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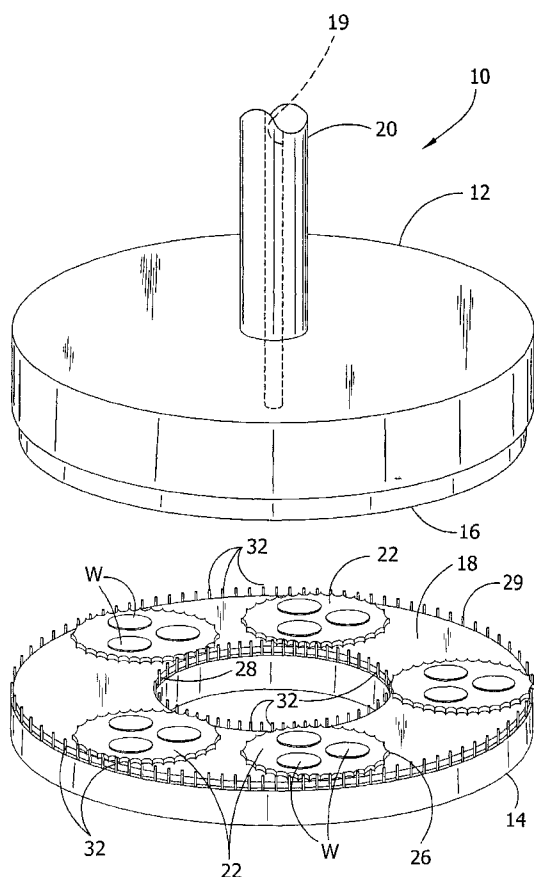
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(54) Title: METHOD AND APPARATUS FOR PROCESSING A SEMICONDUCTOR WAFER USING NOVEL FINAL POLISHING METHOD



(57) Abstract: A method of manufacturing a semiconductor wafer includes providing an ingot of semiconductor material, slicing the wafer from the ingot, and processing the wafer to increase parallelism of the front surface and the back surface. A final polishing operation on at least the front surface is performed by positioning the wafer between a first pad and a second pad and obtaining motion of the front and back surfaces of the wafer relative to the first and second pads to maintain parallelism of the front and back surfaces and to produce a finish on at least the front surface of the wafer so that the front surface is prepared for integrated circuit fabrication. In another aspect, the wafer is rinsed by a rinsing fluid to increase hydrodynamic lubrication. Other methods are directed to conditioning the polishing pad and to handling wafers after polishing. An apparatus for polishing wafers is also included.



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