

Shopping bag cart

to enhance productivity of delivery services

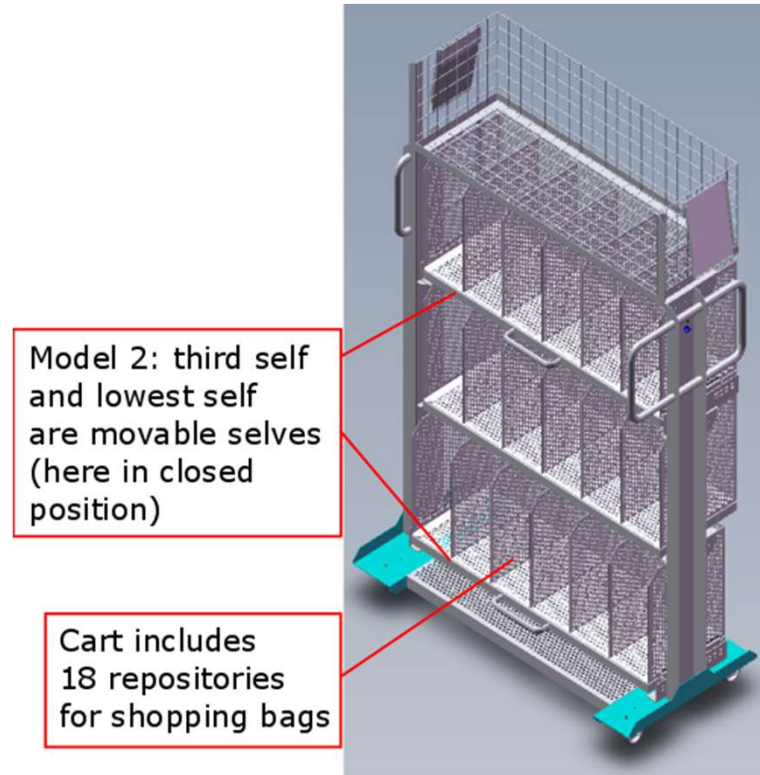
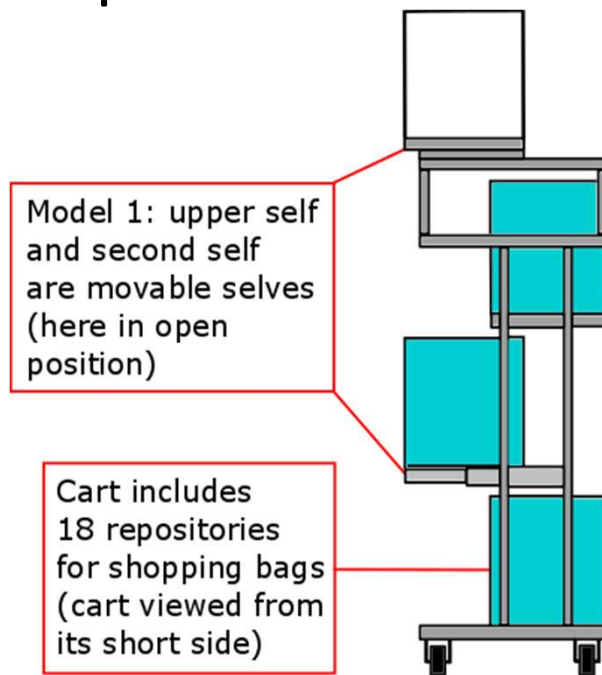
New type of cart for picking and
delivery of products

www.pickdelso.com

4.5.2017

What is shopping bag cart?

