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Horstman et al.

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[54] TAKE-UP REEL ASSEMBLY HAVING RADII AT DISCONTINUITIES TO MINIMIZE TAPE IMPRESSIONS

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[57] ABSTRACT

[73] Assignee: Storage Technology Corporation, Louisville, Colo.

A take-up reel assembly for use with a single-reel tape cartridge in a cartridge-based tape transport includes a take-up reel and a leader block. The take-up reel includes an annular hub having an axis of rotation and a radial surface adapted to have the tape wound thereon. A radial slot in the hub extends from the radial surface towards the axis of rotation. The leader block is configured for attachment to a free end of a length of tape in the tape cartridge. The leader block has a shape substantially the same as the shape of the radial slot in the hub of the take-up reel. The leader block has a first end adapted for coupling with a threading post and a second end having an end surface with a radius of curvature substantially the same as the radius of curvature of the radial surface of the hub so that when the leader block is pulled into the slot by a loading post, first and second leader block edges of the end surface substantially mate with first and second hub edges of the radial surface to cover the slot. The first and second leader block edges and the first and second hub edges are radiused to substantially eliminate tape damage caused by impressioning.

[21] Appl. No.: 115,751

[22] Filed: Sep. 3, 1993

[51] Int. Cl.⁶ G11B 23/04

[52] U.S. Cl. 242/348.2; 242/332.8; 242/532.6

[58] Field of Search 242/332.7, 332.8, 348.2, 242/532.5, 532.6, 587, 587.1, 587.2

