C. E. CORSON.

CARBURETER.

APPLICATION FILED MAY 27, 1913.

1,111,527. Patented Sept. 22, 1914.

Fig. 1.

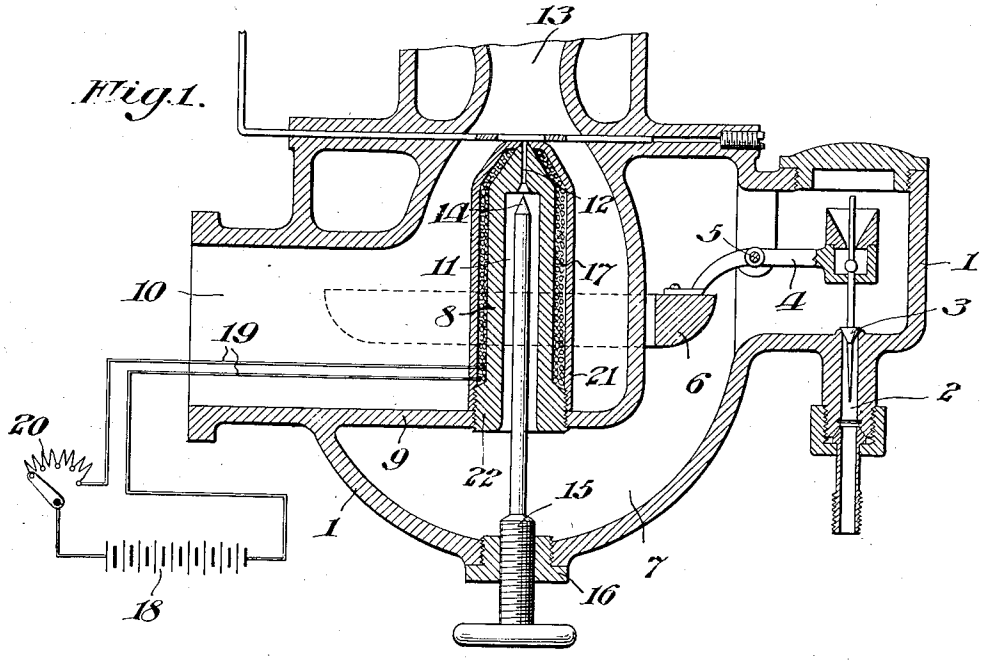
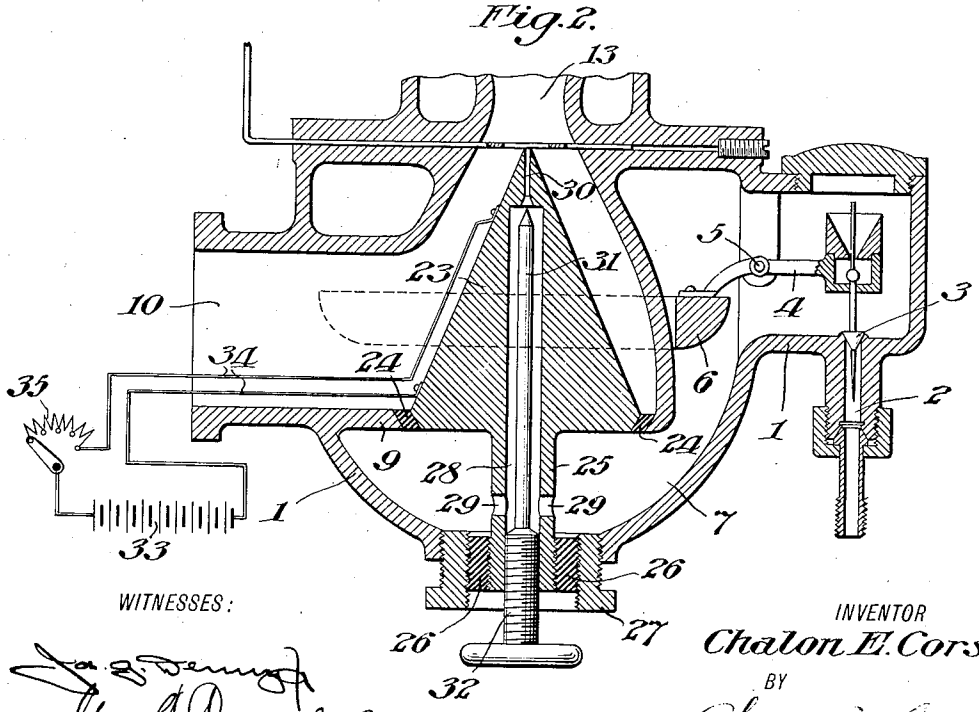


