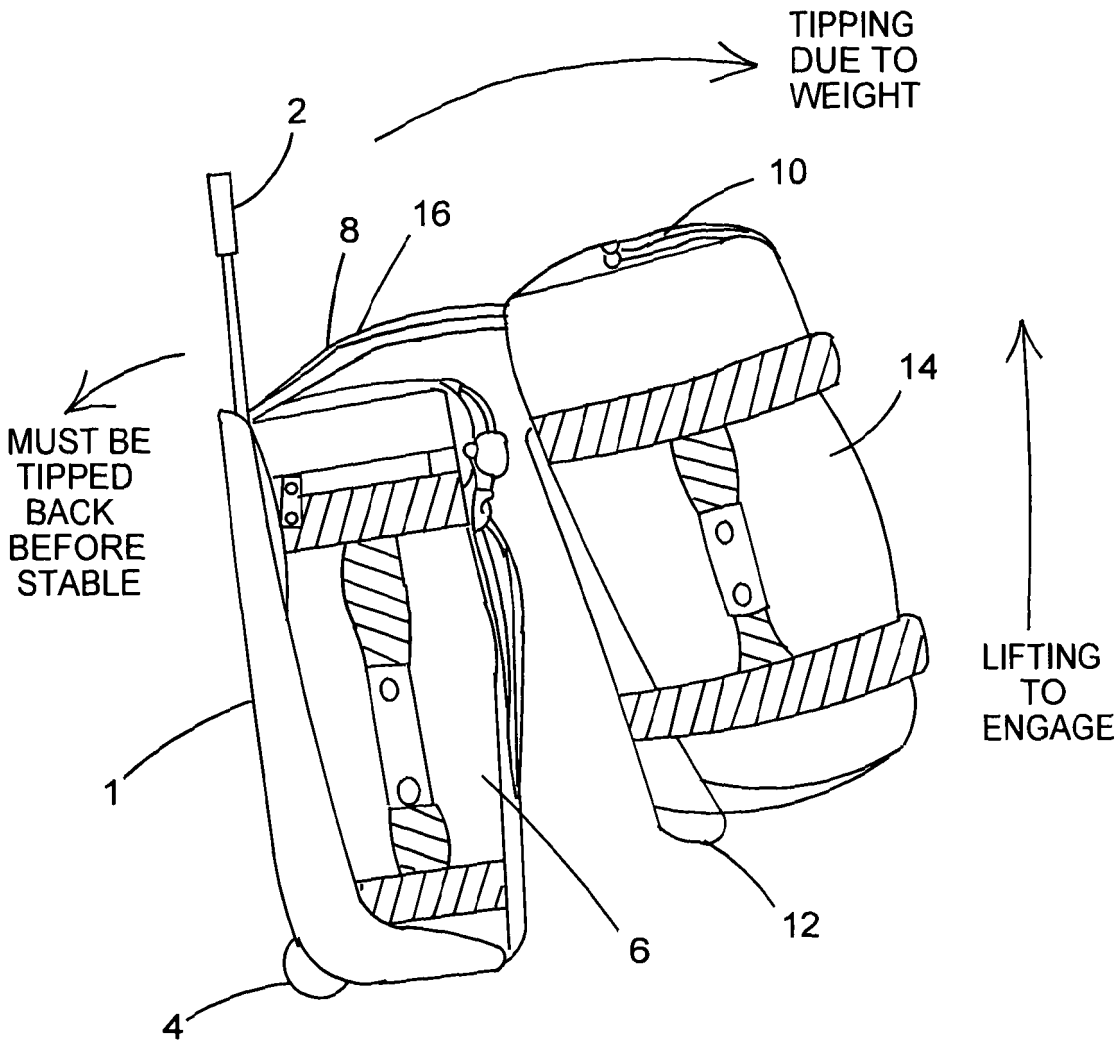
10. Articles de bagage selon la revendication 9, dans lesquels les poches de connexion (250) comprennent un mécanisme de fermeture (254) situé autour de leur périphérie.

