

The Public Health Journal

State Medicine and Sanitary Review

VOL. III

TORONTO, CANADA, APRIL, 1912.

No. 4

Special Articles

CHEESE FACTORY AND FARM WELL WATERS

BY W. T. CONNELL, M.D.

PROFESSOR OF BACTERIOLOGY, QUEEN'S UNIVERSITY, KINGSTON, ONTARIO.

For the past seven years we have in our laboratories been making a considerable number of analyses of waters from rural districts, the samples being sent in by local Health Officers and Boards of Health. A large proportion of these, in fact, an average of 70 per cent., were found to contain colon bacilli, but it was found difficult to draw any exact conclusions from these samples for two reasons: 1st. The data sent by collectors of samples was frequently meagre or lacking in important details which would make them of value in drawing conclusions. 2nd. The samples were mostly from sources of supply under suspicion, hence the percentage of infected samples might be considered unduly high. During the last year, however, opportunities were afforded by which a more careful sampling, coupled with inspection of sources of supply, was rendered possible, especially from cheese factories, creameries and certain dairy farms. Further samples so submitted were not selected, but included samples from all cheese factories of certain districts. The work was only gotten under way this year and I hope in a very few years to have a fairly comprehensive bacterial survey of the water supplies of our cheese factories,

creameries and of some of our dairy farms in Eastern Ontario.

This work has been rendered possible through the dairy inspectors in charge of various districts in this part of the Province. These men were given special instruction in sampling and water supply inspection, when in Kingston for their annual term of instruction at the Dairy School. This past year only 311 samples were examined, and it is the result of these analyses that are presented here. I do not think that these results so determined will teach us much that is novel, but they will at least confirm the work done by other investigators of rural water supplies, and will emphasize certain of their conclusions. I have good reasons, too, for thinking that samples so far received will afford a fair indication of the general character of such water supplies.

The data sheets which accompanied the specimens dealt with the situation of well in relation to surrounding buildings, drains, accumulations of manure or waste matter of any kind, character and cleanliness of surface soil about well, the elevation of well mouth, the curbing and covering of well, water drip, etc. Well samples were classified into six groups, the first