

Pivotal Handle for Towable Baggage

Cross Reference to Related Applications

5 This application claims priority to United States Patent Application Serial No. 10/238,390, United States Patent Application Serial No. 10/072,042, and United States Patent Application Serial No. 09/705,171. The entire disclosure of all these references is herein incorporated by reference.

10 Background

1. Field of the Invention

 This invention pertains to the field of hand towable travel baggage. More particularly, this invention pertains to a towing member having a towing handle that is pivotally attached to an arm portion of the towing member and can be locked into a plurality of positions. The pivotal
15 connection between the towing handle and the arm portion of the towing member allows a person to hold the towing handle in a position that is more comfortable than would otherwise be possible when towing a piece of baggage along a surface.

2. Description of the Related Art

 It is common for many varieties of baggage to be equipped with one or more wheels that
20 enable the baggage to be towed by persons when traveling. Typically, a towable piece of baggage is also provided with a towing member having an arm portion that connects a towing handle to the piece of baggage. The length of the arm portion connecting the towing handle to the piece of baggage prevents the baggage from coming into contact with the person's legs and feet as the piece of baggage is being towed.

Baggage that are not permanently equipped with either wheels or towing members can also be towed using portable towing carts. A typical cart can be removably secured to a piece of baggage to provide wheels and a towing member for towing the piece of baggage.

Regardless of whether a towing member is an integral part of a piece of baggage or
5 whether it is part of a towing cart, the majority of towing members allow a towing handle to be selectively extended from and retracted toward a piece of baggage being towed. The ability to extend and retract the towing member allows the towing member to be unobtrusive when the piece of baggage is not being towed. Furthermore, with the towing member in the retracted position, the piece of baggage can more easily be placed into the trunk of an automobile or into
10 an overhead compartment of an airplane when traveling.

In those cases where the wheels and the towing member of towable baggage are permanently secured to the baggage, it is common for a wheeled piece of baggage to have an extendable towing member comprised of a pair of parallel telescoping poles, bridged by a towing handle, that slide into separate vertically oriented tubular receptacles rigidly attached to an
15 interior compartment of the piece of the baggage. It is also known to utilize a single-pole telescoping tow member that extends and retracts from a single tubular receptacle centrally positioned between the wheels of a piece of baggage. In either situation, a piece of baggage having a permanently secured towing member typically has a receptacle for the towing handle such that the towing handle lies flush with an exterior surface of the piece of baggage when the
20 towing member is retracted. This prevents the towing handle from being obtrusive and reduces the chance of snagging the towing handle on other items, while also improving the aesthetic appearance of the piece of baggage when the piece of baggage is not being towed.

Perhaps more common of towing carts, other types of baggage utilize non-telescoping extendable towing members such as bars or poles that are hinged to swing relative to the piece of baggage. Typically, such hinged towing members have some form of clasp that holds the towing member against a side of the piece of baggage when the baggage is not being towed and that
5 releases the towing member, when desired, to allow the towing member to pivot upwardly into an extended position.

Regardless of the type of towing member, extendable towing members are usually provided with a mechanism for locking the towing member in the extended position. Such locking mechanisms are well known in the art and include such devices as spring-loaded detents,
10 cam locks, and other interference locks. Some locking mechanisms are unlocked by manually operating a release mechanism. Other locking mechanisms, such as many spring-loaded detent mechanisms, are automatically released by simply exerting a force on the towing handle that is sufficient to retract the detent. Additionally, some towing members have locking mechanisms that are capable of locking the towing member in the retracted position.

15 Despite the convenience of being able to tow a piece of baggage as opposed to carrying it when traveling, towing a piece of baggage can be awkward and uncomfortable. One reason that towing a piece of baggage can be uncomfortable lies in the positioning and the shape of the towing handle of most towing members. As mentioned above, it is common for the towing handle of dual-pole towing members to be a bridge spanning between the poles. Such towing
20 handles are therefore generally oriented horizontal to the surface upon which the piece of baggage is being towed and extend perpendicular to the path along which the piece of baggage is being towed. In this configuration, a person must generally grasp the towing handle behind his or her back with his or her wrist rotated to almost its limit of rotation in either direction. When

towing such baggage long distances, this position can become uncomfortable and such persons often find it necessary to switch hands one or more times to prevent fatigue.

Regardless of the disadvantages in comfort associated with the towing handle configuration as described above, alternative orientations of the towing handles are often not available without compromising other aspects of the utility of such devices. For example, shaping the handle of an extendable towing member in a manner that would be more comfortable is likely to cause the handle to protrude from the piece baggage or require a larger receptacle for the handle when the towing member is retracted. Another disadvantage associated with the towing handle configuration described above is that, due to the grasp needed to hold onto the towing handle, the maneuverability of a towed piece of baggage becomes limited by the person's inability to further twist his or her wrist.

Summary of the Invention

The towing member of the present invention is configured for use in combination with a piece of towable baggage. In accordance with the present invention, a towing member is provided with a towing handle that is pivotally connected to an arm portion of the towing member about at least one axis and that in some embodiments may be locked into predetermined positions.

The relative movement between the towing handle and the arm portion of the towing member allows a person to grasp the towing handle in a comfortable position when towing a piece of baggage. Additionally, the relative movement between the towing handle and the arm portion of the towing member may increase the maneuverability of a towed piece of baggage by eliminating the need for a person to adjust his or her grip on the towing handle when attempting to redirect the piece of baggage. Furthermore, the relative movement between the towing handle

and the arm portion allows the towing handle to be repositioned when the arm portion is retracted such that it is unobtrusive and does not otherwise interfere with the use of the piece of baggage.

In general, the towing member of the present invention comprises an arm portion and a towing handle. The arm portion is configured to connect the towing handle to a piece of baggage and the towing handle is connected to the arm portion in a manner such that the towing handle can pivot relative to the arm portion. In a first embodiment of the invention, the arm portion utilizes a curved, single-pole telescoping member that enables the towing handle to be selectively extended from and retracted toward a piece of baggage. The towing handle of the first embodiment is T-shaped and a pivot mechanism allows the handle to pivot about a center-axis of the arm portion that is defined by the length of the arm portion.

By enabling the towing handle to pivot about the center-axis of arm portion, the towing handle of the first embodiment can be pivoted such that its crossbar or hand grip portion extends up and back relative to a person using the towing member to tow a piece of baggage. Thus, unlike towing members having handles oriented horizontally and side-to-side, the towing handle of the first embodiment can be grasped by a person with their hand by their side and with their palm facing their waist. Thus, the towing handle of the first embodiment can be grasped in a natural and comfortable manner similar to how one carries a briefcase. The slope up and back of the hand grip provides additional comfort by allowing a person to position his or her wrist in the middle of its range of motion. Additionally, the pivoting relative motion between the towing handle and the arm portion reduces the need for a person to twist his or her wrist when maneuvering the piece of baggage.

The towing member of the first embodiment is adapted to be permanently secured to a piece of baggage and preferably comprises a receptacle for recessing the towing handle therein when it is desirable to retract the towing handle. When so doing, the towing handle can be pivoted such that the hand grip is oriented horizontally and side-to-side, which is generally preferable for recessing towing handles due to preferred placement of towing members immediately adjacent an exterior surface of the baggage.

In a second embodiment of the invention, the arm portion has a length with opposite proximal and distal ends and the proximal end of the arm portion is operatively secured to a piece of baggage. The towing handle of the second embodiment is operatively connected to the distal end of the arm portion for pivoting movement of the towing handle about at least two pivot axes relative to the arm portion. Because the towing handle of the second embodiment of the towing member is able to pivot about at least two pivot axes relative to the arm portion, the second embodiment of the towing member provides all of the benefits as discussed above in reference to the first embodiment, but is also an improvement thereon.

In a third embodiment of the invention, a towing member comprising, a towing handle, an arm portion operatively connected to the towing handle, a pivot mechanism, and a locking mechanism. The arm portion is configured and adapted to secure the towing handle to a piece of baggage. The pivot mechanism connects the towing handle to the arm portion in a manner that allows the towing handle to be pivoted about a pivot axis relative to part of the arm portion that is spaced from and external of the piece of baggage when the towing handle is secured to the piece of baggage via the arm portion. The locking mechanism is operatively connected to the towing handle and the arm portion and is also selectively moveable between a locked position and an unlocked position relative to the arm portion. The locking mechanism limits the pivoting

of the towing handle about the pivot axis relative to the part of the arm portion when it is in the locked position but does not limit the pivoting of the towing handle about the pivot axis when it is in the unlocked position.

In the fourth embodiment, the arm portion has a length with opposite proximal and distal ends and the proximal end of the arm portion is operatively secured to a piece of baggage. The towing handle of the fourth embodiment is operatively connected to the distal end of the arm portion for pivoting movement of the towing handle about at least two pivot axes relative to the arm portion and further includes a locking mechanism. The locking mechanism is operatively connected to the towing handle and the arm portion. The locking mechanism is also selectively moveable between a locked position and an unlocked position relative to the arm portion. When locked, the locking mechanism prevents motion in the two axes. When unlocked, the locking mechanism releases motion in at least one axis, and preferably releases motion in both axes. The locking mechanism may also release the components of the arm portion to telescope back within each other.

While the principle advantages and features of the present invention have been described above, a more complete and thorough understanding and appreciation for the invention may be attained by referring to the drawings and the detailed description of the preferred embodiments, which follow.

Brief Description off the Drawings

FIG. 1 is an isometric view of the towing member of the first embodiment secured to a wheeled backpack with the arm portion in an extended position and with the towing handle

rotated relative to the arm portion such that the hand grip of the towing handle lies in a generally vertical plane that includes the center-axis of the arm portion.

FIG. 2 is an isometric view of the towing member of the first embodiment secured to a wheeled backpack with the arm portion in a retracted position and with the towing handle rotated
5 relative to the arm portion such that the hand grip of the towing handle is horizontally oriented.

FIG. 3 is a top view of the towing handle of the towing member of the first embodiment.

FIG. 4 is an elevation view of the towing handle and pivot mechanism of the towing member of the first embodiment.

FIG. 5 is a bottom view of the towing handle and pivot mechanism of the towing member
10 of the first embodiment.

FIG. 6 is a cross-sectional, partial view of the towing member of the first embodiment showing the assembly of the towing handle to the arm portion.

FIG. 7 is a top view of the towing member of the second embodiment.