11. Articles de bagage selon l'une quelconque des revendications précédentes, dans lesquels les première et seconde parties complémentaires du premier moyen de connecteur flexible en deux parties (30 ; 130 ; 230) sont situées à la même hauteur lorsque les premier (17 ; 117 ; 217) et deuxième articles de bagage (18 ; 118 ; 218) sont adjacents.

12. Articles de bagage selon l'une quelconque des revendications précédentes, dans lesquels les première et seconde parties complémentaires des deuxièmes moyens de connecteur en deux parties flexibles (31 ; 131 ; 231) sont situées à la même hauteur lorsque les premier (17 ; 117 ; 217) et les troisième articles de bagage (19 ; 119 ; 219) sont adjacents.

13. Articles de bagage selon l'une quelconque des revendications précédentes, dans lesquels les première et seconde parties complémentaires des troisièmes moyens de connexion en deux parties flexibles sont situées à la même hauteur lorsque les premier (17 ; 117 ; 217) et deuxième articles de bagage (18 ; 118 ; 218) sont adjacents.

14. Articles de bagage selon l'une quelconque des revendications précédentes, dans lesquels les première et seconde parties complémentaires du quatrième moyen de connecteur flexible en deux parties sont situées à la même hauteur lorsque les premier (17 ; 117 ; 217) et troisième articles de bagage (19 ; 119 ; 219) sont adjacents l'un à l'autre.



