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B62B 1/00 (2006.01)

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(52) UK CL (Edition X):
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B7B BTF2 B367

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(56) Documents Cited:
US 6478315 B1 **US 6279705 B1**
US 6237734 B1 **US 6082510 A**
US 20010045715 A1 **US 20010032765 A1**

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(58) Field of Search:
UK CL (Edition X) **A4G, B7B**
INT CL **A45C, B62B**

(54) Abstract Title: **Wheeled luggage with supplementary support device**

(57) A luggage item comprises a body 7, a handle 8 provided at a top side of the body, at least one wheel or roller 9 mounted at the bottom side of the body and a pivotally-connected supplementary support device 4 for supporting the luggage item in a tilted position. The supplementary support device may have one or wheels or rollers 42. A spring 5 (not shown) may be coupled to the body and the supplementary support device so as to hold the supplementary support device against the body when it is not being used.

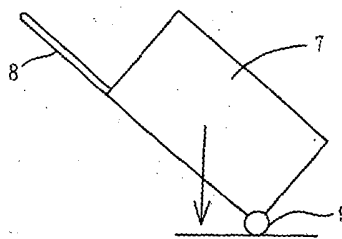


FIG. 1

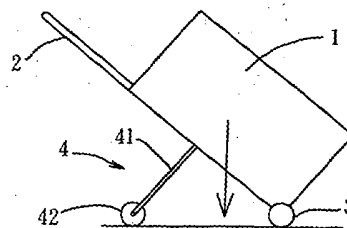


FIG. 2

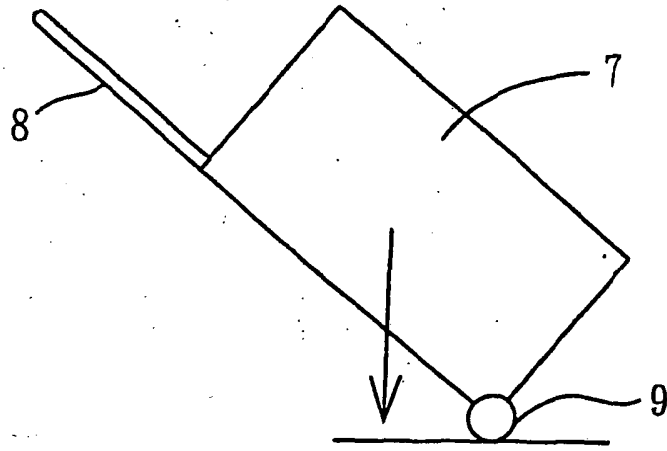


FIG. 1

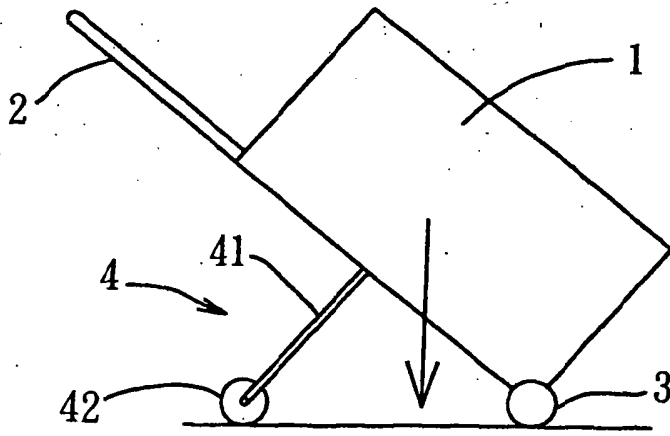


FIG. 2

2/3

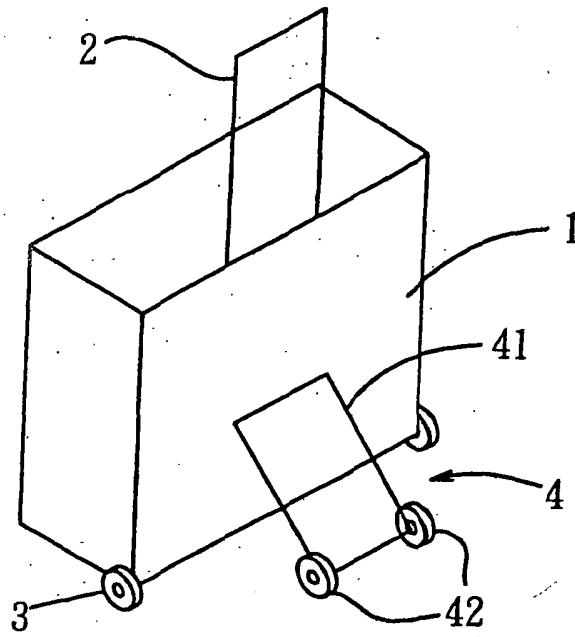


FIG. 3

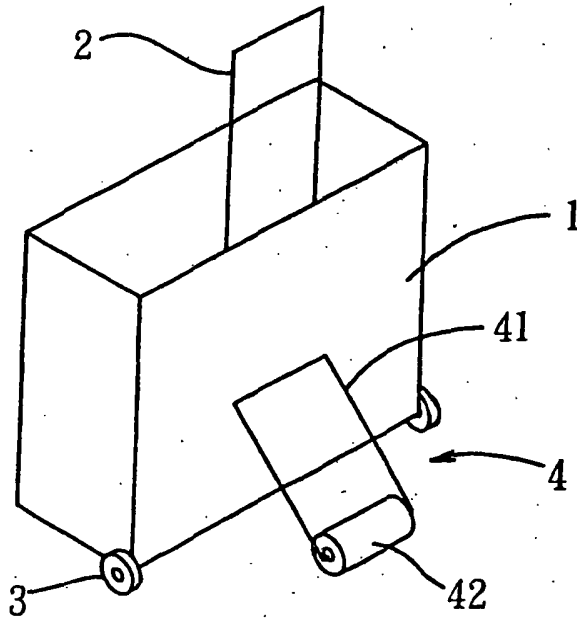


FIG. 4

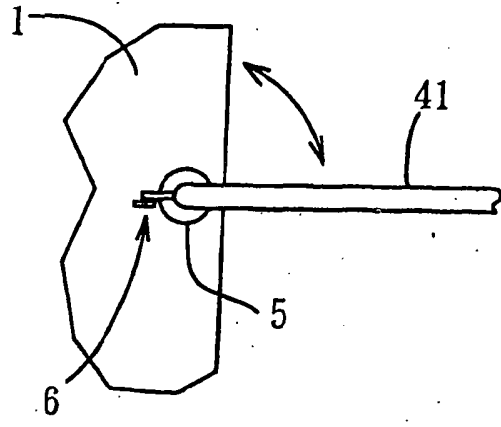


FIG. 5

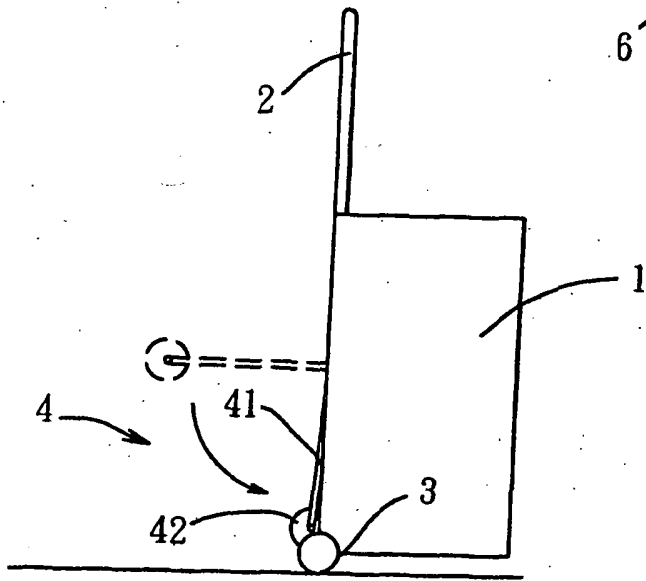


FIG. 6

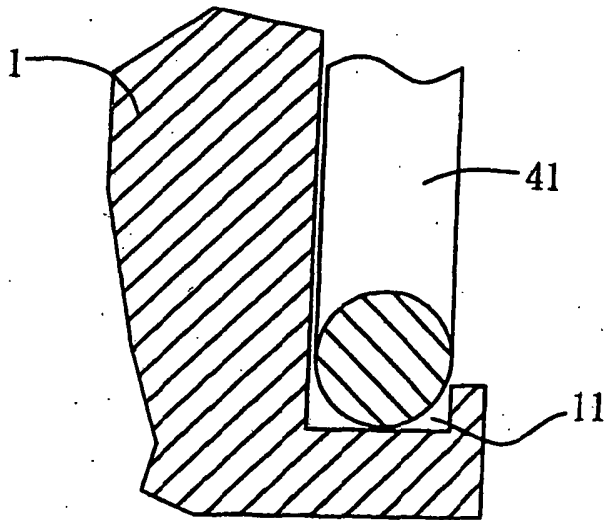


FIG. 7

LUGGAGE CART

BACKGROUND OF THE INVENTION

1. Field of the Invention:

The present invention relates to a luggage cart and more
5 particularly, to such a luggage cart, which is equipped with a
supplementary support device for supporting on the floor stably
in a tilted position.

