and a still richer mixture for a smooth idle and low speed performance. In order to supply the correct mixture to the engine under all operating conditions, the Holley Carburetor Model 1904 has four basic fuel metering systems. These are the main metering system, the idle system, the power enrichment system, and the accelerating pump system. In addition, there is a fuel inlet system which provides the four basic fuel metering systems with a constant supply of fuel, and the choke system which provides a means of temporarily enriching the mixture to aid in starting and running a cold engine.

1. FUEL INLET SYSTEM

The fuel inlet system provides the four basic fuel metering systems and the choke system of the carburetor with a constant supply of fuel. This fuel, under pressure from the engine's fuel pump, enters the carburetor through the fuel inlet needle valve and seat assembly and flows into the float chamber. The float, rising and falling with the fuel level in the float chamber, moves the fuel inlet needle in relation to its seat to regulate the amount of fuel entering the carburetor. When the fuel in the float chamber reaches a specified level, the float moves the needle valve to a position to restrict the flow of fuel. Only enough fuel to replace that being used will then be admitted. Any slight change in the fuel level causes a corresponding movement of the float, opening or closing the fuel inlet needle valve to immediately restore the proper fuel level. The fuel inlet system must constantly maintain this specified level of fuel because the basic fuel metering systems are calibrated to deliver the proper mixtures when the fuel is at the specified level only.

A spring and pin inside the hollow fuel inlet