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Theobald et al.

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(54) **METHOD AND DEVICE FOR ACCOMMODATING ITEMS**

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(58) **Field of Classification Search**
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

7,348,747	B1	3/2008	Theobold et al.	
7,719,222	B2	5/2010	Theobald	
7,902,784	B1	3/2011	Theobald	
2004/0093116	A1	5/2004	Mountz	
2008/0272138	A1*	11/2008	Ross	G06F 19/3462 221/1
2009/0198372	A1	8/2009	Hammerslag	
2009/0298539	A1	12/2009	Anderson	
2010/0094451	A1*	4/2010	Hoganson	G06Q 10/085 700/228
2011/0005846	A1	1/2011	Page et al.	
2012/0330458	A1	12/2012	Weiss	
2013/0204430	A1*	8/2013	Davey	G06F 19/3456 700/216
2013/0317642	A1	11/2013	Asaria et al.	
2014/0100998	A1	4/2014	Mountz et al.	
2014/0214196	A1	7/2014	Worsley	

* cited by examiner

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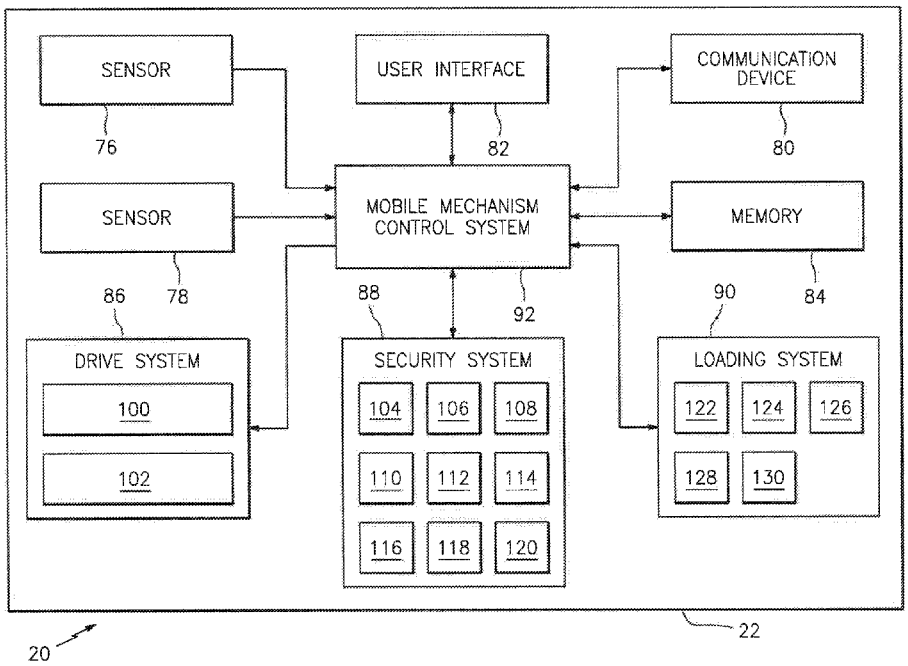
(57) **ABSTRACT**

A device and method are provided, the method including providing a device capable of at least semi-autonomous operation and enabling the device to autonomously gather at least one item and secure that item against unauthorized access while providing selective authorized access to the item while the item is in possession of the device.

11 Claims, 6 Drawing Sheets