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United States Patent [19]

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Shafer et al.

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[54] AIR CONTROL SYSTEM FOR AN AIR BED

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Minneapolis, Minn.

[21] Appl. No.: **332,833**

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[51] Int. Cl.⁶ **A47C 27/10; H04Q 7/06**

[52] U.S. Cl. **5/453; 318/16; 5/935**

[58] Field of Search **5/448, 449, 453,**
5/935; 318/16

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Attorney, Agent, or Firm—Patterson & Keough

[57] ABSTRACT

An automatic control system for controlling the firmness of a fluid supported mattress of a bed assembly. The control system includes a motorized fluid pump, a control unit for operating the pump to adjust the firmness of the air mattress, a hand held remote control unit for actuating the control unit, and a transceiver system for transmitting information signals between the hand held unit and the control unit. The air control system provides for independent control of both bladders in a two bladder air mattress from a single unit, and allows a user to consistently set the firmness of each mattress air bladder to a desired value. The air control system includes an air pump specially designed to minimize transmission of motor noise into the environment.

4 Claims, 17 Drawing Sheets

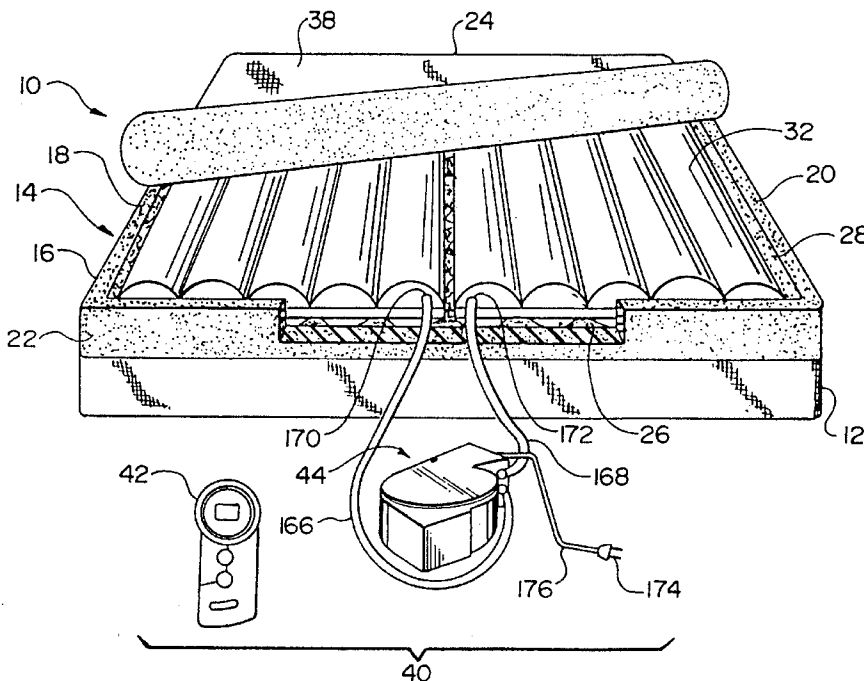


Fig. 1

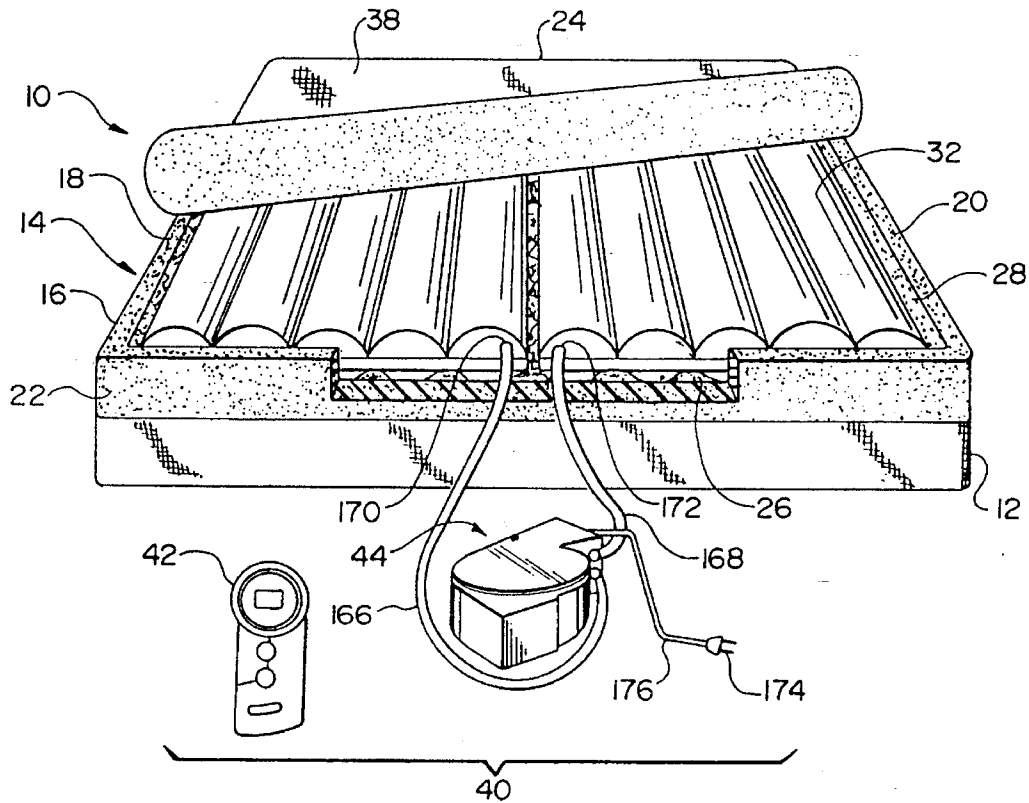
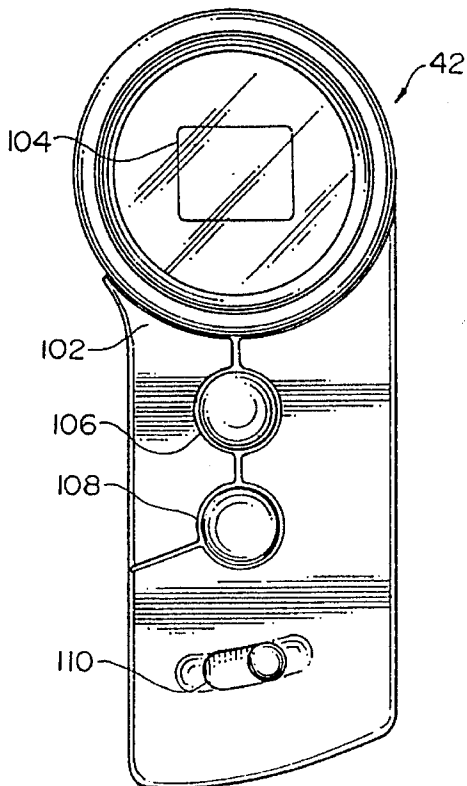