- A cart that is used for picking products and delivering the products to customers
- Examples:



Delivery service

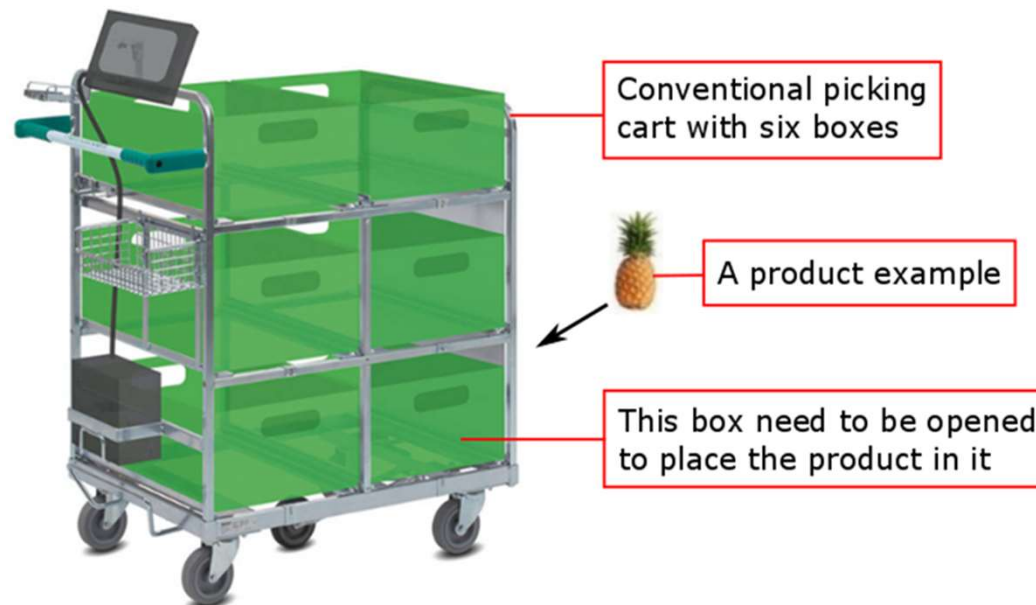
- Stages are 1) picking, 2) moving cart into storage and sortation, 3) loading, 4) delivery, and 5) unloading of a trunk (taking empty boxes out of the trunk)
- Sortation in stage 2) means that boxes are arranged into a certain order
- Stages 2), 3), and 5) include a lot of lifting and piling of boxes

Three boxes are lifted one by one from picking cart and piled on transport trolley



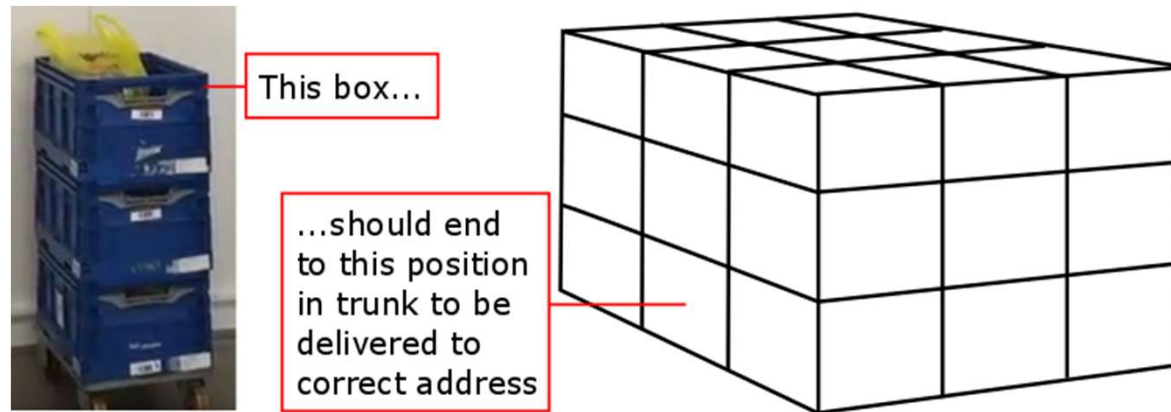
Problem in picking

- Lowermost (4) drawer boxes are continuously opened and closed, which consumes time



