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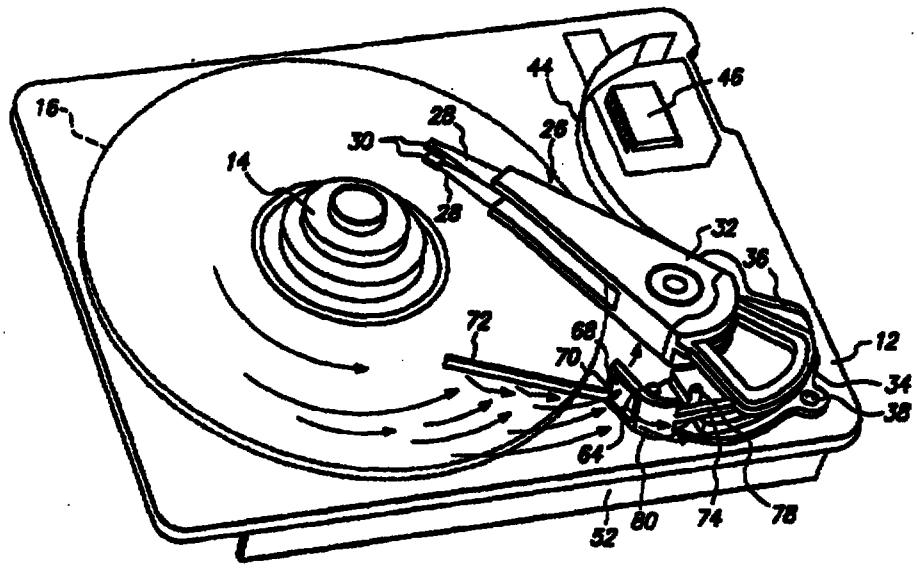
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(54) Title: AERODYNAMIC ACTUATOR-FILTER LATCH FOR HARD DISK DRIVE



(57) Abstract

An aerodynamic actuator filter-latch for releasably locking a rotary voice coil actuator within a hard disk drive includes a shaft and a rotating latch structure on the shaft. The latch structure includes an airvane portion (72) extending across a rotating disk adjacent one of the major surfaces thereof, a central portion (70) including an air filter (68) for removing minute particulate contaminants from air within the enclosed head and disk assembly, the air filter being located adjacent a periphery of the disk (16), and an actuator latch portion extending toward the rotary voice coil actuator. The aerodynamic actuator filter-latch also includes a bias force mechanism (78) for biasing the latch structure toward an actuator latch position in the absence of airflow. Rotation of the data storage disk causes the latch structure to rotate to a release position while some resultant airflow through the air filter removes contaminants.