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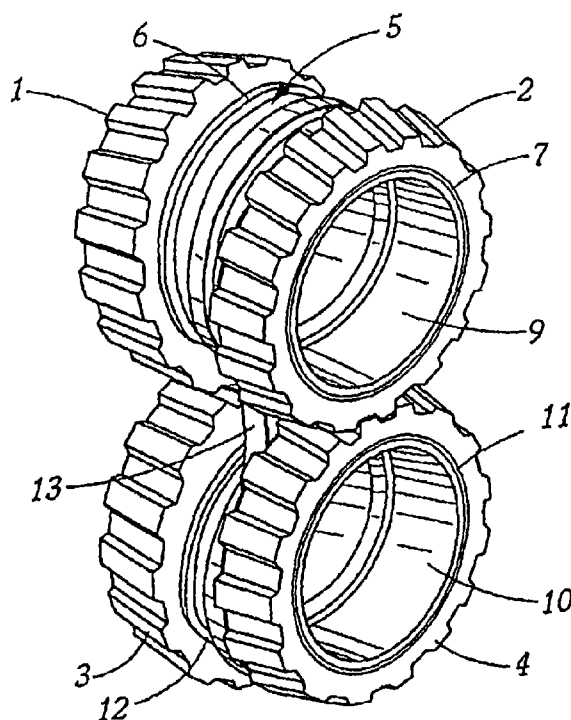
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) Title: GEARED DRIVE RING COUPLER



(57) Abstract: The invention comprises a geared drive ring coupler. The geared drive ring coupler comprises two pairs of adjacent drive rings (1, 2, 3, 4) rotatably connected to each end of a frame (5). Each pair of drive rings (1, 2, 3, 4) is meshed together with the cooperating pair of drive rings (1, 2, 3, 4) on the opposing end of the frame (5). The relative spatial arrangement of the axis of rotation of each set of drive rings (1, 2, 3, 4) is maintained by the frame (5), which in turn holds the drive rings (1, 2, 3, 4) in a predetermined relationship between the pulley sheaves. The drive rings (1, 2, 3, 4) on the driver pulley turn in the same direction as the driver pulley through frictional contact with the sides of the CVT driver pulley sheaves. The drive rings on the driven pulley side rotate in the opposite direction to the drive rings on the driver pulley, since they are meshed together. The driven drive rings (1, 2, 3, 4) are then in frictional contact with the sides of the driven pulley sheaves, thereby driving the driven pulley. The effective diameter or radius of each pulley is adjusted by movement of the pulley sheaves. Movement of the pulley sheaves causes the axis of rotation of each set of drive rings (1, 2, 3, 4) to move eccentrically with respect to the axis of rotation of their respective pulley. Since the drive rings (1, 2, 3, 4) are mechanically connected, the drive rings (1, 2, 3, 4) move with the frame (5) as a unit in response to the movement of the pulley sheaves, thereby changing the effective gear ratio of the transmission.

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