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8 Claims, 4 Drawing Sheets

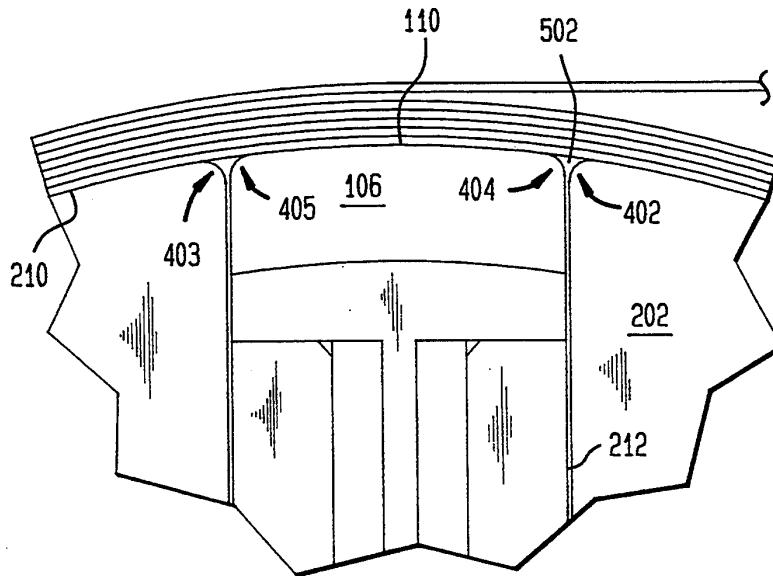


FIG. 1

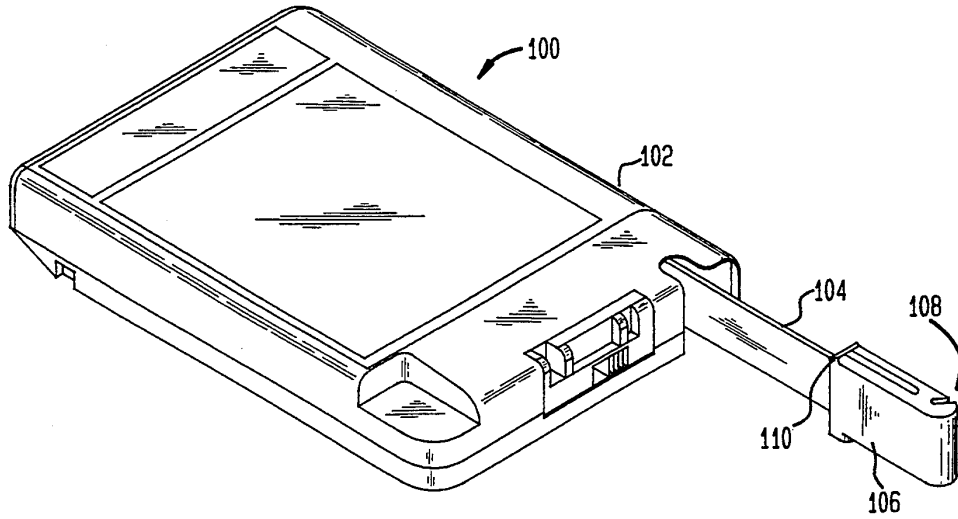


FIG. 2

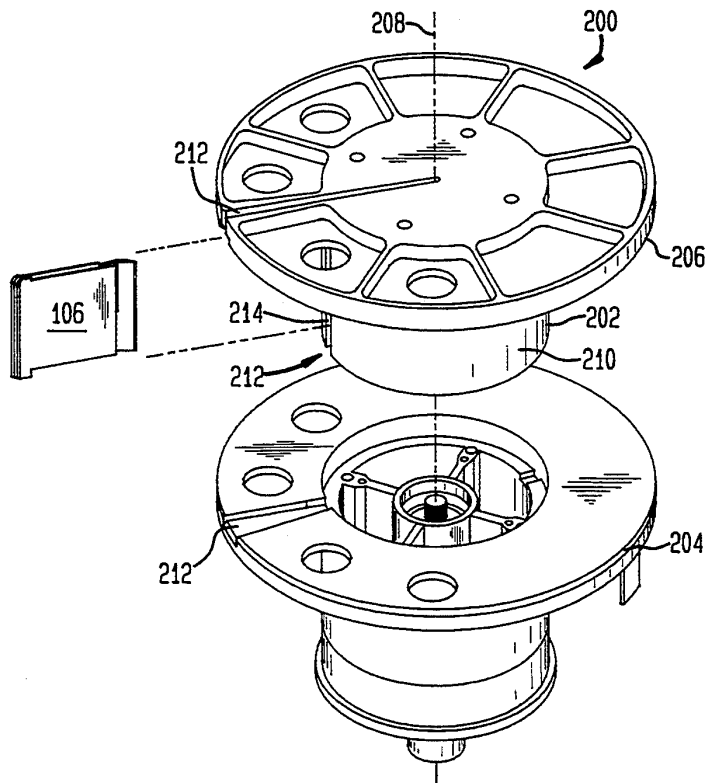
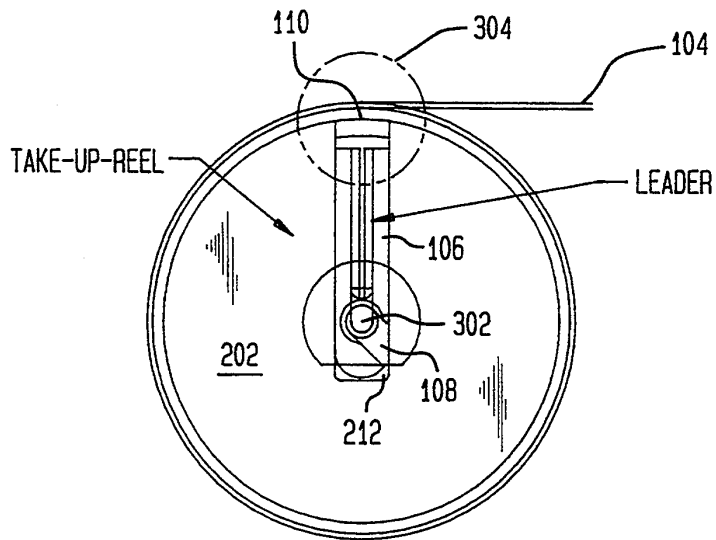


