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2,709,376

AUTOMOTIVE GOVERNORS

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FIG. 1.

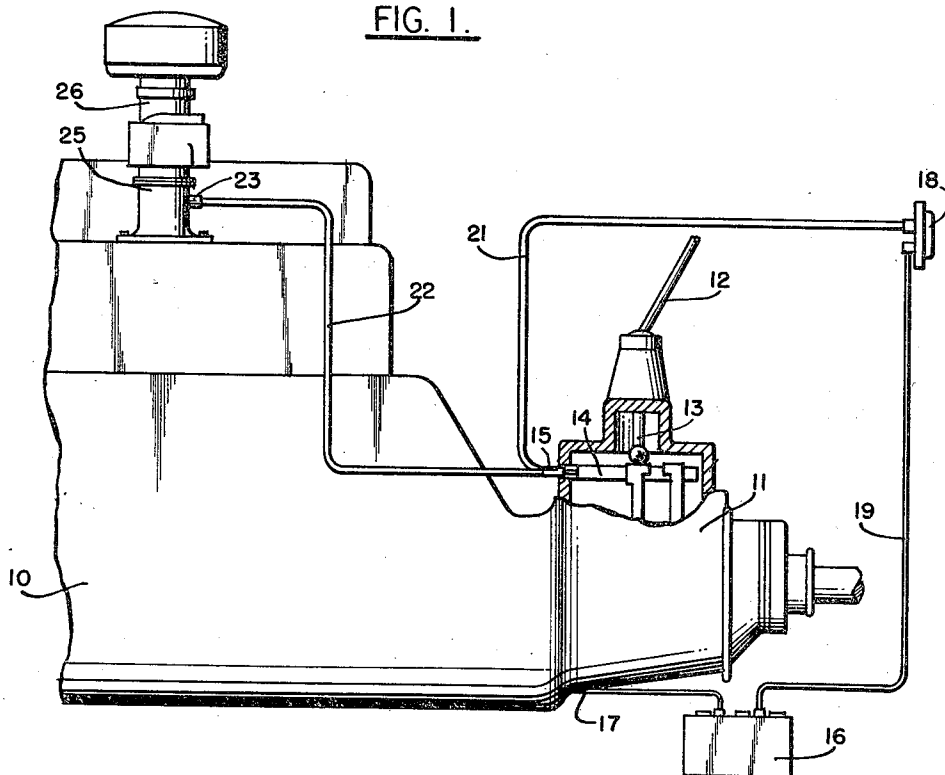


FIG. 2.

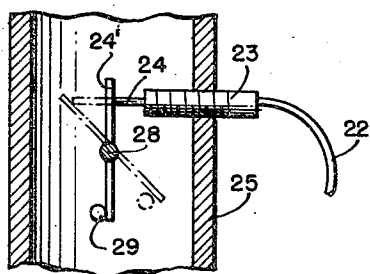
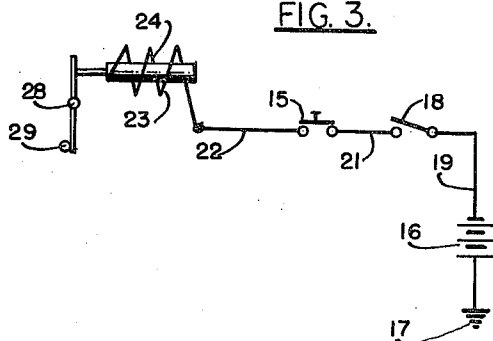


FIG. 3.



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AUTOMOTIVE GOVERNORS

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2 Claims. (Cl. 74-472)

This invention relates to an automotive governor.

It is an object of the present invention to provide an automotive governor which can be operated by the gear shift parts so that automatically as the gear shift is operated to set the transmission parts for high gear, a restriction is placed in the throat of the carburetor to cut down on the flow of fuel to the engine and automatically upon return of the gear shift lever to the second gear or low gear positions, a complete non-restricted flow of fuel will pass through the throat of the carburetor so that maximum power will be had when the gear shift is positioned to drive the vehicle in the lower gears and allow the operator to get full power while in these lower gears.