FIG. 8 is a partial elevation view of the towing member of the second embodiment
15 showing the towing handle and the distal end of the arm portion in a first orientation of the towing handle relative to the arm portion.

FIG. 9 is a cross-sectional view of the towing member of the second embodiment taken about the line 9-9 of FIG. 7.

FIG. 10 is a partial side view of the towing member of the second embodiment showing
20 the towing handle and the distal end of the arm portion in the first orientation of the towing handle relative to the arm portion.

FIG. 11 is a partial side view of the towing member of the second embodiment showing the towing handle and the distal end of the arm portion with the towing handle in a second orientation relative to the arm portion.

FIG. 12 is an exploded assembly view of the towing handle and connector of the third
5 embodiment of the towing member.

FIG. 13 is an isometric view of the towing handle and connector of the third embodiment shown with the handle locked in its first position relative to the connector.

FIG. 14 is an isometric view of the towing handle and connector of the third embodiment shown with the handle unlocked in its first position relative to the connector.

10 FIG. 15 is an isometric view of the towing handle and connector of the third embodiment shown with the handle unlocked and between its first and second lockable positions relative to the connector.

FIG. 16 is an isometric view of the towing handle and connector of the third embodiment shown with the handle locked in its second position relative to the connector.

15 FIG. 17A is an isometric view of the towing handle and connector of the fourth embodiment with the handle in a first locked position.

FIG. 17B is an isometric view of the towing handle and connector of the fourth embodiment in a second locked position where only a single pivot axis has been used relative to the position of FIG. 17A.

20 FIG. 17C is an isometric view of the towing handle and connector of the fourth embodiment with the handle in a third locked position where both pivot axes have been used relative to the position of FIG. 17A.

FIG. 18 is a view of the towing handle and connector of the fourth embodiment showing the entire structure.

FIG. 19 is an isometric view of the embodiment of FIG. 18 showing detail of the handle area.

5 FIG. 20 is a cutaway view of the embodiment of FIG. 19 showing the internal structure of the two directional (two axis) locking mechanism of the handle grip.

FIG. 21A is a detailed cutaway view of the same segment as FIG. 20 at a slightly different angle showing structure of the two axis locking mechanism in the locked position.

10 FIG. 21B is the same view as FIG. 21A except that the locking mechanism is in the unlocked position.

FIG. 22 shows a detailed view of the paddle structure.

FIG. 23 is a cutaway view of the same segment as FIG. 21A but with one of the end caps removed to show additional internal structure.

15 FIG. 24 is a detailed view of the exploded portion of FIG. 18 showing the exploded construction at the proximal end of the first tubular section.

FIG. 25 is a reverse angle of the view of FIG. 24

Reference characters in the written specification indicate corresponding parts throughout the several views of the drawings.

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Detailed Description of the Preferred Embodiments

The first embodiment of the towing member of the invention is specifically adapted and configured to be an integral part of a piece of baggage. As shown in FIGS. 1 and 2, the towing member (20) of the first embodiment is attached to a wheeled backpack (22) and is

comprised of an arm portion (24), a towing handle (26), and a pivot mechanism (28). Although shown attached to a wheeled backpack, the towing member is not limited to this use and can be used with other types of wheeled baggage, any type of wheeled bag, and/or with wheeled carts for baggage.

5 As shown in FIG. 1, the arm portion (24) of the first embodiment is a curved, retractable single-pole telescoping member formed by a plurality of slidably engaged tubular sections (30), (32), (34). The tubular sections (30), (32), (34) each have an elliptical or oval cross-section and are configured to slide one inside the other in a telescoping manner. To reduce wear and provide sufficient strength, the tubular sections (30), (32), (34) are preferably made of steel, aluminum,
10 or other suitable materials. The tubular section (34) having the largest cross-section is fixed to inside of the backpack (22) and the remaining tubular sections (30), (32) telescope therefrom along an arcuate path that defines a center axis A-A along the length of the arm portion (24). A locking mechanism (not shown) is preferably configured to automatically lock the arm portion (24) in the extended position once the arm portion is fully extended. Such locking mechanisms
15 are well known in the art and the specific type of locking mechanism is not relevant to the operation of the towing member. Opposite the tubular section (34) that is fixed to the backpack (22), the distal tubular section (30) having the smallest cross-section has an end (38) that remains free to support the towing handle (26). A pair of holes (39) are provided adjacent the free end (38) to secure the towing handle (26) to the arm portion (24) as described below.

20 The towing handle (26) is preferably T-shaped and is preferably formed of a polymeric material. The T-shape of the towing handle (26) is formed by a stem (40) that preferably extends perpendicularly from a crossbar or hand grip (42) along a center axis B-B of the stem. The stem (40) of the towing handle (26) terminates at a flat, circular bearing surface (44) that is

perpendicular to the center axis. A cylindrical through-hole (46) extends along the center axis through the stem (40) and hand grip (42). A counter-bore (52) is preferably formed into the towing handle (26) at the top of the through-hole (46). The bearing surface (44), the through-hole (46), and the counter-bore (52) of the towing handle (26) form portions of the pivot mechanism (28) as described below. Finally, a recessed cavity (48) and a pair of blind holes (50) are preferably formed in the top of the towing handle (26) to receive a release mechanism (not shown) for unlocking a locking mechanism used with the arm portion (24). Although the first embodiment of the towing handle is T-shaped, other shapes could be used. For example, the stem could extend from one end of the hand grip and curve such that the bearing surface (44) is centered relative to the hand grip or two stems could extend from the opposite ends of the hand grip and curve to join at a bearing surface.

In addition to the bearing surface (44), the through-hole (46), and the counter-bore (52) of the towing handle (26), the pivot mechanism (28) preferably comprises a connector (54), a journal-pin or pivot pin (56), and a nut (58). Like the towing handle (26), the connector (54) is preferably formed of a polymeric material and preferably has an upper, flat circular bearing surface (60) at one end and a base (62) at its opposite end. The bearing surface (60) of the connector (54) is preferably equal in area to the area of the bearing surface (44) of the towing handle (26). The connector (54) also has a center-bore (64) having a diameter equal to the diameter of the through-hole (46) of the towing handle (26) that extends through the connector (54) perpendicularly from the bearing surface (60). The base (62) of the connector (54) has a cross-section similar to the cross-section of the free end (38) of the smallest tubular section (30) and terminates at an annular rim (66). A pair of parallel flats (68) are formed on opposite sides

of the base (62) parallel to the center-bore (64) and a pair of coaxial blind-holes (70) extend perpendicularly into the flats (68).

The journal-pin (56) of the pivot mechanism (28) is preferably formed of steel or aluminum and has an outer cylindrical diameter substantially equal to the diameter of the through-hole (46) of the towing handle (26) and the center bore (64) of the connector (54). The journal-pin (56) preferably has a head (72) at one of its opposite axial ends and a threaded portion (74) at the other of its opposite axial ends. The threaded portion (74) is configured for receiving the nut (58) of the pivot mechanism (28). The journal-pin (56) also preferably has an axial through-hole or center bore (76).

As shown in FIG. 6, the towing member (20) of the first embodiment is assembled by passing the journal-pin (56) through the through-hole (46) of the towing handle (26) and the center-bore (64) of the connector (54) with the head (72) of the journal-pin recessed in the counter-bore (52) of the towing handle (26) and the nut (58) threaded on the threaded portion (74) of the pin. Thus, the journal-pin (56) attaches the towing handle (26) to the connector (54) in a manner such that the bearing surface (44) of the towing handle (26) is in a flush, rotational sliding engagement with the bearing surface (60) of the connector (54). The base (62) of the connector (54) is inserted into the free end (38) of the smallest telescoping section (30) until the rim (66) of the connector is engaged with the free end. The connector (54) is preferably secured to the free end (38) of the telescoping section (30) by a pair of screws or rivets (78) passing through the holes (39) of the free end (38) into the blind-holes (70) of the connector (54). However, other means of connection could be used. The connector secured to the free end (38) of the telescoping section (30) defines the distal end of the arm portion (24).

Configured as describe above, the journal-pin (56) is aligned with the center-axis A-A of the arm portion (24) and the towing handle (26) is free to pivot thereabout. The configuration of the telescoping tubular sections (30), (32), (34) allows the arm portion (24) to be movable between an extended position and a retracted position. In the extended position as shown in FIG. 1, the towing handle (26) is positioned away from the backpack (22), thereby allowing a person to tow the backpack without the backpack coming into contact with the person's feet. In the retracted position, the tubular sections (30), (32), (34) of the arm portion (24) are retracted into each other and the towing handle (26) is thereby retracted into a receptacle (80) provided in the top of backpack (22), as shown in FIG. 2. The shape of the towing handle (26) allows a person to grip the hand grip (42) in his or her palm with the stem (40) extending between the person's index finger and his or her middle finger when towing the backpack (22). Furthermore, the towing handle (26) can be pivoted such that the hand grip (42) of the towing handle extends up and back, thereby allowing a person to grasp the towing handle without twisting his or her wrist. Furthermore, when stowing or wearing the backpack (22), the towing handle (26) can be pivoted and retracted into the receptacle (80) of the backpack where it lies flush and is unlikely to become snagged or hooked on other items. The recess (48) and blind-holes (50) in the towing handle (26) and the center bore (76) of the pivot pin (56) allow a release mechanism to be positioned on the towing handle and extending through the pivot pin center bore (76) for releasing a locking mechanism (not shown) that allows the arm portion (24) to be retracted into the backpack (22). The pivotal connection between the towing handle (56) and the arm portion (24) also allows a person to steer the backpack (22) without twisting his or her wrist, thereby reducing fatigue and improving the overall maneuverability of the piece of baggage when being towed.

The second embodiment of the towing member of the invention, like the first embodiment, is specifically adapted and configured to be an integral part of a piece of baggage. As shown in FIGS. 7-11, the towing member (100) of the second embodiment is preferably comprised of an arm portion (102), a towing handle (104), and an intermediary member (106).

5 Although not shown in the FIGS., the towing member (100) of the second embodiment, is configured to be attached to a piece of towable baggage in a manner similar to the towing member (20) of the first embodiment. Thus, in describing the second embodiment, details of how the towing member is attached to the piece of baggage are not explicitly provided. However, it should be appreciated that the second embodiment could be attached to the piece of
10 baggage in a manner similar to the first embodiment or by other means known in the art.

