

[54] **UNIVERSAL WHEELED CART**

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[51] Int. Cl. .... **B62b 1/04**

[58] Field of Search...280/47.18, 47.24, 47.26, 47.34,  
280/79.2; 248/98, 97, 99

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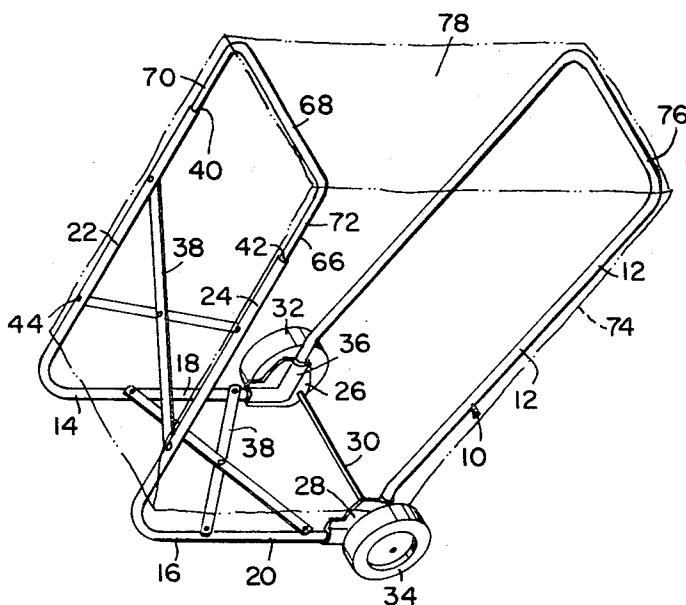
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[57] **ABSTRACT**

A lightweight wheeled cart comprising a generally U-shaped tubular body terminating forwardly in a pair of vertical receiving sockets and rearwardly in a U-shaped handle to define a carrying space therebetween, holding attachments adaptable for seating within the sockets and designed to connect to the sockets to permit the cart to be used with bags of various sizes.

