A substantially rigid bag carrying device for facilitating manual transport of a bag, such as a golf bag, luggage, camping equipment, backpack, and the like. The bag carrying device facilitates manual transport of a bag by providing independent support for the bag as well as enabling a user to quickly and easily implement the bag carrying device in a single motion. The support structure of the bag carrying device may be defined by a variety of shoulder supports, connecting supports, and other support structures. The bag carrying device may also incorporate one or more support straps for selectively adjusting the position of the bag relative to a user.
Fig. 14
Fig. 20
Fig. 22a

Off Center Hinge

Fig. 22b
Retractable cord brings sling to its docking home on the bag.

Provides a permanent attachment to the bag.

Fig. 25a

Fig. 25b

Fig. 25c
Fig. 27a
BAG CARRYING DEVICE

1. RELATED APPLICATIONS


BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to bag carrying devices for facilitating manual transport of a bag

[0004] 2. Background and Related Art

[0005] Carrying devices, such as harnesses or straps, are commonly found and utilized in everyday situations to support the carrying of bags, such as backpacks, golf bags, mail bags, luggage, and a host of others via the shoulder(s) of a user.

[0006] One of the drawbacks to carrying a golf bag over a golf course is the standard construction of a golf bag. Traditionally-designed golf bags are manufactured to implement very simple carrying systems designed to enable a golfer or caddy to carry the golf bag, which houses both clubs and balls. A typical golf bag comprises a tubular carrying member enclosed at one end so that the shafts of golf clubs can be longitudinally retained in the bag. Traditionally carrying systems or devices implemented as a means to transport such golf bags typically consist of a single strap that extends from an upper rim of the golf bag to a mid-point on the bag. The strap is typically loose and made of flexible material, wherein the golfer or the caddy is able to carry the golf bag by inserting one arm through the strap so that the strap extends across one shoulder. Consequently, the golf bag naturally rests against the golfer or caddy, depending upon the location and slack in the strap. Although simple in design, this single-strap system has endured through the years and is still very popular today, especially in connection with lower-priced golf bags.

[0007] Although popular, several disadvantages and deficiencies are present in traditional carrying systems that are readily recognized by those individuals who carry such golf bags over a golf course. One such problem results from the fact that the entire weight of the golf clubs and bag, which typically ranges between twenty to thirty pounds, tires the shoulder of the user, especially when several rounds are being played. The weight of the golf bag also increases a likelihood of strain in the muscles of the neck, shoulders, and back. Such strain is often exacerbated by the bulk of the golf bag and its position relative to the user. Indeed, the weight, imbalance, and single strap design of traditionally manufactured golf bags can cause muscle soreness in the hips and lower back as well as in the upper back and neck due to the fact that the center of gravity of the bag is offset with respect to the spine of the user. This is of particular concern to golfers who suffer from back problems.

[0008] Another problem associated with the traditional single strap golf bag design is the resulting swing or rocking of the golf bag that repeatedly pounds the user over and over as he/she walks from hole to hole. This constant swinging or rocking motion is derived from and is in tune with the natural walking frequency of the user and is difficult to stabilize.

[0009] In recent years, the traditional single strap carrying system design has been improved upon by designing two strap or multi-strap systems. These allow adjustable straps for two, three, or four point attachment to a golf bag. These enable transverse mounting of the golf bag on the back of the golfer. They further provide a broad surface with compliant material for comfort, and are often adapted to take the necessary shape to fit a given golfer.

SUMMARY OF THE INVENTION

[0010] The present invention is a variety of related bag carrying devices for facilitating manual transport of a bag, such as a golf bag, luggage, camping equipment, backpack, and the like. Specifically, certain embodiments of the present invention provide a substantially rigid supporting structure for supporting the weight of a bag and distributing such weight over a user. The supporting structure may be defined according to a variety of elements, including a variety of shoulder supports, connecting supports, and other support structures. In some embodiments, the supporting structure includes: a handle; a connecting support hinge; a webbing support structure; a torso support; an adjustable connecting support; rigid shoulder supports and connecting supports; selectivly rigid shoulder supports and connecting supports; rigid segments; non-rigid shoulder supports; a front handle; a waist level handle; a hollow connecting support with a tube and mouthpiece; a compliant connecting support; a non-rigid connecting support; non-rigid connecting straps; an elongated connecting support; a head support; an off-center hinge; a group of links; a retractable cord and retractable cord housing; a backpack hinge; a back support; and a rigid connecting bar.

[0011] In some embodiments, the connecting supports provide the primary support for the weight of a bag attached thereto. Accordingly, the connecting supports are generally substantially planar such that the connecting supports may be supported and balanced along the upper back of a user.

[0012] Shoulder supports may extend from one or both ends of the connecting support to stabilize the bag anteriorly over the shoulder of a user. These opposing shoulder supports counterbalance each other, such that the weight of the bag is supported by a user. The dimensional relationship between the shoulder supports may promote a specific transport arrangement with respect to a position of the bag relative to a user. In this manner, balance between the bag and a user may be facilitated according to the weight and bulk of the bag. For example, where the bag is a traditionally designed elongate golf bag, the length of one shoulder support may extend beyond the length of the other shoulder support such that the golf bag is supported on a diagonal relative to a user.

