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NOTES ON THE BACTERIOLOGICAL STUDY OF DIPHTHERIA.*

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My original object in studying cases of diphtheria bacteriologically was to settle the nature of a series of those doubtful cases in which a diagnosis is practically impossible by the ordinary means of observation, and where the occurrence of post-diphtherial paralysis or the outbreak of similar or more typical sore throats is the earliest positive proof of the true nature of the case. As I have found it impossible to continue the work on account of the difficulty in obtaining clinical histories of the cases, I wish to publish the results obtained from the examination of another series of cases, most of which were capable of being diagnosed as diphtheria without much difficulty.

Some time ago I showed before this Society cultures obtained from cases of diphtheria in which the growth had presented the typical characters of the Klebs-Loeffler bacilli. The main characteristics of this organism are :

(1) Rapid growth in serum at blood temperature leading to the formation of well characterized colonies in 16 to 24 hours.

(2) Peculiarities of structure, especially the presence of involution, bacillus forms having clubbed or swollen ends, with granular, unevenly stained protoplasm.

(3) Toxic effects, producing pseudo-membranous inflamma-

* Read before the Medico-Chirurgical Society of Montreal.