It is probable that the liquefaction of the internal protoplasm after penetration or injection of urea is due to the chemical property commonly attributed to this substance, *i. e.*, its dispersive action on colloids.

3382

Extraction of Precipitable Substances of Bacilli with Dilute Alcohol.

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Attempts to verify the statements of Schlemmer[1] and Pick[2] on alcohol soluble specific substances of typhoid bacilli did not give us satisfactory results. On the other hand, in a similar way as described recently for the *V. Cholera,*[3] it was possible to extract precipitable substances of *B. typhosus* with boiling 75 per cent alcohol. With common typhoid immune sera the solution of the substance gave weak precipitation only. It reacted intensely, however, with immune sera made by injections of small amounts of the preparation itself. These sera, in contrast to common typhoid immune sera, were very weakly agglutinating and produced little precipitation in extracts obtained by heating the bacilli to 60° C. in saline solution. The latter extracts reacted strongly with common typhoid immune sera. The relation of our product to that obtained by Douglas and Fleming[4] by digestion with trypsin remains to be determined.

In specificity tests cross reactions were observed between the substances of *B. typhosus* and *B. paratyphosus B.* when tested with the corresponding immune sera. The extracts of *B. paratyphosus B.*, Proteus (OX 19 and HX 19) prepared with 75 per cent alcohol like that of *B. typhosus,* gave strong precipitation reactions with the homologous immune sera obtained by injections of whole bacilli.

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[1] Schlemmer, *Arb. Reichs. ges. amt.*, 1920, lii, 538.

[2] Pick, E. P., *Beitr. chem. Physiol. u. Path.*, 1902, i, 393.

[3] Landsteiner, K., and Levine, P., PROC. SOC. EXP. BIOL. AND MED., 1926, xxiv.

[4] Douglas, S. R., and Fleming, A., *Brit. J. Exp. Path.*, 1921, ii, 131, 175.