[0013] A bag carrying device in accordance with the present invention may also incorporate a cushioning support on an underside surface of the supporting structure so as to facilitate a user’s comfort. A bag strap assembly may also be implemented in accordance with the present invention to
enable selective adjustment of the relationship between the bag carrying device and the bag.

[0014] These and other features and advantages of the present invention will be set forth or will become more fully apparent in the description that follows. The features and advantages may be realized and obtained by means of the instruments and combinations particularly pointed out in the appended claims. Furthermore, the features and advantages of the invention may be learned by the practice of the invention or will be obvious from the description, as set forth hereinafter.

Brief Description of the Drawings

[0015] In order that the manner in which the above-recited and other features and advantages of the present invention are obtained, a more particular description of the invention will be rendered by reference to specific embodiments thereof, which are illustrated in the appended drawings. Understanding that the drawings depict only typical embodiments of the present invention and are not, therefore, to be considered as limiting the scope of the invention, the present invention will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[0016] FIG. 1 illustrates a representative bag carrying device that includes a connecting support hinge;

[0017] FIG. 2 illustrates a representative bag carrying device that includes a webbing support structure;

[0018] FIG. 3 illustrates a representative bag carrying device that includes a bag strap webbing support structure;

[0019] FIG. 4 illustrates a representative bag carrying device that includes an adjustable bag strap;

[0020] FIG. 5a illustrates a representative bag carrying device that includes a torso support;

[0021] FIG. 5b illustrates a representative bag carrying device that includes an alternative torso support;

[0022] FIG. 6 illustrates a representative bag carrying device that includes an adjustable connecting support;

[0023] FIG. 7a illustrates a representative bag carrying device that includes a central connecting support;

[0024] FIG. 7b illustrates a representative bag carrying device that includes an alternative central connecting support;

[0025] FIG. 8 illustrates a representative bag carrying device that includes two handles;

[0026] FIG. 9a illustrates a representative bag carrying device that includes a rivet that connects the shoulder supports;

[0027] FIG. 9b illustrates a close-up view of the rivet;

[0028] FIG. 9c illustrates another view of a representative bag carrying device that includes a rivet;

[0029] FIG. 9d illustrates a representative bag carrying device that includes a second handle;

[0030] FIG. 10a illustrates a representative bag carrying device with rotatable shoulder supports and button that controls such movement;

[0031] FIG. 10b illustrates a representative bag carrying device that shows the rotatable shoulder supports in a vertical position;

[0032] FIG. 10c illustrates another representative bag carrying device with rotatable shoulder supports;

[0033] FIG. 11a illustrates a representative bag carrying device with selectively rigid shoulder and connecting supports;

[0034] FIGS. 11b illustrates a representative bag carrying device with selectively rigid shoulder and connecting supports that are shown in a rigid position on a user;

[0035] FIG. 11c illustrates another representative bag carrying device with selectively rigid shoulder and connecting supports that are shown in a rigid position on a user;

[0036] FIG. 12a illustrates a representative bag carrying device that is made up of a number of rigid segments;

[0037] FIG. 12b illustrates a close-up view of two segments;

[0038] FIG. 12c illustrates an alternative view of a bag carrying device with rigid segments;

[0039] FIG. 12d illustrates a front view of a representative bag carrying device with rigid segments;

[0040] FIG. 13a illustrates a representative bag carrying device that includes both non-rigid shoulder supports and a rigid structure;

[0041] FIG. 13b illustrates another representative bag carrying device that includes both non-rigid shoulder supports and a rigid structure;

[0042] FIG. 13c illustrates yet another representative bag carrying device that includes both non-rigid shoulder supports and a rigid structure;

[0043] FIG. 13d illustrates an additional representative bag carrying device that includes both non-rigid shoulder supports and a rigid structure;

[0044] FIG. 14 illustrates a representative bag carrying device that includes a front handle;

[0045] FIG. 15 illustrates a representative bag carrying device where the connection of the shoulder supports forms a V;

[0046] FIG. 16a illustrates a representative bag carrying device that includes a waist level handle;

[0047] FIG. 16b illustrates an alternate view of a representative bag carrying device that includes a waist level handle;

[0048] FIG. 17a illustrates a representative bag carrying device that includes a hollow connecting support;

[0049] FIG. 17b illustrates a representative bag carrying device that includes a hollow connecting support, a tube and a mouthpiece;

[0050] FIG. 18a illustrates a representative bag carrying device that includes a compliant connecting support;

[0051] FIG. 18b illustrates a close-up view of a compliant connecting support;
FIG. 19a illustrates a representative bag carrying device that includes a non-rigid connecting support and non-rigid connecting straps;

FIG. 19b illustrates a representative bag carrying device that includes bent handles;

