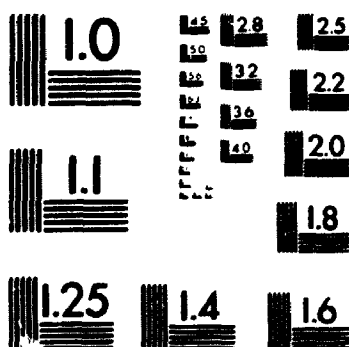


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# ***The Rage for Cheapness:***

**Food Adulteration in the United Canadas and in the Dominion  
1850-1920**

by

**Bruce H. Lauer, B.Sc., M.Sc., Ph.D.(McGill), B.A.(Waterloo)**

**A thesis submitted to the Faculty of Graduate Studies and Research  
in partial fulfilment of the requirements for the degree of Master of Arts**

**Department of History  
Carleton University  
Ottawa, Ontario  
December 6, 1993**

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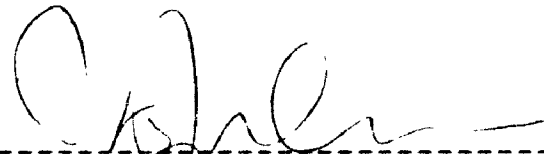
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UNITED CANADAS AND IN THE DOMINION 1850-1920"

submitted by

Bruce H. Lauer, B.Sc., M.Sc., Ph.D., B.A.

in partial fulfilment of the requirements  
for the degree of Master of Arts



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Thesis Supervisor



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Chair, Department of History

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3 January 1994

## ABSTRACT

Food adulteration was a manifestation of the *rage for cheapness*, the prevailing commercial mood of the late 19th and early 20th centuries. The emergence in Canada of a sophisticated, factory-based food industry and especially development of the wholesale and retail grocery trades provided increased possibilities for adulteration. It was through active competition that the *rage* was nurtured and flourished. Cheapness became associated with adulteration and quality became associated with purity. Food adulteration was viewed by the public analysts as irresponsible, if not immoral, and by the retail grocers as dishonest and constituting unfair competition. The annual percentage estimates of adulteration of the total food supply made by the public analysts between 1876 and 1910 are fraught with statistical problems. Nevertheless, a long-term downward trend is observed. Fraudulent adulteration was the most prevalent type encountered throughout the period. Food standards represented the means by which food adulteration was moderated.

## ACKNOWLEDGEMENTS

The contribution made (unbeknownst to them) of Professors Kerry Abel, Del Muise and Keith Johnson in kindling the author's interest in various aspects of Canadian history, namely, historiography, Maritime history and Ontario history, respectively, is recognized.

To Keith Johnson must go special recognition, for, as Thesis Advisor, he had to read the oft-rambling, first and second drafts of this thesis and to suppress my propensity to occasionally draw unwarranted conclusions from anecdotal evidence. If such conclusions still exist, the responsibility, of course, is the author's.

The author gratefully acknowledges the assistance of the Department of Health, without which this work could not have been done. The year 1995 marks the 75th anniversary of the Canadian *Food and Drugs Act* and it was with this in mind that Diane Kirkpatrick, then Director of the Bureau of Chemical Safety, Health Protection Branch was approached with a proposal to research the history documented in these pages. It is a tribute to her and to the existing Bureau Director, Dr. H.B.S. Conacher, that they recognized the need to document in a more general way than previously undertaken, the historical roots of food adulteration, the early efforts to control it and the reaction of the retail grocers who bore the brunt of enforcement.

Finally, the author is indebted to his family members - daughters Susan, Karen and Janet, son David, and wife Vivian - who reluctantly, but understandingly, put up with the constant rattle of a computer keyboard both at home and in the tent trailer at Charleston Lake and Bon Echo Provincial Parks whilst the manuscript was in preparation. To Susan, a Business student at Carleton, must be also given credit for functioning as my intermediary in delivering initial drafts and picking up corrected copy from my Thesis Advisor.

Bruce H. Lauer  
December, 1993

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## JOKES, RIDDLES AND ANECDOTES ABOUT FOOD ADULTERATION

Q. Why is mixing wine or adulterating sugar a more heinous crime than murder?

A. Because murder is a gross offence but adulterating sugar is a grocer offence.

Sir John A. Macdonald<sup>1</sup>

\*\*\*\*\*

Miss Della Creme (wearily) - "I know everything we eat is adulterated; but what can we do Reginald? We must trust our grocer."

Mr. Reginald Creme (dreamily) - "Ah, yes, Della, very true, but it would be much more convenient if our grocer would only trust us."<sup>2</sup>

\*\*\*\*\*

A manufacturer of baking powder, in trying to run down a rival's goods, says they contain alum, which all medical authorities say should not be taken into the system. We rise to ask what the *alumentary canal* was made for.<sup>3</sup>

\*\*\*\*\*

"I suppose," said the woman who had sampled every kind of candy she could reach by thrusting her arm over the protective railing, and finally had bargained for 5¢ worth of butter-scotch, "all this is adulterated. You couldn't sell it so cheap if it wasn't."

"Yes, ma'am," returned the salesman solemnly, "it's all adulterated. That butter-scotch your getting, for instance, has mighty little butter and not a bit of Scotch."<sup>4</sup>

\*\*\*\*\*

"To the pure all things are pure." But it will not do to presume that impure goods can therefore with safety be palmed off as pure goods.<sup>5</sup>

\*\*\*\*\*

A Manchester, England, merchant, who, according to *Pearson's Weekly*, was taking baking powder in bulk from a certain firm, called at headquarters the other day to say that there was something wrong with the goods.

---

<sup>1</sup>From J.K. Johnson, Affectionately Yours (Toronto: Macmillan, 1969), p.58.

<sup>2</sup>"Where the Joke Comes In", *Canadian Grocer*, Vol. VI, No. 12; May 18, 1892; p.24.

<sup>3</sup>"Chat by the Way", *Canadian Grocer*, Vol. VII, No. 33; August 18, 1893; p.12.

<sup>4</sup>"Her Fears Confirmed", *Canadian Grocer*, Vol. XIV, No. 19; May 11, 1900; p.6.

<sup>5</sup>*Canadian Grocer*, Vol. X, No. 28; July 10, 1896; p.10.

"I don't think so," was the reply. "We make the best article sold in England."

"I think we ought to have a more perfect understanding," continued the dealer. "Now, you adulterate before you send it to me, then I adulterate before I ship, then the retailer adulterates before he sells, and the consumer can't be blamed for growling. I wanted to see if we couldn't agree on some schedule to be followed."

"What do you mean?"

"Why, I suppose you put in 10 per cent of chalk, then I put in 20 per cent of whiting, then the retailer puts in 30 per cent of flour. That gives the consumer 40 per cent of baking powder, and unless he's a born grumbler he'll be perfectly satisfied. You see, if you adulterate 50 per cent on the start, and I adulterate as much more, and the retailer adulterates as much as both together, it's very hard for the consumer to tell whether he's investing in baking powder or putty. We might give him something for his money, if it's only chalk!"<sup>6</sup>

---

<sup>6</sup>"Adulteration", *Canadian Grocer*, Vol. XI, No. 14; April 2, 1897; p.33.

## CHAPTER I

### INDUSTRY, GOVERNMENT, MORALITY, AND THE WELFARE STATE: THE MULTIPLE HISTORIOGRAPHICAL CONTEXTS OF FOOD ADULTERATION

#### *Introduction*

Historiographical material on food adulteration is scant. Many authors have alluded to adulteration; very few have written about it. The purpose of this chapter is to examine the paucity of material that does exist about the subject and to determine whether that available material sheds light on what adulteration was perceived to be, and, secondly, why it was practised. It is also proposed to examine whether historians who wrote about it considered that the measures taken to control it were really the inevitable product of reform, an attempt to regulate the market, a desire to foster the imposition of a growing interventionist state, or whether they were based on some moral obligation to protect the public.

What is *adulteration*? In his book, A History of Food Adulteration and Analysis<sup>1</sup> (1934), Frederick Filby cites three definitions, which, if nothing else illustrate the confusion about the word. The definition cited from the Encyclopaedia Britannica, 14th Edition, is:

the act of debasing a commercial commodity, with the object of passing it off as genuine, for illegitimate profit, or the substitution of an inferior article for a superior one, to the detriment of the purchaser.<sup>2</sup>

The definition cited from Stroud's Judicial Dictionary is:

Adulteration means the infusion of some foreign substance. An article is adulterated when any substance other than that which the article purports to be mixed with, or added to, or placed upon it, either to increase the bulk or weight or apparent size, or to give it a deceptive appearance.<sup>3</sup>

---

<sup>1</sup>Frederick A. Filby, A History of Food Adulteration and Analysis (London: George Allen & Unwin Limited, 1934).

<sup>2</sup>Filby, p.15.

<sup>3</sup>Filby, p.16.



Finally, the definition of the Society of Public Analysts is cited as being:

An article shall be deemed adulterated:

(A) In the case of food or drink:

1. If it contain any ingredient which may render such article injurious to the health of the consumer.
2. If it contain any substance that sensibly increases its weight, bulk, or strength, or gives it a fictitious value, unless the amount of each substance present be due to circumstances necessarily appertaining to its collection or manufacture, or be necessary for its preservation, or unless the presence thereof be acknowledged at the time of sale.
3. If any important constituent has been wholly or in part abstracted or omitted, unless acknowledgement of such abstraction or omission be made at the time of sale.
4. If it be an imitation of, or sold under the name of, any other article.<sup>4</sup>

While the term *adulteration* can be applied to other articles and commodities, it commonly denotes *food adulteration*. All of the above definitions can be applied to food adulteration. It is to be noted that only the third definition incorporates the notion of deleterious adulteration (i.e. the kind affecting health) and, in fact, assigns to it paramountcy.

### *British Historiography on Food Adulteration*

In the year 1820, Friedrich Christian Accum published his famous book, A Treatise on the Adulteration of Food<sup>5</sup>, containing a frontispiece with a spiderweb and the inscription, 'There is death in the pot'. In the book, he revealed the adulterator's craft and pointed out that "it would be difficult to mention a single article of food which is not to be met with in an adulterated state; and there are some substances which are scarcely ever to be procured genuine."<sup>6</sup> Remarkably, even at this early date, Accum saw a clear distinction between fraudulent sophistication ("though

---

<sup>4</sup>Ibid.

<sup>5</sup> Friedrich Christian Accum, A treatise on adulteration of food, and culinary poisons, exhibiting the fraudulent sophistications of bread, beer, wine, spiritous liquors, tea, coffee, cream, confectionery, vinegar, mustard, pepper, cheese, olive oil, pickies, and other articles employed in domestic economy. And methods of detecting them. 2nd Edition (London: Longman, Hurst, Rees, Orme, and Brown, 1820).

<sup>6</sup>Accum, pp. 3-4.

it may affect our purse, [it] does not injure our health"<sup>7</sup>) and the deleterious kind, about which he wrote the following sobering lines:

The eager and insatiable thirst for gain, which seems to be a leading characteristic of the times, calls into action every human faculty, and gives an irresistible impulse to the power of invention; and where lucre becomes the reigning principle, the possible sacrifice of even a fellow creature's life is a secondary consideration. In reference to the deterioration of almost all the comforts of existence, it may be justly observed, in a civil as well as in a religious sense, that "*in the midst of life we are in death*".<sup>8</sup>

Accum was a man who emigrated from Germany to England in 1793 and entered the Brande Pharmacy in London.<sup>9</sup> About 1800, he started a laboratory, chemical supply house and school in Soho. Gaining a reputation as a consultant, teacher and lecturer, he was appointed in 1801 as 'chemical operator' at the Royal Institution where he acted as assistant to Davy. In 1809, he became Professor of Chemistry at the Surrey Institution at Blackfriar's Bridge. His biographer, Charles Albert Browne<sup>10</sup>, speaks of Accum's pride in chemistry and his enthusiasm to popularize the subject amongst an unprofessional public<sup>11</sup> and to arouse in the student "a sense of the direct personal significance of chemistry and of its practical importance as applied to manufactures and the needs of human existence."<sup>12</sup> Notwithstanding this, Accum was a businessman and contracted his services as a chemical analyst, consultant and technical chemist to both business and government.

---

<sup>7</sup>Ibid.

<sup>8</sup>Accum, p.42.

<sup>9</sup>Brande was apothecary to George III as both King of Hanover and of Great Britain.

<sup>10</sup>Charles Albert Browne, "The Life and Chemical Services of Frederick Accum," *Journal of Chemical Education*, 2, No.10 (October 1925), 829-851 (Chapters I & II); 2, No.11 (November 1925), 1008-1034 (Chapters III & IV); 2, No.12 (December 1925), 1140-1149 (Chapters V & 6).

<sup>11</sup>Browne, p.1018.

<sup>12</sup>Browne, p.1019.

The first edition of the Treatise on Adulteration sold one thousand copies within one month of publication and incurred the admiration and wrath of food manufacturing interests in England. The book provided secrets of adulterating foods and state-of-the-art methodology for detecting them. It also contained the names of merchants and manufacturers, many of them wealthy and prominent, who had been found guilty by the courts of food adulteration.

Browne says that "the work of the reformer in all ages has been rewarded with hatred and abuse; this is as true of those who strive to prevent the adulteration of foods as it is of those who seek to abolish other evils."<sup>13</sup> Indeed, alleged "secret"<sup>14</sup> and "anonymous enemies"<sup>15</sup> of Accum trumped up charges against the man, accusing him of mutilating books of the very Royal Institution that was so much a part of his life. The charges led to his ruin: his friends abandoned him and he returned to Germany. Browne concludes, however, by saying that the result of the success of Accum's enemies in driving him from England was to allow adulteration of food to go "unmolested" for another thirty years.<sup>16</sup>

The first half of the 19th century was reported to be a period of rampant food adulteration in Great Britain. In his book, A History of Food Adulteration and Analysis (1934)<sup>17</sup>, Frederick Filby periodizes food adulteration in England. The author suggests that the first period extends from the "earliest times" to 1820 and it was characterized by little or slow development of both adulteration and its detection. The next period, 1820-1920, featured heightened awareness of the two. The third period was the present one (then up to 1934) when grosser adulterations were

---

<sup>13</sup>Browne, p.1140.

<sup>14</sup>Browne, p.1140.

<sup>15</sup>Browne, p.1141.

<sup>16</sup>Browne, p.1146.

<sup>17</sup>Frederick A. Filby, Op. cit.

completely abolished and lesser ones held severely in check. He ascribes the sudden increase of interest in adulteration after 1820 to (1) the spread of literature (trade handbooks, secrets, recipes, etc.), making available the formulae for adulteration to anyone who wanted them,<sup>18</sup> and (2) the rise of modern chemistry allowing adulterators to have at their disposal the wealth of accumulated scientific knowledge, instead of "hand-me-down" secret recipes. Filby also suggests that the increase in adulteration after 1800 or so may have been more apparent than real, since with developments in analytical chemistry (such as those popularized by Accum), people now were able to *know* that food was adulterated. Analytical chemistry became, in Filby's words, "that great enemy of adulteration."<sup>19</sup> Little, if any, evidence is offered to support this claim and Filby's high-handedness (viz. without explanation, he describes Accum as an analyst who "may not rank as an analyst of the first order"<sup>20</sup>) is an annoyance.

An explanation for Filby's dating of the second period may lie in the fact that it followed the Industrial Revolution and represented a period of increasing activity and maturity in commerce. In a chapter of his book, Foods: Their Composition and Analysis<sup>21</sup> (1882), Alexander Wynter Blythe argues that commerce is a prerequisite for adulteration. In primitive societies, while there might be "knaveish tricks, ignorant bartering, substitutions of bad for good, falseness and meanness of all kinds," no systematic sophistication is possible.

---

<sup>18</sup>Indeed, a review appearing in *Analectic Magazine* (Philadelphia; August 1820) berated Accum for spreading the adulterator's secrets: "For one reader who is taught how to avoid adulterated food, ten will have occasion to regret that Mr. Accum has furnished the dishonest vendors with so complete a manual and guide in the manufacture of the most cunningly devised poison."

<sup>19</sup>Filby, p.18.

<sup>20</sup>Filby, p.19.

<sup>21</sup>Alexander Wynter Blythe, Foods: Their Composition and Analysis. A manual for the use of analytical chemists and others (London: Charles Griffin and Company, 1882), p.3 in Part I-"History of Adulteration".

The Englishman's Food<sup>22</sup> (1939) by J.C. Drummond and Anne Wilbraham is a social history of food sources, eating preferences, and societal changes spanning the 14th to 19th centuries. While food adulteration is not the focus of this book, it is dealt with in the context of the times. For instance in the 15th century, flour, ale, and wine were important foods in the people's diet and therefore it was not surprising that various acts, ordinances and regulations were promulgated to protect the consumer against fraud and bad quality. The usual penalty for violating these ordinances was to suffer the indignity of the pillory.<sup>23</sup> But authorities were helpless to detect adulteration, except the most blatant kind. During the 17th century, however, science began its development. Scientific research and experimentation shattered and displaced the unverified, but nonetheless accepted, orthodox ideas of the classical writers. Scientific instruments needed to quantify adulteration, such as the balance, microscope, and hydrometer were in their early stages of development. Societies such as the Royal Society (1662) were formed and groups of men started to gather together to discuss natural phenomena.<sup>24</sup> The growth of towns in the 18th century led to commercialization in the trade of food, but dearth and high prices in the second half of the century "brought greater temptation to the unscrupulous" and, according to the authors, marked deterioration in the quality of foodstuffs, especially those likely to be bought by the poor.<sup>25</sup> Developments in transport in the 19th century resulted in growth and concentration of the food industry in cities and increasing dependence on purchased food, with concomitant growth in the wholesale trade and an increased potential of large consignments of food to deteriorate. The authors state:

At no period have contemporary records shown the merchants to be guilty of such flagrant adulteration as between 1800 and 1850. It may be that one is misled into thinking sophistication was more rife and more blatant

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<sup>22</sup>J.C. Drummond and Anne Wilbraham, The Englishman's Food: A History of Five Centuries of English Diet, Revised Edition by Dorothy Hollingsworth (London: Jonathan Cape, 1939 [First Edition] and 1957 [Revised Edition]).

<sup>23</sup>Drummond and Wilbraham, pp. 42-46.

<sup>24</sup>Drummond and Wilbraham, p.119.

