Feb. 5, 1924. 1,482,550

G. ESOPH, JR

VALVE

Filed July 16, 1921

Fig. 1.

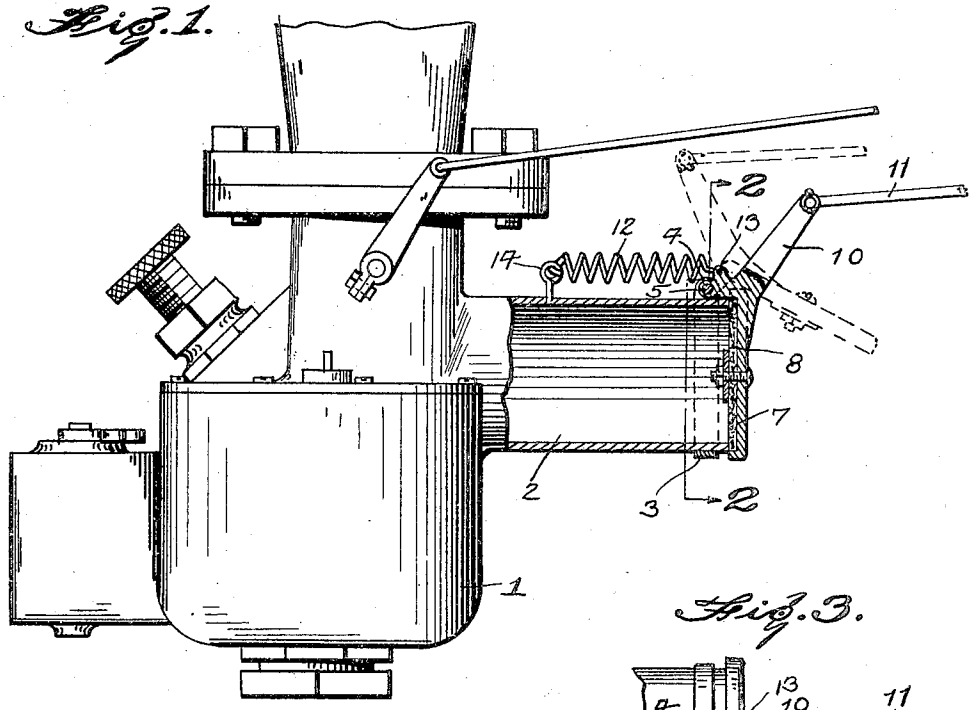


Fig. 3.

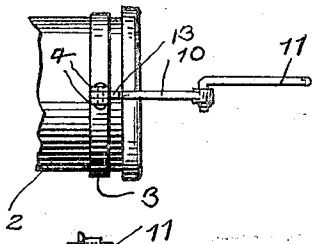


Fig. 2.

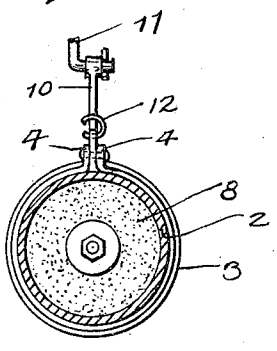
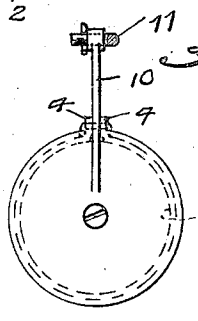


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE ESOPH, JR., OF TENNIS, SOUTH DAKOTA.

VALVE.

Application filed July 16, 1921. Serial No. 485,168.

To all whom it may concern:

Be it known that I, GEORGE ESOPH, JR., a citizen of the United States, residing at Tennis, in the county of Hand and State of South Dakota, have invented certain new and useful Improvements in Valves, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to valves, and more particularly to choke valves for carburetors.

The principal object of the invention is to provide a choke valve which may be conveniently actuated to cut off every particle of air to the carburetor so that a full charge of raw gas may be sucked into the cylinders.

All of the carburetors of the present day employ butterfly valves within the air intake tubes and these valves are supposed to close completely the intake tube, but in all instances there is quite a quantity of air passes the valve due to the fact that it is almost impossible to make the same fit the interior of the intake tube and also due to the fact that the suction through the tube operates to open the valve. It is therefore another object of this invention to avoid this difficulty and to provide a valve which when operated will be acted upon by the suction to assist in the closing action and which will effectually cut off every particle of air to the carburetor.

Other objects of the invention will appear as the following specific description is read in connection with the accompanying drawings which form a part of this application and in which:

Figure 1 is a side elevation of a carburetor with a valve in section;

Figure 2 is a section taken on the line 2—2 of Figure 1;

Figure 3 is a detail top plan view with the spring omitted;

Figure 4 is an end elevation of the valve.

Referring more particularly to the drawings, 1 represents a carburetor of ordinary type having an air intake tube 2, as is usual. Mounted upon the end of the tube is a clamping band 3 having upstanding parallel ears 4 through which a securing bolt or rivet 5 is passed to clamp the band upon the tube. This rivet or bolt 5 forms a pivot for the valve which is indicated at 6 and which consists of a disk having a recessed inner surface, indicated at 7, to receive the leather packing washer or disk 8. This washer is secured in position by means of a bolt 9 passing through the valve and washer, as shown.

Extending diagonally off from the upper end of the valve plate is a lever 10 which is connected to an operating link 11 leading to the dash-board or some other suitable and convenient point where it may be operated upon by the driver of the vehicle.

The valve is normally held in open position, as shown in dotted lines in Figure 1 by means of a spring 12 connected at one end to an ear 13 formed on the upper end of the valve plate and at its opposite end to an eye 14 secured in any suitable manner to the valve tube.

When the valve is drawn to closed position against the tension of the spring 12 and the engine turned over by the starter or the crank, the suction through the tube 2 tends to maintain the valve in closed position against the action of the spring, whereas with the valves at present in use the suction accentuates the action of the spring in opening the valve, thereby rendering the closure ineffective. With applicant's type of valve the suction accentuates the action of the operator against the tension of the spring, thus making the closure effective to exclude all air from the tube 2.

By excluding all air with my improved type of valve, I am enabled to start the motor in extremely low temperatures with one or two operations of the crank, whereas with the old type of butterfly choke valve, it was very frequently necessary to spin the engine four or five times before sufficient raw gas could be sucked into the engine to start the same.

What I claim is:

1. An attachment for carbureters embodying an air inlet tube having an open end comprising a split clamping yoke adapted to be engaged upon the end of the tube and when engaged to have its adjacent ends spaced, means extending through said ends for clamping the yoke upon the tube, and a valve pivoted upon said means for closing the end of the tube.

2. An attachment for carbureters embodying an air inlet tube having an open end comprising a split clamping yoke adapted to be engaged upon the tube adjacent the open end thereof and when engaged to have

its adjacent free ends spaced, means extending through such free ends for clamping the yoke upon the tube, a valve abutting the end of the tube to close the same, an operating lever for the valve pivotally engaged with said clamping means intermediate the adjacent ends of the yoke, and an ear formed on said clamping lever and adapted for the reception of one end of a spring for maintaining the valve normally in open position.

In testimony whereof I hereunto affix my signature.

GEORGE ESOPH, JR.