

1,276,169.

The drawing illustrates a mechanical assembly, possibly a pump or a valve. The main component is a cylindrical body (1) with a handle (2) and a plug (3). A detailed cross-sectional view of the internal mechanism (4) is shown on the right. This mechanism includes a piston (5) and a valve (6) with springs (7, 8, 9, 10, 11, 12, 13). The diagram is labeled with numbers 1 through 13, indicating various parts of the assembly.

My dear
Cousin

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UNITED STATES PATENT OFFICE.

EDWARD G. BUCHMANN, OF MILWAUKEE, WISCONSIN.

CARBURETER.

1,276,169.

Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed May 3, 1917. Serial No. 166,096.

To all whom it may concern:

Be it known that I, EDWARD G. BUCHMANN, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Carbureters; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to certain new and useful improvements in carbureters, and refers particularly to an electrical unit in connection with a carbureter for vaporizing volatile oils.

The primary object of this invention is the provision of a carbureter having situated intermediate its float chamber and vaporizing chamber an electrical heating unit for heating the liquid fuel as it passes into the carbureting chamber.

A further object of my invention is the provision of a carbureter so equipped with an electrical heating unit which will be of exceedingly simple construction and inexpensive to manufacture.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel combination, construction and arrangement of parts, as hereinafter described and more particularly defined by the appended claim, it being understood that such changes in the precise embodiment of the invention herein disclosed may be made as come within the scope of the claim.

In the accompanying drawings, a single view, part in section and part in elevation, is shown illustrating a carbureter constructed in accordance with and embodying the principles of my invention as now devised for the practical application of my invention.

In the drawings, 1 represents the float chamber of a carbureter, having therein a float 2 and a feed supply pipe 3 in communication therewith, and a carbureting chamber 4 having suitable air intake openings 5 therein, an injector 6, a needle valve 7 and a butterfly valve 8, all of conventional construction.

The float chamber is spaced a short distance from the carbureting chamber and is connected thereto by my invention. Said invention includes a fuel passage pipe 9 formed integrally with one wall of the float chamber and extending laterally therefrom

through an opening in the adjacent wall of the carbureting chamber, and means surrounding the fuel passage pipe to heat the fuel as it passes therethrough. Surrounding the pipe 9 is a plurality of electrical heating coils 10 which are embedded in suitable insulating material 11 of any desired composition, said coils being supplied with electricity through the terminals or binding posts 12.

The heating coils and the insulating material surrounding the same are considerably shorter than the length of the pipe 9 and are disposed adjacent the connection of the latter with the float chamber. These coils and their insulation are adapted to be protected by a tubular casing or sleeve 13 which is formed integrally with one wall of the carbureting chamber surrounding the opening therein. This sleeve is of sufficient diameter to receive said insulated coils and is of approximately the same length as the latter so that when the parts are assembled the free end of said sleeve will engage the wall of the float chamber to which it is secured.

In assembling the herein described parts the heating coils 10 are disposed about the pipe 9 and the insulating material molded or otherwise disposed as shown in the drawing. The carbureting chamber is then moved to engage its opening with the end portion of the pipe 9 which slides into the interior of said chamber until the wall of the latter engages the outer end of the insulated coils. This movement also disposes the sleeve 13 around the coils and their insulation, after which the float chamber and sleeve may be secured together. Finally the injector 6 and the needle valve 7 are disposed in the end of the pipe 9 within the carbureting chamber.

In most of the present carbureters, it is necessary to use a highly volatile oil such as gasoline or the like, but with my invention, the heavier volatile oils may be used as in the passage of the oil from the float chamber to the carbureting the oils are heated and thus readily vaporized.

What is claimed is:

A carbureter comprising, in combination, a fuel supply pipe, a float chamber communicating therewith, a carbureting chamber having an opening in one wall, a fuel passage pipe formed integrally with one wall of the float chamber and projecting laterally, said pipe being extended into the carburet-

ing chamber through the opening therein, an
insulating jacket surrounding the portion of
said pipe adjacent its connection with the
float chamber, a plurality of electrical heat-
5 ing coils embedded in said insulating ma-
terial, a sleeve of greater diameter and
shorter length than the pipe formed inte-
grally with the carbureting chamber around
the opening therein and projecting laterally
10 from one wall thereof, said sleeve being dis-
posed around said insulating material and
coils by being slid thereover simultaneously
with the engagement of the free end portion

of the fuel passage pipe with the opening
in the carbureting chamber, the free end of 15
said sleeve being disposed in abutting en-
gagement with the wall of the float chamber
and secured thereto, and a valve controlled
spray means carried by the end of said pipe
within said carbureting chamber. 20

In testimony that I claim the foregoing I
have hereunto set my hand at Milwaukee,
in the county of Milwaukee and State of
Wisconsin.

EDWARD G. BUCHMANN.