

IPR2017-01723
U.S. Patent 5,954,781

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS, INC.,
Petitioner,

v.

VELOCITY PATENT LLC,
Patent Owner

Case IPR2017-01723
U.S. Patent 5,954,781

EXHIBIT 2003
U.S. PATENT 5,954,781 AND REEXAMINATION CERTIFICATE



US005954781A

United States Patent [19]

[11] Patent Number: **5,954,781**

Slepian et al.

[45] Date of Patent: **Sep. 21, 1999**

[54] METHOD AND APPARATUS FOR OPTIMIZING VEHICLE OPERATION

[75] Inventors: **Harvey Slepian**, Peoria; **Loran Sutton**, East Peoria, both of Ill.

[73] Assignee: **TAS Distributing Co., Inc.**, Peoria, Ill.

[21] Appl. No.: **08/813,270**

[22] Filed: **Mar. 10, 1997**

[51] Int. Cl.⁶ **G06F 7/00**

[52] U.S. Cl. **701/96; 701/103; 340/425.5; 340/438**

[58] Field of Search 701/1, 121, 123, 701/101, 102, 103, 104, 96, 300; 123/478, 480, 351, 481; 340/903, 425.5, 426, 436, 438

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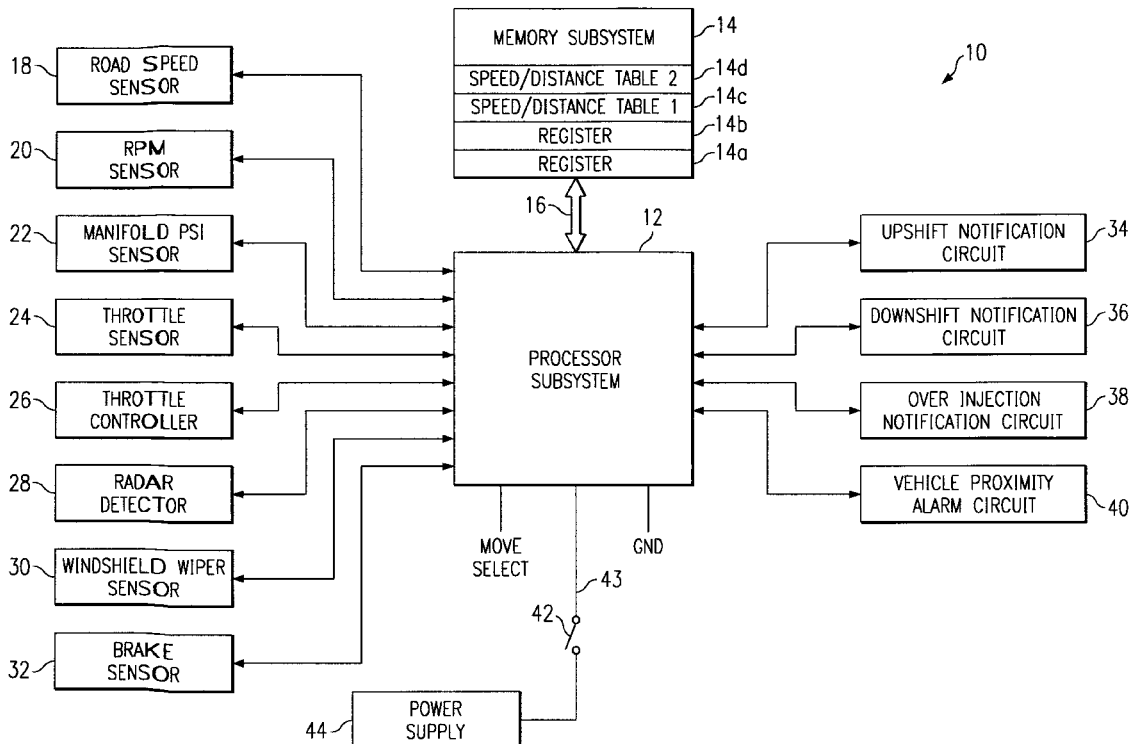
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[57] ABSTRACT

