

RECENT PATENTS*

Stair-climbing Wheelchair: Gourley H. Green. This invention relates to a battery-operated wheelchair adapted to climb and descend stairs by means of metallic stair grippers located on the lower edge of a rectangular tubular housing. A hydraulic mechanism is utilized in lowering and raising the rear wheels. (Patent No. 3,142,351, July 28, 1964; filed Jan. 19, 1962, Ser. No. 167,384; 12 claims.)

Stair-climbing Wheelchairs: Burton H. Locke. This relates to improvements of the inventor's Patent No. 3,111,331 (see *Bull. Prosthetics Research* BPR 10-1, 1964, p. 150), which enable the occupant to manipulate the swinging of the swivel wheels necessary for stairclimbing and which reduce the need of occupant control of other mechanisms. For example, the traction belts are now automatically controlled in both directions by the rotation of the drive wheels. (Patent No. 3,146,841, Sept. 1, 1964; filed Feb. 25, 1963, Ser. No. 260,453; 5 claims.)

Occupant-controlled, Obstruction-climbing Wheelchair: Werner Greub. This invention relates to a wheelchair frame with retractable forked legs and endless belts that can be propelled by the sitter up or down stairs or over obstacles. The chair angulation can be varied to compensate for the degree of inclination of the obstacles; reverse drive is impeded by a self-locking worm-gearing system. (Patent No. 3,127,188, Mar. 31, 1964; filed Apr. 23, 1962, Ser. No. 189,616; claims priority, application Switzerland, Apr. 23, 1961; 6 claims.)

Stair-climbing Wheelchair: Eugene M. Richison and Ethel M. Richison (assignors of 25 percent to T. H. Conklin, Stigler, Okla.). This invention relates to a wheelchair with tiltable backrest and seat that can be occupant-operated by handcranks for climbing or descending stairs and curbs. The longitudinally reciprocable traction shoes of the climbing assembly can be retracted so as not to interfere with normal wheel operation; means are also provided for the occupant to collapse or spread the frame sides, without his leaving the wheelchair, as for passing through a narrow door. (Patent No. 3,133,742, May 19, 1964, filed Oct. 8, 1962, Ser. No. 229,244; 14 claims.)

Wheelchair with Power Lift Means: Lenard W. Johnson. This invention relates to a self-powered multipurpose vehicle for the transport and transfer of patients as well as for the exercising and handling of invalids in general. A sling arrangement facilitates transfer, and when mounted on the armrests, can be utilized as an exercising device. The armrests can accommodate a patient in the erect position and may be used for mounting a pair of crutch supports. (Patent No. 3,137,869, June 23, 1964; filed May 18, 1962, Ser. No. 195,816; 14 claims.)

Invalid Chair: Russell G. Heyl, Jr., Raymond C. Posh, and Robert G. Logie, Jr., assignors to American Metal Products Co., a corporation of Michigan. This invention relates to a motorized invalid chair that will seat or unseat a person from or to a standing position. (Patent No. 3,138,402, June 23, 1964; filed Nov. 1, 1961, Ser. No. 149,264; 16 claims.)

Patient Lift: Buddy A. Bowers, Eugene, and Fred T. Hunt (assignors to Pron-O-Lift, Inc., a corporation of Oregon.) This invention relates to a grapple-type prone-

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patient lift suspended by a swivel hanger adapted for mounting on the lift beam of a hospital dolly; the arms lock automatically to prevent inadvertent opening in the lower position or dropping from the upper position. (Patent No. 3,131,404, May 5, 1964; filed Sept. 1, 1961, Ser. No. 135,627; 6 claims.)

Devices for Circulating Air in Footwear: Truls Owe Larsen. This invention relates to inserts for circulating air in footwear through valveless apertures at heel and toe. (Patent No. 3,142,912, Aug. 4, 1964; filed July 24, 1961, Ser. No. 126,063; claims priority application Norway July 28, 1960; 6 claims.)

Compensating Device for Footwear: C. W. Coplans, assignor to Orthostance (Proprietary) Ltd., Cape Town, Cape Province, Republic of South Africa, a limited-liability corporation of Republic of South Africa. This invention relates to a sling-like metal device for use in shoes to relieve flat foot and minor deformities of the longitudinal arch. (Patent No. 3,133,544, May 19, 1964; filed Aug. 18, 1961, Ser. No. 132,489; claims priority, application Republic of South Africa, Sept. 2, 1960; 1 claim.)

Insoles for Footwear: Ernst Bittner, assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York. This invention relates to an adjustable cushion-type insole that provides ventilation to the foot. (Patent No. 3,143,812, Aug. 11, 1964; filed Sept. 22, 1961, Ser. No. 139,961; claims priority application Germany Mar. 11, 1961; 2 claims.)

Tubular Crutch: Charles E. Murcott. This invention relates to a type of crutch designed with a reversely bent underarm section that enables the user to work with his hands while his body is crutch-supported. (Patent No. 3,133,551, May 19, 1964; filed Feb. 7, 1963, Ser. No. 256,901; 3 claims.)

Stump Shrinker: Alice R. Crowell and Hector E. Lewis, assignors to Surgical Appliances Industries, Inc., a corporation of Ohio. This invention relates to an above-knee stump shrinker, consisting of a closed-end elastic sleeve, harness assembly, waist belt, and a draw loop for tying the lower end of the sock. Provision is made for a thin pad to form a cushion between the distal end of the stump and an artificial limb. (Patent No. 3,138,156, June 23, 1964; filed Dec. 5, 1961, Ser. No. 157,620; 5 claims.)

Synthetic Vascular Implants: William J. Liebig. These prosthetic "tubes" are related to the inventor's Patent No. 2,978,787. The all-woven tubular form incorporates a wall modification that is internally smooth and externally microcrimped. Upon release of distorting stresses, the tube returns to its open form with little or no remnant deformation. It is made in single-tube and bifurcate forms, and has been used in experimental animals to replace segments of the aorta and peripheral arteries, or as shunts. (Patent No. 3,142,067, July 28, 1964; original application Nov. 21, 1958, Ser. No. 775,522, now Patent No. 3,096,560, July 9, 1963. Divided, filed Feb. 16, 1961, Ser. No. 89,862; 3 claims.)

Artificial Heart: William J. Fry, Francis J. Fry, and Reginald C. Eggleton, assignors to Interscience Research Institute, a corporation of Illinois. This invention relates to improvements upon the inventors' Patent No. 2,917,751 of an artificial heart. The present patent provides a silent, low-pressure, high-volume pumping apparatus. The artificial heart is designed to be used externally or, with special plastic casing, internally as a substitute for the natural organ. (Patent No. 3,152,340, Oct. 13, 1964; filed Nov. 28, 1960, Ser. No. 72,155; 9 claims.)