

United States Patent [19]

Hsieh

Patent Number: [11]

5,574,443

Date of Patent: [45]

Nov. 12, 1996

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

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[21] Appl. No.: 263,715

Jun. 22, 1994 [22] Filed:

[51] Int. Cl.⁶ H04N 7/18

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

Field of Search 340/435, 436, [58]

340/437, 901, 902, 903, 904; 348/118,

[56]

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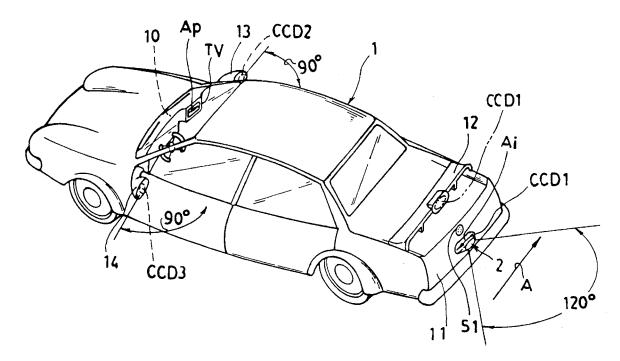
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Primary Examiner-Brent A. Swarthout Assistant Examiner-Edward Lefkowitz

ABSTRACT [57]

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.

8 Claims, 4 Drawing Sheets





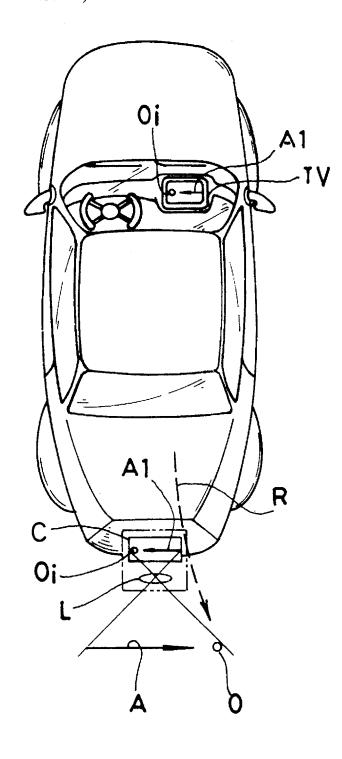
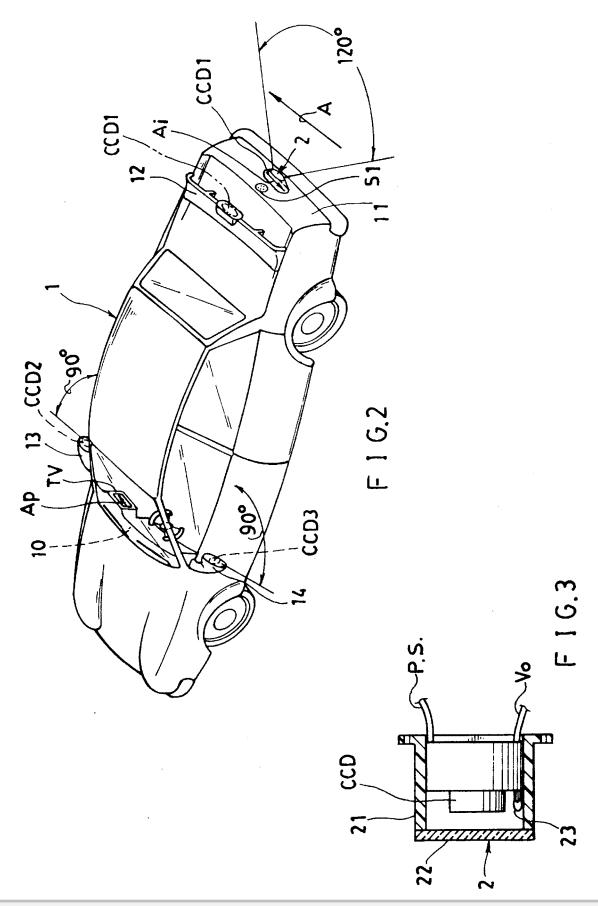


FIG.1 PRIOR ART

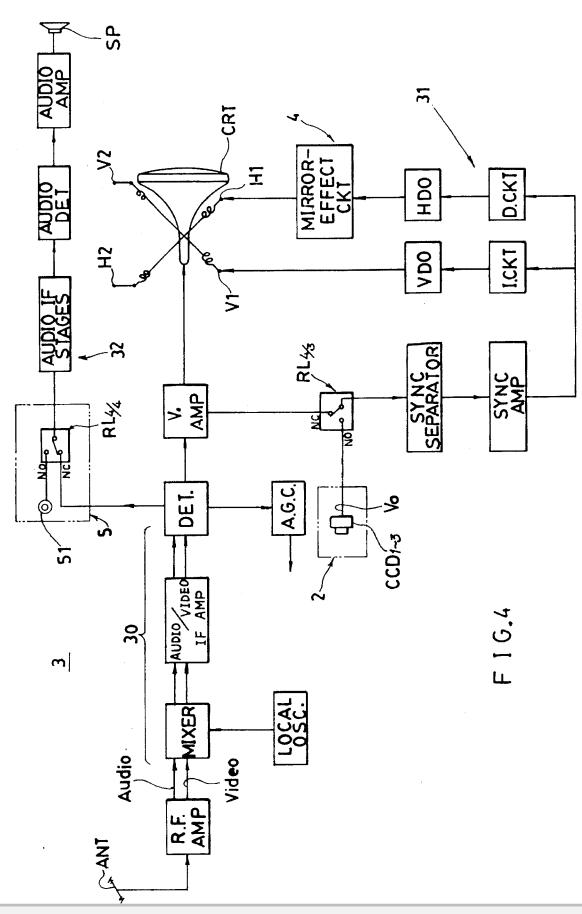


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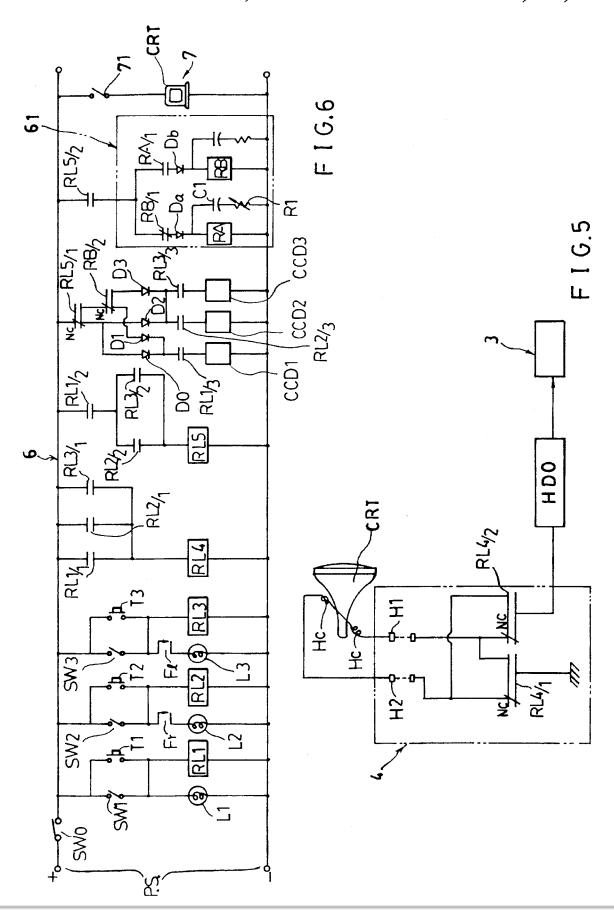




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