

**AIR SUPPORTED FLAT BELT CONVEYOR AND METHOD
OF CONVEYING ARTICLES**

Abstract of the Disclosure

An air supported conveyor, particularly adapted for conveying articles such as baggage or packages at a high rate of speed includes a plenum chamber and a belt support containing a plurality of orifices. Air or another pressurized fluid is supplied to the plenum chamber to provide a clearance or air bearing between the belt and the support during belt travel. The belt support has a generally flat center section with outer sections that curve or angle upwardly. Guides are mounted adjacent the angled outer sections. Disposed along the length of the belt and between an underside of each guide and the angled outer belt sections are elongated members. Each elongated member in conjunction with each guide underside and belt support acts as a belt edge guide by forming a recess which receives the belt edges during belt travel. Each recess directs air from the belt underside up and around the belt side edge, across the upper surface of the belt and out a slot egress. The recess assists in creating a pressure against the upper surface of the belt in the guide underside vicinity, thereby minimizing or eliminating belt contact with the guide underside and potential belt wear or damage with high speed belt travel.

Figure 3