<sup>25</sup>Drummond and Wilbraham, p.186.

than in the previous century because of the larger amount of information available and because the rapid growth of analytical chemistry led to so many revelations. It is, however, certain that food adulteration was practised on an almost incredible scale for more than half a century.<sup>25</sup>

The problem with the conclusions drawn here, and, indeed, those of Accum, Filby and several other authors is that they are more often than not supported by anecdotal reports or individual episodes, from which these authors draw empirical conclusions of widespread adulteration. While there were quantitative estimates of adulteration, there is a problem with definition, or rather, an understanding of the term in the first instance. Drummond and Wilbraham mention, for instance, that in 1862, "old Dr. Cameron of Dublin...examined 2600 samples of food, proved 1500 of them to be adulterated and succeeded in securing 342 convictions."<sup>27</sup> It will be recalled that adulteration may be of two types, deleterious and fraudulent (and possibly, both). At a time when standards (of prescribed or permissible composition) for individual foods were few, and when changing food distribution systems may have required use of chemical preservation techniques - techniques which are accepted and embodied in food regulations today - many of the judgements of adulteration may not be viewed as such today. Not only were there multiple definitions of adulteration, but these definitions changed throughout time. Furthermore, particularly among early workers such as Accum, there was no clear understanding as to what adulteration really meant. There are inconsistencies in Accum's decisions about what constituted adulteration and what did not. A reading of Accum's book soon reveals the arbitrariness of it all.<sup>28</sup>

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<sup>26</sup>Drummond and Wilbraham, p.289.

<sup>27</sup>Drummond and Wilbraham, p.295.

<sup>28</sup>To use a familiar example, watering milk and skimming milk were viewed at one time, at least in Canada, as both being forms of adulteration. But there is clearly a difference in the two, and skimmed milk is an accepted product today, even formally standardized by regulation.

John Burnett, in dealing with the increase in adulteration that occurred in the mid-19th century in Britain, indicates in Plenty and Want<sup>29</sup> (1966) that rapid industrialization and urbanization led to an ever-increasing portion of the population becoming dependent on professional services for the supply of its food, and as capitalization and specialization increased, the food supply became further removed from food producers. The increase in adulteration during this period was not simply due to insatiable greed and desire for unlawful profit. Victorians were certainly no more immoral than earlier generations, and, in fact, developed a social conscience. Rather, the paternalist order was giving way to free competition, the latter believed to be the most efficacious way to ensure the best interests of the consumer. Such changes in the doctrine of the role of the State, unparalleled inflation, and shortages during the French wars provided the backdrop for easy, safe and profitable adulteration.<sup>30</sup>

But if Dr. Arthur Hill Hassall had his way, the excuse advanced by manufacturers and traders, that they could not survive save for the profits of adulteration, was unacceptable; moreover, the fact that men of science would compromise themselves and the new discipline to lend support to such merchant practices was unconscionable:

Science is never so rightly or so nobly employed as when it ministers to the wants and well-being of mankind, and especially when it is used for the protection of the public health. On the other hand, is it not an unworthy and an ignoble use to make of science, to employ it in defence of practices which even those who defend them most in their own consciences must condemn?—and yet there are men who thus demean themselves.<sup>31</sup>

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<sup>29</sup>John Burnett, Plenty and Want: A Social History of Diet in England from 1815 to the Present Day (London: Thomas Nelson and Sons Limited, 1966).

<sup>30</sup>Burnett, p.81.

<sup>31</sup>Arthur Hill Hassall, Adulterations Detected; or, Plain Instructions for the Discovery of Frauds in Food and Medicine (London: Longman, Brown, Green, Longmans, and Roberts, 1857), pp. 6-7.

James P. Johnston's A Hundred Years Eating<sup>32</sup> (1977) is a history that is worthy of mention. Johnston's book is premised on the observation that the historiography of food consumption, or more particularly, the study of what people eat, is scant insofar as the subject, perceived to be purely a physiological one, has been left to be dealt with by nutritionists, biologists and chemists. Indeed, the historiographical sources examined above seem to confirm this observation. Recent thinking, according to the author, has led social historians to recognise the significance of food as an essential element in economic and social life and to observe the close historical association between the course of economic and social change and patterns of food consumption.<sup>33</sup> The book is really a class study of diet from the turn of the century to the present. The author demonstrates that just as the working class was differentiated from that of the middle and upper classes, so too was the food of the worker vastly different from that of the professional or business gentleman, the most important factor maintaining this differential being income. While the worker gained from dropping prices during the late 19th century due to a revolution in food technology and increasing availability of a wide range of imported foods, particularly canned goods, the rise in working class standards stalled in the early years of the new century due to rising prices. Rather the benefits accrued to the higher levels of the working class and the lower middle class. The net result of the Edwardian era was levelling of living standards and the most profound effect was a marked improvement in the diet of the working class.<sup>34</sup> The "price" that had to be paid for the benefits of a convenient and varied diet is acceptance of the number of chemical additives that has become an integral part of the business of food manufacture, according to the author.<sup>35</sup> While the conclusion by the author about the levelling

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<sup>32</sup>James P. Johnston, A Hundred Years Eating: Food, Drink and the Daily Diet in Britain since the late Nineteenth Century (Dublin & Montreal: Gill and Macmillan/McGill-Queen's University Press, 1977).

<sup>33</sup>Johnston, Preface.

<sup>34</sup>Johnston, pp. 18-19.

<sup>35</sup>Johnston, p.127.



of living standards is plausible, the one about the "price" of food additive use must be questioned because several chemicals now recognized under the arbitrary classification of "food additive" had long been used as an integral part of small scale and home preparation of foods (e.g. saltpetre in the curing of beef and pork). Another aspect about which the author is unclear is that no explanation is offered as to why a purported cause of a levelling of living standards should be described as a "price".

### *American Historiography on Food Adulteration*

Two articles comprising popular histories have been written about early regulatory developments in the United States. Since they were published in the *FDA Consumer*, a corporate journal of the United States Food and Drug Administration (FDA), they are similar in style to early business histories and might even constitute a form of state propaganda. The first, entitled "America's First Food and Drug Laws"<sup>36</sup> (1975), was written by an FDA insider, Wallace Janssen, mentioned in the credits to the article as being "the FDA historian". The article covers events commencing with a law passed in 1646 by the General Court of the Massachusetts Bay Colony concerning "assizes of bread" (i.e. standardization of the weight of a loaf) to the 1785 "Act against selling unwholesome Provisions" (dubbed by Janssen as "the first comprehensive food adulteration law passed in the United States"), promulgated by the same institution to protect consumers against adulterated food. The article is whiggish insofar as it was written in anticipation of the 1976 celebration of the American Bicentennial, at which time Americans would "have a unique opportunity to make an assessment of [their] accomplishments and institutions", a process which could have "salutary effects". The second article, entitled "The Long Struggle For

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<sup>36</sup>Wallace F. Janssen, "America's First Food and Drug Laws," *FDA Consumer*, (June 1975), 12-19.

the 1906 Law<sup>37</sup> (1981) was by James Harvey Young, Professor of History at Emory University, and was organized around the seven "C's", the themes of change, complexity, competition, crusading, coalescence, compromise and catastrophe, all of these themes being endemic to the struggle.

One more American history is worthy of note, a book chapter entitled "History of Food Laws in the United States"<sup>38</sup> (1981) by H.W. Schultz. Perhaps the most interesting theme developed in the article is the rooting of the laws against adulteration and food laws in the states of colonial America:

The history of food law in the United States is necessarily a recording of the separate statutes enacted by the properly constituted and authorized legislative bodies which range all the way from territorial governing bodies of earlier times to the state legislatures and to the Congress of the United States. Frequently city, county or other local governments pass ordinances and rules to regulate the food supply. Each new law, in a sense, represents a step in the development of the aggregate which constitutes *food law* in the United States, namely the entire body of laws, regulations, ordinances, etc., which have an influence upon the quality and quantity of food available to the nation's citizens.<sup>39</sup>

Schultz thus sees a linear progression in the development of food laws as the colonies are transformed into the republic.

A much more satisfactory treatment of developments in America, leading up to the Pure Food and Drug Act of 1906, is found in Richard Osborn Cumming's The American and His Food<sup>40</sup> (1940-41). The title belies the fact that this is a comprehensive social history of the various decades of the 19th century, not to mention a fine historiographical sourcebook for this entire period. Each era is uniquely characterized. For instance, the period of 1830-1840, covered in a

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<sup>37</sup>James Harvey Young, "The Long Struggle for the 1906 Law," *FDA Consumer*, (June 1981), 12-16.

<sup>38</sup>H.W. Schultz, "History of Food Laws in the United States," in H.W. Schultz, Food Law Handbook (Westport, Connecticut: The AVI Publishing Company, Inc., 1981), pp. 1-30.

<sup>39</sup>Schultz, p.3.

<sup>40</sup>Richard Osborn Cummings, The American and His Food, Revised Edition (Chicago: University of Chicago Press, 1940 & 1941).

chapter entitled "Prejudices and Reformers",<sup>41</sup> was characterized by a struggle between the those who held prejudicial views against fresh fruits and vegetables, considered to be dangerous because of their association with cholera and typhoid, and reformers who attacked these beliefs which they considered false. The period, 1841-1880, described by the chapter title, "Health by Rail",<sup>42</sup> describes the impact of railway transportation, refrigeration, canning, cold storage, and even newspapers and cookbooks on the psyche of Americans in making them believe in the protective value of these foods. Just a quick examination of the footnotes in this chapter verifies the wide variety of historical source material used by the author in constructing this history: business journals such as *Hunt's Merchants' Magazine*, medical journals such as the *Lancet*, Lowell Mason's hymnbook Little Songs for Little Singers (1840),<sup>43</sup> various newspapers, federal and state documents including the U.S. Census, Fannie Merritt Farmer's The Boston Cooking-School Cook Book, and so forth. Cummings spares no source that provides insight into capturing the mood of America *vis à vis* its thinking about food and nutrition. He advances the idea that as food processing became more technologically-oriented, the personal bond that formerly existed between consumer and retailer broke down. This breakdown made legislation in the interest of the consumer necessary and even inevitable.<sup>44</sup>

Thomas Bailey, a sociologist, published an article in 1930 entitled "Congressional Opposition to Pure Food Legislation, 1879-1906."<sup>45</sup> Indeed, the determined opposition to efforts in the United States to promulgate a Pure Food Law did force a "struggle". Bailey's concern was

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<sup>41</sup>Cummings, pp. 43-52.

<sup>42</sup>Cummings, pp. 53-74.

<sup>43</sup>In this hymnbook there appears a hymn extolling the advantages of Pure Milk and extolling God's kindness in providing so worthy a beverage!

<sup>44</sup>Cummings, pp. 108-109.

<sup>45</sup>Thomas A. Bailey, "Congressional Opposition to Pure Food Legislation, 1879-1906," *American Journal of Sociology*, 36 (July 1930), 52-64.

to categorize the opponents sociologically into groups: those who objected on constitutional grounds; those who underrated the problem of adulteration in the first instance; and those who desired to perpetuate fraud that would otherwise become illegal. If such categorizations were all that resulted from this article, one is left wondering just what sociology really contributes to an understanding of this issue.

Mitchell Okun's book, Fair Play in the Marketplace,<sup>46</sup> is the first text that provides a more-than-superficial treatment of the adulteration question in America. As the country industrialized, the producer, merchant and consumer emerged in separate spheres. An increasingly complex marketplace, a loss of localism, and the dispersion of neighbourhood production, led to an anonymous marketplace, a temptation that led to an increased propensity for fraud. In examining New York State in particular, he noted that the first anti-adulteration laws in that state, passed in 1881-1882, coincided with the institutionalization of public health and with the concomitant establishment of local and state boards of health throughout the United States. Moreover, the movement against adulteration in that period was "dominated by an alliance of certain leaders in business, chemistry and medicine whose objectives largely determined the behaviour of the sanitarians on the boards of health that enforced the laws that these men had shaped."<sup>47</sup> The alliance worked in this way: the sanitarians, in order to enforce their adulteration regulations, had to rely on the expertise of the chemist, but there was always uncertainty in chemistry. Furthermore, sanitarians and chemists may have been reformers, but they could be bought by the other side - the regulated industry - sometimes while even retaining their regulatory positions. These were the days before conflict of interest regulations or guidelines precluded regulators' participation in the expanding technology. Merchants too could not ignore

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<sup>46</sup>Mitchell Okun, Fair Play in the Marketplace (Dekalb, Illinois: Northern Illinois University Press, 1986).

<sup>47</sup>Okun, p.xii.

consumer concerns about adulteration. They figured that if they could control the irresponsible ones among them, while protecting their own interests at the same time, they could control the reform movement. And so they did according to Okun.

### *Canadian Historiography on Food Adulteration*

Very little has been written about food adulteration in Canada or about the Canadian experience. The only work, in fact, is by A. Linton Davidson, The Genesis and Growth of Food and Drug Administration in Canada<sup>48</sup> (1949). This is really a corporate history of the administration of food laws in Canada. It is unabashedly whiggish<sup>49</sup> and Victorian and exudes the supreme confidence that the government, with its professional chemists, is the only possible agency that could save the population, more specifically, the *ordinary housewife*, from the ravages of adulteration, made all the more insidious by modernity. Consider this excerpt from the Preface:

It might be emphasized here that while the ordinary housewife is able to determine when her food is grossly adulterated, subtleties and the refinements in sophistication in this modern world are likely to pass unobserved under her scrutinizing gaze and, therefore, an organization such as the Food and Drug Directorate is necessary

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<sup>48</sup>A. Linton Davidson, The Genesis and Growth of Food and Drug Administration in Canada (Ottawa: Minister of National Health and Welfare, 1949).

<sup>49</sup>Progress to the food regulator was the development of laws (usually in the form of standards of composition) that would control adulteration. Development of food laws was one thing; enforcement of them was another. Advancements in science made possible the latter. Like Accum, the early food regulators were totally enthralled with the possibilities of science. In a sense, the regulators saw themselves as an elite detective squad using food analysis and analytical chemistry in much the same manner that forensic science might be used to solve a criminal case. The inevitable advancements in science could only lead to an advancement in laws. The confident writings of the early regulators, therefore, are almost by definition, whiggish. Their whiggism has been moderated by modern economic writers, some of whom [viz. Michael A. Utton, The Economics of Regulating Industry (London: Basil Blackwell Limited, 1986), pp. 53-59] have argued that establishment of food standards has enabled industry to "capture" government and while the captivator industry may have benefitted in that its competition was placed at a disadvantage, the result of regulations was stymied development.

to protect her and her loved ones from fraud, sickness and possible death.<sup>50</sup>

For Davidson, there is an underlying, almost religious conviction that the world of modernity is a dark world of sin and the government worker has a moral, if not religious, obligation to help alleviate the ills which characterize it:

Human nature being what it is, a police administration such as this undoubtedly is, will be required for the protection of the public so long as indifference, selfishness and greed are to be found upon the earth. This twentieth century bears an alarming likeness to the first of the Christian era. The fundamental outlines are the same, although the orientation may be different. Man may be less crude but more subtle in his ways - the last century has revealed that - but the underlying motives of advantage and mastery without regard to equity still remain in too many instances, the New Commandment is not being obeyed.<sup>51</sup>

Still, the book is extremely well-written considering Davidson was an amateur historian, the English and grammar are impeccable, and the work is carefully referenced to primary sources.

A paper entitled "The Administration and Development of Federal Statutes on Foods and Drugs in Canada"<sup>52</sup> was written and published in 1967 by another author, L.A. Pugsley, Deputy Director-General of the Food and Drug Directorate. Again, the paper is whiggish in its approach, concluding that "it is evident from this historical review that the food and drug laws in Canada were built on a firm basis and have progressed with the economic development of the country."<sup>53</sup> Like the Janssen article written for the American Bicentennial, this one was written in celebration of Canada's Centennial and exudes a decided pride in past accomplishments: "The Food and Drug Directorate can be proud of its past history and has a firm base on which to build in the future to safeguard the health of Canadians as we look towards our Second Centennial."<sup>54</sup>

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<sup>50</sup>Davidson, p.ii.

<sup>51</sup>Davidson, p.97.

<sup>52</sup>L.I. Pugsley, "The Administration and Development of Federal Statutes on Foods and Drugs in Canada," *Medical Services Journal Canada*, XXIII, No.3 (March 1967), 387-449.

<sup>53</sup>Pugsley, p.387.

<sup>54</sup>Pugsley, p.447.

While these histories, in particular Davidson's, tell us something about the noble motives of the regulators, they do little to explain at a deeper level the underlying motives of society as a whole in allowing the state to intervene on its behalf. How can such underlying motives be analyzed? In studying the phenomenon of food riots that occurred in England in the 18th century, the historian E.P. Thompson had indicated in his 1971 article, "The Moral Economy of the English Crowd in the Eighteenth Century,"<sup>55</sup> that some legitimizing notion could be found in almost every eighteenth-century crowd action and that, underlying these actions, the people as a whole did have a self-awareness of right and wrong practices in marketing, milling and baking, etc. in expressing their grievances. This world view "was grounded upon a consistent traditional view of social norms and obligations, of the proper economic functions of several parties within the community, which, taken together, can be said to constitute the *moral economy of the poor*."<sup>56</sup> The moral economy of the crowd sanctioned direct action and the paternalists advocated values of order.<sup>57</sup> Thus, the paternalist tradition of the authorities was not inconsistent with this notion of the common weal.

The question that the work of Thompson raises is the extent to which, especially in Canada, emerging food laws with their attendant regulations, were informed by the moral economy of the crowd. The evidence seems to suggest that the regulators, playing the role of the paternalists, would ally themselves more with the captains of industry than they would with the crowd.<sup>58</sup>

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<sup>55</sup>E.P. Thompson, "The Moral Economy of the English Crowd in the Eighteenth Century," *Past & Present*, No.50 (February 1971), 76-136.

<sup>56</sup>Thompson, p.78-79. Italics are those of the present author.

<sup>57</sup>Thompson, p.98.

<sup>58</sup>This is not to suggest that the "crowd" would not benefit.

The idea that reforming legislation and regulations could at once protect the consumer and assist those being regulated is not a new one. In fact, Cummings had alluded to the idea in the historical work previously attributed to him.<sup>59</sup> In a 1987 article,<sup>60</sup> W. Thomas Matthews has suggested that municipal codes designed to regulate the public market in Ontario between 1800 and 1860, far from being an integral part of "the moral economy of the poor", helped create "an environment conducive to the pursuit of private profit." Furthermore, Matthews argues, retailers, shopkeepers, professionals and merchants were, above all others, united in their resolve to appropriate the positive power of the state to their advantage in regulating competition. And while, in imposing this English medieval tradition, politicians might snort that such policies recognized the needs of consumers over those of producers, the truth was that private interests often prevailed over public interests. In fact, the author even suggested that "an altruistic or even a self-serving commitment to consumer protection proved to have much less influence on government policy than it had had in medieval Britain."<sup>61</sup>

Michael Bliss is more blunt about it: business, labour and professional organizations in Ontario engaged in activities that could best be described as "collectivist conspiracies against the idea of a free market." In a chapter in Donald Swainson's Oliver Mowat's Ontario<sup>62</sup> (1972), he talks about the "protective impulse" in Ontario during the 1880s and the 1890s, part of a larger western phenomenon in which collectivist movements "supported every imaginable kind of

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<sup>59</sup>Cummings, pp.108-109.

<sup>60</sup>W. Thomas Matthews, "Local Government and the Regulation of the Public Market in Upper Canada, 1800-1860: The Moral Economy of the Poor?" *Ontario History*, LXXIX, No. 4 (December 1987), 297-325.

