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(54) Title: METHOD AND APPARATUS FOR ACTIVE CONTROL OF GOLF CLUB IMPACT

(57) Abstract: A method and apparatus for actively controlling the impact between a club head and a golf ball. A golf club head has a face with an actuator material or device mechanically coupled to influence face motion. The face actuation controls impact parameters, impact properties, or resulting ball parameters such as speed, direction and spin rates resulting from the impact event between the face of the club and the golf ball. Further, the apparatus has a control device for determining the actuation of the face. Several embodiments are presented for controlling parameters such as ball speed and direction. The invention can use energy derived from the ball impact, converted into electrical energy, and then reapplied in a controlled fashion to influence an aspect of the face, such as position, velocity, deformation, stiffness, vibration, motion, temperature, or other physical parameter.



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