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MEDICAL HEALTH OFFICER



TELEPHONE
SEYMOUR 3270

Health Department

150 HASTINGS ST. E.

VANCOUVER, B. C.

Jan 7-113

Work set by A McGill

Two samples of Butter are furnished labelled 101
and 2 —

Determinations to be made as follows —

a — Water content.

b — Salt "

c — Presence or absence of chemical preservatives,
with the character and amount of these,
if present

d — In the dry fat —

- (1) — Index of refraction, or duRoi's refractometer reading.
- (2) — Voettstorfer number (Saponification Equivalent)
- (3) — Reichert-Meisel number (Volatile fatty acids)
- (4) — Iodine absorption (Hubb or Hauss number)
- (5) — Any other determination necessary to enable you
to form an opinion regarding the genuineness or
otherwise of the samples

A McGill

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Jan 4' / 13

Examination in Bacteriology

Good Examiner

Class 1 - Milk & its products.

- 1 - Name six of the chief constituents of cows milk, and give the mean percentage of each of them
- 2 - Which are the least variable constituents.
- 3 - Is there any constant relation between the weight of one constituent and the weight of another or the same of the weights of the other constituents.
- 4 - Being given the following analysis of a milk -

fat	3.02
Albuminoids	3.70
other Solids	5.12
Water	88.16
Sp gr	1.033

Could you give an opinion about the genuineness of this milk? Discuss the analysis, with some extent.

Paper by
Prof. Chagnette
3 hours for this paper

3 Hours



Health Department

CITY HALL

VANCOUVER, B. C.

Examination in Bacteriology
Food Examiner

Class I. milk & its products -

- (1) = Discuss fully the sources of bacteria in milk and indicate the conditions which may lead
 - (a) to a high bacterial count
 - (b) to a low " "
- (2) Point out approximately the normal number of bacteria per cc in ordinary unpasteurized market milk in summer & winter -
- (3) Explain fully the process of pasteurization and distinguish between pasteurized & sterilized milk.
- (4) What diseases are liable to be caused by milk products
- (5) Give detailed accounts of the method of preparing.
 - A. Nutrient agar with and without sugar & litmus
 - B. Nutrient Gelatine
- (6) - Give the microscopic & cultural characters of *Bacillus Coli Communis*.

Paper } - Prof MacKenzie

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Bacteriology Practical Examination

I - Make a report upon samples of milk
I - II - III - indicate fully all steps
taken in making the examination
including the dilutions used, number
of plates counted - Bacterial colonies
per plate, number of bacteria per Cubic
Centimeter -

II - ~~Make appropriate estimate of the organisms~~

II - Make appropriate estimate of the organisms
fermenting lactose with gas production
in the three samples -

Practical was set by Prof MacKenzie.