

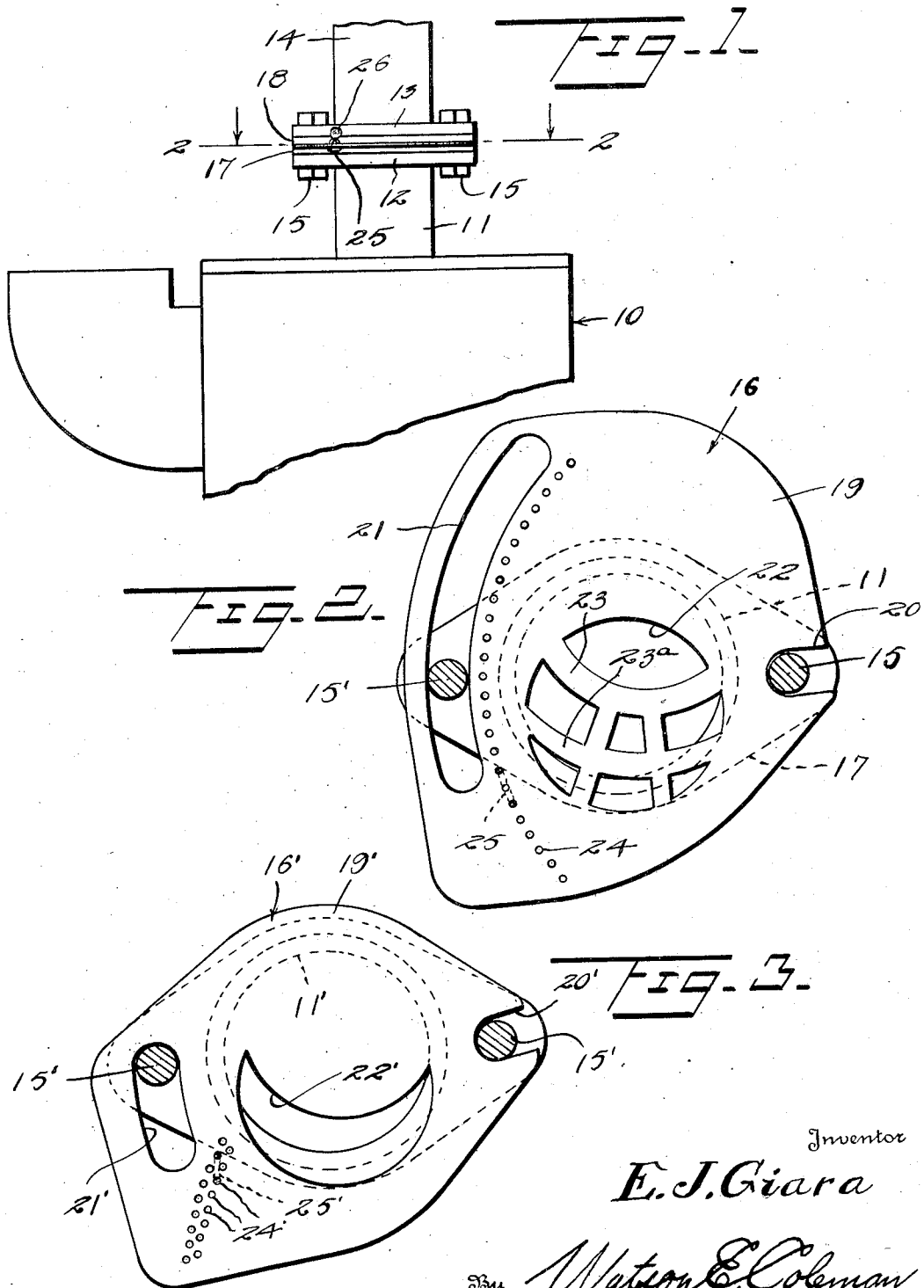
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GOVERNOR

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GOVERNOR

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2 Claims: (Cl. 138—46)

This invention relates to governors and more particularly to a governor for use in controlling the maximum speed of a motor vehicle engine.

An object of this invention is to provide a governor which may be readily and quickly interposed between the opposed flanges carried by the carbureter and the intake manifold in an internal combustion engine so as to restrict the passage and thereby control the maximum speed of the engine.

Another object of this invention is to provide in combination with a device of this kind, means whereby the device may be sealed so as to prevent movement of the governor to a position permitting greater speed of the engine.

A further object of this invention is to provide a device of this character which is so constructed that it can be stamped out of a sheet of metal and readily inserted in operative position, thus producing a governor which can be sold at a relatively small cost.

A still further object of this invention is to provide a device of this character which is so constructed that when it has once been sealed to maximum speed, the device upon repair of the engine necessitating removal of the carbureter can be removed and replaced in its original position without breaking of the seal and without changing the position of the device with respect to the fuel passage.

The above and various other objects and advantages of this invention will in part be described in, and in part be understood from the following detail description of the present preferred embodiment, the same being illustrated in the accompanying drawing wherein:—

Figure 1 is a fragmentary side elevation of a carbureter and an intake manifold having a governor constructed according to an embodiment of this invention, interposed therebetween.

Figure 2 is an enlarged sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a view similar to Figure 2 but showing a modified form of governor.

Referring to the drawing, wherein like numerals of reference designate corresponding parts throughout the several views, the numeral 10 designates generally a carbureter of conventional construction provided with a neck or discharge passage 11 and a flange 12 which is secured to the flange 13 at the lower end of an intake manifold 14. The two flanges 12 and 13 are secured together as by bolts 15. This construction is conventional and is here shown as only one type of carbureter and intake manifold construction with

which the hereinafter described invention may be combined.

