

lowering the piston) during the test, we cancel out the drop in pressure created between the equalizer and the mixer upon solution of the liquid in the gas.

The scheme for connecting the dosimeter and the volumeter to the mixer is shown in Fig.4.

The system in the assembled form is placed in the thermostat filled with transformer oil. The thermostat is equipped with two power shaft stirrers and two heaters mounted on the stirrer shafts. This ^{arrangement} ~~construct-~~ ~~ion~~ of the heaters and stirrers secures a uniform distribution of temperature in the thermostat. Supplementary heaters, directly connected with a contact thermometer and a relay, ensure the constancy of the temperature to within ± 0.2 °C during the test.

The head of the mixer, on which is mounted the solenoid, and into which passes the magnetic end of the stirrer, is separately thermostated. The solenoid is enclosed by an iron jacket into which oil from the thermostat is supplied by a special pump, returning afterwards to the thermostat. The thermostat is located in a steel enclosure.

Fig.3. 1) reduction gear; 2) piston; 3) gasket; 4) mixer.

Control of the equipment is concentrated on a panel mounted on the outside wall of the enclosure. There is remote control of all the valves, the heater, the stirrer motors, the pump, differential manometer, etc..

As we have pointed out, the basic equipment is two vessels: the equalizer and the mixer, joined together below by a capillary filled with mercury. The capillary with the mercury terminates in the equalizer at a glass tube, on which is mounted a coil of fine wire. Inside the glass tube, at the location of the coil, there is a moving light float of