PRIOR ART

FIGURE 1

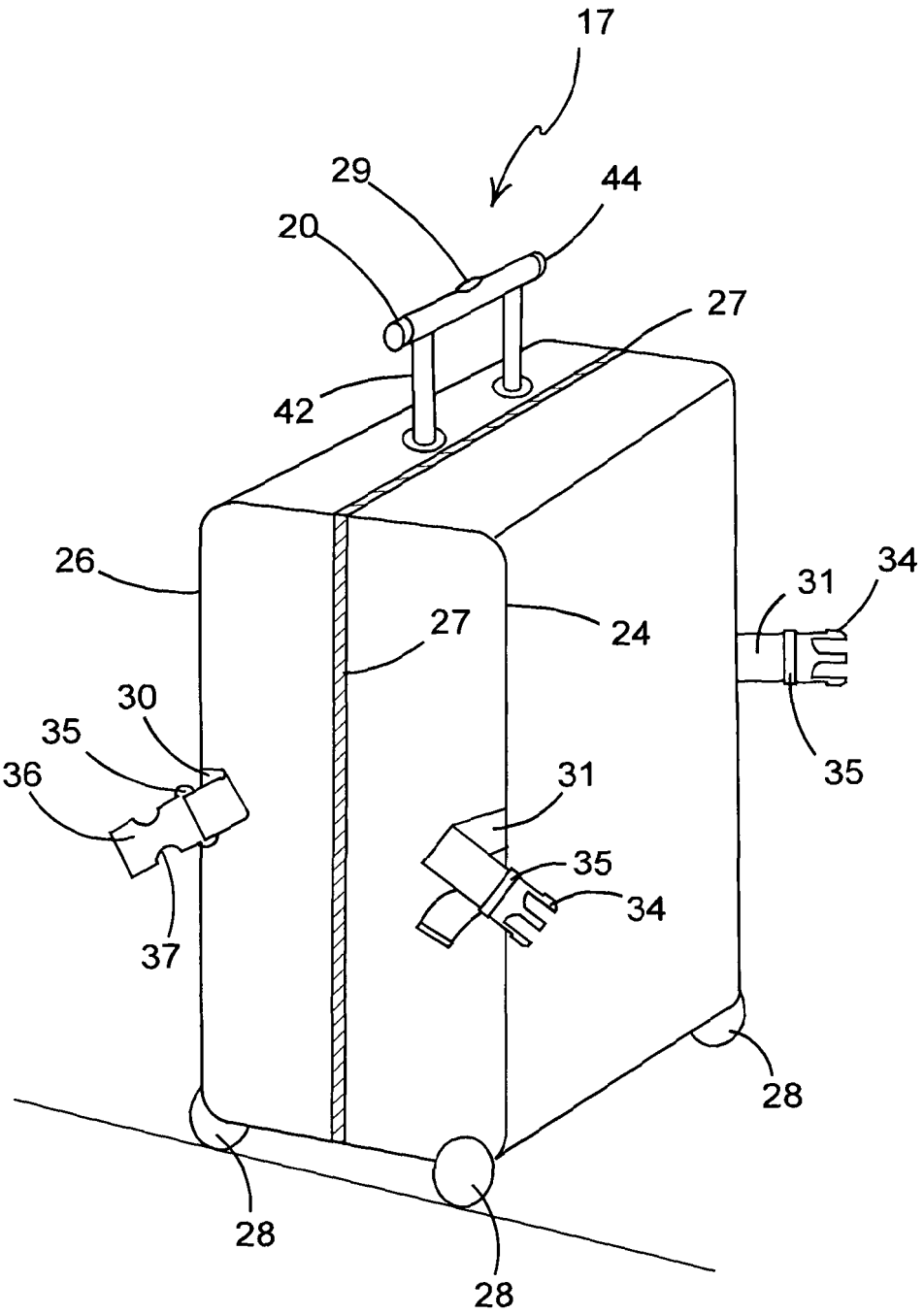


FIGURE 2A

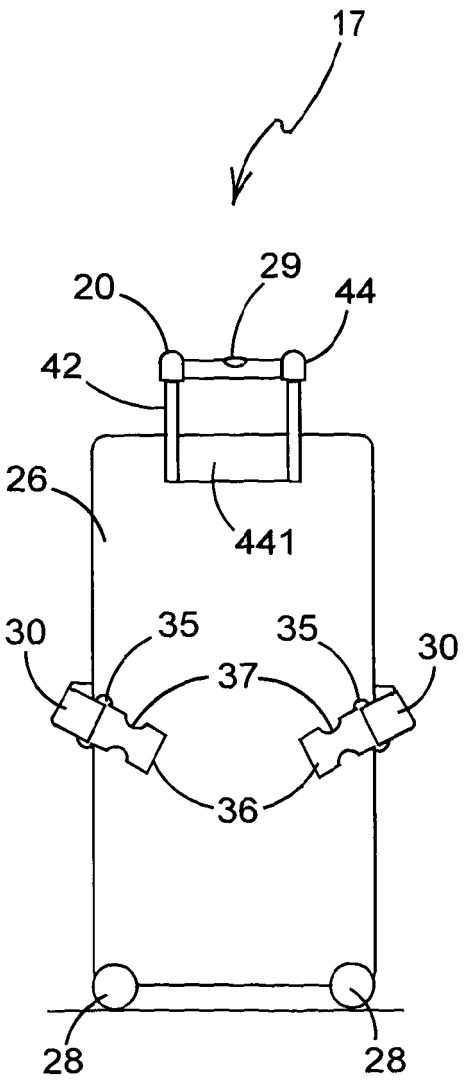


FIGURE 2B