In order to provide a means whereby the fuel in the form of gases or vapors passing through the neck or outlet passage 11 may be controlled so as to thereby control the maximum speed of the internal combustion engine associated with the carbureter 10, I have provided a governor, generally designated as 16, which is interposed between a lower gasket 17 and an upper gasket 18 disposed between the confronting faces of the flanges 12 and 13. This governor 16 comprises a plate 19 having at one edge thereof a notch or slot 20 which opens through the adjacent edge of the plate so as to receive one of the bolts 15 connecting the two flanges 12 and 13 together. The other side of the plate 19 has an elongated closed slot 21 of arcuate configuration which loosely receives the other bolt 15 so that the plate 19 may be swung with the notched portion 20 as a fulcrum to the limit of the slot 21.

The plate 19 at a point intermediate the two slots 20 and 21 is provided with a fuel passage or opening 22 which may have a plurality of bars 23 and 23a disposed thereacross so as to provide an enlarged opening through the plate 19 dependent on the position of the opening 22 with respect to the passage 11.

The plate 19 is also provided with a plurality of spaced apart openings 24 which are disposed adjacent the slot 21 and in selected pairs of these openings 24 there is adapted to be disposed a plate locking or sealing member 25 of substantially U-shaped construction. This sealing member 25 may be made out of wire or like material and the free ends thereof are adapted to be closed or sealed by a lead seal 26, as shown in Figure 1. The wire or sealing member 25 is adapted to engage through the plate 19 at a point on the far side of the opening 22 so as to prevent movement of the plate 19 to a position to thereby enlarge the opening or passage 22 by reason of the relation of this opening 22 with respect to the fuel passage 11.

In Figure 3, there is shown a modified form of this governor wherein the plate 19' has a slot 20' to receive one of the bolts 15' and is also provided with a closed arcuate slot 21'. The plate 19' has a crescent opening 22' therethrough between the slots 20' and 21' which is adapted to be moved into register with the fuel passage or pipe 11'.

The plate 19' is also provided with pairs of holes 24' in selected ones of which a sealing member 25' is adapted to engage so as to prevent

movement of the plate 19' beyond the original setting point to prevent speeding up of the internal combustion engine to a point greater than that controlled by the original positioning of the opening 22' with respect to the passage 11.

In the use and operation of this governor, the plate 19 may be inserted or applied to a conventional internal combustion engine construction between the carbureter and the intake manifold by loosening up the bolts 15 and preferably withdrawing only one of these bolts and then slipping the plate 19 between the two flanges 12 and 13 with a gasket 17 and 18 on opposite sides thereof. The removed bolt 15 may then be inserted in the slot 21 with the slot 20 first being disposed about the other flange bolt 15. The engine may then be started and operated in the usual manner whereupon the plate 19 may be swung with one of the bolts 15 as a fulcrum until the maximum speed of the engine is at the desired limit whereupon the locking member 25 is passed through the holes 24 closest to the flanges 12 and 13 on the side of the plate 19 opposite from the opening 22. In other words, the locking member 25 is so positioned that the plate 19 cannot be swung to increase the sides of the orifice but may be swung to decrease the sides of the orifice without disturbing the sealing or locking member 25. After the locking member 25 has been properly positioned in the desired openings 24, the locking member 25 may then be sealed by a conventional lead seal, or the like, and after the position of the locking member 25 has once been determined the carbureter 10 may be detached from the intake manifold and the governor 16 removed for repair to the desired parts of the engine without disturbing the position of the locking member 25. In other words, when a mechanic separates the carbureter 10 from the intake manifold 14 by removal of the bolts 15, the governor 16 may be replaced in its original position in the same manner in which it was first applied and this can be done without disturbing the position of the locking member 25.

The governor 16 may be constructed out of

metal or other suitable sheet material and where constructed out of metal may be stamped so that the governor can be manufactured and sold at a relatively small cost, thus making the device practical for use with various types of motor vehicle or other internal combustion engines where it is desired to limit the maximum speed of the engine without effecting the minimum or intermediate speeds.

I claim:—

1. A governor for an internal combustion engine insertible between the confronting flanges carried by the carbureter and the intake manifold secured together by a pair of bolts, comprising a plate having a fuel passage therethrough and a notch in one edge thereof to receive one of the bolts, said plate having an arcuate slot to loosely receive the other bolt, said slot having as an axis the axial center of said one bolt and said plate being adjustable between the flanges about said one bolt upon loosening of the bolts for the length of said slot, said plate also having a plurality of holes therethrough, and a wire threaded through a pair of said holes and engageable with one side of said flanges to limit the adjustment of the plate in one direction.

2. A governor for an internal combustion engine insertible between the confronting flanges carried by the carbureter and the intake manifold secured together by a pair of bolts, comprising a plate having a fuel passage therethrough and a notch in one edge thereof to receive one of the bolts, said plate having an arcuate slot to loosely receive the other bolt, said slot having as an axis the axial center of said one bolt and said plate being adjustable between the flanges about said one bolt upon loosening of the bolts for the length of said slot, said plate also having a plurality of spaced apart holes extending laterally of said fuel passage, and a wire threaded through a pair of said holes and engageable with one side of said flanges to limit the adjustment of the plate in one direction.

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