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(54) **VEHICULAR VISION SYSTEM**

340/815.4, 433, 937; 359/604, 601, 603,
359/265; 348/148, 151

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See application file for complete search history.

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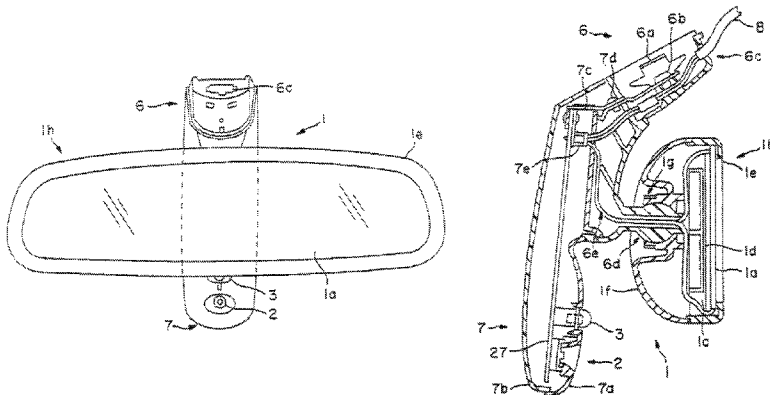
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(58) **Field of Classification Search**
USPC 340/425.5, 435, 436, 901, 461, 438,

(57) **ABSTRACT**

A vehicular vision system includes a camera having a lens
and a CMOS photosensor array having a plurality of photo-
sensor elements. The camera is disposed at an interior portion
of a vehicle equipped with the vehicular vision system. The
camera one of (i) views exterior of the equipped vehicle
through the windshield of the equipped vehicle and forward
of the equipped vehicle and (ii) views from the windshield of
the equipped vehicle into the interior cabin of the equipped
vehicle. A control includes an image processor that processes
image data captured by the photosensor array. The image
processor processes captured image data to detect an object
viewed by the camera. The photosensor array is operable at a
plurality of exposure periods and at least one exposure period
of the plurality of exposure periods is dynamically variable.

20 Claims, 25 Drawing Sheets



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continuation of application No. 13/525,763, filed on Jun. 18, 2012, now Pat. No. 8,314,689, which is a continuation of application No. 13/351,098, filed on Jan. 16, 2012, now Pat. No. 8,203,440, which is a continuation of application No. 11/074,521, filed on Mar. 8, 2005, now Pat. No. 8,098,142, which is a continuation of application No. 10/940,700, filed on Sep. 14, 2004, now Pat. No. 6,953,253, which is a continuation of application No. 10/372,873, filed on Feb. 24, 2003, now Pat. No. 6,802,617, which is a continuation of application No. 09/975,232, filed on Oct. 11, 2001, now Pat. No. 6,523,964, which is a continuation of application No. 09/227,344, filed on Jan. 8, 1999, now Pat. No. 6,302,545, which is a continuation of application No. 08/478,093, filed on Jun. 7, 1995, now Pat. No. 5,877,897.

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