

CARRIERS, CARRY HANDLES, BOXES AND METHODS OF FORMING CARRIERS, CARRY HANDLES AND BOXES

Field of the Invention

[1] The present invention relates to carriers, carry handles, boxes and methods of forming carriers, carry handles and boxes, and in particular to a box carrier for a pizza box, a cake box or other types of boxes, and a method of forming the carriers.

[2] The invention has been developed primarily for use with boxes and will be described hereinafter with reference to this application. It will, however, be appreciated that the invention is not limited to this particular field of use.

Background of the Invention

[3] Cardboard boxes have long been a popular choice for packaging and transporting various goods due to their lightweight, cost-effectiveness, and versatility. However, one challenge associated with cardboard boxes is the lack of a convenient and ergonomic means of carrying them as standard cardboard boxes lack handles.

[4] In some cases, cardboard boxes are designed with flaps or hand holes that require manual gripping and lifting, often leading to discomfort, strain, and potential damage to the box or its contents. If handles are to be included in a cardboard box, the designer of the cardboard box must consider including handles, such as cutouts in the side of the cardboard box, during the design phase and before manufacture of the cardboard box. One way of carrying a box easily, where the box does not have carry handles, is to place the box in a plastic bag. There is a worldwide trend to eliminate the use of plastics and plastic bags, meaning alternative means of carrying cardboard boxes is desirable.

[5] Presently, carry handles that are either attached to the box or integrated with the box have been used to address the above problems. What is needed however, is a convenient, simple, and easy to install carry handle for a cardboard box that is also cost effective.

[6] The present invention seeks to provide a box carrier, which will overcome or substantially ameliorate at least some of the deficiencies of the prior art, or to at least provide an alternative.

[7] It is to be understood that, if any prior art information is referred to herein, such reference does not constitute an admission that the information forms part of the common general knowledge in the art, in Australia or any other country.

Summary of the Invention

[8] Embodiments of the present invention are a carrier that is retrofittable to various boxes, including four flap boxes, where the carrier extends through slot or vertices formed by walls of the box, without the need to manufacture or otherwise make additional apertures or slots. In such embodiments, the portion or portions of the carrier that extend through the slots or vertices are thin or cross-sectionally small enough so as not to require a slot to be cut, punched or created to allow the portion or portions to pass through the vertices or slots. In this way, embodiments of the present invention utilise the naturally occurring holes or slots that already occur at the vertices of some box designs when adjacent walls of the box are folded up from the base and interlocked or otherwise connected. Other embodiments of the present invention are thin or cross-sectionally small enough to indent a soft box material such as cardboard to create a recess to pass through a vertex or edge.

[9] Disclosed herein is a method of forming a carry handle that protrudes from a first pair of slots of a box, the box comprising a proximal end opposite a distal end, the method comprising:

positioning a cord at the proximal end of the box, such that a portion of the cord protrudes from a pair of proximal slots located at a pair of proximal corners of the box to form a loop portion about the proximal end, the loop portion forming the carry handle for the box, wherein the pair of proximal slots are formed by a plurality of walls of the box.

[10] In one embodiment, the plurality of walls is one or more selected from a sidewall, a base and a lid.

[11] In one embodiment, the cord is an endless cord.

[12] In one embodiment, the method further comprises withdrawing the cord from the proximal slots by the loop portion.

[13] In one embodiment, the method further comprises positioning the cord at the proximal end of the box, such that at least a portion of the cord passes along an edge of the proximal end of the box to protrude from the first pair of slots.

[14] In one embodiment, the cord is contained substantially by a sheath, such that in use, the loop portion of the cord is extendable from the sheath to increase the length of the loop portion, to thereby form the carry handle.

[15] In one embodiment, the cord and sheath are stowed inside or outside of the box.

[16] In one embodiment, in use, a portion of the cord supports the box in a manner selected from:

- a. the edge between the proximal slots; and
- b. the pair of proximal slots.

[17] In one embodiment, the method further comprises forming a second carry handle that protrudes from a second pair of distal slots located at a pair of distal corners of the box, opposite to the first pair of proximal slots, by:

[18] positioning a second cord at the distal end of the box, such that a portion of the second cord protrudes from the pair of distal slots to form a second loop portion about the distal end, the second loop portion forming the second carry handle for the box.

[19] In one embodiment, the second cord is an endless cord or a cord with two ends.

[20] In one embodiment, the method further comprises withdrawing the second cord from the distal slots by the second loop portion.

[21] In one embodiment, when the second cord is positioned at the distal end of the box at least a portion of the second cord is adapted to pass along an edge of the distal end of the box to protrude from the second pair of slots.

[22] In one embodiment, in use, a portion of the cord supports the box along the edge between the pair of distal slots.

[23] In one embodiment, the method further comprises:

positioning the loop portion of the cord that protrudes from the pair of proximal slots at the distal end, such that when a lid of the box is moved to a closed position, the cord also protrudes through a pair of distal slots at the distal end of the box, to thereby form a pair of carry handles from portions of the cord protruding from the pair of proximal slots and the pair of distal slots.

[24] In one embodiment, one of the pair of carry handles is formed by the cord protruding between one of the proximal slots and one of the distal slots and the other one of the pair of carry handles is formed by the cord protruding between the other proximal slot and other distal slot.

[25] In one embodiment, the pair of carry handles extend from the pair of proximal slots and the pair of distal slots, such that one carry handle extends between the proximal slot and distal slot, and the other carry handle extends between the opposite proximal slot and the opposite distal slot.

[26] In one embodiment, the method further comprises, moving the cord through the pair of proximal slots to increase the length of the portion of the cord that protrudes from the pair of proximal slots.

[27] In one embodiment, the box further includes a distal edge formed between the pair of distal slots and the lid, and when the cord is positioned at the distal end of the box and protrudes through the pair of distal slots, and when the lid is in the closed position, the cord engages the distal edge of the box.

[28] In one embodiment, a portion of the cord supports the box along the distal edge between the distal slots.

[29] In one embodiment, when the cord is positioned at the proximal end of the box, the cord is in a stowed configuration, in which a substantial portion of the cord is located inside the box.

[30] In one embodiment, the method further comprises moving the cord from the stowed configuration to an extended configuration in which a greater portion of the cord is located outside of the box relative to the coiled configuration.

[31] In one embodiment, in the stowed configuration, the cord is in a substantially coiled position inside the box and a portion of the cord is positioned about the proximal end.

[32] In one embodiment, when the cord is in the extended configuration, in use, a portion of the cord engages an underside of the proximal edge between the proximal slots.

[33] In one embodiment, when the cord is in the extended configuration, in use, a portion of the cord engages an underside of the distal edge between the distal slots.

[34] In one embodiment, the cord engaging the distal edge is engaging an underside of a hinge-fold of the box.

[35] Also disclosed herein is a box carrier that is insertable within a box to provide a pair of carry handles, the box carrier including:

- a sheath, the sheath including at least one opening; and

- a cord disposed partially within the sheath such that, the cord extends from the at least one opening, to define a loop about the at least one opening,

- wherein in use, when the box carrier is positioned in a box, the cord is pulled to elongate the loop and provide the pair of carry handles for the box.

[36] In one embodiment, the cord is coiled substantially within the sheath and the loop is disposed outside of the sheath.

[37] In one embodiment, the cord is movable between:

- a stowed position in which the majority of the cord is disposed within the sheath; and

a deployed position in which a greater portion of the cord is disposed outside of the sheath relative to the stowed position.

[38] In one embodiment, the sheath includes a first end and a second end opposite to the first end, the first end defining a first opening and the second end defining a second opening.

[39] In one embodiment, the cord extends from the first opening and from the second opening to define a loop between the first opening and the second opening.

[40] In one embodiment, in use, the box carrier is positioned at a proximal end of a box.

[41] In one embodiment, in use, the box carrier is positioned in a side-wall fold of a box.

[42] In one embodiment, the side-wall fold is a reinforcement folded portion of a pizza box.

[43] In one embodiment, in use, the box carrier is positioned adjacent a side-wall at a proximal end of a box.

[44] In one embodiment, in use, when the cord is in the deployed position, the cord is positionable at a distal end of a box to form the pair of carry handles.

[45] In one embodiment, in use, when the cord is in the deployed position, the cord is positionable at or along a hinge-fold of a box to form the pair of carry handles.

[46] In one embodiment, in use, when the cord is in the deployed position and at or along a hinge-fold of a box, the pair of carry handles are configured such that each carry handle extends laterally from the box.

[47] In one embodiment, in use, when the cord is in the deployed position, the cord is positionable such that:

a first portion of the cord engages a proximal edge between a pair of proximal openings formed at a pair of proximal corners of the box; and

a second portion of the cord engages a distal edge between a pair of distal openings formed at a pair of distal corners of the box, wherein the distal edge is formed by a lid of the box and the distal end.

[48] In one embodiment, in use, the cord in the deployed position is positionable such that the cord protrudes from the pair of proximal openings and the pair of distal openings.

[49] In one embodiment, the cord is an endless cord or a cord with two ends.

[50] Also disclosed herein is a method of forming a pair of carry handles for a box, the method comprising:

providing the box carrier as described above;

positioning the sheath inside or outside of a box; and

positioning the loop to protrude from a pair of openings formed at a pair of corners of the box such that the loop extends between the pair of openings.

[51] Also disclosed herein is a method of forming a pair of carry handles for a box, the method comprising:

providing a first box carrier as described above and a second box carrier;

positioning the first box carrier at a proximal end of a box and positioning the second box carrier at a distal end of the box; and

moving the loop of the first box carrier and the second box carrier from the stowed position to the deployed position, through a first pair of proximal openings and a second pair of proximal openings, to provide a pair of carry handles that extend from the corners of the box.

[52] Also disclosed herein is a method of forming a pair of carry handles for a box, the method comprising:

positioning a cord at a proximal end of the box such that the cord protrudes through a pair of proximal openings formed at a pair of proximal corners of the box; and

positioning a second cord at a distal end of the box such that the second cord protrudes through a pair of distal openings formed at a pair of distal corners of the box.

[53] Also disclosed herein is a method of forming a pair of carry handles for a box, the method comprising:

positioning a cord at a proximal end of the box such that the cord protrudes through a pair of proximal openings formed at a pair of proximal corners of the box; and

positioning a portion of the cord at a distal end of the box such that the portion of the cord protrudes through a pair of distal openings formed at a pair of distal corners of the box, to form the pair of carry handles.

[54] In another aspect of the present invention, a carrier for carrying an object is provided, the carrier comprising:

a locating portion for being positioned at an engagement location on the object where the locating portion engages with the object;

a first extendable portion connected to the locating portion at a first connecting region, the first extendable portion being adapted to be extended

from an initial configuration to an extended configuration in use by manual pulling on the first extendable portion away from the locating portion;

a second extendable portion connected to the locating portion at a second connecting region, the second extendable portion being adapted to be extended from an initial configuration to an extended configuration in use by manual pulling on the second extendable portion away from the locating portion;

a central portion connected to the first extendable portion and the second extendable portion such that the locating portion, first extendable portion, central portion and second extendable portion form a loop,

a plurality of frangible portions, the plurality of frangible portions adapted for providing a resistance against moving the first and second extendable portions from the initial configuration to the extended configuration until the plurality of frangible portions break.

such that, in use, when the first extendable portion and second extendable portion are extended to their respective extended configurations, the object can be carried by the carrier.

[55] Advantageously, the carrier, in its initial configuration, is made compact due to the frangible portions provided which hold the carrier together when the first and second extendable portions are in their initial configuration. Being compact in this configuration may prevent portions of the carrier becoming tangled prior to being attached to an object or being tangled on other objects such as machinery.

[56] In one embodiment, the locating portion is adapted for fixed relation with the object when the carrier is in use.

[57] Advantageously, since the carrier is already compact due to the presence of the frangible portion and the carrier is provided with a readily accessible locating portion, a user can easily attach the locating portion to an object without being obstructed by loose ends of the carrier. This may streamline different processes such as when the carrier is used for carrying boxes configured for delivery. In this case, the user can simply attach the locating portion to the box and place the other elements of the carrier at a portion of the box based on guidelines and procedures without locating different ends of the carrier for attachment or location relative to the box.

[58] In one embodiment, the second connecting region is located at a position opposing the first connecting region.

[59] In one embodiment, in the initial configuration, the first extendable portion comprises a first plurality of serpentine curved portions connected by a first set of frangible portions of the plurality of frangible portions and the second extendable portion comprises a second plurality of serpentine curved portions connected by a second set of frangible portions of the plurality of frangible portions.

[60] In one embodiment, in the initial configuration, a third set of frangible portions of the plurality of frangible portions connects the first plurality of serpentine curved portions and the second plurality of serpentine curved portions.

[61] In one embodiment, the carrier is made of a plastic.

[62] In another aspect of the present invention, a carrier for carrying an object is provided, the carrier comprising:

- a. an extendable portion;
- b. an elongate portion connected with the extendable portion to form a loop; and
- c. a bridge comprising a plurality of frangible portions,

wherein the extendable portion is adapted to be extended from an initial configuration to an extended configuration in use by manual pulling on the elongate portion away from the extendable portion;

and wherein the plurality of frangible portions are adapted for providing a resistance against moving the extendable portion from the initial configuration to the extended configuration until the plurality of frangible portions break,

such that, in use, when the extendable portion is extended to the extended configuration, the carrier forms a loop that can be used to carry an object.

