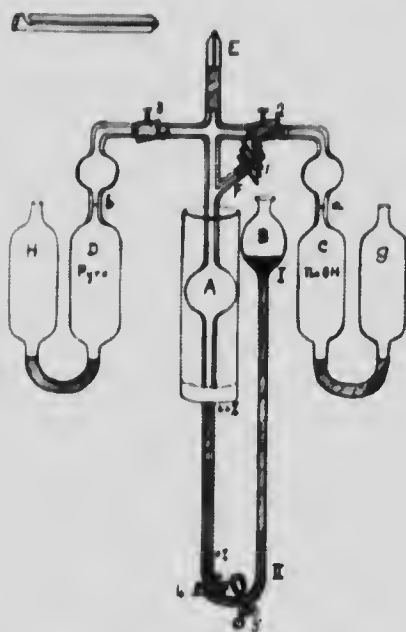


spectively a 20 per cent solution of NaOH and a 10 per cent solution of H_2O_2 with 10 per cent pyrogalllic acid dissolved in it.*

Each bulb is connected below by rubber tubing with the overflow (C) and (H). A small bulb (relatively smaller than represented in the diagram) is blown on the stem of each absorption bulb to serve as a trap preventing solutions from passing over into the burette. The vertical tube above the tubes is closed by the *pressure adjuster*, which consists, as shown in the side sketch in the diagram, of a glass rod beveled at one end and bored part of the way down the center. At a distance of about 3 mm. from where the beveled portion joins the tube a lateral hole is bored to meet the chamber in the center. The adjuster is connected by pure gum tubing with the central tube of the burette, the beveled end of the former being in contact with the end



of the latter. When the rubber tubing is pinched up opposite the side tube of the burette is brought into communication with the outside and the pressure in it remains undisturbed when the tubing is allowed to fall back into place.

The lower end of the burette is connected by thick walled rubber tubing with the reservoir (B), and on this tubing are a pinchcock (J) and screw clip (I). About 15 c.c. of mercury suffices to fill the apparatus. The reservoir is hung by a loop of wire around the neck on hooks placed on a wooden upright stand, the higher one being in such a position (marked I') that the mercury stands at the end of the side tube (F), and the lower one (marked II') so that it stands exactly at the mark 0% on the burette.

*NaOH may be substituted for KOH, but is not so satisfactory because of its viscosity. The best solution is made by dissolving pure NaOH (electrolytic, if possible) in an equal weight of water, diluting 10 c.c. of this solution with 4 c.c. water, and dissolving 10 gm. pyrogalllic acid in the mixture. Shipley, Jour. Am. Chem. Soc., 1916, xxxviii, 1687.

†The position I should be at a higher level than is shown in the figure.