

RECENT PATENTS^a

Apparatus for Speech Compression: John H. Park, Jr., and William C. Mortimore, assignors to PKM Corporation, St. Paul, Minn. A device for recording and selectively deleting portions of normal speech sound and pauses to produce intelligible messages compressed to record at one-half the time of the actual speech. (Patent No. 3,723,667, May 27, 1973; filed Jan. 3, 1972, Appl. No. 214,615; 11 claims.)

Braille Display Device: Norman B. Sutherland, assignor to the Mitre Corporation, Bedford, Mass. A braille display system which permits each of a plurality of character display cells to be independently set to a respective braille pattern. (Patent No. 3,659,354, May 2, 1972; filed Oct. 21, 1970, Appl. No. 82,564; 11 claims.)

Braked Joint for Prostheses and Orthoses: Franz Gelbenegger, assignor to IPOS Kommanditgesellschaft, Luneburg, Germany. A brake device to control resistances against movements as well as to mutually lock artificial limb or brace members under the influence of spring bias and spring loading. (Patent No. 3,739,404, June 19, 1973; filed Nov. 29, 1971, Appl. No. 202,978; 3 claims.)

Cervical Brace: Robert O. Nitschke, assignor to Ted J. Green, Costa Mesa, Calif. A cervical brace which may be applied to a patient in a prone position without substantial movement of his head, neck, or upper torso. It consists of a chest plate, shoulder bars for resting on the shoulders of the patient which are secured to the chest plate, and an occipital plate and a chin support, both attached to the chest plate and both adjustable. (Patent No. 3,724,452, Apr. 3, 1973; filed Mar. 4, 1971, Appl. No. 120,871; 15 claims.)

Collapsible Wheel Chair: Andrew Karchak, Jr., and James R. Allen. A collapsible, power-driven wheelchair capable of rapid disassembly and assembly, and characterized by simplicity and compactness. The invention comprises a base-carrying wheel means, a seat unit, and tubular shafts carried by the base and seat unit capable of releasable telescopic interconnection with other parts of the wheelchair. Provision is also made for electric motors, battery power, and an automatic speed drive for control of the chair. (Patent No. 3,749,192, July 31, 1973; filed July 16, 1971, Appl. No. 163,388; 7 claims.)

Conversion of Printed Text Into Synthetic Speech: Cecil Howard Coker and Noriko Umeda, assignors to Bell Telephone Laboratories, Inc., Murray Hill, Berkeley Heights, N. J. A speech synthesis system which receives English text from an input system, assigns stress and timing values to each detected word, finds a phonetic description of each word from a stored dictionary, and computes the phonetic parameters necessary for speech synthesis. (Patent No. 3,704,345, Nov. 28, 1972; filed Mar. 19, 1971, Appl. No. 126,200; 9 claims.)

Head or Back Support for Wheelchair: Buddy F. Lane, assignor to Arco Corp., Richmond, Va. An adjustable head or back support for wheelchairs which is adjustable as desired by the individual patient. Support is provided in the horizontal,

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vertical, and angular directions for the wheelchair occupant. (Patent No. 3,730,589, May 1, 1973; filed Dec. 9, 1971, Appl. No. 206,268; 5 claims.)

Leg Brace: Salvatore Golia, assignor to Corona Surgical Appliance Corporation, Corona, N.Y. A leg brace to alleviate a dropped foot condition with an adjustable means for placing the foot in the best possible position with respect to the leg when limiting the downward movement of the foot. (Patent No. 3,732,862, May 15, 1973; filed May 28, 1971, Appl. No. 147,984; 4 claims.)

Paraplegic Bed: Wayne V. Kirkman. A bed for paraplegic patients that has a foot portion, a seat portion, and a back and head portion, and means for changing the position of the bed from horizontal to vertical and any other position in the angular displacement. (Patent No. 3,729,751, May 1, 1973; filed Apr. 26, 1971, Appl. No. 137,399; 7 claims.)

Percutaneous Myo-Electrode System: Frederick Claud Cowland, assignor to Plessey Handel and Investments, A.G., Zug, Switzerland. A percutaneous myo-electrode system for facilitating either the stimulation of, or the extraction of, electrical energy due to muscular activity within the body of a vertebrate. The electrode is connectable to a muscle within the body. The electrical energy user can be an artificial limb, and the external electrical energy source can be used to stimulate the heart of a vertebrate. (Patent No. 3,722,005, Mar. 27, 1973; filed Nov. 15, 1971, Appl. No. 198,596; 9 claims.)

Physiological Pressure Transducers: Huntley D. Millar, assignor to Millar Instruments, Inc., Houston, Tex. A transducer for application in physiological measurements such as intra-arterial or intra-venous blood pressure measurements. The principle of a cantilever beam is employed which is exposed directly to the source of pressure. The pressure to the beam causes flexure which is measured by a strain gage or other means for measuring its deformation, and a related electrical signal is produced. (Patent No. 3,724,274, Apr. 3, 1973; filed Feb. 11, 1971, Appl. No. 114,610; 23 claims.)

Prosthetic Leg with Weight Responsive Knee Lock: John L. Kolman, assignor to United States Manufacturing Co., Glendale, Calif. A knee structure for a prosthetic limb, which allows the shin portion to pivot with respect to the thigh portion about an axle and has a brake band around the axle with novel means for causing the brake band to tighten around the axle, when the wearer places weight on the limb, to allow the knee to lock at any angular position. The brake automatically releases when the weight is lifted off the limb. (Patent No. 3,723,997, Apr. 3, 1973; filed Apr. 30, 1971, Appl. No. 134,262; 7 claims.)

Reading Machine for the Blind: John B. Skewis and James Y. Laurie. Equipment which assembles and presents a succession of raised replicas of characters delineated on a sheet on to a controlled moving belt to enable a blind person to read any work by tactual sensing of the raised replicas which are presented in the same order and spacing on the belt as on the sheet. (Patent No. 3,736,672, June 5, 1973; filed Dec. 29, 1971, Appl. No. 213,449; 10 claims.)

Serrated Resilient Joint Orthotic Device: Hans Richard Lehneis, assignor to New York University, New York, N.Y. An orthotic device for supporting and assisting movement of infirm body limbs. The device is comprised of a pair of support members interconnected for relative resilient motion by a flexure member consisting

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essentially of elastomeric material. A serrated configuration of elements interposed in the mounting of the flexure member in operative relationship with the support members maintains the parts suitably in place while permitting resilient action. (Patent No. 3,732,861, May 15, 1973; filed Mar. 31, 1971, Appl. No. 129,673; 9 claims.)

Sheath Device for Aiding Placement of Prosthetic Limbs: Harry H. Herrmann. A double-backed sheath made of resilient material such as ladies hosiery that fits snugly onto the stump. When the stump is inserted into a suction socket, an elongated device is put through the small vacuum hole in the limb which grasps both layers of the sheath. Upon pulling both layers the sheath becomes tighter and the stump is pulled into place. When the stump is in place, the outer layer of the sheath is pulled on to release the inner layer and the whole device is removed through the vacuum hole. (Patent No. 3,601,819, Aug. 31, 1971; filed Feb. 4, 1970, Appl. No. 8,473; 4 claims.)