

## RECENT PATENTS<sup>a</sup>

**Adjustable Artificial Leg for Temporary Use:** John G. Bailey, George J. Wyers, Peter Spear, and Anthony W. Gregory, assignors to Rubery, Owen and Company, Ltd., Darlaston, Wednesbury, Staffordshire, England. A temporary, adjustable artificial leg for use after an above-knee amputation. The parts of this limb can be adjusted transversely, angularly, and rotationally to accommodate for the many physical changes a stump undergoes after surgery. (Patent No. 3,538,516, Nov. 10, 1970; filed Oct. 20, 1967, Serial No. 676,781; 5 claims.)

**Amputee Socket:** Russell S. Colley, assignor to Ernest S. Ferry, Kent, Ohio. An adjustable socket for an artificial limb. The socket is provided with a vertical slot extending to the upper edge and a clamp with a variable bite so that the cavity within the socket can be adjusted to the size of a stump. (Patent No. 3,545,009, Dec. 8, 1970; filed Nov. 20, 1968, Serial No. 777,410; 6 claims.)

**Artificial Arm Having Bioelectrically Controlled Finger Movement and Hand Rotation Responsive to Shoulder Muscle Impulses:** David M. Ioffe, et al., Moscow, U.S.S.R. An artificial arm having combined control, both bioelectric and rod. Opening and closing of fingers and rotating of the forearm are controlled by biological current from the AE stump muscles which is amplified and converted by an electronic control unit encased within the forearm unit and an external power source. Flexion and extension of the arm and finger movements are carried out by the aid of rods. (Patent No. 3,491,378, Jan. 27, 1970; filed Feb. 28, 1967, Serial No. 619,424; 2 claims.)

**Artificial Foot:** John L. Orange. An artificial foot with an inelastic core, preferably wood. Attached to the core is an elongated, flat leaf spring placed so that when the wearer's weight moves forward over the ball of the foot, the spring is compressed and hits the bottom surface of the core which limits the flexing of the forefoot late in stance phase. (Patent No. 3,484,871, Dec. 23, 1969; filed Dec. 2, 1968, Serial No. 780,344; 1 claim.)

**Artificial Hand for Bowling:** Robert L. Brown. An artificial hand for bowling with two stationary fingers and an opposed movable thumb. Each of the three is provided with a ball tip which fits into a respective hold in a bowling ball. The thumb is pulled toward the fingers with a tension spring which provides sufficient holding force. (Patent No. 3,538,515, Nov. 10, 1970; filed Jan. 26, 1968, Serial No. 700,775; 4 claims.)

**Artificial Leg:** May C. Tarte. An artificial leg with articulated joints and means for retaining the joints in a locked and free-articulated condition. A one-piece lock rod, supported in the lower portion of the leg and extending into the movable parts of the knee and ankle joints, engages and disengages to open and lock these joints. (Patent No. 3,546,712, Dec. 15, 1970; filed July 9, 1968, Serial No. 748,132; 10 claims.)

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<sup>a</sup> Patents may be ordered by number from the Commissioner of Patents, Washington, D.C. 20231, at 50 cents each.

**Body Electrode Assembly:** Richard M. Berman, assignor to Gulton Industries, Inc., Delaware. A skin electrode assembly made of molded insulating material with a recess in the base portion for receiving conductive paste. Behind the base is a head portion with a cavity intersecting the recess. A conductive electrode-forming disk closes the opening between the recess in the base and the cavity in the head. An insulated signal lead extends through the cavity in the head portion, bends around two corners and terminates in the cavity. The conductor of the signal lead is soldered to the electrode-forming disk and the cavity is filled with an encapsulating material. (Patent No. 3,545,432, Dec. 8, 1970; filed July 24, 1967, Serial No. 655,508; 7 claims.)

**Electro-Mechanical Hand Having Tactile Sensing Means:** Anthony V. Fraioli, assignor to The Bendix Corp., Delaware. An electro-mechanical hand having small-sized piezo-diodes directly implanted in a load-supporting region of each joint of each finger. By means of hinged linked joints in the fingers, and the pressure sensing means of the piezo-diodes, the hand can control the pressure exerted on such objects as an egg or a glass. (Patent No. 3,509,583, May 5, 1970; filed Sept. 9, 1965, Serial No. 486,069; 15 claims.)

**Finger Splint:** Dennis William Collins, Cambridge, England. A finger splint with two digit engaging members, spaced apart and connected by a spring that tends to move the members apart in a hand-opening direction. (Patent No. 3,533,405, Oct. 13, 1970; filed June 9, 1967, Serial No. 644,946; 1 claim.)

**Low Noise Differential Amplifier for Measuring Biological Signals:** Graham Travers Schuler, assignor to Canadian Patents and Development, Ltd., Ottawa, Ontario, Canada. A low-noise interference-resistant differential amplifier. The object is to provide a difference amplifier with a high common mode rejection, a high common mode input impedance, and low noise. (Patent No. 3,528,405, Sept. 15, 1970; filed April 10, 1967, Serial No. 629,534; 1 claim.)