United States Patent [19]

Butler, Jr.

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[54] **FUEL VAPORIZING METHOD AND APPARATUS**

[76] Inventor: **Farrell G. Butler, Jr.**, P.O. Box 763, Pearland, Tex. 77581

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[52] **U.S. Cl.** ..... **123/122 AA**; 123/122 R; 123/141; 261/144; 261/145; 48/180 R

[58] **Field of Search** ..... 123/122 AA, 122 AB, 123/122 R, 141, 124 R, 124 A; 261/145, 144; 48/180 R

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Primary Examiner—Ronald H. Lazarus
Attorney, Agent, or Firm—Bard, Springs, Jackson & Groves

[57] **ABSTRACT**

Methods and apparatus are provided for increasing the vaporized proportion of a stream of volatile liquid fuel supply to an internal combustion engine. The non-volatilized portions of the fuel discharged from the carburetor are traveled over a plurality of flow surfaces, such as the surfaces of a layer of metal balls and the like, whereby the fuel mixture will not only be more evenly distributed, but whereby the liquid portion therein will also convert to a vapor before entering the intake manifold of the engine. In addition, a coil of tubing is also preferably provided with one end arranged to receive fresh air heated by the exhaust manifold of the engine, and with the other end downwardly directed from the layer of balls to the intake manifold, whereby the hot air will not only heat and further enhance vaporization of any remaining fuel liquids, but will also create a downdraft further redistributing the fuel vapor being supplied to the engine.

5 Claims, 4 Drawing Figures