[63] In one embodiment, the extendable portion traverses a rectangular serpentine path to define a series of parallel rungs.

[64] In one embodiment, the bridge extends across the series of parallel rungs and is adhered to at least two rungs of the series of parallel rungs.

[65] In one embodiment, in the initial configuration the extendable portion comprises a plurality of folded portions that have been folded to create the orthogonal bends in the serpentine path.

[66] In one embodiment, the carrier further comprises adhesive at the folds of the plurality of folded portions.

[67] In one embodiment, the carrier is made from a material selected from a group of materials, the group of materials comprising:

- a. a paper;
- b. a cardboard; or
- c. a plastic.

[68] In an embodiment, a box comprises a carrier as described in any of the above, the carrier being located on an internal or external surface of a box in an initial configuration of the carrier.

[69] In an embodiment, an adhesive is applied between a portion of the carrier and the box.

[70] In an embodiment, a box comprises a carrier as describe in any of the above, the carrier being located on an internal or external surface of a box in an initial configuration of the carrier and wherein an adhesive is applied between the locating portion and the box.

[71] In another aspect of the present invention, a method of forming a pair of carry handles for a box is provided, the method comprising:

providing two carriers as claimed in claim 1, one being a proximal carrier and the other being a distal carrier;

securing a locating portion of the proximal carrier to an inner surface of a proximal sidewall flap of the box such that

a first extendable portion of the proximal carrier protrudes through a first proximal upper corner of the box,

a second extendable portion of the proximal carrier protrudes through a second proximal upper corner of the box, and

a central portion of the proximal carrier is disposed outside the box;

securing a locating portion of the distal carrier to an inner surface of a distal sidewall flap of the box such that

a first extendable portion of the distal carrier protrudes through a first distal upper corner of the box,

a second extendable portion of the distal carrier protrudes through a second distal upper corner of the box, and

a central portion of the distal carrier is disposed outside of the box;

closing the proximal sidewall flap and the distal sidewall flap of the box;

closing a first lateral sidewall flap and a second lateral sidewall flap of the box;

pulling the central portion of the proximal carrier to move the first and second extendable portions from a corresponding initial configuration to a corresponding extended configuration, thereby forming a first carry handle; and

pulling the central portion of the distal carrier to move the first and second extendable portions from a corresponding initial configuration to a corresponding extended configuration, thereby forming a second carry handle.

[72] In another aspect of the present invention, a method of forming a pair of carry handles for a box is provided, the method comprising:

providing a carrier as claimed in claim 1;

securing a locating portion of the carrier at an inner surface of a proximal sidewall of the box such that

a first extendable portion of the carrier protrudes through a first opening at a first proximal lower corner of the box, the first proximal lower corner of the box being defined as a first lower vertex formed at the proximal sidewall of the box, bottom wall of the box, and a first lateral sidewall of the box,

a second extendable portion of the carrier protrudes through a second opening at a second proximal lower corner of the box, the second proximal lower corner of the box being defined as a second lower vertex formed at the proximal sidewall of the box, bottom wall of the box, and a second lateral sidewall of the box, and

a central portion of the carrier is disposed outside of the box;

pulling the central portion to move the first and second extendable portions from a corresponding initial configuration to a corresponding extended configuration;

positioning the central portion at an inner surface of a distal sidewall of the box such that the first extendable portion is disposed outside of the box proximate to the first lateral sidewall of the box and the second extendable portion is disposed outside of the box proximate to the second lateral sidewall of the box; and

closing a lid of the box such that the first extendable portion forms a first carry handle for the box and the second extendable portion forms a second carry handle for the box.

[73] In another aspect of the present invention, a method of forming a pair of carry handles for a box is provided, the method comprising:

providing a carrier as claimed in claim 1 locating a sidewall flap between the first and second extendible portions and the central portion such that the first and second extendible portions, in their corresponding initial configurations, locates adjacent an inner proximal sidewall;

securing the locating portion of the carrier at the inner proximal sidewall of the box;

folding a sidewall flap of the box over the first and second extendible portions such that the first and second extendible portions are sandwiched between the proximal sidewall and the sidewall flap;

manually pulling on the central portion to extend each of the first and second extendible portions from the initial configuration to the extended configuration;

positioning the central portion at an inner surface of a distal sidewall of the box such that a region of the first extendible portion is disposed outside of the box proximate to the first lateral sidewall of the box and a region of the second extendible portion is disposed outside of the box proximate to the second lateral sidewall of the box; and

closing a lid of the box such that the region of the first extendible portion forms a first carry handle for the box and the region of the second extendible portion forms a second carry handle for the box.

[74] In another aspect of the present invention, a method of forming a pair of carry handles for a box is provided, the method comprising:

providing a carrier as claimed in claim 7;

locating a sidewall flap between the extendible portion and the elongate portion such that the extendible portion, in its initial configuration, locates adjacent an inner proximal sidewall;

folding a sidewall flap of the box over the extendible portion such that the extendible portion is sandwiched between the proximal sidewall and the sidewall flap;

manually pulling on the elongate portion to extend the extendible portion to the extended configuration;

positioning a central portion of the extendible portion adjacent at an inner surface of a distal sidewall of the box such that regions of the extendible portion on either side of the central portion are disposed outside of the box proximate to a first and second lateral sidewall of the box, respectively; and

closing a lid of the box such that regions of the extendable portion on either side of the central portion form handles for the box.

[75] This invention may also be said broadly to comprise the parts, elements, and features referred to or indicated in the specification of the application, individually or collectively, and any or all combinations of any two or more of said parts, elements, or features, and where specific integers are mentioned herein which have known equivalents in the art to which this invention relates, such known equivalents are deemed to be incorporated herein as if individually set forth.

[76] To those skilled in the art to which the invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the scope of the invention as defined in the appended claims. The disclosures and the descriptions herein are purely illustrative and are not intended to be in any sense limiting.

[77] Other aspects of the invention are also disclosed.

Brief Description of the Drawings

[78] Notwithstanding any other forms which may fall within the scope of the present invention, a preferred embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

[79] Figure 1 shows a top view of a cord according to an embodiment;

[80] Figure 2 shows a top view of a box carrier including the cord shown in Fig 1 according to an embodiment;

[81] Figure 3 shows a top view of a cord according to another embodiment;

[82] Figure 4 shows a top view of a box carrier including the cord shown in Fig 3 according to another embodiment;

[83] Figure 5 shows a perspective view of a standard box;

[84] Figure 6 shows a perspective view of the standard box shown in Fig 5 and a step of forming corner handles using the box carriers shown in Fig 2;

[85] Figure 7 shows a perspective view of the box shown in Fig 6 with a pair of corner handles for the box after the flaps have been folded shut;

[86] Figure 8 shows a perspective view of a pizza box and a step of forming corner handles for the pizza box;

[87] Figure 9 shows a perspective view of the pizza box and another step of forming corner handles for the pizza box with the lid closed;

[88] Figure 10 shows a perspective view of the pizza box and another step of forming corner handles for the pizza box reopening the lid;

[89] Figure 11 shows a perspective view of the pizza box with a pair of corner handles;

[90] Figure 12 shows a perspective view of a cake box and a step of forming corner handles for the cake box using the box carrier shown in Figure 2;

[91] Figure 13 shows a perspective view of the cake box and another step of forming corner handles for the cake box with the lid closed;

[92] Figure 14 shows a perspective view of the cake box and another step of forming corner handles for the cake box reopening the lid;

[93] Figure 15 shows a perspective view of the cake box with a pair of corner handles;

[94] Figure 16 shows a plan view of a third embodiment of the box carrier;

[95] Figure 17 shows a perspective view of a four-flap box provided with a pair of the box carriers according to Fig. 16;

[96] Figure 18 shows the box carrier of Fig. 16 in its extended configuration and in use;

[97] Figure 19 shows a plan view of a fourth embodiment of the box carrier;

[98] Figure 20 shows a perspective view of a box provided with the box carrier according to Fig. 19;

[99] Figure 21 shows a step of a method of forming carry handles using the box carrier of Figure 19;

[100] Figure 22 shows a plan view of a fifth embodiment of the box carrier;

[101] Figure 23 shows a perspective view of a box provided with the box carrier according to Fig. 22;

[102] Figure 24 shows a step of a method of forming carry handles using the box carrier of Figure 22;

[103] Figure 25 shows a plan view of a sixth embodiment of the box carrier; and

[104] Figure 26 shows a perspective view of a disassembled box provided with the box carrier of Figure 25.

Description of Embodiments

[105] It should be noted in the following description that like or the same reference numerals in different embodiments denote the same or similar features.

[106] Figures 1 to 15 show a box carrier 100 according to various embodiments and its uses with different types of boxes. The box carrier 100 is provided to a box, such that when the box carrier 100 is deployed, the box carrier 100 can provide a carry handle at one end of the box or a pair of carry handles at each end of the box, formed from a cord 10 as will be described below.

[107] In each embodiment shown and described, the cord 10 of box carrier 100 passes through at least a slot located at a corner of the box. More specifically, when a cardboard box is folded from a flat state to a three-dimensional state, each corner of the three-dimensional box has a slot that is formed by the walls of the box which include one or more selected from the sidewalls, the lid and the base of the box. The slots provide a passage from the inside of the box to the outside of the box, thereby allowing the cord 10 to pass therethrough and allow the cord 10 to support the box and load.

[108] In the most basic form, the box carrier 100 includes only the cord 10. The cord 10 can be an endless cord (i.e. a continuous loop) or a cord with two ends joined together by way of a knot 12 or a cord connector (not shown). The term "cord" used herein may refer to either a continuous loop or a cord having two ends joined together, unless specified otherwise. A method, as will be described herein, relates to the use of the cord 10 (in its most basic form) or the use of the box carrier 100 to provide a carry handle for a box. Whilst certain types of boxes have been shown and described, it is envisaged that the cord 10 or box carrier 100 can be used with many other types of boxes and objects.

[109] Alternately, as shown in Fig. 3, the cord 10 may have a knot 12 at each end and a washer 12-1 at each end to prevent the knot 12 from slipping through the washer 12-1. The washer prevents the end of the string from slipping through a corner of a box.

[110] In alternative embodiments, the ends of the cord can be knotted in such a way that the knotted portion of the string would not fit and/or slip through the slots formed at the edges of the box. Furthermore, the ends of the cord may instead be provided with other types of attachments (not shown) to prevent the ends of the string from slipping through the slots formed at the edges of the box.

[111] Further, the cord 10 as shown in Fig 3 can be used with a sheath 20 as shown in Fig 4, as will be described below.

[112] Figs 1 to 4 show the box carrier 100 which includes a cord 10 and a sheath 20. The sheath 20 includes at least one opening for the cord 10 to protrude from. In the first embodiment shown in Figs 2 and 4, there is a first end 22 and a second end 24 opposite to the first end 22. The first end 22 defines a first opening 23 and the second end 24 defines a second opening 25. The cord 10 is disposed partially within the sheath 20. In other embodiments, the sheath 20 can be omitted so that only the cord 10 is used as a box carrier. In Fig 2, the cord 10 is coiled such that it forms a substantially circuitous portion 16 within the sheath 20. The circuitous portion 16 of the cord 10 within the sheath 20 can be positioned substantially parallel to itself defining separate pathways or scrunched together within the sheath 20.

[113] In Fig 4, the cord 10 as shown in Fig 3 is used together with the sheath 20. Like parts have the same numbering as shown in Fig 1 and Fig 2.

[114] It is envisaged that the sheath 20 can be made from an easily tearable material to provide little resistance for the cord 10 to rip through when pulled. The sheath 20 can be made from lightweight paper such as, for example, tissue paper. Alternately, the sheath 20 can have a perforation (not shown) to allow the cord 10 to tear the sheath 20 when pulled from or through an opening at the corner of a box, during use.

[115] It is further envisaged that the cord 10 can be made from a strong, yet recyclable material such as, for example, coconut husk or hemp which may be in the form of a twine. In the present embodiments, the cord 10 can be easily recycled with a cardboard box without being separated from the cardboard box prior to recycling.

[116] Still referring to Figs 1 to 4, the cord 10 can extend or protrude from the first opening 23 and from the second opening 25 as well. In this way, the cord 10 defines a loop 14 between the first opening 23 and the second opening 25. Alternately, the cord 10 can extend or protrude from just the first opening 23 (in the case the sheath 20 only has one opening) to define a loop 14 about the first opening 23. The loop 14 of the cord 10 can be pulled such that a greater portion of the cord 10 is positioned outside of the sheath 20 to provide one or more carry handles for a box, as will be described in more detail below. The purpose of the sheath is to retain the slack of the cord 10 in storage until pulled out to form the handles.

[117] Initially, a portion of the cord 10 is coiled within the sheath 20 whilst the loop 14, is outside of the sheath 20. The cord 10 is in a stowed position when at least a portion of the cord 10 is disposed within the sheath 20 such that the cord 10 is coiled within the sheath 20. The cord 10 is movable between the stowed position and a deployed position, in which a greater portion of the cord 10, relative to the stowed position, is disposed outside of the sheath 20.

