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[Continued on next page]

(54) Title: FAST SUBSTRATE LOADING ON POLISHING HEAD WITHOUT MEMBRANE INFLATION STEP

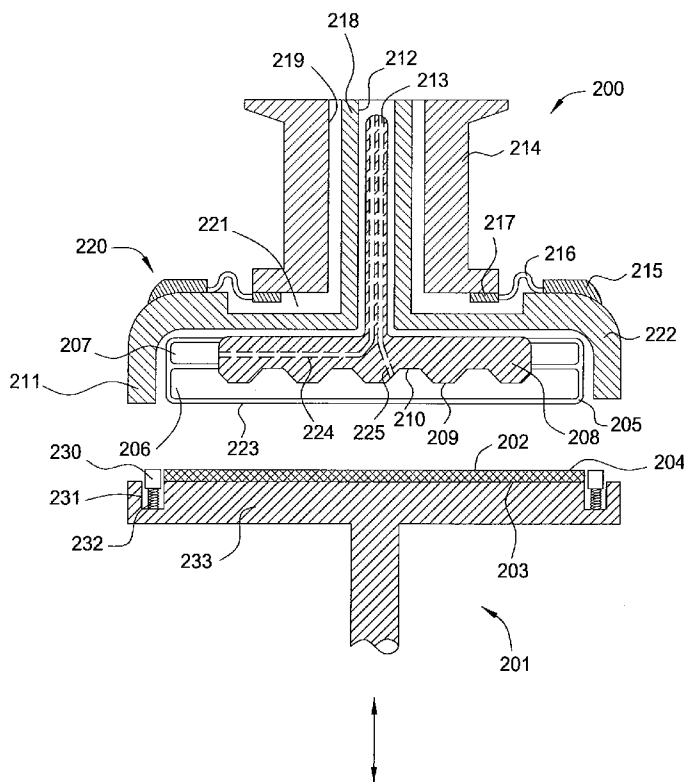


FIG. 2

(57) Abstract: The present invention relates to an apparatus and method for improving and speeding up a substrate loading process. The apparatus (200) includes a base member (208) having a bottom surface (209) with a plurality of recesses (210) formed therein and passages (224,225) formed within to pump a control gas in or out. The apparatus also includes a flexible membrane (205) that forms a center chamber (206) and an edge chamber (207) that may be inflated and deflated independently. A substrate support (201) is used to load a substrate (202) on the apparatus.

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USPC: 279/3;451/288
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 279/3; 451/288,289,388; 269/21; 118/500

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	US 6,056,632 (MITCHEL et al) 2 May 2000 (02.05.2000), entire document.	1-5 ----- 6-20
X --- A	US 2004/0266324 A1 (BOTTEMA et al) 30 December 2004 (30.12.2004), entire document.	6, 7, 10-18, and 20 ----- 8, 9, and 19

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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