



US006186134B1

(12) **United States Patent**
Battersby et al.

(10) **Patent No.:** **US 6,186,134 B1**
(45) **Date of Patent:** **Feb. 13, 2001**

(54) **PITCHING SYSTEM WITH VIDEO DISPLAY MEANS**

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(*) Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

(21) Appl. No.: **09/457,809**

(22) Filed: **Dec. 9, 1999**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/259,722, filed on Mar. 1, 1999.

(51) **Int. Cl.**⁷ **F41B 4/00**

(52) **U.S. Cl.** **124/78**

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

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(57) **ABSTRACT**

A pitching system is provided for throwing baseballs, softballs and the like, which machine is synchronized to work in conjunction with a video display means to permit a batter to visually view a pitcher prior to and during delivery of the pitch. The machine includes a power head having at least two and preferably three coating wheels for propelling a ball toward a batter to simulate a pitch. 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. 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. A video display device is included for displaying a moving video image upon a screen situated adjacent to the pitching system. Said screen has an aperture therein for allowing unobstructed passage of the ball therethrough. The propelling of the ball and the moving image of the pitcher are synchronized by means of a programmable control unit, which chooses the video image appropriate for a particular pitch and instructs the wheels to rotate at the appropriate speeds for said pitch, as well as instructing the machine to assume a horizontal and vertical angular position appropriate for such pitch. When the programmable control detects that the wheels have assumed the appropriate speeds and the machine has assumed the appropriate horizontal and vertical angular position, the control unit initiates the playback of the video image and, after a predetermined interval of time, signals a solenoid to impel the ball into pitching machine so that the ball appears to be thrown by the image of the pitcher.

22 Claims, 14 Drawing Sheets

