

RECENT PATENTS*

Invalid Stretcher: Darrell D. Fletcher, assignor to Citizens National Bank of Lubbock, Lubbock, Texas. Designed to transport invalid from relatively inaccessible locations while maintaining the body of the invalid immobile and covered. (Patent No. 3,158,875, Dec. 1, 1964; filed Sept. 5, 1962, Serial No. 221,480; 15 claims.)

Cushion for Invalids: Robert E. Pernell, assignor to Wood Conversion Company, St. Paul, Minn. An elastomeric foam cushion with three cutaway sections to provide pressure relief to the buttocks and the ischium of a patient in a variety of positions, such as sitting or lying prone in bed; and is suitable for persons of various sizes, shapes, and weights. (Patent No. 3,158,878, Dec. 1, 1964; filed Aug. 27, 1963, Serial No. 304,848; 5 claims.)

Prosthetic Wrist Unit: Wesley C. Prout, assignor to A. J. Hosmer Corporation, Santa Clara, California. An improved prosthetic wrist unit for use between a prosthetic arm and a prosthetic terminal device or hook. A friction-type wrist unit constructed for easy assembly and adjustment, and accurate setting of amount of friction holding to prevent turning movement of hook while in use. (Patent No. 3,159,847, Dec. 8, 1964; filed Mar. 7, 1963, Serial No. 264,481; 6 claims.)

Scan Systems: Jacob Rabinow, assignor to Control Data Corporation, Minneapolis, Minn. A more efficient method and apparatus for scanning a character on an area. Designed for scan systems of general utility, but especially useful in character recognition devices or reading machines. (Patent No. 3,159,814, Dec. 1, 1964; filed May 26, 1960, Serial No. 32,004; 16 claims.)

Hand Measuring Means for Fitting Mechanical Hands to Patients: Charles J. Daniels and Thomas A. Smith, assignors to All American Engineering Company, Wilmington, Del. A single, compact measuring device to perform all the key measurements to facilitate the production of the "Mechanical Hand" by Charles J. Daniels and Thomas A. Smith; assigned to the present assignee. (Patent No. 3,159,923, Dec. 8, 1964; filed Jan. 27, 1961, Serial No. 85,252; 18 claims.)

Lattice-Type Character Recognition System: Ralph A. Gregory, assignor to International Business Machines Corporation. A character recognition system in which the character is projected onto a photosensitive lattice. The lattice is constructed of photosensitive strips, each yielding a selected parameter whose value is a function of the image of the character when superimposed on the lattice. The decoding of the individual parameter values of each strip identifies said character. (Patent No. 3,160,854, Dec. 8, 1964; filed Jan. 12, 1961, Serial No. 82,307; 10 claims.)

Invalid Walker and Ambulatory Aid: Jerome P. Clearman, et al. A device designed to permit an individual who is incapable of supporting or raising his or her own weight to a standing position. It is also adapted to be used for aiding such person in learning to walk by giving maximum body support through a fitted chest piece which supports the chest and shoulder area while using the walker. (Patent No. 3,165,314, Jan. 12, 1965; filed July 9, 1962, Serial No. 208,383; 2 claims.)

*Patents may be ordered by number from the Commissioner of Patents, Washington, D.C. 20420, at 25 cents each.

Stair Climbing Conveyance: Edward D. Dunn, Jr. A wheelchair type of power-operated conveyance specifically adapted for negotiating inclines and stairs with complete control by the occupant. (Patent No. 3,166,138, Jan. 19, 1965; filed Oct. 26, 1961, Serial No. 147,795; 16 claims.)

Arm Contoured Crutch: Roderick H. Maguire, Jr. A crutch with means for receiving the heel of the hand and the arm in a supported position to relieve strain upon the elbow and hand of the user. (Patent No. 3,174,494, Mar. 23, 1965; filed June 5, 1961, Serial No. 120,117; 4 claims.)

Acoustic Apparatus: Herbert Belar and Harry F. Olson, assignors to Radio Corporation of America. A corporation of Delaware. An automatic speech recognizer, especially suitable for use in a voice-operated apparatus which obtains signals that control the operation of a machine which types or prints the words spoken into the apparatus. (Patent No. 3,172,954, Mar. 9, 1965; filed Dec. 17, 1959, Serial No. 860,229; 19 claims.)

Vehicle Guidance by Optical Means: Jack Rabinow and William Fischer, assignors, by mesne assignments, to Jacob Rabinow, Bethesda, Md. An invention related to automatic steering of a vehicle that is compatible with existing highways. Without the use of special devices added to the highway, this invention uses those features of or near a road that are ordinarily used by a human operator of a motor vehicle who relies on his eyesight to guide him. (Patent No. 3,172,496, Mar. 9, 1965; filed Jan. 15, 1962, Serial No. 166,340; 28 claims.)

