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- (72) Inventor; and
(71) Applicant : **KANADE, Udayan** [IN/IN]; 15-1, Sharman, Sahajanand Soc., Kothrud, Pune 411038 (IN).
- (72) Inventors: **JOSHI, Manohar**; F-6, Swapnashilpa Hsg. Soc., 19-2, Ganeshnagar, Kothrud, Pune 411029 (IN).
GANU, Sanat; 563 Shaniwar Peth, Pune 411030 (IN).
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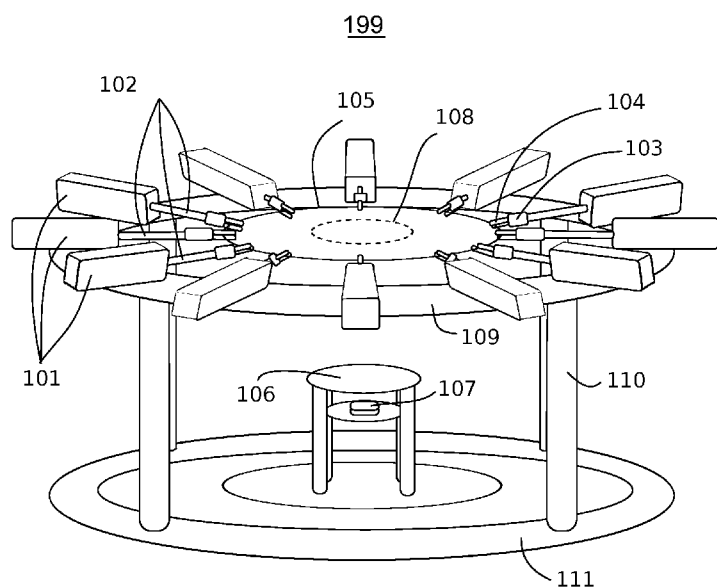


Fig 1

(57) Abstract: A universal materials testing machine is disclosed. In one embodiment, the machine comprises a plurality of grips holding a circular material specimen sheet; the grips being capable of pulling the material specimen radially outward. Each grip is connected to a force measurement sensor such as a load cell. The grip and the load cell assembly is connected to a linear actuator assembly. The linear actuator assembly comprises a motor connected to an arm that can move along a straight line. The actuator pulls or pushes the load cell and grip assembly. A camera module captures images of the specimen while being stretched or released. A data processing system gathers camera module images along with force measurements from the load cells. An analysis module running on the data processing unit computes stress and strain measurements and fits them to user selectable material model.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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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)

Databases: Questel, IPO internal database
Search terms: Test, mechanism, strain, stress, load cell, grip

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP2000162104 A (Kamegawa Masayuki et. al) 16 June 2000 (16-06-2000). Abstract; Claim 1; Figure 1; Paragraphs [0007-0013], [0022] and [0025]. -----	1-6
X	WO2005040765 A2 (Monteiro Joao Luis Marques Per et. al) 06 May 2005 (06-05-2005) Abstract; Claim 1; figures 1,3; Pages 3-5.	1-2, 5-6

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

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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT
Information on patent family members

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Citation	Pub.Date	Family	Pub.Date
WO 2005040765 A2	06-05-2005	EP 1685382 A2	02-08-2006
		JP 2007510151 A	19-04-2007
		US 2008034885 A1	14-02-2008