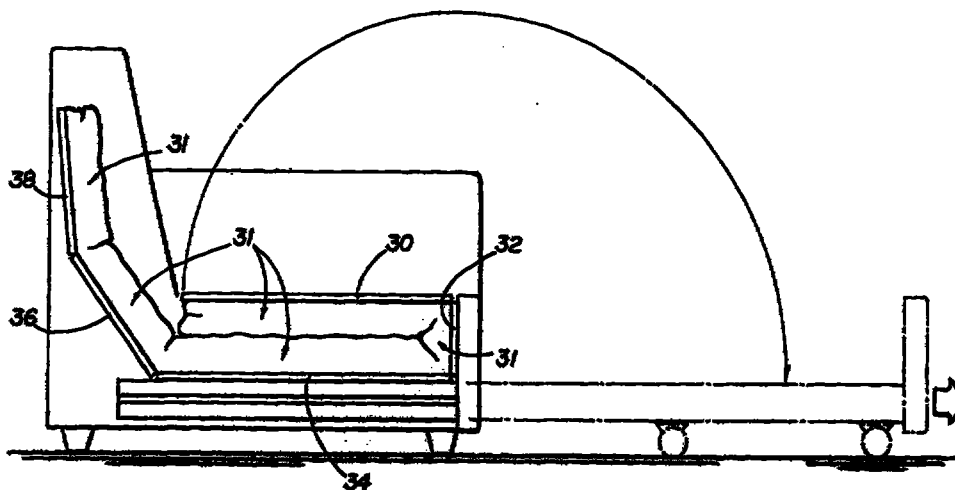




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A47C 27/22	A1	(11) International Publication Number: WO 99/45825 (43) International Publication Date: 16 September 1999 (16.09.99)
(21) International Application Number: PCT/US99/05371 (22) International Filing Date: 11 March 1999 (11.03.99) (30) Priority Data: 60/077,498 11 March 1998 (11.03.98) US (71) Applicant (for all designated States except US): SLEEP TEC, INC. [US/US]; Suite 600, 2580 Westside Parkway, Alpharetta, GA 30004-9835 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): KRAFT, Dieter, H. [US/US]; 140 Shady Grove Lane, Alpharetta, GA 30004 (US). MCKIM, Darren, M. [US/US]; Apartment #12, 14500 34th Avenue, North, Plymouth, MN 55447 (US). LARSON, Troy, W. [US/US]; 630 Copper Creek Circle, Alpharetta, GA 30004 (US). FLANEGAN, James, A. [US/US]; 15440 Thorntree Run, Alpharetta, GA 30004 (US). (74) Agents: WEATHERLY, Mitchell, G. et al.; Needle & Rosenberg, P.C., 127 Peachtree Street, N.E., Atlanta, GA 30303 (US).	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	

(54) Title: SLEEPER SOFA WITH AN AIR MATTRESS



(57) Abstract

A sleeper sofa (10) incorporating an air mattress (40) including a telescoping mattress frame for supporting a mattress support subassembly consisting of hinge panels (31). The hinges (150) used to connect the panels limit the range of motion of adjacent panels (31) to plus or minus 90° from a coplanar arrangement. The panel (34) that defines the seating surface may be supported in the seating position by a pair of side rails (39a, 39b) that lack significant structure in the seating plane. This panel (34) may also include a set of sinuous springs (136) clad in padding. The air mattress (40) used in the sleeper sofa can be a multi-chamber design in which the outer edges (43a, 43b) are inflated to a higher pressure to prevent the user from rolling off the edge. The mattress may also include a longitudinal divider portion (49) inflated to a higher pressure, between individually pressure controlled sleeping portions (45a, 45b) to prevent one user from rolling from a high pressure sleeping area to an adjacent low pressure sleeping area. The mattress may also include a cover (51) with internally attached elastomeric straps used to assist mattress deflation in specific areas of the mattress such as the foot end.