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## United States Patent [19]

### Shafer et al.

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5,509,154

**Date of Patent:** 

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Apr. 23, 1996

[54]	AIR CONTROL SYSTEM FOR AN AIR BED		
[75]	Inventors:	David C. Shafer; Eugene F. Duval, both of Menlo Park, Calif.	
[73]	Assignee:	Select Comfort Corporation, Minneapolis, Minn.	
[21]	Appl. No.:	332,833	
[22]	Filed:	Nov. 1, 1994	
[51]	Int. Cl.6	<b>A47C 27/10</b> ; H04Q 7/06	
[52]	U.S. Cl	<b>5/453</b> ; 318/16; 5/935	
[58]	Field of Search 5/448, 449, 453		
		5/935; 318/16	

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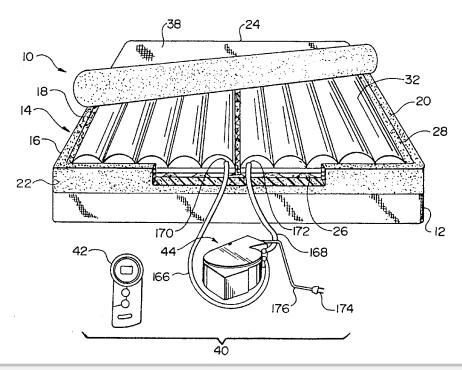
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Primary Examiner-Bentsu Ro Attorney, Agent, or Firm-Patterson & Keough

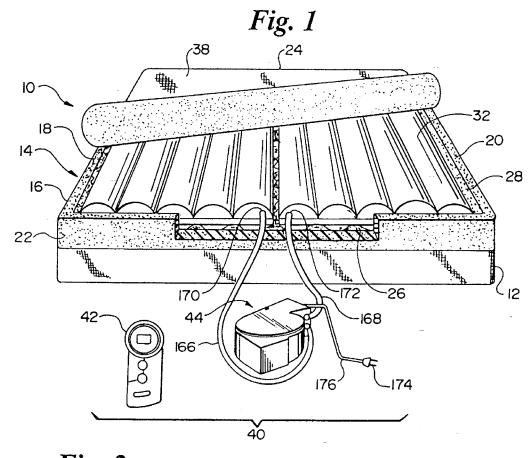
#### **ABSTRACT** [57]

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

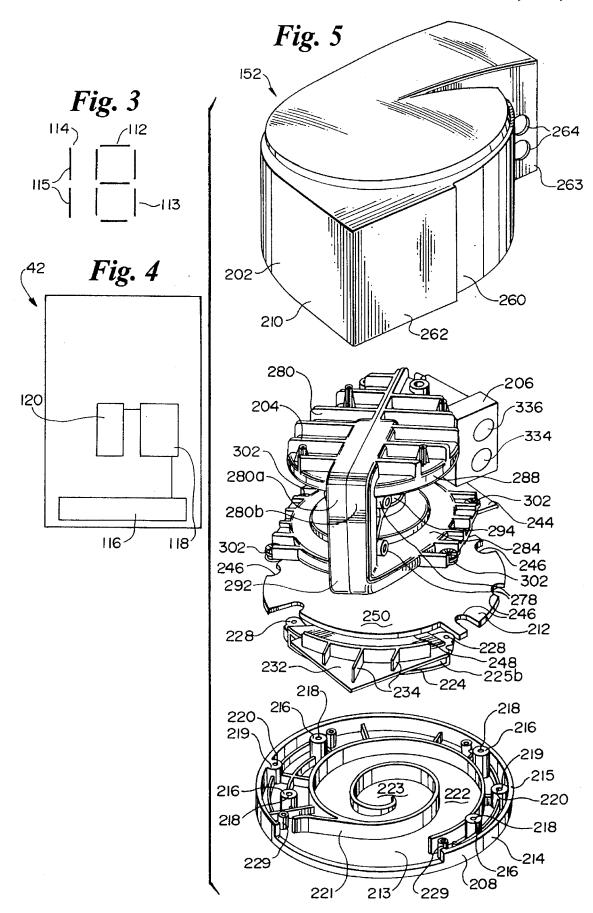


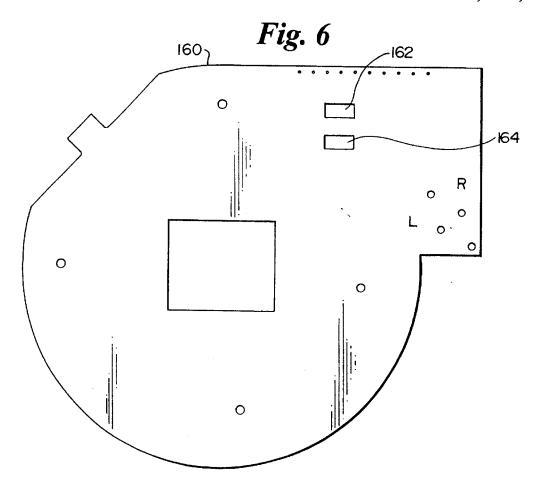


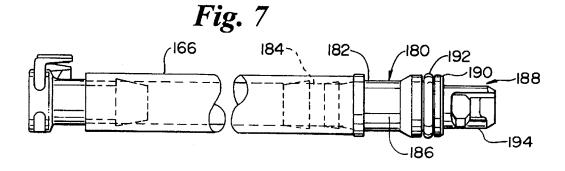


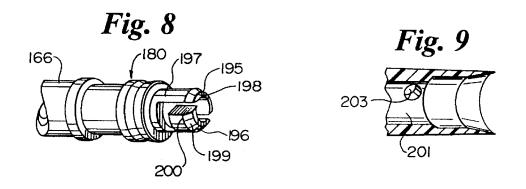
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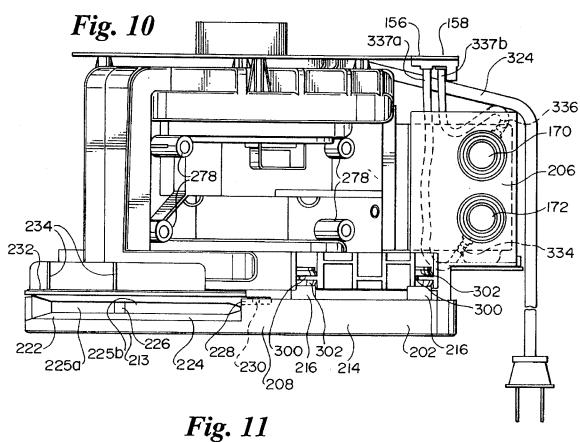
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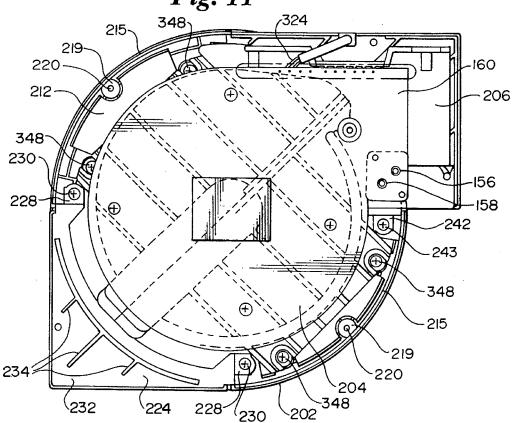








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