

always persisted on the part of isolated bacilli, and these gradually increased in number and activity till, in an hour or two, lively motion was resumed, and was found to be still present on the following day and, in some instances, where it was followed up, at the end of a week. With the typhoid bloods nothing but the oscillating or "Brownian" movements were seen, as a rule, though where the proportion of serum added was very small peculiar revolving and tugging movements, apparently due to the action of the flagella, could be made out, movements from one part to another of the microscopic field being, however, completely abolished.

In two doubtful cases examined for diagnosis the results were negative. In one of these the malaria plasmodium was subsequently detected. The other left the hospital before the diagnosis was cleared up, but her temperature had remained normal for two weeks, and her only symptoms were persistent headache and giddiness. One of the control cases, examined with negative results, had a history of typhoid two years previously.

In making a communication upon this subject before the American Public Health Association, at Buffalo, N. Y., on September 17, 1896, I subjected the method to what I considered to be a fair practical test as to its applicability to public health purposes. I left instructions for Dr. D. D. McTaggart, resident pathologist, to forward by post to my destination, after I had left Montreal, a letter containing dried blood drops from several cases of undoubted typhoid fever and also dried blood drops for control from other hospital cases, preferably patients suffering from febrile conditions, but making sure that they had not had typhoid recently. All these blood drops were to be numbered and a key giving the clinical diagnosis in each case placed within a separate sealed envelope.

I left Montreal September 13th. Samples of blood from six patients were collected and forwarded as directed, on September 14th. On September 16th, the letter was delivered unopened at Buffalo, N. Y., to Dr. Bissell, the city bacteriologist for Buffalo, who kindly took charge of the key. At the end of an hour spent in examining the specimens, I wrote my diagnosis upon the outside of the sealed envelope. It will be seen from the subjoined signed statement, which Dr. Bissell kindly made at my request, that the results were perfectly in accord with the clinical diagnosis in each case, while the specimens, which were then examined by a number of competent bacteriologists, showed that good objective grounds existed for arriving at the conclusions given.

STATEMENT BY DR. MCTAGGART, RESIDENT PATHOLOGIST, MONTREAL GENERAL HOSPITAL.

The samples of blood were mailed to Dr. Johnston one day after he had left Montreal. Dr. Johnston had no knowledge of the contents of the "key," and no private means of knowing which of the numbers referred to typhoid and which to non-typhoid blood.

(Signed) D. D. MCTAGGART.

STATEMENT BY DR. BISSELL, CITY BACTERIOLOGIST, BUFFALO, N. Y.

BUFFALO, September 16, 1896.

Received to-day from Dr. Wyatt Johnston a sealed letter, mailed in Canada, with postmark, "Montreal, September 14, 1896." This was opened by me and found to contain (a) six glass cover slips, numbered from 1 to 6, with a drop of dried blood on each, and (b) also a sealed envelope marked "key." Received from Dr. Johnston, after examining the blood by the (Widal) serum diagnostic test, the following report: No. 1, typhoid; No. 2, typhoid; No. 3, typhoid; No. 4, not typhoid; No. 5, not typhoid; No. 6, doubtful,