Apparatus for optimizing operation of an engine-driven vehicle. The apparatus includes a processor subsystem, a memory subsystem, a road speed sensor, an engine speed sensor, a manifold pressure sensor, a throttle position sensor, a radar detector for determining the distance separating the vehicle from an object in front of it, a windshield wiper sensor for indicating whether a windshield wiper of the vehicle is activated, a brake sensor for determining whether the brakes of the vehicle have been activated, a fuel over-injection notification circuit for issuing notifications that excessive fuel is being supplied to the engine of the vehicle, an upshift notification circuit for issuing notifications that the engine of the vehicle is being operated at an excessive engine speed, a downshift notification circuit for issuing notifications that the engine of the vehicle is being operated at an insufficient engine speed, a vehicle proximity alarm circuit for issuing an alarm that the vehicle is too close to an object in front of the vehicle and a throttle controller for automatically reducing the amount of fuel supplied to the engine if the vehicle is too close to the object in front of it. Based upon data received from the sensors and data stored in the memory subsystem, the processor determines whether to activate the fuel overinjection notification circuit, the upshift notification circuit, the downshift notification circuit, the vehicle proximity alarm circuit or the throttle controller.

32 Claims, 3 Drawing Sheets



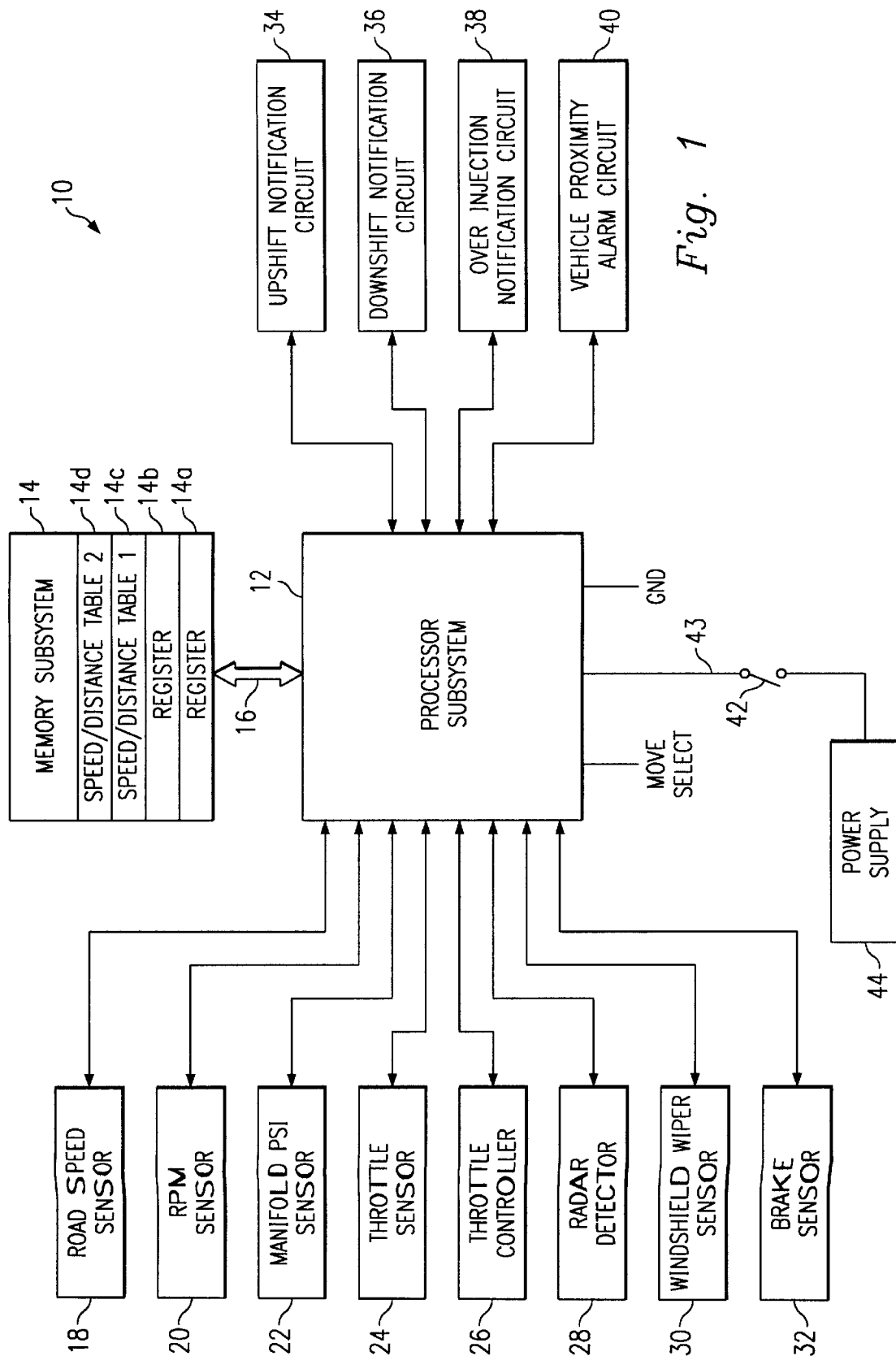
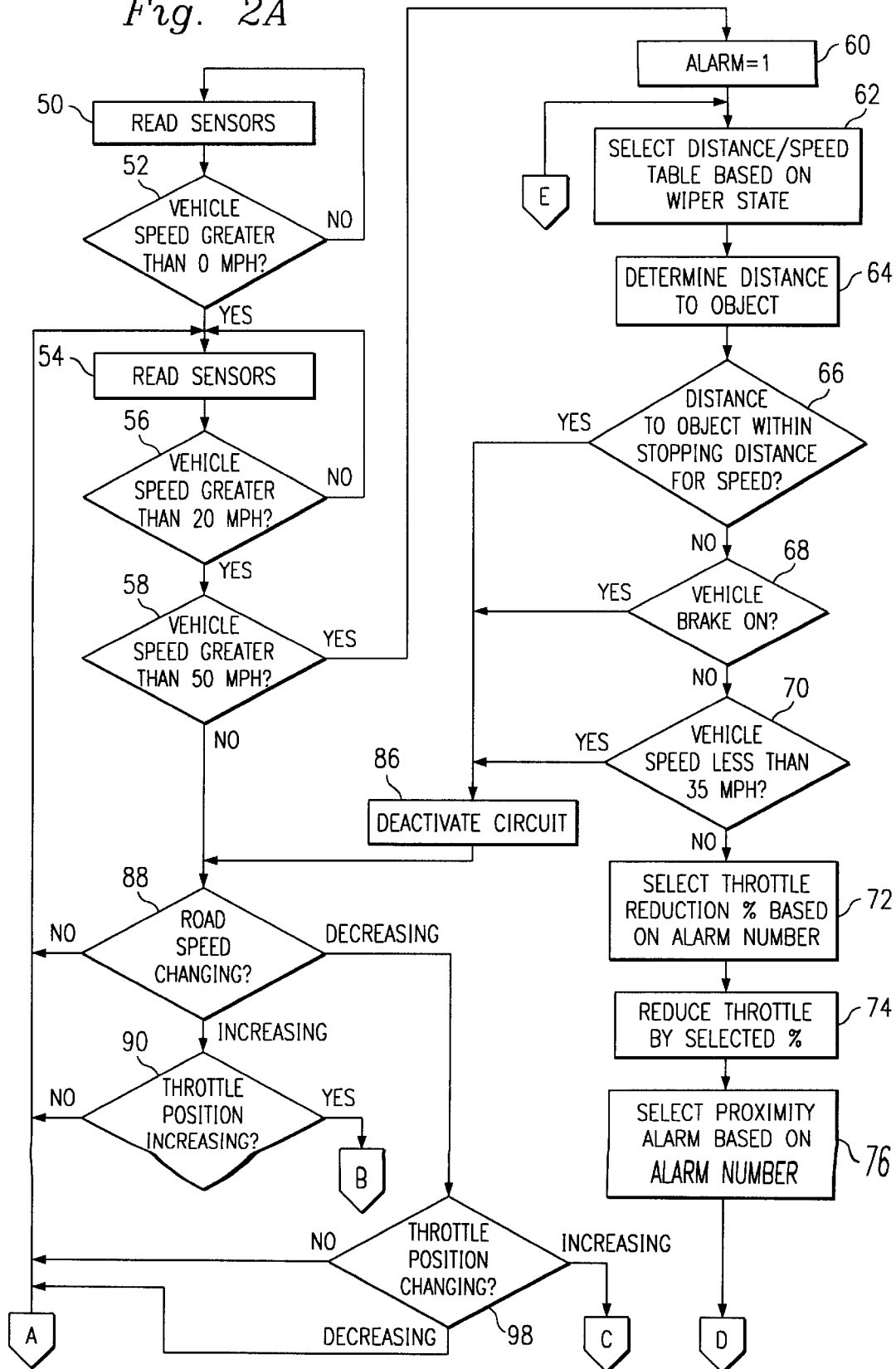
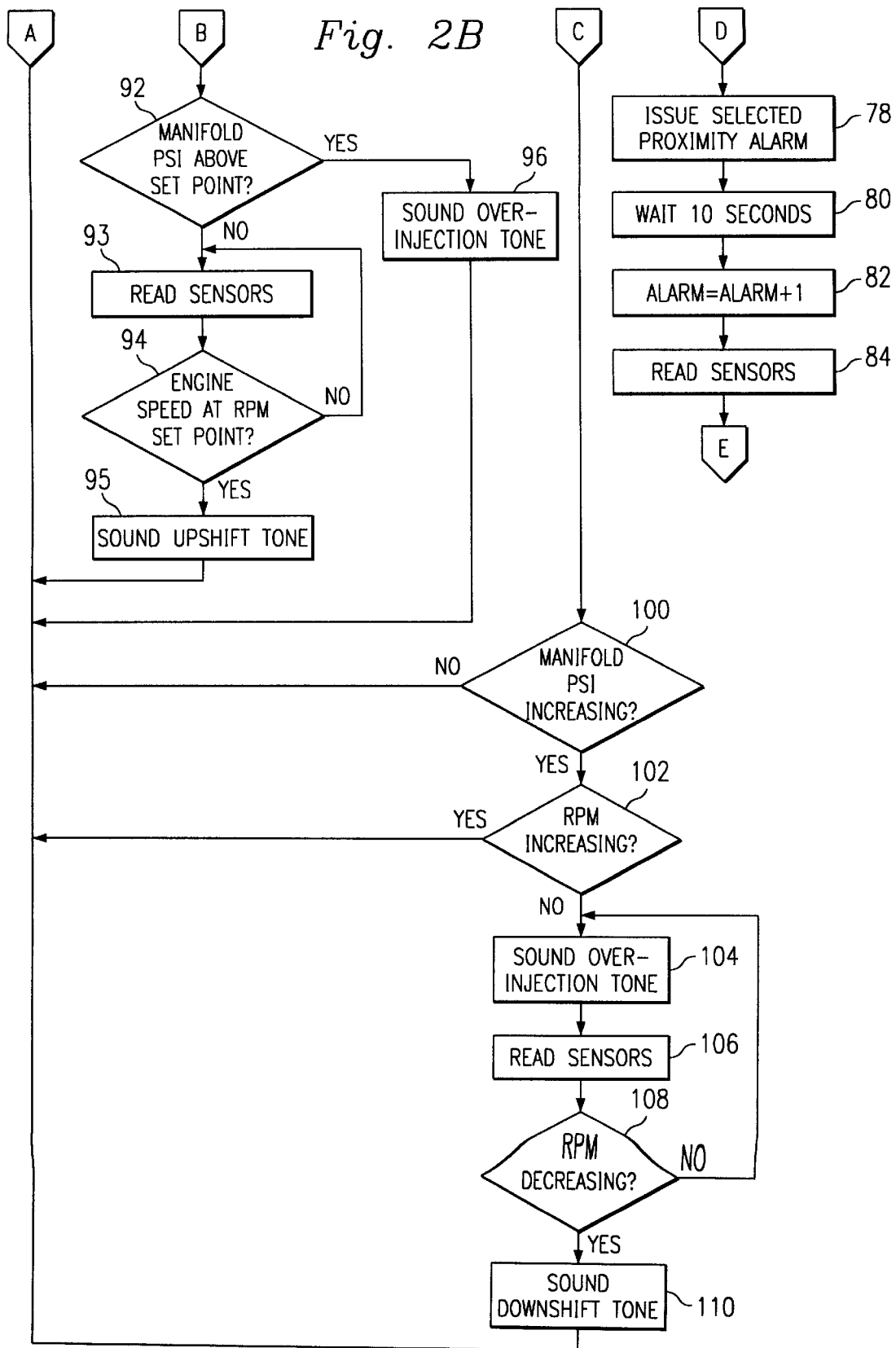


Fig. 1

Fig. 2A





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