

CHAPTER IV.

A SIMPLE METHOD OF GAS ANALYSIS.

PERHAPS the simplest and most complete method of gas analysis is the one originated by Prof. Hemphill, but the teacher of chemistry in a secondary school very often does not receive sufficient grant from a school board to purchase the most necessary apparatus, and although there are many times in his work when he would like to determine the different gases in a mixture which comes under his notice he has not the means at his disposal of satisfying his curiosity. If he wishes to overcome the difficulty, he must either work with inferior apparatus of his own construction and be satisfied with unsatisfactory results, or he must purchase rather costly appliances such as Prof. Hemphill's at his own expense, and this is something very often he is ill able to afford.

This is the only excuse for submitting the following simple and original method of gas analysis, as the apparatus employed is such that most teachers have at their disposal, or that can be purchased at a small cost.

Take two U tubes used for drying gases with calcium chloride. The shape of the tubes is immaterial, but it would be convenient to have one of them similar to (b) Fig. 2, having the neck between the bulbs narrow so that the gas will not pass through it when being washed. It is best to have the other tube with a stopcock in one arm similar to