

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2001/0012206 A1**  
 Hayami et al. (43) **Pub. Date: Aug. 9, 2001**

(54) **LIGHTING SYSTEM FOR VEHICLES**

(52) **U.S. Cl.** ..... 362/464; 362/465

(76) **Inventors:** Toshihisa Hayami, Shizuoka (JP);  
 Hideki Uchida, Shizuoka (JP)

(57) **ABSTRACT**

Correspondence Address:  
**SUGHRUE, MION, ZINN, MACPEAK &  
 SEAS, PLLC**  
 2100 Pennsylvania Avenue, N.W.  
 Washington, DC 20037-3202 (US)

A lighting system for vehicles including a plurality of dimmer lamps, a steering sensor, and an electronic control unit (ECU). The dimmer lamps are provided at the front of a vehicle in its moving direction, and their radiated ranges differ from each other and their quantity of light also varies, according to the steering angle as sensed by the steering sensor. The ECU changes the combination of radiated ranges of the lamps to realize light distribution control ahead and sideways of a vehicle by turning-on/off the lamps, as well as changes the quantity of light of each lamp according to the wheel steering angle. The ECU sequentially turns on the lamps according to the steering angle and increases the corresponding quantity of radiation in proportion to the magnitude of the steering angle. Thus, the radiated range gradually expands in the vehicle's turning direction and its brightness gradually increases.