<sup>61</sup>Matthews, p.306.

<sup>62</sup>Michael Bliss, "The Protective Impulse: An Approach to the Social History of Oliver Mowat's Ontario" in Donald Swainson (ed.), Oliver Mowat's Ontario (Toronto: Macmillan of Canada, 1972).



regulatory and legislative device to subvert the workings of competition."<sup>63</sup>

Christopher Armstrong and H.V. Nelles in Monopoly's Moment<sup>64</sup> reach more or less the same conclusion and confirm that the desire for regulation from everyone's perspective was essentially protective. While business in influencing the kind of regulation chosen had an inherent advantage, regulation nonetheless signified the accomplishment of reconciliation of the interests of producers and consumers. Furthermore, in regulation, confidence and security were more important objectives than efficiency. But despite the attempts of corporate clients to use the regulatory mechanisms of state to further their own interests, such efforts often backfired. "Whatever their initial purpose," says Ken Cruickshank in a recent article about sugar refiners, "different institutions within the state became the site of, and were disrupted by, the private economic conflicts between individual members within the industry...." and between them and their customers.<sup>65</sup>

Tom Traves's book, The State and Enterprise, is a study of the intricate institutional structures established by businessmen and legislators to promote, protect and regulate industrial enterprise.<sup>66</sup> "The Canadian state is," the author says, "a structure or system of institutional and power relationships within which class and group interests establish the compromises required to perpetuate the capitalist order in Canada."<sup>67</sup> Taking for granted the hegemony of the capitalist

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<sup>63</sup>Bliss, p.187.

<sup>64</sup>Christopher Armstrong and H.V. Nelles, Monopoly's Moment (Toronto: University of Toronto Press, 1988), p.327

<sup>65</sup>Ken Cruickshank, "Taking the Bitter with the Sweet: Sugar Refiners and the Canadian Regulatory State, 1904-20", *Canadian Historical Review*, Vol. LXXIV, No. 3, 1993, pp. 367-394.

<sup>66</sup>Tom Traves, The State and Enterprise: Canadian Manufacturers and the Federal Government, 1917-1931 (Toronto: University of Toronto Press, 1979), p.3.

<sup>67</sup>Traves, Op. cit., p.167.

order, Traves argues that in addition to embodying inherent contradictions and being preoccupied with resolving them,<sup>68</sup> the capitalist state "embodies the struggle of the propertyless class to assert its claims for a greater share of power and wealth." Therefore, "in order for capitalism to persist, the state must ensure such minimal changes as are necessary to satisfy the propertyless class and bind their interests to those above them."<sup>69</sup> The capitalist state is the embodiment in a democracy of warring capitalist elements that express not only "the interests of freedom and property, but also the aspirations of the revolutionary classes." To keep the entire system running, the capitalist class seeks the necessary compromises through the state and its regulative functions.<sup>70</sup> Moreover, only the state possesses the requisite coercive powers to guarantee discipline and institute these critical compromises.<sup>71</sup> These are tantalizing notions to keep in mind as the legislative role of the state and the activities of the regulated food industry are examined in relation to the development of measures to control food adulteration.

Douglas McCalla focuses more precisely on use of the Board of Trade as an instrument of pressure on governments. In his article, "The Commercial Politics of the Toronto Board of Trade, 1850-1860"<sup>72</sup> (1969), the desire of this organization for "a greater ordering and structuring of trade, in the interests of clarity and security"<sup>73</sup> is mentioned. An example given of such ordering is the use of grade standards as part and parcel of an inspection system for wheat, an

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<sup>68</sup>The contradictions were outlined by Franz Schurmann in an earlier book entitled The Logic of World Power (New York, 1974; p.139). The contradictions are described as follows: the capitalist class at once tries to create more freedom by "eroding structures of interest" and more unfreedom by "generating structures of monopoly, power, prestige and wealth."

<sup>69</sup>Traves, Op. cit., p.157.

<sup>70</sup>Traves, Op. cit., p.158.

<sup>71</sup>Traves, Op. cit., p.167.

<sup>72</sup>Douglas McCalla, "The Commercial Politics of the Toronto Board of Trade, 1850-1860", *Canadian Historical Review*, L, No.1 (March 1969), 51-67.

<sup>73</sup>McCalla, p.55.

essential element to securing contracts in grain.<sup>74</sup> Such standards, established in the first instance to regulate trade, would perhaps unbeknownst to later perpetrators and to the regulators that adopted them, serve the consumer well in controlling food adulteration.

Unlike Matthews and Bliss who speak about the *positive state*, Richard Splane in his Social Welfare in Ontario, 1791-1893<sup>75</sup> (1965) deals with the *welfare state*. Like most Canadian texts on the welfare state, food laws are not seen as an aspect of its emergence. But Splane does at least provide a backdrop against which their development may be assessed. In characterizing this period as a "century of progress in social welfare," the author points to Upper Canadian accomplishments: the establishment of strong municipal governments that could be used to realize certain developmental and social ends; loyalty to community, province and Crown - and increasing identification with British North America at large; and rapid population growth and accelerating wealth. The latter development led to increasing industrialization, and the movement from an agricultural economy centred in small towns scattered throughout the province, to an industrial one centred in the cities, shifted the focus of the individual from a preoccupation with material development to one of concern for societal problems caused by urbanization. The welfare state was further encouraged by the fact that the original concept, after the English model, of a landed gentry propped up by a state Church and an exploitable working class, did not emerge in Ontario:

The social implications of the Upper Canadian economy, on the contrary, appeared to make for receptivity to democratic political thought, non-conformity in religion and egalitarianism in social relationships.<sup>76</sup>

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<sup>74</sup>McCalla, p.63.

<sup>75</sup>Richard Splane, Social Welfare in Ontario, 1791-1893: A Study of Public Welfare Administration (Toronto: University of Toronto Press, 1965).

<sup>76</sup>Splane, pp. 14-15.

It is intriguing to examine the role of the so-called "welfare state" in the question of food adulteration and food regulation. The fact of the matter is very few authors of works on the welfare state even mention the latter topics, preferring to focus on more obvious manifestations of the welfare state such as social security or social insurance, minimum income, and other egalitarian measures made necessary by what Marxists would argue were the legacy of capitalist development, class conflict and recurring economic crises. The problem may be one of definition of the very term, "welfare state" or rather, its "changing boundaries", as Peter Flora and Arnold Heidenheimer suggest in their book, The Development of Welfare States in Europe and America<sup>77</sup> (1981). Would it be far wrong to suggest that while the *problem of food adulteration* and the state *response of food regulation* may not have been historically central, perhaps even peripheral, to defining a need for the welfare state as it has generally come to be defined, they were nonetheless a product of it? Certainly, this possibility would fit a more broadly-based definition of the welfare state, with less emphasis on economics and more on politics or ideology, such as that mentioned by Harold Wilensky in The Welfare State and Equality<sup>78</sup> (1975):

The essence of the welfare state is government-protected minimum standards of income, nutrition, health, housing and education, assured to every citizen as a political right, not charity.<sup>79</sup>

Food regulations were established to control adulteration. These regulations often took the form of "standards of quality" for various commodities. They certainly could be classified, using Wilensky's definition, as minimum standards of health and nutrition. And if it is possible to recognize food regulations both as a product and a manifestation of the welfare state, then it could be argued that the welfare state came to Canada much earlier than 1927 (pension insurance) identified by Robert Kudrle and Theodore Marmor in the chapter entitled "The Development of

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<sup>77</sup>Peter Flora and Arnold J. Heidenheimer, The Development of Welfare States in Europe and America (New Brunswick, N.J. and London, U.K.: Transaction Books, 1981), p.28.

<sup>78</sup>Harold L. Wilensky, The Welfare State and Equality (Berkeley, California: University of California Press, 1975).

<sup>79</sup>Wilensky, pp. 6-7.

Welfare States in North America" appearing in Flora's and Heidenheimer's book.<sup>80</sup>

An inspection of Dennis Guest's book, The Emergence of Social Security in Canada<sup>81</sup> (1980; 1985) does little to shed light on background to the emergence of food regulatory legislation in Canada, since it is, as the title suggests, a history of social security, but Guest talks about five major themes in the history of social security of Canada, one of which may be germane to the present topic. This is, namely, the idea of the "social minimum", a set of conditions pertaining to health, housing, education and welfare below which a decent life cannot be achieved.<sup>82</sup> Interestingly, health and welfare were minor concerns at Confederation and under the British North America Act, were relegated to the provinces, under the jurisdiction of which, they would, it was assumed, be subsequently passed on to the municipalities.<sup>83</sup> This perhaps explains Matthews's observation that the first control measures regarding foods, at least in Ontario, were derived from regulation of the public market, although not at first primarily for reasons of public health. Municipalities had no choice but to enter the field for public health reasons in order to fight outbreaks of cholera, smallpox and typhoid. Provinces then began assuming their responsibilities by creating Boards of Health, and in the end, even though they had jurisdiction in health matters, urged the federal government to create a Department of Health in 1919. Such then was the beginning of the social minimum in health matters in Canada.<sup>84</sup>

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<sup>80</sup>Robert T. Kudrle and Theodore R. Marmor, "The Development of Welfare States in North America," in Flora and Heidenheimer, pp. 81-121.

<sup>81</sup>Dennis Guest, The Emergence of Social Security in Canada, Second Edition (Vancouver, B.C.: The University of British Columbia Press, 1980; Second Edition, 1985).

<sup>82</sup>Guest, pp. 3-4.

<sup>83</sup>Guest, p.6.

<sup>84</sup>Guest, p.25.

Elwood Jones argues in "Dependency and Social Welfare" (1979), a keynote article<sup>85</sup> to an entire issue of a journal devoted to social welfare, that introduction of the social minimum in the first four decades of the 20th century meant a return to paternalistic government at a time characterized by increased dependency - dependency manifested by unemployment and the existence of single-head families, in particular, due to losses of spouses during the First World War. But the paternalism is no longer coercive, but rather liberating. The historiographical emphasis is in the promoters and not in the recipients; in the legislation and not in the reaction.<sup>86</sup> While the topic dealt with in this instance is specifically in the social welfare system, the same observations can be made about the historiography of food regulation.

Jane Ursel, in a chapter in her book entitled Private Lives, Public Policy<sup>87</sup> (1992) attempts to explain the relationship between capitalism and patriarchy and, more specifically, the relationship between production and reproduction as revealed in the intersection of family, labour and welfare law. She says that "sexual divisions of labour are not seen as some concession by production to biological differences but rather a conscious structuring of production relations in the interests of the social organization of reproduction."<sup>88</sup> This model of *codetermination* replaces an earlier Marxian model in which production was believed to *determine* reproduction.<sup>89</sup> Ursel contends that the Ontario Factories Act of 1884 was a turning point, in that state intervention in the process of reproduction commenced and was followed by a "flurry of legislative activity" in labour, family and welfare law, all of which were in response to serious disruptions in

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<sup>85</sup>Elwood Jones, "Dependency and Social Welfare," *Journal of Canadian Studies* 14, No.1 (Spring 1979), 1-2; 123-124.

<sup>86</sup>Jones, p.1.

<sup>87</sup>Jane Ursel, "The State and the Maintenance of Patriarchy: A Case Study of Family, Labour and Welfare Legislation in Canada" in Private Lives, Public Policy: 100 Years of State Intervention in the Family (1992), pp. 155-176.

<sup>88</sup>Ursel, p.156.

<sup>89</sup>Ursel, p.157.

reproductive relations caused by urbanization and industrialization. The prime victims of this "disjuncture" between the old patriarchal order and the new economic system were women and children<sup>90</sup> and the earliest legislation protected women in their reproductive capacity from the ravages of the production process. The patriarchal society, in promulgating legislation protective of their role highlighted the role of the state in fostering the ideals of protection or magnanimity.<sup>91</sup> While never suggested by Ursel, it is intriguing to ask if the roles assumed by the state in the regulation of food and protection of the consumer (or more precisely, the "housewife") against labelling fraud and food adulteration were grounded in such views.

A historiographical examination of the welfare state perhaps allows a better understanding of the *government* perspective and role in regulating foods. A glimpse at business history may provide an *industry* perspective, or even illuminate the government one. The introductory chapter entitled "Canadian Mercantilism, 1867-1914" in R.T. Naylor's The History of Canadian Business 1867-1914<sup>92</sup> (1975) mentions that in mercantilist states, "the dominant economic institution was the mercantile corporation, functioning often as a subordinate arm of government and frequently with a state-sanctioned monopoly." Furthermore, the state, far from being an "umpire of competition", actually played a role in development by regulating commerce and industry.<sup>93</sup> For example, the bonusing by all three levels of government of food industries such as the beet root sugar industry<sup>94</sup> is used to illustrate the rise of the "*corporate welfare state*". Near, if not actual,

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<sup>90</sup>Ursel, pp. 159-160.

<sup>91</sup>Ursel, p.164.

<sup>92</sup>R.T. Naylor, The History of Canadian Business 1867-1914 [Volume One: *The Banks and Finance Capital*; Volume Two: *Industrial Development*] (Toronto: James Lorimer & Company, Publishers, 1975).

<sup>93</sup>Naylor, Vol.1, p.5.

<sup>94</sup>Naylor, Vol.2, pp. 121-124.

cartels or combines were the norm in the salt, sugar refining and canning industries.<sup>95</sup> Naylor tells of a salt manufacturer which broke the cartel but was barred by the courts from doing business contrary to the combine agreement.<sup>96</sup> Thus, state complicity was a theme in the development of at least some food industries and the close connections of business and government perhaps suggests existence of an atmosphere that would foster regulations, such as food standards, that could exclude those who could not meet them.

Michael Bliss, in Northern Enterprise: Five Centuries of Canadian Business<sup>97</sup> (1987) points out that the placing of tariffs on imports, apart from bringing in revenue to the state, allowed Canadian manufacturers to artificially raise prices of their own domestically-produced goods, and therefore come to favour more protection. The advent in 1879 of Sir John A. Macdonald's National Policy was seen by Bliss as "a spectacular demonstration of the influence that this new manufacturing "class" was able to wield in the developing country,"<sup>98</sup> so much so that Canadian manufacturing became a "huge, state-created combine" due to the tariff.<sup>99</sup>

In a chapter of Michael Cross's and Gregory Kealey's book, The Consolidation of Capitalism, 1896-1929<sup>100</sup> (1983), Tom Traves points out that in the 1920s, following the collapse in October 1920 of the Board of Commerce (formed to regulate prices), industry could no longer count on the Government to actively regulate competition. He argues that this gave rise to the

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<sup>95</sup>Naylor, Vol.2, pp. 177, 179, and 180.

<sup>96</sup>Naylor, Vol.2, p.177.

<sup>97</sup>Michael Bliss, Northern Enterprise: Five Centuries of Canadian Business (Toronto: McClelland and Stewart, 1987).

<sup>98</sup>Bliss, p.227.

<sup>99</sup>Bliss, p.372.

<sup>100</sup>Tom Traves, "Security without Regulation," in Michael S. Cross and Gregory S. Kealey (eds.), The Consolidation of Capitalism, 1896-1929 (Toronto: McClelland and Stewart, 1983 [Reprinted, 1985]), pp. 19-44.



formation of trade associations, which if not overtly, functioned tacitly as vehicles to achieve this end. Furthermore, some industries, notably the sugar refining, flour milling, brewing and canning industries now assumed the previous role of the state and, despite renegades among them, used their position, as oligopolies to impose "price leadership" and control their competition. While Traves's article does not deal exclusively with food industries, he is either unaware or ignores the flurry of government standards-setting activities that commenced just after passage of the first Foods and Drugs Act and Regulations in 1920 and which lasted through the subsequent two or three decades. Trade Associations were very much involved in these activities and the government had certainly not withdrawn from the regulatory arena.

#### *Summary and Conclusions*

In summary, the historiography of food adulteration is uneven and deficient at best, and unsatisfactory at worst. Okun has written the only thorough treatise on food (and drug) adulteration, but his work deals with the American experience. Virtually nothing has been written about the history of adulteration in Canada, and what little has been written, has been from the narrow regulators' perspective. The subject was first dealt with by English writers like Accum, Hassall and Filby, but not by means of historical treatments. More interesting than Accum's actual findings is Browne's biography of Accum and what the Accum example says about the then still fledgling art of science, more precisely, analytical chemistry. Hassall is more interesting from this historical perspective too, even though his work, like Accum's, was designed to inform readers on how to *detect* adulteration.

More often than not, adulteration has been mentioned as a factor in English social history writings such as those by Drummond and Wilbraham, J.P. Johnston and C. Anne Wilson<sup>101</sup> on food habits and diet over the centuries. Cummings does the same in the American context. Authors like E.P. Thompson and John Burnett have mentioned adulteration in cultural histories and out of the former's writings has come the idea of the "moral economy of the poor" - a paternalist response which not only manifested itself at times of social disruptions like food riots, but in a general notion of a moral responsibility to act in the interests of a common weal, if not by the government, then by the crowd. In Britain, it seems, adulteration was a phenomenon which touched the common people and, as such, became an object of study of social and cultural historians.

Thomas Matthews questions the influence of the moral economy of the poor in 19th century Ontario and concludes that the response of municipal regulation of foods in the public marketplace in that province may have had the appearance of a concern for public welfare but in reality was motivated by the need of merchants to regulate the competition in order to free the market from intruders or hucksters. Naylor and Bliss, in turn, extend this notion to a broader complicity of government and industry to development of the *corporate welfare state*. Meanwhile, as seen in the writings of Ursel, Jones, Guest and Flora and Heidenheimer, development of a *patriarchal welfare state* occurred concurrently. In Canada, then, adulteration appears to have been more removed from the common people. It is not dealt with, but may be understood through the writings of sociologists about the welfare state and those of business historians about the corporate welfare state. Government insiders who have written amateur narrative histories insist that adulteration laws were established to protect the consumer but fail to explain, even in fact to note, the close connections between business and government and the possibility that the laws

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<sup>101</sup>C. Anne Wilson, Food and Drink in Britain: from the Stone Age to recent times (London: Constable and Company Limited, 1973).

would serve also, and perhaps even primarily, to regulate trade. In particular, Davidson and Pugsley have dealt with the development of food laws and adulteration in Canada, but aside from expressing an almost religious duty of the public servant to function as a knight in shining armour and protect the poor housewife, the latter being utterly incapable of protecting herself or her family, they did not offer any insight into outside influences that might have been partly responsible for Canadian regulatory actions in the late 19th and early 20th centuries. Indeed, the *protective impulse* described by Bliss and the influence of the Montreal and Toronto Boards of Trade were well at work, as debates about food adulteration in the House of Commons and material in the National Archives of Canada reveal, and this history remains to be told.