[118] The box carrier 100 (or cord 10 on its own) can be used with a standard cardboard box 400, as shown in Figs 5 to 7. Fig 5 shows the flaps of a box being closed, to form an slot at the corner, circled and denoted region A. A single box carrier 100 can be used at one end of the box, or two box carriers 100 can be used at either end of the box as shown. Two box carriers 100, in their stowed configurations, are positioned on a flap 410 of the cardboard box 400. A typical cardboard box 400 will have four flaps 410. Any of the flaps 410 can be used, as long as they are opposite each other. The loop 14 is positioned on the outside of the box 400, whilst the remainder of the box carrier 100 is positioned inside the box 400. The loop 14 or cord 10 protrudes from a pair of slots 412-1 at each end of the box 400. The slots 412-1 are formed by adjacent sidewalls and flaps, adjacent a fold or edge 412 in the box 400. The two pairs of slots are located at the corners of the box that are co-planar with each other. Importantly, the slot formed by the flaps 410 provides a passage to allow the cord 10 to protrude through the slot located at the corner of the box 400.

[119] As described above, the loop 14 can be extended to move the cord 10 from its stowed position to its deployed position. When the flaps 410 of the box 400 are closed, and the cord 10 is in the deployed position such that a substantial portion of the cord 10 is positioned outside of the sheath 20, a pair of carry handles 18 are formed. The pair of carry handles 18 are lateral to the box 400 to allow a user to move the box 400 via the pair of carry handles 18.

[120] In an alternative embodiment not shown, a pair of box carriers as shown in Fig. 4 is provided to the box, one being a proximal box carrier and the other being a distal box carrier. In their stowed configurations, the loop of proximal box carrier is removably attached to an outer surface of a proximal sidewall of the cardboard box and the loop distal box carrier 100' is positioned on an outer surface of a distal sidewall of the cardboard box 400. In a preferred embodiment, the proximal sidewall and the distal sidewall are sidewalls located on opposite sides of the box. A first extendable portion of the proximal carrier extends from an end of the loop and is located on the box protruding through a first proximal upper corner of the box and the second extendable portion of the proximal carrier extends from the other end of the loop is located on the box protruding through a second proximal upper corner of the box. A first extendable portion of the distal carrier extending from an end of the loop is located on the box protruding through a first distal upper corner of the box and the second extendable portion of the distal carrier extending from the other end of the loop is located on the box protruding through a second distal upper corner of the box. The proximal sidewall flap and the distal sidewall flap are then closed. Subsequently, a first lateral sidewall flap of the box and a second lateral sidewall flap of the box is closed such that the each of the lateral sidewall flaps are atop at least a portion of both the proximal sidewall flap and the distal

sidewall flap. The loop 14 is then pulled to move the proximal box carrier to a corresponding extended configuration, thereby forming the first carry handle. The loop is also pulled to move the distal box carrier to a corresponding extended configuration, thereby forming the second carry handle.

[121] Figs 8 to 11 show the box carrier 100 (or cord 10 only) used with a pizza box 200. The box carrier 100 is disposed in its stowed position at a proximal end 210 opposite a distal end 220 of a pizza box 200. The proximal end 210 of the pizza box 200 is the end opposite to the hinged edge 222 of the lid 230. The proximal end 210 of the pizza box 200 may be known as a reinforcement end due to the fold. More specifically, the box carrier 100 is positioned in an unfolded sidewall 212 at the proximal end 210 of the pizza box 200. The sidewall 212 of the pizza box is folded to hold the box carrier 100 in the side-wall 212, as shown in Fig 8. The loop portion 14 of the cord 10 is positioned outside of the pizza box 200 at the proximal end 210. By pulling on the loop 14, the loop 14 becomes longer than the portion 16 stowed inside the sheath 20 which becomes shorter. In this way, the cord 10 can be moved from the stowed position to the deployed position. The loop 14 becomes larger than the portion 16 stowed inside the sheath 20, as a greater portion of the cord 10 moves outside of the sheath 20 and the sidewall 212.

[122] As shown in Fig 9, when the sidewall 212 is folded to encapsulate the box carrier 100, the folded sidewall 212 forms a top edge 213 and a bottom edge 214. The top edge 213 forms a pair of slots 213-1 at opposite ends of the top edge 213 from which the cord 10 protrudes.

[123] As shown in Figs. 10 and 11, the loop 14 is extended such that the cord 10 is now in the deployed position. The loop 14 is now much longer and a portion of the loop 14 can be placed at the distal end 220 of the pizza box 200. The hinged edge 222 at the distal end 220 includes a pair of slots 222-1 at opposite ends of the hinged edge 222.

[124] When the lid 230 is moved to an open position, the cord 10 can be positioned at the distal end 222, between or adjacent the pair of slots 222-1. When the lid 230 is moved to a closed position, the cord 10 protrudes from the pair of slots 222-1 and is held in place by the pair of slots 222-1. Portions of the cord 10 are left outside of the pizza box 100. As the cord is held in place by the two pairs of slots 213-1, 222-1, a pair of carry handles 18 is formed to carry the pizza box 200. Each of the carry handles 18 is defined by a loop that is formed between the slot 213-1 and the slot 222-1 on a lateral side of the pizza box 200. The lid 230 has a pair of side walls 230-1 which pinch the cord 10 adjacent the edge 222 as the cord 10 protrudes through the slot formed at the corner of the box 200.

[125] Turning to Figs 12 to 15, a cake box 300 is shown together with the box carrier 100 (or cord 10). The cake box 300 has a proximal end 310 and a distal end 320. The proximal end 310 includes a sidewall 312, against which the box carrier 100 is positioned, when the sidewall 312 is in an unfolded position. As described above, the loop 14 of the box carrier 100 is positioned outside of the cake box 300. The loop 14 is positioned such that the cord 10 extends between a pair of slots 313-1 which are located at opposite ends of an edge 313 of the sidewall 312 and base 311, when the box is formed into a three-dimensional shape. The cake box 300 also includes a lid 330 that is movable between an open position and a closed position.

[126] With reference to Fig 13, when the sidewall 312 is in the folded or upright position, thus forming the edge 313 at the bottom of the cake box 300, the cord 10 of the box carrier 100 can be moved from its stowed position to its deployed position, whilst protruding from the slot 313-1 at the corners of the box. The sidewall 312 has a pair of minor sidewalls 312-1 (best seen in Fig 12) which, together with the lid 330, pinch the cord 10 adjacent the edge 313 at the proximal end, to hold the cord 10 in the slot 313-1 at the corner of the box. In this way, the slots at the corners of the box provide a passage for the cord 10 to pass therethrough.

[127] In Fig 14, the distal end 320 includes an edge 322 and a pair of corners 322-1. The edge 322 is formed by a rear face of the cake box 300 and the lid 330. The cord 10, when deployed from the sheath 20 and the lid 330 being opened, can be moved to be adjacent the edge 322. When the lid 330 is closed, the cord 10 protrudes through the pair of slots 322-1. More specifically, the lid 330 has a pair of sidewalls 330-1 which pinch the cord 10 against the sidewall 314 of the base, as the cord 10 protrudes through the pair of slots formed at the corners of the distal end. Accordingly, the cord 10 is held in place by the pair of slots 313-1 and 322-1. Portions of the cord 10 are left outside of the cake box 300. In Fig 15, the cord 10 passes through the pair of slots 313-1, 322-1 formed at the corners of the box, and a pair of carry handles 18 is formed to carry the cake box 300. Each of the carry handles 18 is defined by a loop that is formed between the slot 313-1 and the slot 322-1 of the cake box 300. Note that in the case of a cake box, the two pairs of slots used are not co-planar with each other.

[128] In an alternative embodiment (not shown), the cake box 300 is provided with a box carrier. The box carrier is provided to the box by locating a proximal sidewall of the box between the extendable portions and the loop. The proximal sidewall of the box further comprises side flap portions located at each of its side ends, such that when the side flap portions are folded in over the proximal sidewall, the slot formed by the extendible portions in their initial configurations can locate over the proximal sidewall flap and the sideflap portions

such that the loop is approximately adjacent along the inner fold line of the proximal sidewall of the box and is held secured there by the side flap portions once they are folded out away from the proximal sidewall of the box. The side flap portions are then mechanically interlocked with a first lateral sidewall of the box and a second lateral sidewall of the box, respectively. A region of the first extendable portion is protruding through a first proximal lower corner of the box and a region of the second extendable portion is protruding through a second proximal lower corner of the box such that the majority of the extendable portions are disposed outside of the box is readily retrievable or pullable. The extendable portions is then pulled to move the first extendable portion and second extendable portion to a corresponding extended configuration. Subsequently, the loop is manually moved to an upper region of an inner surface of a distal sidewall of the box such that a region of the extended first extendable portion is disposed outside of the box proximate to the first lateral sidewall of the box, and a region of the extended second extendable portion is disposed outside of the box proximate to the second lateral sidewall of the box. A lid of the cake box is then closed to secure the loop of the box carrier proximate or adjacent a fold line between an undersurface of the lid and the distal sidewall of the box to which it is connected. The disposed first extendable portion forms the first carry handle and the disposed second extendable portion forms the second carry handle. The lid further comprises lid side flaps, wherein a distal edge of each lid side flap prevents the central portion from moving back to the proximal sidewall when the cake box is closed.

[129] The cord 10 may come in various lengths, depending on its application. For example, in the case of a pizza box, the cord 10 may be about 4 to 8 times the length of the side of the box. In the case of a standard box, the cord 10 may only be 2 to 4 times the length of the box. The length of the cord 10 is typically multiple times the length of the edge between the pair of slots from which the cord 10 protrudes.

[130] Figs. 16 to 18 show another embodiment of the box carrier 500. The box carrier 500 comprises a central portion 501, a locating portion 513, a first extendable portion 524 and a second extendable portion 525.

[131] The central portion 501 comprises a handle 526, the handle, in this embodiment, being generally widened and comprising a first end 503 and a second end 504. The widened handle makes it easier to be readily carried because the load is distributed on the hand or fingers.

[132] The first extendable portion 524 comprises a plurality of cord segments. The cord 502 comprises a first cord segment 505 and a second cord segment 509. The first cord segment 505 extends from the first end 503 of the central portion 501, the first cord segment

505 being configured in such a way to define a first looped portion 506. The first cord segment 505 is held in the looped configuration by a first frangible portion 507. The first frangible portion connects an end portion 508 of the first cord segment 505 to a portion of the handle 526 proximate the first end 503, the first frangible portion 507 being adapted to break when sufficient breaking force is applied. The second cord segment 509 extends from the first cord segment end portion 508, the second cord segment 509 being configured in a serpentine shape. In the serpentine configuration, the second cord segment 509 defines a second looped portion 510 with the first cord segment 506 such that the second looped portion is substantially 510 adjacent with the first looped portion 506. The second cord segment 509 is held in a serpentine configuration by a second frangible portion 511. The second frangible portion 511 connects a portion of the second cord segment 509 to a portion of the first cord segment 506, the second frangible portion 511 being adapted to break when sufficient breaking force is applied.

[133] The locating portion 513 extends from an end portion 512 of the second cord segment 509. In this embodiment, the locating portion 513 is straight in use wherein at least a portion of the locating segment 513 defines a third looped portion 514 with the second cord segment 509. The locating portion is adapted for being attached to an object such that the box carrier 500 is affixed to that object.

[134] The advantage of the locating portion being straight is it can locate along a fold line of an object if the object is folded. For example, if the object is a box.

[135] The second extendable portion 525 comprises a third cord segment 515 and a fourth cord segment 519. The third cord segment 515 extends from an end portion 516 of the locating segment 513, the third cord segment being configured in a serpentine shape. In the serpentine configuration, the third cord segment 515 defines a fourth looped portion 517 with at least a portion of the locating segment 513. The third cord segment 515 is held in a serpentine configuration by a third frangible portion 518. The fourth cord segment 519 extends from an end portion 520 of the third cord segment 515 such that a fifth looped portion 521 is defined by the third cord segment 515 and the fourth cord segment 519. The third frangible portion 518 connects a portion of the third cord segment 515 to an end portion of a fourth cord segment 519, the third frangible portion 518 being adapted to break when sufficient breaking force is applied. The fourth cord segment 519 is configured in such a way to define a sixth looped portion 522, the sixth looped portion being adjacent the fifth looped portion 521. The fourth cord segment 519 connects to the second end 504 of the handle portion 501 and is held in the looped configuration by a fourth frangible portion 523, the fourth frangible portion 523 connecting an end portion of the fourth cord segment 519 to a region proximate to the second end 504 of the central portion 501.

[136] In an alternative embodiment, each of the first and second extendable portions 524, 525 can have any number of cord segments that makes the carrier suitable for an object of particular size and the same functional configuration is adopted and applied.

[137] In yet alternative embodiments, each of the first and second extendable portions include any suitable number of frangible connections that allow the carrier 500 to be thin, uniform, untangled, compressed and/or flat when the extendable portions are in the initial configuration and that provides an appropriate resistance force against manual extension.

[138] Advantageously, since the carrier 500 can all be made of a single material, it is easy to injection-mould or 3D-print and therefore can be produced cheaply.

