

in FIGURE 2 the stem projects into the chamber C2 and eventually comes into contact with a seal 35 mounted in a recess in the grub screw 18 with the result that this seal closes the adjacent end of the passageway 33 and shuts off the flow of air from the chamber C2 to the chamber C3. A coil spring 36 is arranged to urge the piston in the opposite direction.

The regulator valve is operable to maintain the air in the discharge chamber C3 (and the storage chamber in the gun) at a constant pressure, usually a pressure within the range of approximately 900-1100 psi, for successive discharges in multi-shot use. When the capsule is fitted to the gun the chamber C3 contains air at atmospheric pressure. The spring 36 therefore urges the piston 30 to the position shown in FIGURE 2. Air at 3000psi can therefore flow from chamber C2 through the passageway 33 into chamber C3. As a result the air pressure in chamber C3 increases and as this happens the air forces the piston to the left against the action of the spring. When the air pressure in the chamber C3 reaches the desired constant value, the stem of the piston comes into contact with the seal 35 thereby closing the passageway and preventing further air entering the chamber C3.

When the air gun is fired the air in the chamber C3 and the storage chamber in the gun is released in a short burst, whereupon the piston 30 returns to its original position under the action of the spring, thereby allowing air to flow into the chamber C3 until the pressure therein again reaches the desired