## United States Patent [19]

## Chasteen

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Feb. 20, 1990

[54]	FUEL INJ	ECTION
[75]	Inventor:	Ronald E. Chasteen, Lakeside, Ariz.

[73] Assignee: Injection Research Specialists, Inc.,

Colorado Springs, Colo.

[21] Appl. No.: 345,081

[22] Filed: Apr. 28, 1989

## Related U.S. Application Data

[63]	Continuation of Ser. No. 119,626, Nov. 12, 1987, abandanad
	doned.

[51]	Int. Cl	L <sup>4</sup>	F02M	7/00:	G05D	23/00
[~1]	THE C		I OPINI	,, 00,	CODE	23,00

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[52]	U.S. Cl.	 123/478; 364/557

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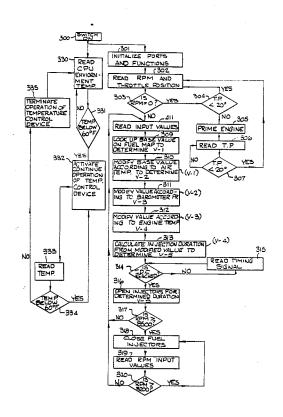
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Primary Examiner—Raymond A. Nelli Attorney, Agent, or Firm—Bruce G. Klaas; William P. O'Meara

#### [57] ABSTRACT

A fuel injection system for a two-stroke cycle engine comprising an air manifold; a throttle valve; a fuel injector; a fuel supply system including a fuel pump; a battery voltage sensor; an air temperature sensor; an engine speed sensor; a timing sensor; a barometric pressure sensor; a throttle position sensor; a first data processor for receiving and processing sensing signals for determining fuel injector duration and timing and fuel pump operating speed; a first data processor temperature sensor for sensing the relative temperature of certain electronic components in the first data processor; a heater operatively associated with the first data processor electronic components for selectively heating the electronic components; and a second data processor operable independently of the first data processor for receiving an electronic component temperature sensing signal and for generating a control signal to the heater responsive thereto for heating the components when the temperature thereof is below a predetermined minimum value.

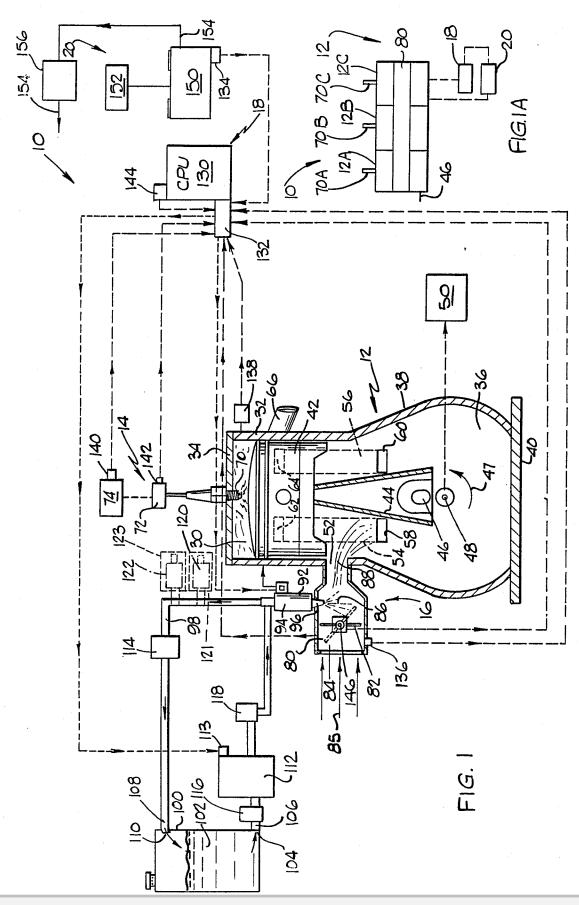
## 1 Claim, 5 Drawing Sheets





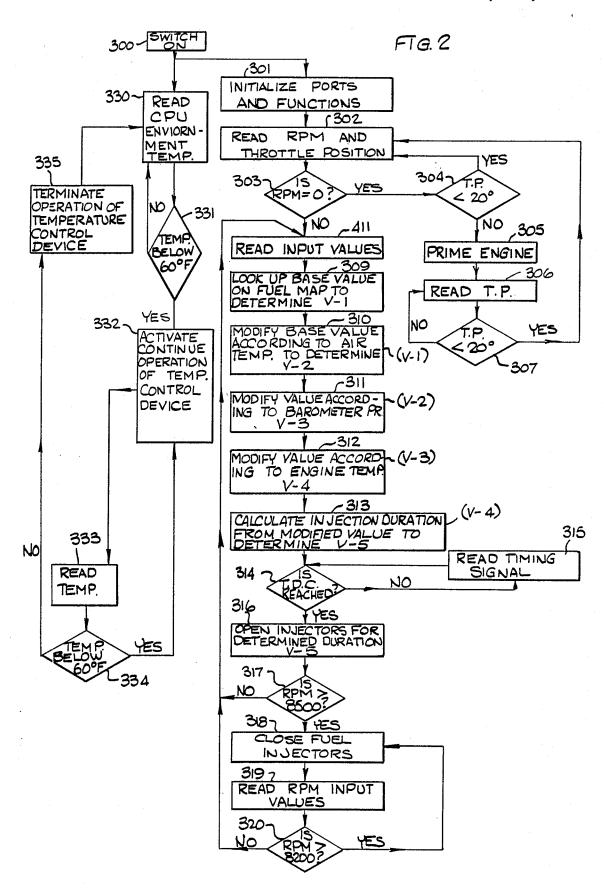
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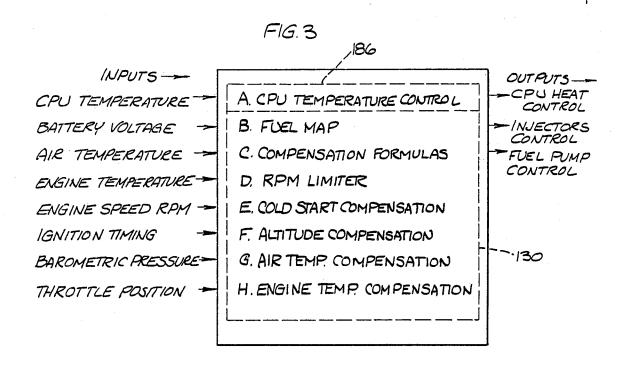


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U.S. Patent

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