As shown in FIGS. 8-11, the arm portion (102) of the towing member (100) of the second embodiment is preferably a curved telescoping member much like the arm portion (24) of the first embodiment. However, unlike the arm portion (24) of the first embodiment, the arm portion (102) of the second embodiment is preferably a dual-pole member that slides into and out of a
15 single receptacle (not shown) within the piece of baggage. The arm portion (102) has a length with a proximal end (not shown) that is slidably engaged with the piece of baggage and an opposite distal end (108) that can be retracted toward and extended away from the piece of baggage. A pair of spaced apart tubular members (110) formed of aluminum, steel, or other suitably strong materials connect the proximal end of the arm portion (102) to the distal end
20 (108) of the arm portion. The tubular members (110) of the arm portion (102) extend side-by-side along the length of the arm portion (102) in close proximity to each other and are preferably rigidly connected to each other at the opposite proximal and distal (108) ends of the arm portion (102). Thus, the two tubular members (110) of the arm portion (102) function much like a

conventional single-pole member and the two members are utilized in place of a single tubular member mainly for aesthetic purposes. Finally, a through-hole (112) is preferably formed through each of the tubular members (110) adjacent the distal edge (114) of each of the tubular members.

5 The arm portion (102) also comprises a pair of distal end caps (116) that are preferably formed of a polymeric material. Each of the end caps (116) has a base portion (118) that is configured and adapted to slide into the distal end of one of the tubular members (110) in a socketing manner. A shoulder (120) is formed on each of the end caps (116) adjacent the base portion (118) and is configured to engage against the distal edge (114) of each of the tubular
10 members (110) to prevent the end cap from sliding further into the tubular member. A first through-hole (122) is formed through the base portion (118) of each end cap (116). Each base portion through-hole (122) aligns with the through-hole (112) of the respective tubular member (110) when the base portion of the end cap is inserted into the tubular member and the shoulder (120) of the end cap is engaged with the distal edge (114) of the tubular member. A fastener
15 (124), such as a rivet, passes through the through-hole (112) of each tubular member (110) and the first through-hole (122) of each end cap base portion (118) and thereby secures the end caps to the tubular members.

Each of the end caps (116) also comprises a planar bearing surface (126) that is oriented perpendicular to the shoulder (120) of the end cap. The bearing surface (126) preferably has a
20 circular periphery. A second through-hole (128) is formed through each end cap (116) and is centered in and perpendicular to the bearing surface. The second through-holes (128) of the bearing caps are coaxial. The second through-hole has a counter-bore (130) that is formed into the side of each end cap (116) opposite the bearing surface (126). The counter-bore (130)

thereby forms a recessed annular shelf (132). With each end cap (116) attached to one of the tubular members (110) of the arm portion (102) as described above, the bearing surfaces (126) of the end caps are spaced apart and are oriented parallel to and facing each other.

The towing handle (104) of the second embodiment of the towing member (100) is preferably formed of polymeric material and metal. The towing handle (104) is T-shaped and comprises a grip portion (134) formed of polymeric material and having opposite free ends (136). A stem portion (138) of the towing handle (104) is also formed of polymeric material, preferably integrally with the grip portion (134). The stem portion (138) intersects the grip portion (134) and extends preferably perpendicularly therefrom. A circular bearing surface (140) is formed at the end of the towing handle stem portion (138). The towing handle (104) also comprises a handle pivot shaft (142) that is preferably formed of metal and is centered in and protrudes perpendicularly from the stem portion bearing surface (140). The pivot shaft (142) projects from the stem portion bearing surface to a threaded portion (144) of the shaft adjacent its distal end. The opposite end (146) of the handle pivot shaft (142) extends into the handle grip portion (134) and is preferably narrowed, knurled, or otherwise textured (not shown) and the grip portion (134) and stem portion (138) of the towing handle (104) are molded around the handle pivot shaft securing the handle pivot shaft to the towing handle grip and stem portions.

The intermediary member (106) of the towing member (100) is preferably formed of a polymeric material as a single monolithic part. A pair of first and second circular bearing surfaces (146), (148) are formed at opposite ends of the intermediary member (106) and are parallel to and aligned with each other. A third circular bearing surface (150) is formed on the intermediary member (106) and is oriented perpendicular to the first and second bearing surfaces (146), (148). A first through-hole (152) extends through intermediary member (106)

perpendicularly from the center of the first bearing surface (146) to the center of the second bearing surface (148). A second-through-hole (154) extends through the intermediary member (106), perpendicularly from the center of the third bearing surface (150). The second through-hole (154) has a counter bore (156) that is formed into the intermediary member (106) from the side opposite to the third bearing surface (150). The counter-bore (156) forms a recessed annular shelf (158).

In addition to the arm portion (102), the towing handle (104), and the intermediary member (106), the towing member (100) of the second embodiment also comprises a shoulder-bolt (160), a shoulder-bolt nut (162), and a handle pivot shaft nut (164) that are utilized to connect the components of the towing member together. The towing handle (104) is assembled to the arm portion (102) of the towing member (100) via the intermediary member (106).

The assembly of the various components of the towing member (100) of the second embodiment is achieved by first inserting the handle pivot shaft (142) of the towing handle (104) into the second through-hole (154) of the intermediary member (106) such that the bearing surface (140) of the towing handle engages against the third bearing surface (150) of the intermediary member. The handle pivot shaft nut (164) is then inserted into the counter-bore (156) of the intermediary member (106) and is threaded onto the threaded portion (144) of the handle pivot shaft (142) until it lightly engages against the recessed annular shelf (158) of the intermediary member. Thus, the handle pivot shaft nut (164) thereby holds the bearing surface (140) of the towing handle (104) against the third bearing surface (150) of the intermediary member (106). The handle pivot shaft nut (164) is preferably a self-locking type of nut and a washer (not shown) is preferably utilized such that, once assembled, the towing handle (104) and the handle pivot shaft nut are free to pivot together about the axis of the second through-hole

(154) of the intermediary member (106) relative to the intermediary member, without requiring excessive torque and without the nut loosening. It should also be appreciated that the handle pivot shaft (142) of the towing handle (104) and the handle pivot shaft nut (164) are dimensioned such that the first through-hole (152) of the intermediary member (106) remains unobstructed.

5 Once the towing handle (104) has been assembled to the intermediary member (106) as described above, the intermediary member is then assembled to the arm portion (102) of the towing member (100) using the shoulder-bolt (160) and the shoulder-bolt nut (162). This is done by first positioning the first and second bearing surfaces (146), (148) of the intermediary member (106) between the bearing surfaces (126) of the end caps (116) of the arm portion (102) and
10 aligning the first through-hole (152) of the intermediary member with the second through-hole (128) of each of the end caps. Next, the shoulder-bolt (160) is inserted into the counter-bore (130) of one of the end caps (116) such that it extends through the second through-hole (128) of each of the end caps and through the first through-hole (152) of the intermediary member (106). The shoulder-bolt nut (162) is then inserted into the counterbore (130) of the other end cap (116)
15 where it is then threaded onto the shoulder-bolt (160). Like the handle pivot shaft nut (164), the shoulder-bolt nut (162) is preferably a self-locking type of nut. As the shoulderbolt nut (162) is tightened onto the shoulder-bolt (160), the head of the shoulder-bolt and the shoulder-bolt nut engage against the recessed annular shelves (132) of the end caps (116) and thereby act to move the end caps toward each other. The intermediary member (106) is dimensioned such that only a
20 slight interference fit exists between first and second bearing surfaces (146), (148) of the intermediary member and the bearing surfaces (126) of the end caps (116). It should be appreciated that the shoulder-bolt nut (162) is tightened onto the shoulder-bolt (160) only as much as is necessary to eliminate any gap between the end caps (116) and the intermediary

member (106) and is not tightened to the point that significantly prohibits pivoting movement between the intermediary member and the end caps about the axis of the shoulder bolt.

Once the towing member (100) of the second embodiment is assembled as described above, the towing handle (104) can be pivoted about two axes relative to the arm portion (102) of the towing member. A first one of the axes is the axis of the shoulder-bolt (160) about which the towing handle (104) and the intermediary member (106) pivot together relative to the end caps (116) of the arm portion (102) of the towing member (100). This first axis remains generally parallel to the rotation axis of the wheels of the piece of baggage to which the towing member (100) is ultimately attached. A second one of the axes is the axis of the handle pivot shaft (142) about which the towing handle (104) and the handle pivot shaft nut (164) are free to rotate relative to the intermediary member (106) of the towing member (100).

The multi-axis pivoting of the towing member (100) of the second embodiment allows the towing handle (104) to be oriented as shown in FIGS. 10 and 11, relative to the arm portion (102) of the towing member. In FIG. 10, the towing handle (104) is shown in an orientation wherein the grip portion (134) of the towing handle (104) is oriented parallel to the first axis. In this orientation, the towing handle (104) can be easily retracted into the piece of baggage in a manner similar to the manner described in reference to the towing member (20) of the first embodiment. As shown in FIG. 11, the towing handle (104) has been pivoted about both the first and second axes in a manner such that the second axis extends vertically and the grip portion (134) of the towing handle extends horizontally in a plane perpendicular to the first axis. In this orientation, the grip portion (134) of the towing handle (104) is ideally positioned for a person to tow the piece of baggage without-flexing his or her wrist, regardless of the angle of inclination of the piece of baggage.

The third embodiment of the towing member comprises the towing handle (200) and connector (202) shown in FIGS. 12-16. FIG. 12 shows an exploded assembly view of the towing handle (200) and connector (202) of the third embodiment of the towing member.

In general, the towing handle (200) of the third embodiment of the towing member
5 comprises a lower portion (204), an upper portion (206), two end caps (208), and a
unlocking/release button (210) that are preferably formed of polymeric material. Like the first
and second embodiments, the towing handle (202) of the third embodiment is preferably T-
shaped. The lower portion (204) of the towing handle (200) forms one half of the hand grip
(212) of the towing handle and comprises an integrally formed stem (214) that preferably
10 extends perpendicularly from the handgrip portion along the center axis of the towing handle.
The stem (214) has a necked portion that forms a cylindrical shaft (216) and terminates with a
locking protrusion (218). The locking protrusion (218) essentially has the form of a cylinder
having two intersecting channels (220) formed into its terminal face (222). The channels (220)
are preferably perpendicular to each other and intersect at the axis of symmetry of the towing
15 handle. For reasons discussed below, each of the channels (220) preferably has opposed walls
that diverge from each other slightly as they extend radially from the center axis. A through-hole
(226) is aligned with the center axis of the towing handle (200) and extends through the lower
portion (204). Finally, a plurality of grooves (228) are formed into the hand grip (212) part of
the lower portion of the towing handle (200) to increase a person's grip of the towing handle and
20 to improve the aesthetics of the towing handle.