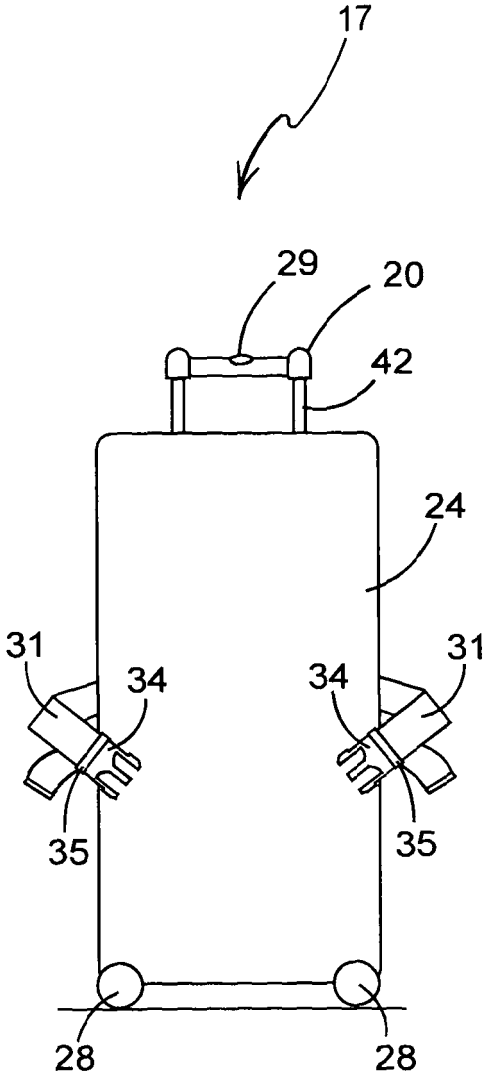


FIGURE 2C

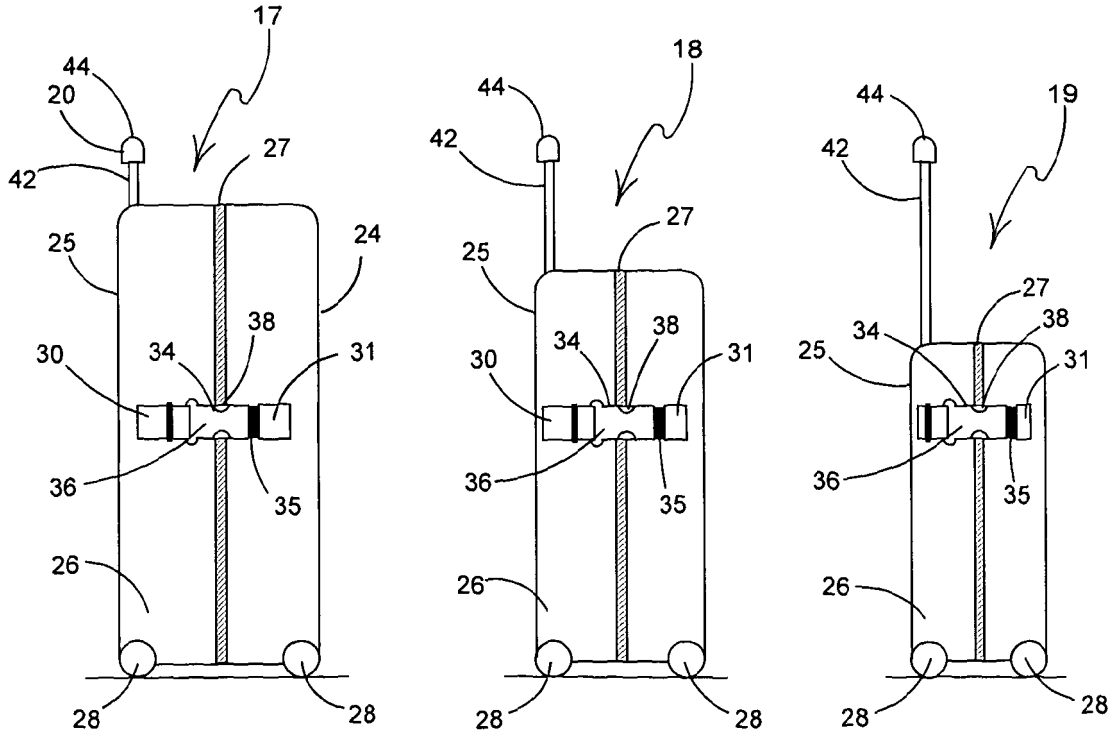

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FIGURE 3

