

Armco iron. In the mixer the capillary with the mercury terminates in a wide cup. When the pressure changes in the mixer following supply of the liquid into it, the mercury level in the capillary of the equalizer is displaced, displacing the float to a new position in the coil. The coil carries a well stabilized current. The change in position of the float in the coil changes its inductive ~~resistance~~ reactance. The balance of the bridge scheme in which the coil is included is disturbed, and the pressure drop between the vessels may be assessed from the deflection of the needle of a galvanometer. The electrical arrangement of the contact-less differential manometer is shown in Fig. 5.

Fig.4. 1) volumeter; 2) shut-off valve; 3) dosimeter; 4) mixer.

Fig.5.

When a pressure drop is established in the system upon solution of the liquid in the gas, the drop is eliminated^d by moving the piston of the volumeter.

Using this kind of differential manometer one can determine the pressure drop to 0.025 mm Hg, at practically any pressure level.

Measurement of the volume change of the volumeter was carried out to an accuracy of $\pm 0.005 \text{ cm}^3$. The volume of liquid supplied into the system was measured to the same accuracy. Reading of the displacement of the pistons of the dosimeter and of the volumeter was done using a height gauge.

The Experimental ~~TECHNIQUE~~ Procedure:

The course of the test may be examined according to the scheme of the equipment shown in Fig.1.

To fill the equipment with gas, we use the piston motors to bring the