It will be noted that two of the strains of diphtheria bacilli have fermented saccharose, which is contrary to the findings of nearly all who have studied this matter. The saccharose used was supposedly chemically pure, and showed no evidences of inversion after sterilization. I was unable to secure another pure sample for control purposes, but will have to retest all these bacteria using saccharose from different sources. Of the diphtheroids, three gave no re-action whatever with the sugars, namely, Nos. 1, 3, and 4. Six fermented glucose only, viz., Nos. 5, 9, 10, 12, 14 and 20. One fermented glucose and maltose only, viz., No. 17; while one other fermented glucose, maltose and lactose, viz., No. 8. Seven fermented glucose and saccharose only, viz., Nos. 2, 7, 15, 16, 18, 21 and 22, whil four others in addition fermented maltose, viz., Nos. 6, 11, 13 and 19.

Knapp (8) says that the diphtheria bacillus ferments glucose, mannite, maltose, dextrin, and probably lactose, but not saccharose; while Hoffman's bacillus ferments no sugars, and the xerosis bacillus ferments glucose, mannite, maltose, saccharose, but not dextrin. So that practically one could differentiate three classes of diphtheria like bacilli by the use of glucose, saccharose and dextrin media.

Graham-Smith (9) practically comes to the same conclusions regarding the fermentative action of diphtheria bacillus, except that it does not ferment mannite; while the xerosis bacillus, he states, forms a small amount of acid on glucose and a trace with saccharose. The Bacillus coryzæ segmentosus forms acid with glucose only, while four other diphtheroid bacilli examined by him gave acid on glucose and maltose. Benham in a study of the Bacillus coryzæ segmentosus, states that the majority of cultures ferment glucose and saccharose, and some lactose and maltose, but that these findings are not constant.

Gordon places the true xerosis bacillus in the non-sugar fermenting series, and describes diphtheroids of