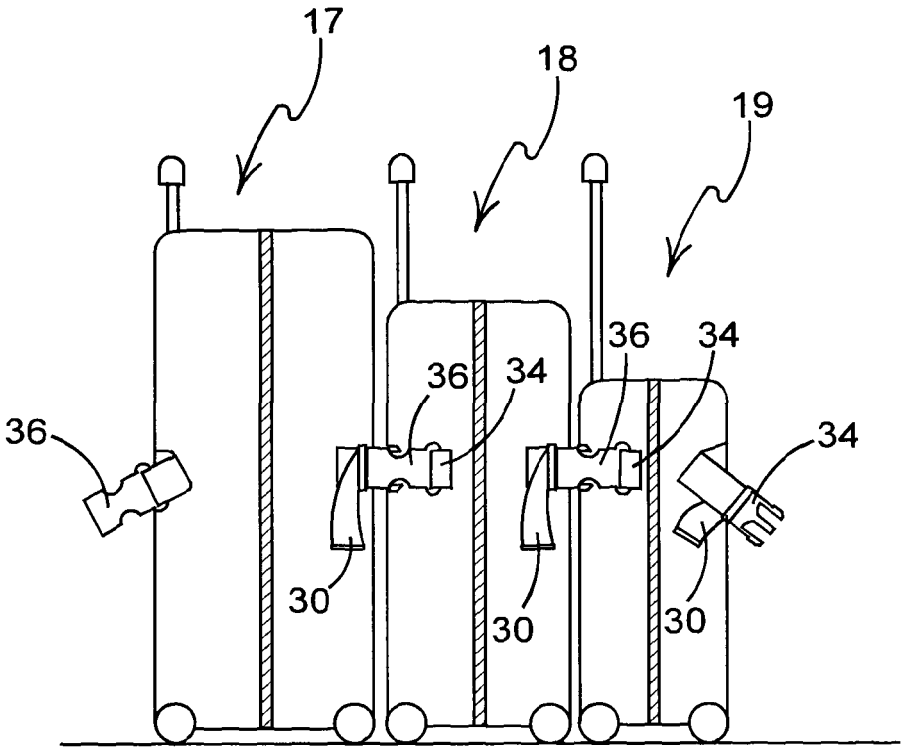


FIGURE 4

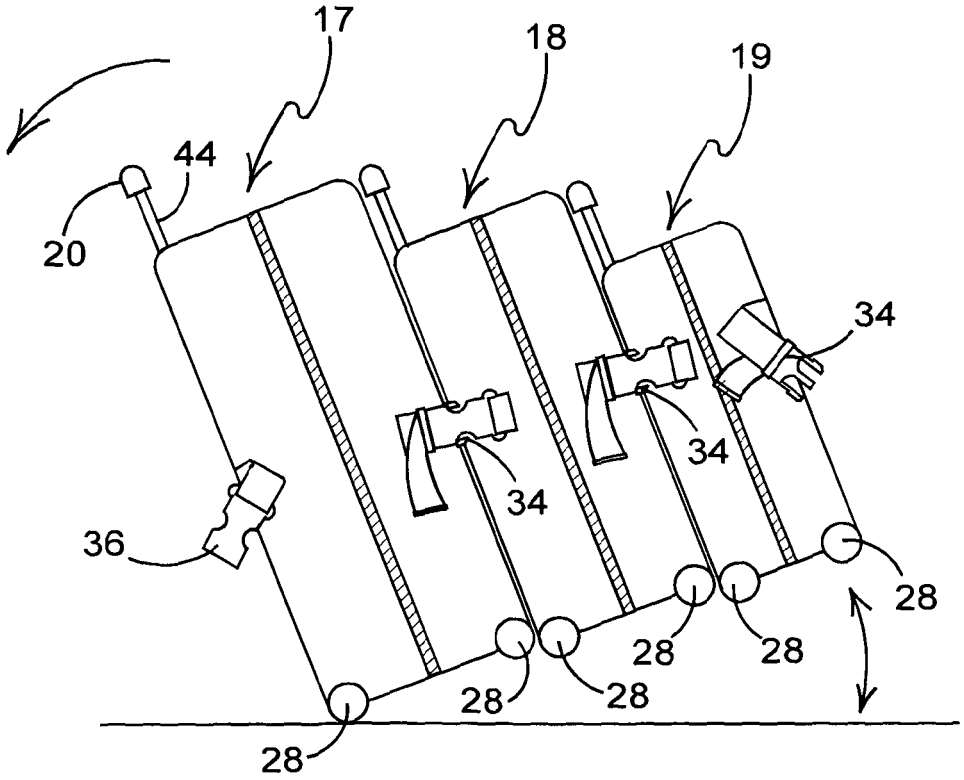


FIGURE 5

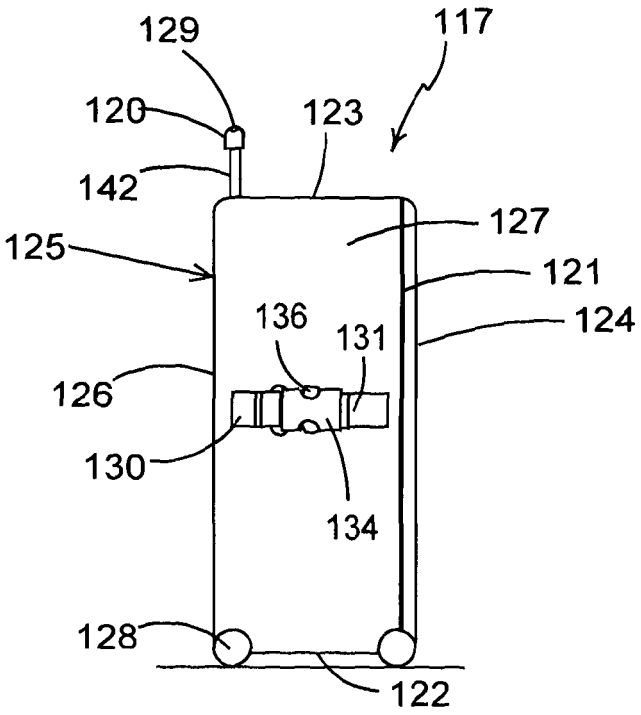


