

A. S. BIGNELL.
ELECTRIC ATTACHMENT FOR CARBURETERS.
APPLICATION FILED AUG. 23, 1913.

1,109,735.

Patented Sept. 8, 1914.

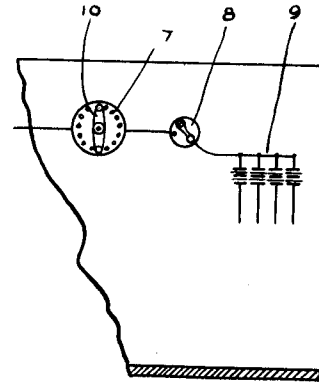
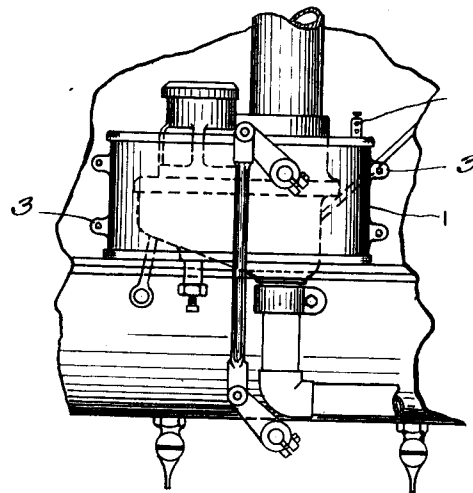


Fig. 1.

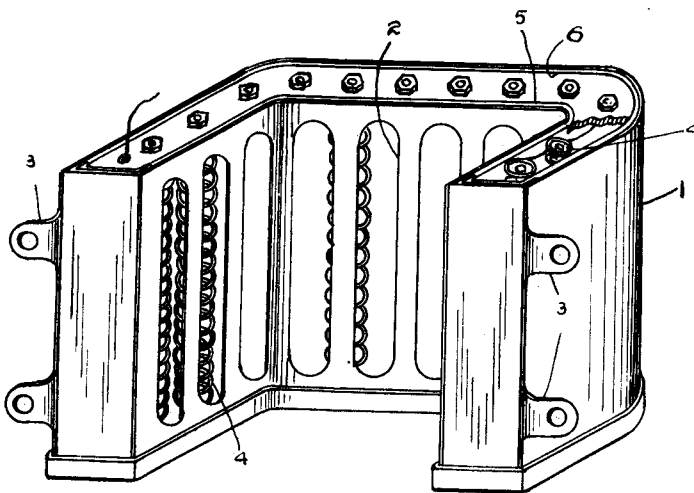


Fig. 2

Witnesses
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UNITED STATES PATENT OFFICE.

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ELECTRIC ATTACHMENT FOR CARBURETERS.

1,109,735.

Specification of Letters Patent.

Patented Sept. 8, 1914.

Application filed August 23, 1913. Serial No. 786,263.

To all whom it may concern:

Be it known that I, ALFRED STUART BIGNELL, a subject of the King of Great Britain, and resident of the town of Bergerville, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Electric Attachments for Carbureters; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to improvements in electric attachments for carbureters as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially of the novel means employed for raising the temperature in the zone of the carbureter sufficiently to accelerate the action of said carbureter in starting.

The objects of the invention are to eliminate the troubles incident to starting internal combustion engines, particularly in a motor car, in low temperatures, and generally to provide a simple, cheap and efficient attachment to a gasoline engine that will not in any way be a danger but facilitate the operation of said engine.

In the drawings, Figure 1 is a diagrammatic view showing a portion of an internal combustion engine and the carbureter closed in by the temperature regulator. Fig. 2 is an enlarged perspective detail of the temperature regulator.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is a U-shaped casing preferably formed in sheet metal and having the inner wall thereof made in the form of a grid by the slots 2 in order to more easily facilitate the distribution of the heat.

3 are lugs extending from the side of the casing by means of which said casing is attached to the engine over the carbureter.

4 are resistance coils inclosed between the linings 5 and 6 of sheet asbestos forming the means of raising the temperature and creat-

ing a heat zone in the vicinity of the carbureter.

7 is a rheostat situated in any suitable place in the vehicle and connected to the resistance coils 4 and cut in by the switch 8.

It will thus be seen that the temperature of the heat zone of the carbureter can be regulated according to the wants of the situation, that is to say in cool weather not quite such a heat is wanted, while in cold weather a greater heat, and to create greater regulation in this respect the rheostat can be in such form as to cut in more or less resistance as required.

9 are batteries giving energy to the heating coils 4, all of said parts being included in the same electric circuit.

This invention is particularly applicable to automobile engines and useful in cold weather. The liquid in a carbureter is very sluggish when the temperature is low, consequently vaporization does not occur readily. To avoid the delay incident to slow vaporization of the gasoline it is desirable to create a heat zone in the vicinity of the carbureter, which will insure somewhat the same results as when the weather is warmer.

What I claim is:—

An electric attachment for carbureters comprising a 3-sided and double walled heating device, around the carbureter, having lugs for securing said device to the engine casing and vertical slots in the inner wall thereof, electric heating coils between the said walls adjacent to said vertical slots, a source of electric current, connections from said source to said coils, an electric switch in said connections, a rheostat and an electric switch between said rheostat and said connections.

Signed at the city of Quebec and Province of Quebec and Dominion of Canada this twenty-first day of June, one thousand nine hundred and thirteen.

ALFRED STUART BIGNELL.

Witnesses:

EDWIN RALPH LANGTON,
CECIL J. BIGNELL.