- 4 Birkhaug, K. E., Proc. Soc. Exp. Biol. and Med., 1925, xxiii, 201.
- ⁵ Arthus, M., Compt. rend. Soc. biol., 1903, lv, 817.
- ⁶ Andrewes, C. H., Derick, C. L., and Swift, H. F., J. Exp. Med., 1926, xliv, 35; Derick, C. L., and Andrewes, C. H., ibid., 1926, xliv, 55.
 - ⁷ Mandelbaum, M., Ztschr. Hyg. u. Infektionskrankh, 1907, lviii, 26.
- ⁸ Zangemeister, W., Die bakteriologische Untersuchung im Dienste der Diagnostik und Prognostik der Puerperalen Infektionen, Berlin, 1910.
 - 9 Rosenow, E. C., J. Inf. Dis., 1914, xiv, 61.
 - 10 Small, J. C., Am. J. Med. Sci., 1927, clxxiii, 101.

3451

Further Observations on Apparent Effect of Diphtheria Toxin on Growth of Bacteria.

J. M. SHERMAN, C. N. STARK AND PAULINE W. STARK.

From Cornell University, Ithaca, New York.

In a previous report we have noted the fact that diphtheria toxin when added to cultures of *Bacillus cereus* in a concentration of 30 m.l.d. per cc. leads to a slight but definite retardation of growth. While our data do not prove that the inhibitory factor for *B. cereus* is in fact the toxin rather than some other by-product of growth of the diphtheria organism, there is some basis for believing that this might be the case. Of particular interest is the fact that the addition of antitoxin appears to counteract this inhibitory action.

In the present paper we wish to record that similar results have been obtained with *Proteus vulgaris* and *Staphylococcus albus*. The apparent inhibitory effect of the diphtheria toxin upon the growth of these organisms is of about the same magnitude as in the case of *B. cereus*.

This is a preliminary report.

¹ Sherman, J. M., Stark, C. N., and Stark, Pauline W., J. Bact., 1927, xiii, 45.