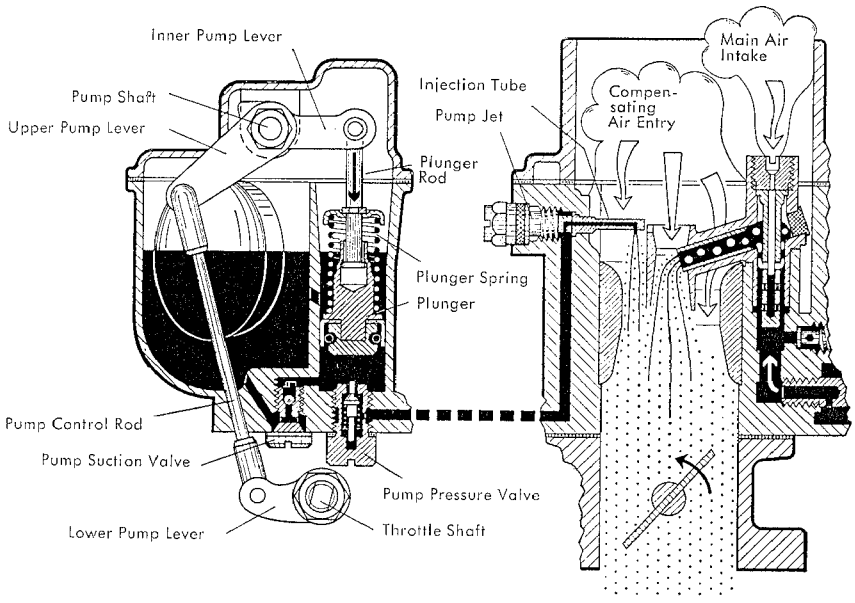
Accelerator Pump

The **accelerator pump** of the carburetor (fig. 6) is of the plunger type. A partioned space of the float chamber forms the pump cylinder in which the **plunger** moves up and down. The plunger is attached to the **pump lever** seated on the **pump shaft** in the carburetor cover. The throttle valve shaft and the pump shaft are connected through a linkage — consisting of lower and upper **pump lever** and the **pump rod.**

As the throttle valves are closed, the pump plunger moves in an upward direction and fuel is drawn through the **pump suction valve** into the **pump cylinder.** The foregoing is termed the suction stroke of the accelerator pump.

When the throttle valves are opened, the plunger moves downward and the pressure stroke of the pump is effected. The fuel is forced into mixing chambers of the carburetor through the **pump pressure valve** and two pump jets with injection tubes.

The plunger is provided with a damping device which enters into operation when a sudden actuation takes place. Then the pressure of the plunger is built up as a resilient force and according to the fuel flow the plunger moves downward.



Operation of accelerator pump

Fig. 6

Efficient acceleration is thus obtained by supplementing the main fuel air mixture. An alteration of the pump jet only alters the duration of the injection, because the calibration of these jets determines the rate of flow in relation to a unit of time. The quantity of fuel injected can only be controlled by the pump stroke, i. e. by abjusting the pump linkage.