FIG. 3



SCALE 2.000

FIG. 4
(PRIOR ART)

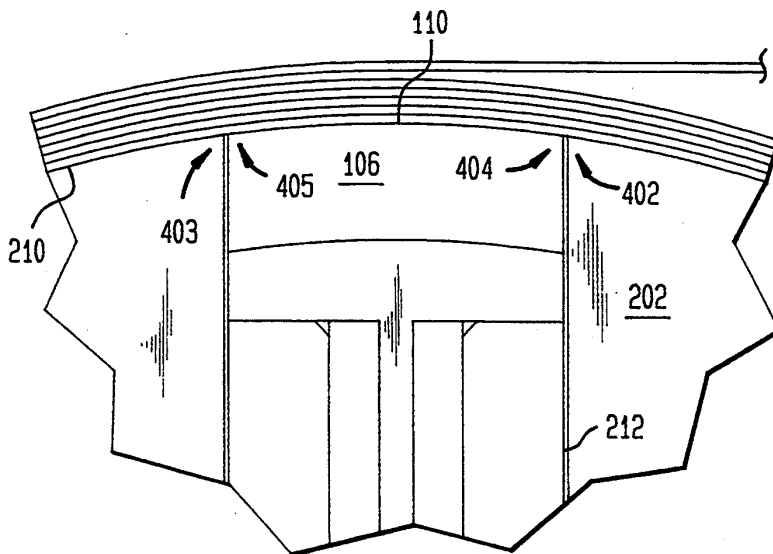


FIG. 5

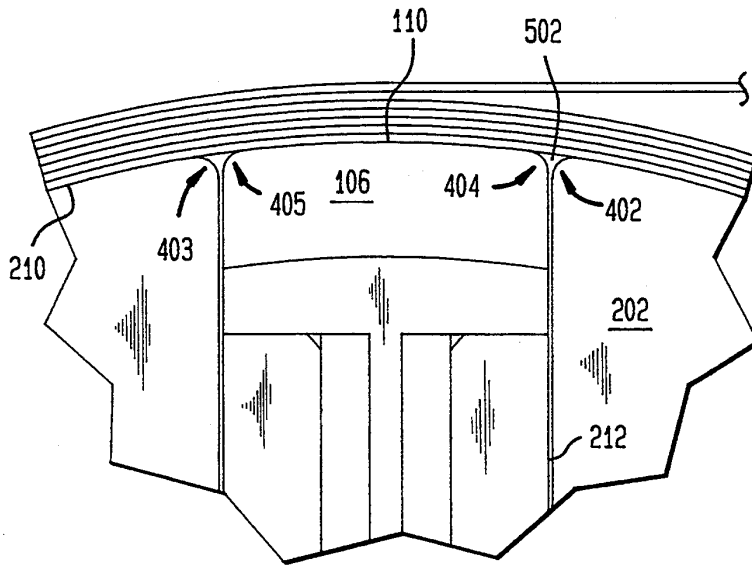


FIG. 6