(21) **Appl. No.:** 09/775,627

(22) **Filed:** Feb. 5, 2001

(30) **Foreign Application Priority Data**

Feb. 4, 2000 (JP) ..... 2000-28037

**Publication Classification**

(51) **Int. Cl.<sup>7</sup>** ..... B60Q 1/00; F21V 21/28

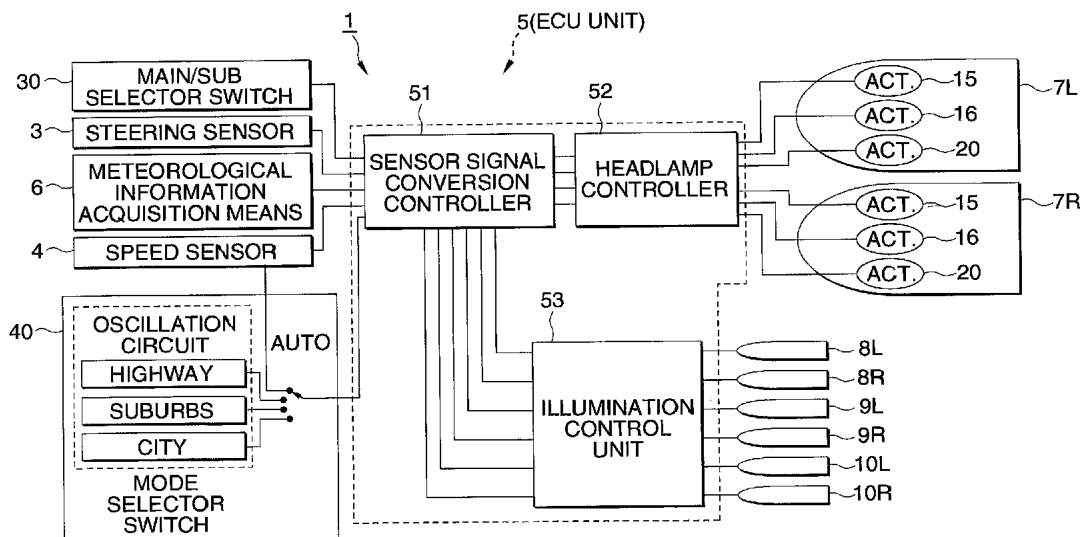
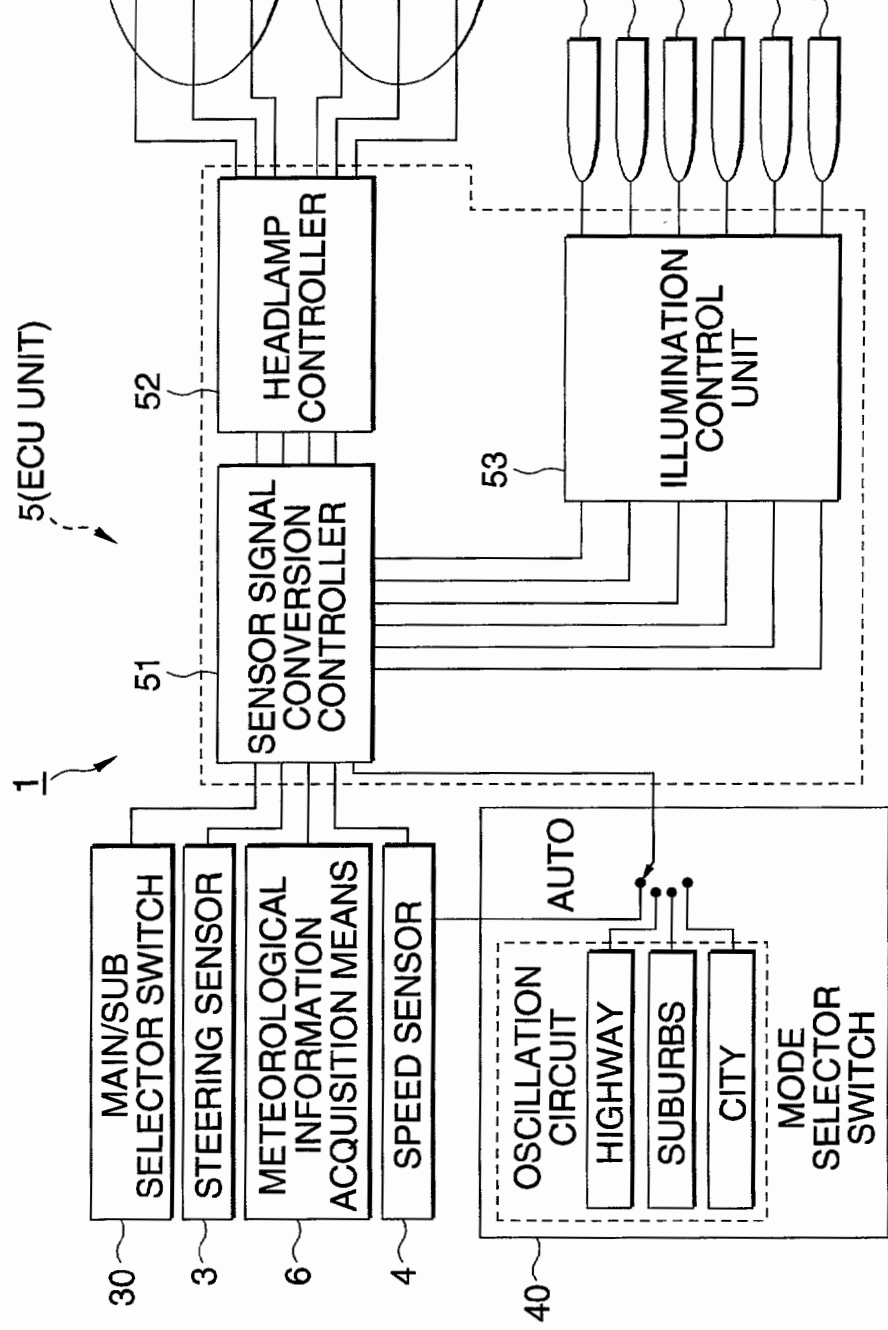
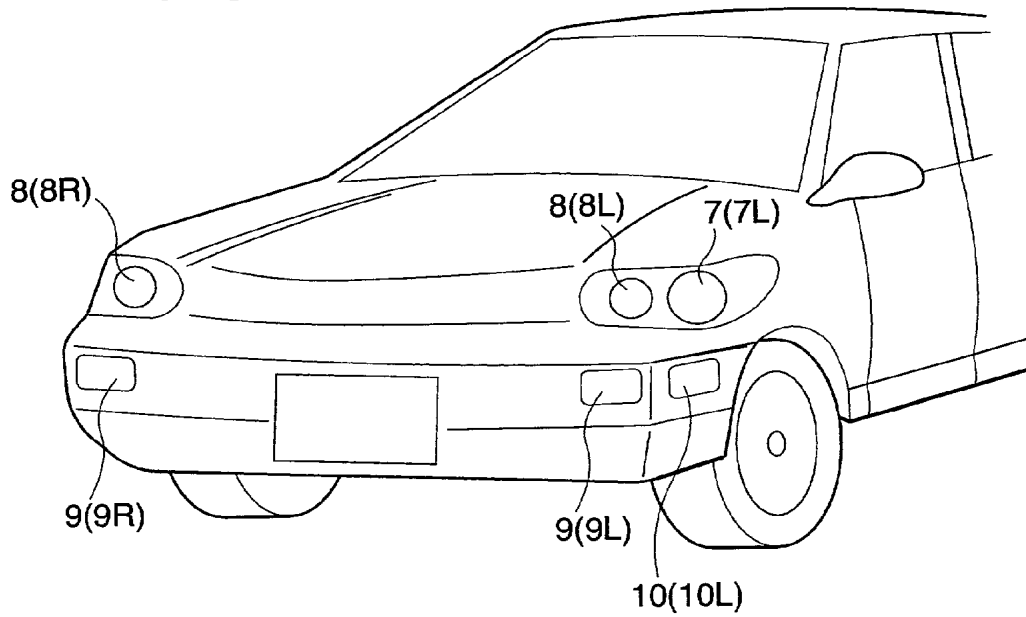


