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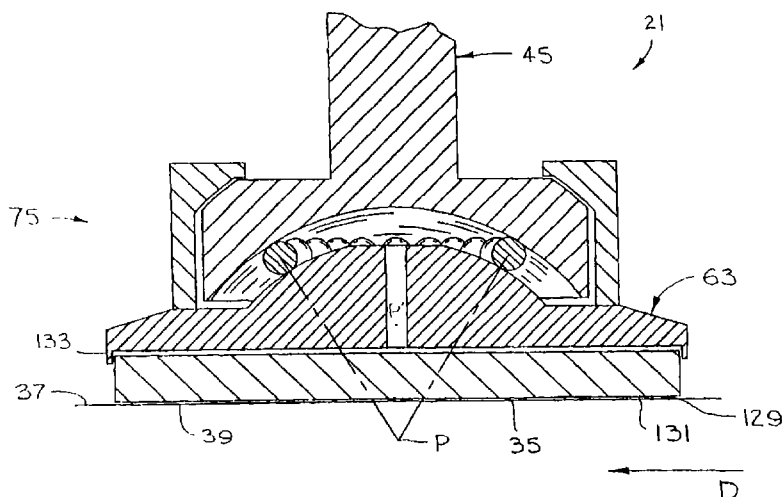
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(54) Title: SEMICONDUCTOR WAFER, POLISHING APPARATUS AND METHOD



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(57) Abstract: A wafer polishing apparatus for polishing a semiconductor wafer. The polisher comprises a base (23), a turntable (27), a polishing pad (29) and a drive mechanism (45) for driven rotation of a polishing head (63). The polishing head is adapted to hold at least one wafer (35) for engaging a front surface of the wafer with a work surface of the polishing pad. A spherical bearing assembly (75) mounts the polishing head (63) on the drive mechanism for pivoting of the polishing head about a gimbal point (p) lying no higher than the work surface when the polishing head holds the wafer in engagement with the polishing pad. This pivoting allowing the plane of the front surface of the wafer to continuously align itself to equalize polishing pressure over the front surface of the wafer, while rotation of the polishing head is driven by the driving mechanism. This maintains the front surface and work surface in a continuously parallel relationship for more uniform polishing of a semiconductor wafer, particularly near the lateral edge of the wafer. A cassette of wafers and method of polishing are also disclosed.

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