Most strikingly, although quantitative data are available about food adulteration, it has never been examined in a thorough and statistical manner. The question is whether food adulteration was really a prevalent phenomenon requiring the regulatory response that occurred, or whether it merely served as a convenient pretext for regulation for other purposes, namely, to restrict the market. Much work remains to be done in this area for the literature does not satisfactorily address this question. It is easy to use, without quantification, a subject so close to people's everyday existence to advance a cause. Certainly, socialists used food adulteration, especially the issue of "tainted meat", to advance their cause as exemplified by Frederick Engels's The Condition of the Working Class in England in 1844<sup>102</sup> (1892) and Upton Sinclair's literary work, The Jungle<sup>103</sup> (1906).

In conclusion, an attempt has been made to undertake a historiographical analysis of food adulteration by widening the historical sources examined beyond the work of those who wrote

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<sup>102</sup>Frederick Engels, The Condition of the Working Class in England in 1844 (London: George Allen & Unwin Limited, 1892).

<sup>103</sup>Upton Sinclair, The Jungle (New York: Doubleday, Page & Company, 1906 [Reprinted New York: The Heritage Press, 1965]).

on or wrote histories about the subject. Certainly, it is reasonable to examine histories of food regulations, since the establishment of laws was one of the responses to the perceived problem of food adulteration. But it is also of value to examine histories of the development of the welfare state. Furthermore, if the response of development of food regulations was merely, or in part, a pretext for the regulation of trade, then an examination of the history of business in Canada as part of development of the corporate welfare state is warranted. Finally, social and cultural historiography can provide a backdrop against which public or private morality can be assessed as a motive for legislating against adulteration. If ever there were a historical topic that requires interdisciplinary and multidisciplinary treatment, food adulteration is one of those. Its historiography is more one of context than of substance and its chronicling therefore defies anything but treatment of its oft-contradictory underlying themes: the prospect of using science for noble uses or to exact illegitimate profit; the ethics of the ambivalent allegiance of the regulators toward the regulated; the increased processing of food and the resultant alienation of the individual from its production; the almost religiously-inspired benevolence of the regulator in protecting the housewife; the propensity of industry to assume that it was the duty of government to further its interests through restrictive regulations or lax combine legislation; not a moral economy of the poor, but a favourable atmosphere for private profit; the interests of the public welfare state versus those of the private corporate welfare state. Food adulteration and the attempt to eliminate it may be seen as aspects of all of these themes and these themes are the multiple historiographical contexts within which the experience of food adulteration and measures to control it must be assessed.

## CHAPTER II

### "PROTECTING ONE PARTY FROM FRAUD ON THE PART OF ANOTHER": EARLY FOOD LAWS IN THE UNITED PROVINCES AND THE DOMINION OF CANADA

#### *The Legislative Record*

In Chapter I, it was suggested that the basis for the earliest laws in Ontario derived from the tradition of the public market. In the early 19th century, the provincial government began to pass laws empowering the commissioners of peace, who were responsible for the districts in which these towns were situated, to establish some convenient place as a market, where agricultural produce such as butter, eggs, poultry, fish and vegetables could be sold. To this end, the magistracy received the authority to establish market days and regulations as necessary, as well as to fine anyone disobeying their directives. Financial arrangements were made to raise the money to construct market houses. As the province urbanized and as cities received charters of incorporation in the 1830s and 1840s, the primary responsibility for public markets was transferred from the justices of the peace in their courts of quarter sessions to boards of police and common councils. Elected officials were charged with legislating and enforcing a comprehensive system of market controls and were instructed to regulate the buying and selling of all essential commodities, license vendors, collect appropriate fees, restrain hucksters and itinerant traders, introduce uniform weights and measures, enforce stringent quality controls, confiscate underweight and inferior produce, and to fine offending retailers.<sup>1</sup>

While some regulations may have derived from the demands of urban consumers, Upper Canadian townsmen were reported as having an ambivalent attitude toward the municipal system

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<sup>1</sup>W. Thomas Matthews, "Local Government and the Regulation of the Public Markets in Upper Canada, 1800-1860: The Moral Economy of the Poor?" *Ontario History*, Vol. LXXIX, No. 4, December 1987, 299-302.

of market controls. Many consumers perceived a need for regulation because they feared the activities of dishonest retailers and speculators who might manipulate supply and inflate prices. Others were unhappy with the manner in which the authorities supervised the buying and selling of country produce, and on a number of occasions advocated deregulation of the marketplace. Civic officials defended the inviolability of the public market and compelled townsfolk to make many of their purchases at the centrally-located market-houses irrespective of how far they had to travel over roads. Municipal by-laws ensured that the public markets enjoyed a virtual monopoly over the buying and selling of agricultural produce. Many disillusioned Upper Canadians suggested that municipal market codes protected licensed retailers at the public expense. Municipal politicians stubbornly insisted that market codes were drawn up with the public interest in mind and defied anyone to prove that urban consumers did not benefit. Regulation of the public market became a strategy used by cities to develop into dynamic metropolitan centres and the mercantile elite considered it essential to create an orderly environment for capitalist development. Unlike the medieval market in Britain described by Thompson, wherein controls were established first and foremost to protect the consumer, the basis of control of the Upper Canadian market was the promotion of commercial enterprise.<sup>2</sup>

The inspection of beef and pork was carried on before the Union period. For example, in 1838, William Moore, Inspector of Beef and Pork for the City and District of Montreal, published a pamphlet<sup>3</sup> "addressed to the notice of Merchants and others of Upper Canada" in which he provided remarks on the proper curing of beef and pork. He lamented the "ruinous state in which too large a proportion of their provision has been found." Furthermore, he indicated that inasmuch as the head of ship navigation was located in Lower Canada, the

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<sup>2</sup>Matthews, *Op. cit.*, pp. 309-322.

<sup>3</sup>William Moore, Remarks on the Subject of Curing and Packing Beef and Pork in Conformity with the System of Inspection of Lower Canada (Montreal: Campbell & Becket, 1838), 12 pp.

"produce of the Upper" became identified as the production of Lower Canada and "as such is known in foreign markets" when it was exported. The inspection of beef and pork, as well as the other commodities for which Inspection Acts were later established in the Union period, was motivated by the desire of traders to maintain their reputation and that of their city and province in domestic markets and in those of Europe, East and West India, as well as in the provisioning of the Army and the Navy.

During the Union period, Four Acts were passed by the Legislative Council and Assembly of Canada dealing with inspection of staple commodities: *An Act respecting Inspection of Flour and Meal*<sup>6</sup> (1856), *An Act respecting the Inspection of Beef and Pork*<sup>5</sup> (1842), *An Act respecting the Inspection of Fish and Oil*<sup>6</sup> (1858), and *An Act respecting the Inspection of Hops*<sup>7</sup> (1858). Essentially, these Acts authorized the establishment of Boards of Examiners to test applicants for the office of Inspector of these various commodities. For example, in the case of Flour and Meal, the boards in Quebec, Montreal, Kingston, Toronto and Hamilton would consist of "five fit, proper and skilful persons resident in or in the immediate vicinity of the City for which they are [were] to act."<sup>8</sup> In these places, the examiners would be appointed by the respective Councils of the Boards of Trade.<sup>9</sup> In any other city requiring Inspectors of Flour and Meal, the Board of Examiners would be three

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<sup>6</sup>22 Vict. Chap. 57. The reference source of the Union period laws is The Consolidated Statutes of Canada (Toronto: Stewart Derbishire and George Desbarats, 1859), being a compendium of laws proclaimed and published under authority of the Act 22 Vict. Chap. 29, A.D. 1859. For the period, 1860-1867, see Canada (Province) Statutes (Toronto: Micromedia, 1980), 9 microfilm reels covering 1841-1867 including indices and tables of contents.

<sup>7</sup>22 Vict. Chap. 58

<sup>8</sup>22 Vict. Chap. 50

<sup>9</sup>22 Vict. Chap. 52

<sup>5</sup>22 Vict. Chap. 57, Sect. 3

<sup>6</sup>Op. cit., Sect. 3(3)

in number and would be appointed by "Municipal Authorities."<sup>10</sup> The appointment of such inspectors would be a function taken over by the Department of Inland Revenue after Confederation in connection with its administration of the *General Inspection Act, 1874*<sup>11</sup>. The Dominion *General Inspection Act, 1874* also made the appointment of inspectors a municipal function, enabling the Boards of Trade at Quebec, Montreal, Toronto, Kingston, Hamilton, London, Ottawa and Saint John and the Chamber of Commerce at the City of Halifax to annually appoint "five fit and skilful persons, any three of whom shall be a quorum, for each class of articles to be inspected at such city or county" and to "examine and test the ability and fitness of applicants for the office of Inspector or Deputy Inspector." The Governor-in Council could also appoint the same in any county or Inspection Division in the Dominion. After Confederation, numerous references to appointments of Inspectors appear in the Submissions to Council Books of the Department of Inland Revenue<sup>12</sup>. Food standards and inspection in pre-Confederation Canada, or at least in pre-Confederation Ontario and Quebec, passed directly from provincial to federal authority upon Confederation, but without the provinces or the federal government having much day-to-day involvement other than passing the original enabling legislation. Even in post-Confederation Canada, the actual inspection of staple foodstuffs remained essentially a municipal function. The example demonstrates the power and influence of Boards of Trade and Chambers of Commerce in essentially self-policing themselves, the provincial and federal governments having sanctioned this activity and given them tools of enforcement.

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<sup>10</sup>Op. cit., Sect. 1

<sup>11</sup>37 Vict. Chap. 45. The long title of this Act was *An Act to make better provision, extending to the whole Dominion of Canada, respecting the Inspection of certain Staple Articles of Canadian produce*. The Act contained special provisions respecting the inspection of flour and meal, wheat and other grain, beef and pork, pot and pearl ashes (the United Canadas also had an Act [22 Vict. Chap. 49] for the Inspection of Pot and Pearl Ashes), pickled fish and fish oils, butter and raw hides and leather.

<sup>12</sup>Department of Inland Revenue, Submissions to Council (Ottawa: National Archives of Canada, RG-16, Vols. 826-833)



The Acts passed in the Union period regarding inspection of flour and meal, beef and pork, fish and oils, and hops also mentioned *how* these commodities were to be inspected, and also provided grades to be used by the Inspectors. Only the *Act respecting the Inspection of Flour and Meal* mentions adulteration; nonetheless, it is interesting to note that it does. Adulterated flour was flour that had "any foreign substance mixed or blended therewith or packed therein."<sup>13</sup> Early laws about adulteration tended to focus on and discourage the *compounding* (i.e. admixing) of foodstuffs and the sale of mixtures. There was a belief that compounding could never be done honestly; in fact, the practice was inherently dishonest. In the case of any person "wilfully and fraudulently mixing or blending any Flour or Meal by him packed for sale or exportation, with any foreign matter," provision was made for a penalty of eighty dollars,<sup>14</sup> payable to the city, town or place where the inspection was undertaken.<sup>15</sup> For flour and meal, as with all of these commodities, inspection was not mandatory,<sup>16</sup> but if a manufacturer or packer requested the inspection, there were fees fixed under the Act and payable to the Inspector<sup>17</sup>. These were early examples of cost-recovery and the fees went directly to the person providing the service and not into a government consolidated revenue fund wherein the identity of these fees would be lost.

In the Union period, some other inspection legislation of limited applicability was also passed, namely, *An Act to provide for the Inspection of Butter in Quebec and Montreal*.<sup>18</sup> This legislation was grounded in the view that the reputation of the Province of the United Canadas

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<sup>13</sup>22 Vict. Chap. 57, Sect. 27

<sup>14</sup>ibid.

<sup>15</sup>Op. cit., Sect. 33(3)

<sup>16</sup>Op. cit., Sect. 35

<sup>17</sup>Op. cit, Sect. 15(6)

<sup>18</sup>11 Vict. Chap. 7. This Act was extended under *An Act to continue for a limited time the several Acts and Ordinances therein mentioned, and for other purposes* (23 Vict.; Assented to 19th May 1859).

as a supplier of quality foodstuffs in international food commodity markets must be protected and that the best point of application of such legislation was at the ports of exit of the province.

Since specific measures passed after Confederation to control food adulteration were increasingly based on protection of public health, it is of value to briefly examine early public health laws in the United Canadas. During the Union period (1841-1867), there were few laws in the Province of the United Canadas that specifically dealt with health. Prior to Confederation, activity in the area of public health consisted of drafting and enforcing legislation that was largely enacted to prevent the spread of contagious diseases.<sup>19</sup> In 1849, *An Act respecting the preservation of the Public Health was passed*<sup>20</sup>. The purpose of the Act was to provide a mechanism to handle the threat of "any formidable epidemic, endemic or contagious disease"<sup>21</sup> and provided for the commissioning by the Governor, as required, of a five-membered "Central Board of Health"<sup>22</sup> and the commissioning by the Mayor, or other specifically-named responsible municipal officials, of "Local Boards of Health" of not less than three persons<sup>23</sup>. The Central Board was empowered to make, alter or substitute regulations for the prevention or mitigation of epidemic, endemic or contagious diseases<sup>24</sup> and the purpose of the local boards was to enforce them.<sup>25</sup> Food-borne diseases and adulteration of food were not specifically mentioned in the Act, but were equally not excluded.

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<sup>19</sup>See Marion Villiers Higgins, Canadian Government Publications: A Manual for Librarians (Montreal: McGill University limited edition manuscript), Section entitled "National Health Division" in Chapter on *Department of Pensions and National Health*.

<sup>20</sup>22 Vict. Chap. 38

<sup>21</sup>Op. cit., Sect. 1

<sup>22</sup>Op. cit., Sect. 3

<sup>23</sup>Op. cit., Sect. 4

<sup>24</sup>Op. cit., Sect. 5

<sup>25</sup>Op. cit., Sect. 5(3)

Concerning legislation promulgated by the Dominion government after Confederation, the *Inland Revenue Act of 1875*<sup>26</sup>, as its long title suggests, served as *An Act to impose License duties on Compounders of Spirits; to amend the "Act respecting the Inland Revenue;" and to prevent the Adulteration of Food, Drink or Drugs*. Among other things, it provided definitions for food, drink and adulterated food or drink (Appendix II-1). Also, it provided (Appendix II-1) that officers of Inland Revenue, Inspectors and Deputy Inspectors of Weights and Measures, and Inspectors and Deputy Inspectors of staple commodities could obtain samples of suspected adulterated food or drink (or drugs) to be examined by analysts appointed under the *Inland Revenue Act*. If found to be adulterated, the adulterated articles could then be seized and destroyed. Finally, by the 1875 Act, the Governor in Council was authorized to make regulations to carry out the provisions of this Act and when these were published in the *Canada Gazette*, they would have the same effect in law as if contained in the Act.

The *Inland Revenue Act of 1875* was largely based on the English *Sale of Food and Drugs Act, 1875*<sup>27</sup>. This Act was the successor to two earlier Acts acknowledged to be failures.<sup>28</sup> An 1860 Act provided that any person who sold an article of food or drink to which it was known that an ingredient or substance, harmful to the health of persons eating or drinking it, had been mixed, or any person who sold as pure or unadulterated an article of food or drink which was, in fact, adulterated or not pure, was guilty of an offence. Secondly, the Act provided for the appointment

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<sup>26</sup>37 Vict. Chap. 8

<sup>27</sup>37 Vict. Chap. 63

<sup>28</sup>Anthony McGill, "Federal Inspection of Food in Canada", *Proceedings of the Royal Society of Canada*, Vol. V, Appendix D, Meeting of May 1911, LXXI-LXXXIV; J. Hubert Hamence, "The 1860 Act and its Influence on the Purity of the World's Food", In A.J. Amos (Editor), Pure Food and Pure Food Legislation (London: Butterworth & Co. [Publishers] Limited, 1960). It is perhaps unfair to label these Acts as "failures". There were two main problems: (1) a lack of suitable persons to be appointed as Analysts, and (2) a fundamental lack of knowledge about the gross composition of genuine foodstuffs. The legislation was actually ahead of its time; the science of food chemistry was still in its infancy.

of Analysts. It has been stated that the British Act of 1860 was the first in the world making it illegal to sell an adulterated food or drink and the first to establish a new official of local authority, the Public Analyst.<sup>29</sup> The later English *Sale of Food and Drugs Act, 1875* was based on the recommendations of a Select Committee which had been charged with conducting an enquiry into the reasons for failure of the 1860 Act. They determined that the reason for failure was a lack of understanding of what was meant by the term "adulteration". The challenge that the Select Committee laid down resulted in the formation in 1875 of the Society of Public Analysts, the initial function of which was to define adulteration. The journal of this society, *The Analyst*, which commenced publication in 1876, would spread knowledge about food chemistry and analysis around the world. The problems about understanding what was meant by adulteration were not peculiar to Britain: Canadian food law would also evolve along a tortuous route laced with the problems of unqualified analysts and frustration and inconsistency about the meanings of subjective terms like "pure", "genuine" and "adulterated". Not only were the terms subjective, but their legal and scientific meanings often differed.

The passage in Britain of the *Sale of Food and Drugs Act, 1875* provides the basis for an explanation of the Government of Canada's interest in intervening in the matter of food adulteration. It would be all too easy and simplistic to view the Canadians as being "copy-cat colonials" following a British lead. A better explanation is that trade with Britain in primary food products such as flour, meat, butter and cheese was becoming increasingly important in creating the forward, backward and final demand linkages of a more sophisticated economy dominated by its food industries. In order to protect that trade, Canada had to be seen to be instituting measures to control food adulteration, even if there was no serious (i.e. hazardous) adulteration problem in the country. It was a question of maintaining Canada's reputation in British markets.

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<sup>29</sup>Hamence, *Op. cit.*

The first regulators were convinced that adoption of adulteration legislation would be as beneficial in Canada as it had been in Britain. But the regulators were first and foremost concerned with protecting honest tradesmen. That the public would benefit at the same time was undisputed and recognized, but it was secondary. Said W. Hodgson Ellis in the first report:

Experience has shown that, in the towns of Great Britain where the Adulteration of Food Act has been enforced, the quality of the milk has improved greatly; and there is no doubt that a similar result will follow here. The fact that milk is both skimmed and watered to a considerable extent is clearly shown by the foregoing analyses, while there are, without doubt, some perfectly honest dealers who supply genuine milk. To enforce the penalties of the Act will be as beneficial to these deserving tradesmen as to the public at large.<sup>30</sup>

In the *Inland Revenue Act of 1875*, adulteration referred to the addition or admixture of any foreign (deleterious) ingredient, but not the subtraction of ingredients.<sup>31</sup> In 1877, an amendment<sup>32</sup> was made to the definition of an adulterated food or drink to include foods from which an essential or constituent part or ingredient was wholly or partly removed (Appendix II-2).

The *Inland Revenue Act of 1875* had dealt with adulteration but had not addressed the sale of substitutes represented as genuine articles of food.<sup>33</sup> The main offending substitute was oleomargarine, known also as "butterine". In speaking to proposed amendments, Mr. Cyril Archibald (Reform - Stormont)<sup>34</sup> mentioned that while this substitute was not deleterious, it was nonetheless a "fraud upon the pockets of the consumers, inasmuch as this was a cheaper article

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<sup>30</sup>Appendix II to the 1876 Report on Adulteration of Food, p.12.

