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(54) **SYSTEM AND METHOD FOR ESTABLISHING PITCH PARAMETERS IN A BALL-THROWING MACHINE**

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**Related U.S. Application Data**

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(51) **Int. Cl.**<sup>7</sup> ..... **F41B 4/00**

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(58) **Field of Search** ..... 124/6, 78; 473/451

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(57) **ABSTRACT**

A ball-throwing machine is provided for throwing baseballs, softballs and the like, which machine includes a power head having three coacting wheels for propelling a ball toward a batter to simulate a variety of pitches at different speeds and different locations. Three AC motors and companion motor drives are provided for causing the wheels to rotate at predetermined speeds. The motor drives include dynamic braking circuits to permit rapid deceleration of the wheels. A pair of linear actuators is provided to permit the power head to be moved to predetermined horizontal and vertical positions. The pitches are established by providing a table of five separate data elements for each of said pitches, three of said data elements corresponding to the rotational speed of each of said wheels, and the remaining two data elements corresponding to the horizontal and vertical angular position of the power head. Each of these data elements is computed using a mathematical formula that linearly relates each element to the speed of the ball being propelled. A programmable controller is included for individually controlling the rotational speed of each individual wheel, the horizontal position of the power head and the vertical position of the power head. A smart card reader may be employed for programming of the controller and the machine is adapted to be used in conjunction with a video display to simulate the actual pitching of a baseball by a pitcher. The machine is able to interchangeably deliver pitches of different types to different locations at different speeds with less than ten-second intervals between pitches.

**11 Claims, 13 Drawing Sheets**

