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(54) Title: APPARATUS AND SYSTEM FOR CLEANING SUBSTRATE

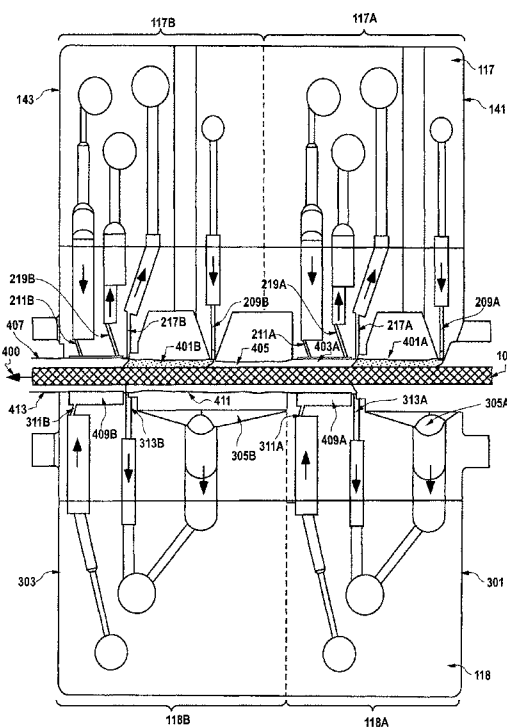


FIG. 4

(57) Abstract: An upper processing head includes a topside module defined to apply a cleaning material to a top surface of a substrate and then expose the substrate to a topside rinsing meniscus. The topside module is defined to flow a rinsing material through the topside rinsing meniscus in a substantially uni-directional manner towards the cleaning material and opposite a direction of movement of the substrate. A lower processing head includes a bottomsideside module defined to apply a bottomsideside rinsing meniscus to the substrate so as to balance a force applied to the substrate by the topside rinsing meniscus. The bottomsideside module is defined to provide a drain channel for collecting and draining the cleaning material dispensed from the upper processing head when the substrate is not present between the upper and lower processing heads. The upper and lower processing heads can include multiple instantiations of the topside and bottomsideside modules, respectively.



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