<sup>31</sup>House of Commons Debates, Volume 3 (4th Session, 3rd Parliament, March 19 - April 28, 1877), p.854.

<sup>32</sup>40 Vict. Chap. 13

<sup>33</sup>House of Commons Debates, Vol. 5 (5th Session, 3rd Parliament, March 26 - May 10, 1878), p.2032.

<sup>34</sup>Party affiliations, ridings represented and honours/titles of various Members of Parliament (MPs) were obtained from applicable editions of the Canadian Parliamentary Guide (Ottawa: various publishers and years). The remarks of MPs often correlate with, or at least are partly explained by, this information.

than butter and made from beef suet.<sup>35</sup> The amendments<sup>36</sup> were passed in 1878. One afforded penalties seemingly excluded by the fraud loophole<sup>37</sup> in the 1875 Act just mentioned. A fraudulent food article now meant one "not of the nature, substance and quality of the article" (Appendix II-2) demanded by the purchaser. There were some exemptions, however, as noted in this Appendix. Another amendment (Appendix II-2) essentially *forbade the sale of margarine or other animal oil-based or animal fat-based substitutes as butter*, and required these substitutes to be labelled as "oleo-margarine".

Although Mr. Archibald's motives in introducing this legislation seemed to have been based on protection of the consumer from fraud, one should pay close attention to other remarks made in his speech to the House that suggest an underlying motive to regulate trade:

The great dairy state of New York had found the evil [*i.e. of selling a substitute - author's note*] so great that it was necessary to take some steps to guard and protect not only the consumers, but also the producers of butter.

But it was not just a case of assisting the dairy lobby. The legislation would not do any injustice to the margarine manufacturer; it merely "took away from him the opportunity, as far as might be, of palming it off on the public for an article which it was not."

In 1884, the *Adulteration of Food Act, 1884*<sup>38</sup> was passed. The definition of "food" (Appendix II-3) was incisive, compared with the 1875 definition: it included "every article used for food or drink by man". The definition of "adulteration" was clarified and put into point form as shown in Appendix II-3. Under the 1875 Act, provision had been made for the Governor-in-

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<sup>35</sup>Op. cit., p.2033.

<sup>36</sup>41 Vict. Chap. 11

<sup>37</sup>The definition of an *adulterated food* in the 1875 Act referred to the addition of deleterious ingredients or a material or ingredient that would devalue the finished article of food. The penalties, however, seemed to pertain to the mixing of deleterious or poisonous ingredients.

<sup>38</sup>47 Vict. Chap. 34

Council (Appendix II-3) to appoint in each Inland Revenue Division "one or more persons possessing competent medical, chemical and microscopical knowledge, as analysts of food, drink and drugs purchased, sold, or offered for sale." In addition to analysts, the 1884 Act provided for appointment of a Chief Analyst (Appendix II-3), who would be attached to the Department of Inland Revenue at Ottawa.<sup>39</sup>

There were already officers of Inland Revenue, Inspectors and Deputy Inspectors of Weights and Measures, and Inspectors and Deputy Inspectors acting under "The General Inspection Act, 1874". The 1884 Act (Appendix II-3) provided that the "council of any city, town, county or village may [could] appoint one or more inspectors of food and drugs." All of the powers vested in officers of Inland Revenue by the Act were also vested in these inspectors, including the right to require any public analyst to analyze samples of foods collected by him. The Inspectors were empowered to prosecute any person manufacturing, selling, or offering or exposing for sale within the city, county, town or village for which he was appointed Inspector, any article of food which had been certified by any public analyst to have been adulterated. The Act provided that the penalties imposed and recovered by the suit of any of these Inspectors be paid into the revenues of the city, county, town or village. Penalties imposed as a result of prosecutions by the other Inspectors previously mentioned were paid to the Minister of Finance and Receiver General and went into the federal Consolidated Revenue Fund.<sup>40</sup>

Also, in the General Provisions of the 1884 Act, while the watering of milk was not condoned (Appendix II-3), the skimming of milk was recognized with appropriate labelling (it

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<sup>39</sup>The Chief Analysts throughout the period were: Henry Sugden Evans, Ph.C., F.R.M.S., Pharmacist (1884-1886); Thomas Macfarlane, F.R.S.C., Mining Engineer (1886-1907) and Anthony McGill, B.A., B.Sc., LL.D., F.R.S.C., Teacher (1907-1923).

<sup>40</sup>There is little evidence available that such municipal inspectors were actually appointed. On the other hand, federal inspectors certainly were appointed.

will be recalled that abstracting any valuable article from a food was otherwise considered to be adulteration).

An interesting feature of this Act was that the Department of Inland Revenue could fix the "limits of variability" permissible in any article of food or drug, or compound, the standard of which was not established by any pharmacopoeia or standard work such as the British or U.S. Pharmacopoeia and the departmental orders fixing these limits had to be published in the Canada Gazette and take effect at the expiration of thirty days after the publication. This, in essence, was empowerment to write standards.

The second reading on March 27, 1884 of Bill 114, as the 1884 Act was known before passage, featured a very remarkable speech<sup>41</sup> by Mr. Charles Alexander Lesage, M.D. (C - Dorchester), if not for its length, then for its eloquence. But to dwell on either of these is to miss the point. He said that it was the "light of chemistry and microscopy" that was the cause of making such rapid progress in all modern discoveries and, in particular, which enabled us to "trace out, without any possible error, all the adulterations which are daily made by men in the different articles which are used....for our daily consumption." He overstated the case when he mentioned that such determinations were without error. The public analysts were not so confident. In their annual reports the analysts of Inland Revenue pronounced individual foodstuffs that they had analyzed as being "genuine", "adulterated", or "*doubtful*". But while analysts recognized the limitations of science, they did share the politicians' enthusiasm for its possibilities.

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<sup>41</sup>House of Commons Debates, Vol. 16 (2nd Session, 5th Parliament, March 12 - April 19, 1884), pp. 1132-1137.



On April 1, 1884, a further debate<sup>42</sup> took place on Bill 114 while being discussed in the Committee of the Whole (House). The debate was a harbinger of a question which would rise again in the future, namely, whether the federal government had competence in the matter of food adulteration. Under Section 91 of the British North America Act,<sup>43</sup> the regulation of trade and commerce and the criminal law were powers assigned to the Dominion. Section 92 assigned jurisdiction over property and civil rights and administration of justice to the provinces.<sup>44</sup> The Liberals felt that the House was being asked to deal with a question that came more clearly within the rule of civil rights than perhaps any other that had been brought to its attention before. The Hon. David Mills (L - Bothwell) said:

This is regulation of a civil right; it is interfering with the rights of the Provinces, and the hon. gentleman might just as well take charge of all these municipal and local affairs in every town and city of this Dominion, as undertake to deal with this particular question. It is not part of the criminal law....

Lieut.-Col. Darby Bergin, M.D. (C - Cornwall & Stormont) argued that adulteration of food was an offence against the person and even society-at-large. It imperilled the life of the individual and therefore was a sufficient crime to enable the Government to appropriate such powers as were required to discover it. The Hon. Leader of the Opposition, Edward Blake (L - West Durham), pointed out that the Bill went further than controlling adulteration that was injurious to health; it also imposed penalties for certain types of adulteration not injurious to health. He used skimmed milk as an example: even though it was wrong and immoral to sell skimmed milk as unskimmed, it was not injurious to drink it. Mr. Blake felt that the federal government should only legislate in this area if the provincial legislature had abrogated its responsibility.

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<sup>42</sup>House of Commons Debates, Vol. 16 (2nd Session, 5th Parliament, March 12 - April 19, 1884), pp. 1246-1248.

<sup>43</sup>30 & 31 Victoria, Chap. 3.

<sup>44</sup>(Although criminal law was retained by the federal government.)

The Prime Minister himself got into the act and closed the debate with a powerful argument:

This Bill is not one for the protection of the public health, but it is to prevent adulterated articles from being sent from one Province to another, or from Canada, as a whole, to a foreign country. Beyond doubt, it will come within the category that the hon. gentleman alludes to. As to the skim-milk question, I fancy if the hon. gentleman will look at the law in England he will find that it is considered one of the most serious offences against infants and children in England to pass off milk with too much water in it, and it is treated as a grave offence. A milk-and-water diet does not nourish, but it rather starves, and the mothers and the poor children who think they are getting the pure article sometimes get quite a different thing. Chalk and water, for instance, have been very extensively used to adulterate milk, the mixture containing, perhaps, a very little sprinkling of milk. Such adulteration is considered to be an offence, not only against morals and society, but an offence of the character of a crime. It is not enough to limit proscription to adulterated articles that won't poison, that won't kill, but we must include articles unwholesome in themselves.

It is surprising to see that Sir John indicated that the purpose of the Bill was not to protect public health. Yet, he spoke of the necessity of restricting the sale of products that did not nourish or which were unwholesome. In a sense, Macdonald was ahead of his time in that he advanced a nutritional argument for controlling adulteration of this kind, at a time when the science of nutrition really did not exist. He did not have the foresight, or rather the knowledge, to admit that his argument was precisely one grounded in the protection of public health.<sup>45</sup>

It was previously suggested that the original intervention in 1875 of the federal government in food adulteration was related to protecting Canada's reputation in British markets. At this point, the question might be raised whether the increasing federal involvement could be reduced to a simple case of government "empire building" at the expense of the provinces, that is, part of the federal provincial power struggle. This is not patently clear. Certainly, the seeds had been planted in Ottawa for such a struggle, though. "If Macdonald's Conservatives were the party of centralism," one historian has stated, "then its opponents would become the party of

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<sup>45</sup>The author admits the other possibility that Sir John knew full well that he was advancing a public health argument, but in dealing with Edward Blake who was a formidable opponent, he knew that he could not get away with it.

localism and provincialism....".<sup>46</sup> Upon first inspection, the tough stance maintained by the Conservatives in order to push on with the legislation, and the serious constitutional and legal issues raised by Edward Blake, the old Ontario Reformer, and the Liberals in the debates that occurred in the House of Commons with a view to stopping it, give the appearance that the feds were indeed staging a power grab. And there certainly may have been an element of that as this opportunity presented itself. But the enthusiasm of the scientists,<sup>47</sup> their general belief in the possibilities of science, and the system established by which they would regularly have to report to Parliament, helped to appease any opposition and ensured successful passage of the legislation.

The long title of *The Adulteration Act*<sup>48</sup> of 1885 was *An Act respecting the Adulteration of Food, Drugs and Agricultural Fertilizers*. The definition of food (Appendix II-3) was extended to include any article used for food or drink by cattle, and therefore included animal feed. Also, as its long title of the Act suggests, it included fertilizers. A fertilizer was adulterated if the composition of its individual ingredients deviated more than 1 per cent from that specified by the certificate required to be affixed to each barrel, box, sack or package, or if it contained less than the minimum percentage of substances required by the Act, where specified. Drugs, incidentally, not only included medicines for internal or external use for man, but also those used by cattle (i.e. veterinary drugs).

Introduction of this Act by the government so soon after the *Adulteration of Food Act, 1884* was heavily criticized by the Liberals. Mr. Mills expanded on his 1884 argument in the debate

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<sup>46</sup>Christopher Armstrong, *The Politics of Federalism: Ontario's Relations with the Federal Government, 1867-1942* (Toronto: University of Toronto Press, 1981), p.14. For a general discussion of federal-provincial disputes during the 1880s, see Chapter 1, "Remoulding the Constitution" (pp. 8-32) of this work.

<sup>47</sup>The first, second and third reports (1876, 1877 and 1878) entitled *Adulteration of Food* make numerous references to the *British Sale of Food and Drugs Act, 1875* and the beneficial effect that it had on England's food supply.

<sup>48</sup>48-49 Vict. Chap. 67

on Second Reading of Bill 143, as this Bill was known:

Fraud, so far as fraud is liable to be committed, is to be prevented, but that is a part of the business of the Local Legislatures, in these matters; they are authorized, under our constitution, to make such penal regulations as may be necessary for the enforcement of their own laws. The penalty attached to the placing of a label falsely representing the weights or contents of a package is a police regulation. It is no portion of the criminal law. It is for the purpose of regulating the transfer of property of a certain kind from one party to another. It is an attempt to protect one party from fraud on the part of another, and a proposition to punish the guilty party for that offence. It is simply a police regulation, and it seems to me that it is not within the jurisdiction of this House, but clearly within the jurisdiction of the Local Legislature.<sup>49</sup>

Mr. Mills, persistent as he was, reiterated this line of thinking when the House went into the Committee of the Whole.

Mr. Louis Henry Davies (L - Queens, P.E.I.) was not as convinced as Mr. Mills:

I have never been able myself to entertain any clear opinion as to what legislation is within the local jurisdiction or not, since the decision of the Privy Council in the case of *Russell vs. The Queen*. They based their decision on the right of this Parliament to enact the *Scott Act* on the ground it was comprised in the words "peace, order and good government of Canada." I think the question is, at any rate, debatable, and at first blush would commend itself to my mind as a matter that would be in the power of this Parliament to legislate upon in the direction of preventing the general adulteration of food, and would come within the words "peace, order and good government of Canada," as much as the liquor traffic....It does seem to me that it is for the good government of Canada that we should have the power to legislate against the adulteration of food. Of course, we all agree that there is no more important subject than the prevention of the adulteration of food and drink, and it can hardly be contended that the prevention of adulteration is purely a civil right. I think it comes within the power of this Parliament.<sup>50</sup>

Most importantly, the Committee of the Whole dealt with an issue that would be debated right up to the present day. It will be recalled that the 1884 bill provided for the establishment of "limits of variability", in effect, standards. It will also be recalled that some types of adulteration, for instance, the addition of chicory to coffee, were not injurious to health. It was possible, therefore, under the legislation to write a standard for coffee that would allow the addition of a certain amount of chicory. In other words, a standard could be used to actually legitimize adulteration - at least, up to a point. The questions that were raised in the debate included: Once such a standard was written, would the consumer have to be advised of the

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<sup>49</sup>House of Commons Debates, Vol. 19 (3rd Session, 5th Parliament, May 11 - June 15, 1885), p.2467.

<sup>50</sup>Op. cit, p.2473.

addition by labelling? Or was the standard in itself a "guarantor" of quality and therefore, labelling a redundant measure? Should a standard ever be written to allow mixing inferior ingredients with food or should only pure goods be allowed to be sold? If labelling was to be used to indicate the amount of a substance not injurious to health admixed with a pure food, what use was the standard at all: why not just indicate the proportions of various ingredients on the label and allow mixing of pure foods and their non-injurious adulterants in any proportion?

If these arguments sound somewhat circular, they were. The idea of *unstandardized foods*,<sup>51</sup> a concept accepted today, was unknown at the time. The thrust from this time onward up to 1920 - and beyond - especially in the decade from 1910-1920, would be to write standards for most foods available in the marketplace. Whereas in the past the foods available in the marketplace had largely comprised "pure" single ingredient items, the development of complex technologies enabled compound foods (i.e. foods comprising mixtures of various ingredients) to be manufactured and made available. There was nothing particularly wrong with this: the consumer, in essence, practised food adulteration every time a home recipe was executed. The difference was that by compounding ingredients in executing such a recipe, no fraud was being committed in that the resultant food was for home consumption and not for sale to an unsuspecting public that was expecting "pure" food.

In effect, what was being accomplished during these years was a clarification of the term "adulteration" as it applied to the non-injurious type. More and more, adulteration came to be associated with a deliberate surreptitious action which resulted in unfair profit to the manufacturer at the expense of another manufacturer or the consumer. The future direction of

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<sup>51</sup>The term "unstandardized foods" refers to those for which no standard of prescribed composition exists.

legislation therefore would be to write standards<sup>52</sup> for basic foods of commerce, *the violation of which* would be considered "adulteration." Compounded foods would not be considered adulterated provided that their true nature was disclosed to the purchaser in some manner.<sup>53</sup>

In 1886, an amendment<sup>54</sup> was passed requiring analysts, as a condition of their appointment, to undergo an examination before an examining board and obtain a certificate of qualification. The Submissions to Council Book of the Department of Inland Revenue records the recommendation of the Minister, John Costigan (C - Victoria, N.B.), for the composition of the first Board of Examiners: H. Sugden Evans, Chief Analyst for the Dominion; G. Trout Girdwood, Professor of Practical Chemistry, Medical Faculty of McGill University; and Wm. H. Pike, Professor of Chemistry, University College, Toronto.<sup>55</sup>

In 1886, there was passed what must have been one of the harshest and most anti-business measures in Canadian history. This was *An Act to prohibit the Manufacture and Sale of certain*

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<sup>52</sup>It should be noted that during all this time, the Department of Inland Revenue had been *drafting* standards. These standards were generally well-written and were supported by detailed data concerning the "limits of variability" established by the Laboratory of Inland Revenue in the thousands of analyses of various foodstuffs that it had methodically undertaken, the results of which had been published in the Laboratory Bulletins and in the Annual Reports entitled Adulteration of Food. Not surprisingly, the earliest standards written were for wheat and were written under the *General Inspection Act*. For instance, in 1888, classifications (really standards of identity) were established and promulgated in a standard for spring wheat, winter wheat, Indian corn, rye, oats, barley and peas (10-11 Geo. V Chap. 27). However, the *promulgation* of "standards of quality" pursuant to the *Adulteration Act* did not commence in earnest until 1910, but once started, the process moved along very quickly. A list of the standards written in this decade and which were in place by the time of the first *Food and Drugs Act* appears in Appendix II-4.

<sup>53</sup>As noted further in this chapter, oleomargarine (thought of as "imitation butter") and imitation or substitute honey products, would become notable exceptions.

<sup>54</sup>49 Vict. Chap. 41

<sup>55</sup>Department of Inland Revenue, Submissions to Council, Book No. 6, Unnumbered submission, January 8, 1886, pp. 408-409. RG-16 (National Revenue), Vol. 827; National Archives of Canada.

*substitutes for Butter*<sup>56</sup>. The text of this one-clause Act had the brutal effect of absolutely prohibiting the manufacture or sale of oleomargarine, butterine or any other butter substitute under penalty of \$200 - \$400 or 3 - 12 months in prison (Appendix II-5). Its purpose was to protect the dairy interests, but its pretext was that "the use of certain substitutes for butter...is injurious to health".<sup>57</sup> The bill introduced was based on a resolution<sup>58</sup> made by Mr. George Taylor, M.P. (C - South Leeds) who represented a riding with significant dairying interests<sup>59</sup>. Mr. Sydney Arthur Fisher, M.P. (L - Brome), later to become Minister of Agriculture, felt that oleomargarine should be allowed in its own right to compete with butter<sup>60</sup>:

Mr. Speaker, anxious as I am to see the agricultural interests, and especially the dairy interests, of the country carefully guarded - and I say this as representing one of the greatest dairy counties in this Dominion, the county, according to the last census, which made the second greatest amount of butter of any county in the Dominion - still I do not want to see the dairy interest guarded at the expense of any other interest in the Dominion. If any person chooses to put upon the market an article which is not hurtful in itself, and which is properly stamped and shown to be such an article, if it does compete with the producers of butter it will be merely an extra stimulus to them to make a better article with which this spurious article cannot compete. But I do not believe that it would be right or wise for this parliament absolutely to prevent all of the people in this country from producing an article which in itself is not hurtful, and which, at the same time, would be stamped so as to show its true nature.<sup>61</sup>

But it is not surprising that oleomargarine was banned<sup>62</sup> on grounds of health when Taylor cited the following third-hand horror story that would be impossible for anyone to corroborate, let

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<sup>56</sup>49 Vict. Chap. 42

<sup>57</sup>There seemed to be a belief that if adulteration could be shown to be of an injurious kind, a stronger case could be made for its prohibition under the criminal law, i.e. there was more justification to enforce the prohibition.