**4 Claims, 5 Drawing Figures**



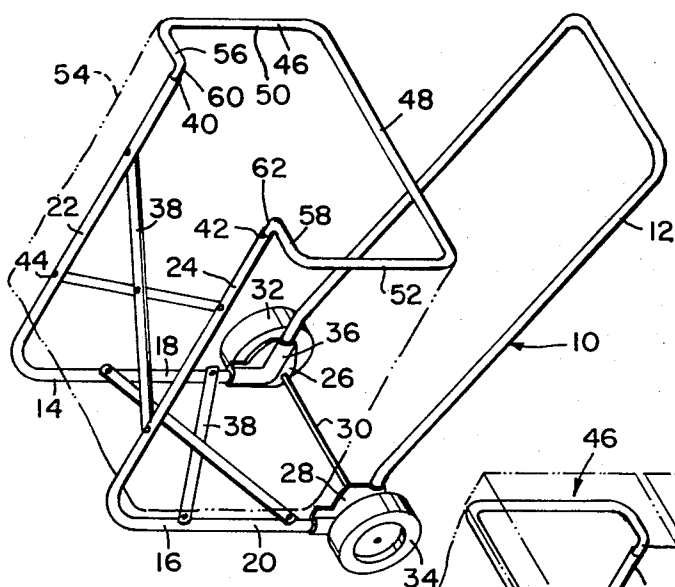


FIG. 1

FIG. 3

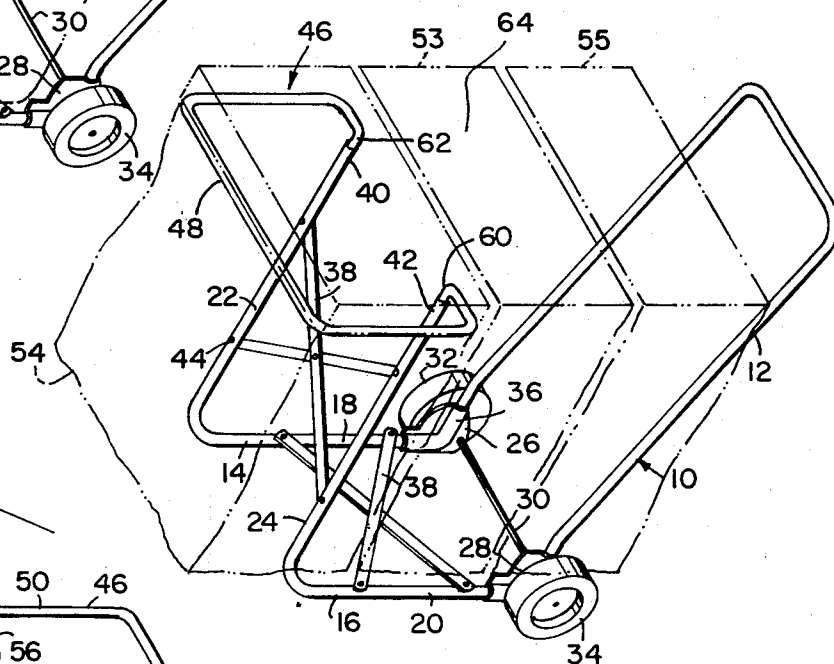
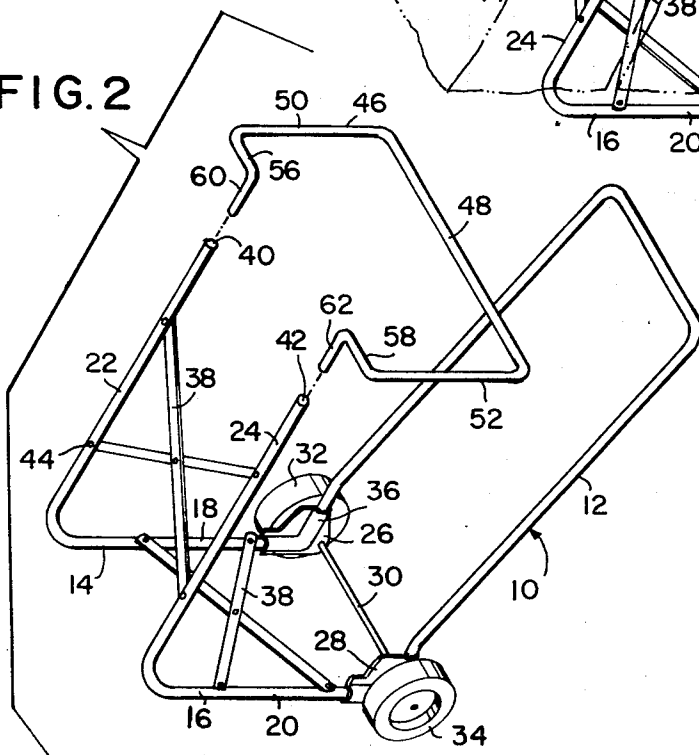


FIG. 2



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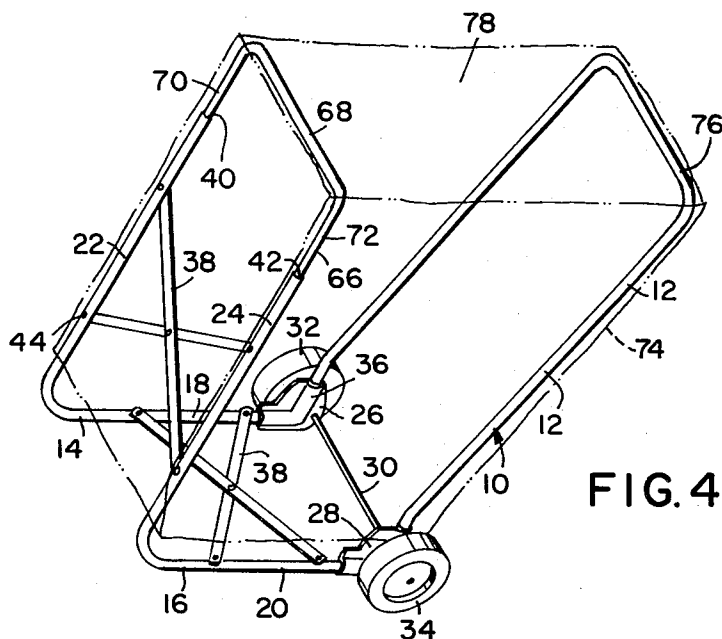


