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**Cortese**

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(54) **HAND TRUCK CAPABLE OF  
MULTI-DIRECTIONAL MOVEMENT**

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See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

2,235,044	A *	3/1941	Ronning	.....	280/47.11
2,800,336	A *	7/1957	Major et al.	.....	280/47.11
2,884,257	A	4/1959	Menne	.....	280/40
3,166,339	A *	1/1965	Earley	.....	280/654
3,288,481	A *	11/1966	Meyers	.....	280/47.27
3,436,092	A *	4/1969	Werner	.....	280/651
3,659,867	A *	5/1972	Curry	.....	280/645

3,666,285	A	5/1972	Fertig	.....	280/47.12
3,729,209	A	4/1973	Litz	.....	280/36 R
4,003,584	A	1/1977	Zelli	.....	280/91
4,460,189	A *	7/1984	Goff	.....	280/47.27
4,854,804	A *	8/1989	Mayle	.....	414/469
5,263,727	A	11/1993	Libit et al.	.....	280/40
5,624,199	A *	4/1997	Cheng	.....	403/100
6,039,332	A	3/2000	Austin	.....	280/47.17
6,186,523	B1	2/2001	Aielli	.....	280/47.31
6,367,822	B1 *	4/2002	Hutchins	.....	280/47.24
6,422,152	B1	7/2002	Rowe	.....	104/121
6,425,724	B1 *	7/2002	Williamson	.....	414/490
6,450,514	B1	9/2002	Ronca	.....	280/79.11
6,663,120	B1	12/2003	Fagerqvist	.....	280/47.27
6,874,799	B2 *	4/2005	Robberson et al.	.....	280/47.27

\* cited by examiner

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(57) **ABSTRACT**

The hand truck or dolly of the present invention is capable of multi-directional movement and provides an operator with complete control of movement and directional choice for the hand truck without having to remove his hands from a hand-grip location to achieve mechanical adjustments of the wheels. Rather, an operator may adjust a wheel index position on-the-fly by means of a trigger assembly to rotate a wheel assembly about a vertical axis of rotation within a range of motion of approximately 100 degrees. The two, independent wheel assemblies of the hand truck of the present invention achieve multi-directional movement through positioning of the wheels in a standard index position allowing for forward and backward movement, a lateral index position allowing for lateral, or side to side, movement, or a rotational index position allowing for rotational movement, such as for cornering and circular movement.

**12 Claims, 6 Drawing Sheets**