2. Description of the Related Art:

A conventional luggage cart, as shown in FIG. 1,
10 comprises a cart body 7 for holding things, a plurality of wheels
9 respectively pivotally provided at the bottom side of the cart
body 7 to make the cart body 7 easy to move, and a handle 8
provided at the top side of the cart body 7. When moving the
luggage cart on the floor, the luggage cart is kept in a tilted
15 position (see FIG. 1). At this time, the user's hand receives
much pressure from the load carried in the cart body 7 and will
feel uncomfortable soon.

SUMMARY OF THE INVENTION

The present invention has been accomplished under the
20 circumstances in view. It is one object of the present invention
to provide a luggage cart, which is equipped with a
supplementary support device for supporting on the floor stably

in a tilted position. It is another object of the present invention to provide a luggage cart, which is equipped with a supplementary support device that allows the user to move the luggage cart on the floor in a tilted position with less effort. To
5 achieve these and other objects of the present invention, the luggage cart comprises a cart body, a plurality of wheels respectively pivotally provided at the bottom side of the cart body, and a handle provided at the top side of the cart body. The cart body is provided with a supplementary support device for
10 supporting the cart body on a flat surface in a tilted position. The supplementary support device comprises a frame pivoted to the cart body and turnable relative to the cart body between an extended position and a retracted position, and at least one roller or wheel
15 pivotally mounted on the bottom side of the frame opposite to the pivoted joint between the cart body and the frame.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic drawing showing a status of use of a luggage cart according to the prior art.