FIG. 1



**FIG. 2**



**FIG. 3**

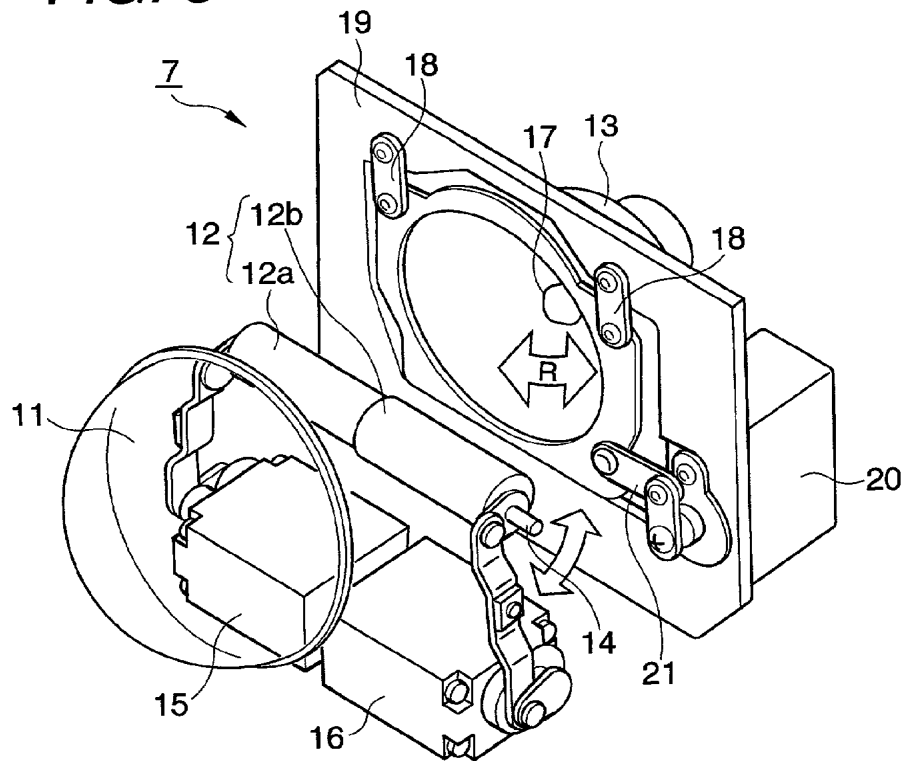


FIG. 4(a)

