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(54) **Method and apparatus for measuring a pad profile and closed loop control of a pad conditioning process**

(57) A method and apparatus for enhancing the process performance over the life of a polishing pad (120) in a chemical-mechanical polishing apparatus (80) employs closed loop control of polishing pad wear. A contactless displacement sensor (175), such as a la-

ser displacement sensor, provides feedback that is used to generate a pad profile of the polishing pad. Conditioning apparatus (130) is then controlled in response to the feedback from the laser displacement sensor in a closed loop control to modify the conditioning process and control the pad wear uniformity.

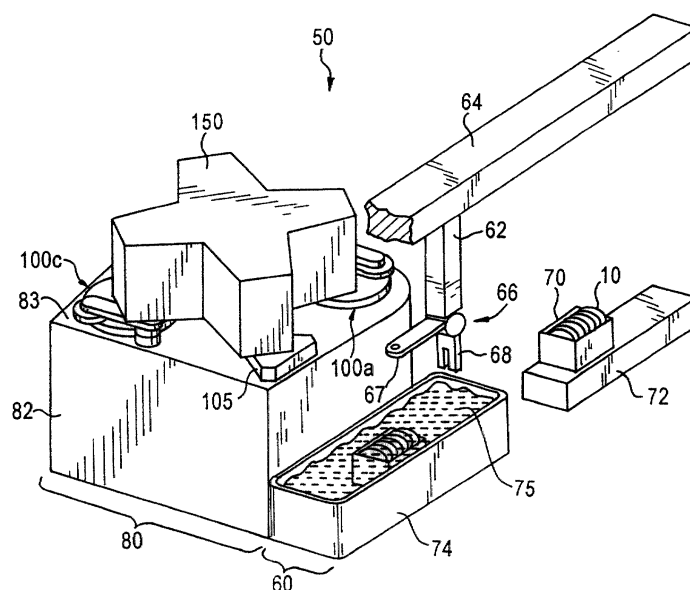


FIG. 3

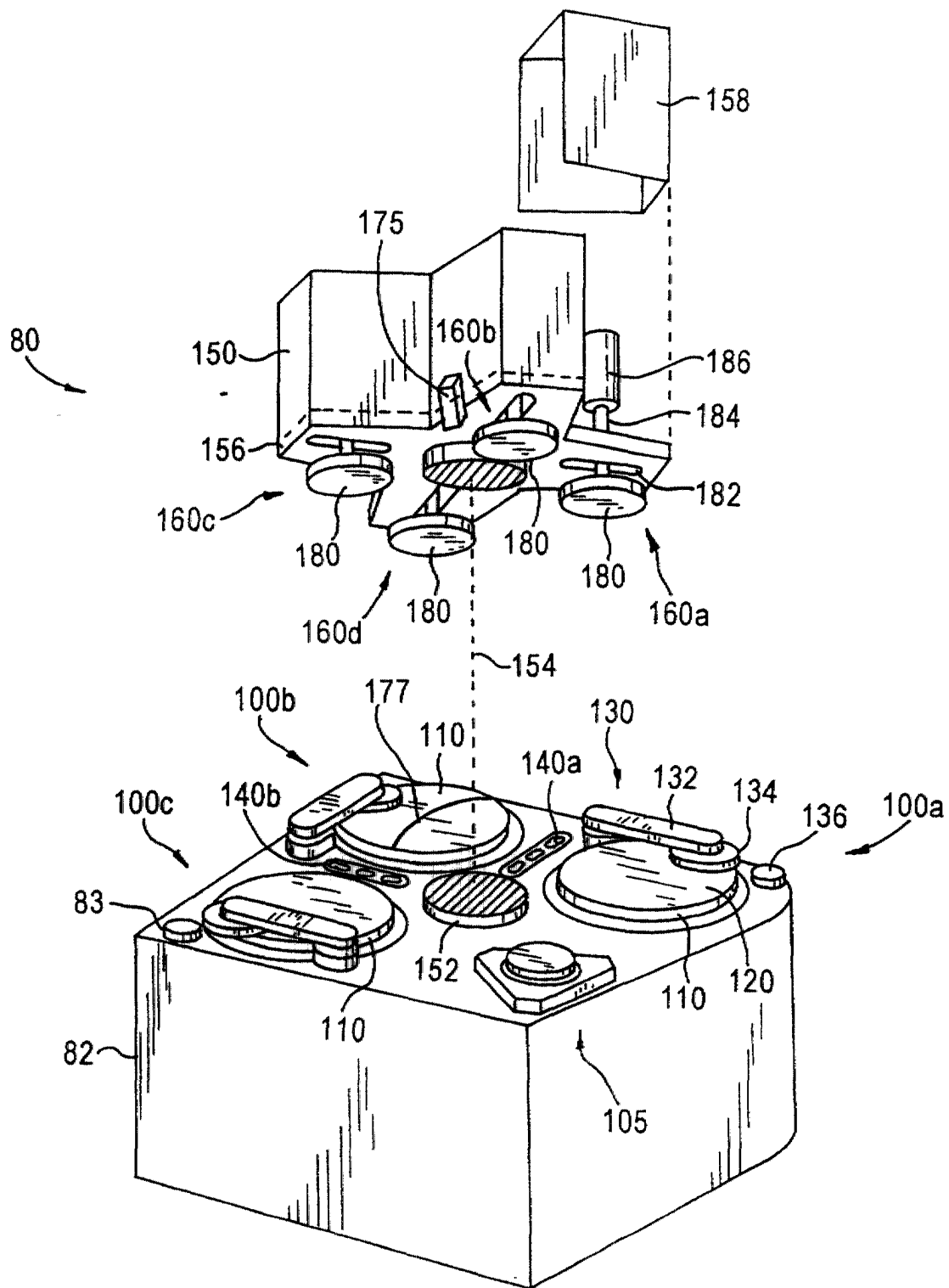


FIG. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 00 30 5242

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			B24B
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
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CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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