



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

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- (54) **LIGHTING DEVICE FOR VEHICLES**
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- (73) Assignee: **Koito Manufacturing Co., Ltd.**, Tokyo (JP)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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- (21) Appl. No.: **09/507,896**
- (22) Filed: **Feb. 22, 2000**
- (30) **Foreign Application Priority Data**
Feb. 22, 1999 (JP) 11-43343
- (51) **Int. Cl.⁷** **B60Q 1/00; F21V 21/28**
- (52) **U.S. Cl.** **362/465; 362/464; 362/466; 362/276; 362/36; 362/37; 362/802; 315/81; 315/82; 307/10.8; 340/468**
- (58) **Field of Search** **362/36, 37, 43, 362/465, 464, 276, 49, 802; 315/81, 82; 307/10.8; 340/468**

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(57) **ABSTRACT**

The lighting device for a vehicle includes running direction detect means **3** for detecting the vehicle running direction or the vehicle steering angle and vehicle speed detect means **4** for detecting the vehicle speed. An illumination control means **5** specifies the turn-on and turn-off of a plurality of lamps in accordance with detect signals output from the means **3** and **4**, thereby changing the combinations of the illumination ranges of the lamps.

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26 Claims, 8 Drawing Sheets

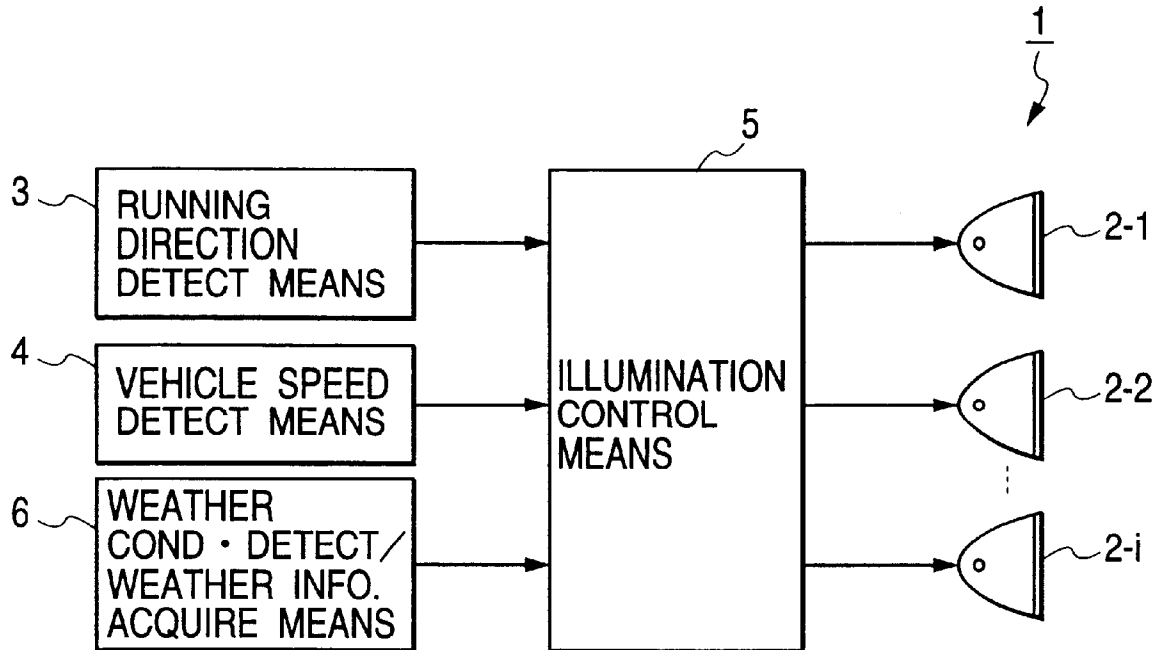


