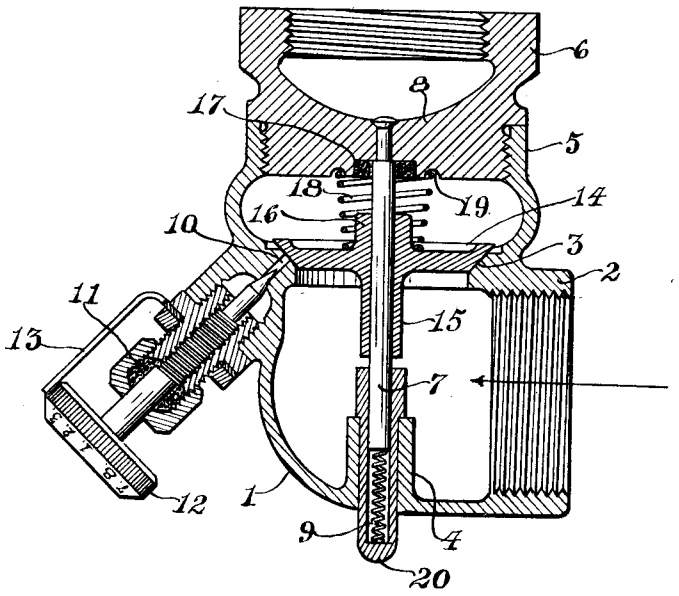
J. P. LAVIGNE.

CARBURETER.

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1,067,351.

Patented July 15, 1913



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH P. LAVIGNE, OF DETROIT, MICHIGAN.

CARBURETER.

1,067,351. Specification of Letters Patent. Patented July 15, 1913.

Application filed May 11, 1912. Serial No. 696,766.

To all whom it may concern:

Be it known that I, JOSEPH P. LAVIGNE, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Carbureters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to carbureters for internal combustion engines and the like and to an arrangement thereof whereby shock to the moving parts, which frequently results in crystallization and fracture is avoided and whereby an effective priming device is obtained without complication of the valve mechanism.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claim.

The drawing is a view in longitudinal section of a valve that embodies features of the invention.

As herein shown in preferred form a casing 1 of suitable material and design has a lateral inlet nipple 2 and an annular valve seat 3 with beveled face, the seat being in axial alinement with a boss 4 formed in the interior of the casing. The casing is slightly enlarged above the valve seat and has an outlet nipple 5 in which a fitting 6 is detachably secured, the latter forming a convenient means of attachment to the intake pipe or manifold of an engine or the like. A cylindrical stud 7 is secured in a cross bar or bridge 8 of the fitting in axial alinement with a guide opening in the boss 4 through which the depending stem 20 of a priming member extends. The latter has an axial socket into the upper portion of which the stud 7 extends, the head of the primer abutting the upper face of the boss. A spring 9 in compression between the bottom of the stem socket and the stud 7 normally holds the primer projected from the casing. A needle valve controls a fuel inlet duct 10 whose outlet is in the beveled face of the annular seat 3. This valve may be of any preferred type with suitable packing gland 11 and preferably has a milled head 12 engaged by a suitably disposed friction or spring finger 13 whereby graduations on the head may be utilized to indicate the extent of opening of the valve.

A disk closure 14 is adapted to seat the annular seat 3, and is held in proper alinement therewith by a longitudinally apertured sleeve 15 in sliding engagement on the stud 7. The lower end face of the sleeve clears the head of the primer when the closure is seated but is so arranged that when the primer is raised the closure is thereby lifted from the seat and therefore from the mouth of the duct 10. The portion of the sleeve 15 above the disk forms a stop 16 which is adapted to bear against a soft washer or ferrule 17 of suitable material, that is preferably inset in the bridge 8 in a recess around the stud. The upward motion of the disk is likewise resisted yieldingly by a suitably disposed spring 18 encircling the stud in compression between the closure and the bridge, the latter having an annular channel indicated at 19 or being otherwise fitted to receive the upper coil of the spring.

In operation the needle valve is opened to permit the admission of fuel through the duct 10 provision being made on the casing exterior for suitable connection with a pipe leading from a source of fuel supply. Thereafter under the suction of the motor or like devices to which the valve is attached, the closure 14 lifts, permitting the simultaneous injection of fuel and the inrushing of air, the resultant vapor being drawn through the valve outlet. In order to start the valve or prime it, the operator may lift the closure by pushing up the primer after having opened the fuel valve.

The construction of the closure stem with the cushioning effect of the stop, effectively prevents crystallization of the closure and consequent breakage under usage, a fault common to closures of the ordinary type. The construction is simple and the parts are easily made, assembled or removed for repair or replacement.

Obviously, changes in the details of construction may be made without departing from the spirit of the invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim is:

A carbureter comprising a casing having an air inlet, an annular valve seat above the inlet, an air outlet fitting secured in the casing above the seat, a stud secured in the cross member of the fitting and extending through the valve seat, a boss in the casing provided with a longitudinal guide aperture into which the stud extends, a primer longitudinally reciprocable in the guide

aperture of the boss with an axial socket entered by the stud, a spring in compression between the base of the socket and the stud for normally projecting the primer, a closure for the seat, a sleeve on the closure longitudinally reciprocable therewith on the stud, a stop cushion inset in the fitting around the stud, and an adjustable fuel valve controlling the inlet of the duct through the casing whose outlet in the annular valve seat is sealed by the closure when the latter is seated.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH P. LAVIGNE.

Witnesses:
ANNA M. DORR,
A. M. SHANNON.