

### US005868488A

## United States Patent [19]

Speak et al.

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**Date of Patent:** [45]

Feb. 9, 1999

[54] ADJUSTABLE HEADLIGHTS, HEADLIGHT ADJUSTING AND DIRECTION SENSING CONTROL SYSTEM AND METHOD OF ADJUSTING HEADLIGHTS

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48180

[21] Appl. No.: 751,504

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Int. Cl.<sup>6</sup> ...... B60Q 1/076 **U.S. Cl.** ...... 362/37; 362/66; 362/71;

362/71, 419, 420, 423, 287, 427, 428

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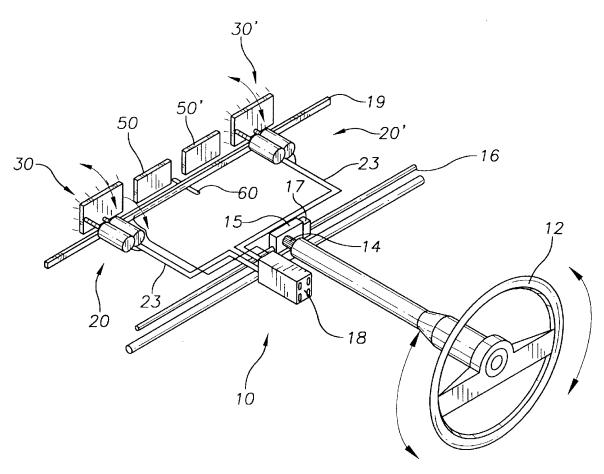
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Primary Examiner—Thomas M. Sember Attorney, Agent, or Firm-Joseph N. Breaux

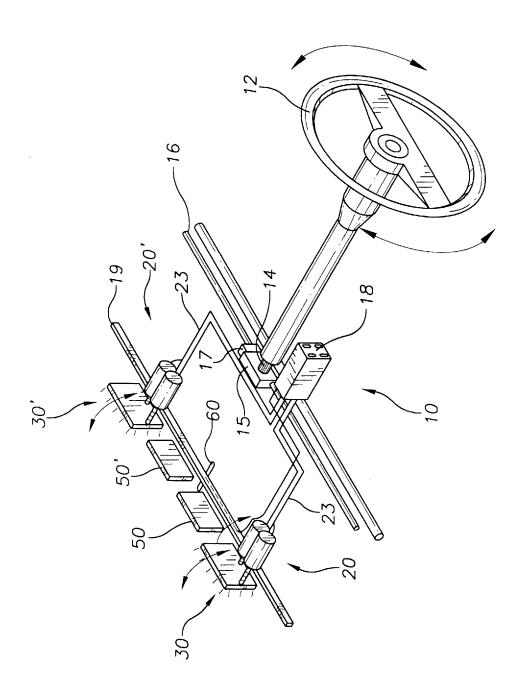
**ABSTRACT** [57]

An adjustable headlight and headlight adjusting direction sensing control system which incrementally adjusts the Y axis of an automobile headlight in accordance with the vehicle turning direction and adjusts the X axis in accordance with the hood orientation in relation to the road topography. A method for adjusting the X axis and Y axis of the adjustable headlights for enhancing the illumination of the changing forward road topography. The automobile headlight and the headlight adjusting and direction sensing control system comprises a pair of adjustable headlights, a pair of servomotors systems, first sensor, second sensor and microprocessor. The adjustable headlights are coupled to a pair of servomotors of one of the servomotor systems for adjusting the adjustable headlights along its X axis or Y axis in accordance with the output signals from the microprocessor. The microprocessor is further coupled to the first sensor for determining whether the vehicle is turning left or right and adjusting the adjustable headlights and the second sensor for determining the hood orientation based on the road topography and adjusting the adjustable headlights along is X axis.