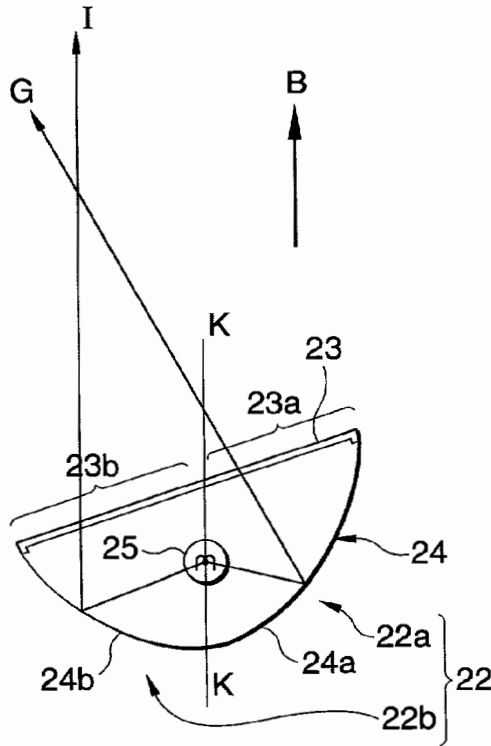


FIG. 4(b)

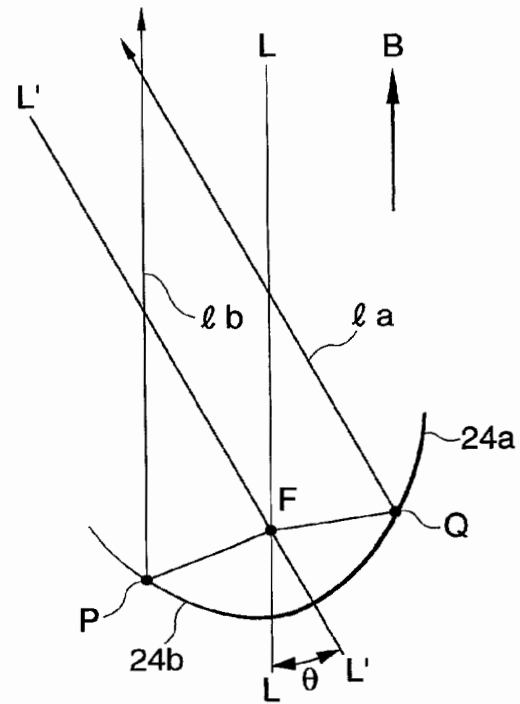


FIG. 4(c)