<sup>58</sup>The resolution simply read: "Resolved, that it is expedient to bring in a Bill to regulate the manufacture and sale of oleomargarine, butterine or other substitutes for butter." [House of Commons Debates, Vol. 78 (3rd Session, 10th Parliament, November 22, 1906 - January 23, 1907), p.832.]

<sup>59</sup>The Canadian Parliamentary Guide of 1887 (J.A. Gemmill, ed.; Ottawa, J. Durie & Son, Publisher) says in notes about Mr. Taylor: "Believes that protection of industry is and will be a necessity in Canada for many years."

<sup>60</sup>The Canadian Parliamentary Guide (see previous footnote) said of Mr. Fisher: "Favours revised tariff rather than protective policy."

<sup>61</sup>House of Commons Debates, Vol. 78, p.834.

<sup>62</sup>The ban lasted until 1917. Provision was introduced by the Food Controller during World War I for the sale of margarine to alleviate wartime shortages caused by supply management. Margarine was again banned in 1922 and the ban lasted until the late '40s.

alone refute:

A man in Chicago recently showed a *Tribune* reporter what Chicago butter is made of. It was taken from a box branded 'Wauwatosa Dairy', that weighed nine pounds, and cost \$1.50 or 16 2/3 cents per pound. It had a little pure butter in it, but nine-tenths of it was composed of lard, cracklings, pieces of intestines of hogs, short pieces of bristles and hairs, and pieces of pork. This man, S.H. Long, of 251 South Water Street, stated that the man who made this bogus stuff didn't care what kind of offal they put into it. If a hog died of cholera, so much the better. They could buy the carcass cheap, and it would make just as much butter as a healthy carcass.<sup>63</sup>

*The Adulteration Act, 48-49 V., c. 67, s. 1 of 1886*<sup>64</sup> was similar to the previous Act but reference was made to *The Fertilizers Act* in relation to minimum requirements for agricultural fertilizers and certificates of analysis appearing on the labels.

The government had been stymied in a ruling by Judge Dugas of Montreal who had indicated that baking powder, a substance mixed with food, was not in itself a food.<sup>65</sup> As a consequence, the government was unable to prosecute anyone who sold adulterated baking powder, or indeed any food that had mixed with it a chemical such as sodium bicarbonate. This constituted a serious deficiency in the early legislation and led to the 1886 Act being amended in 1888<sup>66</sup>. The main features (Appendix II-6) of these amendments were that the definition of "food" was expanded to include any ingredient mixed with it and the definition of "analyst" was expanded to include any member of the examining board and any Assistant Analyst to the Chief Analyst at Ottawa. According to the Minister of Inland Revenue, Mr. Costigan, it was considered that the members of the board ought to be as well qualified to give evidence in the courts as the

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<sup>63</sup>House of Commons Debates, Vol. 78, p.833. For a discussion of all the influences on the government which resulted in the prohibition of margarine, see W.H. Heick, *A Propensity to Protect: Butter, Margarine and the Rise of Urban Culture in Canada* (Waterloo: Wilfrid Laurier University Press, 1991). The margarine threat was largely American. Taylor had been lobbied by his constituents who were concerned about imports from that country. There was even word that New York entrepreneurs were planning to build a \$500,000 margarine factory in Montreal (Heick, p.13).

<sup>64</sup>49 Vict. Chap. 107

<sup>65</sup>House of Commons Debates, Vol. 25 (2nd Session, 6th Parliament, February 23 - April 18, 1888), p.238.

<sup>66</sup>51 Vict. Chap. 24



analysts whose qualifications they certified.<sup>67</sup>

As previously mentioned, the 1884 Act gave authority to the Department of Inland Revenue to write standards. Amendments promulgated in 1890<sup>68</sup> added a provision to the definition of adulteration (Appendix II-6) to include a food not meeting a standard. The 1884 provision empowering the Governor-in-Council to write standards was now amended and mention was first made of the term "standards of quality" (Appendix II-6). This would set the stage for a flurry of standards-writing activity that followed in the next three decades, up to and even past the time of the first *Food and Drugs Act* of 1920.

The next six years were relatively uneventful with regard to amending *The Adulteration Act*. But on July 13, 1891, Bill No. 140, *An Act in restraint of fraudulent marking* was introduced. Although provision was made to handle other articles, this particular Act dealt only with white lead and established a standard defining the criteria under which white lead could be sold as pure, and provided penalties in cases in which white lead was marked as pure but did not, in fact, meet the standard. In response to a question from Mr. Laurier, Mr. Costigan admitted that this law had been requested by the Boards of Trade.<sup>69</sup> On May 23, 1894, Bill No. 23, *An Act in restraint of fraudulent sale or marking* was introduced and Mr. John Fisher Wood (C - Brockville), the Commissioner of Inland Revenue, explained that its purpose was to add other items to the schedule of the Act of 1891, namely, Paris Green, honey and vinegar. The sale of the article of so-called "honey", "made of glucose, a cheap kind of food fed to bees in the United States and imported as honey," would not be prohibited; but it was proposed to prohibit its sale as honey.

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<sup>67</sup>House of Commons Debates, Vol. 26 (3rd Session, 6th Parliament, p.932.

<sup>68</sup>53 Vict. Chap. 26

<sup>69</sup>House of Commons Debates, Vol. 32 (1st Session, 7th Parliament, July 10 - August 20, 1891), p.2144.

In the case of Paris Green, an insecticide, it was considered an injustice to those who had to purchase it, especially poor people, to find that they had bought an adulterated article useless for the purpose intended.<sup>70</sup>

In the case of certain commodities, enforcement of *The Adulteration Act* proved to be problematical. This was especially the case with imported commodities such as tea, a product often purported to be adulterated. On May 7, 1894, Mr. John Fitz William Stairs (L-C - Halifax) moved "to provide for the immediate inspection of all teas proposed to be entered for consumption in Canada, and the destruction or exportation of all found to be adulterated."<sup>71</sup> Britain had passed a law, to take effect from January 1, 1876 onwards, empowering persons appointed by the Commissioners of Customs to examine all tea imported as merchandise into and landed at any port in Great Britain or Ireland.<sup>72</sup> The United States had passed a similar law on March 31, 1883.<sup>73</sup> The worry was that teas rejected by the British or United States authorities would be "dumped" into Canada. Indeed, the worry was real, for an incident is recorded on Inland Revenue departmental records in which a portion of a 100,000-lb shipment from Japan to Chicago of tea siftings was diverted to Canada and entered the country via Sarnia on May 28th or 29th, 1884.<sup>74</sup> Despite assurances from Mr. Wallace, the Controller of Customs, that no adulterated or injurious teas had as yet "found a foothold in Canada", Mr. Stairs accused the Controller of Customs of being mistaken in thinking that under the present law, entry of

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<sup>70</sup>House of Commons Debates, Vol. 37 (4th Session, 7th Parliament, March 15 - May 23, 1894), p.3240.

<sup>71</sup>Op. cit., pp. 2425-2432.

<sup>72</sup>Op. cit., p.2427.

<sup>73</sup>Op. cit., p.2428.

<sup>74</sup>Department of Inland Revenue, Submissions to Council, Book No. 6, Document No. 43490, June 13, 1884, pp. 1-6. RG-16 (National Revenue), Vol. 827; National Archives of Canada.

adulterated teas into the country could be refused.<sup>75</sup> Mr. Wood reminded the House that *The Adulteration Act* was never intended to apply to such a case, and while the Inland Revenue Department would make analyses of samples presented to it, no officer of his Department had any right whatever to go aboard ship or enter a customs-house and select samples.<sup>76</sup> The irascible Mr. Mills brought the debate to a close and a favourable vote on the motion by indicating that the government ought to show, under the law as it now stood, that the health of the public could be adequately protected.<sup>77</sup>

In 1896 (Appendix II-6), an amendment was promulgated<sup>78</sup> to prevent the feeding to bees of sugar, glucose or any other sweet substance other than that naturally gathered by bees to make honey. In 1894, First Reading had been given to a bill (No.91) intended to deal with honey adulteration. The Bill had been requested, drawn up and approved by the Bee Keepers' Association, which had been agitating for years for the government to do something about manufacturing honey out of sugar, glucose or molasses.<sup>79</sup> In 1895, First Reading was given to

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<sup>75</sup>The government did have power under *The Adulteration Act*, however, to stop the sale of adulterated teas. Furthermore, the Commissioner of Inland Revenue, E. Miall, even thought entry into the country could be refused, for in a report to the Acting Minister of Inland Revenue on the Japanese tea-siftings incident, he advised:

The undersigned submits that inasmuch as the United States are moving in the direction of prohibiting the importation and sale of adulterated and spurious articles, it is desirable that all the powers this Government possesses under the existing legislation should be put forth to prevent the condemned refuse of their commercial centres being "dumped" into Canada - and while he would hesitate to confiscate the property in question - as no doubt the Department has proven to do under the Act - he would have no such hesitation in seeking the cooperation of the Department of Customs to the extent of producing a prohibition of importation or a refusal to allow it to be entered for consumption in Canada. (Ibid.)

<sup>76</sup>Op. cit., pp. 2430-2431.

<sup>77</sup>Op. cit., pp. 2431-2432.

<sup>78</sup>59 Vict. Chap. 12

<sup>79</sup>House of Commons Debates, Vol. 37 (4th Session, 7th Parliament, March 15 - May 23, 1894), pp. 1786-1787.

another similar bill (No. 41).<sup>60</sup>

Debate on Second Reading of the 1896 Bill was initiated by Mr. Thomas Simpson Sproule, M.D. (L-C - East Grey), who was acting on behalf of the industry. This was a case of several bee-keeping associations<sup>61</sup> seeking the protection of the government against the activities of some bad actors within the industry. While the effect of the adulteration was to make "honey" available at cheaper prices, the more important consequence was to lower the reputation of the whole product in the market so that it could not be sold at prices that could be commanded previously. There was a view that this was one of the worst forms of adulteration because it emanated from the producers themselves and it threatened the entire industry. There was a further concern expressed, namely, that the reputation of Canadian honey in international markets, principally the British one, was at risk.<sup>62</sup>

It is to be noted that this bill was more draconian than the 1894 one in which honey was placed on the schedule of *The Act in restraint of fraudulent sale or marking*. The former bill allowed the sale of the "fraudulent" product if appropriately marked. This one would ban the sale of the adulterated product altogether and would prohibit the sale of imitation or substitute honey products. It was a repeat of the *Oleomargarine Act*, only this time, the target products were those imitating honey rather than butter.

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<sup>60</sup>House of Commons Debates, Vol. 39 (5th Session, 7th Parliament, April 18 - June 10, 1895), p.478.

<sup>61</sup>The names of a few of the associations seeking protection were: The Farmers Institute, Elgin County, Ontario; The Ontario Bee-Keepers' Association; Brant Bee-Keepers' Association; Perth Bee-Keepers' Association; Middlesex Bee-Keepers' Association; Oxford Bee-Keepers' Association; Listowel Bee-Keepers' Association.

<sup>62</sup>House of Commons Debates, Vol. 41 (6th Session, 7th Parliament, January 2 - March 13, 1896), pp. 947-957.

In debate in Committee, Mr. James Innes (L - South Wellington) and the Hon. George Eulas Foster (L-C - King's, N.B.), Minister of Finance, both thought that certain clauses of the bill went too far and infringed on the rights of individuals, especially the latter clause:

No imitation of honey, or sugar honey, as called, or other substitute for honey, shall be manufactured or produced or sold or offered for sale in Canada.

Mr. Sproule, on the other hand, contended that if bee-keepers were allowed to make honey (ostensibly for home use) by using artificial food for bees, the temptation would just be too great not to place such a product on the market. An amendment to the Act to allow for home production, therefore, would negate the value of the Act. Mr. Sproule argued that the bee-keepers deserved the same type of protection from sugar honey as the butter-makers had secured from the *Oleomargarine Act* passed in 1886.

Mr. Thomas Barnard Flint (L - Yarmouth), entering the fray, stated that he saw no reason why any person who manufactured an article not injurious to health should be denied the opportunity to manufacture and sell it, provided that the nature of it was properly indicated to the public. "What is desired," he said, "is that no person in Canada shall put upon the market as pure honey what is not pure honey."<sup>83</sup>

The bill was finally passed as originally introduced and after long and arduous debate.<sup>84</sup> It is revealing that such a seemingly trivial product as honey provoked such weighty issues of law. In essence, the whole debate and several others like it tested the limits of how far the state would be prepared to intrude to secure the common weal, or rather, the weal of business and trade. And it seemed that the state would intrude deeply indeed. Whether the interests of the consumer were well served or not by the *Oleomargarine Act* or by the honey amendments to the *Adulteration Act* is debatable. Adulteration was the pretext and surely these pieces of legislation

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<sup>83</sup>Op. cit., pp. 1222-1233.

<sup>84</sup>Op. cit., pp. 1659-1661.

removed that problem. But these legislative items also denied the consumer what might be regarded as legitimate products in their own right, and the cost savings that would accrue from purchase of these products, if they had been available. Somehow, the consumer did not seem to be a player, but rather an on-looker, in this business of apparent industry-government collusion. If consumers received a modicum of protection against adulteration of the non-injurious kind, it was because they were unwittingly made participants in a scheme to save an industry from its own destruction.

In 1898 (Appendix II-6), a further addition<sup>65</sup> was made to the Section of the Act which defined adulteration. Now, if one coloured, coated, polished, or powdered a food so as to conceal damage to it, or to make it appear better than it really was, then this also constituted food adulteration. Other amendments were made to the Act in 1899<sup>66</sup>, but they concerned drug adulteration only.

In 1906, the Act was rewritten as the *Adulteration Act. R.S., c. 107, s 1.*<sup>67</sup> This rewriting was, in fact, a consolidation of the 1886 Act and incorporated all of the amendments made in the intervening years. The provisions of the 1894 *Act in restraint of Fraudulent Sale or Marking*<sup>68</sup> were also incorporated into the 1906 Act. Finally, the 1906 Act dealt with use of the word "pure" or "genuine" as they related to: (1) the dry white lead and white lead in oil (pigments); (2) to the specifications for Paris green (an insecticide containing at least 50% arsenious acid and 30% cupric oxide); and (3) to vinegar.

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<sup>65</sup>61 Vict. Chap. 24

<sup>66</sup>62-63 Vict. Chap. 26

<sup>67</sup>6 Ed. VII Chap. 133

<sup>68</sup>57-58 Vict. Chap. 37

Amendments made in 1906<sup>20</sup> had to do with further definition of the term (public) "analyst" and the assignment of territorial limits to districts in which analysts functioned, etc. Amendments made in 1913<sup>20</sup> added turpentine and arsenate of lead to the labelling schedule of the Adulteration Act which had to do with use of the terms "pure" and "genuine".

An amendment<sup>21</sup> made in 1914 (Appendix II-7) defined the term "package" to include any "box, bottle, basket, tin, barrel, case, receptacle, sack, bag, wrapper or other thing in which any article is placed or packed." The definition was required for sampling and labelling purposes. Standards for maple sugar and maple syrup and provisions for their representation so as to prevent fraud were also promulgated in the Act as a result of these amendments (Appendix II-7). Third, the 1896 regulation regarding honey was repealed and replaced by a provision to prevent fraud (Appendix II-7) in its representation. Finally, in a Schedule to the Act, provision was made for a new certificate of analysis which required analysts to distinguish whether a product was *adulterated* or *falsely marked*, and if adulterated, whether their adulteration was injurious or not.

Amendments promulgated in 1915<sup>22</sup> (Appendix II-7) revamped the regulations regarding fraud in maple sugar and maple syrup. Amendments promulgated in 1919<sup>23</sup> (Appendix II-7) added to the definition of adulteration by defining the nature of adulterated bran or shorts or middlings and adulterated corn.

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<sup>20</sup>6-7 Ed. VII Chap. 4

<sup>20</sup>3-4 George V Chap. 4

<sup>21</sup>4-5 Geo. V Chap. 19

<sup>22</sup>5 Geo. V Chap. 9

<sup>23</sup>10 Geo. V Chap. 4

***Adulteration as a Health Issue***

The *British North America Act* made no mention of public health, but the control of quarantine and maintenance of marine hospitals were assigned to the Dominion Government. While this seemingly left public health in limbo, a fairly adequate system was reported to have evolved through cooperation between the Dominion and provincial governments.<sup>94</sup> The *Dominion Public Health Act* was passed in 1868 and its administration was assigned to the Department of Agriculture. While this Act was repealed in 1872, the supervision of health, for the most part, remained under that department until formation of the Department of Health in 1919. The Director General of Public Health and quarantine officers, located at various points, all reported to the Minister of Agriculture. Food inspection and the responsibility for controlling adulteration remained with the Department of Inland Revenue.

On July 30, 1912, the Director General of Public Health of the Department of Agriculture, Dr. F. Montizambert, wrote a memorandum to his Minister advocating the creation of a Department of Public Health.<sup>95</sup> The memorandum reads in part:

The progress of hygiene and preventive medicine, known under the name of "Public Health", has been so rapid and marked in the last decade that there is now an ever-increasing demand for governmental recognition of its importance. In England they are moving for a Minister of Public Health. In the United States the Marine Hospital Service has by an Act of Congress enlarged into a Public Health Service. There are already departments of Public Health in some of our sister colonies, and the medical profession of Canada, speaking through the Canadian Medical Association, has called upon the Government to create a Department of Public Health under one of the existing Ministers. The importance of the subject will thus be recognized; and the reiterated demand comes from the representatives of the 7,000 medical men who move amongst and influence the 7,000,000 odd people of Canada.

The intention of such a Department would be the consolidation within it, with a view to both efficiency and economy, of those matters concerning public health and sanitary questions which are already within the jurisdiction of the Dominion Government, although scattered amongst different departments. The establishment of this Department would obviate the confusion and extra correspondence often caused by the public's ignorance of the Minister of Agriculture's jurisdiction in public health matters, as well as facilitate the business of those

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<sup>94</sup>Marion Villiers Higgins, *Op. cit.*

<sup>95</sup>Memorandum dated July 30, 1912 to the Minister of Agriculture from the Office of the Director-General of Public Health (Dr. F. Montizambert), Department of Agriculture, File 10-3-1 (Volume 1), National Archives of Canada, Health and Welfare Canada, General Inventory RG-29, Volume 19.



coming to the capital in connection with the various sanitary matters now divided up amongst the different offices of the Government and many of them under non-medical heads.

