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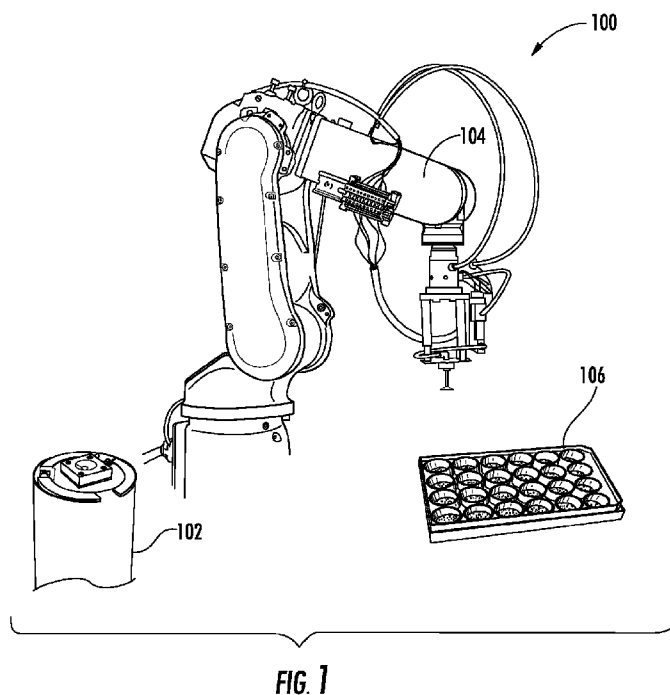
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(54) Title: METHOD, SYSTEM AND APPARATUS FOR REMOVING A SAMPLE PORTION OF A SEED



(57) Abstract: A system configured to remove a sample portion of a seed may include a vibratory device configured to vibrate the seed and orient the seed on an axis, a grasping device configured to grasp the seed, and an apparatus that includes an abrasive material that is configured to abrade the seed. The system may thereby remove the sample portion from the seed without damaging the embryo of the seed. Accordingly, the viability of a remaining portion of the seed may be maintained while producing a sample portion of the seed on which tests may be conducted. In one embodiment the apparatus configured to remove a sample portion of a seed includes a sample removal plate, an abrasive screen, and a funnel plate. The apparatus, system, and method are configured to prevent cross-contamination of sample portions from different seeds.



GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER*A01C 7/08(2006.01)i, A01C 7/10(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A01C 7/08; G01N 1/36; B65D 81/34; A01C 11/00; B23K 26/38; C12M 1/26; B65B 1/04; C12Q 1/68; C12N 5/04; B07C 5/344

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords:abrasive screen, sample plate, funnel plate, seed

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0131924 A1 (COPE JASON et al.) 05 June 2008 See abstract; claims 8, 11; paragraphs [0250]-[0251]; figures 4A-4C.	1-9
A	US 2010-0044356 A1 (COPE JASON) 25 February 2010 See abstract; claims 1, 3, 24; paragraphs [0105]-[0106]; figures 3.	1-9
A	US 2010-0047912 A1 (MONGAN JOSHUA L. et al.) 25 February 2010 See abstract; claim 1; paragraph [0061]; figures 1A-1C.	1-9
A	WO 02-49939 A1 (AGRESEARCH LIMITED et al.) 27 June 2002 See abstract; claims 1, 6, 15; page 5, paragraph 4; page 10; figures 1.	1-9
A	US 2009-0077932 A1 (COPE JASON et al.) 26 March 2009 See claim 1; paragraphs [0032]-[0035]; figures 1A-1B, 5A-5C, 7B.	1-9

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

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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