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Link to Claims Section

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Carrier with rotating handle lock for lifting and carrying filled flexible bags

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ENGLISH-ABST:

A carrier with rotating handle lock is a two piece unit consisting of a handle and a C-shaped curved bag support bar, the said handle is capable of being pushed or pulled and rotated clockwise or anticlockwise direction so as to move to and fro with respect to the shorter end of the said support bar causing an open position for inserting the pair of handle loops of the bags and a closed position and then lock the device to secure the loop handles of the filled bags within the confines of the said support bar for safe lifting and carrying said bags.

NO-OF-CLAIMS: 8

NO-DRWNG-PP: 3

SUMMARY:

TECHNICAL FIELD

[0001] The present invention relates to the field of auxiliary carrying handle devices with rotating handle lock in general, and to a carrier that can be used to transport a plurality of shopping bags by their handle loops. The invention relates to the field of handgrips/carrier and more particularly to a carrier with rotating handle lock for carrying filled flexible bags. A bag-carrying device that will allow an individual to carry and contain multiple plastic grocery bags with the use of one hand comfortably. Moreover the bag-carrying device is also lightweight, compact and can be stored in a handbag or pant pocket.

BACKGROUND OF THE INVENTION

[0002] The invention relates in general to carrying handle devices with rotating handle lock for facilitating the carrying of various items, such as bags having handles and the like. In particular, this invention relates to an improved device with rotating handle lock for lifting and carrying flexible bags having a pair of handle loops.

[0003] Grocery shopping can be harmful on wrist and finger joints, as well as circulation. The weekly chore of carrying grocery-laden heavy plastic bags from the shopping cart to the car, and from the car into the home causes discomfort on wrist and finger joints, cutting off circulation to the fingers, wrists and even the arms. The plastic bag carrier is an innovative hand-saver to help people "get a grip on shopping" and reduce joint discomfort from carrying those shopping bags. It works by more evenly distributing the pressure of the shopping bags across the hand so the load no longer cuts into a person's palm.

[0004] It is common for shoppers to carry and transport items such as groceries, clothing, sundries, and the like in flexible plastic bags having handle portions. While carrying such bags, shoppers may experience unpleasant discomfort or pain in their hands and fingers. This unpleasant feeling is caused by the weight of the contents in the flexible plastic bags, which causes the relatively thin handle portions to exert an uncomfortable amount of force on the hands and fingers of the user. Additionally, when shoppers transport items in such plastic bags, the bags may not adequately contain the items. For example, groceries that are contained within these flexible plastic bags are prone to tipping over, such as when sitting on the floor or seat of an automobile during acceleration, deceleration, and cornering. This is because the flexible plastic bags lack sufficient rigidity to maintain the items contained therein in a stable position during transport.

[0005] Due to the difficulties and unpleasantness encountered while moving groceries from their automobile to desired destinations inside their homes, many people dread grocery shopping. Therefore, there is a need to provide a plastic bag carrier that can simplify the task of bringing groceries from their cars to the kitchen. Such a plastic bag carrier should be simple in construction so as to minimize manufacturing costs, and yet allow shoppers to conveniently lift and carry filled plastic grocery bags from location to location without enduring pain associated with grabbing the handle loops of the bag with the fingers. Moreover, such a plastic bag carrier should be capable of permitting shoppers to carry as many filled plastic grocery bags as they are able to lift, thereby reducing number of trips necessary to transport all the purchased items from the automobile to the kitchen.

[0006] Although a variety of devices are known in the art for carrying such handled plastic bags, it would be desirable to provide an improved bag carrier for carrying and suspending multiple plastic bags that is comfortable to hand-carry, convenient to store in a purse or pocket, and inexpensive to manufacture.

[0007] It is known to use a hand-held device for carrying multiple bags. For the most part, the previous devices have comprised a central member with some type of hooks or grooved portions at the opposite ends of the central member. The central member is to be grasped by hand and the bag loop handles are to be supported by the hooks or grooved portions when the bags are carried.

[0008] The reference EP 1994000902853 issued to Giocanti, Xavier on Dec. 8, 1998, shows a grip, still made of

heteroclite materials, but whose central portion is made of a flexible material, such as leather. However, the flexibility of the leather is limited, such that after several uses of the grip under substantial loads, it does no longer recover its initial shape.

[0009] As can be seen by reference to the following U.S. Pat. No. 1,468,848 issued to Wear on September 1923; U.S. Pat. No. 4,004,722 issued to Olivier on January 1977; U.S. Pat. No. 5,199,758 issued to Howell on April 1993 and U.S. Pat. No. 5,509,708 issued to Fried Nathan on April 1996 shows the prior art is replete with myriad and diverse auxiliary handle devices for facilitating the carrying of packages and plastic shopping bags.