It is simply a matter of internal domestic consolidation within the Dominion Government itself. And its further objects are the governmental recognition of the importance of public health and the authority that such a department would have to issue rules, regulations, etc., in the name of the Department of Public Health. Our own experience, and the example of other countries, have taught us to believe that such publications so issued carry much more weight than similar ones issued in the name of any other Department....<sup>96</sup>

Montizambert was not the only one agitating for formation of the new Department. Health and Welfare records include correspondence dating from 1902 from several organizations urging the government to move on the issue: the Provincial Boards of Health of Nova Scotia, Ontario, Quebec and Manitoba; the Canadian Medical Association; the Saint John Medical Society; the American Public Health Association; the City Councils of Toronto and Montreal; and the Canadian Association for the Prevention of Tuberculosis.<sup>97</sup> Basically, it took two decades to make a decision to go forward with legislation to create the new Department. Probably the main reason for the hesitation was the constitutional question, that is, whether the federal government had authority to legislate in this area (see Appendix II-8).

*The Department of Health Act* was passed in 1919<sup>98</sup> and the Act charged that Department with the responsibilities shown in Appendix II-9. In connection with this mandate, administration of *The Quarantine Act*, *The Adulteration Act*, *The Public Works Health Act*, *The Leprosy Act*, *The Canada Shipping Act*, Sections 406, 407 and 408, and *The Proprietary or Patent Medicine Act* and any regulations made pursuant to them were all transferred to the new Department of Health. Not surprisingly, there was little mention in the debates on Bill No. 37 about the food, food inspection, adulteration and the *Adulteration Act*. Just as these issues had not figured prominently in the

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<sup>96</sup>Ibid.

<sup>97</sup>Document Nos. 145678, 145677, 146481, 187992, 194006, 193778, 224864, and various unnumbered documents on Department File 10-3-1 (Vols. 1 & 2); PG-29 (Health and Welfare), Vol. 19; National Archives of Canada.

<sup>98</sup>9-10 Geo. V Chap. 24

overall scheme of things in the Department of Inland Revenue, or even in the Department of Trade and Commerce which for a short time had responsibility for the *Adulteration Act*, so too they would not figure prominently in the new Department of Health at this time. The country was preoccupied with the aftermath of war. There was one feeble attempt, however, to transfer the *Animals Contagious Diseases Act*, the *Inspection of Canned Foods Act* and the *Penitentiaries Act* to the new department. Capt. Peter McGibbon (L [Unionist] - Muskoka), who made the motion, felt that diseases such as tuberculosis and anthrax affected both animals and humans and therefore properly resided with the Department of Health. He was easily persuaded by Mr. Rowell to withdraw the amendment, since power had been granted to the Governor-in-Council to transfer the medical administration of any one of these Acts to the new department, if deemed expedient.<sup>99</sup>

The *Food and Drugs Act, 1920* was passed<sup>100</sup> in that year. While a "drug" (Appendix II-10) included all medicines for internal or external use for man or animal, a "food" now was restricted to articles used for food and drink by man, including any ingredients mixed with them. Animal feeds now disappeared from the definition of a food insofar as there was now a Bill under consideration to deal with cattle feeds.<sup>101</sup> In fact, both feeds and fertilizers disappeared from this Act.

In Committee after second reading, the Hon. Newton W. Rowell, Minister of Health, indicated that one of the major improvements of this Bill over previous ones was to make a clear distinction between adulteration and misbranding. There was a difference, he said, between

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<sup>99</sup>House of Commons Debates, Vol. 135, p.1380.

<sup>100</sup>10-11 Geo. V Chap. 27

<sup>101</sup>The *Commercial Feeding Stuffs Bill* (House of Commons Debates, Vol. 141 (4th Session, 13th Parliament, February 26 - April 7, 1920), p.582.

putting a deleterious substance in food that might be deleterious to health and describing an article by some name other than it really was for the purpose of profit.<sup>102</sup> The definition of adulteration (Appendix II-10) was simplified, but basically, incorporated all of the refinements and advancements that had been made up to that time. However, the milk provisions, the bran provisions, and the concealed damage provision would now be covered by Section 5 of the Act (Appendix II-10), which dealt with misbranding and provided clear criteria of fraud.

Section 6 (Appendix II-10) of the Act dealt with general use of the terms "pure" and "genuine" and limited their use. Mr. Rowell explained that if the words "pure" or "genuine" were used, the food must be the genuine article. If an article was not wholly composed of the substances described on the label, the words could not be used. This was in order to prevent the public from being misled by the use of these words.<sup>103</sup> Finally (Appendix II-10), of relevance to adulteration, the Governor-in-Council was assigned powers to write regulations regarding standards of quality and labelling.

One of the principal themes of the Committee debate upon second reading was that legal application and enforcement of the Food and Drugs Act would be at the point of sale. In the first instance, the retailer would be liable for the sale of adulterated goods, even though the manufacturer of the goods may have actually undertaken the adulteration. And if the defence of the accused was to be along the lines that he bought the goods in good faith from the manufacturer, and this defence was accepted by the court, then the prosecution of the retailer would be dropped, but he would be liable to pay the costs incurred by the prosecutor. Certainly, the potential existed for adulteration to be undertaken at the retail level, particularly in the case of goods sold in bulk. Nonetheless, *ipso facto* charging the retailer for all such offenses

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<sup>102</sup>House of Commons Debates, Vol. 141, p.956.

<sup>103</sup>House of Commons Debates, Vol. 141, p.960.

was a point of sore contention among grocers. This point will be dealt with at greater length in Chapter IV. Mr. Isaac Ellis Pedlow (L - Renfrew South) provided a most compelling argument for dropping the clause about an innocent retailer bearing costs of prosecution:<sup>104</sup>

I think the framer of this Bill has proceeded along entirely wrong lines. He has proceeded with the idea in mind that the entire commercial community of the country are immoral; that they are always looking for an opportunity to deceive and cheat the public, and that there is really no honesty among them. That is an entirely wrong position for the Department of Health to take, and they should adopt other lines....I take issue with the Minister of Health (Mr. Rowell) when he says that it should be necessary to proceed in the first instance against the retailer who is handling this merchandise. If the goods in future are parcelled up, labelled and branded as the Minister maintains in this Bill that they must be, then the merchandise itself will establish the source of their origin. It should, therefore, not be necessary for the department to proceed against the retailer who is entirely innocent, who has no knowledge of the exact condition under which the goods were manufactured; and if it is found by the department that the merchandise is defective in any respect, then it is the manufacturer who should be proceeded against and penalized, and the retailer should only be an incident in the prosecution as a witness against the manufacturer. This clause is a most pernicious one and should not be retained in the Bill. The fact that it has been in a former Act that is on the statute books, is no ground for its continuance. That the law has been wrong in the past is no reason why the law should be continued in the present Bill. We are here to remedy any wrongs that exist at the present time...<sup>105</sup>

Mr. Samuel William Jacobs (L - Georges Etienne Cartier Div., Montreal), a lawyer, responded with the following legal argument, but nonetheless, Mr. Pedlow's remarks served to demonstrate the potential consequences of the "long arm of the law":

The defendant, if he be a wise man, will naturally as soon as he is served with an information and a complaint, consult his lawyer. His lawyer, who is supposed to know the law - that is a supposition, I will admit - will turn up Section 17 of this measure, and on glancing at Section 17 he will find that all that it is necessary to do is to notify the prosecutor that he intends to take advantage of that section and to prove that he obtained the goods in good faith. I do not think that works any hardship upon the defendant, and if the notice is not given, that works a hardship on the prosecutor. For that reason it seems to me that this clause of the Bill ought to go through as presented to the House by the minister.<sup>106</sup>

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<sup>104</sup>Section 17 (1) of *The Food and Drugs Act, 1920* reads:

If the person accused proves to the magistrate before whom any prosecution is brought for selling, offering or exposing for sale any article of food or drug that is adulterated or misbranded, that he purchased the article in question for and as an article of the same nature, substance and quality as that demanded by him by the purchaser or inspector, and also proves that he sold it in the same state as that in which he purchased it and that he could not with reasonable diligence have obtained knowledge of its adulteration or misbranding, he shall be discharged from such prosecution, but shall be liable to pay the costs incurred by the prosecutor, unless he has given due notice to him or gives notice in court that he will rely on the above defence and has called or calls the party from whom he purchased the said article into the case as hereinafter provided.

(Mr. Pedlow moved [unsuccessfully] that all words after the word "prosecution" be struck out.)

<sup>105</sup>House of Commons Debates, Vol. 141, pp. 1263-1264.

<sup>106</sup>House of Commons Debates, Vol. 141, p.1264.

### ***Meat Inspection***

A not-unrelated topic to food adulteration, but one really handled separately from it, is that of meat inspection. It was an aspect of food adulteration because the *Adulteration of Food Act* of 1884 included in the definition of adulterated articles any food produced from diseased animals. The *Animals' Contagious Disease Act of Canada*, passed in 1885, named a number of diseases, including glanders, anthrax, tuberculosis as being contagious or infectious.<sup>107</sup>

Basically, the main objects of meat inspection are to protect health from animal diseases and parasites communicable to humans and to ensure the sanitary destruction of all condemned carcasses and organs. An efficient meat inspection system is not only of advantage to humans, but serves as a means to detect and prevent diseases in the animals themselves.<sup>108</sup> Such inspection was established in 1896 in Ontario with passage of *An Act to Provide for the Inspection of Meat and Milk Supplies of Cities and Towns*<sup>109</sup>. The main impetus for the Act was the general scientific consensus that "great and positive dangers exist in the use of meat and milk from animals suffering from consumption or tuberculosis and that the two best methods of limiting these dangers [were] by examination of the carcasses of slaughtered animals for tubercle and by the testing of milch cows with tuberculin."<sup>110</sup> The passage of this legislation pre-dated that in the Dominion by 10 years or so. Ontario demonstrated a rather forward-looking policy when it came to serious matters of public health and when a well-developed cattle and mixed farming industry's reputation was potentially at stake.

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<sup>107</sup>Provincial Board of Health of Ontario, Pamphlet No. 1: 1896 on Milk and Meat Inspection (Toronto: Warwick Bro's & Rutter, 1896), p.24.

<sup>108</sup>James D. Jervis, "Meat Inspection", Paper read at the Annual Meeting of the British Columbia Veterinary Association, September 1917.

<sup>109</sup>59 Vict. Chap. 63

<sup>110</sup>Provincial Board of Health of Ontario, Op. cit., p.5.

Meat inspection was established in Canada with passage of the *Meat and Canned Foods Act* of 1907. In part, this act was passed to allay public fears raised by the Chicago Meat Packing House scandals initiated by Upton Sinclair's book, The Jungle, and in part to preserve export trade in bacon and related products. The provisions of the Bill were intended to apply not only to all canned food products, including canned meats, canned fruits and vegetables, and canned fish, but also to meats not canned such as bacon and ham, poultry meat, and the sides or quarters of larger animals. The provisions regarding meats and canned meats were more drastic than those proposed for fruits and vegetables and canned fish. It was proposed that inspectors would inspect the animal before it was killed and the meat before it was canned, through all its processes to the final sealing of the can.<sup>111</sup>

Opposition members of the House of Commons then asked, and historians may now ask: Why was there a need for this legislation? The government of the day, through the Honourable Sydney Fisher, Minister of Agriculture, argued that in view of the recent revelations about meat packing establishments in Chicago, the United States Congress had passed "a most drastic law going into every detail of inspection, supervision, and marking of meat products exported from that country."<sup>112</sup> If Canada did not do likewise in order "to inspire the confidence of the markets of the old country in the articles we export," Fisher argued, "we would be at a great disadvantage, especially in comparison with our greatest competitor the United States."<sup>113</sup> But just who was

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<sup>111</sup>House of Commons Debates, Vol. 78 (3rd Session, 10th Parliament, November 22, 1906 - January 23, 1907), p.807.

<sup>112</sup>House of Commons Debates, Vol. 78, p.806.

<sup>113</sup>House of Commons Debates, Vol. 78, pp. 806-807.

advocating passage of this legislation is obscure. In Committee debate on the resolution<sup>114</sup> to pass the Act, Mr. Frederick Debartzch Monk (C -Jacques Cartier) asked if "any public bodies, trading corporations or representative commercial bodies, asked for the enactment of a law" which, in his view, would cost a great deal of money.<sup>115</sup> The Minister of Agriculture indicated "quite frankly" that no Board of Trade in Canada had appealed for an Act of this kind.<sup>116</sup> In response to a question from Mr. Foster (L-C - Toronto North) as to who would bear the cost of inspection, the Minister responded that the government would, because the Bill was introduced "in the interests of the public-at-large, and not in the interest of the industry."<sup>117</sup> And yet, Mr. Robitaille, M.P. (Quebec County), speaking on the government side of the question, said:

The first practical utility of this law is protection to the manufacturers....There are legitimate manufacturers who find it exceedingly difficult to keep in line of competition, for, while they use first class material, others use the refuse material from the butcher shops....<sup>118</sup>

Robitaille, further muddling the reasons for the legislation, then went on to say:

This legislation would be a reliable protection, not only to the consumer and to the manufacturer in Canada, but to the world at large, if this stamp<sup>119</sup> was put on a prominent place on the box so that it could be easily seen by the purchaser.<sup>120</sup>

A more serious question related to the need for this legislation is why it could not have been accommodated under the *Adulteration Act*. More precisely, why could the then existing provisions of the *Adulteration Act* not have been applied to alleviate the problem at hand? During

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<sup>114</sup>The resolution introduced on December 11, 1906 by Sydney Fisher read:

Resolved, that it is expedient to pass an Act to provide for the further supervision and inspection of canned food products, meats and fish, and for the appointment of inspectors for the enforcement of the Act.

(House of Commons Debates, Vol. 78, p.804)

<sup>115</sup>House of Commons Debates, Vol. 78, p.819.

<sup>116</sup>House of Commons Debates, Vol. 78, p.820.

<sup>117</sup>House of Commons Debates, Vol. 78, p.811.

<sup>118</sup>House of Commons Debates, Vol. 78, pp. 823-824.

<sup>119</sup>i.e. the Inspection Stamp or logo in the shape of a Crown

<sup>120</sup>House of Commons Debates, Vol. 78, p.824.

discussion in Committee after second reading of Bill No. 33, Mr. Monk indicated that passage of this new law would bring the Department of Agriculture into conflict with the Department of Inland Revenue, the latter of which administered the *Adulteration Act*. Referring to the *Adulteration Act*, he said:

That Act with its many amendments gives an almost perfect law of inspection at the present moment being administered by the Department of Inland Revenue, with a system of inspectors, reports and analyses, with large powers conferred upon the officers of that department, and all the machinery necessary, with perhaps some additions, to fulfil all the objects which this Bill has in view.

He then raised the hypothetical example of an officer of the Department of Agriculture certifying a particular lot of canned goods as being in perfect order, but an officer of Inland Revenue sampling that same lot of canned goods and submitting the sample to the Dominion analyst, whereupon the canned meat would be found unsafe and defective. The question was: *Who would reconcile the two certificates before a court of law?* Monk concluded by saying that he did not see this legislation as being necessary, "even as ancillary to Chapter 107 of the Act Respecting the Adulteration of Food."<sup>121</sup>

In responding to Mr. Monk, the Minister of Agriculture said that he had discussed the issue with the Minister of Inland Revenue. According to Mr. Fisher, the latter neither wished to assume responsibility to administer this new Act or to amend his own Act to cover the points covered therein. In this matter, the Minister of Inland Revenue was either deceived by Mr. Fisher in their discussion, or badly briefed by his own officials about his existing responsibilities under the *Adulteration Act*, or was entirely aware of his responsibilities but showed little interest in his Department's food inspection mandate. Mr. Fisher then went on to say that the *General Inspection*

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<sup>121</sup>House of Commons Debates, Vol. 79 (3rd Session, 10th Parliament, January 24 - February 28, 1907), pp. 2003-2004. Adulterated or tainted meat products were, as Monk correctly pointed out, already covered under the provision of the *Adulteration Act* which stated: "Food shall be deemed to be adulterated if it consists wholly or in part of a diseased, or decomposed, or putrid or rotten animal or vegetable substance, whether manufactured or not, or in the case of milk or butter, if it is the produce of a diseased animal, or of an animal fed upon unwholesome food." [6 Edward VII Chap. 133; Sections 3(e) and (i)]



*Act* and "The Adulteration of Food and Agricultural Fertilizers Act"<sup>122</sup> did not cover the objects of this Bill.<sup>123</sup>

The Minister of Agriculture was no match for Mr. Monk, who was well-prepared on this issue. Monk gave a very plausible example which demonstrated how the *Adulteration Act* did, in fact, apply:

My hon. friend says that the Adulteration Act does not apply to any of these circumstances. Let me suppose an instance. There is a man conducting a canning establishment here in Ottawa, we will say. The inspector having authority under the Adulteration Act can today go to that establishment. He sees a quarter of beef hanging up ready to be canned, he has authority under the law to take down that quarter of beef and to inspect it. If he has any doubt he can take it to the Dominion analyst and have it examined. He can permit it or not to be put in cans, and during all the time he has authority to follow it with his inspection. He can cause the contents of the can to be analyzed by the Dominion analyst and condemned. He can drag that canner to a tribunal constituted under the Adulteration Act, and have him condemned to penalties, and he is obliged to report that condemnation to the department. How can my hon. friend say that under these circumstances the Adulteration Act has no application?<sup>124</sup>

Then Fisher, either steam-rolling or showing his absolute ignorance of the *Adulteration Act*, but in any case showing his stupidity, retorted that inspectors working under the *Adulteration Act* were not veterinary surgeons, did not know the diseases of animals, and were not competent to say whether an animal was healthy or not or whether meat came from a diseased animal.<sup>125</sup>

Monk captured in summary what passage of the new legislation would mean:

We are doing nothing less by this legislation than providing a new system of inspection, doubling, trebling, making tenfold, the cost of an operation on which we might accomplish ten times better by amending in any way necessary the Adulteration Act.<sup>126</sup>

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<sup>122</sup>Correctly called *An Act respecting the Adulteration of Food and other Articles or The Adulteration Act*.

<sup>123</sup>House of Commons Debates, Vol. 79, p.2006.

<sup>124</sup>House of Commons Debates, Vol. 79, pp. 2006-2007.

<sup>125</sup>House of Commons Debates, p.2007. There was nothing under *The Adulteration Act* to prevent a veterinarian from being appointed as an inspector. Moreover, the proposed *Meat and Canned Foods Act* did not stipulate that an inspector must be a veterinarian.

<sup>126</sup>House of Commons Debates, Vol. 79, pp. 2007-2008.