FIG. 4

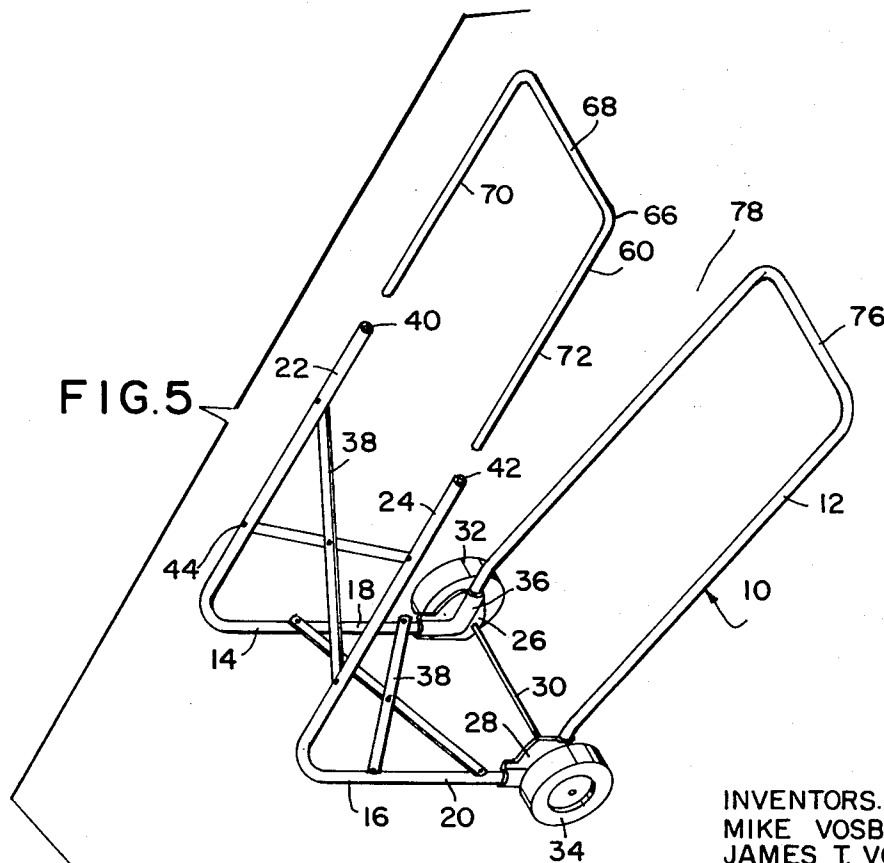


FIG. 5

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## UNIVERSAL WHEELED CART

### BACKGROUND OF THE INVENTION

The present invention relates generally to lightweight, wheeled vehicles and more particularly, is directed to a general utility cart especially useful in handling thin plastic disposal bags.

The disposal of refuse such as trash, leaves, garbage and other waste has always presented a material handling problem due to the bulk, weight and ungainliness of the disposable items. It has been the usual practice in the past to simply dump all such materials in heavy, strong waste containers which usually were fabricated of steel or other metallic construction. More recently, trash receptacles have been introduced which are fabricated of lightweight plastic materials which are molded or otherwise formed to the desired shape. Because of the weight of the prior art metallic containers, and the relatively short life of the plastic containers due to excessive breakage, prior workers in the field have long been seeking cheaper, easier and better means of disposing of waste materials.

Most recently, extremely thin, lightweight and inexpensive polyethylene plastic bags have been introduced and are becoming widely accepted for use as containers for disposable waste materials. The thin plastic bags are so inexpensive as to be completely expendable so that once filled, the entire bag and contents can then be disposed. Such plastic bags have gained wide popularity as trash can liners wherein the bag positions within a metallic plastic waste container of, for example, thirty gallon size and then the waste materials are poured into the combined receptacle and plastic bag liner. Upon time for disposal, the bag is usually tied at the top and then removed from the metallic or plastic container for trash pick-up in the usual manner. This most recent type of trash disposal has presented certain difficulties to the user in the handling of the bag itself due to its relatively weak construction occasioned by the very thinness of material. On many occasions, completely filled plastic liners have broken and dumped the trash contained therein when the user attempted to remove the liner from the enclosing permanent receptacle for disposal purposes. On other occasions, other users have found difficulty in maintaining the bags open for filling the bags when not used in conjunction with an external receptacle.

### SUMMARY OF THE INVENTION

The present invention relates in general to a wheeled utility cart and more particularly, is directed to a lightweight, tubular cart including attachments especially suitable for accommodating thin polyethylene plastic bags of various sizes.

The present invention includes a generally U-shaped, wheeled, universal cart of lightweight construction which terminates forwardly in a pair of spaced, vertically disposed sockets for removably receiving bag holding attachments of various configurations. By applying differently shaped attachments at the forward sockets, the cart may be readily adapted to hold and transport thin, lightweight, polyethylene plastic bags for filling and disposing purposes.

It is therefore an object of the present invention to provide an improved universal wheeled cart of the type set forth.