The upper portion (206) of the towing handle (200) has a generally semi-cylindrical shell
shape that forms the upper half of the hand grip (212) of the towing handle. An opening (230)
having an oval periphery extends through center of the upper portion (206).

The end caps (208) of the towing handle (200) are preferably identical to each other and are preferably formed as flat plates having oval perimeters. A pair of countersunk screw holes (232) preferably extend through each of the end caps (208).

5 The unlocking/release button (210) comprises a oval shaped protrusion (234) with a circumscribing rim (236) formed thereabout. The oval shaped protrusion (234) is dimensioned slightly smaller than the oval opening (230) of the upper portion (206) of the towing handle (200) such that the oval shaped protrusion can pass therethrough. However, the rim (236) of the unlocking/release button (210) is dimensioned larger than the oval opening (230) of the upper portion (206) of the towing handle (200) such that the entire unlocking/release button (210) cannot pass through the opening. The opposite end of the unlocking/release button (210) comprises a rod (238) that cantilevers from the remainder of the button. The rod of the unlocking/release button (210) is preferably cylindrical in shape.

The connector (202) of the third embodiment of the towing member comprises two identical connector halves (240) and a locking member (242) that are preferably formed of
15 polymeric material. Each of the connector halves (240) preferably comprises a cavity (244) that is substantially surround by a peripheral ridge (246). A flat surface (248) is formed in the cavity (244) and a pair of tubular posts (250) extend perpendicularly from the flat surface. Each of the connector halves (240) also comprises semi cylindrical journal surface (252) that is formed into its peripheral ridge (246). A semi-cylindrical channel (254) recess having a slightly larger radius
20 than the journal surface (252) is formed in the cavity (244) immediately adjacent and aligned with the journal surface. The journal surface (252) is dimensioned to correspond to the length and diameter of the cylindrical shaft (216) of the stem (214) of the towing handle (200). A smaller semicylindrical opening is aligned with the journal surface (252) and is formed into the

opposite side of the peripheral ridge (246) of each of the connector halves (240). Finally, a plurality of alignment pins (258) and alignment holes (260) are formed into the peripheral ridge (246).

5 The locking member (242) of the connector (202) is generally rectangular in shape and has a pair of opposite parallel surfaces (262). A pair of oval slots (264) extend through the locking member (242) from one of the opposite parallel surfaces (262) to the other. The locking member (242) also has opposite top (266) and bottom (268) end portions and has a cylindrical blind-hole (270) in the bottom end portion that extends toward the top end portion.

10 Having described the various components of the towing handle (200) and the connector (202) of the third embodiment of the towing member, the assembly of the components will now be discussed. The towing handle (200) of the third embodiment of the towing member is assembled by first slidably inserting the rod (238) of the unlocking/release button (210) into the through-hole (226) of the lower portion (204) of the towing handle from thereabove. Once this is done, the upper portion (206) of the towing handle (200) is brought into engagement with the
15 lower portion (204) of the towing handle. As this is done, the oval shaped protrusion (234) of the unlocking/release button (210) is positioned extending through the opening (230) of the upper portion (206). Once the upper (206) and lower (204) portions of the towing handle (200) are engaged with each other, the unlocking/release button (210) becomes captured therebetween due to the fact that the rim (236) of the unlocking/release button is larger than the opening (230)
20 of the upper portion of the towing handle. With the upper (206) and lower (204) portions of the towing handle (200) engaging each other, the end caps (208) are then attached to the opposite ends of the hand grip (212) of the towing handle using screw fasteners (not shown) that are inserted through the screw holes (232) of the end caps. With the end caps (208) attached as

described above, the upper (206) and lower (204) portions of the towing handle (200) are secured together and cannot be separated without removing the ends caps.

The connector (202) is assembled to the lower portion (204) of the towing handle (200). This is done by first positioning the shaft (216) of the stem (214) of the lower portion (204) of the towing handle (200) against the journal surface (252) of one of the connector halves (240).
5 The locking member (242) of the connector (202) is then positioned with one of its opposite parallel surfaces (262) engaging the flat surface (248) of the connector halve (240) and with the blind-hole (270) of the locking member facing away from the towing handle (200). In this position, the posts (250) of the connector halve (240) extend partially into the oval slots (264) of
10 the locking member (242). Finally, the other of the connector halves (240) is then attached to the assembly by aligning the alignment pins (258) of each of the connector halves with the alignment holes (260) of the other of the connectors halves and moving the halves toward each other until the peripheral ridge (246) of each of the halves engages with the other. The connector halves (240) are dimensioned and shaped such that when they are engaged with each other as
15 described above, the posts (250) of each connector halve engages with the posts of the other halve within the oval slots (264) of the locking member (242). This prevents the flat surfaces (248) of the connector halves (240) from clamping the locking member (242) therebetween. Thus, the locking member (242), although trapped with the internal volume of the connector (202) that is created by the cavities (244) of the connector halves (240), remains free to translate
20 toward and away from the stem (214) of the towing handle (200). The towing handle (200) itself, except when locked as discussed below, remains free to pivot about its center axis relative to the connector (202) but cannot be removed therefrom due to the fact that the locking

protrusion (218) is trapped between the semi-cylindrical channels (254) of the connector halves (240).

As assembled above, the towing handle (200) and connector (202) of the third embodiment are then attached to the distal end of the arm portion (not shown) of the towing member that is preferably of the type described in reference to the first embodiment of the towing member. Similar to the first embodiment of the towing member, the connector (202) of the third embodiment is preferably dimensioned to slide tightly into the tubular end of the arm portion. While this is done, a release member (272) is inserted through the opening at the base of the connector (202) created by the semi-cylindrical openings (256) of the connector halves (240) and into the blind-hole (270) of the locking member (242). The release member (272) is configured and adapted to actuate a locking mechanism (not shown) when it is pressed so as to allow the arm portion of the towing member to be retracted into the baggage to which it is attached. Such release members and locking mechanisms are well known in the field of the art and the particular configuration and details thereof are not relevant to the present invention except as otherwise indicated. However, it should be appreciated that towing handle (200) and connector (202) of the third embodiment is specifically configured to work in conjunction with a release member of the type that is spring biased toward the towing handle. Once the connector (202) has been assembled to the arm portion of the towing member as discussed above, a pair of fasteners (not shown) are inserted through the distal end of the arm portion and through the tubular posts (250) of the connector halves (140) to secure the connector to the arm portion of the towing member, thereby completing the assembly process.

Once fully assembled, the towing handle (200) can be selectively locked in two orientations relative to the connector (202) and arm portion of the towing member of the third

embodiment. To describe how this is achieved, towing handle (200) and connector (202) assembly is shown with one of the connector halves (240) removed in FIGS. 13-16. As shown in its first orientation in FIG. 13, the towing handle (200) is positioned such that its hand grip (212) is oriented generally parallel to the flat surfaces (248) of the connector halves (240). In this position, the biasing force of the release member (272) causes the locking member (242) of the connector (202) to move toward the towing handle (200) until the top end portion (266) of the locking member moves into one of the channels (220) formed in the locking protrusion (218) of the towing handle. As a result of the locking member (242) being positioned between the opposed walls (224) of the respective channel (220), the towing handle (200) is prevented from freely rotating about its center axis relative to the connector (202) by the engagement of the opposed walls of the channel with the locking member. However, the opposed walls (224) of each of the channels (220) are specifically dimensioned to be slightly further apart than are the opposite parallel surfaces (262) of the locking member (242) such that the towing handle (200) can pivot slightly through approximately a twenty degree arc relative to the connector (202) when locked in its first orientation.

When desired, the towing handle (200) can be selectively locked in its second orientation relative to the connector (202) and towing member. This is done by pressing the oval shaped protrusion (234) of the unlocking/release button (210) on the towing handle (200) and rotating the handle to its second orientation shown in FIG. 16. When the unlocking/release button (210) is pressed as shown FIG. 14, the rod (238) of the unlocking/release button (210) extends into the channels (220) of the locking protrusion (218) of the stem (214) of the towing handle (200) and engages the locking member (242) of the connector (202). This action overcomes the biasing force that the release member (272) exerts on the locking member (242) and forces the locking

member away from the towing handle (200), thereby disengaging the top end portion (266) of the locking member from the respective channel (220) of the locking protrusion (218) of the towing handle as shown in FIG. 14. The towing handle (200) can then be freely rotated relative to the connector (202), so long as the unlocking/release button (210) remains pressed.

5 If desired, the towing handle (200) can then be locked in its second orientation relative to the connector (202) and arm portion of the towing member. This is done by simply releasing the unlocking/release button (210) of the towing handle (200) after the towing handle has been rotated to its second orientation. When the unlocking/release button (210) has been released, the biasing force of the release member (272) once again forces the locking member (242) toward
10 the towing handle (200) until the top end portion (266) of the locking member moves into the other of the channels (220) formed in the locking protrusion (218) of the towing handle. Thus, as shown in FIG. 16, the towing handle (200) is once again prevented from freely rotating about its center axis relative to the connector (202) by the engagement of the opposed walls (224) of the channel (220) with the locking member (242). As discussed above, it should be appreciated that,
15 due to the opposed walls (224) of each of the channels (220) being dimensioned to be slightly further apart than are the opposite parallel surfaces (262) of the locking member (242), the towing handle (200) remains able to pivot through approximately a twenty degree arc relative to the connector (202) when locked in its second orientation. The unlocking/release button (210) can be pressed at any time to allow the orientation of the towing member (200) to be adjusted as
20 desired relative to the remainder of the towing member. Additionally, it is important to understand that as the unlocking/release button (210) is pressed, the movement of the locking member (242) within the connector (202) causes the release member (272) to resiliently move away from the towing handle (200). Thus, by pressing the unlocking/release button (210), the

release member (272) actuates the locking mechanism so as to allow the arm portion of the towing member to be retracted into the baggage.