FIG. 20 illustrates a representative bag carrying device with an elongated connecting support;

FIG. 21 illustrates a representative bag carrying device with a head support;

FIG. 22 illustrates a representative bag carrying device with an off-centered hinge;

FIG. 22b illustrates a front view of a representative bag carrying device with an off-centered hinge;

FIG. 23a illustrates a representative bag carrying device where the shoulder supports and connecting support are a group of links;

FIG. 23b shows a representative bag carrying device similar to the one shown in FIG. 23a, with the addition of a pronged strap;

FIG. 24a illustrates a representative bag carrying device in a storage position;

FIG. 24b illustrates another view of a representative bag carrying device in a storage position;

FIG. 25a illustrates a representative bag carrying device with a retractable cord;

FIG. 25b illustrates a representative bag carrying device with a retractable cord in its extended position;

FIG. 25c illustrates a close-up view of a retractable cord housing;

FIG. 26a illustrates a representative bag carrying device with a backpack hinge and solid tongue;

FIG. 26b illustrates a representative bag carrying device with a backpack hinge and solid tongue worn by a user;

FIG. 27a illustrates a representative bag carrying device with a rigid strap;

FIG. 27b illustrates another view of a representative bag carrying device with a rigid strap; and

FIG. 27c illustrates another view of a representative bag carrying device with a rigid strap and a non-rigid bag strap.

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to carrying devices for facilitating manual transport of an object such as luggage, a container or a bag. Particularly, the present invention relates to bag carrying devices for supporting the weight of an object on the back and/or shoulders of a user.

In the disclosure and in the claims the term “shoulder area” or “shoulder” shall refer to “any area of the body that provides the support necessary to carry a bag, including the neck, shoulder, back and chest.” The term “torso” shall refer to “a human trunk, including the hips and arms.” The term “rigid” shall refer to “any material or substance deficient in or devoid of substantial flexibility, including any material or substance with strength sufficient to support the carrying of a bag.” The term “handle” shall refer to “any section of a bag carrying device that can be gripped by a human hand.” The term “deformable” shall mean “capable of altering a shape by any sort of stress or manipulation.” The term “compliant” shall mean “having a characteristic of flexibility either in conjunction with a rigid material or independent of a rigid material.” The term “bag” shall refer to “a container that is capable of holding, storing, or carrying something.” The term “backpack” shall refer to “a container that is capable of holding, storing, or carrying something.”

It will be readily understood that the components of the present invention, as generally described and illustrated in the figures herein, could be arranged and designed in a wide variety of different configurations. Thus, the following more detailed description of the embodiments of the system and method of the present invention is not intended to limit the scope of the invention, as claimed, but is merely representative of the presently preferred embodiments of the invention.

Referring now to FIG. 1, a bag carrying device 10 comprises a handle 12, a first shoulder support 14, a second shoulder support 16, a connecting support 18, a connecting hinge 20, a first strap hole 22, and a second strap hole 24. In this presently preferred embodiment, handle 12 facilitates the easy lifting of the bag carrying device 10 while the bag carrying device 10 is attached to a bag 26. A user lifts the bag carrying device by the handle 12 and places the bag carrying device 10 on his/her shoulder area in one fluid motion. In contrast, a person using a double-strapped bag such as a double-strapped golf bag, would need at least two motions to successfully place the straps onto the shoulder area of the user. In this presently preferred embodiment the first shoulder support 14, the second support 16, connecting to support 18 and the handle 12 are made out of rigid material. The curved shape of the bag carrying device together with the placement of the second strap hole 24 and the first strap hole 22 ensures an equal distribution of weight when carrying a bag. In some embodiments of the invention, a soft material 28 is attached to an engagement surface 30 where the engagement surface 30 rests upon the shoulder area of the user. When the bag carrying device 10 is not in use, connecting support hinge 20 facilitates the convenient storage of the bag carrying device by enabling the first shoulder support 14 and the second shoulder support 16 to fold together. Thus, the presently preferred embodiment, as shown in FIG. 1, shows the bag carrying device 10 whose rigidity allows it to be easily carried by the user, lifted, and placed onto a shoulder area of the user in a manner that equally distributes the weight of the bag. In addition, this embodiment allows for easy storage of such a device because of the connecting support hinge 20.

FIG. 2 shows another presently preferred embodiment of the present invention which comprises the bag carrying device 10 of FIG. 1 that also includes a webbing support structure 40 where webbing support structure 40 is connected to the bag carrying device 10 at two places. First, webbing support structure 40 is connected to a first webbing structure connection 42 and a second webbing structure connection 44. The first webbing support structure 42
attaches the webbing support structure 40 of the engagement surface 30 of the second shoulder support 16.

Likewise, the second webbing support structure 44 is connected to the engagement surface 30 of the first shoulder support 14. In some embodiments of the present invention, a space or air pocket 46 exists between the webbing support structure 40 and engagement surface 30 with the only connection being that of the first webbing support structure 42 and the second webbing support structure 44. Thus, the space for air pocket 46 allows the webbing support structure 40 to provide additional comfort and support for the user of the bag carrying device 10.

