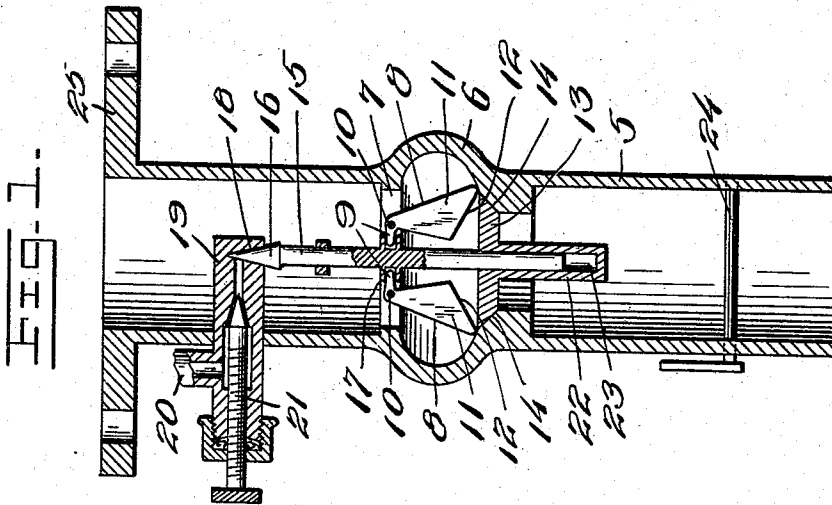
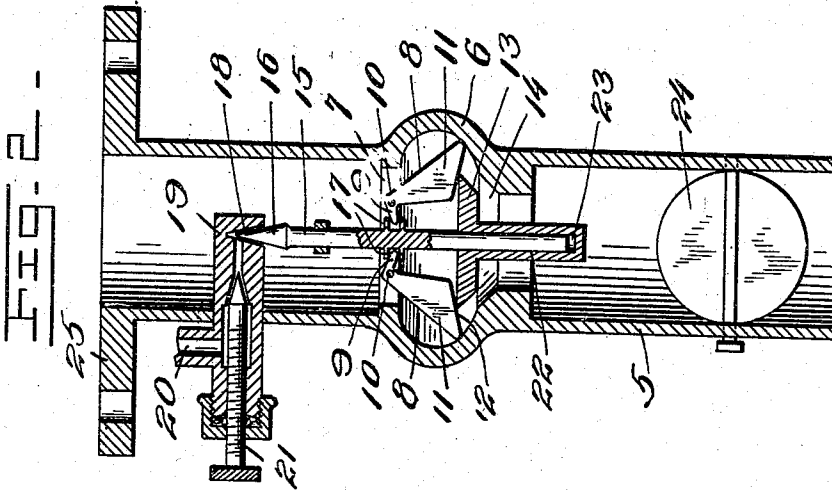


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CARBURETER.

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930,443.

Patented Aug. 10, 1909.



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UNITED STATES PATENT OFFICE.

FRANK L. VAUGHAN AND JAMES R. MCKENZIE, OF ROCHESTER, NEW YORK.

CARBURETER.

No. 930,443.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed December 14, 1908. Serial No. 467,454.

To all whom it may concern:

Be it known that we, FRANK L. VAUGHAN and JAMES R. MCKENZIE, citizens of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Carbureters, of which the following is a specification.

This invention relates to carbureters and more particularly to those of the mixing valve type, and has for its object to provide a structure of this kind in which the valve proper will be operated by the suction of the engine, and in which the gasolene supply will be controlled by the valve, the arrangement being such that gasolene will be admitted to the aspirator in advance of the uncharged air, a particular object being to provide a structure in which the movement of the gasolene controlling valve will be in increased ratio to the valve proper, termed the puppet valve in the following description.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a sectional view showing the parts in passive position, Fig. 2 is a view similar to Fig. 1, showing the parts in active position.

Referring now to the drawings there is shown a vertically extending pipe 5, having a central enlargement 6 in which there is located a transversely extending hanger 7, having a pair of levers 8 pivoted therein. These levers include fingers 9 extending toward each other from the pivot points 10 of the levers, and the levers also include downwardly extending weighted portions 11, having diagonal lower edges 12 extending upwardly and inwardly in convergent relation to receive thereagainst the edge portions of a puppet valve 13 located below the levers 8 and movable vertically into and out of a seat 14.

It will be seen from the drawings that when the valve 13 is raised, its engagement with the diagonal faces 12 will result in upward movement of the levers 8 with con-

sequent downward movement of the fingers 9 which carry therewith the vertically extending stem 15 of a needle valve 16, which has vertically spaced flanges 17 between 60 which the fingers are engaged. The needle valve 16 works in a seat 18 formed in a member 19 extending horizontally into the pipe 5 and having a gasolene passage 20 communicating with the valve seat 18. A set valve 21 is provided to govern the flow of gasolene through the passage 20.

As will be observed from the foregoing, when the valve 16 is moved downwardly by the levers 8, the gasolene will be permitted 70 to flow from the member 19 into the upper portion of the pipe 5 which is thus an aspirator.

As indicated, the puppet valve 13 is provided with a depending shank 22 which has 75 a chamber 23 therewithin opening through the upper face of the valve, and this chamber receives the lower portion of the valve stem 15, this valve stem thus acting as a guide for the puppet valve 13, and as a stop 80 to limit the upward movement of the valve 13 through engagement of the lower end of the stem 15 against the bottom of the passage 23.

As shown in the drawings, the pipe is provided with a throttle 24 at its lower portion 85 and with an attaching flange 25 at its upper portion.

What is claimed is:—

1. A carbureter comprising a pipe, an air 90 valve seat in the pipe, an air valve arranged to lie normally in the valve seat, levers pivoted in the pipe in parallel relation, said levers being located in position for engagement by the valve when the valve is moved 95 into open position, said levers having laterally extending fingers, an oil control needle valve including a stem, and spaced flanges carried by the stem, said fingers being engaged between the flanges said levers being 100 weighted to hold them normally with the valve stem in position to close the needle valve.

2. In a carbureter, the combination with a pipe of a vertically extending valve stem 105 slidably mounted in the pipe, levers pivoted within the pipe, connections between the levers and the valve stem for movement of the valve stem when the levers are moved, said levers being weighted to hold the valve stem 110 normally at the upward limit of its movement, a needle valve carried by the valve

stem, a member having a seat for the needle valve and located in a position to receive the needle valve normally in its seat, said member having a gasoline passage communicating with the seat, a puppet valve located
5 below the levers and arranged for engagement of the levers and for movement thereof out of their normal positions when the puppet valve is opened, said puppet valve

having a passage in which the valve stem is 10 slidably engaged.

In testimony whereof we affix our signatures, in presence of two witnesses.

FRANK L. VAUGHAN.
JAMES R. MCKENZIE.

Witnesses:

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