As described above, the towing handle (200) of the third embodiment of the towing member can be pivoted in a manner similar to that of the first embodiment relative to the remainder of the towing member. However, the towing handle (200) can also be locked in any one of a plurality of orientations relative to the remainder of the towing member. This locking feature allows a person towing a piece of baggage to exert a torque relative to the axis of the towing member when desired and thereby prevents inadvertent rollover of the piece of baggage (20) when the piece of baggage is towed over uneven ground, such as a curb.

The fourth embodiment of the towing member of the invention, like the first through third embodiments, is specifically adapted and configured to be an integral part of a piece of baggage. The fourth embodiment is generally of similar appearance and operation to the second embodiment, but like the third embodiment, incorporates a locking mechanism and a lock release into its structure. In the fourth embodiment, the locking mechanism is particularly designed to allow for a single button activation by the user to unlock the handle and allow for free motion of the handle along both the allowed axes of motion. In the depicted embodiment of FIGS. 17-25, the structure particularly allows for only two different positions of the button, so that when the button is depressed, both axes of motion are simultaneously released. In another embodiment, however, one of ordinary skill in the art would understand how the structure described below could be modified to allow for a particular button depression to release the motion along only one axes and a second motion to release the other axis. For instance, depression of the button to a first predetermined depth could release one axis of rotation and to a further depth could release

the second. Alternatively, multiple buttons (for example, one for each axis) could be used in another embodiment.

Shown in overview in FIG. 18, is an embodiment of a locking handle allowing motion in two axes which can be alternatively locked into one of a plurality of predetermined positions, or unlocked to allow for free motion of the handle in two axes. The towing member (700) of the fourth embodiment is preferably comprised of an arm portion (702), a handle grip (704), and an intermediary member (706). Although not shown in the FIGS., the towing member (700) of the fourth embodiment, is configured to be attached to a piece of towable baggage in a manner similar to the towing member (102) of the second embodiment. The arm (702) is also preferably formed of three tubular sections (802), (902), and (602). The tubular sections (802), (902) and (602) preferably have an elliptical, oval, or figure-8 cross-section and are preferably configured to slide one inside the other in a telescoping manner and to be curved in a manner similar to arm portion (102) of the second embodiment or arm portion (24) of the first embodiment. In describing the fourth embodiment, details of how the towing member is attached to the piece of baggage that are not explicitly provided should be presumed to be of similar design to those of other embodiments. However, it should be appreciated that the fourth embodiment could specifically be attached to the piece of baggage in a manner similar to the second embodiment or by other means known in the art.

FIGS. 19 through 22 provide for a cutaway view of the design of the handle (704) of the system and the first tubular section (802) to which it is connected. Like the arm portion (102) of the second embodiment, the outermost first tubular section (802) of the fourth embodiment is preferably a dual-pole member that slides into and out of a single receptacle within the piece of baggage. The first tubular section (802) has a length with a proximal end (808) that is slidably

engaged with the second tubular section (902) and an opposite distal end (708) that can be retracted toward and extended away from the piece of baggage. A pair of spaced apart tubular members (710), which may be formed of, but are not limited to, aluminum, steel, plastic or other suitably strong materials and connect the proximal end (808) of the first tubular section (802) to the distal end (708) of the tubular section (802). The tubular members (710) of the first tubular section (802) extend side-by-side in a generally parallel manner along the length of the first tubular section (802) in close proximity to each other and are preferably rigidly connected to each other at the opposite proximal (808) and distal (708) ends. This may be accomplished through the use of end cap (811) at the proximal end (808) and the connecting structures discussed below at the distal end (708). Thus, the two tubular members (710) of the first tubular section (802) function much like a conventional single-pole member and the two members are utilized in place of a single tubular member mainly for aesthetic purposes. Finally, at least one through-hole (712) is preferably formed through each of the tubular members (710) corresponding with the tubular members being considered generally hollow. The first tubular section (802) will generally slide into the second tubular section (902) which in turn will slide into a third tubular section (602) which may be the arm portion (702) receptacle in the piece of baggage. In another embodiment any number of tubular sections may be used and the telescoping connection may alternatively be obtained by alternative structures.

The first tubular section (802) also comprises a pair of distal end caps (716) that may be formed of, but are not limited to polymeric materials or metals. Each of the end caps (716) is of a generally elbow shape and has a base portion (718) that is configured and adapted to slide onto the distal end (708) of one of the tubular members (710) in a socketing manner. A shoulder (not shown) may be formed within each of the end caps (716) adjacent the base portion (718) and

may be configured to engage against the distal edge (708) of each of the tubular members (710) to prevent the end cap from sliding further onto the tubular member. A first through-hole (722) may be formed through the base portion (718) of each end cap (716). Such a base portion through-hole (722) generally aligning with the through-hole (712) of the respective tubular member (710) when the base portion of the end cap (716) is inserted onto the tubular member (710) and the shoulder of end cap (716) is engaged with the distal edge (708) of the tubular member (710). In an alternative embodiment, the end cap need not include a through-hole (722) but may be solid in its internal structure. The end caps (716) may be affixed to the appropriate tubular member (710) by any means known to one of ordinary skill in the art including, but not limited to, adhesives, fasteners, welds, or other types of fastening.

Each of the end caps (716) also comprises a planar bearing surface (726) that is oriented perpendicular to the base portion of the end cap. The bearing surface (726) preferably has a generally circular periphery. A second through-hole (728) may be formed through each of the bearing surfaces (726) which is preferably centered in and perpendicular to the bearing surface (726). This through-hole (728) may later be used to house bullet shaft (691). In another embodiment the through-hole (728) may be eliminated making end cap (716) solid. It is preferred that the second through-hole (728), if included, be of generally similar diameter to that of the first through-hole (722) but that is by no means required.

Attached to the bearing surface (726) is a collar (791) of generally circular shape and having a diameter generally less than the diameter of the bearing surface (726). Attached to the collar (791) there is then a slotted ring (751) which is also of generally circular shape and has an outer diameter greater than the diameter of the collar (791), but generally less than the diameter of the bearing surface (726), although larger or smaller slotted rings (751) may be used in

alternative embodiments. The second through-hole (728), if present, continues through the collar and the slotted ring (751) making each of the slotted ring (751) and the collar (791) hollow.

Even if the second through-hole (728) is eliminated, the slotted ring (751) will still generally be of hollow shape making the ring circumjacent an opening. Each slotted ring (751) includes at

5 least one slot (753) therein. The slot (753) is a cut through the side of slotted ring (751) along a radius of the slotted ring (751) and therefore connects the opening to which the ring is circumjacent to the space outside the slotted ring (751) (or alternatively simply creates an opening in that direction even if not connected fully through to the outside space). Each slot (753) is of a predetermined width and depth. The width is preselected to be equal to or greater
10 than the thickness of paddle (771) (discussed later). The depth may be of any depth and may go entirely through the slotted ring, or be of any depth shorter. The depth will preferably, however, be sufficient to engage and hold an object of width similar to the width of the slot (753) without it being able to be twisted from within the slot. The slotted ring (751) of one end cap (716) is generally parallel to and separated from with the slotted ring (751) of the other end cap (716).

15 From FIG. 19 The towing handle (704) of the fourth embodiment of the towing member (700) is preferably formed of polymeric material and/or metal, but may be formed of any materials known to one of ordinary skill in the art. The towing handle (704) is generally "T"-shaped (although may be offset as shown in the FIGS.) and comprises a grip portion (734) having opposite free ends (736) and (737) and a stem portion (738). Stem portion (738) of the
20 towing handle (704) is preferably integrally formed with the grip portion (734) but that is by no means necessary. Both the grip portion (734) and the stem portion (738) are preferably of generally hollow construction. The stem portion (738) intersects the grip portion (734) and

extends preferably perpendicularly therefrom. A circular bearing surface (740) is formed at the end of the stem portion (738) separated from the grip portion (734).

An intermediary member (706) of the towing member (700) is preferably formed of a polymeric material as two halves later connected together by any means known to one of ordinary skill in the art, but may, alternatively, be formed of any other number of parts. The intermediary member (706) is of generally "T" shaped construction and includes a pair of first and second circular bearing surfaces (746), (748) which are formed at opposite ends of the intermediary member (706) and are parallel to and spaced from each other. A third circular bearing surface (750) is formed on the intermediary member (706) and is oriented perpendicular to and spaced from the first and second bearing surfaces (746) and (748). Intermediary member (706) is preferably generally hollow. Further, each of said three bearing surfaces has a through-hole therethrough. The through-hole is bounded by a ridge (846), (848) or (850) wherein the ridge (846), (848), or (850) is designed to have a diameter and thickness so that the size of the through-hole at the ridge corresponds to the outside diameter of the collar about which the particular arm portion of the intermediate member will be attached while the interior hollow section provides for a greater open area. Specifically the side ridges (846) and (848) encircle the collar (791) on the end caps (716) and the top ridge (850) encircles the collar (873) on the pivot shaft (742) with the slotted rings (773) and (751) within the hollow interior of intermediate member (706) and prevented from removal from the hollow interior of intermediate member by the sides of ridges (846), (848), and (850). It will be appreciated by those of skill in the art that the collar/ridge construction provides for rotational movement, while preventing linear movement of the intermediate portion (704).

FIGS. 20 and 21 provide for views of the internal structure of the area of FIG. 19 by removal of portions of the grip portion (734) and stem portion (738). Within the grip portion (734) there is included an opening (739) at one end (737). The opening (739) has placed therethrough a portion of button mechanism (741). In the preferred embodiment, the button mechanism (741) includes a piece of its construction which extends a particular fixed distance through said opening (739). This portion may be covered by a button cover (743). Further, there is generally a biasing member (745) (in this case a spring) which biases the button mechanism (741) to a position with the portion extended through the opening (739). The button mechanism (741) will generally also have a lip, shoulder, or similar portion so that when biased by the biasing mechanism (745) the button mechanism extends partially beyond the opening (739) but cannot be freely removed through the opening (739).