[0010] Flexible handgrips for carrying loads, and in particular coiled electrical cords, are shown by Farnsworth, "Handle," U.S. Pat. No. 4,558,896 (1985). Such handles, however, are fabricated from semi flexible plastic and require that a strap portion be folded back without breaking over the carried article and locked into a slot in order to define a carrying loop. The required flexibility of the material dictated a certain thinness in the load carrying strap portion and hence a limitation in its strength. To the extent that the material was not highly flexible, the end of the strap tended to flip out of its locking slot, particularly if the handle was not heavily loaded. The handle also required a certain amount of manipulation to fold it over and lock the strap portion about the carried article, which manipulation discouraged its use. A final device provides a locking mechanism as that disclosed in U.S. Pat. No. 5,441,323 issued to Goddard on August 1995 shows that this final locking handle, however, is no longer one continuous piece. Rather, the locking mechanism is a separate ring that is not permanently integrated into the device.

[0011] Conventional carrying handles, such as those, which are provided, for example, on some kinds of carrier bags made of plastic material for supermarket shopping, are frequently uncomfortable to hold. Full supermarket bags tend to press unpleasantly into the hand if the contents of the bag are at all heavy, particularly when the bags must be borne some distance to a car or home. This also applies to handles made of small diameter rod, such as the narrow handles on paint tins. The problem is, though, associated with any type of container or holder of goods with uncomfortable handles.

[0012] Therefore, what is needed is some type of handgrip/carrier which can be inexpensively manufactured, but which provides a secure comfortable grip without regard to the number of bags carried and substantially independent of the weight in the bags.

BRIEF SUMMARY OF THE INVENTION

[0013] As a consequence of the foregoing situation, there has existed a longstanding need for a new and improved type of plastic bag carrying device with rotating handle lock that is specifically designed to support the handles of a plurality of flexible bags, and the provision of such a construction is a stated objective of the present invention.

[0014] The object of the invention is especially to remedy these disadvantages and deficiencies of the carrying grips described in the aforementioned documents.

[0015] From the foregoing list, it will thus be seen that there is constant effort for providing an improved handle device for carrying these plastic bags. It is also apparent that at least the respective patentees do not feel that the optimum device has yet been conceived.

[0016] The present invention is directed not to just another handle device, but to one the applicant believes to be an improvement over those of the prior art.

[0017] The aforementioned objects, characteristics and advantages, and more, will become apparent from the following description. This invention relates to a carrier for flexible plastic bags with rotating handle lock. More particularly, the invention relates to a carrier with rotating handle lock, which is to be used by an individual for assisting the individual in carrying plastic bags filled with items such as groceries. Further, the invention relates to a bag carrier

with rotating handle lock comprising a two-piece unit consisting of handle and curve support bar. Handle bar provided with a handle opening for accommodating the insertion of a flexible bags. The curved bag support bar may be hard plastic or metal. The handle can be made out of a soft grip over mold, which rotates over when it is pulled back and opens up to receive bags and when the handle is pushed forward the grip swings down into the proper position to carry and secure bags to the frame tightly, so bags will stay together when they are shifted down or picked up.

[0018] According to the present invention there is provided a carrier with rotating handle lock for lifting and carrying filled flexible bags, said bags having a pair of handle loops, said carrier is a two piece unit consisting of a handle and a C-shaped curved bag support bar, the longer end of the said support bar is adapted to be secured in the said handle which in turn is capable of being pushed or pulled and rotated clockwise or anticlockwise direction so as to move to and fro with respect to the shorter end of the said support bar and unlock or lock, causing an open position for inserting the pair of handle loops of the bags and a closed position and then lock the device to secure the loop handles within the confines of the said support bar for safe lifting and carrying filled bags by the said carrier.

[0019] The invention and its various embodiments may be better visualized by turning to the following drawings wherein like elements are referenced by like numerals.

DRWDESC:

BRIEF DESCRIPTION OF THE ACCOMPANIED DRAWINGS

[0020] FIG. 1 is the perspective view of the carrier with rotating handle lock with handle in open position of the present invention.

[0021] FIG. 2 is the perspective view of the carrier with rotating handle lock in upset down position with handle in open position of the present invention

[0022] FIG. 3 is the side view of the said carrier with rotating handle lock with handle in open position of the present invention.

[0023] FIG. 4 is the side cross sectional view of the said carrier with rotating handle lock with handle in open position of the present invention.

[0024] FIG. 5 is the perspective view of the carrier with rotating handle lock with handle in close position of the present invention.

[0025] FIG. 6 is the perspective view of the carrier with rotating handle lock in upset down position with handle in close position of the present invention

[0026] FIG. 7 is the side view of the said carrier with rotating handle lock with handle in close position of the present invention.

