

July 21, 1931.

O. N. OLSON ET AL
CARBURETOR CHOKE CONTROL

1,815,631

Filed March 31, 1930

Fig. 1

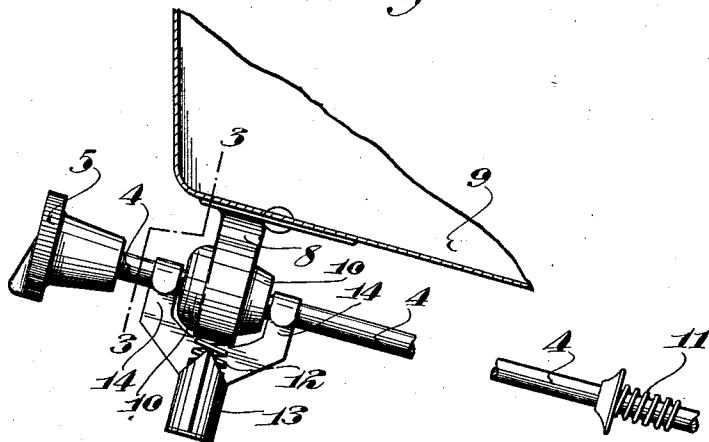


Fig. 2

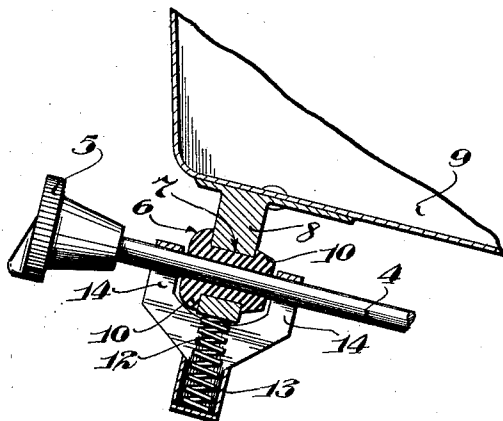
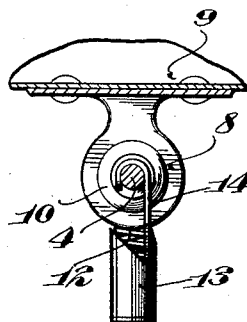


Fig. 3



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CARBURETOR CHOKE CONTROL

Application filed March 31, 1930. Serial No. 440,350.

Our invention has for its object to provide an extremely simple and highly efficient choke control for a model "A" Ford automobile.

It is well known that the so-called choke for this type of automobile is spring-retracted and when turned opens the needle valve and when pulled out closes the air shutter of the carburetor to secure a richer fuel mixture to facilitate starting of the engine. In starting the engine or while driving before it is warmed up, it is necessary to manually hold the choke drawn out, which is very inconvenient, and when cranking the engine a second person is required to hold the same drawn out. Unless the choke is properly operated the starting of the engine is difficult and materially increases the load on the battery thereby decreasing its life.

To the above end, generally stated, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings:

Fig. 1 is a view principally in side elevation showing the outer end portion of the carburetor adjusting rod, its supporting bracket and the gasoline tank;

Fig. 2 is a view corresponding to Fig. 1 with the exception that additional parts are shown in section; and

Fig. 3 is a view partly in elevation and partly in transverse section taken on the irregular line 3—3 of Fig. 1.

Of the parts of the model "A" Ford automobile shown, certain of which are only fragmentarily illustrated, the numeral 4 indicates the carburetor adjusting rod having on its outer end an operating knob 5 and which rod is mounted in a rubber bushing 6 for compound turning and endwise sliding movements. This bushing 6 is mounted in a bore-like seat 7 in a bracket 8 on the underside of the fuel supply tank 9. On the ends of the bushing 6 are annular shoulders 10 which engage opposite sides of the bracket 8 and hold

said bushing in its seat. One of the shoulders 10 is relatively shallow to permit the bushing 6 to be contracted and inserted endwise through its seat to apply the same to the bracket 8.

A coiled retracting spring 11 encircling the adjusting rod 4 and acting through a driver normally and yieldingly holds the carburetor air shutter open. For the purpose of this case it is not thought necessary to show the driver, needle valve and air shutter.

The invention which is a tension device includes a coiled spring 12 and a spring carrier having a cylindrical seat 13, in which said spring is mounted, and a pair of hook-acting arms 14 formed with said seat. These arms 14 are arranged to be hooked over the adjusting rod 4, one on each side of the bushing 6, with the spring seat 13 extending radially thereof and with the inner end of the spring 12 engaging the bracket 8 as a base of resistance. This spring 12 is under strain to move the spring seat 13 away from the bracket 8 and draw the adjusting rod 4 laterally against the bushing 6 and thereby frictionally hold the same where set. The tension of the spring 12 is such as to overcome the spring 11.

In drawing outward on the knob 5 to close the air shutter of the carburetor the control device will automatically hold the adjusting rod 4 where released and it is only necessary to push on the knob 5 inward to retract said rod and open the air shutter.

To apply the choke control in working position it is only necessary to detach the adjusting rod 4 from the carburetor and pull the same outward until it is released from the bushing 6. The control is then positioned with its spring 12 pressed against the bracket 8 with the arms 14 embracing the bushing 6 and with their hook-like ends aligned with the hole through said bushing. The adjusting rod 4 is then replaced by inserting the same through the aligned hook-like ends of the arms 14 and hole in the bushing 6. It will thus be seen that the choke control can be very quickly and easily applied in working position without the use of tools and without changing or mutilating the parts to

which it is applied. The arms 14 of the choke control being at opposite ends of the bushing 6 hold said control against axial shifting movement on the rod 4 during the operation of said rod or under a jarring action. This choke control performs another important function in that it prevents the adjusting rod 4 and parts associated therewith from rattling or making other noises.

What we claim is:

1. A carburetor choke control comprising a spring seat having a pair of arms spaced to embrace a support in which a carburetor adjusting rod is mounted for endwise and turning movements, said arms being applicable to said rod for suspending the spring seat therefrom, and a coiled spring mounted in said seat engaging the rod support as a base of resistance and under strain to move the spring seat away from the support and draw the rod laterally against the support.

2. The structure defined in claim 1 in which the arms are loose on the rod to turn about its longitudinal axis and which spring loosely impinges against the support.

3. The structure defined in claim 1 in which the spring seat is cylindrical and has a closed outer end on which the spring directly rests.

In testimony whereof we affix our signatures.

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