It is another object of the present invention to provide a novel universal wheeled cart of lightweight, generally U-shaped configuration for use with thin plastic disposal bags.

It is another object of the present invention to provide a novel universal wheeled cart of thin tubular construction including means to vary the shape of the cart for carrying thin plastic bags of various sizes.

It is another object of the present invention to provide a novel universal wheeled cart having a generally U-shaped tubular frame which terminates forwardly in a pair of vertical sockets, the sockets being adaptable to receive bag holding members of various configurations.

It is another object of the present invention to provide a novel universal wheeled cart that is inexpensive in manufacture, rugged in construction and simple in design.

Other objects and a fuller understanding of the invention will be had by referring to the following description and claims of a preferred embodiment thereof, taken in conjunction with the accompanying drawings wherein like reference characters refer to similar parts throughout the several views and in which:

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a universal wheeled cart fabricated in accordance with the present invention and showing a thin plastic bag in phantom lines for purposes of association.

FIG. 2 is a perspective view of a wheeled cart similar to FIG. 1 in partially exploded representation.

FIG. 3 is a perspective view of a cart similar to FIG. 1 with the bag carrier in reversed position and showing thin plastic bags in phantom lines for purposes of association.

FIG. 4 is a perspective view of a modified type of construction, a large plastic bag is shown in phantom lines for purposes of association.

FIG. 5 is a perspective view similar to FIG. 4 showing the bag carrier in exploded relationship.

### DESCRIPTION OF THE PREFERRED EMBODIMENT OF THE INVENTION

Although specific terms are used in the following description for the sake of clarity, these terms are intended to refer only to the particular structure of my invention selected for illustration in the drawings and are not intended to define or limit the scope of the invention.

Referring now to the drawings, a lightweight, wheeled cart, generally designated 10 is set forth and includes a substantially vertically disposed inverted U-shaped handle 12 which affixes to a pair of spaced, L-shaped carriers 14, 16. Each spaced carrier 14, 16 includes a horizontal base member 18, 20 and a forward vertical member 22, 24 which may be integral with the base member 18, 20 and disposed at substantially right angles thereto.

A pair of spaced reinforcing supports 26, 28 journal the axle 30 which rotatively carries the wheels 32, 34 in well-known manner. Each support 26, 28 includes handle and base member connecting means 36 to receive and secure the bottom of the handle 12 and the rearward extremities of the base members 18, 20 in well-

known manner in substantially right angle relationship. A plurality of cross braces 38 space the L-shaped carrier members 14, 16, and in conjunction with the axle 30 and the handle 12, serve to provide a relatively strong, lightweight cart.

As best seen in FIGS. 2 and 5, each forward vertical member 22, 24 preferably is fabricated of lightweight, tubular metallic construction and each member terminates upwardly in a respective vertical socket 40, 42 to receive and support bag holding attachments of various configuration. The cross braces 38 stretch between the vertical members 22, 24 and exteriorly affix thereto in well-known manner such as by sheet metal screws 44 to precisely space the sockets 40, 42 to receive the various bag holding attachments hereinafter more fully set forth.

As best seen in FIGS. 1 and 2, a bag holding attachment 46 is fabricated to a generally rectangular configuration from a single length of metallic rod or other rigid material and includes a horizontal bar 48 which positions rearwardly of the sockets 40, 42 in the manner illustrated. The horizontal bar 48 terminates laterally in forwardly bent side arms 50, 52 which serve to hold the mouth of a thin plastic bag 54 in open position for the receipt of refuse. Each side arm 50, 52 terminates forwardly in the inwardly bent sections 56, 58 which terminate downwardly in the insertion pieces 60, 62. The insertion pieces 60, 62 bend at right angles to bent sections 56, 58 to thereby hold the attachment 46 in substantially horizontal position when the insertion pieces 60, 62 insert into their associated sockets 40, 42. The insertion pieces 60, 62 space apart a distance equal to the distance between the spaced sockets 40, 42 and are fabricated to a diameter to snugly fit directly downwardly into the respective sockets 40, 42. Thus the bag holding attachment 46 may be readily positioned in horizontal relationship between the space 64 defined by the U-shaped handle 12 and the forward vertical members 22, 24 by the interaction of the insertion pieces 60, 62 within the respective associated sockets 40, 42. As illustrated in FIG. 1 in phantom lines, a thin plastic bag which may be of polyethylene or other plastic film hangs from the bag holding attachment 46 and positions within the space 64 defined between the forward vertical members 22, 24 and the U-shaped handle 12. The top of the bag arranges about the attachment 46 in well-known manner to maintain the bag in open position to readily receive all refuse and trash therein.