Page Turner: Stanislaw D. Degorski and Vincent T. Borka. An automatic page turning device that will turn a single page by actuating a switch which may be operated by foot. (Patent No. 3,174,242, Mar. 23, 1965; filed Nov. 28, 1961, Serial No. 155,284; 3 claims.)

Positive Grip Prosthetic Hand Having Automatic Locking Means: Richard Glabiszewski, assignor to Otto Bock Orthopadische Industrie K.G., Duderstadt, Hanover, Germany. A cosmetically reproduced artificial hand with an improved gripping and locking function of the thumb and fingers. (Patent No. 3,173,151, Mar. 16, 1965; filed July 6, 1962, Serial No. 207,926; Claims priority, application Germany, July 8, 1961, B 63,196; 7 claims.)

Weight Responsive Knee Lock for Artificial Leg: Albert A. Tolotti. A knee mechanism that positively prevents movement of one part relative to another after the user has applied weight to the leg. (Patent No. 3,172,127, Mar. 9, 1965; filed July 20, 1961, Serial No. 125,446; 2 claims.)

Sacroiliac Belt: Louis P. Mack. An elastic sacroiliac belt designed to maintain the pressure pad in position on the body of the wearer for longer period of time than is possible with other designs. This is accomplished by arrangement of stitching on a foam rubber pad to the belt and a partial vacuum caused by the pores of the foam rubber pad. (Patent No. 3,154,072, Oct. 27, 1964; filed Jan. 9, 1963, Serial No. 250,410; 4 claims.)

Hydraulically Actuated Crutch: George R. Farnham, assignor to Far-Prit Associate, Inc., a corporation of Texas. A variable-length crutch which may be extended or shortened by means of electrically generated hydraulic power. (Patent No. 3,157,188, Nov. 17, 1964; filed June 4, 1962, Serial No. 285,476; 6 claims.)

Contour Crutch: Arthur J. Johnson, Jr., assignor to Johnson Therapeutical Corp., New York, N.Y. This crutch design provides a vertical keyway so that the crutch head remains keyed to the body, providing the stabilizing moment necessary to prevent the

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hands and wrists from bearing the reaction torques of crutch walking and to prevent flailing against the body by the crutch head. (Patent No. 3,150,672, Sept. 29, 1964; filed Dec. 4, 1961, Serial No. 156,883; 2 claims.)

Power Actuated Crutch: George R. Farnham, assignor to Far-Prit Associate, Inc., a corporation of Texas. A crutch which may be varied in length under positive, electromechanical power to enable a handicapped person to raise or lower himself between reclining and erect positions. (Patent No. 3,157,189, Nov. 17, 1964; filed July 10, 1963, Serial No. 293,937; 8 claims.)

Directional Obstacle Detecting Cane for the Blind: William A. Ruthven. A cane device with a wheel at the tip, two pairs of "feelers," a tactile indicator (electric vibrator) mounted on the handle section at the head of the cane, and a red blinker light that can be switched on to "warn drivers of vehicles and other pedestrians that a blind person is crossing the street." (Patent No. 3,158,851, Nov. 24, 1964; filed Apr. 22, 1963, Serial No. 274,457; 10 claims.)

Blind Man's Walking Cane: Roy C. Reel. A crook cane with support roller at tip, a pair of telescopically connected members and a means for absorbing shocks or jars when the roller sharply contacts a solid object. (Patent No. 3,158,162, Nov. 24, 1964; filed May 9, 1962, Serial No. 193,376; 2 claims.)

Pressure Bandage-Splint: Max Gottfried, assignor to Jobst Institute, Inc., Toledo, Ohio. A transparent plastic envelope with slide fastener and valve that can be applied to a broken limb, and inflated to provide a splint for rendering the limb immobile. The "bandage" can also be used to control bleeding and formation of injuring edema. It permits visual inspection of the wounded limb and the pressure in the bandage may be raised or lowered as required by the severity of the wound. (Patent No. 3,153,413, Oct. 20, 1964; filed Jan. 23, 1962, Serial No. 177,693; 3 claims.)

Lifting Device: Iran deWitt Steed. A lifting device with a very small motor that will raise a heavy load, such as brick, mortar, lumber, stucco, etc. Designed to eliminate fall through mechanical failure, and to lower quickly and safely. Installed in basements, it may be used as an efficient, inexpensive elevator in 1 or 2-story homes or office buildings. (Patent No. 3,160,228, Dec. 8, 1964; filed Feb. 6, 1962, Serial No. 171,506; 2 claims.)

Seat Construction: Lloyd L. Stryker, Assignor to Stryker Corp., a corporation of Michigan. A portable type of seat designed to move elderly people or invalids between a sitting and standing position from a wheelchair, toilet, or the like. (Patent No. 3,158,398, Nov. 24, 1964; filed Sept. 14, 1962, Serial No. 223,628; 1 claim.)