Fig. 2.



WITNESSES:

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CARBURETER.

1,111,527. Specification of Letters Patent. Patented Sept. 22, 1914.

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To all whom it may concern:

Be it known that I, CHALON E. CORSON, a citizen of the United States, residing at Ridley Park, in the county of Delaware and State of Pennsylvania, have invented certain Improvements in Carbureters, of which the following is a specification.

This invention relates more particularly to means for heating the vaporizers of carbureters and facilitating the vaporization of the gasolene or other combustible fluid passed therethrough.

It consists primarily of the combination, with a carbureter's vaporizer, of means for electrically heating the same.

In the accompanying drawings, Figure 1 is a sectional elevation of a part of a carbureter embodying my improvements, and Fig. 2 is a sectional view showing a modified construction.

The carbureter, as illustrated in the drawings, comprises the casing 1 into the bottom of which a regulated amount of gasolene is admitted by the conduit 2 under control of an automatically operated needle valve 3, the valve being connected with the lever 4 movable on a fulcrum 5 by a float 6 in the chamber 7 to which the gasolene is admitted.

As illustrated in Fig. 1, a nozzle 8, screwed into the wall 9 of the air conduit 10, contains a passage 11 which communicates with the gasolene in the chamber 7 and, through the contracted passage 12, with the Venturi section 13 of the conduit 10. A needle valve 14 controls the flow from the passage 11 through the passage 12, the valve being adjustable by means of the threaded stem 15 which is screwed into the bushing 16 set in the bottom of the casing 1. A conducting coil 17 is wound on the nozzle 8, the winding extending preferably from the nozzle's base along its length over its conical point, and is connected in circuit with the source of electric energy 18 by the conductors 19, the amount of current passing through the coil being controlled by a rheostat 20. A tube or casing 21 shrouds the coil 17, the casing being screwed upon the threaded base 22 of the nozzle 8.

In the form of the invention illustrated in Fig. 2, a conical nozzle or vaporizer 23 has its base set in the wall 9 of the air conduit 10, upon the insulating washer 24, the cone having a stem 25 set in an insulating bushing 26 which is held by the bushing 27 screwed into the bottom of the casing 1. A passage 28 in the cone 23 and stem 25 is connected by ports 29 with the chamber 7 and discharges through the contracted passage 30 under control of a manually adjustable needle valve 31 having a threaded part 32 which screws into the stem 25. The cone 23 is made of or comprises a resisting metal such as German silver and is connected with a source of electric energy 33 by the conductors 34 under control of a rheostat 35, the cone being heated by the current passing therethrough and heating the gasolene in the passage 28.

This apparatus, by its capacity for heating the vaporizer or fuel nozzle to the desired degree, provides efficient and convenient means for effecting the desired vaporization of low grade fuel, which ordinarily cannot be used in carbureters.

Having described my invention, I claim:

In a carbureter, the combination of a fuel reservoir, with vaporizing means having a section adjacent to and a passage communicating with said reservoir, said section disposed below the liquid level of said reservoir, and a source of electric energy connected with said vaporizing means for heating fuel in said passage and reservoir.

In testimony whereof I have hereunto set my hand this 22nd day of May, 1913, in the presence of the subscribing witnesses.

CHALON E. CORSON.

Witnesses:
JOS. G. DENNY, Jr.,
GEO. A. CUNNEY.