The towing handle (704) also comprises a handle pivot shaft (742) and a handle depression pin (747) which extend in generally perpendicular relation to the handle grip (734) and through the stem portion (738). The handle pivot shaft (742) is preferably generally tubular in construction and has a central through-hole (842) through which the handle depression pin (747) can slideably move. The pivot shaft (742) will also be generally free floating with regards to button mechanism (741) but will generally be rigidly attached to the stem portion (738). The depression pin (747) is designed to translate motion from the depression of the button mechanism (741) by a user into linear displacement of the depression pin (747) through the through-hole (842) in the pivot shaft (742). In the depicted embodiment, this is accomplished by designing the depression pin (747) to have a shaped head (749) with an angle on a side. The button mechanism will then have a correspondingly sized depression (751) into which the shaped head (749) is placed when the button mechanism (741) is biased through the opening (739)

toward the button mechanism (741) by a biasing mechanism (not shown). As the button mechanism (741) is depressed by the user against the biasing force of biasing member (745), the mating angles slide against each other and force the depression pin (747) to linearly displace a distance along the axis of the pivot shaft (742) and through the stem portion (738) and pivot shaft (742). One of ordinary skill in the art would understand that depicted button mechanism (741) is only one of a plurality of different types of button mechanisms which could be used. In an alternative embodiment, the button mechanism could be designed to be pushed in an alternative direction (for instance, linearly in the direction of the depression pin displacement) and with appropriate design choice, any of this button motion could be translated into linear motion of the depression pin (747) along the axis of the pivot shaft (742). One of ordinary skill in the art would also recognize that this motion is also accomplished by the button of the third embodiment, which could alternatively be used.

It is preferred that depression pin (747) and through-hole (842) have a non-circular cross section or that the depression pin (747) be prevented from rotating about the axis of the pivot shaft (742) relative to the pivot shaft or otherwise rotating within the through hole (842). In a preferred embodiment the depression pin (747) and through-hole (842) are both generally polygonal in cross section, and more preferably square in cross section.

At the base of depression pin (747) there is held a paddle (771). The paddle (771) is shown separated from the other structure in FIG. 22 but within the handle (704) in the other FIGS. The paddle (771) will generally be planar with a predetermined thickness and may be of an "arrowhead" shape, but other shapes could be used as would be understood by one of ordinary skill in the art. The paddle (771) will be attached to the depression pin (747) in a manner such that linear displacement of the depression pin (747) will result in linear displacement of the

paddle (771) and that the depression pin (747) can freely rotate about the axis of the pivot shaft (742) relative to the paddle (771). In the depicted embodiment, this is accomplished by making the depression pin (747) hollow and then attaching a paddle pin (890) to an edge of the paddle (771). This detail of the paddle is shown in FIG. 22. The paddle pin (890) is preferably of
5 cylindrical construction or of another type of construction so that the paddle pin (890) can freely rotate about the axis of the pivot shaft (742) within the hollow center of depression pin (747). To assemble the structure, the paddle pin (890) will be placed inside the hollow center of the depression pin (747). Further the paddle (771) will be biased toward the depression pin (747) by a biasing mechanism (not shown) so as to insert the paddle pin (890) as far as possible into the
10 depression pin (747) as shown in FIG. 21. The linear motion of the paddle (771) is accomplished by the external structure of the depression pin (747) pushing against the edge of the paddle (771) and/or paddle pin (890) when the displacement pin (747) is displaced by the button mechanism (741).

At the base of the pivot shaft (742), there is included a collar (873) and slotted ring (773)
15 similar in design to slotted ring (751). Slotted ring (773) generally includes at least two coplanar and parallel slots (874) therethrough. The slots (874) each have a width similar to the thickness of the paddle (771) and are generally similar to the slots (753) in slotted ring (751). Through-hole (842) extends through said collar (873) and said slotted ring (773) in much the same manner that the second through-holes (728) can extend through the bearing surfaces of end caps (716)
20 and associated collar (846) or (848) and slotted rings (751)

The locking and unlocking of the handle's 2-axial motion is obtained by moving paddle (771) between two positions based on the depression or lack thereof of the button mechanism (741). In the first position (shown in FIG. 21A), the paddle (771) is positioned in at least one

slot (753) in each of said slotted rings (751) and in at least one slot (973) (but generally two parallel slots) in slotted ring (773). In the second position (shown in FIG. 21B), the paddle has been linearly displaced from the slots and into the space within the openings to which slotted rings (751) are circumjacent and above the slotted ring (773). The paddle (771) has been
5 displaced into the hollow interior of intermediate member (706) and is clear of the slots (874) and (753). These positions correspond to a "Locked" and "unlocked" position respectively.

In order to better understand the locking and unlocking operations, it is easiest to explain the interrelationship of intermediate member (706), pivot shaft (742) and end caps (716) during operation. It is preferred that the intermediate member allow bearing surface (973) of pivot shaft
10 (742) and bearing surface (740) on stem portion (738) to be freely rotatable on bearing surface (750) of the intermediate member (706) by having the ridge (850) of the intermediate member rotate about the collar (873) of the pivot shaft. In the same way, bearing surface (726) of end caps (716) can also freely rotate on bearing surface (746) or (748) by having the appropriate ridge (846) or (848) rotate above the appropriate collar (791).

15 Presuming that there is no paddle (771) present, the handle (704) can traverse two interrelated degrees of motion similar to that allowed by the second embodiment. In this case, however, the use of the two pins in the second embodiment about which the interlocking member (706) and stem portion (738) rotate is replaced by the rotation of the ridge (846) and/or (848) about the collars (791) of the end caps (716), and the rotation of the pivot shaft collar (873) on
20 the ridge (850) of the intermediate member (706). In particular, the handle (704) can rotate about the axis of the pivot shaft (742) by rotating with the pivot shaft (742) relative to the intermediate member (706). Further, the intermediate member (706) and the handle (704) can rotate about an axis perpendicular to the bearing surfaces (726) of the end caps (716). This

motion is similar to the motion described with regards to the second embodiment above allowing the handle to rotate about two different (and generally perpendicular) axes. It is preferred that these axes be generally of similar alignment to the axes of the second embodiment relative to the piece of baggage, but such arrangement is by no means necessary. It should also be apparent
5 that only rotational motion about those two axes is allowed by the structure as all other motion is prevented due to structure in the intermediate member (706), handle (704), or end caps (716).

The available motion when there is no paddle (771) present, is the same as the motion available when the paddle (771) is within the hollow of the intermediate member (706) and therefore corresponds to the motion when the paddle (771) is in the unlocked position. In the
10 depicted embodiment, the user could depresses the button mechanism (741) which would overcome any biasing present and in turn result in movement of the depression pin (747) linearly away from the handle grip (734), the movement of the depression pin (747) would in turn push the paddle (771) away from the grip (734) and would move the paddle from within the slots. Once free of the slots, the depression pin (747) can freely rotate around the paddle (771). The
15 paddle (771) is preferably prevented from movement about that same axis by any method known to one of ordinary skill in the art, for instance another pin may be attached internal to the intermediate member (706) to pass through hole (891) in the paddle (771) to prevent its rotation (this would be perpendicular to the page of FIG. 20). The paddle (771) and intermediate member (706) combination can also freely rotate relative to the end caps (716).

20 Once the paddle (771) has been moved from the obstructing position, the handle (704) can be pivoted about two axes relative to the arm portion (702) of the towing member. The multi-axis pivoting of the towing member (700) of the fourth embodiment allows the handle (704) to be oriented as shown in FIGS. 17A, 17B, and 17C.

The slotted rings (773) and (751), provide for a locking position of the paddle for locking the handle grip (734) into a predetermined position. If the paddle (771) is retracted toward the handle grip (734) so that it enters one slot on each of the adjoining slotted rings (751). The entry of this slot (since the slots are only about as wide as the paddle is thick) essentially prevent the paddle from rotating about the axis between the end caps, as the solid portion of slotted rings (751) obstructs the motion. Further, since the depression pin can only move linearly with regards to the handle grip (734), the handle grip is now locked in position relative to the axis perpendicular to the end caps (716) bearing surfaces.

A similar result about the pivot shaft (742) axis can be obtained by retracting the paddle (771) into two parallel slots in the slotted ring (773). The rigid design of the paddle (771) when placed through the slots (973), will prevent the pivot shaft (742) from rotating relative to the paddle (771). Now, if the paddle (771) was allowed to freely rotate about the pivot shaft (742) axis at this point, the handle (704) would not be locked as the paddle (771) could rotate with the pivot shaft (the paddle (771) could not rotate with the intermediate member (706) because there is no attachment between them), but, in the preferred embodiment, when the paddle is in the slots (973) of slotted ring (773) on the pivot shaft (742), the paddle (771) is also within the slots (753) of slotted rings (751) on the end caps (716). Therefore, the slotted rings (751) prevent the paddle (771) from rotating about the pivot shaft (742) axis as the paddle (771) is obstructed by the slotted rings (751) (further, the design for keeping the paddle from rotating in this axis when in the unlocked position, preferably also prevents motion by the paddle in this axis when in the locked position). This obstruction prevents the depression pin (747) and pivot shaft (742) from rotating about the pivot shaft (742) axis.

As discussed above, it is preferable that the pivot shaft (742) be designed so that it is unable to rotate about the depression pin (747) on the pivot shaft (742) axis, and therefore motion by the handle (704) in either axis is prevented as the depression pin (747) and pivot shaft (742) are held together and neither can rotate freely. This corresponds to the locked position, and the handle (704) cannot be moved in either axis when in this position.

It is preferable, that the paddle (771) be biased to its position within the slots (973) and (753), if any slots are aligned with the paddle (771). The paddle (771) attempts to return to a position where it is in a slot if one is available for it to enter. It should be apparent that the slotted rings (773) and (751) allow for the user to depress the button mechanism (741), to move the grip (734) slightly, and then to release the button mechanism (741) and then move the handle (704) to a position desired where there is a slot in the ring, presuming there are no slots between the original position, and the slot for the desired position. If the button mechanism (741) is released when the paddle (771) is not lined up with a set of slots, the paddle (771) will not be able to retract into a slot and will only retract to the surface of the slotted ring (773) and/or (751). In this position, the paddle (771) can move smoothly over the surface of the ring, and will not prevent motion of the grip (734), until the paddle (771) becomes aligned with a series of slots and is biased into the slots, preventing movement.

In the embodiment pictured in FIGS. 20 and 21, it should also be apparent that because of the size of the slotted rings (773) and (751), in order to retract the paddle (771) into one set of slots (973) or (753), the paddle (771) must also be able to be retracted into a second set of slots (973) or (753), as one slotted ring will obstruct the paddle (771) from retracting into the other slotted ring. This means that the user either has both axes of motion freed or locked. While this does provide for some benefits, one of skill in the art would recognize that in alternative

embodiments, the paddle (771) could be allowed to enter one series of slots, even if entering the other series is still obstructed.