[139] Advantageously, the first and second extendable portions 524, 525, in their initial configurations save space as the carrier 500 is thin, uniform, untangled, compressed and/or flat.

[140] Another embodiment of the box carrier is shown as 600 in Figs. 19 to 21. The box carrier 600 comprises a central portion 601, a first extendable portion 638 and a second extendable portion 639, the central portion 601 being substantially straight and having a first end 602 and a second end 603 and each of the extendable portion comprising a plurality of cord segments.

[141] The first extendable portion 638 comprises a first cord segment 604, a second cord segment 607, a third cord segment 610 and a fourth cord segment 614. The first cord segment 604 is connected to and extends from the first end 602 of the central portion 601, the first cord segment 604 having a serpentine configuration and curving adjacently to a portion of the central portion 601 such that a first looped region 605 is defined by at least a region of the central portion 601 and the first cord segment 604.

[142] The second cord segment 607 extends from a first cord segment end portion 606, the second cord segment 607 having a substantially serpentine configuration and curving adjacently to a portion of the first cord segment 604 such that a second looped region 608 is defined by the first cord segment 604 and the second cord segment 607. A first frangible portion 609 connects a portion of the first cord segment 604 to a portion of the second cord segment 607 to maintain the second looped region 608, wherein the first frangible portion 609 is adapted to break when sufficient breaking force is applied.

[143] The third cord segment 610 extends from a second cord segment end portion 611, the third cord segment 610 having a substantially serpentine configuration and curving adjacently to a portion of the second cord segment 607 such that a third looped region 612 is defined by the second cord segment 607 and the third cord segment 610. A second frangible

portion 613 connects a portion of the second cord segment 607 to a portion of the third cord segment 610 such that the third looped region 612 is maintained, the second frangible portion being adapted to break when sufficient breaking force is applied.

[144] The fourth cord segment 614 extends from a third cord segment end portion 615, the fourth cord segment 614 having a substantially serpentine configuration and curving adjacently to a portion of the third cord segment 610 such that a fourth looped region 616 is defined by the third cord segment 610 and the fourth cord segment 614. A third frangible portion 617 connects a portion of the third cord segment 610 to a portion of the fourth cord segment 614 such that the fourth looped region 616 is maintained, the third frangible portion being adapted to break when sufficient breaking force is applied.

[145] The box carrier further comprises a locating portion 618, the locating portion 618 having a substantially straight configuration and comprising a first end 619 and a second end 620, wherein a fourth cord segment end portion 621 is connected at the first end 619 such that the fourth cord segment 614 defines a fifth looped region 641 with the at least a region of the locating portion 618. The locating portion is adapted for being attached to an object, thereby affixing the box carrier 600 to that object.

[146] The second extendable portion 639 comprises a fifth cord segment 622, a sixth cord segment 640, a seventh cord segment 628 and an eighth cord segment 632. The fifth cord segment 622 of the plurality of cord segments extends from the second end 620 of the locating portion 618, the fifth cord segment 622 having a substantially serpentine configuration and curving adjacently to a region of the locating portion 618 such that a sixth looped region 623 is defined by at least the region of the locating portion 618 and the fifth cord segment 622.

[147] The sixth cord segment 640 extends from a fifth cord segment end portion 625, the sixth cord segment 640 having a substantially serpentine configuration and curving adjacently to a portion of the fifth cord segment 622 such that a seventh looped region 626 is defined by the fifth cord segment 622 and the sixth cord segment 640. A fourth frangible portion 627 connects a portion of the fifth cord segment 622 to a portion of the sixth cord segment 624 such that the seventh looped region 626 is maintained, the fourth frangible portion 627 being adapted to break when sufficient breaking force is applied to the fourth frangible portion 627.

[148] The seventh cord segment 628 extends from a sixth cord segment end portion 629, the seventh cord segment 628 having a substantially serpentine configuration and curving adjacently to a portion of the sixth cord segment 640 such that an eighth looped region 630 is defined by the sixth cord segment 640 and the seventh cord segment 628. A fifth frangible

portion 631 connects a portion of the sixth cord segment 640 to a portion of the seventh cord segment 628 such that the eighth looped region 630 is maintained, the fifth frangible portion 631 being adapted to break when sufficient breaking force is applied.

[149] The eighth cord segment 632 extends from a seventh cord segment end portion 633, the eighth cord segment having a substantially serpentine configuration and curving adjacently to a portion of the seventh cord segment such that a ninth looped region 634 is defined by the seventh cord segment 628 and the eighth cord segment 632. A sixth frangible portion 641 connects a portion of the seventh cord segment 628 to a portion of the eighth cord segment such that the ninth loop region 634 is maintained, the sixth frangible portion being adapted to break when sufficient breaking force is applied. An eighth cord segment end portion 635 connects to the second end 603 of the central portion 601 thereby defining an endless cord.

[150] The box carrier 600 further comprises a seventh frangible portion 636 and an eighth frangible portion 637, the seventh frangible portion 636 connecting a portion of the second cord segment 607 to a portion of the seventh cord segment 628 and the eighth frangible portion 637 connecting a portion of the third cord segment 610 to a portion of the sixth cord segment 624. The seventh frangible portion 636 and the eighth frangible portion 637 are adapted to break when sufficient breaking force is applied.

[151] In an alternative embodiment, the seventh frangible portion 636 instead connects a portion of the first cord segment 604 to a portion of the eighth cord segment 632. In another alternative embodiment, the eighth frangible portion 637 instead connects a portion of the fourth cord segment 614 to a portion of the fifth cord segment 622.

[152] In an alternative embodiment, each of the first and second extendable portions 638, 639 can have any number of cord segments that makes the carrier suitable for an object of particular size and the same functional configuration is adopted and applied.

[153] In yet alternative embodiments, each of the first and second extendable portions include any suitable number of frangible connections that allow the carrier 600 to be thin, uniform, untangled, compressed and/or flat when the extendable portions are in the initial configuration and that provides an appropriate resistance force against manual extension.

[154] Advantageously, since the carrier 600 can all be made of a single material, it is easy to injection-mould or 3D print and therefore can be produced cheaply.

[155] Advantageously, the first and second extendable portions 638, 639, in their initial configurations save space and are thin, uniform, untangled, compressed and/or flat.

[156] Another embodiment of a box carrier is shown as 700 in Fig. 22. The box carrier 700 comprises a locating segment 745, a first extendable portion 788, a second extendable portion 789 and a central portion 703, the central portion being substantially straight and having a first end 704 and a second end 705.

[157] The first extendable portion 788 comprises a plurality of cord segments 706, 707, 709, 713, 717, 721, 725, 729, 733, 737, 741, and the second extendable portion 789 comprises a plurality of cord segments 749, 750, 754, 758, 762, 766, 770, 774, 778, 782, 786.

[158] A first cord segment 706 extends from the first end 704 of the central portion 703 at a substantially acute angle, the first cord segment 706 being substantially straight in configuration.

[159] A second cord segment 707 extends from a first cord segment end portion 708, the second cord segment 707 having a substantially serpentine configuration and curving towards the central portion such that it is generally alongside the first cord segment 706.

[160] A third cord segment 709 extends from a second cord segment end portion 710, the third cord segment 709 having a substantially serpentine configuration and curving adjacently a portion of the second cord segment 707 and away from the central portion such that a first looped region is defined by the second cord segment 707 and the third cord segment 709. A first frangible portion 712 connects a portion of the second cord segment 707 to a portion of the third cord segment 709 such that the first looped region is maintained, the first frangible portion 712 being adapted to break when sufficient breaking force is applied.

[161] A fourth cord segment 713 extends from a third cord segment end portion 714, the fourth cord segment 713 having a substantially serpentine configuration and curving adjacently to a portion of the third cord segment 709 and towards the central portion 703 such that a second looped region is defined by the third cord segment 709 and the fourth cord segment 713. A second frangible portion 716 connects a portion of the third cord segment 709 to a portion of the fourth cord segment 713, the second frangible portion 716 being adapted to break when sufficient breaking force is applied.

[162] A fifth cord segment 717 extends from a fourth cord segment end portion 718, the fifth cord segment 717 having a substantially serpentine configuration and curving adjacently to a portion of the fourth cord segment 713 and away from the central portion 703 such that a third looped region is defined by the fourth cord segment 713 and the fifth cord segment 717. A third frangible portion 720 connects a portion of the fourth cord segment 713 to a

portion of the fifth cord segment 717 such that the third looped region is maintained, the third frangible portion 720 being adapted to break when sufficient breaking force is applied.

[163] A sixth cord segment 721 extends from a fifth cord segment end portion 722, the sixth cord segment 721 having a substantially serpentine configuration and curving adjacently to a portion of the fifth cord segment 717 and towards the central portion 703 such that a fourth looped region is defined by the fifth cord segment 717 and the sixth cord segment 721. A fourth frangible portion 724 connects a portion of the fifth cord segment 717 to a portion of the sixth cord segment 721 such that the fourth looped region is maintained, the fourth frangible portion 724 being adapted to break when sufficient breaking force is applied.

[164] A seventh cord segment 725 extends from a sixth cord segment end portion 726, the seventh cord segment 725 having a substantially serpentine configuration and curving adjacently to a portion of the sixth cord segment 721 and away from the central portion 703 such that a fifth looped region is defined by the sixth cord segment 721 and the seventh cord segment 725. A fifth frangible portion 728 connects a portion of the sixth cord segment 721 to a portion of the seventh cord segment 725 such that the fifth looped region is maintained, the fifth frangible portion 728 being adapted to break when sufficient breaking force is applied.

[165] An eighth cord segment 729 extends from a seventh cord segment end portion 730, the eighth cord segment 729 having a substantially serpentine configuration and curving adjacently to a portion of the seventh cord segment 725 and towards the central portion 703 such that a sixth looped region is defined by the seventh cord segment 725 and the eighth cord segment 729. A sixth frangible portion 732 connects a portion of the seventh cord segment 725 to a portion of the eighth cord segment 729 such that the sixth looped region is maintained, the sixth frangible portion 732 being adapted to break when sufficient breaking force is applied.

[166] A ninth cord segment 733 extends from an eighth cord segment end portion 734, the ninth cord segment 733 having a substantially serpentine configuration and curving adjacently to a portion of the eighth cord segment 729 and away from the central portion 703 such that a seventh looped region is defined by the eighth cord segment 729 and the ninth cord segment 733. A seventh frangible portion 736 connects a portion of the eighth cord segment 729 to a portion of the ninth cord segment 733 such that the seventh looped region is maintained, the seventh frangible portion 736 being adapted to break when sufficient breaking force is applied.

[167] A tenth cord segment 737 extends from a ninth cord segment end portion 738, the tenth cord segment 737 having a substantially serpentine configuration and curving adjacently to a portion of the ninth cord segment 733 and towards the central portion 703 such that an eighth looped region is defined by the ninth cord segment 733 and the tenth cord segment 737. An eighth frangible portion 740 connects a portion of the ninth cord segment 733 to a portion of the tenth cord segment 737 such that the eighth looped region is maintained, the eighth frangible portion 740 being adapted to break when sufficient breaking force is applied.

[168] An eleventh cord segment 741 extends from a tenth cord segment end portion 742, the eleventh cord segment 741 having a substantially serpentine configuration and curving adjacently to a portion of the tenth cord segment 743 and away from the central portion 703 such that a ninth looped region is defined by the tenth cord segment 737 and the eleventh cord segment 741. A ninth frangible portion 744 connects a portion of the tenth cord segment 737 to a portion of the eleventh cord segment 741 such that the ninth looped region is maintained, the ninth frangible portion 744 being adapted to break when sufficient breaking force is applied.

[169] The locating segment 745 comprises a locating segment first end 746 and a locating segment second end 747, and the eleventh cord segment 741 being connected at the first end 746. A twelfth cord segment 749 extends from the locating segment second end 747, the twelfth cord segment 749 having a substantially serpentine configuration and extending towards the central portion 703.

[170] The locating segment 745 comprises an outer frame 748 and a cross brace 790. The cross brace extends across the width of the outer frame to provide strength and rigidity. Each corner of the outer frame, which in this embodiment is generally rectangular, comprises a prong 791 extending from the outer frame diagonally outwards. Each prong 791 is adapted such that when it is pressed against a corrugated cardboard material it will cause an indentation in the material or extend through a first wall layer of the material. In either case, when all four prongs are pressed against the corrugated cardboard material, the locating segment 745 cannot slide along the material.

[171] In other embodiments, the locating segment 745 might take a different structural form so long as it can engage with a corrugated cardboard material in such a way that the locating segment 745 cannot slide along the material.

[172] A thirteenth cord segment 750 extends from a twelfth cord segment end portion 751, the thirteenth cord segment 750 having a substantially serpentine configuration and curving adjacently to a portion of the twelfth cord segment 749 and away from the central portion

703 such that a tenth looped region is defined by the twelfth cord segment 749 and the thirteenth cord segment 750. A tenth frangible portion 753 connects a portion of the twelfth cord segment 749 to a portion of the thirteenth cord segment 750 such that the tenth looped region is maintained, the tenth frangible portion 753 being adapted to break when sufficient breaking force is applied.

