

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 November 2024 (28.11.2024)



(10) International Publication Number
WO 2024/243142 A3

(51) International Patent Classification:

A47C 27/10 (2006.01) A47C 27/08 (2006.01)
A61G 7/057 (2006.01) A61G 7/05 (2006.01)

(21) International Application Number:

PCT/US2024/030233

(22) International Filing Date:

20 May 2024 (20.05.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/468,142 22 May 2023 (22.05.2023) US

(71) Applicant: **STRYKER CORPORATION** [US/US]; 2825
Airview Boulevard, Kalamazoo, Michigan 49002 (US).

(72) Inventors: **DERENNE, Richard A.**; 2917 Brynmawr
Drive, Portage, Michigan 49024 (US). **FLEWWELLIN,
Tashana**; 2825 Airview Boulevard, Kalamazoo, Michigan
49002 (US). **GALER, James K.**; 2060 Conifer Ridge Drive,
Byron Center, Michigan 49315 (US). **NAHAVANDI,
Kurosh**; 9121 West End Drive, Portage, Michigan 49002
(US). **KOCH, Nicholas D.**; 300 Eldred St., Battle Creek,
Michigan 49015 (US). **CHEADLE, Brian**; 4442 Bron-
son Boulevard, Kalamazoo, Michigan 49008 (US). **AL-**

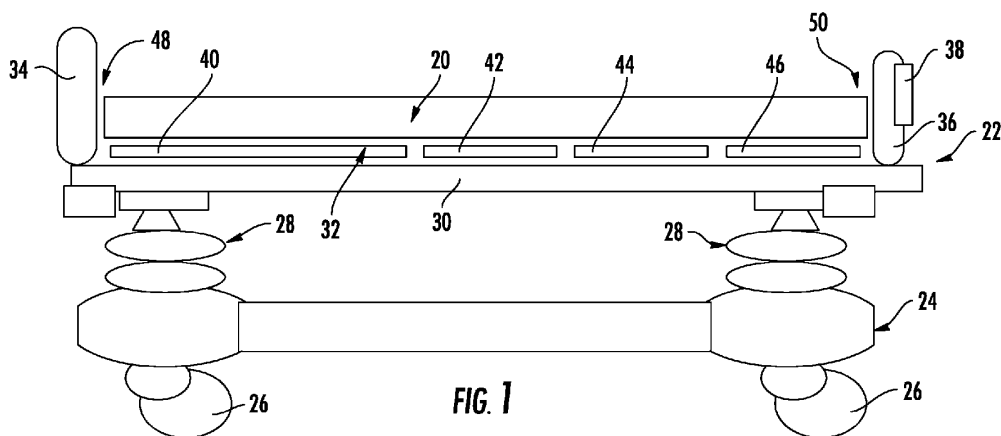
VAREZ, Ryan Ariel; 5555 Oriole Street, Kalamazoo,
Michigan 49004 (US).

(74) Agent: **DEVRIES, Nathan J.** et al.; WARNER NOR-
CROSS + JUDD LLP, 150 Ottawa Ave. NW, Ste. 1500,
Grand Rapids, Michigan 49503 (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, 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,

(54) Title: INFLATABLE MATTRESS AND CONTROL THEREOF



(57) Abstract: A patient support system is provided capable of forming a gap (e.g., a channel) between a target region of a patient and a support surface on which the patient is supported. The gap may be provided by selectively lowering a region of the patient support that is aligned with the target region of the patient.

[Continued on next page]

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))*

(88) Date of publication of the international search report:

09 January 2025 (09.01.2025)