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United States Patent [19]

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Hsieh

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[54] **VEHICLE MONITORING APPARATUS WITH BROADLY AND RELIABLY REARWARD VIEWING**

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[57] **ABSTRACT**

A vehicle monitoring apparatus includes a rear video camera mounted on a rear portion of a vehicle, a right video camera mounted on a right sideview mirror, a left video camera mounted on a left-sideview mirror, a mirror-effect circuit connected across two poles of a pair of horizontal deflection coils of a horizontal deflection add oscillation circuit of a television receiver electrically connected to the video cameras for inverting an image or picture orientation to be the same as an orientation of the real subject positioned at a rear side of the vehicle, whereby upon a backing, a rightward turning or a leftward turning of the vehicle a corresponding video camera will be initiated to transmit a "picture" of the subject positioned at the rear side of the vehicle to display a picture on a television placed in the vehicle having a same orientation of the picture as that of the true subject for preventing an accidental collision due to falsely backing or turning of the vehicle for driving safety.

[21] Appl. No.: **263,715**

[22] Filed: **Jun. 22, 1994**

[51] Int. Cl.⁶ **H04N 7/18**

[52] U.S. Cl. **340/901; 340/435; 340/436; 340/903; 340/904; 348/118; 348/148**

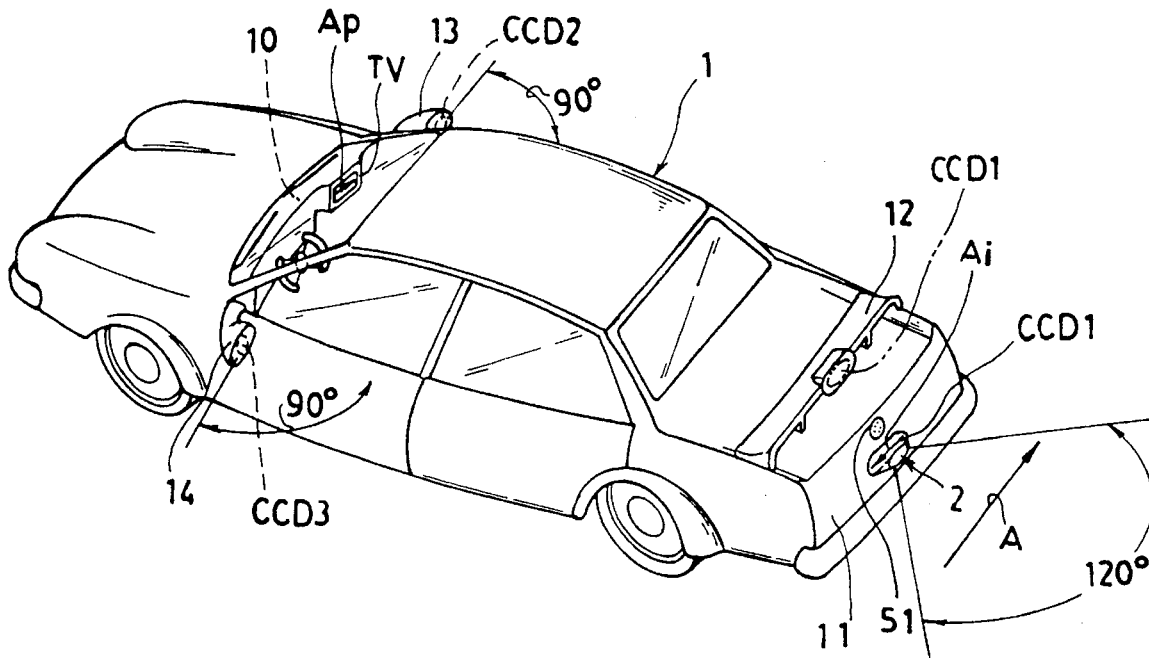
[58] Field of Search **340/435, 436, 340/437, 901, 902, 903, 904; 348/118, 148**