[173] A fourteenth cord segment 754 extends from a thirteenth cord segment end portion 755, the fourteenth cord segment 754 having a substantially serpentine configuration and curving adjacently to a portion of the thirteenth cord segment 750 and towards the central portion 703 such that an eleventh looped region is defined by the thirteenth cord segment 750 and the fourteenth cord segment 754. An eleventh frangible portion 757 connects a portion of the thirteenth cord segment 750 to a portion of the fourteenth cord segment 754 such that the eleventh looped region is maintained, the eleventh frangible portion 757 being adapted to break when sufficient breaking force is applied.

[174] A fifteenth cord segment 758 extends from a fourteenth cord segment end portion 759, the fifteenth cord segment 758 having a substantially serpentine configuration and curving adjacently to a portion of the fourteenth cord segment 754 and away from the central portion 703 such that a twelfth looped region is defined by the fourteenth cord segment 754 and the fifteenth cord segment 758. A twelfth frangible portion 761 connects a portion of the fourteenth cord segment 754 to a portion of the fifteenth cord segment 758 such that the twelfth looped region is maintained, the twelfth frangible portion 761 being adapted to break when sufficient breaking force is applied.

[175] A sixteenth cord segment 762 extends from a fifteenth cord segment end portion 763, the sixteenth cord segment 762 having a substantially serpentine configuration and curving adjacently to a portion of the fifteenth cord segment 758 and towards the central portion 703 such that a thirteenth looped region is defined by the fifteenth cord segment 758 and the sixteenth cord segment 762. A thirteenth frangible portion 765 connects a portion of the fifteenth cord segment 758 to a portion of the sixteenth cord segment 762 such that the thirteenth looped region is maintained, the thirteenth frangible portion 765 being adapted to break when sufficient breaking force is applied.

[176] A seventeenth cord segment 766 extends from a sixteenth cord segment end portion 767, the seventeenth cord segment 766 having a substantially serpentine configuration and curving adjacently to a portion of the sixteenth cord segment 762 and away from the central portion 703 such that a fourteenth looped region is defined by the sixteenth cord segment 762 and the seventeenth cord segment 766. A fourteenth frangible portion 769 connects a portion of the sixteenth cord segment 762 to a portion of the seventeenth cord segment 766

such that the fourteenth looped region is maintained, the fourteenth frangible portion 769 being adapted to break when sufficient breaking force is applied.

[177] An eighteenth cord segment 770 extends from a seventeenth cord segment end portion 771, the eighteenth cord segment 770 having a substantially serpentine configuration and curving adjacently to a portion of the seventeenth cord segment 766 and towards the central portion 703 such that a fifteenth looped region is defined by the seventeenth cord segment 766 and the eighteenth cord segment 770. A fifteenth frangible portion 773 connects a portion of the seventeenth cord segment 766 to a portion of the eighteenth cord segment 770 such that the fifteenth looped region is maintained, the fifteenth frangible portion 773 being adapted to break when sufficient breaking force is applied.

[178] A nineteenth cord segment 774 extends from an eighteenth cord segment end portion 775, the nineteenth cord segment 774 having a substantially serpentine configuration and curving adjacently to a portion of the eighteenth cord segment 770 and away from the central portion 703 such that a sixteenth looped region is defined by the eighteenth cord segment 770 and the nineteenth cord segment 774. A sixteenth frangible portion 777 connects a portion of the eighteenth cord segment 770 to a portion of the nineteenth cord segment 774 such that the sixteenth looped region is maintained, the sixteenth frangible portion 777 being adapted to break when sufficient breaking force is applied.

[179] A twentieth cord segment 778 extends from a nineteenth cord segment end portion 779, the twentieth cord segment 778 having a substantially serpentine configuration and curving adjacently to a portion of the nineteenth cord segment 774 and towards the central portion 703 such that a seventeenth looped region is defined by the nineteenth cord segment 774 and the twentieth cord segment 778. A seventeenth frangible portion 781 connects a portion of the nineteenth cord segment 774 to a portion of the twentieth cord segment 778 such that the seventeenth looped region is maintained, the seventeenth frangible portion 781 being adapted to break when sufficient breaking force is applied.

[180] A twenty-first cord segment 782 extends from a twentieth cord segment end portion 783, the twenty-first cord segment 782 having a substantially serpentine configuration and curving adjacently to a portion of the twentieth cord segment 778 and away from the central portion 703 such that an eighteenth looped region is defined by the twentieth cord segment 778 and the twenty-first cord segment 782. An eighteenth frangible portion 785 connects a portion of the twentieth cord segment 778 to a portion of the twenty-first cord segment 782 such that the eighteenth looped region is maintained, the eighteenth frangible portion 785 being adapted to break when sufficient breaking force is applied.

[181] A twenty-second cord segment 786 of the plurality of cord segments extends from a twenty-first cord segment end portion 787 and towards the central portion 703 such that a twenty-second cord segment end portion is connected to the second end 705 of the central portion 703.

[182] In an alternative embodiment, each of the first and second extendable portions 788, 789 can have any number of cord segments that makes the carrier suitable for an object of particular size and the same functional configuration is adopted and applied.

[183] In yet alternative embodiments, each of the first and second extendable portions include any suitable number of frangible connections that allow the carrier 700 to be thin, uniform, untangled, compressed and/or flat when the extendable portions are in the initial configuration and that provides an appropriate resistance force against manual extension.

[184] Advantageously, since the carrier 700 can all be made of a single material, it is easy to injection-mould or 3D print and therefore can be produced cheaply.

[185] Advantageously, the first and second extendable portions 788, 789, in their initial configurations, save space and are thin, uniform, untangled, compressed and/or flat.

[186] Another embodiment of the box carrier is shown as 800 in Fig. 25. The box carrier 800 comprises an elongate central segment 801 and an extendable portion 802, the elongate central segment 801 being substantially planar and having a elongate central segment first end 803 and a elongate central segment second end 804, and the extendable portion 802 comprising a plurality of strip segments, each of the strip segments being substantially planar and the plurality of strip segments being configured in a generally rectangular serpentine path.

[187] A first strip segment 805 of the extendable portion 802 is connected to and folded at the elongate central segment first end 803 such that the first strip segment 805 extends orthogonally from the elongate central segment 801.

[188] A second strip segment 806 is connected to and folded at a first strip segment end 890 such that the second strip segment 806 extends orthogonally from the first strip segment 805 and towards the direction of the elongate central segment second end 804. In the embodiment as shown, the second strip segment 805 is shorter than the first strip segment 805.

[189] A third strip segment 807 is connected to and folded at a second strip segment end 808 such that the third strip segment 807 extends orthogonally from the second strip segment 806 and towards the elongate central segment 801. In the embodiment as shown,

the third strip segment 807 is shorter than the first strip segment but is longer than the second strip segment.

[190] A fourth strip segment 809 is connected to and folded at a third strip segment end 810 such that the fourth strip segment 809 extends orthogonally from the third strip segment 807 and away from the first strip segment 805.

[191] A fifth strip segment 811 is connected to and folded at a fourth strip segment end 812 such that the fifth strip segment 811 extends orthogonally from the fourth strip segment 809 and away from the elongate central segment 801.

[192] A sixth strip segment 813 is connected to and folded at a fifth strip segment end 814 such that the sixth strip segment 813 extends orthogonally from the fifth strip segment 811 and away from the first strip segment 805.

[193] A seventh strip segment 815 is connected to and folded at a sixth strip segment end 816 such that the seventh strip segment 815 extends orthogonally from the sixth strip segment 813 and towards the elongate central segment 801.

[194] An eighth strip segment 817 is connected to and folded at a seventh strip segment end 818 such that the eighth strip segment 817 extends orthogonally from the seventh strip segment 815 and away from the first strip segment 805.

[195] A ninth strip segment 819 is connected to and folded at an eighth strip segment end 820 such that the ninth strip segment 819 extends orthogonally from the eighth strip segment 817 and away from the elongate central segment 801.

[196] A tenth strip segment 821 is connected to and folded at a ninth strip segment end 822 such that the tenth strip segment 821 extends orthogonally from the ninth strip segment 819 and away from the first strip segment 805.

[197] An eleventh strip segment 823 is connected to and folded at a tenth strip segment end 824 such that the eleventh strip segment 823 extends orthogonally from the tenth strip segment 821 and towards the elongate central segment 801.

[198] A twelfth strip segment 825 is connected to and folded at an eleventh strip segment end 826 such that the twelfth strip segment 825 extends orthogonally from the eleventh strip segment 823 and away from the first strip segment 805.

[199] A thirteenth strip segment 827 is connected to and folded at a twelfth strip segment end 828 such that the thirteenth strip segment 827 extends orthogonally from the twelfth strip segment 825 and away from the elongate central segment 801.

[200] A fourteenth strip segment 829 is connected to and folded at a thirteenth strip segment end 830 such that the fourteenth strip segment 829 extends orthogonally from the thirteenth strip segment 827 and away from the first strip segment 805.

[201] A fifteenth strip segment 831 is connected to and folded at a fourteenth strip segment end 832 such that the fifteenth strip segment 831 extends orthogonally from the fourteenth strip segment 829 and towards the elongate central segment 801.

[202] A sixteenth strip segment 833 is connected to and folded at a fifteenth strip segment end 834 such that the sixteenth strip segment 833 extends orthogonally from the fifteenth strip segment 831 and away from the first strip segment 805.

[203] A seventeenth strip segment 835 is connected to and folded at a sixteenth strip segment end 836 such that the seventeenth strip segment 835 extends orthogonally from the sixteenth strip segment 833 and away from the elongate central segment 801.

[204] An eighteenth strip segment 837 is connected to and folded at a seventeenth strip segment end 838 such that the eighteenth strip segment 837 extends orthogonally from the seventeenth strip segment 835 and away from the first strip segment 805.

[205] A nineteenth strip segment 839 is connected to and folded at an eighteenth strip segment end 840 such that the nineteenth strip segment 839 extends orthogonally from the eighteenth strip segment 837 and towards the elongate central segment 801.

[206] A twentieth strip segment 841 is connected to and folded at a nineteenth strip segment end 842 such that the twentieth strip segment 841 extends orthogonally from the nineteenth strip segment 839 and away from the first strip segment 805.

[207] A twenty-first strip segment 843 is connected to and folded at a twentieth segment end 844 such that the twenty-first strip segment 843 extends orthogonally from the twentieth strip segment 841 and away from the elongate central segment 801.

[208] A twenty-second strip segment 845 is connected to and folded at a twenty-first strip segment end 846 such that the twenty-second strip segment 845 extends orthogonally from the twenty-first strip segment 843 and away from the first strip segment 805.

[209] A twenty-third strip segment 847 is connected to and folded at a twenty-second strip segment end 848 such that the twenty-third strip segment 847 extends orthogonally from the twenty-second strip segment 845 and towards the elongate central segment 801.

[210] A twenty-fourth strip segment 849 is connected to and folded at a twenty-third strip segment end 850 such that the twenty-fourth segment 849 extends orthogonally from the twenty-third strip segment 847 and away from the first strip segment 805.

[211] A twenty-fifth strip segment 851 is connected to and folded at a twenty-fourth strip segment end 852 such that the twenty-fifth strip segment 851 extends orthogonally from the twenty-fourth strip segment 849 and away from the elongate central segment 801.

[212] A twenty-sixth segment 853 is connected to and folded at a twenty-fifth strip segment end 854 such that the twenty-sixth strip segment 853 extends orthogonally from the twenty-fifth strip segment 851 and away from the first strip segment 805.

[213] A twenty-seventh strip segment 855 is connected to and folded at an twenty-sixth strip segment end 856 such that the twenty-seventh strip segment 855 extends orthogonally from the twenty-sixth segment 853 and towards the elongate central segment 801.

[214] A twenty-eighth strip segment 857 is connected to and folded at a twenty-seventh strip segment end 858 such that the twenty-eighth strip segment 857 extends orthogonally from the twenty-seventh strip segment 855 and away from the first strip segment 805.

[215] A twenty-ninth strip segment 859 is connected to and folded at a twenty-eighth segment end 860 such that the twenty-ninth strip segment 859 extends orthogonally from the twenty-eighth strip segment 857 and away from the elongate central segment 801.

[216] A thirtieth strip segment 861 is connected to and folded at a twenty-ninth strip segment end 862 such that the thirtieth strip segment 861 extends orthogonally from the twenty-ninth strip segment 859 and away from the first strip segment 805.

[217] A thirty-first strip segment 863 is connected to and folded at a thirtieth strip segment end 864 such that the thirty-first strip segment 863 extends orthogonally from the thirtieth strip segment 861 and a thirty-first strip segment end 865 is connected to and folded at the elongate central segment second end 804. In a preferred embodiment, the thirty-first segment 863 has the same length with the first strip segment 805.

[218] The box carrier 800 further comprises a bridge 866, the bridge 866 being substantially planar in shape and comprising a plurality of frangible portions 867. The bridge is connected across the series of strip segments 805, 807, 811, 815, 819, 823, 827, 831, 835, 839, 843, 847, 851, 855, 859, 863 that are oriented orthogonally to the elongate central segment 801 with adhesive connecting each of the strip segments 805, 807, 811, 815, 819, 823, 827, 831, 835, 839, 843, 847, 851, 855, 859, 863 to the bridge 866.

