E. M. STEVENSON.

CARBURETER.

APPLICATION FILED AUG. 26, 1907.

910,326.

Patented Jan. 19, 1909.

Fig - 1 -

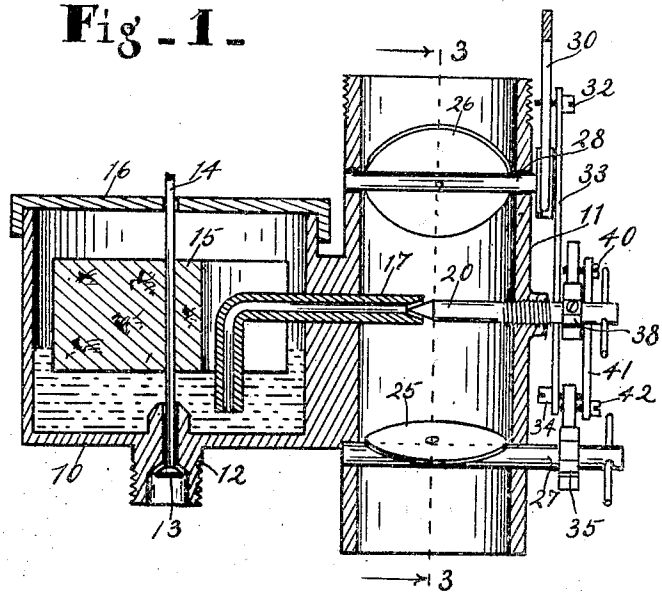


Fig - 2 -

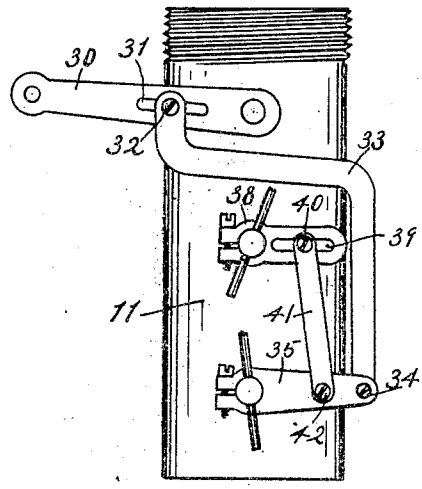
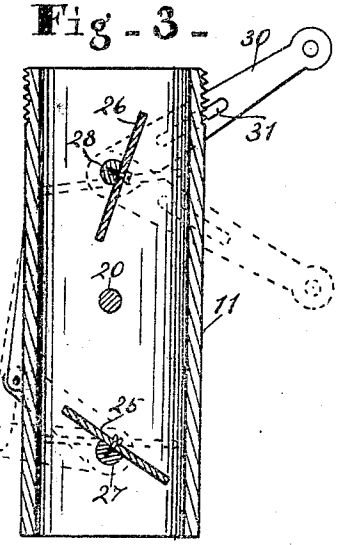


Fig - 3 -



WITNESSES:

W. M. Gentle.

N. Allemong.

INVENTOR.

Edgar M. Stevenson.

BY

C. H. Lockwood.

ATTORNEY

UNITED STATES PATENT OFFICE.

EDGAR M. STEVENSON, OF INDIANAPOLIS, INDIANA.

CARBURETER.

No. 910,326. Specification of Letters Patent. Patented Jan. 19, 1909.

Application filed August 26, 1907. Serial No. 390,390.

To all whom it may concern:

Be it known that I, EDGAR M. STEVENSON, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Carbureter; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to improve the construction of carbureters by single means for operating the air inlet valve, the fuel valve and the gas outlet valve simultaneously and also differentially so that as said valves are operated some will move more rapidly than others so that some of the ports closed by said valves will increase or diminish at a greater or less ratio than other ports closed by said valves.

The invention involves also the idea of adjusting the connections between the valves and the actuating means whereby the effect of said actuating means upon said valves, as respects their movements in relation to each other, may be varied readily from time to time according to the demands of the work to be done.

The full nature of the invention will be understood from the accompanying drawing and the following description and claim.

In the drawings Figure 1 is a single vertical section through the carbureter. Fig. 2 is a side elevation thereof. Fig. 3 is a section on the line 3—3 of Fig. 1, an altered position of the throttle lever and two of the valves being indicated by dotted lines.

In detail the carbureter consists chiefly of the fuel or gasolene receiving receptacle 10 and the mixing chamber 11. As herein shown both of these members are tubular and arranged parallel with each other and integral with each other. At the bottom of the receptacle 10 there is a nipple 12 threaded for connection with means for conveying gasolene or other fuel to the receptacle 10, the passageway therethrough being controlled by a valve 13 on the stem 14 carrying the float 15. The receptacle 10 is closed by a lid 16. From the receptacle 10 a fuel conduit 17 extends into the tubular mixing chamber 11 to a point about midway and has a flaring outlet that furnishes a valve seat for the needle valve 20, which screws through one side of the chamber 11 for regulating the fuel passageway 17. The air enters the lower end of the chamber 17, passing the air valve 25, crossing the fuel inlet and mixing with the fuel in the chamber 11. The gas thus formed passes the gas outlet valve 26 and goes into the cylinder of the engine, there being a connection, not shown, between the cylinder of the engine and the upper threaded end of the chamber 11. The valves 25 and 26 are disks having substantially the same diameter as the chamber 11 and mounted on stems 27 and 28 that extend diametrically through the chamber 11 and have bearing in the walls thereof so that they may be partially rotated for turning the valves to a closing position diametrically across the chamber 11 or to various open positions, the openings on each side of each valve increasing as the valve is turned from the diametrical position.

The valves are actuated and controlled by the following means: A throttle lever 30 is secured on the valve stem 20 of the gas valve 26 and is provided with a slot 31 through which the pin 32 is secured in the end of a connecting bar 33 that extends transversely of the chamber 11, outside thereof and then longitudinally of said chamber, and is pivotally connected at 34 with a crank 35, secured on the shaft 27 of the air valve. There is likewise a crank 38 secured on the fuel valve 20 and it has a slot 39 through which a pin 40 extends, said pin being secured to the end of the connecting bar 41, which is pivoted at 42 to the crank 35 and between the ends of said crank.

The throttle lever 30 and the cranks 35 and 38 are arranged substantially parallel with each other and the slots 31 and 39 are substantially parallel with each other and with said cranks, whereby the ends of the connecting bars 33 and 41 may be adjusted towards or away from the fulcrum of the cranks in which they are mounted. It is obvious that when the end of the connecting bar 33 is adjusted closer to the fulcrum of the throttle lever 30 the opening movement of the gas valve 26 will be relatively more rapid than the opening movement of the air valve 25 and the fuel valve 20. Likewise when the connecting bar 41 is adjusted more closely to the fulcrum of the crank 38 there will be a corresponding increase in the opening movement of the valve 20 relative to the opening movement of the other valves. By this means, therefore, although it is a single means, being operated entirely from the throttle lever, all the valves are simultane-

ously operated with varying rapidity of opening or closing movements, and capable of relative adjustment.

I claim:

A carbureter including an air inlet valve, a gas outlet valve, an intermediate fuel inlet valve, a throttle lever for operating the gas outlet valve, cranks for operating said air and fuel inlet valves, an adjustably mounted connecting bar between the cranks of the air inlet and the fuel inlet valves, and an adjustably mounted connecting bar between the crank of the air inlet valve and the throttle lever substantially as set forth.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

EDGAR M. STEVENSON.

Witnesses:
V. H. LOCKWOOD,
OLIVE BREEDEN.