SESSIONAL PAPER No. 38a

4. Based on their cultural features and biochemical reactions the organisms are classified as follows:--

Culture I .- Tentatively as a non-motile strain of the sub-type B. communior (Durham) of the type B. coli (Escherich); or to take the differentiation further, as B. neapolitanus, a sub-type of B. coli (Escherich).

Culture II .- Considered tentatively as an atypical form of the Para-

Gaertner group after Savage.

Culture III .- Identical with M. zymogenes and placed as a variety of the type of liquefying streptococci, Streptococcus gracilis.

5. No inoculations of these cultures have been made into healthy copepods owing to distance from the sea.

6. It is not legitimate to draw any definite conclusions regarding the relationship of these organisms to the destruction of the copepods, as no inoculation experiments have been earried out, and the postulates of Koch have not yet been satisfied. According to the descriptions presented, however, the evidence is strong in favour of Culture 11I being a possible eausal agent.

I wish to thank very cordially Dr. F. C. Harrison for his kindness in reading the proofs, and particularly for his valuable and critical assistance with regard to the classification of the B. coli group; and Dr. Arthur Willey for the initial suggestion

that I should undertake the investigation.

REFERENCES.

- 1. American Public Health Association, 1915-"Standard Methods Water Analysis," 77-137.
 - 2. Besson, 1913-" Text Book Practical Bact., etc.," (Longmans), 53.
 - 3. Besson, 1913-"Ter Book Practical Bact., etc.," (Longmans), 52.
- 4. Harrison and Vanderleck, 1908-" Aesculin Bile Salt Ager for Water and Milk Analysis," Trans. Roy. Soc. Can. III. Ser. II, 105-110.
 - 5. Savage, 190 '-" Bacteriological Examination of Water Supplies," London, 221.
 - 6. Voges and Proskauer, 1898-"Zeit. fur Hyg." 28, 20.
- 6. Harden, 1905, 1906-" On the Voges-Proskauer Reaction for Certain Bacteria," Proc. Roy. Soc., 77, 424.
- 6. Levine, Max., 1916-"The Significance of the Voges-Proskauer Reaction," Jour. Bacteriology I, 153-164.
- 6. Clark and Lubs, 1915-" Differentiation of Bacteria of the Colon-Aerogenes Family by Indicators." Jour. Infectious Dispases, 17, 160-173.
- 6. Levine—"Correlation of the Voge the Colon-Aerogenes group." Jour. Infec. cases, 18, 358-367.
 - 6. Levine-Private Communication.
- 7. Clarke and Lubs, 1915-" Differentiation of Bacteria of the Colon-Aerogenes Group." Jour. Infectious Diseases, 17, 160-173.
 - 8. Bohme, 1905-Centrall. fur Bakt, Abt. I, Orig. XL, 129-133.
 - 9. MacConkey, 1909—Journal of Hygiene, 9, p. 91.
- 9. Hollman, 1914—" Decolorized Acid Fuchsin as an Acid Indicator in Carbohydrate Fermentations." Journ. Infec. Dis., 15, 227-233.