

- [54] FUEL ECONOMY SYSTEM FOR AN INTERNAL COMBUSTION ENGINE
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4,003,356	1/1977	Naylor .....	123/122 E
4,011,847	3/1977	Fortino .....	123/134
4,015,569	4/1977	Leshner .....	123/133
4,015,570	4/1977	Sommerville .....	123/133

FOREIGN PATENT DOCUMENTS

514050	6/1955	Canada .....	123/133
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[57] ABSTRACT

A fuel economy system for an internal combustion engine which, when installed in a motor vehicle, obviates the need for a conventional carburetor, fuel pump and gasoline tank. The system operates by using the engine vacuum to draw fuel vapors from a vapor tank through a vapor conduit to a vapor equalizer which is positioned directly over the intake manifold of the engine. The vapor tank is constructed of heavy duty steel or the like to withstand the large vacuum pressure and includes an air inlet valve coupled for control to the accelerator pedal. The vapor equalizer ensures distribution of the correct mixture of air and vapor to the cylinders of the engine for combustion, and also includes its own air inlet valve coupled for control to the accelerator pedal. The system utilizes vapor-retarding filters in the vapor conduit, vapor tank and vapor equalizer to deliver the correct vapor/air mixture for proper operation. The vapor tank and fuel contained therein are heated by running the engine coolant through a conduit within the tank. Due to the extremely lean fuel mixtures used by the present invention, gas mileage in excess of one hundred miles per gallon may be achieved.

[56] References Cited

U.S. PATENT DOCUMENTS

1,051,122	1/1913	Krayer .....	123/134
1,530,882	3/1925	Chapin .....	123/134
2,312,151	2/1943	Crabtree .....	123/119
3,001,519	9/1961	Dietrich .....	123/136
3,221,724	12/1965	Wentworth .....	123/136
3,395,681	8/1968	Walker .....	123/119
3,633,533	1/1972	Holzappel .....	123/119 A
3,713,429	1/1973	Dwyre .....	123/133
3,716,040	2/1973	Herpin .....	123/198 A
3,728,092	4/1973	Gorman .....	48/102 R
3,749,376	7/1973	Alm .....	261/18 A
3,752,134	8/1973	Hollis .....	123/136
3,759,234	9/1973	Buckton .....	123/136
3,817,233	6/1974	Kihn .....	123/133
3,851,633	12/1974	Shih .....	123/133
3,854,463	12/1974	Burden, Sr. ....	123/133
3,874,353	4/1975	Woodridge .....	123/134
3,888,223	6/1975	Mondt .....	123/136
3,907,946	9/1975	Brown .....	261/142
3,911,881	10/1975	Lee .....	123/122 AB
3,931,801	1/1976	Rose .....	123/134
3,945,352	3/1976	Reimuller .....	123/34 A
3,968,775	7/1976	Harpman .....	123/34 A

32 Claims, 11 Drawing Figures