[56] **References Cited**

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8 Claims, 4 Drawing Sheets



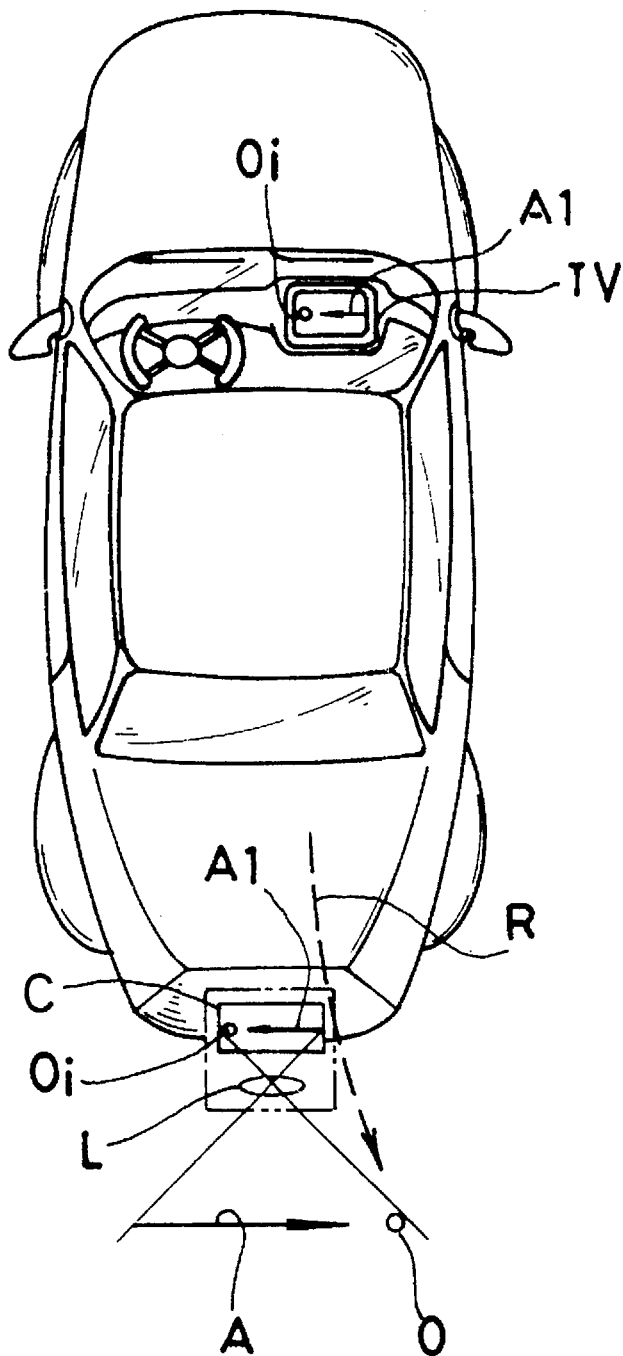


FIG. 1 PRIOR ART

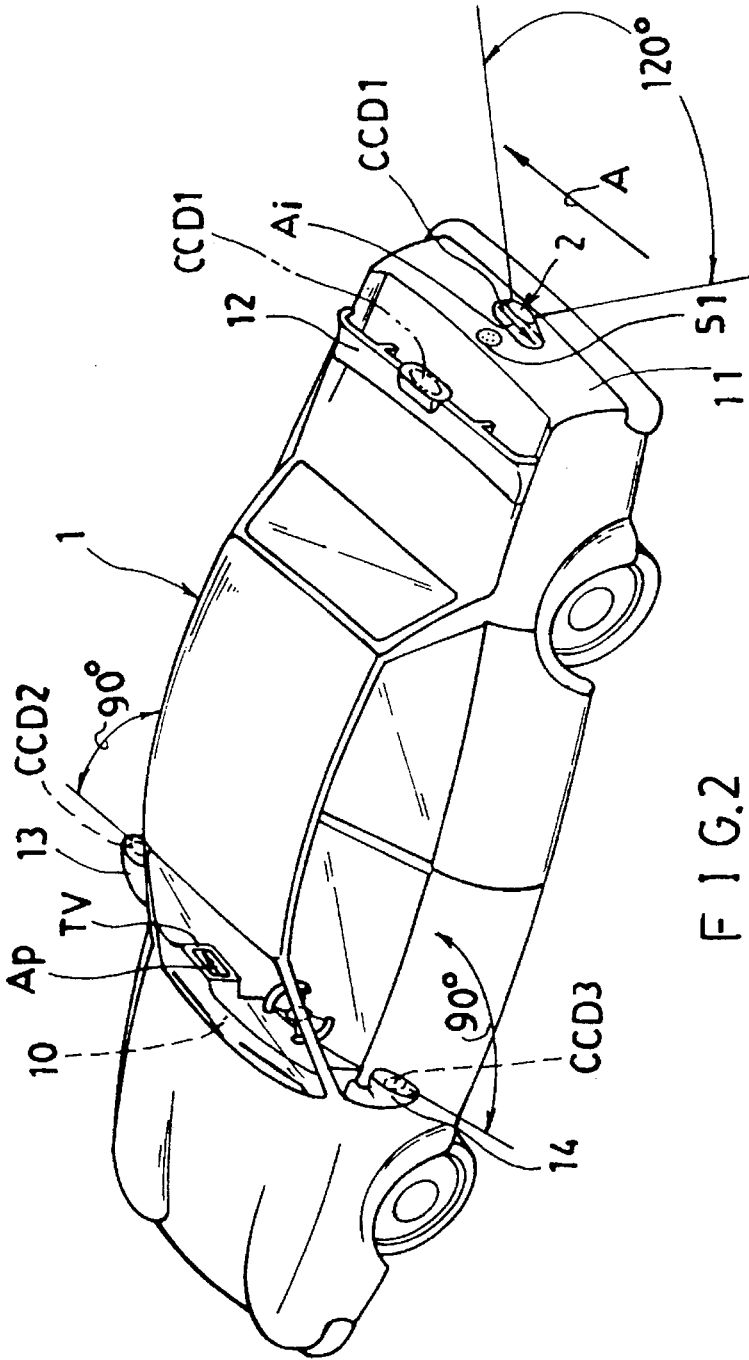


FIG. 2