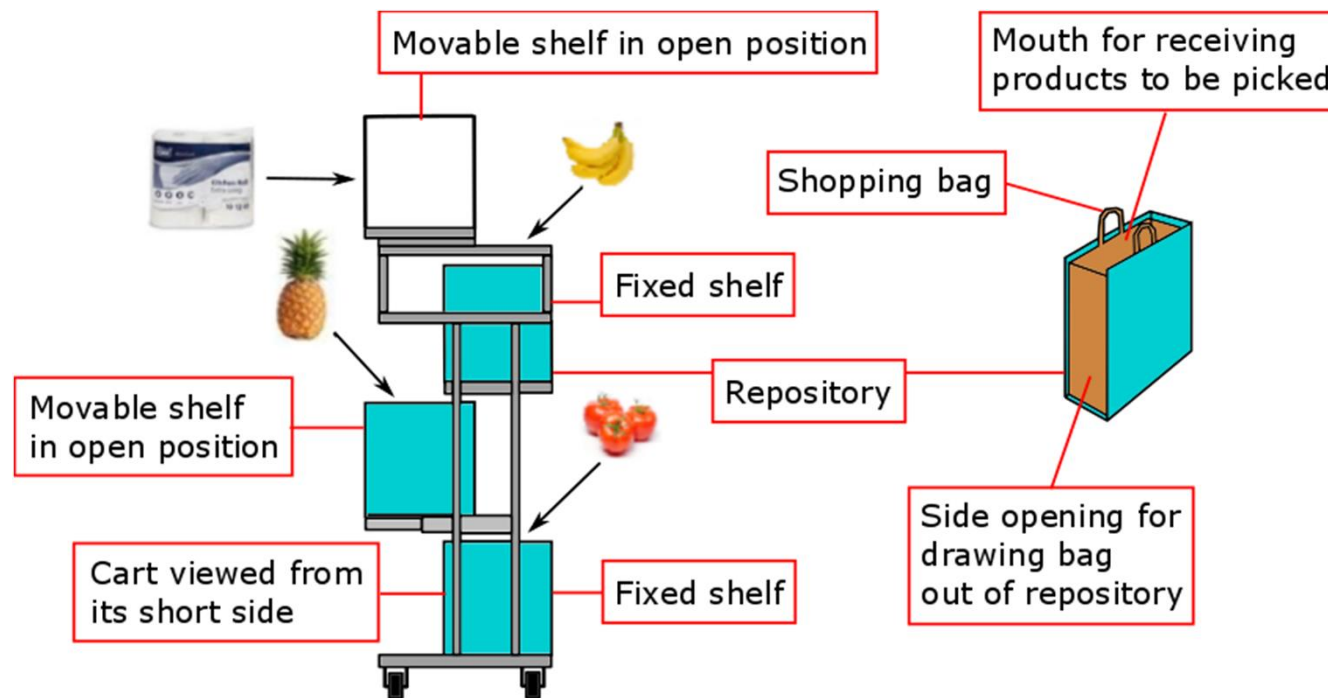
Problem in handling and reliability

- Lifting and piling of boxes consumes time
- Position of box in relation to the other boxes changes, which deteriorates reliability of delivery (shopping bag may end to wrong address)
- Example:



Accelerating picking

- Solution to the picking problem: products are placed into shopping bags without moving any shelf or box



Accelerating handling of bags

- Shopping bag cart is moved on its wheels into a delivery vehicle (and out of vehicle)