[219] In alternative embodiment, two or more but not all of the strip segments 805, 807, 811, 815, 819, 823, 827, 831, 835, 839, 843, 847, 851, 855, 859, 863 are adhered to the bridge 866. This may reduce manufacturing time and/or costs and/or the volume of the adhesive used.

[220] In these embodiments, the plurality of frangible portions provided by the adhesive locations between the bridge 866 and each strip segment 805, 807, 811, 815, 819, 823, 827, 831, 835, 839, 843, 847, 851, 855, 859, 863 and when sufficient force is applied to the central portion 801, either the adhesive breaks or the adhesive tears away from the corresponding strip segment or from the bridge.

[221] In a further embodiment, the bridge comprises a plurality of bridging sections 867 that connect locations of adhesive between the bridge and the strip segments 805, 807, 811, 815, 819, 823, 827, 831, 835, 839, 843, 847, 851, 855, 859, 863. In this embodiment, the frangible portions are provided by the bridging sections 867 that break when sufficient force is applied to the central portion 801.

[222] In a preferred embodiment, the strip segments 805, 807, 811, 815, 819, 823, 827, 831, 835, 839, 843, 847, 851, 855, 859, 863 that are orthogonal to the elongate central segment, except for the first strip segment 805 and the thirty-first strip segment 863, has the same length. Also, the strip segments 806, 809, 813, 817, 821, 825, 829, 833, 837, 841, 845, 849, 853, 857, 861 that are parallel to the elongate central segment 801 preferably have the same length.

[223] In an alternative embodiment, the extendable portion 802 can have any number of strip segments that makes the carrier suitable for an object of particular size and the same functional configuration is adopted and applied.

[224] Advantageously, since the carrier 800 can all be made of a single material such as paper, cardboard or plastic ribbon. Plastic ribbon may be chosen so it is easy to injection-mould, 3D print or extrude and therefore can be produced cheaply.

[225] In an alternative embodiment, the carrier 800 is made of paper. In this embodiment, all of the components of the carrier, except for the bridge, are made from rolled paper folded flat or from folded paper. For example, the paper may be folded between two and six times over itself to form a construction of layers of paper to provide the carrier with sufficient strength. In one version of this embodiment, adhesive is applied between each layer of paper, and in other versions adhesive is only applied along one layer. In the case that the components are made from rolled paper folded flat, adhesive may only be applied to the outermost folded portion to reduce the volume of adhesive required.

[226] Advantageously, the use of folded or rolled folded paper makes it easy to create the fold lines for the folded segments 806, 809, 813, 817, 821, 825, 829, 833, 837, 841, 845, 849, 853, 857, 861 because paper is easy to fold. Furthermore, in the other embodiments, the rolled folded paper is cardboard.

[227] Advantageously, the carrier 800 that is made from folded paper, rolled folded paper or cardboard is recyclable, including without separation from a cardboard box.

[228] Advantageously, the extendable portion 802, in its initial configuration, saves space.

[229] A method of forming a carry handle that protrudes from a first pair of slots of opposing corners of a box is disclosed. The cord 10 is positioned at the proximal end of the box such that the portion of the cord protrudes from the pair of proximal slots to form a loop portion about the proximal end at a pair of corners of the box. The loop portion forms the carry handle for the box. The method further comprises the step of withdrawing the cord from the proximal slots by the loop portion, to extend the length of the loop portion. In this way, the cord supports the box under the edge between the two proximal slots, thus distributing the weight of the box under the edge. In the case of a cake box however, the weight of the box is taken by the sidewalls.

[230] The method described above is suitable for carrying smaller boxes or lightweight boxes such as jewellery boxes that do not need to be kept horizontal when carried. The method above can be used with either the cord 10 on its own or with the sheath 20 to contain the portion of the cord disposed within the box.

[231] The method described above may further comprise positioning the loop portion 14 of the cord 10 at the distal end, such that when the lid of the box is moved to the closed position, as shown in Figs 8 to 11 with reference to the pizza box (as an example only), the cord 10 protrudes from the pair of distal slots 222-1 at the distal end 220 of the box, to form the pair of carry handles 18. In this way, one carry handle is comprised of the cord 10 that protrudes from the distal slot 222-1 and the opposite proximal slot 213-1. The other carry handle 18 is comprised of the cord 10 that protrudes from the other proximal slot 213-1 and the other opposite distal slot 222-1. Further, the weight of the box is supported by the portion of the cord 10 that remains inside the box. The portion of the cord 10 remaining inside the box passes along the edges 213, 222 between the proximal slots 213-1 and the distal slots 222-1. The distal edge 222 may be referred to as a hinge-fold for the lid of a box.

[232] The method described above can be applied to the distal end of the box using a second cord 10 or box carrier 100. This is most clearly shown in Figs 6 and 7, where a second carry handle that protrudes from the second pair of slots opposite to the first pair of slots is shown. The second cord 10 or box carrier 100 is positioned at the distal end such that a portion of the second cord 10 or box carrier 100 protrudes from the pair of distal slots to form a second loop portion about the distal end. The second loop portion forms the second carry handle. The second loop can be extended by withdrawing the cord from the pair of distal slots. The length of the cord 10 will be similar for each end of the box.

[233] A method of using the box carrier 100 to form the pair of carry handles 18 is also disclosed in Figs 8 to 15. The method comprises: providing the box carrier 100 including the features described above; positioning the sheath 20 inside or outside of a box; and positioning the loop 14 outside of the box to protrude through a passageway provided by the pair of slots 213-1 such that the loop 14 extends between the pair of slots in the corners. The sheath is positioned at the proximal end, inside of the box. The method further involves elongating the loop 14 and positioning the loop at a distal end, opposite the proximal end of the box. As described above, the elongated loop is positioned at or along a hinge-fold or edge of the box such that it is integrated with the box.

[234] In alternative embodiment (not shown) of the above, the method of using the box carrier to form a pair of carry handles for the pizza box of Figs. 8-11 comprises: locating a sheath and a loop at an undersurface of a sidewall flap of the box. The sidewall flap of the box is then folded over a pair of side flaps protruding from respective lateral sidewalls of the box such that the pair side flaps is sandwiched between the sidewall flap and the proximal sidewall and the sheath and the loop faces the internal volume of the box.

[235] The method further involves pulling on the loop to extend the coiled portion out through the proximal bottom vertices of the box and manually moving the loop to an upper region of an inner surface of a distal sidewall of the box such that a first region of the extended loop is disposed outside of the box proximate to the first lateral sidewall of the box, and a second region of the extended loop is disposed outside of the box proximate to the second lateral sidewall of the box. The lid of the box is then closed to secure the loop of the box carrier proximate or adjacent a fold line between an undersurface of the lid and the distal sidewall of the box to which it is connected. The disposed first region of the extended loop protrudes through a first slot defined at the corner of the first lateral sidewall, the lid, and the distal sidewall and forms the first carry handle, and the disposed second region of the extended loop protrudes through a second slot defined at the corner of the second lateral sidewall, the lid, and the distal sidewall and forms the second carry handle. The lid further comprises lid side flaps, wherein a distal edge of each lid side flap prevents the loop from moving back to the proximal sidewall when the pizza box is closed.

[236] Another method of forming the pair of carry handles 18 for a box is also disclosed. The method involves providing two box carriers 100 having the features described above. The first box carrier 100 is positioned at the proximal end of the box and the second box carrier 100 is positioned at the distal end of the box. Each loop 14 of the first box carrier 100 and the second box carrier 100 is moved from the stowed position to the deployed position, by moving or withdrawing the cord 10 through the slots to provide the pair of carry handles

18 for the box that extend from the slots of the corner, so that the box is supported from its edge 213, 222 where the cord 10 engages the box.

[237] Whilst the method of forming carry handles for the pizza box 200 and the cake box 300 have been described with reference to using a single box carrier 100 or a single cord 10, it is envisaged that the carry handles can be formed by using two box carriers 100 or two cords 10. In this variation, the box carriers 100 or cords 10 are positioned at opposite ends of the box utilised in the same manner described above. The cord 10 is fed through the relevant slots to form the carry handles at the corners of the box.

[238] A method of forming carry handles for a four-flap box 5000 is shown in Figs. 17-18. A pair of the box carrier 500 as shown in Figs. 16 is provided to the box 5000, one being a proximal carrier 500 and the other being a distal carrier 500'. For brevity and clarity, the proximal carrier is indicated as 500 and its parts indicated without an apostrophe, and the distal box carrier is indicated as 500' and its parts indicated with an apostrophe.

[239] The proximal carrier 500 is provided to the box 5000 by locating the locating portion 513 at an inner surface of a proximal sidewall flap 5001 of the box 5000 approximately adjacent and parallel to the fold line between a proximal sidewall of the box and the proximal sidewall flap 5001. The first extendable portion 524 is located on the box 5000 protruding through a first proximal upper corner 5002 of the box and the second extendable portion 525 is located on the box 5000 protruding through a second proximal upper corner 5003 of the box 5000 such that the central portion 501 is disposed outside of the box and the handle 526 is readily retrievable or pullable.

[240] The distal carrier 500' is provided to the box 5000 by locating the locating portion 513' at an inner surface of a distal sidewall flap 5004 of the box approximately adjacent and parallel to the fold line between a distal sidewall of the box and the distal sidewall flap 5004. The first extendable portion 524' is located on the box 5000 protruding through a first distal upper corner 5005 of the box and the second extendable portion 525' is located on the box 5000 protruding through a second distal upper corner 5006 of the box 5000 such that the central portion 501' is disposed outside of the box and the handle 526' is readily retrievable or pullable.

[241] The proximal sidewall flap 5001 and the distal sidewall flap 5004 are then closed. Subsequently, a first lateral sidewall flap 5007 of the box and a second lateral sidewall flap 5008 of the box is closed such that the each of the lateral sidewall flaps 5007, 5008 are atop at least a portion of both the proximal sidewall flap 5001 and the distal sidewall flap 5004.

[242] The handle 526 is then pulled to break the frangible portions 507, 511, 518 and 523, and move the first extendable portion 524 and second extendable portion 525 to a

corresponding extended configuration, thereby forming the first carry handle 5009. The handle 526' is also pulled to break the frangible portions 507', 511', 518 and 523', and move the first extendable portion 524' and second extendable portion 525' to a corresponding extended configuration, thereby forming the second carry handle 5010.

[243] In further embodiments, the handles include a sticky material or an adhesive on one side such that it can be temporarily or permanently attached to an outer surface of the sidewall of the box by removing an adhesive protective strip.

[244] A method of forming carry handles for a cake box 6000 is shown in Figs. 20-21. In this method, the box carrier 600 as shown in Fig. 19 is used.

[245] The box carrier 600 is provided to the box 6000 by locating a proximal sidewall 6001 of the box 6000 between the extendable portions 638, 639 and the locating portion 618. The proximal sidewall of the box further comprises side flap portions located at each of its side ends, such that when the side flap portions are folded in over the proximal sidewall, the slot formed by the extendible portions 638, 639, in their initial configurations, and the central portion 601 can locate over the proximal sidewall flap and the sideflap portions such that the locating portion 618 is approximately adjacent along the inner fold line of the proximal sidewall 6001 of the box and is held secured there by the side flap portions once they are folded out away from the proximal sidewall 6001 of the box. The side flap portions are then mechanically interlocked with a first lateral sidewall 6005 of the box and a second lateral sidewall 6006 of the box, respectively.

[246] A region of the first extendable portion 638 is protruding through a first proximal lower corner 6002 of the box and a region of the second extendable portion 639 is protruding through a second proximal lower corner 6003 of the box 6000 such that the plurality of cord segments 604, 607, 610, 614, 622, 640, 628, 632, and the central portion 601 are disposed outside of the box and the central portion is readily retrievable or pullable.

[247] The central portion 601 is then pulled to break the frangible portions 609, 613, 617, 627, 631, 641, 636 and 637, and move the first extendable portion 638 and second extendable portion 639 to a corresponding extended configuration. Subsequently, the central portion is manually moved to an upper region of an inner surface of a distal sidewall 6004 of the box such that a region of the extended first extendable portion 638 is disposed outside of the box proximate to the first lateral sidewall 6005 of the box, and a region of the extended second extendable portion 639 is disposed outside of the box proximate to the second lateral sidewall 6006 of the box.

[248] A lid 6007 of the box 6000 is then closed to secure the central portion 601 of the box carrier 600 proximate or adjacent a fold line between an undersurface of the lid 6007 and the

distal sidewall 6004 of the box to which it is connected. The disposed first extendable portion (not shown) forms the first carry handle and the disposed second extendable portion 639 forms the second carry handle. The lid further comprises lid side flaps 6008, wherein a distal edge 6009 of each lid side flap 6008 prevents the central portion 601 from moving back to the proximal sidewall when the cake box is closed.

[249] When the carry handles are carried in use, the locating portion supports a proximal side of the box 6000 and the central portion 601 that is secured under the lid 6007 supports a distal side of the box 6000. This allows the box 6000 to be carried with one hand.

[250] A method of forming carry handles for a box 7000 is shown in Figs. 23-24. In this method, the box carrier 700 as shown in Fig. 22 is used.