Fig. 2



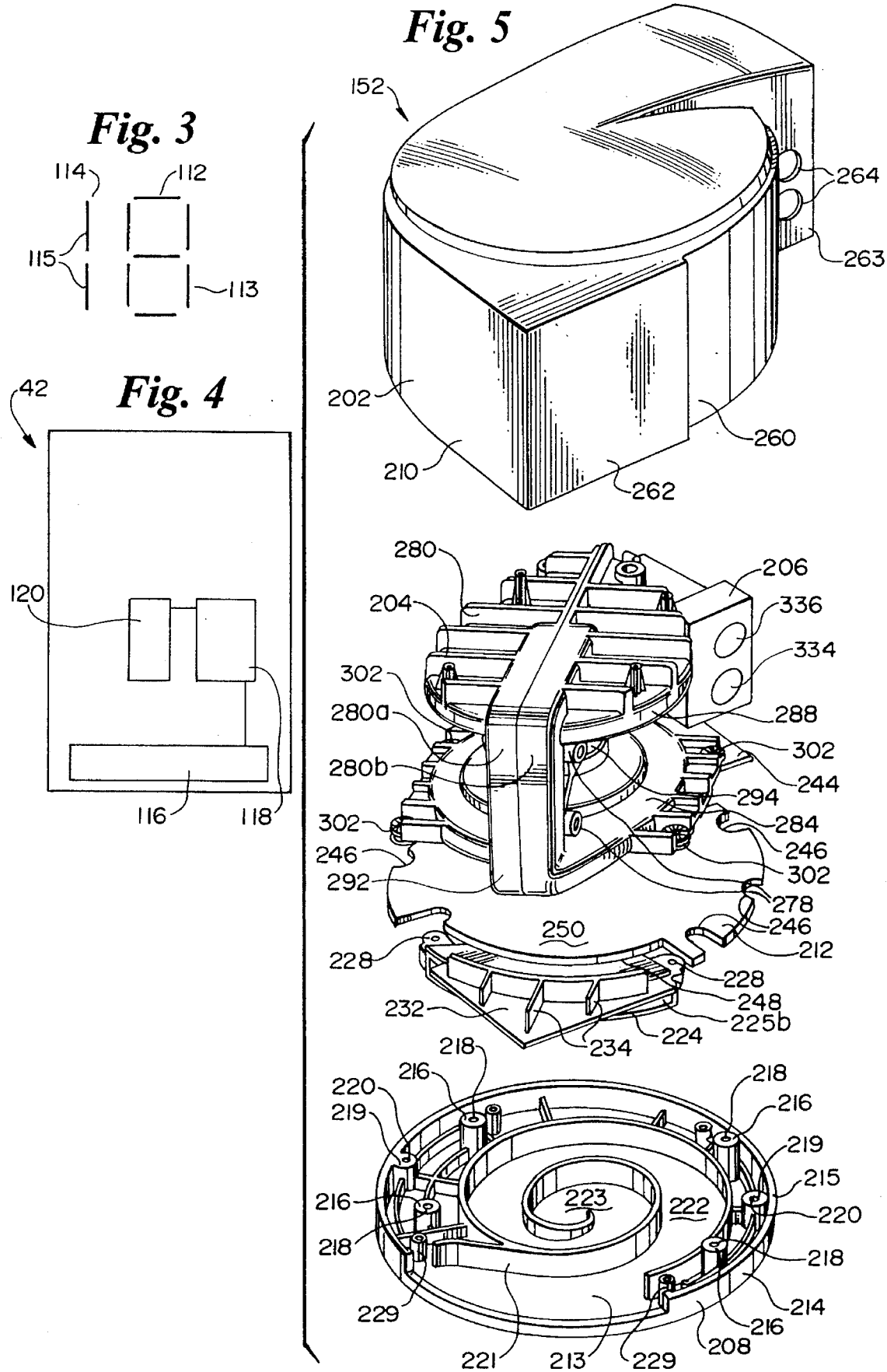


Fig. 6

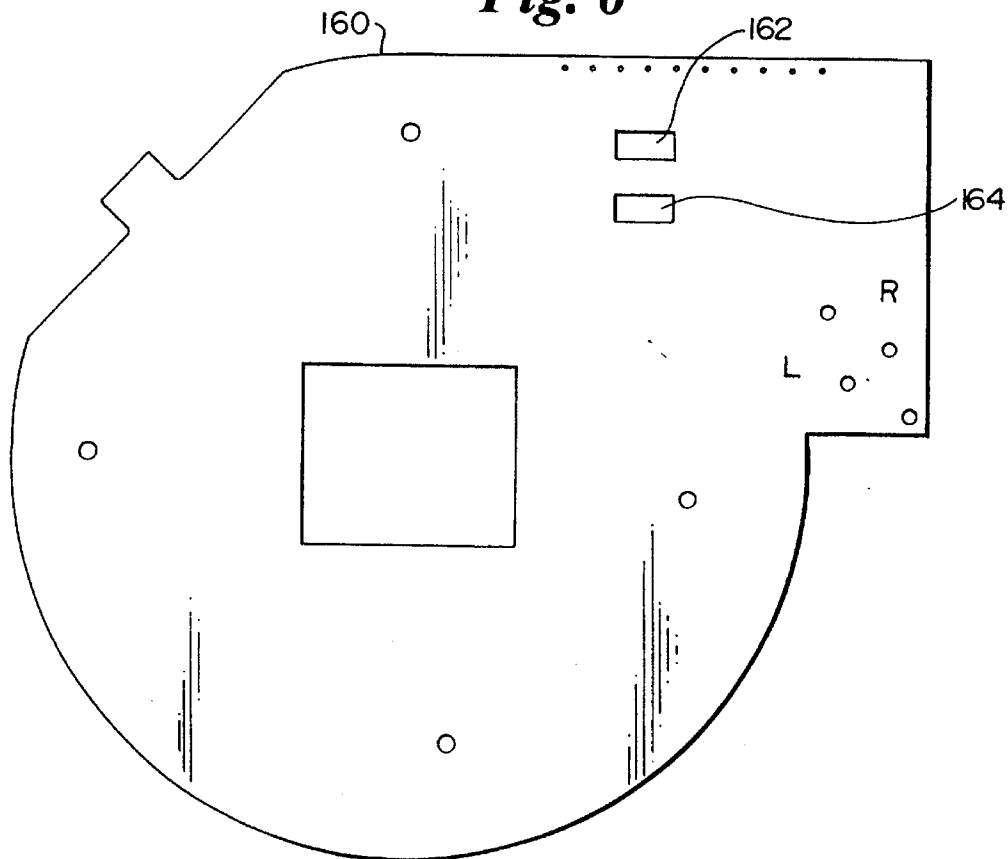


Fig. 7