In contrast to the bag carrying device 10 of FIG. 1, the shoulder area of the user comes in contact primarily with the webbing support structure 40 of the present invention instead of coming in contact with the engagement surface 30, as is shown in FIG. 1.

In addition, FIG. 2 shows a first bag strap 48 and a second back strap 50. In this particular embodiment of the present invention, the first back strap 48 and the second back strap 50 are separate and distinct from the webbing support structure 40. However, in some embodiments, as is shown in FIG. 3, the webbing support structure 40 of FIG. 2 together with the first back strap 48 and the second back strap 50 of FIG. 2 become a back strap webbing support structure 52.

FIG. 4 shows the second back strap 50 shown in FIG. 2 that is permanently attached to bag carrying device 10. In this particular embodiment the second back strap is adjustable. In other embodiments the first back strap 44 and the second back strap 50 are detachable from the bag carrying device 10.

Moving now to FIGS. 5a and 5b, FIG. 5a shows a particular embodiment of bag carrying device 10 where second shoulder support 16 is replaced in FIGS. 5a with torso support 60. In this embodiment, torso support 60 together with first shoulder support 40 work together to distribute the weight of the bag onto the user without the shoulder area of the user and the torso area of a user. The adjustable strap shown in FIG. 4 allows the user to customize the length of the strap through a position and length most comfortable to the user. The torso support 60 shown in FIG. 5a has a downward curve 62. The downward curve 62 places more weight on the shoulder area beneath the first shoulder support 14. This particular embodiment of the present invention is used by those wanting to place more weight on one shoulder. In contrast, the torso support 60 shown in FIG. 5b has an upward curve 64. The upward curve 65 shown in FIG. 5b provides more support from the torso of the user than the torso support 60 shown in FIG. 5a that has the downward curve 62. Thus, FIGS. 5a and 5b show examples of bag carrying device 10 that only have one shoulder support and an alternative support which in this case was embodied by torso support 60. One skilled in the art could imagine other embodiments of torso support 60 that provide more and less support to the user.

FIG. 6 shows an additional embodiment of the present invention. This embodiment shows the first shoulder support 14, the second shoulder support 16, a first connecting support 66, a second connecting support 68, an adjustable connecting support 70, and second back strap 50. This embodiment shows how adjustable connecting support 70 enables second connecting support 68 together with second shoulder support 16 to move into different positions. Two of these positions are shown in FIG. 6. First FIG. 6 shows an upper position 72 as well as a lower position 74. In upper position 72, the bag carrying device, as shown in FIG. 6, provides support similar to the support shown in FIGS. 1 through 4. Lower position 74, on the other hand, shows the bag carrying device 10 as it provides support similar to the support shown in FIGS. 5a and 5b. While only these two positions are shown in FIG. 6, one skilled in the art can recognize that a variety of positions may be desirable for users in order to most comfortably wear and use the bag carrying device 10 so that the weight is effectively and evenly distributed on the user's body.

Also, while FIG. 6 shows only the movements of the second connecting support 68 and the second shoulder support 16, other similar embodiments allow the first connecting support 66 and the first shoulder support 14 to move in a similar fashion. This movement ability also facilitates the storage of bag carrying 10, as shown in FIG. 6, because bag carrying device 10 can be moved into a variety of positions.

Moving now to FIGS. 7a and 7b, FIG. 7a shows the bag carrying device 10 of the present invention that includes a central connecting support 80 that connects the first connecting support 66 and the second connecting support 68. Central connecting support 80 is also connected to the second back strap 50. The central connecting support 80 shown in FIG. 7a provides for added support for particularly large bags. The larger size and greater thickness of central connecting support 80 in comparison to other embodiments of the present invention allows for increased durability of bag carrying device 10 as well as makes it easier for the user to carry heavy bags. In contrast, the central connecting support 80 shown in FIG. 7b is of smaller size. While still being able to support large bags, the central connecting support 80 of FIG. 7b is more easily stored because of its smaller size. While the central connecting support of FIGS. 7a and 7b are shown in a central position relative to the user's back, one skilled in the art could understand that the central connecting system 80 could also be used in a variety of positions and locations on the user's back.

FIG. 8 shows an embodiment of bag carrying device 10 that includes handle 12 and a second handle 90.

FIGS. 9a through 9b show embodiments of the present invention that include a rivet 100. Rivet 100 connects the first shoulder support 14 and the second shoulder support 16 and facilitates the pivoting of first shoulder support 14 and second shoulder support 16. While able to pivot, rivet 100 can also be locked firmly, as shown in FIGS. 9a, 9b and 9c, such that bag carrying device 10 remains rigid and stable.

Some embodiments of the present invention, as shown if FIGS. 9a through 9d, incorporate a bag carrying device 10 that locks into many different positions depending on the preference of the user. Other embodiments of the present invention have a single locked position which facilitates the easy and quick use of the bag carrying device 10.