### 2 Claims, 4 Drawing Sheets







F1G. 1



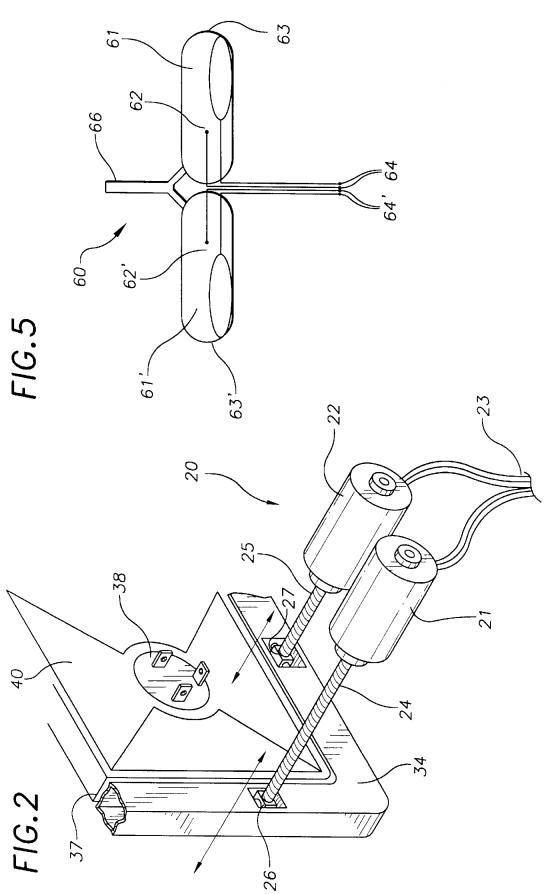
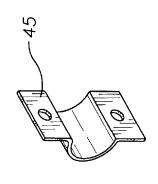
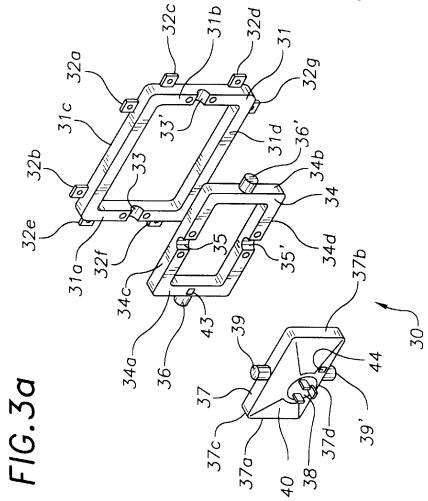


FIG.3b



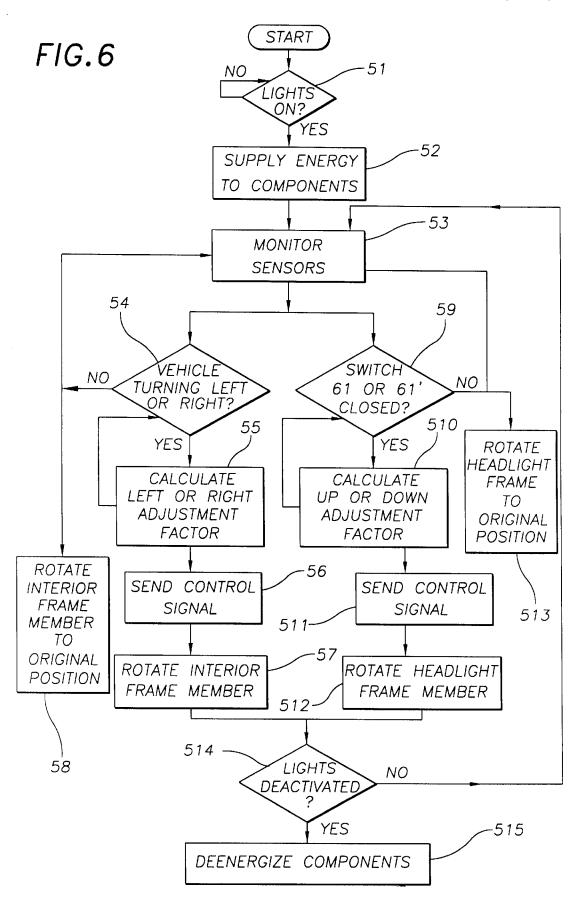
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FIG.4





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