

RECENT PATENTS^a

Alignment Device for Artificial Limbs: Denis R. W. May, assignor to J. E. Hanger and Co., London, England. Clamping screws on the alignment device may be loosened or the device dismantled without the loss of a desired alignment setting. (Patent No. 3,982,278, Sept. 28, 1976; filed Jan. 29, 1976, Appl. No. 653,605; 5 claims.)

Bioelectrodes: Takuya R. Sato. This bioelectrode design features a pad of electrolyte-filled absorbent material arranged to press against the skin at all times, thus ensuring good electrical contact. (Patent No. 3,982,529, Sept. 28, 1976; filed Aug. 7, 1975, Appl. No. 602,611; 41 claims.)

Fluid-Filled Cushioning Assemblies: J. Herbert Keeton. A compartmented cushion is filled with fluid. The individual cells may either be sealed off or a free exchange of fluid may be produced by opening valves between cells. It is claimed that by control over flow, the cushion shape may be varied as desired. (Patent No. 3,984,886, Oct. 12, 1976; filed Aug. 20, 1975, Appl. No. 606,079; 5 claims.)

Functional Ankle for a Prosthetic Limb: Charles C. Asbelle, Gene R. Helmuth, William R. Applegate, and Gerald K. Porter, assignors to the Secretary of the Navy, Washington, D.C. An improvement of the SACH foot in which an additional block of rubber is so mounted as to permit transverse rotation. (Patent No. 3,982,280, Sept. 28, 1976; filed Oct. 6, 1975, Appl. No. 619,873; 1 claim.)

Inflation Device for a Pneumatic Orthosis: Donald K. Shaffer, assignor to Thiokol Corp. Pneumatic orthoses are usually inflated with an electric motor driven compressor. This invention would employ gas cartridges, carried in two canes, to achieve the necessary inflation. So equipped, the user can inflate the orthosis without access to external power. (Patent No. 3,982,531, Sept. 28, 1976; filed April 30, 1975, Appl. No. 572,980; 14 claims.)

Mechanical Prosthesis of the Knee: Mario C. Valenti and Jorge C. Samaranch. A weight-operated mechanical knee brake, claimed to offer superior stability on ramps. (Patent No. 3,982,279, Sept. 28, 1976; filed March 6, 1975, Appl. No. 556,112; 5 claims.)

Method of and Means For Scrambling and Descrambling Speech at Audio Frequencies: Daniel Graupe, Fort Collins, Colo. and G. Donald Causey, Chevy Chase, Md., assignors to Biosystems Research Group II, Chevy Chase, Md. A method for processing an input audio-frequency signal which is to be transmitted through a communication channel, comprising scrambling the input signal, transmitting the analog signal through the channel, and descrambling the transmitted scrambled analog signal. (Patent No. 4,086,435, filed Sept. 17, 1976, Appl. No. 724, 170, 18 claims.)

Photocurable Contour Conforming Splint: Donald C. Garwood and Harry Taw, assignors to Merck and Co., Inc. A splint material of fabric impregnated by a photocurable resin,

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after molding, is cured by exposure to a bank of powerful fluorescent lamps. It is claimed that the resulting matrix is air and water permeable and rigid even when wet. (Patent No. 3,985,128, Oct. 12, 1976; filed June 2, 1975, Appl. No. 583,122; 12 claims.)

Vehicle Invalid Lift Device: Otto C. Holecek. Mounted to a car door frame, an apparatus capable of transferring an invalid into or out of a car seat may be either mechanically or hydraulically powered. It is not necessary to drill holes in the car frame; the device may be quickly mounted and removed. (Patent No. 3,983,584, Oct. 5, 1976; filed June 17, 1975, Appl. No. 587,555; 13 claims.)

Wheel or Geriatrics Chair Cushion: Jody A. Gorran. Compartments of air and fluids within the cushion provide a soft and stable base for the patient. It is claimed that the stabilizing features are particularly important to feeble subjects. An overflow chamber accepts any leak. (Patent No. 3,983,587, Oct. 5, 1976; filed Sept. 23, 1975, Appl. No. 616,045; 12 claims.)

Wheelchairs: Robert B. Bonfield, assignor to Bardic Engineering Limited, Southampton, England. A hydraulic wheelchair attachment acts to raise the back end of a wheelchair, thus permitting easier entrance and exit. Manually operated pumps and selector valves are incorporated. (Patent No. 3,985,389, Oct. 12, 1976; filed June 23, 1975, Appl. No. 589,791; 21 claims.)