

- [54] FUEL ECONOMY SYSTEM FOR AN INTERNAL COMBUSTION ENGINE
- [76] Inventor: Thomas H. W. P. Ogle, 9028 Mt. Deiano, El Paso, Tex. 79924
- [21] Appl. No.: 817,243
- [22] Filed: Jul. 20, 1977
- [51] Int. Cl.² F02M 31/00
- [52] U.S. Cl. 123/133; 123/134
- [58] Field of Search 123/133, 34 A, 122 E, 123/134, 136; 48/180 R; 261/144, 145

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Primary Examiner—Ronald H. Lazarus
 Attorney, Agent, or Firm—Berman, Aisenberg & Platt

[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.

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32 Claims, 11 Drawing Figures