FIGURE 6

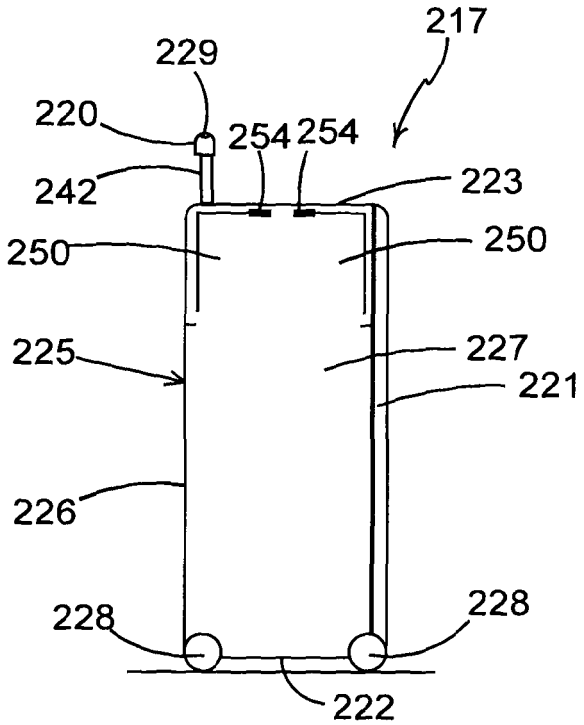


FIGURE 7

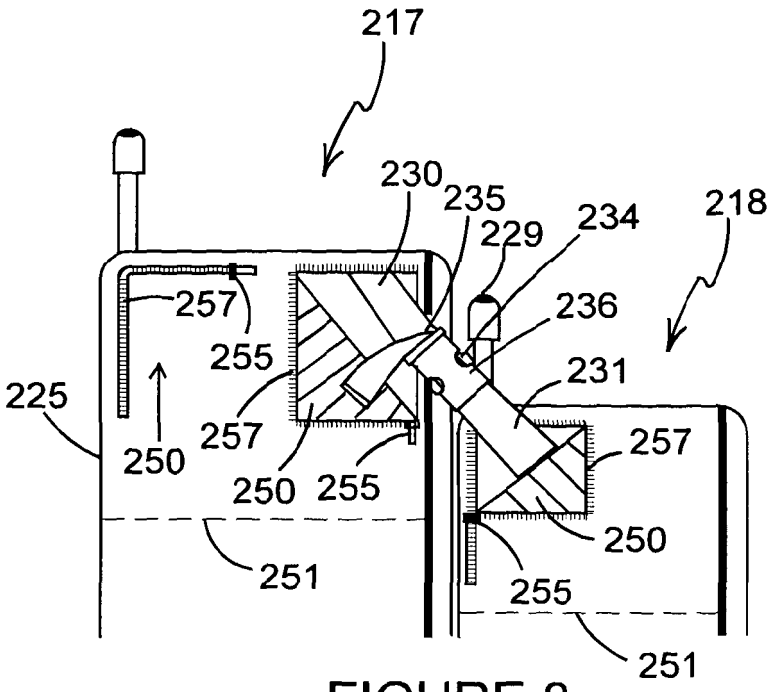


FIGURE 8

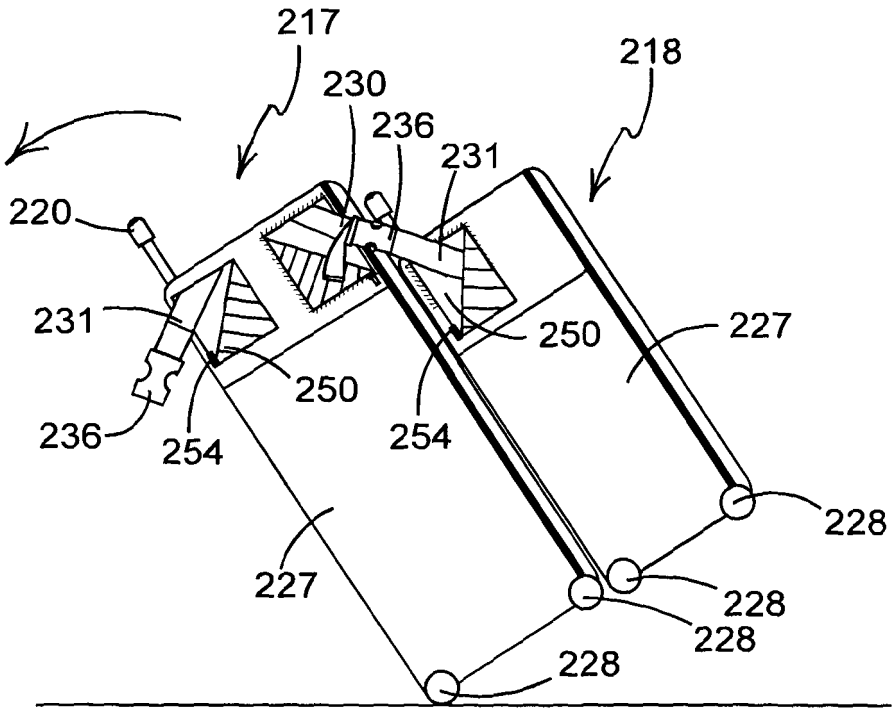


FIGURE 9

REFERENCES CITED IN THE DESCRIPTION

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- US 20100059323 A1 **[0007]**