[251] The box carrier 700 is provided to the box 7000 by locating a sidewall flap 7001 of the box 7000 between the first and second extendible portions 788, 789 and the central portion 703 such that the first and second extendible portions, in their corresponding initial configurations, locates adjacent an inner proximal sidewall 7002 of the box and the central portion 703 is disposed outside of the box 7000. The locating portion 748 of the box carrier 700 is then secured to the inner proximal sidewall 7002 of the box, to enhance this securement, the sidewall of the box can be pinched against the prongs of the locating portion. The sidewall flap 7001 of the box is then folded over the first extendible portion 788, second extendible portion 789 and locating portion 748 such that the plurality of cord segments of the first and second extendible portions and the locating portion are sandwiched between the proximal sidewall 7002 and the sidewall flap 7001. To enhance this securement of the locating portion 748 to the respective fold lines between the proximal sidewall and the sidewall flap, and the proximal sidewall and the base, the fold lines can be pinched against the respective top and bottom prongs of the locating portion 748.

[252] The central portion 703 is then manually pulled to break the plurality of frangible portions and move each of the first and second extendible portions from the initial configuration to the extended configuration. The central portion is manually moved to an inner surface of a distal sidewall 7003 of the box such that a region of the extended first extendable portion 788 is disposed outside of the box proximate to a first lateral sidewall 7004 of the box, and a region of the extended second extendable portion 789 is disposed outside of the box proximate to a second lateral sidewall 7005 of the box.

[253] A lid 7006 of the box 7000 is then closed to secure the central portion 703 of the box carrier 700 proximate or adjacent a fold line between an undersurface of the lid 7006 and the distal sidewall 7003 of the box to which it is connected, such that a region of the disposed first extendable portion 788 protrudes through a first slot defined at the corner of the first

lateral sidewall, the lid, and the distal sidewall and forms the first carry handle, and a region of the disposed second extendable 789 portion protrudes through a second slot defined at the corner of the second lateral sidewall, the lid, and the distal sidewall and forms the second carry handle. The lid further comprises lid side flaps 7008, wherein a distal edge 7009 of each lid side flap 7008 prevents the central portion 703 from moving back to the proximal sidewall when the pizza box is closed.

[254] When the carry handles are carried in use, the locating portion supports a proximal side of the box 7000 and the central portion 703 that is secured by the lid 7006 supports a distal side of the box 7000. In another embodiment, in a situation where the locating portion is not affixed to the proximal sidewall 7001 of the box and the carry handles are carried, the locating portion that remained in between the proximal sidewall 7002 and the sidewall flap 7001 is may move upward and is held secured by the fold of the proximal sidewall s7002 and the sidewall flap 7001, thereby supporting the proximal side of the box 7000.

[255] A method of forming carry handles for a box 8000 is shown in Fig. 26. In this method, the box carrier 800 as shown in Fig. 25 is used.

[256] The box carrier 800 is provided to the box 8000 by locating a sidewall flap 8001 of the box 8000 between the extendable portion 802 and the elongate central segment 801 such that the extendible portion, in its initial configuration, locates adjacent an inner proximal sidewall 8002 of the box and the elongate central segment 801 is disposed outside of the box 8000. The sidewall flap 8001 of the box is then folded over the extendable portion 802 such that the plurality of strip segments of the extendible portion 802 are sandwiched between the proximal sidewall 8002 and the sidewall flap 8001.

[257] In an alternative embodiment, one or more of the plurality of strip segments may be adhered to the proximal sidewall. This offers the benefit that the extendable portions may be pulled out one at a time without them extending in an unequal manner.

[258] The elongate central segment 801 is then pulled to break the plurality of frangible portions and move each strip segment of the extendible portion from the initial configuration to the extended configuration. The elongate central segment 801 is manually moved to an inner surface of a distal sidewall 8003 of the box such that regions 870 and 880 of the extended extendable portion 802 on either side of the elongate central segment are disposed outside of the box proximate to a first lateral sidewall 8004 and a second lateral sidewall 8005 of the box, respectively.

[259] A lid 8006 of the box 8000 is then closed to secure the elongate central segment 803 of the box carrier 800 proximate or adjacent a portion of an undersurface of the lid 8006 that is connected to the distal sidewall 8003 of the box, such that region 870 of the extendable

portion 802 protrudes through a first slot defined at the corner of the first lateral sidewall, the lid, and the distal sidewall and forms a first carry handle, and 880 of the extendable portion 802 protrudes through a second slot defined at the corner of the second lateral sidewall, the lid, and the distal sidewall and forms a first carry handle and a second carry handle of the box. The lid further comprises lid side flaps 8008, wherein a distal edge 8009 of each lid side flap 8008 prevents the central portion 801 from moving back to the proximal sidewall when the pizza box is closed.

[260] When the carry handles are carried in use, the portion of the box carrier that remained between the proximal sidewall 8002 and the sidewall flap 8001 may move upwards and is held secured by the fold of the proximal sidewall 8002 and the sidewall flap 8001, thereby supporting the proximal side of the box, and the elongate central segment 801 that is secured under the lid 8006 supports a distal side of the box 8000.

[261] *Advantages will now be described.*

[262] The sheath 20 of the box carrier 100 contains the cord 10 neatly, ready for use. Without the sheath 20, the cord 10 would sit loosely in the box, thereby contaminating food or getting caught on contents held within the box or getting tangled with itself or external objects or machinery.

[263] The box carriers 100, 600, 700 and 800 allow the user to carry one or more boxes using only one box carrier 100 in the case of the pizza box or cake box, depending on the length of the carry handles by stacking subsequent boxes on top of each other.

[264] In use, the cord 10 is held in place by the edges of the box, which is the strongest part of the box, meaning that a tear in the box is unlikely.

[265] In other embodiments shown in 600, 700 and 800, regions of the extendible portions are located through respective slots defined at respective corners of the pizza box or cake box, which allows the box to be carried using the box carriers 600, 700 and 800 without the lid flipping open in use.

[266] The box carriers 100, 500, 600, 700 and 800 can be installed by a low-skilled person or the customer when collecting the box.

[267] The box carrier 100, 500, 600, 700 and 800 can replace the need for plastic bags as a carry device for boxes.

[268] The box carriers 100, 500, 600 and 700 may be made from coconut husk, paper or hemp, which enriches the cardboard when the cardboard is being recycled, so there is no need to separate the handle from the cardboard box for recycling. The box carriers 100, 500, 600, 700 and 800 is designed with recyclability and the circular economy in mind. It is also

envisaged that the box carriers 100, 500, 600 and 700 can be made from a plastic, recycled plastic or other suitable material.

[269] The sidewalls that make up the corner of the boxes as shown and described define a slot through which the cord can protrude. The sidewall and/or edge provides rigidity to the box and also provide a strong area for the cord to pass through, allowing heavier boxes to be carried using the cord 10 or box carriers 100, 500, 600, 700 and 800.

Interpretation

Embodiments:

[270] Reference throughout this specification to “one embodiment” or “an embodiment” means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, appearances of the phrases “in one embodiment” or “in an embodiment” in various places throughout this specification are not necessarily all referring to the same embodiment, but may. Furthermore, the particular features, structures, or characteristics may be combined in any suitable manner, as would be apparent to one of ordinary skill in the art from this disclosure, in one or more embodiments.

[271] Similarly it should be appreciated that in the above description of example embodiments of the invention, various features of the invention are sometimes grouped together in a single embodiment, figure, or description thereof for the purpose of streamlining the disclosure and aiding in the understanding of one or more of the various inventive aspects. This method of disclosure, however, is not to be interpreted as reflecting an intention that the claimed invention requires more features than are expressly recited in each claim. Rather, as the following claims reflect, inventive aspects lie in less than all features of a single foregoing disclosed embodiment. Thus, the claims following the Description of Embodiments are hereby expressly incorporated into this Description of Embodiments, with each claim standing on its own as a separate embodiment of this invention.

[272] Furthermore, while some embodiments described herein include some but not other features included in other embodiments, combinations of features of different embodiments are meant to be within the scope of the invention, and form different embodiments, as would be understood by those in the art. For example, in the following claims, any of the claimed embodiments can be used in any combination.

Different Instances of Objects

[273] As used herein, unless otherwise specified the use of the ordinal adjectives “first”, “second”, “third”, etc., to describe a common object, merely indicate that different instances

of like objects are being referred to and are not intended to imply that the objects so described must be in a given sequence, either temporally, spatially, in ranking, or in any other manner.

Specific Details

[274] In the description provided herein, numerous specific details are set forth. It is understood, however, that embodiments of the invention may be practiced without these specific details. In other instances, well-known methods, structures and techniques have not been shown in detail in order not to obscure an understanding of this description.

Terminology

[275] In describing the preferred embodiment of the invention illustrated in the drawings, specific terminology will be resorted to for the sake of clarity. The invention is, however, not intended to be limited to the specific terms so selected, and it is to be understood that each specific term includes all technical equivalents which operate in a similar manner to accomplish a similar technical purpose. Terms such as "forward", "rearward", "radially", "peripherally", "upwardly", "downwardly", and the like are used as words of convenience to provide reference points and are not to be construed as limiting terms.

[276] As used herein the term "and/or" means "and" or "or", or both.

[277] As used herein "(s)" following a noun means the plural and/or singular forms of the noun.

Comprising and Including

[278] In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word "comprise" or variations such as "comprises" or "comprising" are used in an inclusive sense, i.e., to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

[279] Any one of the terms: including or which includes or that includes as used herein is also an open term that also means including at least the elements/features that follow the term, but not excluding others. Thus, including is synonymous with and means comprising.

Scope of Invention

[280] Thus, while there has been described what are believed to be the preferred embodiments of the invention, those skilled in the art will recognize that other and further modifications may be made thereto without departing from the spirit of the invention, and it is intended to claim all such changes and modifications as fall within the scope of the invention. For example, any formulas given above are merely representative of procedures that may be

used. Functionality may be added or deleted from the block diagrams and operations may be interchanged among functional blocks. Steps may be added or deleted to methods described within the scope of the present invention.

[281] Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.

Industrial Applicability

[282] It is apparent from the above, that the arrangements described are applicable to the packaging industries.

Claims

The claims defining the invention are as follows:

1. A method of forming a carry handle that protrudes from a first pair of slots of a box, the box comprising a proximal end opposite a distal end, the method comprising:

positioning a cord at the proximal end of the box, such that a portion of the cord protrudes from a pair of proximal slots located at a pair of proximal corners of the box to form a loop portion about the proximal end, the loop portion forming the carry handle for the box, wherein the pair of proximal slots are formed by a plurality of walls of the box such that when in use, a portion of the cord supports at least one side of the box in a manner selected from:

 - a. an edge between the proximal slots; and
 - b. at the pair of proximal slots.
2. The method of claim 1, wherein the plurality of walls is one or more selected from a sidewall, a base and a lid.
3. The method of claim 1, wherein the cord is an endless cord.
4. The method of claim 3, further comprising withdrawing the cord from the proximal slots by the loop portion.
5. The method of claim 4, further comprising positioning the cord at the proximal end of the box, such that at least a portion of the cord passes along the edge of the proximal end of the box to protrude from the first pair of slots.
6. The method of claim 5, wherein the cord is contained substantially by a sheath, such that in use, the loop portion of the cord is extendable from the sheath to increase the length of the loop portion, to thereby form the carry handle.
7. The method of claim 6, wherein the cord and sheath are stowed inside or outside of the box.
8. The method of claim 7, further comprising forming a second carry handle that protrudes from a second pair of distal slots located at a pair of distal corners of the box, opposite to the first pair of proximal slots, by:

positioning a second cord at the distal end of the box, such that a portion of the second cord protrudes from the pair of distal slots to form a second loop portion about the distal end, the second loop portion forming the second carry handle for the box.

9. The method of claim 8, wherein the second cord is an endless cord or a cord with two ends.
10. The method of claim 9, further comprising withdrawing the second cord from the distal slots by the second loop portion.
11. The method of claim 10, wherein when the second cord is positioned at the distal end of the box at least a portion of the second cord is adapted to pass along an edge of the distal end of the box to protrude from the second pair of slots.
12. The method of claim 11, wherein in use, a portion of the cord supports the box along the edge between the pair of distal slots.
13. The method of claim 3, wherein the method further comprises:

positioning the loop portion of the cord that protrudes from the pair of proximal slots at the distal end, such that when a lid of the box is moved to a closed position, the cord also protrudes through a pair of distal slots at the distal end of the box, to thereby form a pair of carry handles from portions of the cord protruding from the pair of proximal slots and the pair of distal slots .
14. The method of claim 13, wherein one of the pair of carry handles is formed by the cord protruding between one of the proximal slots and one of the distal slots and the other one of the pair of carry handles is formed by the cord protruding between the other proximal slot and other distal slot.
15. The method of claim 13, wherein the pair of carry handles extend from the pair of proximal slots and the pair of distal slots, such that one carry handle extends between the proximal slot and distal slot, and the other carry handle extends between the opposite proximal slot and the opposite distal slot.
16. The method of claim 14, further comprising, moving the cord through the pair of proximal slots to increase the length of the portion of the cord that protrudes from the pair of proximal slots.
17. The method of claim 16, wherein the box further includes a distal edge formed between the pair of distal slots and the lid, and when the cord is positioned at the distal end of the box and protrudes through the pair of distal slots, and when the lid is in the closed position, the cord engages the distal edge of the box.
18. The method of claim 11, wherein in use, a portion of the cord supports the box along the distal edge between the distal slots.

