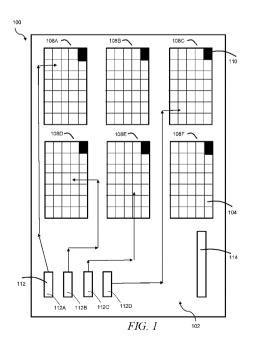
UK Patent Applic	ation (	19) GB (11) 2573421 (13) A (13	
<ul> <li>(21) Application No:</li> <li>(22) Date of Filing: <ul> <li>Date Lodged:</li> </ul> </li> <li>(30) Priority Data: <ul> <li>(31) 62436842</li> <li>(32) 20.12.2016</li> <li>(31) 62439268</li> <li>(32) 27.12.2016</li> <li>(31) 62485045</li> <li>(32) 13.04.2017</li> </ul> </li> </ul>	(33) <b>US</b>	(43)Date of Reproduction by UK Office 06.11.2019 (51) INT CL: G06Q 10/08 (2012.01) G06Q 30/04 (2012.01) G06Q 50/28 (2012.01) (56) Documents Cited: US 20160019633 A1 US 20120006031 A1 US 20060259360 A1 US 20030065520 A1 (58) Field of Search: INT CL G06Q Other: Questel Orbit, Google Patents, Google, Goog Scholar	
PCT/US2017/056089 En 11.10.2017 87) International Publication Data: WO2018/118188 En 28.06.2018 71) Applicant(s): Walmart Apollo, LLC 702 Southwest 8th Street, Bentonville, Arkansas 72716, United States of America 72) Inventor(s): Todd D Mattingly Bruce W. Wilkinson 74) Agent and/or Address for Service: Appleyard Lees IP LLP 15 Clare Road, HALIFAX, West Yorkshire,			

- (54) Title of the Invention: Systems and methods for storing and retrieving merchandise at product distribution centers
  - Abstract Title: Systems and methods for storing and retrieving merchandise at product distribution centers
- (57) In some embodiments, apparatuses and methods are provided herein useful to storing and retrieving merchandise items in product distribution centers. In some embodiments, there is provide a system including: a distribution center with storage locations holding merchandise items, the merchandise items being arranged according to a predetermined packing plan assigning a unique storage location to each merchandise item; sensor tags associated with the merchandise items; a plurality of routes from the storage locations to a merchandise handling area; a tote for delivering merchandise items from the storage locations to the merchandise handling area; and a control circuit configured to determine a merchandise item to be delivered to the merchandise handling area; communicate with a sensor tag to identify a storage location of the merchandise item; communicate with the tote to move it to the storage location to receive the merchandise item and to move it to the merchandise handling area.



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This international application has entered the national phase early