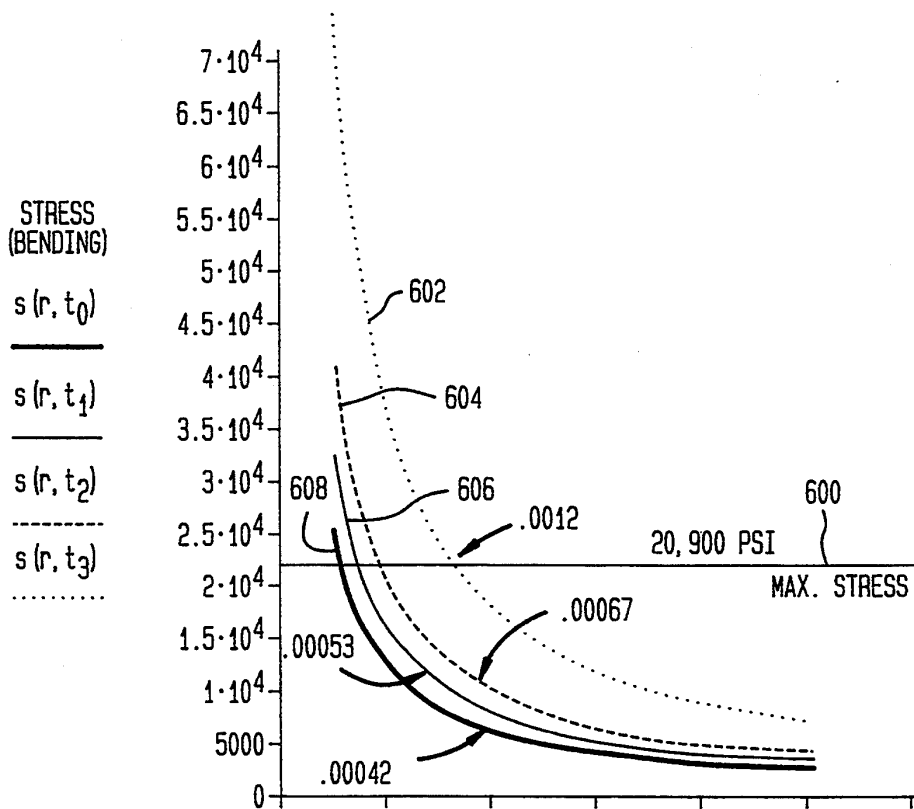
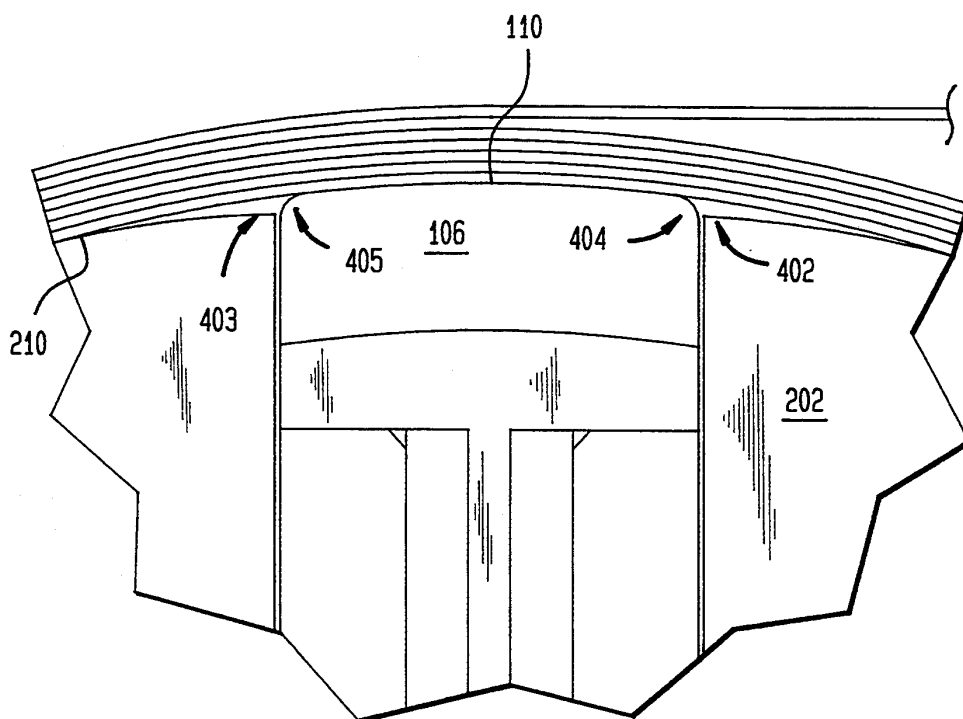


FIG. 7



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