19. The method of claim 1, wherein when the cord is positioned at the proximal end of the box, the cord is in a stowed configuration, in which a substantial portion of the cord is located inside the box.
20. The method of claim 18, further comprising moving the cord from the stowed configuration to an extended configuration in which a greater portion of the cord is located outside of the box relative to the coiled configuration.
21. The method of claim 19, wherein in the stowed configuration, the cord is in a substantially coiled position inside the box and a portion of the cord is positioned about the proximal end.
22. The method of claim 19, wherein when the cord is in the extended configuration, in use, a portion of the cord engages an underside of the proximal edge between the proximal slots.
23. The method of claim 19, wherein when the cord is in the extended configuration, in use, a portion of the cord engages an underside of the distal edge between the distal slots.
24. The method of claim 17, wherein the cord engaging the distal edge is engaging an underside of a hinge-fold of the box.
25. A carrier that is insertable within a box to provide a pair of carry handles, the carrier including:
 - a sheath, the sheath being located at a proximal end of the box and comprising at least one opening; and
 - a cord disposed partially within the sheath such that, the cord extends from the at least one opening, to define a loop about the at least one opening,
 - wherein in use, when the carrier is positioned in the box, the cord is pulled to elongate the loop and provide the pair of carry handles for the box.
26. The carrier of claim 25, wherein the cord is coiled substantially within the sheath and the loop is disposed outside of the sheath.
27. The carrier of claim 25, wherein the cord is movable between:
 - a stowed position in which the majority of the cord is disposed within the sheath; and
 - a deployed position in which a greater portion of the cord is disposed outside of the sheath relative to the stowed position.

28. The carrier of claim 25, wherein the sheath includes a first end and a second end opposite to the first end, the first end defining a first opening and the second end defining a second opening.
29. The carrier of claim 28, wherein the cord extends from the first opening and from the second opening to define a loop between the first opening and the second opening.
30. The carrier of claim 25, wherein in use, the carrier is positioned in a side-wall fold of a box.
31. The carrier of claim 30, wherein the side-wall fold is a reinforcement folded portion of a pizza box.
32. The carrier of claim 25, wherein in use, the carrier is positioned adjacent a side-wall at a proximal end of a box.
33. The carrier of claim 27, wherein in use, when the cord is in the deployed position, the cord is positionable at a distal end of a box to form the pair of carry handles.
34. The carrier of claim 27, wherein in use, when the cord is in the deployed position, the cord is positionable at or along a hinge-fold of a box to form the pair of carry handles.
35. The carrier of claim 27, wherein in use, when the cord is in the deployed position and at or along a hinge-fold of a box, the pair of carry handles are configured such that each carry handle extends laterally from the box.
36. The carrier of claim 27, wherein in use, when the cord is in the deployed position, the cord is positionable such that:
- a first portion of the cord engages a proximal edge between a pair of proximal openings formed at a pair of proximal corners of the box; and
 - a second portion of the cord engages a distal edge between a pair of distal openings formed at a pair of distal corners of the box, wherein the distal edge is formed by a lid of the box and the distal end.
37. The carrier of claim 36, wherein in use, the cord in the deployed position is positionable such that the cord protrudes from the pair of proximal openings and the pair of distal openings.
38. The carrier according to any one of the preceding claims, wherein the cord is an endless cord or a cord with two ends.
39. A method of forming a pair of carry handles for a box, the method comprising:
- providing the carrier as claimed in claims 25 to 38;

positioning the sheath inside or outside of a box; and

positioning the loop to protrude from a pair of openings formed at a pair of corners of the box such that the loop extends between the pair of openings.

40. A method of forming a pair of carry handles for a box, the method comprising:

providing a first carrier as claimed in any one of claims 25 to 38 and a second carrier as claimed in any one of claims 25 to 38;

positioning the first carrier at a proximal end of a box and positioning the second carrier at a distal end of the box; and

moving the loop of the first carrier and the second carrier from the stowed position to the deployed position, through a first pair of proximal openings and a second pair of proximal openings, to provide a pair of carry handles that extend from the corners of the box.

41. A method of forming a pair of carry handles for a box, the method comprising:

positioning a cord at an inner surface of a proximal end of the box such that a portion of the cord protrudes through a pair of proximal openings formed at a pair of proximal corners of the box;

securing, by using a sheath, a coiled portion of the cord against the inner surface of the proximal end of the box such that when pulled, a loop portion of the cord is extendable from the sheath to increase the length of the loop portion, to thereby form a first carry handle;

positioning a second cord at an inner surface of a distal end of the box such that the a portion of the second cord protrudes through a pair of distal openings formed at a pair of distal corners of the box; and

securing, by using a sheath, a coiled portion of the second cord against the inner surface of the distal end of the box such that when pulled, a loop portion of the second cord is extendable from the sheath to increase the length of the loop portion, to thereby form a second carry handle.

42. A method of forming a pair of carry handles for a box, the method comprising:

positioning a cord at an inner surface of a proximal end of the box such that the cord protrudes through a pair of proximal openings formed at a pair of proximal corners of the box; and

positioning a portion of the cord at an inner surface of a distal end of the box such that the portion of the cord protrudes through a pair of distal openings formed at a pair of distal corners of the box, to form the pair of carry handles, wherein the pair of proximal corners are located at a pair of proximal vertices of the box and the pair of distal corners are located at a pair of distal vertices of the box.

43. A carrier for carrying an object, the carrier comprising:

- a. a locating portion for being positioned at an engagement location on the object where the locating portion engages with the object;
- b. a first extendable portion connected to the locating portion at a first connecting region, the first extendable portion being adapted to be extended from an initial configuration to an extended configuration in use by manual pulling on the first extendable portion away from the locating portion;
- c. a second extendable portion connected to the locating portion at a second connecting region, the second extendable portion being adapted to be extended from an initial configuration to an extended configuration in use by manual pulling on the second extendable portion away from the locating portion;
- d. a central portion connected to the first extendable portion and the second extendable portion such that the locating portion, first extendable portion, central portion and second extendable portion form a loop,
- e. a plurality of frangible portions, the plurality of frangible portions adapted for providing a resistance against moving the first and second extendable portions from the initial configuration to the extended configuration until the plurality of frangible portions break.

such that, in use, when the first extendable portion and second extendable portion are extended to their respective extended configurations, the object can be carried by the carrier.

44. The carrier as claimed in claim 43, wherein the locating portion is adapted for fixed relation with the object when the carrier is in use.

45. The carrier as claimed in claim 43, wherein the second connecting region is located at a position opposing the first connecting region.

46. The carrier as claimed in claim 43, wherein in the initial configuration, the first extendable portion comprises a first plurality of serpentine curved portions connected by a first set of frangible portions of the plurality of frangible portions and the second extendable portion comprises a second plurality of serpentine curved portions connected by a second set of frangible portions of the plurality of frangible portions
47. The carrier as claimed in claim 46, wherein in the initial configuration, a third set of frangible portions of the plurality of frangible portions connects the first plurality of serpentine curved portions and the second plurality of serpentine curved portions.
48. The carrier as claimed in claim 43 made of a plastic.
49. A carrier for carrying an object, the carrier comprising:
- a. an extendable portion;
 - b. an elongate portion connected with the extendable portion to form a loop; and
 - c. a bridge comprising a plurality of frangible portions,
- wherein the extendable portion is adapted to be extended from an initial configuration to an extended configuration in use by manual pulling on the elongate portion away from the extendable portion;
- and wherein the plurality of frangible portions are adapted for providing a resistance against moving the extendable portion from the initial configuration to the extended configuration until the plurality of frangible portions break,
- such that, in use, when the extendable portion is extended to the extended configuration, the carrier forms a loop that can be used to carry an object.
50. The carrier as claimed in claim 49, wherein the extendable portion traverses a rectangular serpentine path to define a series of parallel rungs.
51. The carrier as claimed in claim 50, wherein the bridge extends across the series of parallel rungs and is adhered to at least two rungs of the series of parallel rungs.
52. The carrier as claimed in claim 50, wherein in the initial configuration the extendable portion comprises a plurality of folded portions that have been folded to create the orthogonal bends in the serpentine path.
53. The carrier as claimed in claim 52, further comprising adhesive at the folds of the plurality of folded portions.
54. The carrier as claimed in claim 49 wherein the carrier is made from a material selected from a group of materials, the group of materials comprising:

- a. a paper;
- b. a cardboard; or
- c. a plastic.

55. A box comprising a carrier as claimed in any one of claims 43-54 being located on an internal or external surface of a box in an initial configuration of the carrier.

56. A box comprising a carrier as claimed in claim 55, wherein an adhesive is applied between a portion of the carrier and the box.

57. A box comprising a carrier as claimed in claim 43 being located on an internal or external surface of a box in an initial configuration of the carrier and wherein an adhesive is applied between the locating portion and the box.

58. A method of forming a pair of carry handles for a box, the method comprising:

providing two carriers as claimed in claim 43, one being a proximal carrier and the other being a distal carrier;

securing a locating portion of the proximal carrier to an inner surface of a proximal sidewall flap of the box such that

a first extendable portion of the proximal carrier protrudes through a first proximal upper corner of the box,

a second extendable portion of the proximal carrier protrudes through a second proximal upper corner of the box, and

a central portion of the proximal carrier is disposed outside the box;

securing a locating portion of the distal carrier to an inner surface of a distal sidewall flap of the box such that

a first extendable portion of the distal carrier protrudes through a first distal upper corner of the box,

a second extendable portion of the distal carrier protrudes through a second distal upper corner of the box, and

a central portion of the distal carrier is disposed outside of the box;

closing the proximal sidewall flap and the distal sidewall flap of the box;

closing a first lateral sidewall flap and a second lateral sidewall flap of the box;

pulling the central portion of the proximal carrier to move the first and second extendable portions from a corresponding initial configuration to a corresponding extended configuration, thereby forming a first carry handle; and

pulling the central portion of the distal carrier to move the first and second extendable portions from a corresponding initial configuration to a corresponding extended configuration, thereby forming a second carry handle.

59. A method of forming a pair of carry handles for carrying a box, the method comprising:

providing a carrier as claimed in claim 43;

securing a locating portion of the carrier at an inner surface of a proximal sidewall of the box such that

a first extendable portion of the carrier protrudes through a first opening at a first proximal lower corner of the box, the first proximal lower corner of the box being defined as a first lower vertex formed at the proximal sidewall of the box, bottom wall of the box, and a first lateral sidewall of the box,

a second extendable portion of the carrier protrudes through a second opening at a second proximal lower corner of the box, the second proximal lower corner of the box being defined as a second lower vertex formed at the proximal sidewall of the box, bottom wall of the box, and a second lateral sidewall of the box, and

a central portion of the carrier is disposed outside of the box;

pulling the central portion to move the first and second extendable portions from a corresponding initial configuration to a corresponding extended configuration;

positioning the central portion at an inner surface of a distal sidewall of the box such that the first extendable portion is disposed outside of the box proximate to the first lateral sidewall of the box and the second extendable portion is disposed outside of the box proximate to the second lateral sidewall of the box; and

closing a lid of the box such that the first extendable portion forms a first carry handle for the box and the second extendable portion forms a second carry handle for the box.

60. A method of forming a pair of carry handles for carrying a box, the method comprising:

providing a carrier as claimed in claim 43 locating a sidewall flap between the first and second extendable portions and the central portion such that the first and second

extendible portions, in their corresponding initial configurations, locates adjacent an inner proximal sidewall;

securing the locating portion of the carrier at the inner proximal sidewall of the box;

folding a sidewall flap of the box over the first and second extendible portions such that the first and second extendible portions are sandwiched between the proximal sidewall and the sidewall flap;

manually pulling on the central portion to extend each of the first and second extendible portions from the initial configuration to the extended configuration;

positioning the central portion at an inner surface of a distal sidewall of the box such that a region of the first extendible portion is disposed outside of the box proximate to the first lateral sidewall of the box and a region of the second extendible portion is disposed outside of the box proximate to the second lateral sidewall of the box; and

closing a lid of the box such that the region of the first extendible portion forms a first carry handle for the box and the region of the second extendible portion forms a second carry handle for the box.

61. A method of forming a pair of carry handles for carrying a box, the method comprising:

providing a carrier as claimed in claim 49;

locating a sidewall flap between the extendible portion and the elongate portion such that the extendible portion, in its initial configuration, locates adjacent an inner proximal sidewall;

folding a sidewall flap of the box over the extendible portion such that the extendible portion is sandwiched between the proximal sidewall and the sidewall flap;

manually pulling on the elongate portion to extend the extendible portion to the extended configuration;

positioning a central portion of the extendible portion adjacent at an inner surface of a distal sidewall of the box such that regions of the extendible portion on either side of the central portion are disposed outside of the box proximate to a first and second lateral sidewall of the box, respectively; and

closing a lid of the box such that regions of the extendible portion on either side of the central portion form handles for the box.