Foot-Adjusting Insert and Method: Joseph A. Misiak. A wax-mold impression method used to produce latex inserts and prosthetic molds for footwear and analogous uses. (Patent No. 3,158,151, Nov. 24, 1964; filed May 13, 1960, Serial No. 28,925; 3 claims.)

Hearing Aid Tube Attachment: Jack Bernstein. Provides a means for mounting the sound conducting tube in a hearing aid ear piece which will eliminate the use of cement and which will enable the patient to remove a defective tube and replace it with a new one without recourse to factory or dealer and without being deprived of the use of his hearing aid. (Patent No. 3,157,245, Nov. 17, 1964; filed Apr. 3, 1963, Serial No. 270,297; 5 claims.)

Apparatus for Casting Leg Stumps: Henry F. Gardner, assignor to the United States of America as represented by the Secretary of the Army. A casting stand with socket forms that can be used for AK and BK casting to accurately duplicate general contours, size, and structure of stump under normal weight-bearing conditions. (Patent No. 3,165,782, Jan. 19, 1965; filed April 26, 1963, Serial No. 276,111; 3 claims.)

Stair-climbing Power-driven Tracked Truck: James W. Russell, assignor to Stair-King, Inc., Mecklenburg, N. C. Provided with a single reversible motor operable by one man, this tracked truck was designed to move at a fixed speed (approximately normal walking speed) and to climb or descend stairs, whether conventional, narrow and twisting, or with irregular risers and heads. (Patent No. 3,149,688, Sept. 22, 1964; filed Mar. 22, 1962, Serial No. 181,550; 2 claims.)

Shoe Insoles: Raymond F. Purtell. A nonrigid insole having a heel portion contoured to the shape of the human heel and provided with a flexible forepart beneath the ball of the foot and toes to improve the normal functioning of the foot during walking. (Patent No. 3,161,970, Dec. 22, 1964; filed July 17, 1961, Serial No. 124,629; 2 claims.)

Plethysmograph: Samuel M. Bagno. Claimed to provide an economical and reliable impedance plethysmograph for determining volumetric flow of blood in a test subject. The current invention is designed to reduce circuitry noise so that impedance fluctuation signals with an amplitude of as low as 0.1% of the input amplitude can be accurately plotted. (Patent No. 3,149,627, Sept. 22, 1964; filed Apr. 25, 1962, Serial No. 191,394; 12 claims.)

Strain Gauge Compensation: John E. Ames, Jr., assignor to Fairchild Camera and Instrument Corp., Syosset, L. I., New York. An amplifier automatically compensating for temperature variations in sensitivity of semiconductor strain gauge sensor elements. (Patent No. 3,161,045, Dec. 15, 1964; filed Aug. 18, 1961, Serial No. 132,502; 3 claims.)

High Output Electrical Strain Transducers: William H. McLellan, assignor to Electro-Optical Systems, Inc., Pasadena, Calif. Invention relates in general to strain-electrical translating elements; utilizes a piezoresistive sensor consisting of a single semiconductor crystal which provides hysteresis-free semiconductor strain gauges. (Patent No. 3,160,844, Dec. 8, 1964; filed Mar. 22, 1962, Serial No. 181,644; 21 claims.)

Body Function Sensors: Earl A. Grindheim, Arthur J. Stenstrom, and Richard L. Walus, assignors to Robert L. Gannon, Minneapolis, Minn. A device to measure blood pulse; can be attached to fingers and toes for blood pulse or to ribcage to produce a signal representative of respiratory function. (Patent No. 3,154,066, Oct. 27, 1964; filed Oct. 11, 1961, Serial No. 144,386; 6 claims.)

Body Function Sensor: Arthur J. Stenstrom and Richard L. Walus, assignors to Robert L. Gannon, Minneapolis, Minn. A strain gauge type of measuring device to detect the pulse by responding to minute changes in the body or body members. (Patent No. 3,154,067, Oct. 27, 1964; filed Oct. 11, 1961, Serial No. 144,387; 5 claims.)

Physiologic Electrode Tablet: Clifford G. Phipps and George G. Lucchina, assignors to the United States of America as represented by the Secretary of the Navy. The composition and method of making a conducting pellet used as a physiological electrode for electrical contact with the skin. The inventors claim the pellet electrodes provide improved pickup of bioelectrical voltages by intercepting desired A.C. signal voltages, while minimizing undesirable D.C. voltage artifacts. The tablet consists of an intimately bonded homogeneous mixture of finely divided Ag and AgCl with an embedded silver wire conductor. (Patent No. 3,137,291, June 16, 1964; filed Aug. 28, 1962, Serial No. 220,102; 2 claims.)