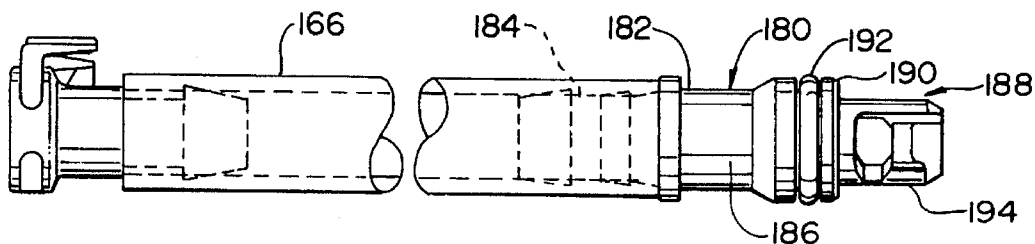


Fig. 8

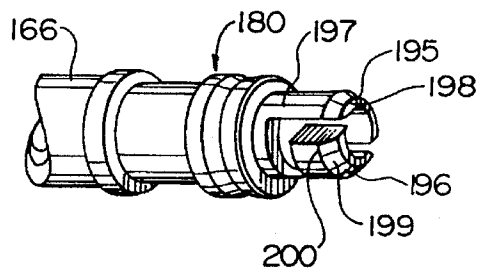
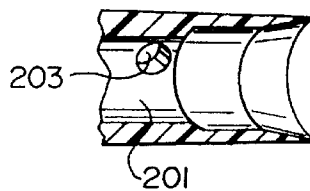
