

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
18 November 2021 (18.11.2021)



(10) International Publication Number
WO 2021/231479 A1

(51) International Patent Classification:

B60R 22/00 (2006.01) *A63G 7/00* (2006.01)
B60R 21/02 (2006.01) *A63G 31/00* (2006.01)

(21) International Application Number:

PCT/US2021/031845

(22) International Filing Date:

11 May 2021 (11.05.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/023,413 12 May 2020 (12.05.2020) US
17/316,583 10 May 2021 (10.05.2021) US

(71) Applicant: **UNIVERSAL CITY STUDIOS LLC**
[US/US]; 100 Universal City Plaza, Universal City, UT
91608 (US).

(72) Inventors: **KISH, Shawn, Michael**; c/o Universal City Studios LLC, 1000 Universal Studios Plaza, Orlando, FL 32819 (US). **WILCOX, Rachel, Sarah**; c/o Universal City Studios LLC, 1000 Universal Studios Plaza, Orlando, FL 32819 (US). **BERTONCELLO, James, Anthony**; c/o Universal City Studios LLC, 1000 Universal Studios Plaza, Orlando, FL 32819 (US). **RUSSELL, Michael, David**; c/o Universal City Studios LLC, 1000 Universal Studios Plaza, Orlando, FL 32819 (US).

(74) Agent: **MACAPAGAL, Lew, Edward V.**; Loza & Loza, LLP, 305 N. Second Ave., #127, Upland, CA 91786 (US).

(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, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,

(54) Title: SUPPORT BAR MOUNTED SYSTEM AND METHOD OF MINIMUM CLOSE INDICATION FOR RIDE VEHICLE

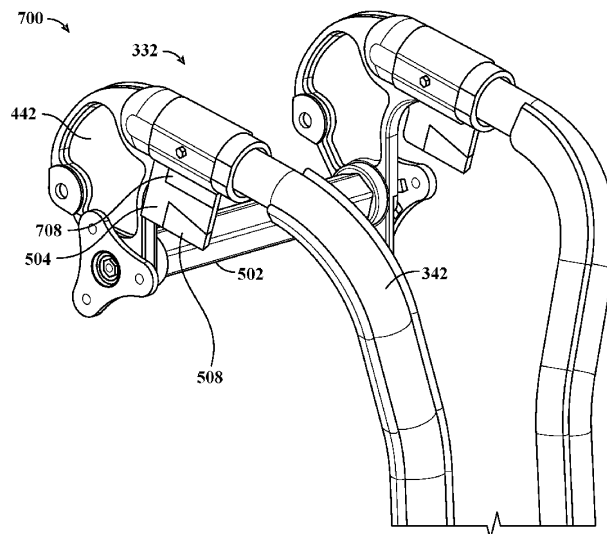


FIG. 7

(57) Abstract: Aspects of the disclosure relate to a method, apparatus, and system for restraining a passenger in a ride vehicle. The system includes a ride seat and a restraint system configured to restrain the passenger against the ride seat. The restraint system includes a crossbar for placing against the passenger, a support bar having a first support bar end coupled to the crossbar and a second support bar end rotatably coupled to a pivot mounted to an upper-rear portion of the ride seat, and a flap coupled to the support bar. The flap is configured to insert into, or extract from, a slot formed within a seat side structure when the support bar is rotated about the pivot and indicate whether the crossbar has attained a minimum closed position for restraining the passenger based on a position of a marking on the flap relative to the slot.

[Continued on next page]

WO 2021/231479 A1

ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

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