RECENT PATENTS [a]

Adjustable Link for Prosthetic Limb: Richard Glabiszewski, assignor to Otto Bock, Orthopadische Industrie KG. A relatively simple alignment device consisting of an adjustable linkage which interconnects adjoining members of a prosthesis, such as a knee joint and the shank. The relative alignment of the links is produced by pressure applied from two pairs of setscrews which bears against the contact surfaces. (Patent No. 3,659,294, May 2, 1972; filed May 1, 1970, Appl. No. 33,793; 4 claims.)

Angular Adjustment Connector for Prosthetic Limb Parts: Jan Prahl, assignor to Wilhelm Julius Teufel. An alignment coupling device, especially for aligning the prosthetic foot with the shank, that consists of a body and a base member connected by several hydraulic support bearings. The various angular relationships are secured by the reactive forces placed on the bearings, maintaining the desired alignment via tension on the body and the base. The device is claimed to be light, easy to fabricate, small, and yet rugged. (Patent No. 3,649,968, Mar. 21, 1972; filed Sept. 4, 1970, Appl. No. 69,841; 14 claims.)

Apparatus for Detecting, Analyzing and Recording Bioelectric Potentials: Bernard Saltzburg, Leonard S. Lustick, and Robert G. Heath. A device to detect, amplify, analyze, and record action potentials of various electro-physiological phenomena occurring in the body. The apparatus is comprised of electrodes to detect the electrical activity, a band-pass filter to produce a filtered signal, an amplifier circuit, an instrument to record particular physical phenomena (a microcoulometer read-out device), and a means for providing a quantitative analysis of the electro-physiological activity by utilizing a pre-determined frequency band of the signal. (Patent No. 3,662,746, May 16, 1972; filed May 14, 1969, Appl. No. 824,501; 1 claim.)

Braille Typewriter: Hershel Weinberger, assignor to the State of Israel. A device to convert a standard typewriter for typing in braille. The apparatus includes several character-key switches, a braille recording device, an electrical switching network between these two elements, and a recording sheet advancing means. The device allows the operator to use his own standard typewriter, by adding only an attachment, to type in braille; the device also allows for the recording of standard type for correspondence with a sighted person. (Patent No. 3,640,368, Feb. 8, 1972; filed Aug. 14, 1969, Appl. No. 850,202; 3 claims.)

Implantable Electronic Stimulator Electrode and Method: Gerald W. Timm and William E. Bradley, assignors to the Regents of the University of Minnesota. An implantable electrode array, capable of electrically stimulating excitable tissue locally without stimulating nearby tissue structures. Each individual electrode includes a pair of conductors to carry both positive and negative signals from various coupling points on the tissue mass. The electrical impulses may be time-sequenced

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[a] Patents may be ordered by number from the Commissioner of Patents, Washington, D.C. 20231, at 50¢ each.

so that only one of the electrodes has a voltage applied between its input terminals at any given time. (Patent No. 3,646,940, Mar. 7, 1972; filed July 15, 1969, Appl. No. 841,756; 9 claims.)

Instrument to Supplement and Take the Place of Hands: James W. Ross. An assistive device, supported by a loop element on the operator's head or neck, that provides for manipulation of objects, feeding, a holding or supporting means, writing and drawing instruments, etc., for use by the handicapped. The device is actuated by movement of the patient's head and/or chin which operates a tool actuator and, distally, the manipulative tool itself. The instrument is self-supporting by means of an adjustable strap that surrounds the back of the head or neck and attaches to the tool-actuating yoke. (Patent No. 3,653,775, Apr. 4, 1972; filed Sept. 8, 1970, Appl. No. 70,384; 42 claims.)

Joint Movement Limiting Arrangement for Prosthetic Legs: Clarence W. Vermillion. A prosthetic hip joint for hip-disarticulation and hemipelvectomy prostheses, which can also be used in the knee joint for above-knee amputees. The joint includes a stop mechanism to prevent undesired movement which may cause the prosthesis to buckle during the stance phase of walking. A release of the stops is included to permit free pivotal movement of the joint when desired. (Patent No. 3,663,967, May 23, 1972; filed Sept. 6, 1968, Appl. No. 758,031; 3 claims.)

Method for Measuring Cutaneous Sensory Perception: George M. Low, Robert W. Richardson, and David B. Wright, National Aeronautics and Space Administration. A device utilizing a flexible but stiff wire or monofilament stimulating element, telescopically enclosed in a tubular housing, that indicates and measures an absolute value for cutaneous response by a vernier counter adjustment on the housing exterior. (Patent No. 3,662,744, May 16, 1972; filed Dec. 2, 1970, Appl. No. 94,347; 2 claims.)

Method of Making Dry Electrodes: George M. Low and Frank B. Ramme. A means of fabricating dry electrodes for use in physiological monitoring of individuals. Silver powder is mixed with an organic cement and diluted with an organic solvent which evaporates readily and decreases the viscosity of the cement (e.g., acetone). The cement mixture is sprayed onto a plastic sheet and allowed to dry. The dried, conductive cement is then peeled from the sheet and placed on a hard rubber mat. A punch is then used to cut the disk elements, preferably the size of a half-dollar. Two of these disks are placed together, with a lead wire sandwiched between them. A solvent bonds the two disks together, leaving a solid electrode member. (Patent No. 3,662,441, May 16, 1972; filed Oct. 7, 1970, Appl. No. 78,704; 5 claims.)

Modified Polyvinyl Chloride Foams, Preparation Thereof and Applications Therefor: Michio Fukushima and Motoshi Mitarai, assignors to Nippon Gohsei Kagaku Kogyo Kabushiki Kaisha. Colorless polyvinyl chloride foams with improved softness, elasticity, texture, cosmesis, fineness, and uniformity of cell distribution, which can be molded into a sheet or any other desired shape or laminated on a base such as paper, veneer, cloth, etc. The foam is obtained by blending a vinyl acetate-ethylene copolymer and a liquid plasticizer together with a polyvinyl chloride resin. The resulting resinous mixture is then heated to a temperature where the foaming agent decomposes and the mixture becomes a foam with the aforementioned properties. (Patent No. 3,600,335, Aug. 17, 1971; filed Dec. 15, 1967, Serial No. 690,789; 3 claims.)

Wheel Chair Ramp for Automotive Vehicles: Le Roy S. Simonelli, Leonard N. Randolph, and Sam Damico, assignors to Clover Industries, Inc. A wheelchair ramp that is permanently attached to a vehicle. The ramp consists of two hinged floor sections that are manually operated by switches, controlling fluid-pressure-operated pistons and cables. These pistons and cables swing the ramp out of the door of the vehicle to a position where a patient can independently roll the wheelchair onto the ramp and into or out of the vehicle. The ramp is then raised or lowered to allow the patient entrance to or exit from the automobile. (Patent No. 3,651,965, Mar. 28, 1972; filed May 1, 1970, Appl. No. 33,632; 6 claims.)