FIG. 9d shows an embodiment of the present invention that includes handle 12 and second handle 90.
While this embodiment shows first bag strap 48 connected to handle 12, some embodiments of the present invention allow for first bag strap 48 to be connected to second handle 90.

[00077] The present invention as shown in FIGS. 10a through 10c show alternative embodiments of central connecting support 80. In this particular embodiment, central connecting support 80 includes a button 110; button 110 facilitates the movement of first shoulder support 14 and second shoulder support 16. When engaged, button 110 allows the first shoulder support 14 and the second shoulder support 16 to change positions, as is shown in FIG. 10b. While the first shoulder support 14 and the second shoulder support 16 are shown in FIG. 10b in a substantially vertical position, other embodiments of the present invention include many other positions either for storage purposes or to facilitate the comfortable usage of the bag carrying device 10.

[00088] FIG. 10c of the present invention shows first shoulder support 14 and second shoulder support 16 that are connected to central connecting support 80 at a different position than shown in FIG. 10a.

[00089] The embodiments of the present invention shown in FIGS. 11a through 11c show examples of bag carrying device 10 that do not become rigid until and unless a force is acted upon them. The bag carrying device 10 shown in FIG. 11a shows a selectively rigid first shoulder support 120, a selectively rigid second support 122, a selectively rigid connecting support 124 and a selectively rigid connecting support 126. FIG. 11a shows the bag carrying device 10 with the aforementioned selectively rigid attributes in its non-rigid form. In contrast, FIGS. 11b and 11c show bag carrying device 10 in its rigid form.

[00090] In the embodiment shown in FIG. 11c, the bag carrying device 10 is in its rigid form because of the force acted upon it by first bag strap 48 and second bag strap 50. Thus, when bag carrying device 10, as shown in FIGS. 11a through 11c, is worn by a user, then used to carry a bag, the bag carrying device 10 is in its rigid form. However, when bag carrying device is not worn by the user, the bag carrying device, as shown in FIGS. 11a through 11c, is not rigid. This better enables a user in conveniently storing the bag carrying device 10 in a small space.

[00091] In addition, the bag carrying device 10 of the present invention, as shown in FIGS. 11a through 11c, have selectively rigid parts which are connected by a variety of methods including but not limited to hinges, pins, straps, and any other connection device used by one skilled in the art.

[00092] FIGS. 12a through 12d show an alternative embodiment of the present invention where bag carrying device 10 is made from multiple rigid segments 130. As shown in FIG. 12b, a first segment 132 is connected to a second segment 134. In this embodiment, the first segment 132 is layered and overlaps the second segment 134. The rigid segments 130 combine to form bag carrying device 10 and allow for a bag carrying device that molds its shape to conform to the shape of the user. This provides for a more customized fit of the bag carrying device 10 while, because of the rigid nature of the segments, still providing sufficient support to carry heavy bags and to effectively distribute the weight of the bag over the user.

[00093] FIGS. 13a through 13d show embodiments of the present invention where a first non-rigid shoulder support 140 and a second non-rigid support 142 are connected to a rigid structure 144. In this embodiment of the present invention the first non-rigid shoulder support 140 and the second non-rigid shoulder support 142 engage the surface of the user while rigid structure 144 does not. Instead, rigid structure 144 facilitates the user in putting on bag carrying device 10 in one fluid motion.

[00094] FIGS. 13b, 13c, and 13d show alternative embodiments where the first non-rigid support 14 and the second non-rigid support 142 are in physical contact with the user while the rigid structures shown in these figures are not. However, in some embodiments of the present invention, a portion of rigid structure 144 rests on a portion of the user. For instance, FIG. 13b shows such an embodiment where a rigid structure connecting support 146 rests on the back of the user 148.

[00095] FIG. 13c of the present invention shows an embodiment of the present invention where handle 12 allows the user to torque the bag carrying device 10 and manipulate the bag carrying device 10 and second shoulder support 16.

[00096] In FIG. 14, the front handle 150 increases the surface area of bag carrying device 10. Because the surface area is larger, the weight becomes more evenly distributed. Front handle 150 also allows the user to grab front handle 150 anywhere along the surface of front handle 150 with either one or two hands.

[00097] Bag carrying device 10 shown in FIG. 15 shows a first shoulder support 14 and second shoulder support 16 that are formed to connect with each other in the shape of a "V." This V-shaped configuration is different from other embodiments of the present invention because this embodiment does not have connecting support 18.

[00098] FIGS. 16a and 16b show an embodiment of the present invention that has two support points. The first support point comprises first shoulder support 14 and the second support point comprises waist level handle 160. As shown in FIG. 16b, waist handle 160 extends beyond the user's torso 162. This configuration of the present invention allows the user to control the bag carrying device 10 while in transit. In contrast, other embodiments of the present invention can be used hands free.

[00099] Referring now to FIG. 17a, this embodiment of the bag carrying device 10 includes first shoulder support 14, second shoulder support 16, hollow connecting support 170, tube 172, and cap 174.