In the embodiment illustrated in FIG. 3, a bag holding attachment 46 fabricated exactly similarly to that illustrated in FIGS. 1 and 2 positions with respect to the cart 10 with the horizontal bar 48 forwardly of the vertical sockets 40, 42. The insertion pieces 60, 62 insert within the respective sockets 40, 42 in the usual manner to thereby support a trash holding bag 54 in depending relation from the attachment 46 forwardly of the forward vertical members 22, 24. In this manner, the space 64 defined between the handle 12 and the forward members 22, 24 will be free to accommodate additional loads (which may be additional filled and closed thin plastic bags) for load transporting purposes. Thus it is seen that by simply rotating the bag holding attachment 46 through 180° from the position illustrated in FIGS. 1 and 2 to the position illustrated in

FIG. 3, an entirely new use and additional function may be found for a cart 10.

Referring now to FIGS. 4 and 5, a cart 10 of identical construction to the carts illustrated in FIGS. 1-3, is set forth and includes the spaced, vertical sockets 40, 42. An inverted U-shaped, vertically disposed bag holding attachment 66 vertically positions above the forward members 22, 24 and includes a horizontal web 68 of length equal to the spaced distance between the vertical members 22, 24. The web 68 laterally terminates in a pair of depending, spaced legs 70, 72 which vertically downwardly insert into the respective sockets 40, 42 to thereby secure the bag holding attachment 66 in vertical position above the vertical members 22, 24. As illustrated in FIG. 4, the web 68 positions in substantially the same horizontal plane as the web 76 of the U-shaped handle 12 to define a large, plastic bag holding area 78 therebetween. As illustrated in FIG. 4, a large polyethylene plastic bag 74 positions over the web 68 of the bag holding attachment 66 and the web 76 of the handle 12 which define the enlarged bag holding opening 78 therebetween. By providing the simple U-shaped bag holding attachment 66 and utilizing this attachment in conjunction with the handle 12, thin plastic bags 74 of large size may be accommodated therein to receive relatively lightweight, bulky loads such as leaves, grass and similar materials as may be found about the usual home.

Thus, it has been demonstrated that a lightweight, inexpensive cart 10 can be provided and universally adapted to hold a single small plastic bag 54 as in FIGS. 1 and 2 to utilize the same bag holding attachment 46 in reverse position to hold at least one open plastic bag 54 and to provide space 64 for other loads as in FIG. 3, or by utilizing an additional, inexpensive and readily formed attachments 66, make the same cart universally adaptable to accommodate large plastic bags 74 as in FIGS. 4 and 5.

We claim:

1. In a universal wheeled cart having a front and a rear and being suitable for carrying loads contained within lightweight, flexible bags, having open tops and closed bottoms, the combination of

A. a generally U-shaped handle member defining the rear of the cart,

1. said handle member including a top horizontal web and a pair of spaced legs depending therefrom, each leg terminating downwardly in a bottom;

B. an L-shaped carrier forwardly connecting to each said leg bottom,

1. each L-shaped carrier comprising a horizontal base member which is connected to a leg bottom and a forward vertical member which terminates upwardly in a socket,

2. said handle and said forward vertical members defining a space therebetween for load carrying purposes,

a. said top horizontal web supporting a portion of the top of the flexible bag to carry the bag within the space;

C. a reinforcing support positioned at the junction between each horizontal base member and its associated leg bottom,

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1. said reinforcing supports journalling an axle to carry wheel means to render the cart mobile; and
- D. a bag holding attachment removably connectable to the said forward vertical members at the said sockets thereof,
  1. said bag holding attachment including a second horizontal web and a pair of insertion pieces depending therefrom in vertical spaced relationship,
  2. each insertion piece being insertable respectively within one of said sockets,
  3. the said second horizontal web supporting another portion of the top of the flexible bag to

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carry the bag within the said space.

2. The invention of claim 1 wherein the second horizontal web and the insertion pieces all position within the same vertical plane.

3. The invention of claim 1 wherein the second horizontal web is carried rearwardly of the forward vertical members by a pair of horizontal side arms, each said side arm respectively connecting a portion of the second horizontal web to one of said insertion pieces.

4. The invention of claim 3 wherein the second horizontal web is carried forwardly of the forward vertical members by the pair of horizontal side arms.

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