[0027] FIG. 8 is the side cross sectional view of the said carrier with rotating handle lock with handle in close position of the present invention.

DETDESC:

[0028] The invention and its various embodiments may now be understood by turning to the following detailed description.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0029] With reference now to the drawings, and in particular to FIG. 1 through 8 thereof, a novel carrier with rotating handle lock for shopping bags embodying the principles and concepts of the present invention and generally designated by the reference numeral 1 will be described below.

[0030] As best illustrated in FIG. 1 through 8, the carrier with rotating handle lock (1) for lifting and carrying filled flexible bags having a pair of handle loops, comprises a two piece unit consisting of a handle (2) and a C-shaped curved bag support bar (3). The longer end (3A) of the said support bar (3) is secured in the said handle (2). The C-shaped curved bag support bar (3) having inner rib (4) and outer rib (5), is preferably made of hard plastic or metal, and shorter end (3B) of the said support bar (3) is having a sliding male outer lock (6). The said handle (2) secured above the support bar (3), is having inner cylinder (7) preferably made of hard plastic under mold with a female inner lock (8) at its end, and inner rib (4) finger grip (9) and in turn capable of being pushed towards or pulled away from the said shorter end (3B) of the said support bar (3) followed or preceded by half rotation in clockwise or anticlockwise direction. The said clockwise or anticlockwise rotation and pull or push of the said handle (2) so as to move to and fro with respect to the shorter end (3B) of the said support bar causing an open position (FIG. 1 to 4) for inserting the pair of handle loops of the bags and a closed position (FIG. 5 to 8) and then lock the device with respect to said female inner lock (8) and said male outer lock (6) so as to secure the loop handles within the confines of the said support bar (3) for safe lifting and carrying filled bags by the carrier (1).

[0031] The hard plastic referred above is a strong molded PVC or Poly-plastic material. The plastic bag carrier is an improved compact carrying device that doesn't exceed 5[Doubleprime] in length inside the handle, and the overall handle doesn't exceed 6[Doubleprime]. The distance from the bottom of the handle to the curved bag support doesn't exceed 2.5[Doubleprime]. Thus the said bag-carrying device is lightweight, compact and can be stored in a handbag or pant pocket. The Bag Carrying Device can also carry handbags, briefcases, and any other bags with handles.

[0032] As to a further discussion of the manner of usage and operation of the present invention, for opening the said carrier (1), the handle (2) is half rotated in anticlockwise direction to unlock the device with respect to said female inner lock (8) and said male outer lock (6), thereafter the handle is pulled away from the said shorter end (3B) of the said support bar (3), causing an open position (FIG. 1 to 4) for inserting the pair of handle loops of the bags in the loop handles within the confines of the said support bar (3). Now to close the carrier the handle is pushed towards the said shorter end (3B) of the said support bar (3) followed by a half rotation in clockwise direction to lock the device with respect to said female inner lock (8) and said male outer lock (6), for safe lifting and carrying filled bags by the carrier (1).

[0033] With respect to the above description then the manner of usage and operation of the present invention, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

[0034] Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

ENGLISH-CLAIMS:
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1. A carrier with rotating handle lock for lifting and carrying filled flexible bags, said bags having a pair of handle loops, said carrier is a two piece unit, comprising: a handle and a C-shaped curved bag support bar, the longer end of the

said support bar is adapted to be secured in the said handle, said handle capable of being pushed or pulled and rotated clockwise or anticlockwise direction so as to move to and fro with respect to the shorter end of the said support bar and unlock or lock, causing an open position for inserting the pair of handle loops of the bags and a closed position and then lock the device to secure the loop handles within the confines of the said support bar for safe lifting and carrying filled bags by the said carrier.

2. A carrier as claimed in claim 1, wherein the said handle secured above the support bar, is having inner cylinder preferably made of hard plastic under mold with a female inner lock at its end, and finger grip.

3. A carrier as claimed in claim 1, wherein the said C-shaped curved bag support bar is having inner rib and outer rib, is preferably made of hard plastic or metal, and shorter end of the said support bar is having a male outer lock.

4. A carrier as claimed in claim 3, wherein the said the hard plastic as referred therein is a strong molded PVC or Poly-plastic material.

5. A carrier as claimed in claim 1, wherein it doesn't exceed 5[Doubleprime] in length inside handle, and the overall handle doesn't exceed 6[Doubleprime] and the distance from the bottom of the said handle to the curved bag support doesn't exceed 2.5[Doubleprime].

6. A carrier as claimed in claim 1, is lightweight, compact and capable of being stored in a handbag or pant pocket.

7. A carrier as claimed in claim 1, wherein the said flexible bag is a plastic bag.

8. A carrier as claimed in claim 1, can also carry handbags, briefcases, and any other bags with handles.

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