[01000] In addition, FIG. 17b shows first shoulder support 14, tube 172, and mouthpiece 176. This embodiment of the present invention is useful for putting water in hollow connecting support 170 and drinking the water or other fluid by using mouthpiece 176. Thus, a user of bag carrying device 10 could be involved in some sort of athletic exercise or outdoor activity such as hiking, golf or biking.

[0101] FIG. 18a shows an alternative embodiment of the present invention that includes first shoulder support 14, second shoulder support 16 and compliant connecting support 180. In addition, FIG. 18a shows compliant connecting support hinge 182.
FIG. 18b shows a close up version of compliant connecting support 180. As can be seen in FIG. 18b compliant connecting support 180 comprises two or more sections connected together. FIG. 18b shows a first section of compliant connecting support 184 connected to a second section of compliant connecting support 186.

The first section of compliant connecting support 184 is connected to the second section of compliant connecting support 186 by a ball joint 188 (not shown) that is similar to ball joint 190. In some embodiments, the compliant connecting support 180 is made out of material that is deformable. In other words, the compliant connecting support 180 conforms to the shape of the user's body.

In addition, because the compliant connecting support 180 is made of sections, the user can have bag carrying device 10 as a custom fit. For instance, a broad shouldered user may prefer more sections whereas others may prefer that fewer sections are included in the compliant connecting support 180.

FIG. 19a of the present invention shows bag carrying device 10 that includes the first shoulder support 14, the second shoulder support 16, and a non-rigid connecting support 200. The non-rigid connecting support 200 comprises a first non-rigid connecting strap 202, a second non-rigid connecting strap 204, a connector 206 and a connector cover 208. The second back strap 50 also connects to the connector 206. The advantages of this presently preferred embodiment of the invention are that first shoulder support strap 14 and second shoulder support 16 are sufficiently rigid to provide support to the user so that the weight is evenly distributed on the user's body, while at the same time providing a non-rigid component (non-rigid connecting support 200), which allows the user to customize the fit of the bag carrying device 10.

FIG. 19b shows an alternative embodiment of the present invention that includes a first handle 210 and a second handle 212. This embodiment can also be used with any of the other embodiments disclosed herein. This embodiment of the present invention may be preferred by some users because of the increased gripping space on these handles allowing the user to better lift and torque the bag carrying device 10.

FIGS. 20a and 20b show another embodiment of the present invention that includes first shoulder support 14, second shoulder support 16, and an elongated connecting support 220. In this embodiment the elongated connecting support 220 is connected to a golf bag 222. The bag carrying device 10 is connected to the golf bag 222 in a manner that allows the bag carrying device 10 to extend above the golf bag in order to allow the user to wear the bag carrying device 10 and pull bag carrying device 10 to a different location. When not in use, bag carrying device 10 slides downwards so that bag carrying device 10 does not extend above the top of golf bag 222.

FIG. 21 shows an embodiment of the present invention that includes a head support 230. Head support 230 is added to any of the other embodiments disclosed herein. Head support 230 further distributes the weight of any bag or device carried by bag carrying device 10 by adding an additional support of structure.

FIGS. 22a and 22b show a bag carrying device 10 that includes an off center hinge 240. This embodiment also includes a weighted support 242. Weighted support 242 helps to facilitate the automatic engagement of bag carrying device 10 so that a user can put on this embodiment of bag carrying device 10 in one fluid motion.

FIG. 23a shows bag carrying device 10 that is made out of a group of links 250. The advantages of this embodiment include: being able to adjust the size of the bag carrying device 10 by taking out or adding a link to a group of links 250; and the inherent "conforming" characteristic that group of links 250 has to conform to the body of a user.

FIG. 23b shows an alternative embodiment of the present invention with a front connecting point 252 and a second connecting point 254. This embodiment allows a pronged strap 256 to be attached.

FIGS. 24a and 24b show bag carrying device 10 together with golf bag 222 where bag carrying device 10 is in a storage position.

FIG. 25a shows bag carrying device 10 in storage position on travel bag 230. This embodiment also shows a retractable cord 232 in its retracted position.

FIG. 25b shows bag carrying device 10 and retractable cord 232 in its extended position.

FIG. 25c shows a retractable cord housing 234. The embodiment of the present invention as shown in FIG. 25a through 25c show how different embodiments of different bag carrying device 10 can be used, as well as shows how bag carrying device can easily be stored and placed on various types of bags.

Moving now to FIG. 26a, bag carrying device 10 is shown connected to a backpack 240 and is connected by backpack hinge 242 via a solid tongue 244. Solid tongue 244 extends into backpack 240 in order to connect bag carrying device 10 to backpack 240. In some embodiments, solid tongue 244 is permanently attached to backpack 240 and in other embodiments, solid tongue 244 is removable connected, such as where solid tongue 244 is connected via the main compartment of a bag. Also, in some embodiments solid tongue 244 encompasses a substantial portion of the backpack 240. In other embodiments, solid tongue 244 encompasses an insubstantial portion of the backpack.

