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# United States Patent [19] Terpstra

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## [54] ZONE CONTROLLED CONVEYANCE SYSTEM

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[58] Field of Search ..... **198/781, 782, 787, 788, 198/790, 791, 572, 349**

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### [57] ABSTRACT

A zone controlled conveyance system includes a series of modular sections arranged end-to-end to define a path along which a workpiece is propelled. Each section is divided into one or more zones. Each zone includes a number of rollers that support the workpiece and propel it in the downstream direction in accordance with the energization of a separate motor drivingly connected to each roller. Sensors associated with each zone sense the presence or absence of a workpiece within the zone. The sensors cooperate with a controller to selectively energize or deenergize the motors of the various zones in a manner that controls downstream propulsion or accumulation of the workpieces. The sections include radiussed sections and sharp corner sections. The sharp corner sections may include a turntable that changes the workpiece orientation.

**19 Claims, 10 Drawing Sheets**