FIG. 1

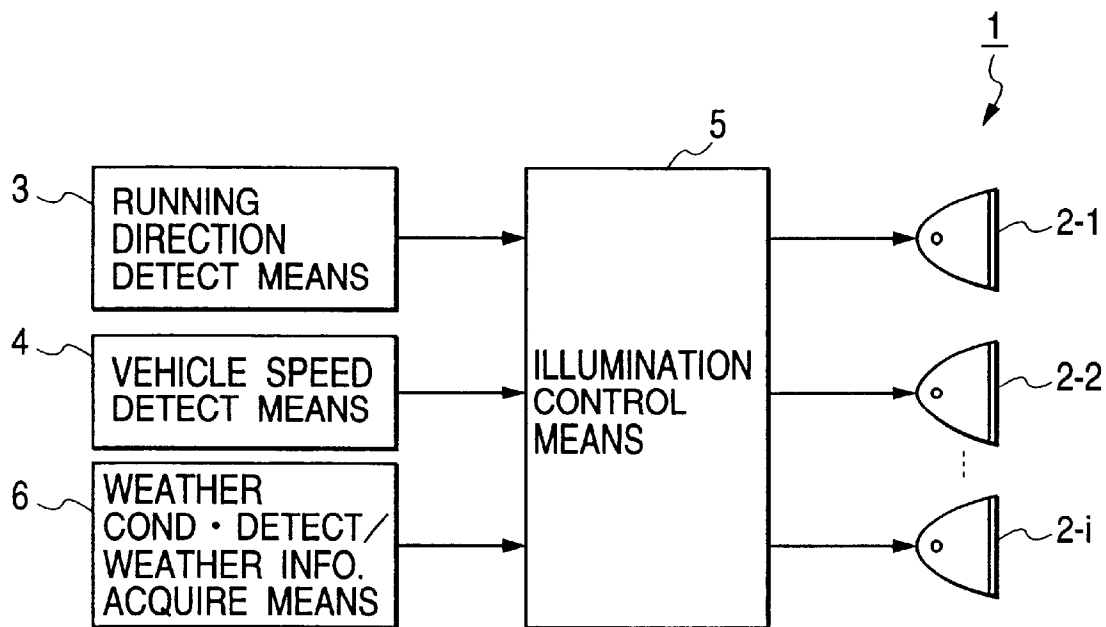


FIG. 2

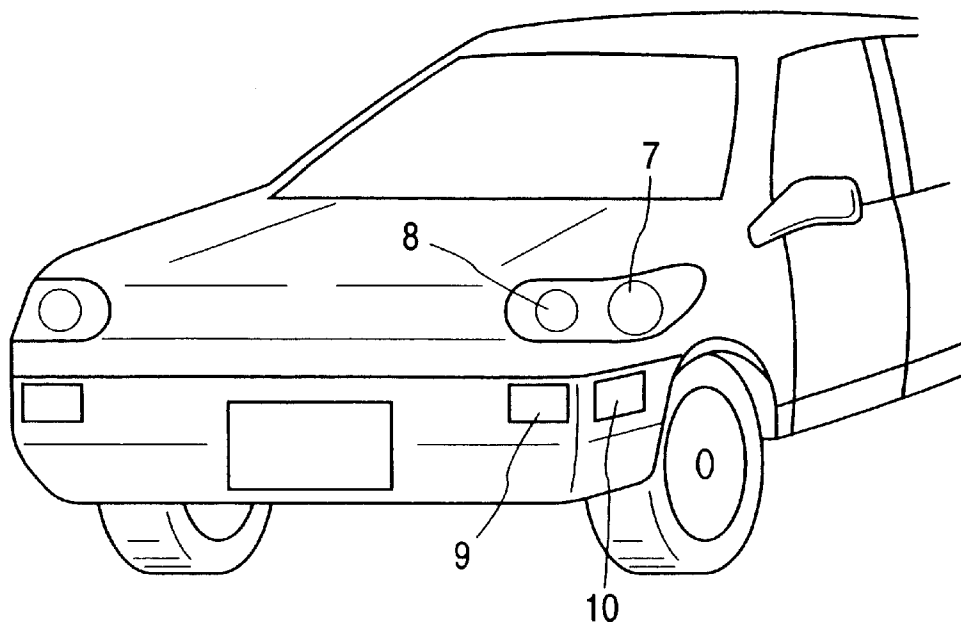


FIG. 3

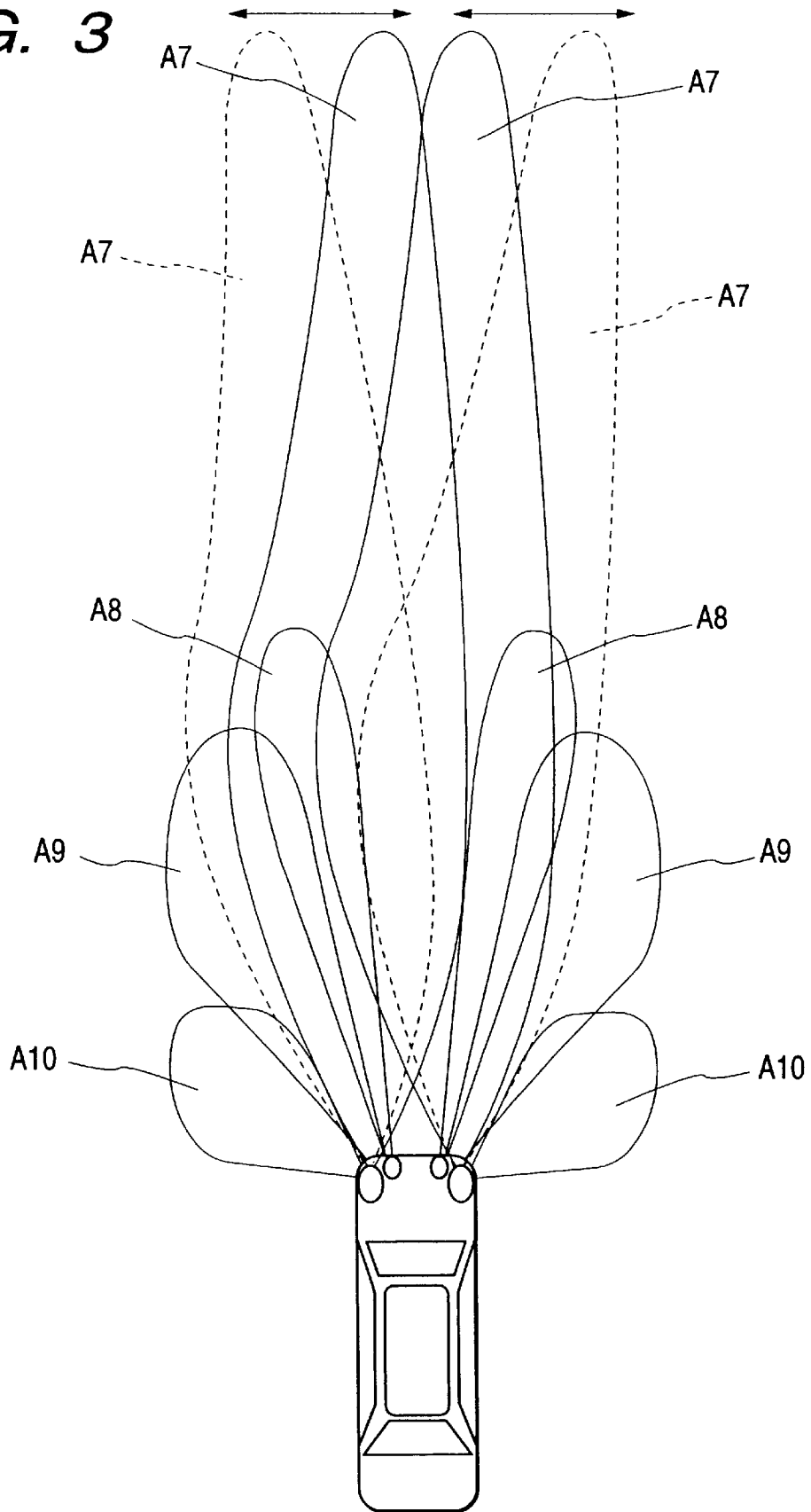


FIG. 4

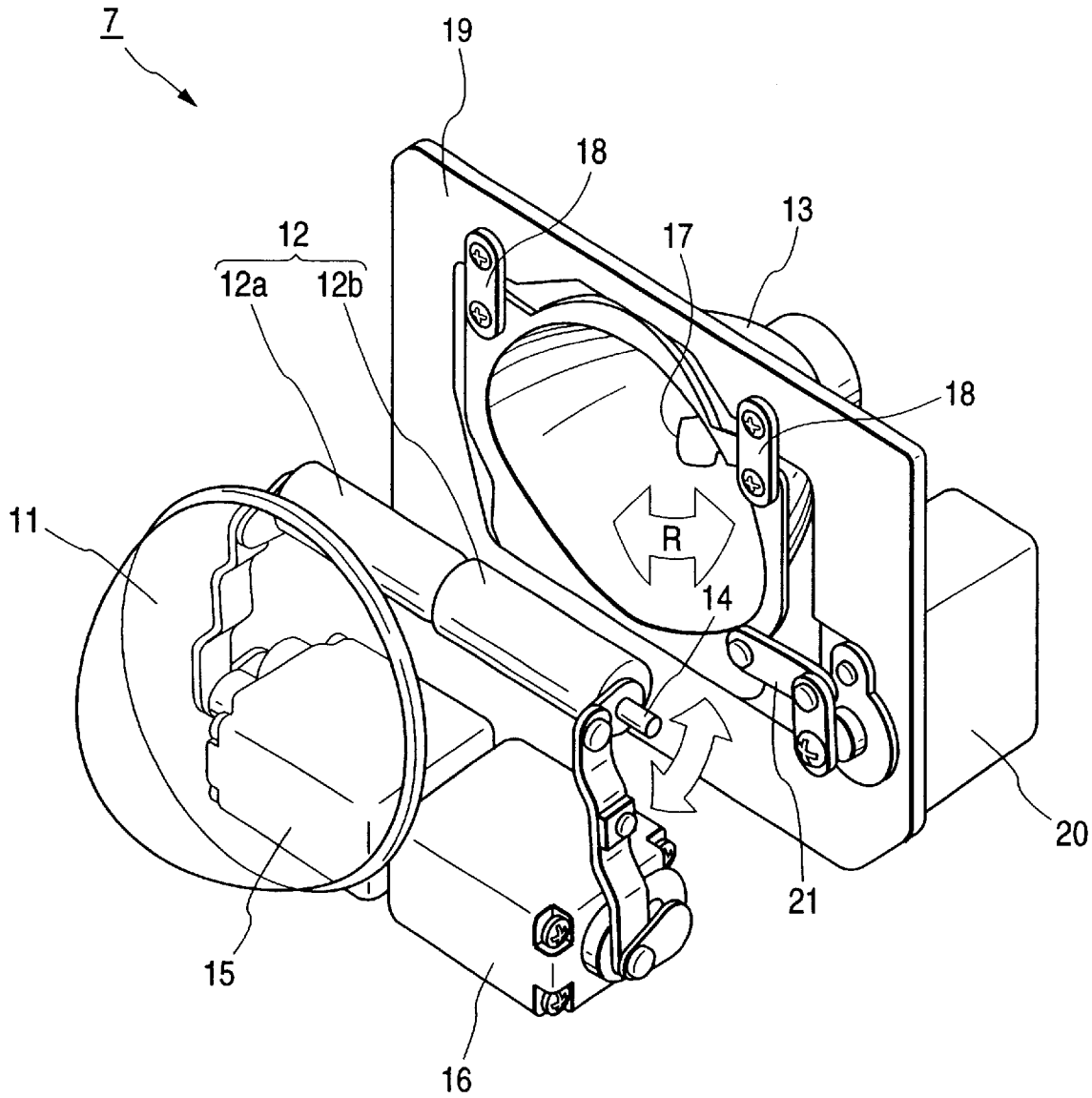


FIG. 5

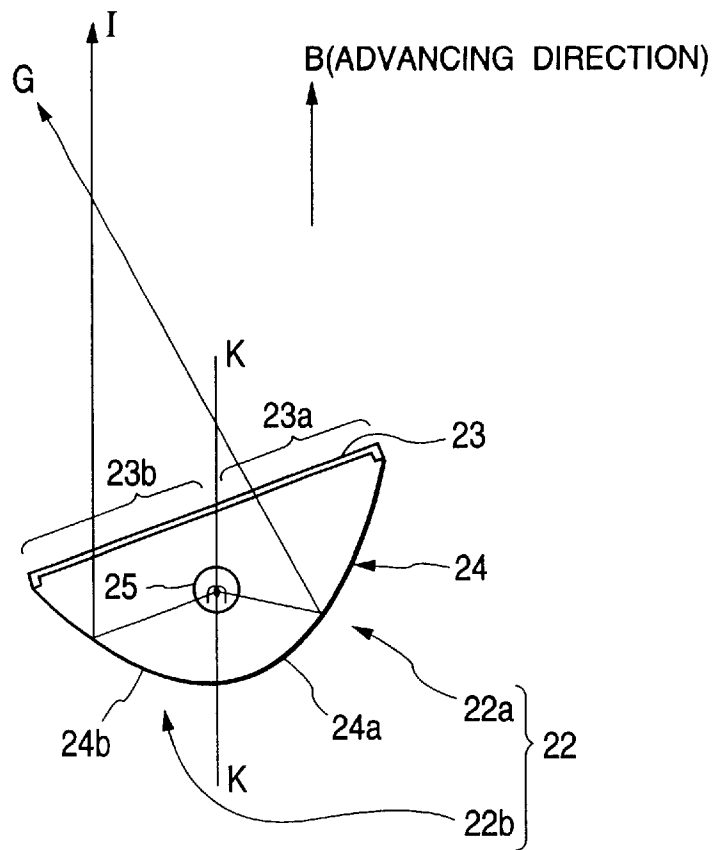
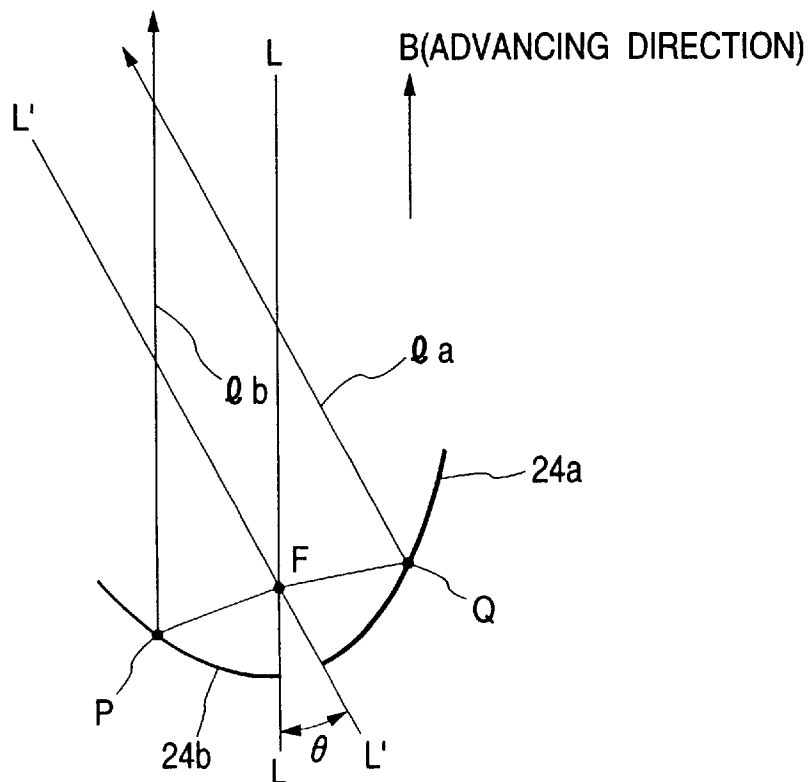


FIG. 6



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