The slots (973) and (753) can be chosen to correspond to preselected positions where the user might like to have the handle (704) lock into position. In this way, the handle (704) can be moved to a position predetermined to be desirable where it locks into place. This locking provides that the user has the freedom to alter the position of the handle as shown in FIGS. 17A and 17B, which show how two different positions which share an axis could be accomplished, and 17C, which provides for a locked position with both axes adjusted. The user need not use the musculature in their wrist to maintain the handle (704) in the preselected position, as the handle (704) is held there by the locking mechanism in the positions of 17A, 17B, and 17C.

In some embodiments of the fourth embodiment, it may be desirable to also have the depression of the button mechanism (741) release the locking mechanism for keeping the arm portion (702) extended. This may be accomplished through the inclusion of additional structure in at least one of the end caps (716). As shown in FIG. 23, there can be included within an end cap a bullet shaft (691), which is designed to slide linearly within the second through-hole (728) and into the end cap (716). The bullet shaft (691) may be pressed into the end cap (716) as the paddle (771) is pressed into the intermediate section (716) by the user depressing the button mechanism (741). The arrowhead shape of the paddle (771) may act on an opposing angle of the bullet shaft (601) in much the same way that the button mechanism (741) acts on the depression pin (747). The bullet shaft (601), may then in turn depress a handle shaft (811) which extends through the first tubular section (802). Turning attention to FIGS. 24 and 25, which show the proximal end (808) of the first tubular section (802), the handle shaft (811) may extend and in turn depress a interaction cap (605) which operates on a key paddle (603) which in turn retracts

an extension pin (607) into a hole (609) in the end cap (811). The extension pin (607) is preferably biased so as to extend from hole (609) and through aperture (809) in the second tubular section (902) when the handle shaft (811) has not been displaced by displacement of the button mechanism (741). When through this aperture (809), the tubular sections (802) and (902) are held in an extended state relative to each other and may not be retracted as the extension pin (607) obstructs movement of them relative to each other.

When the button mechanism (741) is depressed by the user, it is therefore possible to release the motion of the handle grip (734) in both pivotal axes, as well as simultaneously releasing the lock in the arm portion (702) so that it can collapse in a reverse telescoping manner.

One of ordinary skill in the art would also understand that the motion of the components could be further translated to release additional locking mechanisms such as to release a lock to allow the arm portion (702) to extend. In logical continuation, the single button depression could be used to unlock motion of any portion of the towing member (700) relative to any other portion. Therefore a single button release of the towing member (700) can be accomplished.

One of skill in the art would understand that the fourth embodiment depicted in FIGS. 17-25 is merely one embodiment of a locking mechanism which would allow for release of the handle for motion in two axes, and the optional release of additional locking mechanisms. Other structures could be used without undue experimentation. For instance, the paddle (771) could be of a shape other than an "arrowhead" particularly if the button depression was only to release the two axial motions and not to translate into other motion. Further, a paddle and slotted ring locking mechanism need not be used but other structures could be used as a locking mechanism which allow for the depression of the button mechanism to release the two axes of motion. Still further, as briefly discussed, the two axes of motion need not be released simultaneously and in

an alternative embodiment, either motion could be released before the other, the user could select a motion to release first or release both axes simultaneously, or another interrelationship of the release of motions could be used.

While the invention has been disclosed in connection with certain preferred
5 embodiments, this should not be taken as a limitation to all of the provided details.

Modifications and variations of the described embodiments may be made without departing from the spirit and scope of the invention, and other embodiments should be understood to be encompassed in the present disclosure as would be understood by those of ordinary skill in the art.

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Claims

1. A hand towed piece of baggage comprising:
 - a piece of baggage;
 - at least one wheel connected to the piece of baggage, the wheel having a wheel rotation axis;
 - 5 an arm portion having a length with opposite proximal and distal ends, the proximal end of the arm portion being operatively secured to the piece of baggage; and
 - a towing handle operatively connected to the distal end of the arm portion for pivoting movement of the towing handle about at least two pivot axes relative to the arm portion.
2. The hand towed piece of baggage of claim 1, further comprising:
 - 10 one of the at least two pivot axes being oriented substantially parallel to the wheel rotation axis.
3. The hand towed piece of baggage of claim 1, further comprising:
 - the at least two pivot axes comprising a first axis and second axis that intersect each other.
4. The hand towed piece of baggage of claim 1, further comprising:
 - 15 the arm portion being movable between extended and retracted positions relative to the piece of baggage such that the towing handle is closer to the piece of baggage when the arm is in the retracted position than when the arm is in the extended position.
5. The hand towed piece of baggage of claim 4, further comprising:
 - the arm portion being comprised of at least two telescoping sections that are slidably attached
 - 20 to each other for relative telescoping movement, the relative telescoping movement allowing the arm portion to be movable between the extended and the retracted positions.
6. The hand towed piece of baggage of claim 1, further comprising:

an intermediary member operatively connecting the handle to the arm portion, the intermediary member being pivotally connected to the arm portion for pivotal movement of the intermediary member and the handle about a first one of the at least two pivot axes relative to the arm portion, the intermediary member also being pivotally connected to the handle for pivotal
5 movement of the handle about a second one of the at least two pivot axes relative to the intermediary member and the arm portion.

7. The hand towed piece of baggage of claim 6, further comprising:

the first one of the at least two pivot axes being oriented substantially parallel to the wheel rotation axis and the second one of the at least two pivot axes being oriented in a plane
10 substantially perpendicular to the first one of the at least two pivot axes.

8. The hand towed piece of baggage of claim 7, further comprising:

the first one of the at least two pivot axes intersecting the second one of the at least two pivot axes.

9. The hand towed piece of baggage of claim 1, further comprising:

15 the towing handle being T-shaped and comprising an elongated hand grip with opposite free ends and a stem that intersects and projects from the hand grip between the opposite free ends, the stem operatively connecting the towing handle to the arm portion.

10. The hand towed piece of baggage of claim 9, further comprising:

the arm portion being movable between extended and retracted positions relative to the piece
20 of baggage such that the towing handle is closer to the piece of baggage when the arm portion is in the retracted position than when the arm portion is in the extended position.

11. The hand towed piece of baggage of claim 10, further comprising:

the opposite free ends of the hand grip defining a hand grip axis that extends from one of the opposite free ends to the other of the opposite free ends, the pivotal movement between the towing handle and the arm portion about the at least two pivot axes allowing the hand grip axis to be oriented horizontally in a plane perpendicular to the wheel rotation axis when the arm portion is in the extended position and the piece of baggage is being hand towed, the pivotal movement between the towing handle and the arm portion about the at least two pivot axes also allowing the hand grip axis to be oriented parallel to the wheel rotation axis when the arm portion is in the retracted position.

12. The hand towed piece of baggage of claim 9, further comprising:

an intermediary member operatively connecting the handle to the arm portion, the intermediary member being pivotally connected to the arm portion for pivotal movement of the intermediary member and the handle about a first one of the at least two pivot axes relative to the arm portion, the intermediary member also being pivotally connected to the stem of the handle for pivotal movement of the handle about a second one of the at least two pivot axes relative to the intermediary member and the arm portion.

13. The hand towed piece of baggage of claim 12, further comprising:

the first one of the at least two pivot axes being oriented substantially parallel to the wheel rotation axis and the second one of the at least two pivot axes being oriented in a plane substantially perpendicular to the first one of the at least two pivot axes.

14. A hand towed piece of baggage comprising: a piece of baggage;

at least one wheel connected to the piece of baggage, the wheel having a wheel rotation axis;

an arm portion having a length with opposite proximal and distal ends, the proximal end of the arm portion being operatively secured to the piece of baggage;

a towing handle; and

a means for operatively connecting the towing handle to the distal end of the arm portion in a manner that allows the towing handle to pivot about at least two pivot axes relative to the arm portion.

5 15. The hand towed piece of baggage of claim 14, further comprising:

a first one of the at least two pivot axes being oriented substantially parallel to the wheel rotation axis and a second one of the at least two pivot axes being oriented in a plane substantially perpendicular to the first one of the at least two pivot axes.

16. The hand towed piece of baggage of claim 15, further comprising:

10 the first one of the at least two pivot axes intersecting the second one of the at least two pivot axes.

17. The hand towed piece of baggage of claim 14, further comprising:

the arm portion being movable between extended and retracted positions relative to the piece of baggage such that the towing handle is closer to the piece of baggage when the arm portion is
15 in the retracted position than when the arm portion is in the extended position.

18. The hand towed piece of baggage of claim 17, further comprising:

the towing handle being T-shaped and comprising an elongated hand grip that comprises opposite free ends that define a hand grip axis that extends from one of the opposite free ends to the other of the opposite free ends, the means for operatively connecting the towing handle to the
20 distal end of the arm portion allowing the hand grip axis to be oriented horizontally in a plane perpendicular to the wheel rotation axis when the arm portion is in the extended position and the piece of baggage is being hand towed, the means for operatively connecting the towing handle to

the distal end of the arm portion also allowing the hand grip axis to be oriented parallel to the wheel rotation axis when the arm portion is in the retracted position.

19. A method of operating a hand towed piece of baggage, the method comprising:

providing a piece of baggage having at least one wheel, an arm portion, and a towing handle,
5 the at least one wheel being connected to the piece of baggage for rotation about a wheel rotation axis, the arm portion having a length with opposite proximal and distal ends, the proximal end of the arm portion being operatively secured to the piece of baggage, the towing handle being operatively connected to the distal end of the arm portion in a manner that allows the towing handle to pivot about at least two pivot axes relative to the arm portion, the arm portion being
10 movable between extended and retracted positions relative to the piece of baggage such that the towing handle is closer to the piece of baggage when the arm portion is in the retracted position than when the arm portion is in the extended position, the towing handle comprising an elongated hand grip that defines a hand grip axis;

pivotaly moving the towing handle relative to the arm portion about the at least two pivot
15 axes in a manner such that the hand grip of the towing handle is oriented with the hand grip axis extending horizontally in a plane perpendicular to the wheel rotation axis when the arm portion is in the extended position and the piece of baggage is being hand towed; and

pivotaly moving the towing handle relative to the arm portion about the at least two pivot axes in a manner such that the hand grip of the towing handle is oriented with the hand grip axis
20 extending parallel to the wheel rotation axis when the arm portion is in the retracted position.

