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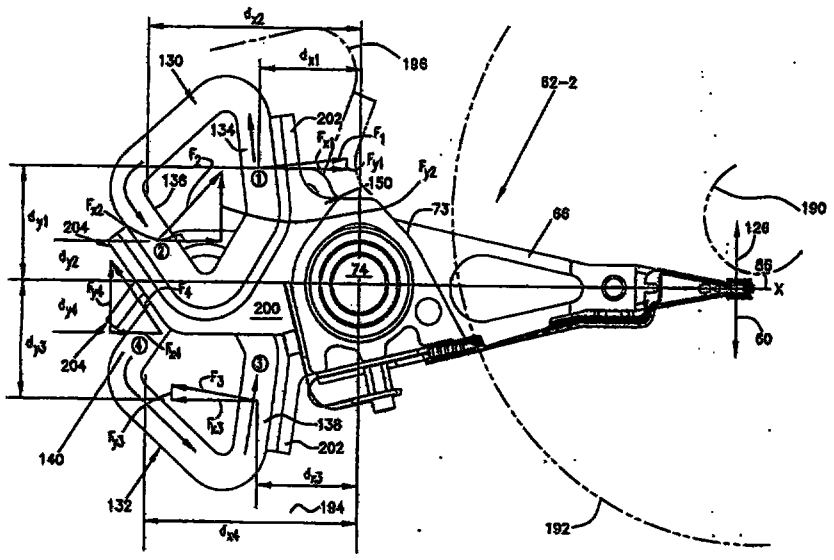
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(54) Title: IMPROVED ROTARY DISC DRIVE ACTUATOR



(57) Abstract

An improved rotary actuator for supporting heads (60) relative to a disc (54) of a disc drive (50) for operation. The rotary actuator includes an actuator block (62–2) pivotally connected to a chassis (52) of a disc drive (50). The actuator block (62–2) includes an actuator arm (66) for supporting heads (60). The actuator block (62–2) supports a coil assembly adapted for operation in a magnetic field to form a voice coil motor (110). The coil assembly includes a plurality of wound coils (130, 132) supported by the actuator block (62–2) at spaced elevations and having a portion of spaced coils overlapped to reduce the operating area for the voice coil motor (110). The geometry of the coils (130, 132) reduces off–track force excitation of the rigid body resonance to allow for high bandwidth servo. The coil assembly also reduces off–track force during settle in for improved seek times.