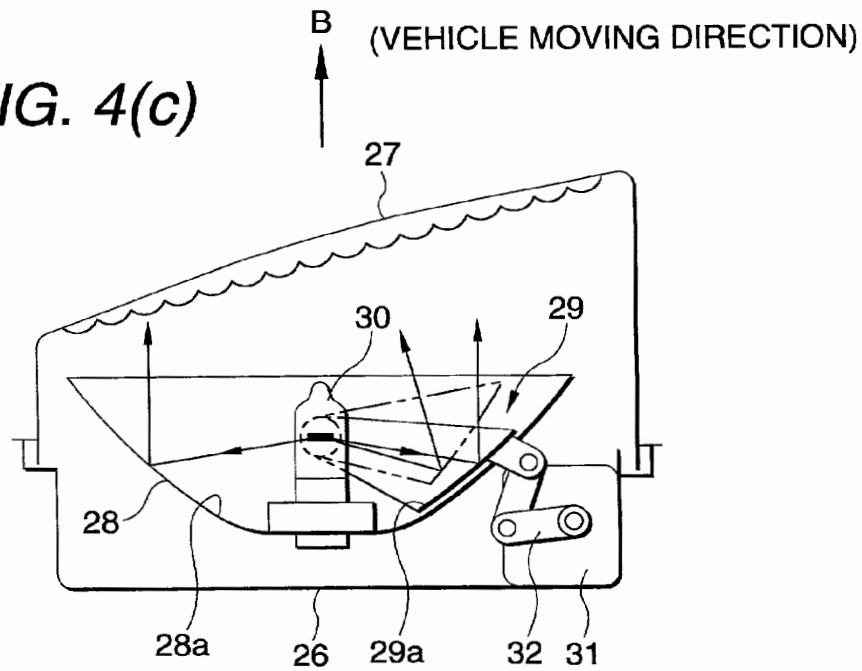
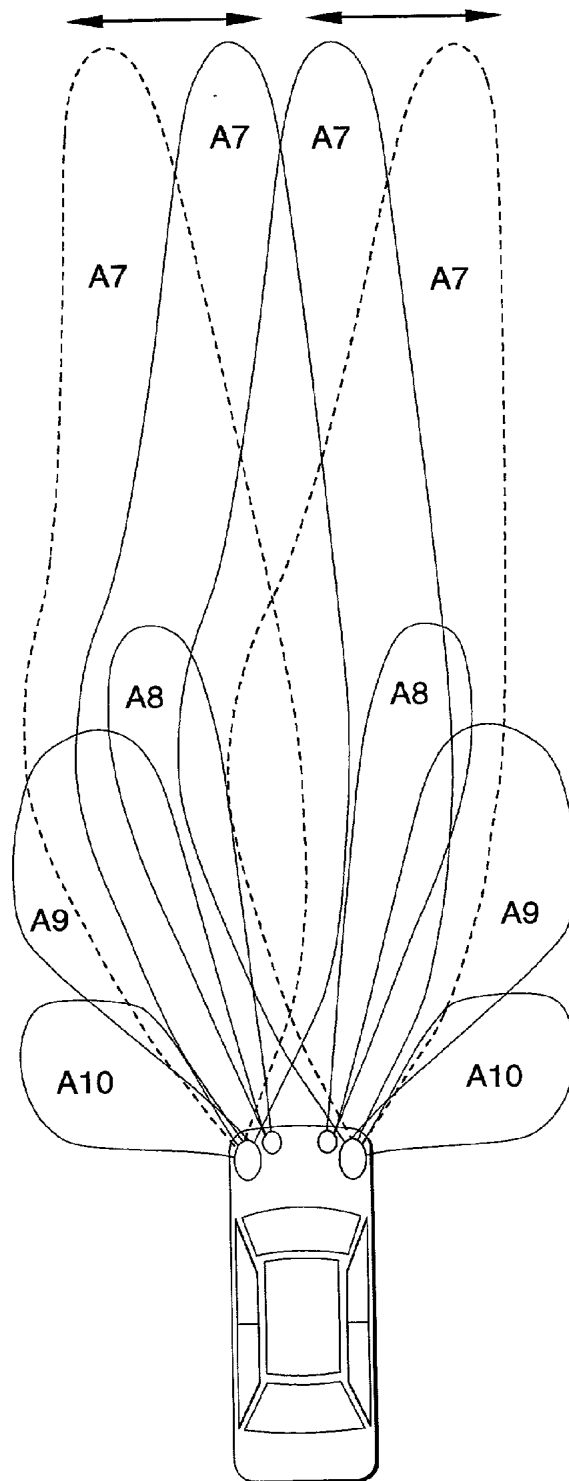


FIG. 5



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.