

Material Handling Apparatus with Delivery Vehicles

ABSTRACT

A method and apparatus are provided for sorting items to a plurality of sort destinations. The items are fed into the apparatus at an input station having a scanning station. The scanning station evaluates one or more characteristics of each item. The items are then loaded onto one of a plurality of independently controlled delivery vehicles. The delivery vehicles are individually driven to sort destinations. Once at the appropriate sort destination, the delivery vehicle ejects the item to the sort destination and returns to receive another item to be delivered. A re-induction conveyor may be provided for receiving select items from the vehicles and conveying the items back to the input station for re-processing. Additionally, a controller is provided to control the movement of the vehicles based on a characteristic each item being delivered by each vehicle. The system may also include vehicles having edge-detection assemblies for detecting items being loaded onto or discharged from the vehicles.

FIG. 1