Other objects of the invention are to provide an automotive governor operated by the gear shift parts, which is of simple construction, inexpensive to manufacture, easy to assemble upon the transmission and in the carburetor passage or throat, has a minimum number of parts, compact, and efficient and automatic in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Figure 1 is a fragmentary side elevational view of an engine and transmission attached with portions broken away to show the attachment of the switch to the gear transmission;

Fig. 2 is an enlarged fragmentary and sectional view showing the manner in which the butterfly valve and the magnet for operating the same is installed within the throat of the carburetor;

Fig. 3 is a wiring diagram including the battery, the ignition switch, the push button switch connected to the transmission and the solenoid for operating the butterfly valve.

Referring now to the figures, 10 represents an internal combustion engine having a transmission 11 attached thereto. The transmission 11 is controlled by a gear shift lever 12 having an arm 13 for operating slides 14. A press button switch 15 is mounted in the transmission 11 and adapted to be operated by a slide 14 as the lever 12 is adjusted to the high gear position. This push button switch is included in a circuit, such as shown in Fig. 3, along with a battery 16 that is grounded at 17 and which is connected to an ignition switch 18 by a wire 19, leading from one of the battery terminals. A wire 21 connects the ignition switch with the push button switch 15. A wire 22 connects the push button switch with a solenoid coil 23 having a plunger 24 adapted to engage the upper end of a butterfly valve 24' pivotally mounted in throat 25 of a carburetor arrangement 26. The solenoid device is screw fitted into the wall of the carburetor throat as viewed in Fig. 2.

The butterfly valve 24' is connected by a pivot member 28 to the interior of the throat wall 20 and is weighted by a weight 29 so as to return to a vertical position as

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the solenoid 23 is de-energized as the plunger 24 is released thereby.

When the gear shift lever is moved to the lower gears, there is no closing of the push button switch 15, but upon the gear shift lever being moved to the high position, a slide 14 will press the button 15 so as to close and establish circuit through the solenoid 23 whereby to cause the butterfly valve 24' to be moved to the dot and dash line position shown in Fig. 2, and to provide a restriction in the throat 25 of the carburetor so that a little fuel is supplied to the engine, and thereby the speed of the vehicle is kept down. When the butterfly valve 24' is in the vertical position, there is no restriction in the throat 25 so that a full supply of fuel is available to the engine 10 at times when power is needed. Full power is had in starting a heavily loaded vehicle and the governor is operated only in the high gear position of the gear shift lever.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention, as defined in the appended claims.

What is claimed is:

1. In combination, a combustion engine having a carburetor thereon, a butterfly valve in the carburetor, a solenoid extending into the carburetor and having a plunger adapted to operate said butterfly valve to a restricting position when the solenoid is energized, a gear shift arrangement including a high gear slide member, a press button switch mounted on the gear shift arrangement and operated to a closed position by the high gear slide member, when the same is moved to the high gear position, electric circuit means including a battery connected to the press button switch whereby as the press button arrangement is adjusted to the closed position, the butterfly valve will be placed in a restricted position to limit the flow of fuel through the carburetor.

2. In combination, a combustion engine having a carburetor thereon, a transmission connected to the combustion engine, said transmission having a gear shift arrangement including a high gear slide for effecting high gear transmission, switch means connected to the transmission and operated to a closed position by the high gear slide, when the same is positioned to effect the high speed of the vehicle, electrically operated valve means mounted in the carburetor of the combustion engine to restrict in one position the flow of fuel to the engine, and electric circuit means including a battery, the switch and the electrically operated means whereby as the gear shift lever is moved to position the gears for operation of the transmission for high speed, the electrically operated valve will be positioned to provide a restriction in the carburetor.

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