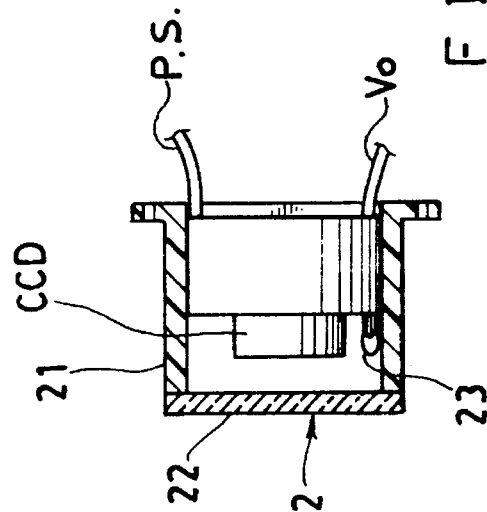


FIG. 3

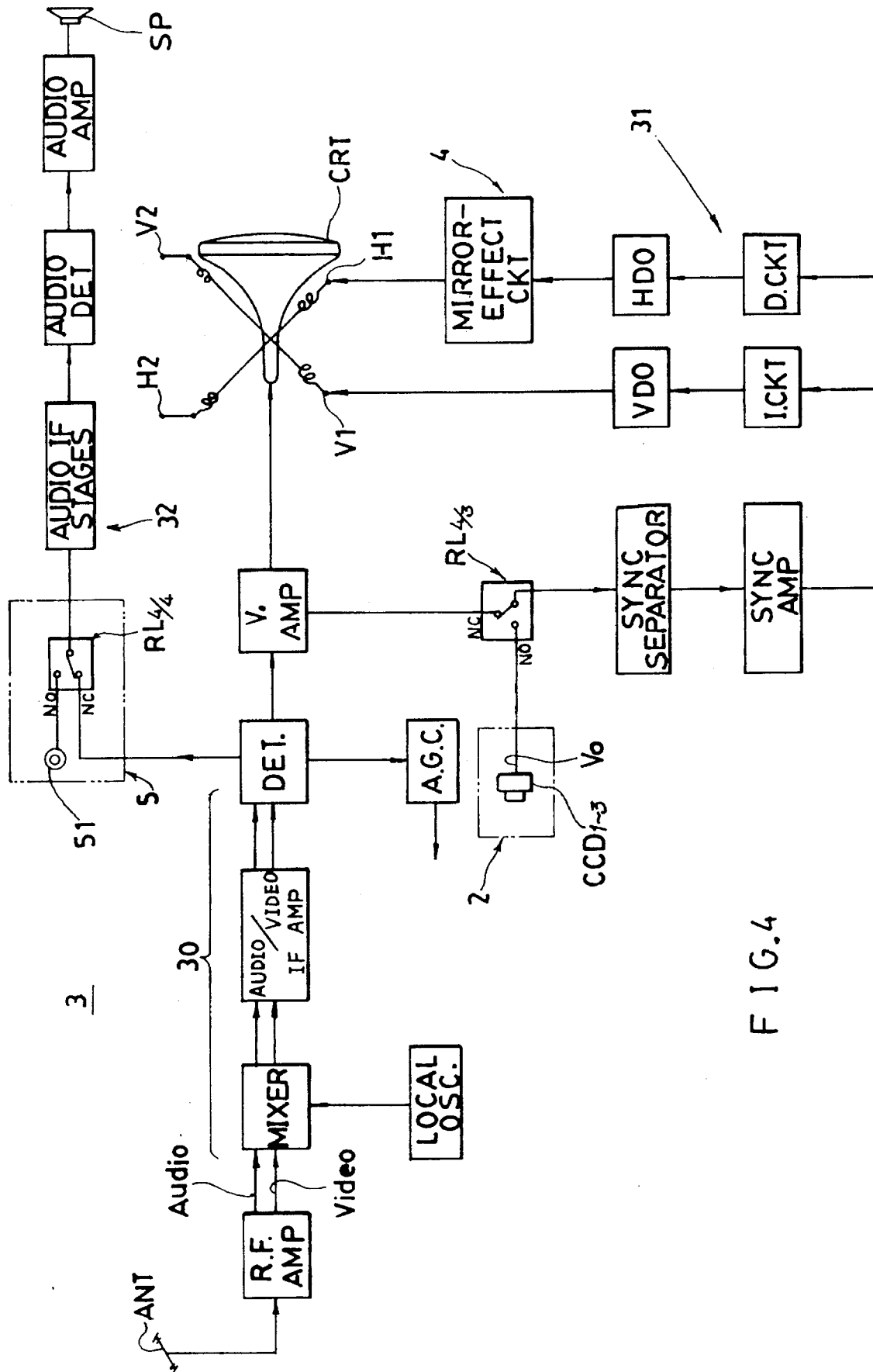


FIG. 4

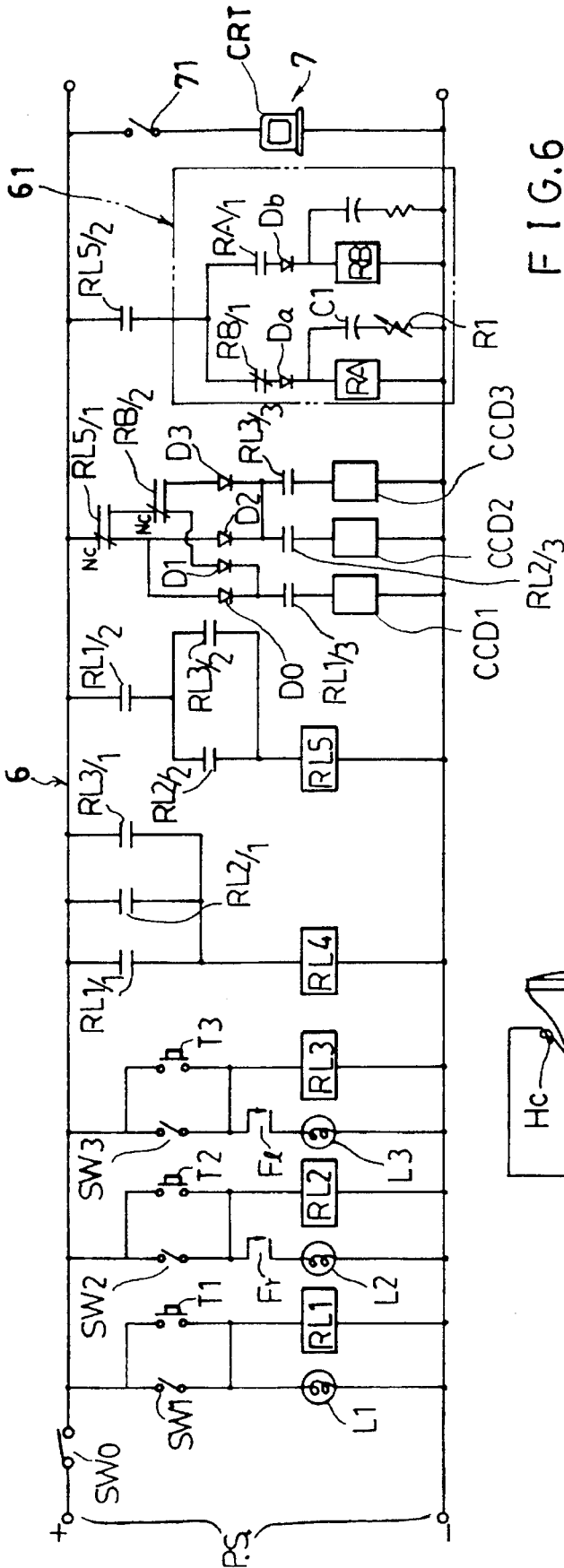


