

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 November 2023 (23.11.2023)



(10) International Publication Number
WO 2023/222893 A1

(51) International Patent Classification:

B60N 2/28 (2006.01) *B60N 2/90* (2018.01)
B60N 2/005 (2006.01)

(21) International Application Number:

PCT/EP2023/063505

(22) International Filing Date:

19 May 2023 (19.05.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

202210558285.5 20 May 2022 (20.05.2022) CN

(71) Applicant: **WONDERLAND SWITZERLAND AG**
[CH/CH]; Beim Bahnhof 5, 6312 Steinhausen (CH).

(72) Inventor: **LIU, Zujian**; Yinhu Industrial Zone, Qingxi
Town, Dongguan, Guangdong, Guangdong 523648 (CN).

(74) Agent: **PFENNING, MEINIG & PARTNER MBB**;
Joachimsthaler Straße 10-12, 10719 Berlin (DE).

(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, CV, CZ, DE, DJ, DK, DM,

DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, 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, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).

Published:

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

(54) Title: AUTOMATIC PIVOTING MECHANISM, SIDE IMPACT PROTECTION DEVICE, AND CHILD SAFETY SEAT

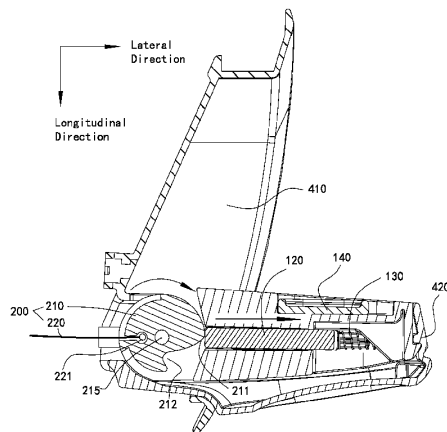


FIG. 9

(57) Abstract: An automatic pivoting mechanism according to the application is provided for controlling relative movement of a first object and a second object, characterized in that the automatic pivoting mechanism includes: a locking mechanism, disposed in the first object and capable of switching between a locked position for preventing the relative movement and an unlocked position for allowing the relative movement; a driving mechanism, disposed in the second object and capable of being actuated to switch the locking mechanism from the locked position to the unlocked position; and an actuating mechanism, disposed in a third object and actuates the driving mechanism when the third object moves relative to a fourth object. A side impact protection device and a child safety seat are provided as well.

WO 2023/222893 A1