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(54) **APPARATUS FOR SECURE STORAGE OF VEHICLE ODOMETER VALUES AND METHOD THEREFOR**

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(58) **Field of Search** 702/165; 377/24, 377/26, 24.1; 701/19, 33; 713/189, 193, 194, 161; 380/280, 26, 57

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(57) **ABSTRACT**

An improved vehicle odometer is provided with an encoder and a microcontroller. The encoder has a unique key that configures an encryption algorithm. The encryption algorithm can be in the form of circuitry or software or any combination there between. The encoder receives a increment signal from the vehicle indicating that the vehicle has traveled a pre-determined distance. The encoder then increments the odometer-related value and then encrypts it with the encryption algorithm. The encoder then wraps the encrypted odometer-related value into a data packet with a serial number. Only a suitably equipped computing device, such as a microcontroller, identify and correctly decrypt and process the encrypted odometer-related value, thereby preventing the tampering of the vehicle's odometer.

11 Claims, 9 Drawing Sheets