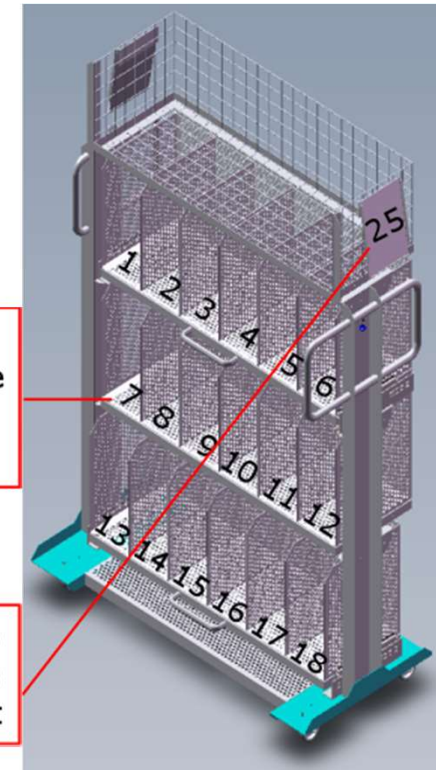


Enhancing reliability

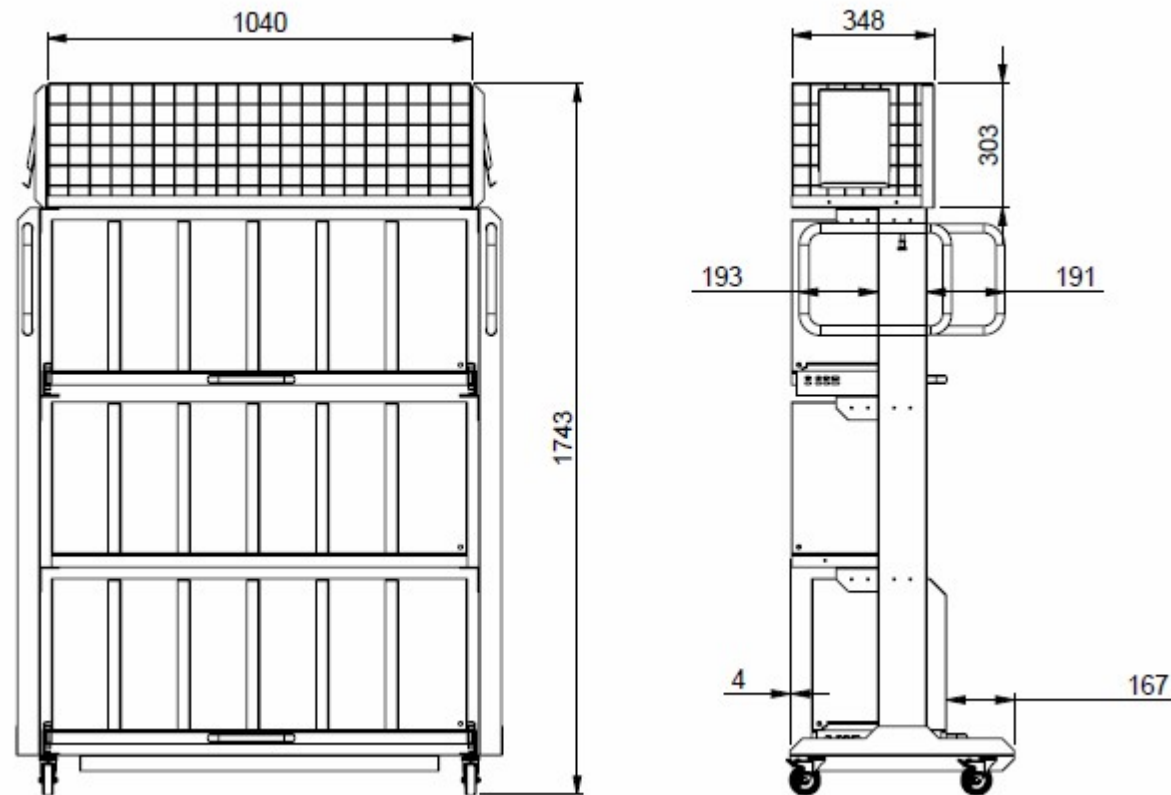
- Position of each repository in relation to the other repositories in the cart remains the same
- Very low risk that some shopping bag ends to a wrong address
- Example:

Same repository (7) is reserved for same shopping bag from picking to delivery

Cart has unique number or code for identifying it



Example measurements



Why to choose Shopping bag cart?

- Useful changes in the delivery service:
 - 1) picking is accelerated
 - 2) sortation is omitted
 - 3) loading is accelerated
 - 4) delivery of shopping bags become more reliable
 - 5) unloading of trunk is accelerated
- Shopping bag cart enhances the work productivity
- And saves money