FIG. 6

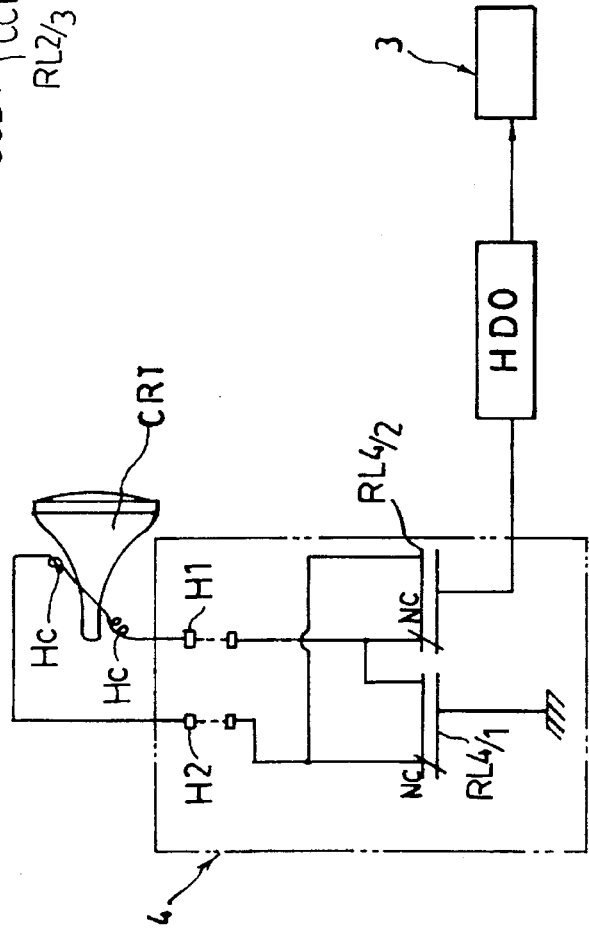


FIG. 5

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