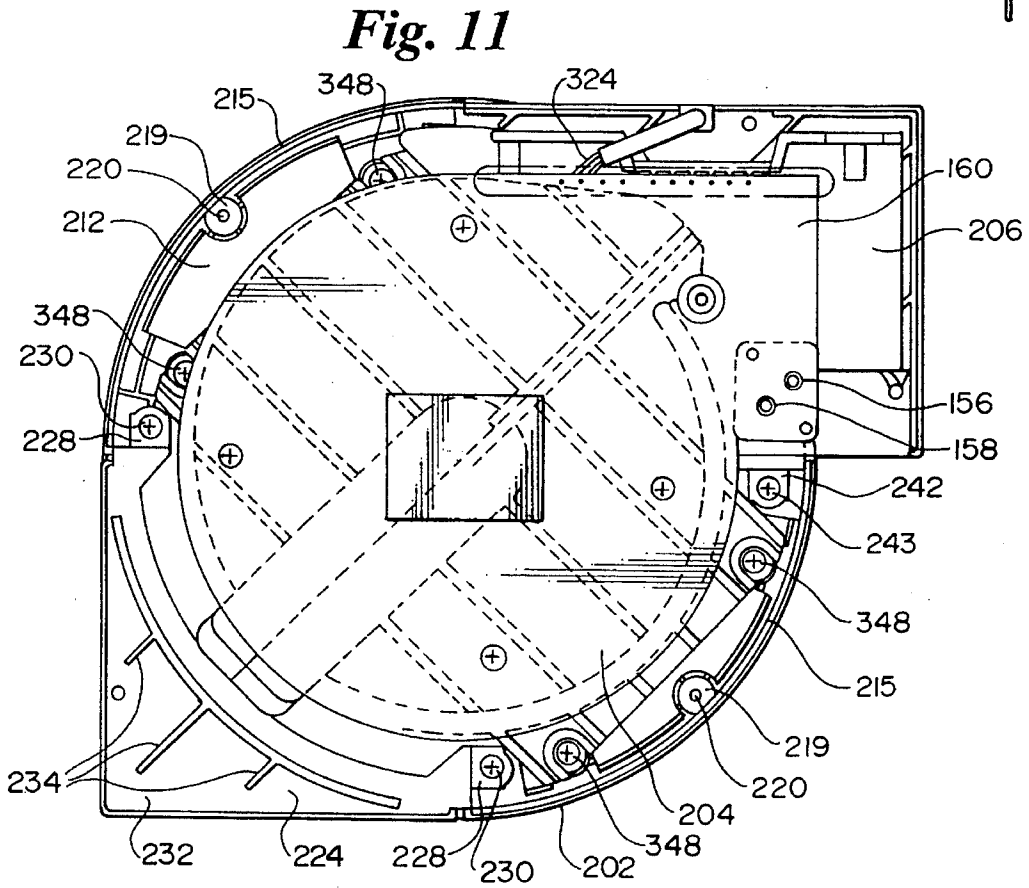
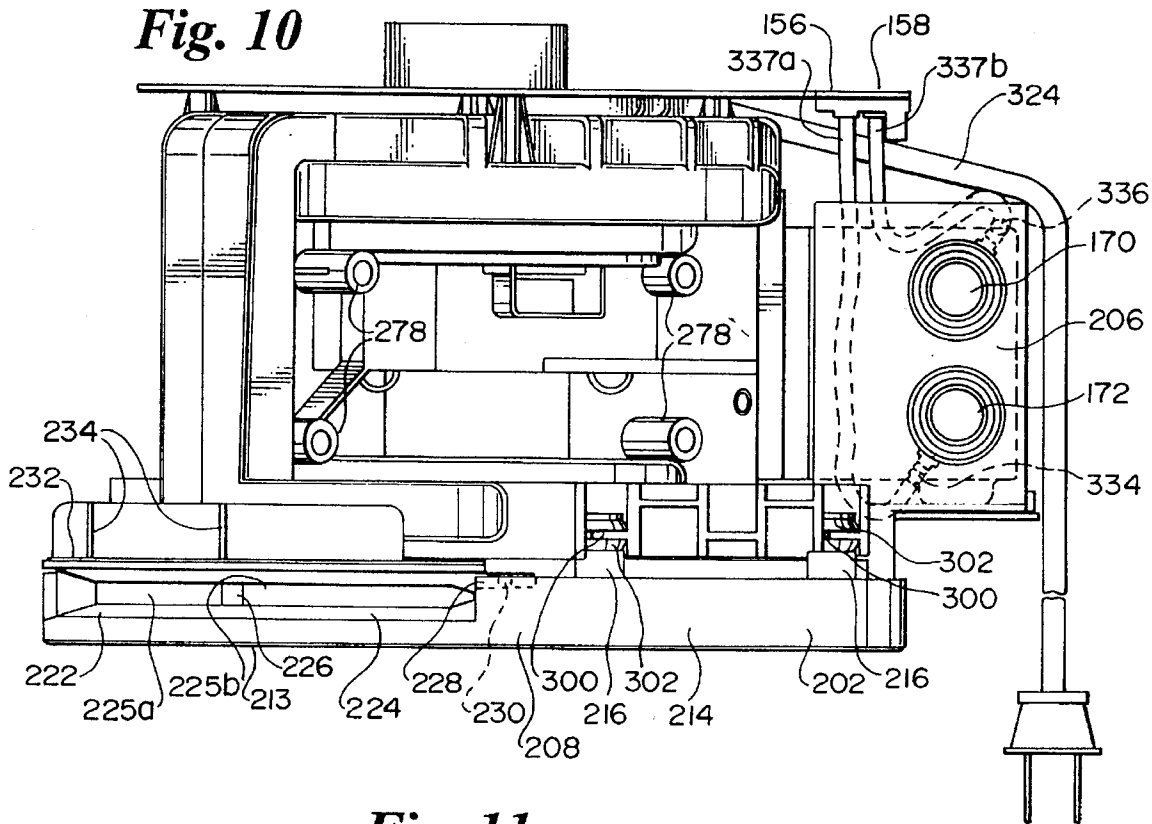


Fig. 9





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