FIG. 2 is a schematic drawing showing a status of use of
20 a luggage cart according to the present invention.

FIG. 3 is an elevational view of the luggage cart according to the present invention.

FIG. 4 is another elevational view of the present invention, showing an alternate form of the supplementary support device.

FIG. 5 is a schematic drawing of a part of the present invention, showing the arrangement of the spring member and the lock in between the cart body and the supplementary support device.

FIG. 6 is a schematic drawing of the present invention, showing the supplementary support device received to the back side of the cart body.

FIG. 7 is a sectional view of a part of the present invention, showing the supplementary support device received to the cart body and secured to a retaining groove at the back side of the cart body.

15 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIGS. 2~4, a luggage cart in accordance with the present invention is shown comprised of a cart body 1, a handle 2, a number of wheels 3, and a supplementary support device 4.

20 The cart body 1 is adapted to carry things. According to this embodiment, the cart body 1 is a box frame. Alternatively, the cart body 1 can be made in the shape of the frame structure

of a golf cart for carrying a golf bag.

The handle 2 is provided at the top side of the cart body 1. Through the handle 2, the user can move the luggage cart on the floor with less effort. Further, the handle 2 can be a retractable handle. Because the handle 2 is not within the scope of the claims of the present invention, no further detailed description in this regard is necessary.

The wheels 3 are respectively pivotally provided at the bottom side of the cart body 1 to make the cart body 1 easy to move.