FIG. 26a shows this embodiment of the bag carrying device 10 in a resting position. In contrast, FIG. 26b shows this embodiment of backpack carrying device 10 and its accompanying backpack hinge 242 in use on a user. As can be seen FIG. 26b backpack hinge 242 is fully extended aligning solid tongue 244 with first shoulder support 14 and second shoulder support 16. This invention can be used in any of the embodiments disclosed above and are not limited to inclusion only in the particular embodiments in which they are disclosed.

The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the
appended claims rather than by the foregoing description. All changes that come within the meaning and range of equivalency of the claims are to be embraced within their scope.

What is claimed is:
1. A carrying device for use with a bag, said bag carrying device comprising:
   a first shoulder support for supporting the weight of said bag;
   a second shoulder support for supporting the weight of said bag;
   a connecting support for supporting the weight of said bag extending from said first shoulder support and connecting said first shoulder support to said second shoulder support; and
   a connecting support hinge that allows said second shoulder support to rotate.
2. The bag carrying device of claim 1, further comprising a first strap hole and a second strap hole for use in connecting said bag to said bag carrying device.
3. The bag carrying device of claim 1, wherein at least one of said handle, said first shoulder support, said second shoulder support and said connecting support are made out of a substantially rigid material.
4. The bag carrying device of claim 1, further comprising a soft material placed on an engagement surface.
5. The bag carrying device of claim 1, wherein said second shoulder support is a torso support.
6. The bag carrying device of claim 1, wherein said second shoulder support and said connecting support comprise a torso support.
7. The bag carrying device of claim 1, wherein said handle comprises a front handle that connects said first shoulder support to said second shoulder support.
8. The bag carrying device of claim 1, further comprising a rigid connecting bar connecting said handle to said bag.
9. A carrying device for use with an object such as a bag, said carrying device comprising:
   a first rigid shoulder support;
   a second rigid shoulder support;
   a rigid connecting support extending from said first shoulder support and connecting said first shoulder support to said second shoulder support;
   a webbing support structure attached to at least one of said first rigid shoulder support, said second rigid shoulder support and said rigid connecting support, wherein said webbing support structure is placed on a shoulder area of a user; and
   an air pocket located between said webbing support structure and at least one of said rigid handle, said first rigid shoulder support, said second rigid shoulder support and said rigid connecting support.
10. The bag carrying device of claim 9, further comprising a first strap hole and a second strap hole for use in connecting said bag to said bag carrying device.
11. The bag carrying device of claim 9, further comprising a bag strap webbing support structure.
12. A bag carrying device for use with a bag, said bag carrying device comprising:
   a handle for lifting said bag carrying device and said bag;
   a first rigid shoulder support extending from said handle for supporting the weight of said bag;
   a second rigid shoulder support for supporting the weight of said bag; and
   an adjustable connecting support for supporting the weight of said bag extending from said first shoulder support and adaptably connecting said first shoulder support to said second shoulder support.
13. The bag carrying device of claim 12, wherein said second rigid shoulder support can be positioned in an upper position and a lower position.
14. The bag carrying device of claim 12, wherein said first rigid shoulder support is adaptably connected to said adjustable connecting support.
15. The bag carrying device of claim 12, wherein said adjustable connecting support further comprises a button for controlling the movement of said first shoulder support and said second shoulder support.
16. A bag carrying device for use with a bag, said bag carrying device comprising:
   a first rotatable rigid shoulder support; for supporting the weight of said bag;
   a second rotatable rigid shoulder support for supporting the weight of said bag; and
   a rivet connecting said first shoulder support to said second shoulder support.
17. The bag carrying device of claim 16, wherein said rivet can lock said first rotatable rigid shoulder support and said second rotatable rigid shoulder support into different positions.
18. A bag carrying device for use with a bag, said bag carrying device comprising:
   a selectively rigid handle for lifting said bag carrying device and said bag;
   a first selectively rigid shoulder support extending from said handle for supporting the weight of said bag;
   a second selectively rigid shoulder support for supporting the weight of said bag;
   a first selectively rigid connecting support for supporting the weight of said bag; and
   a second selectively rigid connecting support for supporting the weight of said bag extending from said first selectively rigid connecting support and connecting said second selectively rigid shoulder support to said second shoulder support; wherein said selectively rigid handle, said first selectively rigid shoulder support, said second selectively rigid shoulder support, said first selectively rigid connecting support, and said second selectively rigid connecting support become rigid when a force is acted upon them.
19. The bag carrying device of claim 18, wherein said force is generated from the tautness of a first bag strap and a second bag strap.
20. The bag carrying device of claim 18, wherein said selectively rigid handle, said first selectively rigid shoulder support, said second selectively rigid shoulder support, said
first selectively rigid connecting support, and said second selectively rigid connecting support comprise rigid segments.

21. The bag carrying device of claim 18, wherein said rigid segments comprise a group of links, wherein each link is removable.