20. The method of claim 19, further comprising:

the pivotal motion of the towing handle relative to the arm portion about the at least two pivot axes occurring about a first one of the at least two pivot axes that is oriented substantially

parallel to the wheel rotation axis and about a second one of the at least two pivot axes that is oriented in a plane substantially perpendicular to the first one of the at least two pivot axes.

21. A towing member for hand towing a piece of baggage, the towing member comprising:

a towing handle;

5 an arm portion operatively connected to the towing handle, the arm portion being configured and adapted to secure the towing handle to a piece of baggage;

a pivot mechanism connecting the towing handle to the arm portion in a manner that allows the towing handle to be pivoted about a pivot axis relative to at least a sub portion of the arm portion, the sub portion of the arm portion being spaced from and external of the piece of

10 baggage when the towing handle is secured to the piece of baggage via the arm portion; and

a locking mechanism that is operatively connected to the towing handle and the arm portion and that is selectively moveable between a locked position and an unlocked position relative to the arm portion, the locking mechanism limiting the pivoting of the towing handle about the pivot axis relative to the sub portion of the arm portion when in the locked position and not so

15 limiting the pivoting of the towing handle about the pivot axis relative to the sub portion of the arm portion when in the unlocked position.

22. The towing member of claim 21, wherein:

the arm portion is movable between extended and retracted positions when the arm portion is attached to a piece of baggage such that the towing handle is closer to the piece of baggage when

20 the arm is in the retracted position than when the arm is in the extended position.

23. The towing member of claim 22, wherein:

the towing member further comprises a release button and the arm portion is selectively lockable in the extended and retracted positions such that the release button must be pressed to

move the arm portion between the extended and retracted positions, the release button also being configured and adapted to move the locking mechanism from the locked position to the unlocked position when the release button is pressed.

24. The towing member of claim 23, wherein:

5 the release button is provided on the towing handle.

25. The towing member of claim 21, wherein:

the pivot mechanism allows the towing handle to rotate at least 360° about the pivot axis relative to the sub portion of the arm portion.

26. The towing member of claim 21, wherein:

10 the towing handle is T-shaped and has an elongated hand grip with opposite ends and a stem that intersects and projects from the hand grip intermediate the hand grip opposite ends, and the pivot axis passes through the stem and is generally perpendicular to the hand grip of the towing handle.

27. A piece of towable baggage comprising:

15 a baggage portion having an internal compartment; at least two wheels mounted to the baggage portion for rotation about a wheel axis relative to the baggage portion;

a towing member in accordance with claim I, the pivot axis being generally perpendicular to the wheel axis.

28. A hand towed piece of baggage comprising:

20 a piece of baggage;

at least one wheel connected to the piece of baggage, said wheel having a wheel rotation axis;

an arm portion having a length with opposite proximal and distal ends, said proximal end of said arm portion being operatively secured to said piece of baggage;

a towing handle operatively connected to said distal end of said arm portion for pivoting movement of said towing handle about at least two pivot axes relative to said arm portion; and

5 a locking mechanism for unlocking and locking said towing handle relative to said arm portion.

29. The hand towed piece of baggage of claim 28, further comprising:

one of said at least two pivot axes being oriented substantially parallel to said wheel rotation axis.

10 30. The hand towed piece of baggage of claim 28, further comprising:

said at least two pivot axes comprising a first axis and second axis that intersect each other in generally perpendicular relation.

31. The hand towed piece of baggage of claim 28, further comprising:

15 said arm portion being movable between extended and retracted positions relative to the piece of baggage such that the towing handle is closer to the piece of baggage when the arm is in said retracted position than when the arm is in said extended position.

32. The hand towed piece of baggage of claim 31, further comprising:

20 said arm portion being comprised of at least two telescoping sections that are slidably attached to each other for relative telescoping movement, the relative telescoping movement allowing said arm portion to be movable between said extended and said retracted positions.

33. The hand towed piece of baggage of claim 31, wherein

said locking mechanism is further operatively connected so said arm portion can be locked in said extended position.

34. The hand towed piece of baggage of claim 33, further comprising:

an intermediary member operatively connecting said handle to said arm portion, the intermediary member being pivotally connected to said arm portion for pivotal movement of the intermediary member and said handle about a first one of said at least two pivot axes relative to
5 said arm portion, said intermediary member also being pivotally connected to said stem of said handle for pivotal movement of said handle about a second one of said at least two pivot axes relative to said intermediary member and said arm portion.

35. The hand towed piece of baggage of claim 34, further comprising:

said first one of said at least two pivot axes being oriented substantially parallel to said wheel
10 rotation axis and the second one of said at least two pivot axes being oriented in a plane substantially perpendicular to said first one of said at least two pivot axes.

36. The hand towed piece of baggage of claim 31, wherein

said locking mechanism is further operatively connected so said arm portion can be locked in said retracted position.

15 37. The hand towed piece of baggage of claim 31 wherein

said arm portion is curved away from said piece of baggage.

38. The hand towed piece of baggage of claim 28, further comprising:

an intermediary member operatively connecting said handle to said arm portion, said intermediary member being pivotally connected to said arm portion for pivotal movement of said
20 intermediary member and said handle about a first one of the at least two pivot axes relative to said arm portion, said intermediary member also being pivotally connected to the handle for pivotal movement of said handle about a second one of said at least two pivot axes relative to the intermediary member and said arm portion.

39. The hand towed piece of baggage of claim 38, further comprising:

said first one of said at least two pivot axes being oriented substantially parallel to said wheel rotation axis and said second one of said at least two pivot axes being oriented in a plane substantially perpendicular to the first one of said at least two pivot axes.

5 40. The hand towed piece of baggage of claim 39, further comprising:

said first one of said at least two pivot axes intersecting said second one of said at least two pivot axes.

41. The hand towed piece of baggage of claim 40, further comprising:

10 said arm portion being movable between extended and retracted positions relative to said piece of baggage such that said towing handle is closer to said piece of baggage when said arm portion is in said retracted position than when said arm portion is in the extended position.

42. The hand towed piece of baggage of claim 41, further comprising:

15 said opposite free ends of said hand grip defining a hand grip axis that extends from one of said opposite free ends to the other of said opposite free ends, the pivotal movement between the towing handle and the arm portion about the at least two pivot axes allowing said hand grip axis to be oriented horizontally in a plane perpendicular to said wheel rotation axis when said arm portion is in the extended position and said piece of baggage is being hand towed, said pivotal movement between said towing handle and said arm portion about said at least two pivot axes also allowing said hand grip axis to be oriented parallel to said wheel rotation axis when said arm
20 portion is in said retracted position.

43. The hand towed piece of baggage of claim 28, further comprising:

A button mechanism within said towing handle wherein a portion of said button mechanism extends through at least a portion of said towing handle.

44. The hand towed piece of baggage of claim 43 wherein

when said button mechanism is depressed said locking mechanism is unlocked, and when said button mechanism is released said locking mechanism is biased to being locked.

45. The hand towed piece of baggage of claim 43 further comprising

5 A pivot shaft with a depression pin extending therethrough, wherein depression of said button mechanism results in linear displacement of said depression pin.

46. The hand towed piece of baggage of claim 45 further comprising

A paddle rotatably attached to said depression pin, the linear displacement of said paddle resulting in the locking or unlocking of said locking mechanism.

10 47. The hand towed piece of baggage of claim 43 wherein

said towing handle being T-shaped and comprising an elongated hand grip with opposite free ends and a stem that intersects and projects from said hand grip between the opposite free ends, said stem operatively connecting said towing handle to the arm portion.

48. The hand towed piece of baggage of claim 47 wherein

15 said button mechanism extends through one of said opposite free ends.

49. The hand towed piece of baggage of claim 28, further comprising:

said towing handle being T-shaped and comprising an elongated hand grip with opposite free ends and a stem that intersects and projects from said hand grip between the opposite free ends, said stem operatively connecting said towing handle to the arm portion.

20 50. The hand towed piece of baggage of claim 28 wherein said locking mechanism utilizes a paddle and at least two slotted rings.

51. The hand towed piece of baggage of claim 28 wherein:

said locking mechanism either locks or unlocks said at least two pivot axes simultaneously.

52. The hand towed piece of baggage of claim 28 wherein:

said locking mechanism unlocks said first of said at least two pivot axes separately from said second of said at least two pivot axes.

53. A hand towed piece of baggage comprising:

5 a piece of baggage;

at least one wheel connected to the piece of baggage, the wheel having a wheel rotation axis;

an arm portion having a length with opposite proximal and distal ends, the proximal end of the arm portion being operatively secured to the piece of baggage; a towing handle;

a towing handle to said distal end of said arm portion in a manner that allows said towing
10 handle to pivot about at least two pivot axes relative to the arm portion; and
means for locking said towing handle to prevent movement about said at least two pivot axes.

54. A method of operating a hand towed piece of baggage, the method comprising:

providing a piece of baggage having:

at least one wheel,

15 an arm portion, and

a towing handle,

wherein, the at least one wheel is connected to the piece of baggage for rotation about a wheel rotation axis, the arm portion having a length with opposite proximal and distal ends, the proximal end of the arm portion being operatively secured to the piece of baggage, the towing
20 handle being operatively connected to the distal end of the arm portion in a manner that allows the towing handle to pivot about at least two pivot axes relative to the arm portion, the arm portion being movable between extended and retracted positions relative to the piece of baggage such that the towing handle is closer to the piece of baggage when the arm portion is in the

retracted position than when the arm portion is in the extended position, the towing handle comprising an elongated hand grip that defines a hand grip axis;

pivotally moving the towing handle relative to the arm portion about the at least two pivot axes into a first position such that the hand grip of the towing handle is oriented with the hand grip axis extending parallel to the wheel rotation axis when the arm portion is in the retracted position;

locking said towing handle in said first position;

unlocking said towing handle;

pivotally moving the towing handle relative to the arm portion about the at least two pivot axes into a second position such that the hand grip of the towing handle is oriented with the hand grip axis extending horizontally in a plane perpendicular to the wheel rotation axis when the arm portion is in the extended position and the piece of baggage is being hand towed; and

locking said towing handle in said second position.