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- (71) Applicant (for all designated States except US): GATE-KEEPER SYSTEMS, INC. [US/US]; 8 Studebaker, Irvine, CA 92618 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): EKBOTE, Chandrashekhar [US/US]; 16 Sanderling, Irvine, CA 92604 (US).
- (74) Agent: CHRISTENSEN, Michael, R.; Knobbe, Martens, Olson & Bear, LLP, 2040 Main Street, 14th Floor, Irvine, CA 92614 (US).
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[Continued on next page]

(54) Title: CART CONNECTION ASSEMBLIES AND METHODS

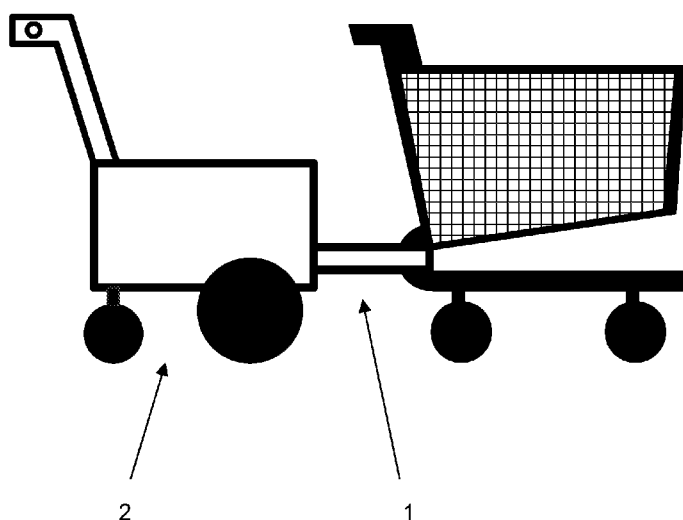


FIG. 1

(57) Abstract: In certain embodiments, a connection assembly can engage a cart, such as a retail shopping cart, to facilitate pushing and/or pulling the cart or a number of carts that have been nested together. In some embodiments, the connection assembly includes an engagement member with a recess. In an open position of engagement member, the recess can be configured to receive a portion of a frame member of the cart. In a closed position of the engagement member, the portion of the frame member can be secured with the connection assembly, thereby providing a secure connection with the cart to facilitate movement of the cart to a desired location.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
- *of inventorship (Rule 4.17(iv))*

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A. CLASSIFICATION OF SUBJECT MATTER***B60D 1/04(2006.01)i, B62B 3/02(2006.01)i, B62B 5/00(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B60D 1/04; B60L 3/00; B62B 3/02; A47F 10/04; B62D 39/00; B62B 3/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: cart , latch , lever, open, close, rotate, pivot

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 58-145511 A (MAETAKI SUSUMU) 30 August 1983 See figures 1-4.	1-20
A	US 7,549,651 B2 (HOLTAN PAUL D. et al.) 23 June 2009 See abstract, column 5 line 10 - column 6 line 9 and figures 1-11.	1-20
A	US 5,823,548 A (REILAND et al.) 20 October 1998 See abstract, column 3 lines 45-60 and figures 1-2.	1-20
A	WO 2005-030555 A2 (DANE INDUSTRIES et al.) 07 April 2005 See abstract, columns 25-26 and figures 1-2.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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"&" document member of the same patent family

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189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
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Authorized officer

Han Dong Ki

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 58-145511 A	30.08.1983	JP 1518585 C	07.09.1989
US 7,549,651 B2	23.06.2009	CA 2542737 A1	28.04.2005
		EP 1673271 A2	28.06.2006
		US 2005-0116431 A1	02.06.2005
		US 2006-0197295 A1	07.09.2006
		US 2007-0181352 A1	09.08.2007
		US 7,571,914 B2	11.08.2009
		WO 2005-037624 A3	28.04.2005
		WO 2006-089071 A3	24.08.2006
US 5,823,548 A	20.10.1998	CA 2190088 C	13.08.2002
		EP 0760767 A1	12.03.1997
		EP 0760767 B1	01.07.1998
		US 5,882,021 A	16.03.1999
		US 6,022,031 A	08.02.2000
		US 6,364,326 B1	02.04.2002
		WO 95-32881 A1	07.12.1995
WO 2005-030555 A2	07.04.2005	CA 2539922 A1	07.04.2005
		EP 1682396 A2	26.07.2006
		WO 2005-030555 A3	15.06.2006