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(71) Applicant: STEELCASE INC. [US/US]; 901 44th Street, P.O. Box 1967, Grand Rapids, MI 49501 (US).			
(72) Inventors: HEIDMANN, Kurt, R.; 6932 Linden, S.E., Grand Rapids, MI 49548 (US). DEKRAKER, Larry; 14415 Edmeer Drive, Holland, MI 49424 (US). BATTEY, Robert, J.; 5913 Pine Vista, S.E., Kentwood, MI 49548 (US). KNOBLOCK, Glenn, A.; 1627 Sunny Creek, S.E., Kentwood, MI 49508 (US). JOHNSON, Michelle, R.; 1045 Lakeside, S.E., Grand Rapids, MI 49506 (US). SCHEPER, Robert, M.; 25 Wallinwood, N.E., Grand Rapids, MI 49503 (US). DAMMERMANN, Arnold, B.; 3075 Hayward Drive, S.E., Grand Rapids, MI 49546 (US). EKDAHL, Kevin, A.; Unit 401, 7625 North Eastlake Terrace, Chicago, IL 60626 (US). KLAASEN, Gardner, J., II; 749 Grand River			
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(54) Title: SYNCHROTILT CHAIR WITH ADJUSTABLE SEAT, BACK AND ENERGY MECHANISM

(57) Abstract

A chair (20) is provided having a base assembly (21) including a base frame, a back frame (30) pivoted to the base frame for movement between upright and reclined positions, and a seat (24) slidably supported on the base frame and pivoted to the back frame so that the seat moves forwardly and its rear moves forwardly and downwardly with the back frame upon recline. A flexible back is connected to the back frame at top and bottom locations and is provided with lumbar adjustment for improved lumbar force/support and shape. A seat is provided with seat depth adjustment and with active and passive thigh flex support. A novel energy mechanism (27) is provided that includes a transverse spring (28), a lever (54), and a moment arm shift adjuster (29) for adjusting the spring tension on the back frame. The moment arm shift adjuster is readily adjustable and includes an overtorque device to prevent damage to components of the energy mechanism.

