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Burton

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(54) **VIGILANCE MONITORING SYSTEM**

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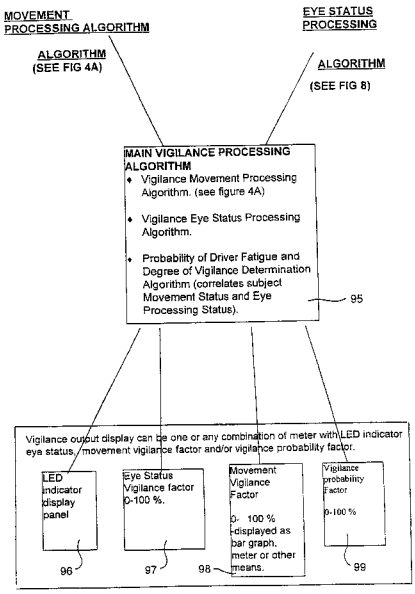
(57) **ABSTRACT**

Apparatus for determining a vigilance state of a subject such as a driver of a vehicle or the like. The apparatus includes means **(1** to **11)** for monitoring one or more physiological variables such as EEG, EMG and EOG signals associated with the subject. The apparatus also includes means **(13** to **16)** for deriving from the one or more variables data representing physiological states of the subject corresponding to the or each variable and means **(17)** for determining from the data with the vigilance state of the subject is below a predetermined threshold. The apparatus may include means for intervening with the control of the vehicle in the event that the vigilance state of the driver is below the predetermined threshold.

27 Claims, 24 Drawing Sheets