



(51) International Patent Classification:
G01N 23/04 (2006.01) *G01V 5/00* (2006.01)

(21) International Application Number:
PCT/US2010/043201

(22) International Filing Date:
26 July 2010 (26.07.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/229,452 29 July 2009 (29.07.2009) US

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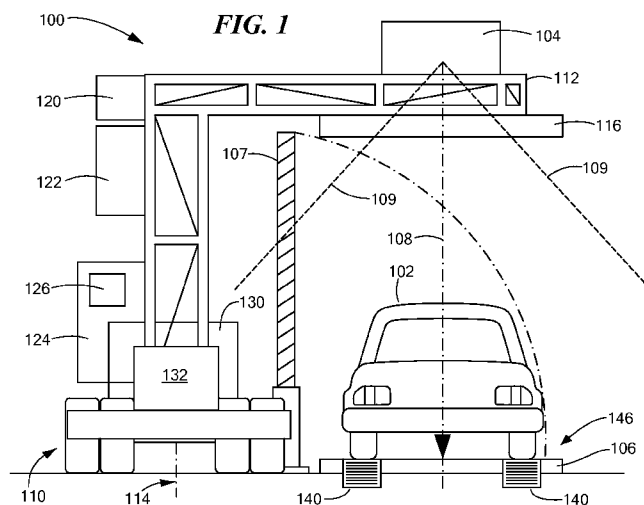
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, 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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: TOP-DOWN X-RAY INSPECTION TRAILER



(57) Abstract: A system and method for inspecting a vehicle by means of one or more sources and detectors of penetrating radiation. The source(s) and detector(s) are carried on a mobile conveyance and deployed at a point of operation. One source swings away from the conveyance on a deployable member, such as a boom, such that the source can irradiate a vehicle from above or below. A detector deploys outwardly from the mobile conveyance, remaining mechanically coupled to the mobile conveyance in a position in a horizontal plane, such that the detector intercepts penetrating radiation from the source positioned above the inspected vehicle, which penetrating radiation has interacted with the inspected vehicle. A ramp may be provided to allow the inspected vehicle to be driven to a position between the vertically irradiating source and a transmission detector.