The supplementary support device 4 comprises a frame 41 and at least one roller 42. The frame 41 has one end, namely, the top end pivotally coupled to one side, namely, the back side of the cart body 1, and the other end, namely, the bottom end carrying the at least one roller 42. The supplementary support device 4 can be turned outwards from the cart body 1 to support the cart body 1 on the floor in a tilted position (see FIG. 2). In this case, the cart body 1 is stably supported on the floor at three bearing points, i.e., the two wheels 3 at the back side of the cart body 1 and the roller 42 of the supplementary support device 4 support the cart body 1 stably on the floor. Thus, the user can move the luggage cart in this tilted position smoothly with less

effort. The user can also release the hand from the luggage cart to do other things, for example, to have a meal, to pick up a telephone, to buy a ticket, leaving the luggage cart stably on the floor in the tilted position.

5 Referring to FIGS. 5 and 6, a spring member 5 is provided between the cart body 1 and the frame 41 of the supplementary support device 4 and adapted to hold the supplementary support device 4 in the received (non-operative) position where the supplementary support device 4 is closely
10 attached to the back side of the cart body 1 (see FIG. 6. Further, a lock 6 is provided to locking the supplementary support device 4 in the extended (operative) position (see FIG. 5).

Referring to FIG. 7, the card body 1 has a retaining groove 11 adapted to receive a part of the supplementary support
15 device 4, holding the supplementary support device 4 firmly in the received (non-operative) position.

A prototype of luggage cart has been constructed with the features of FIGS. 2~7. The luggage cart functions smoothly to provide all of the features discussed earlier.

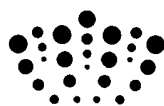
20 Although particular embodiments of the invention have been described in detail for purposes of illustration, various modifications and enhancements may be made without departing

from the spirit and scope of the invention.

CLAIMS:

1. A luggage cart comprising a cart body, a plurality of wheels mounted for rotation at a bottom side of said cart body, and a handle provided at a top side of said cart body, wherein said cart body is
5 provided with a supplementary support device for supporting said cart body on a flat surface in a tilted position, said supplementary support device comprising a frame coupled to said cart body and turnable relative to said cart body between an extended position and a retracted position, said frame having a top side pivoted to a front or back side of said cart
10 body and a bottom side, and at least one roller or wheel mounted for rotation on the bottom side of said frame.
2. The luggage cart as claimed in claim 1, further comprising a spring member coupled between said cart body and said frame of said supplementary support device and adapted to hold said frame of said
15 supplementary support device in a retracted position where said supplementary support device is held against said front or back side to which said top side is pivoted.
3. The luggage cart k as claimed in claim 2, further comprising lock means adapted to lock said frame to said cart body in said extended
20 position.

4. A luggage trolley substantially as described hereinabove with reference to Figures 2, 3, 5, 6 and 7 optionally as modified in accordance with Figure 4 of the accompanying drawings.



Application No: GB0526068.2

Examiner: Mr Marc Collins

Claims searched: 1-3

Date of search: 30 January 2006

Patents Act 1977
Corrected Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1	US2001/0032765 A1 (TIRAMANI et al.) Please see the figures. Please note that the supplementary support is deployed with the aid of springs.
X	1	US 6279705 B1 (WU) Please see the figures. Please not spring 33 in figures 4 and 6a which functions as a latch to retain the supplementary support device in the stowed position.
X	1	US6237734 B1 (CHEN) The whole document is relevant. Note column 5, lines 35-38.
X	1	US2001/0045715 A1 (ABRAHAM et al.) Please see the figures.
X	1	US6478315 B1 (MANESIS) Please see the figures.
X	1	US6082510 A (LIANG) Please see the figures.

Categories:

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
Y Document indicating lack of inventive step if combined with one or more other documents of same category.	P Document published on or after the declared priority date but before the filing date of this invention.
& Member of the same patent family	E Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X :

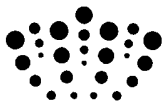
A4G; B7B

Worldwide search of patent documents classified in the following areas of the IPC

A45C; B62B

The following online and other databases have been used in the preparation of this search report

EPODOC, WPI



International Classification:

Subclass	Subgroup	Valid From
A45C	0013/38	01/01/2006
A45C	0005/14	01/01/2006
B62B	0001/00	01/01/2006