

absolutely correct may not have been expected. A laboratory session of at least three continuous hours is essential, and the students can most profitably be divided into groups of three each.

DESCRIPTION OF THE APPARATUS

The Tonometer. This consists of a wide glass tube (the tonometer 7-1 x 1-1/2 in.) of fairly stout glass, tapering down to narrow tubes at both ends. The capacity should be at least 200 c.c.* The narrow tubes are connected with thick-walled (pressure) rubber tubing which should be wired on to the glass tubes. The rubber tubes are closed by screw clips (1 and 2). File marks are made

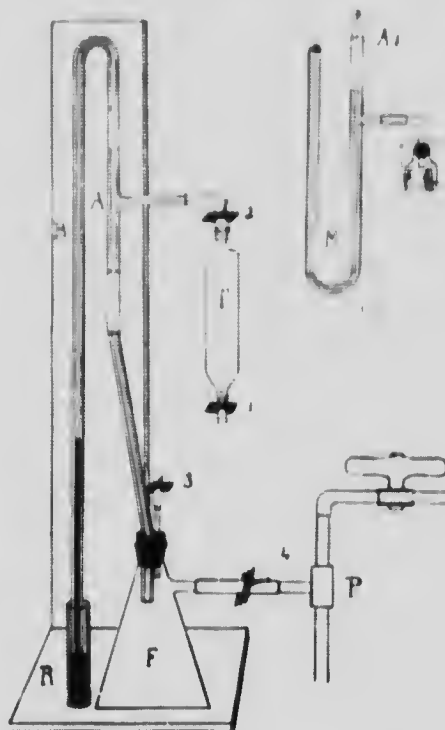


FIG. 1

on one of the tapering ends of the tonometer, the distances between them corresponding approximately to one cubic centimeter.

The Barometer. This consists of a vertical, thick-walled glass tube about 1.25 meters long and of about 3 mm. bore bent on itself near one end, and with the other end dipping into mercury contained in a wider flat-bottomed (specimen) tube (the mercury reservoir) closed by a perforated cork. The barometer tube and reservoir are firmly mounted on a stand furnished with a millimeter scale which is attached to the stand in such a way that it can be adjusted to bring its zero to the surface of mercury in the reservoir, as this varies at different pressures. The free end of the barometer tube is connected by rubber pres-

*It would be preferable to use a tonometer two times as large since this would diminish error due to the addition of the gas given off from the blood.