22. A bag carrying device for use with a bag, said bag carrying device comprising:

a first non-rigid shoulder support extending from said handle for supporting the weight of said bag;

a second non-rigid shoulder support for supporting the weight of said bag;

a rigid structure connected to said first non-rigid shoulder support, and said second non-rigid shoulder support.

23. A bag carrying device for use with a bag, said bag carrying device comprising:

a first rigid shoulder support extending from said handle for supporting the weight of said bag;

a second rigid shoulder support for supporting the weight of said bag, wherein said second rigid shoulder support is connected to said first rigid shoulder support.

24. The bag carrying device of claim 23, wherein a V-shaped configuration is formed by the connection of said second rigid shoulder support to said first shoulder support.

25. A bag carrying device for use with a bag, said bag carrying device comprising:

a handle for lifting said bag carrying device and said bag;

a first rigid shoulder support extending from said handle for supporting the weight of said bag; and

a waist level handle extending from said first rigid shoulder support.

26. A bag carrying device for use with a bag, said bag carrying device comprising:

a handle for lifting said bag carrying device and said bag;

a first shoulder support extending from said handle for supporting the weight of said bag;

a second shoulder support for supporting the weight of said bag;

a hollow connecting support for supporting the weight of said bag extending from said first shoulder support and connecting said first shoulder support to said second shoulder support; and

a tube connected to said hollow connecting support, said first shoulder support hinge and said handle that allows a user to access the contents of said hollow connecting support while wearing said bag carrying device.

27. A bag carrying device for use with a bag, said bag carrying device comprising:

a handle for lifting said bag carrying device and said bag;

a first shoulder support extending from said handle for supporting the weight of said bag;

a second shoulder support for supporting the weight of said bag; and

a compliant connecting support for supporting the weight of said bag extending from said first shoulder support and connecting said first shoulder support to said second shoulder support.

28. The bag carrying device of claim 27, further comprising a compliant connecting support hinge.

29. The bag carrying device of claim 27, wherein said compliant connecting support comprises multiple sections that are connected by ball joints.

30. A bag carrying device for use with a bag, said bag carrying device comprising:

a first rigid shoulder support for supporting the weight of said bag;

a second rigid shoulder support for supporting the weight of said bag; and

a non-rigid connecting support for supporting the weight of said bag extending from said first shoulder support and connecting said first shoulder support to said second shoulder support.

31. The bag carrying device of claim 30, wherein said non-rigid connecting support comprises a first non-rigid connecting strap, a second non-rigid connecting strap, a connector and a connector cover.

32. A bag carrying device for use with a bag, said bag carrying device comprising:

a first shoulder support for supporting the weight of said bag;

a second shoulder support for supporting the weight of said bag; and

an elongated connecting support extending from said first shoulder support to said second shoulder support and slidably connected to said bag.

33. A bag carrying device for use with a bag, said bag carrying device comprising:

a handle for lifting said bag carrying device and said bag;

a first rigid shoulder support extending from said handle for supporting the weight of said bag;

a second rigid shoulder support for supporting the weight of said bag;

a head support for supporting the weight of said bag; and

a connecting support for supporting the weight of said bag extending from said first shoulder support and connecting said first shoulder support, said second shoulder support and said head support.

34. A bag carrying device for use with a bag, said bag carrying device comprising:

a rigid handle for lifting said bag carrying device and said bag;

a first rigid shoulder support for supporting the weight of said bag;

a weighted support for supporting the weight of said bag; and

an off center hinge connecting said first shoulder support to said weighted support.

35. A bag carrying device for use with a bag, said bag carrying device comprising:
a handle for lifting said bag carrying device and said bag;  
a first rigid shoulder support extending from said handle  
for supporting the weight of said bag;  
a second rigid shoulder support for supporting the weight  
of said bag;  
a connecting support for supporting the weight of said bag  
extending from said first rigid shoulder support and  
connecting said first rigid shoulder support to said  
second rigid shoulder support; and  
a first retractable cord connected to said first rigid should- 
ner support and said bag;  
a second retractable cord connected to said second rigid  
shoulder support and said bag;  
a first retractable cord housing in which said first retract- 
able cord is housed; and  
a second retractable cord housing in which said second  
retractable cord is housed.

36. The bag carrying device of claim 35, wherein said bag  
carrying device is stored on said bag.

37. A bag carrying device for use with a bag, said bag  
carrying device comprising:  
a first shoulder support for supporting the weight of said  
bag;  
a second shoulder support for supporting the weight of  
said bag;  
a connecting support for supporting the weight of said bag  
extending from said first shoulder support and connect- 
ing said first shoulder support to said second shoulder  
support; and  
a backpack hinge connecting said connecting support to  
said bag.

38. The bag carrying device of claim 37, further com- 
prising a solid tongue connected to said bag and said  
backpack hinge.

39. The bag carrying device of claim 38, wherein said  
solid tongue is removably connected to said bag.

40. The bag carrying device of claim 38, wherein said  
solid tongue is permanently connected to said bag.

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