Another issue that might be examined is to question what was wrong with existing provincial legislation that justified federal encroachment on and the subsuming of their powers. The *Public Health Act* of 1872 had given provinces control over their own health questions, and if interprovincial trade or export from Canada was not involved, abattoirs were considered as provincial responsibilities. In Committee after second reading, Mr. Ernest D'Israeli Smith (C - Wentworth) pointed out that the Bill under consideration seemed to propose a duplication of work that was already being undertaken in Ontario.<sup>127</sup> In fact, the provinces of Ontario, Quebec, Nova Scotia and Manitoba provided for sanitary supervision and inspection of facilities such as butcher shops and slaughter houses in their Provincial Health Acts.<sup>128</sup> For instance, the Ontario Act provided that...

Any medical health officer or sanitary inspector may at all reasonable times inspect and examine any animal, carcass, meat, poultry, game, flesh, fowl, fruit, vegetables, grain, bread, flour, or milk exposed for sale or deposited in any place for the purpose of sale, and intended for the food of man.<sup>129</sup>

On this issue, Fisher was more level-headed. He indicated that provincial or municipal control and inspection were ineffective when applied to the production of goods to be sent out of the locality in which they were produced. Local or provincial authorities were powerless, under their constitutional rights and powers, to interfere with that kind of trade.<sup>130</sup> On the other hand, did the Federal Government have authority to legislate in this area? According to a written opinion from A.B. Aylesworth, Minister of Justice, the Bill was "properly limited to food intended for export either out of Canada or from one province to another." He went on to say, "It is very doubtful in my opinion whether it could go farther and deal with strictly domestic trade within

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<sup>127</sup>House of Commons Debates, Vol. 78, p.1301.

<sup>128</sup>House of Commons Debates, Vol. 78, p.1312.

<sup>129</sup>House of Commons Debates, Vol. 78, p.1317.

<sup>130</sup>House of Commons Debates, Vol. 78, p.1312.

a province, without trenching on the exclusive legislative authority of the legislatures."<sup>131</sup> This, of course, raised a subsequent question of whether passage of the *Meat and Canned Foods Act* would not lead to a double standard, protecting out-of-province and foreign purchasers, but abandoning those within a province wherein a local producer's meat product was sold. The government responded to this criticism by indicating that most large meat packing plants coming under the Act would be exporters as well as suppliers to the local trade. Because they were involved in export, the total product of their plants would be subject to inspection, with any diseased animals or meat products being destroyed. Thus, for practical purposes, local product, at least from large producers, would be subject to federal inspection.<sup>132</sup>

Michael Bliss has said that the inception of federal meat inspection in Canada was a "precautionary step",<sup>133</sup> but the debates in the House of Commons suggest that it was more of a "panic". Indeed, publication of The Jungle and the political fall-out emanating from the Chicago slaughter house scandals which developed after its publication, appeared to create panic in Canada's Department of Agriculture. It led to that Department subverting the *Adulteration Act* which, by all accounts, was either sufficient or could easily have been made so. It led to the Department of Agriculture capturing, or rather, appropriating control from the Department of Inland Revenue over products which were arguably the proper domain of the former in any case. But the end effect would be to treat meat, fish and canned goods in a different manner from all other foods, insofar as the front line of inspection of such commodities would now be under Department of Agriculture control. Argue as it might that the measures that it took were based on protecting Canada's trade in these agricultural commodities overseas, the Department of

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<sup>131</sup>House of Commons Debates, Vol. 78, p.1618.

<sup>132</sup>House of Commons Debates, Vol. 78, p.1628.

<sup>133</sup>Michael Bliss, Northern Enterprise: Five Centuries of Canadian Business (Toronto: McLelland and Stewart, 1987), p.372 (footnote).

Agriculture was legislating in the field of health. But it must be remembered that several health matters were already administered by the Department of Agriculture. In fact, at that time, the Department of Agriculture had a stronger administrative and legislative basis in the health area than did the Department of Inland Revenue that administered the *Adulteration Act*. The Department of Agriculture, for instance, was responsible for sanitary advice to the Dominion Government, quarantine (both maritime and frontier), leprosy throughout the Dominion,<sup>134</sup> the *Public Works Health Act*,<sup>135</sup> the sanitary part of the Census, vital statistics (Dominion), the health of animals, and now the inspection of meats and canneries, and factories of foods generally.<sup>136</sup> Nonetheless, that the Department of Agriculture could appropriate further responsibilities related to health at a time when provincial and municipal authorities, medical associations, the provinces, and even the Director General of Public Health of the Department of Agriculture, Dr. F. Montizambert were all advocating formation of a Department of Health is remarkable.

The government in general, and the Department of Agriculture in particular, reacted to a fictitious or hypothetical situation that did not exist in fact. Even the report of the Department of Agriculture's one-man commission<sup>137</sup>, charged with conducting an investigation into the condition of the meat packing establishments of Canada, "showed generally a very satisfactory condition" of these establishments.<sup>138</sup> Perhaps the Chicago scandals and Upton Sinclair's book provided an excuse for the Department of Agriculture to "grab a part of the action" of food inspection and thereby moderate future involvement in plants processing agricultural produce by

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<sup>134</sup>*An Act respecting Leprosy* (6 Edward VII Chap. 24)

<sup>135</sup>*The Public Works Health Act, 1899* (62-63 Vict. Chap. 135)

<sup>136</sup>Memorandum dated July 30, 1912 to the Minister of Agriculture from the Office of the Director-General of Public Health (Dr. F. Montizambert), *Op. cit.*

<sup>137</sup>Mr. W.W. Moore of the Cold Storage Branch, Department of Agriculture

<sup>138</sup>House of Commons Debates, Vol. 78, p.805.

the Department of Inland Revenue and the future Department of Health which the Minister of Agriculture must have seen as being inevitable. The Department of Agriculture was merely playing on the weakness of the Department of Inland Revenue, whose Minister must have been preoccupied with excise matters and was not particularly interested in health.

Moreover, the relative complacency of the industry has to be interpreted as signalling their tacit, if not overt, approval. They undoubtedly believed that there was more validity to the acute disease-related risks dealt with by veterinarians (i.e. tuberculosis, etc.) than the esoteric, difficult-to-explain and oft long-term public health risks dealt with by the analysts. On the other hand, chemists might not be competent to detect diseases, but were veterinarians competent to detect adulteration? The appropriation of inspection of agricultural produce, both fresh and processed, would signal the start of a long history of disputes between the two departments, just as Mr. Monk had foreseen. Now, as many times in the past, there is discussion about combining all inspection activities into a single agency. The difficulty has always been reconciliation of Agriculture's mission of trade promotion of agricultural products and Health's mission of protection of public health. The passage of the *Meat and Canned Foods Act* of 1907 marked the formalization of these seemingly irreconcilable solitudes.

### ***Conclusion***

How can the years, 1850 - 1920, be characterized with respect to the government response to food adulteration? If there is any value in periodizing this 70-year span, then three distinct periods may be proposed: (1) the period, 1850-1874, designated as the "Early Period"; (2) the period, 1875-1905, designated as the "Legislative Development Period"; and (3) the period, 1906-1920, designated as the "Consolidation Period".

The Early Period, which commenced even earlier than 1850 but which for purposes of this work spanned a quarter-century, was characterized by appreciable municipal and provincial involvement, at least in Ontario and Quebec, in regulation by municipal by-laws of the sale of primary commodities for domestic use in the public markets, and in regulation by provincial inspection acts of the quality of staple commodities for export. Nonetheless, in the matter of staples regulation, provincial involvement was mainly limited to establishment of the framework for regulation; the actual inspection of these commodities was left to municipal authorities and Boards of Trade, both of which were empowered to select, examine and appoint inspectors. Inspection was voluntary and revenues were rolled back to the municipal authorities, even though the regulations derived from the provincial legislatures. The Early Period culminated with passage of *The General Inspection Act, 1874* which, as its long title suggested was *An Act to make better provision, extending to the whole Dominion of Canada, respecting the Inspection of certain Staple Articles of Canadian Produce*.<sup>139</sup> Administered by the Department of Inland Revenue, it marked the first federal foray into the area of food inspection. The Act basically extended to the Dominion legislation that had existed in the United Canadas prior to Confederation.

The Legislative Development Period, of approximate duration of one-third of a century, was characterized by increasing interest of the government in the field of adulteration of food. It commenced with passage of the *Inland Revenue Act of 1875* which was the first piece of federal legislation to advance a definition, if not of *adulteration*, then at least of *adulterated food or drink* and indeed of *food* and *drink* themselves. The *Inland Revenue Act*, which as part of its long title suggests also had the purpose ....*To Prevent the Adulteration of Food, Drink and Drugs*, was modelled on earlier English legislation entitled *An Act for Preventing the Adulteration of Articles of Food or Drink* passed in 1860 during the Union period, and subsequently amended in 1872 and 1875. The next decade would feature passage of several Acts further amending the *Inland Revenue Act*, all

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<sup>139</sup>37 Vict. Chap. 45 (Assented to 26th May, 1874)

of which were consolidated in *The Adulteration Act, 1884*. A complete rewriting occurred in 1885 with promulgation of *The Adulteration Act*. After passage of *The Adulteration Act*, a 20-year period followed during which several amending Acts were passed. All of these were consolidated in 1906 in the *Adulteration Act, R.S., c.107, s.1*, marking the end of the period. The entire 32-year period was characterized by refinement of definitions for *food, drug and adulteration*, the establishment of a system of enforcement consisting of inspectors and analysts, and the appropriation of powers which would lead the federal government increasingly to the view that what was really important was adulteration that was injurious to health. During this time, no one was quite sure what an adulterated food was, and foods containing two or more ingredients (so-called "compounded foods"), foods from which an ingredient had been removed (i.e. skimmed milk), and foods containing deleterious ingredients were all in the initial stages considered to be "adulterated". But, when one really got to the root of it all, serious food adulteration *was* the deliberate addition to, or inadvertent presence in, food of *deleterious* ingredients, or food rendered deleterious by the removal of key ingredients, that is to say, ingredients containing important nutritional factors. The sale of compounded foods or foods from which an ingredient had been removed were cases of fraud. The issue to be addressed in the latter two instances was the accurate representation of these foods in order to avoid misrepresentation or misbranding. Unfortunately, considerable time and effort was spent during this period in the erroneous thinking that such foods were adulterated. It was not until passage of the *Food and Drugs Act, 1920*, that this morass was finally disentangled.

The year, 1906, which marks the beginning of the Consolidation Period, was an important year. It marked the passage of the first *Pure Food Law* in the United States and so it was inevitable that Canada, being so close a neighbour to that country, should get her house in order by consolidating her legislation. The year, 1907, was also important because of passage of the *Meat and Canned Foods Act*, armed with which the Department of Agriculture formally re-entered the

health arena from which it had been absent since 1872, filling a legislative void wherein the provinces were not active and an administrative one caused by poor enforcement of *The Adulteration Act*. The period was characterized by the issuance of numerous food standards which became the preferred mechanism used to define *pure* or *genuine* foodstuffs. All of these standards would be consolidated in the *Food and Drugs Act, 1920* which for almost 75 years has withstood the rigours of time and, though amended and rewritten, remarkably retains much of its original form and substance and even today, largely forms the basis of Canada's food regulatory system, at least, that portion of it that deals with health and fraud.



### CHAPTER III

## "IGNORANT DEMAND, SURELY SUPPLIED": THE PREVALENCE OF FOOD ADULTERATION IN CANADA, 1875-1920

### *Reporting to Parliament*

Fortunately for historians, the *Inland Revenue Act of 1875*<sup>1</sup> required analysts appointed under it to report quarterly to the Department of Inland Revenue about the number of samples of food, drink, or drugs analyzed each quarter and the nature of adulterations detected. Furthermore, these reports, or a synopsis of them, were required to be laid before Parliament as an Appendix to the Annual Report of the Department of Inland Revenue. These reports now serve as a valuable primary source for historians to study and determine the nature and extent of adulteration during this period. They started in 1876 and ran until 1918.

### *The Public Analysts*

One of the problems noted in the early days was that of finding competent analysts. The Order-in-Council enabling analysts to be appointed referred only to appointees at Montreal, Quebec, Halifax, Saint John and Toronto.<sup>2</sup> The Commissioner foresaw the problem that would ensue: an analyst could only legally act for the Inland Revenue Division for which he was appointed. But what about places outside of those mentioned in the Order-in-Council? In the first Report, the Commissioner suggested that the Inland Revenue Divisions be grouped together and arranged so as to make the services of the analysts that were or would be appointed available

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<sup>1</sup>37 Vict. Chap. 8

<sup>2</sup>Order in Council dated March 8, 1876 establishing Regulations, Report on Adulteration of Food, 1876, Appendix I, p.1.

over the largest possible area. He further stated:

This is necessary in order to keep down expenses, but still more so in view of the limited number of competent analysts who can be made available; for it is evident that in order to administer the law so as to command public respect, it is imperative that the examination of the samples submitted should not be entrusted to mere amateurs or incompetent persons.<sup>3</sup>

From the beginning, all were aware that the department had to stage a credible program. Insofar as the results of analyses by appointees might lead to prosecution, it was important to secure individuals in whom the department had faith. If cases ever got to court, defence lawyers would be unforgiving in their cross-examination of analysts and so their scientific work had to bear up to close scrutiny.

The first appointments of Analysts were made throughout 1875 and 1876; R.G. Fraser (Halifax) on June 14, 1875<sup>4</sup>; Dr. J. Baker Edwards (Montreal) on July 1, 1875; Dr. W. Hodgson Ellis (Toronto) on May 15, 1876; and Dr. F.A.H. LaRue (Quebec) on June 6, 1876<sup>5</sup>. The first available report, therefore, was for the year 1876 (fiscal year commencing April 1, 1876 and ending March 31, 1877). Public Analysts for other cities would be appointed at later dates: W.F. Best (Saint John) on October 2, 1879; William Saunders (London) on May 1, 1882; John Wright (Winnipeg) on March 24, 1884; and Dr. F.X. Valade (Kingston) on May 23, 1884. These were the authors of all the early District reports on food adulteration.

Quite often, the Public Analysts used their annual reports as platforms for espousing their personal and professional opinions. Their individual reports, along with that of the Chief Analyst, were all submitted directly to the Commissioner of Inland Revenue. These men saw themselves as having a high calling. They had a condescending, professorial, air about them and liked to "show their stuff." The tone of these analysts was preaching and sermon-like. On occasion, it

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<sup>3</sup>Ibid.

<sup>4</sup>On March 29, 1882, Maynard Bowman replaced R.G. Fraser upon his death.

<sup>5</sup>On February 9, 1882, Dr. M. Fiset replaced Dr. LaRue upon his death.

seemed as though the Public Analysts were competing with one another for the Commissioner's favour, or at least, were intent on upstaging the Chief Analyst. The January, 1888 report of F.X. Valade, M.D., Public Analyst for the District of Kingston, is a case-in-point. Dr. Valade had presented his usual tabulated statement, including the results of some milk analyses. Out of 48 samples, he found only 2 samples adulterated, a relatively low number indeed. Yet, he offered a two-page discourse lauding the healthful attributes of milk. While the language of his discourse is philosophical and persuasive, there is an apparent deep, underlying bitterness. The following constitutes some excerpts:

....milk constitutes food in a perfect form. It is a sort of animal emulsion, that is a liquid holding in suspension minute globules of butter. Good milk is the perfection of food. Ambroise Paré rightly termed it whitened blood; for it presents a marked analogy to the sanguinary fluid. As the milk is, so is the blood....

....The bad health of cows kept in the mephitic atmosphere of large cities is aggravated by the tendency of their owners to unduly promote the secretion of milky fluid by means of a particular diet, and it is not to be wondered at that it is thus rendered watery and insufficiently nourishing. In children it produces inanition and cholera infantum, and prepares the way for phthisis, that fatal ending of all physical debasement. What comes in with the swaddling cloth goes out with the winding sheet, says a Spanish proverb.

I may be taxed with writing a medical treatise in what is supposed to be a purely chemical report, but I thought I might take the liberty of showing the public the importance of obtaining genuine milk. I hope that, aided by the learned and zealous chief analyst, you will be unremitting in your efforts to protect society from the dangers of adulteration and from the infamous deeds of falsifiers.\*

### *Annual Reports on Adulteration of Food*

The annual Reports on Adulteration of Food constitute a valuable source of statistics and information on government thinking about food adulteration. Early records of the Department of Inland Revenue would have provided insights about the Analysts' perspective on this topic. Unfortunately, a search in the National Archives and in the Departments of Health and National Revenue for these early records has proved unsuccessful. It may well be that such records were not deposited in the Archives or were intentionally destroyed. It is also possible that they do not exist on account of having been destroyed in the laboratory building fire on January 4, 1911. In

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\*Appendix A to the 1887 Report on Adulteration of Food, pp. 15-18.

the 1911 Report, Anthony McGill mentions that the routine work of the laboratories was greatly interfered with by destruction of the building and a large part of its contents. He said,

The fire originated in the Methylating Warehouse below, and was of so sudden and violent character that it was found impossible to effect any saving of valuable apparatus or records.<sup>7</sup>

The seeming dullness of the annual Reports on Adulteration of Food belies the praise that they received from international scientific agencies such as the Society of Public Analysts, based in London, England. The second Report, issued in 1877, was given high marks in The Analyst, the official publication of that organization.

The report is in so many points instructive, not only showing the extent to which adulteration prevails in Canada, but also showing the methods of analysis which are adopted by the public analysts there, that we notice it more length than usual.

It is one of the most exhaustive reports in its character that we ever recollect to have seen. It is quite evident that the authorities who are charged with execution of the Adulteration Act in Canada are not disposed to allow the work which has been done by the analysts to be almost ignored - as is unfortunately the case in this country....In its general character and the mode in which it has been compiled, the blue book<sup>8</sup> is highly creditable to the department....

....it will be seen that although we cannot congratulate Canada on having attained as great a degree of general purity with regard to articles of food and drink as has been attained by the mother country, yet the Act so far has worked well and apparently done good service. If our own Government would follow the example set by the younger one, and publish in a blue book the names of the vendors of all those articles which were found to be adulterated, we should soon find that our percentage of adulteration would drop even lower than it has done.<sup>9</sup>

Although partial to the cause, Inland Revenue Department officials felt that systematic inspection of food and publication of the results of analyses and the names of those from whom samples, including adulterated ones, were obtained, *did* make a difference in the long term.

While it is abundantly evident that as yet our food supplies are far from being perfectly satisfactory in regard to quality, it is equally evident that improvement has resulted from the systematic inspection authorized by law. The records of all countries which have adopted food control laws tell a similar story; and while it may be impossible exactly to appraise the value of this work in terms of health, longevity and the enjoyment of life,

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<sup>7</sup>Reports, Returns and Statistics of the Inland Revenues of the Dominion of Canada for the Fiscal Year ended March 31, 1911: Part III, Adulteration of Food, Report of the Chief Analyst; Sessional Paper No. 14, 2 George V, A. 1912; p.5.

<sup>8</sup>The colour of the covers of these reports was pale blue.

<sup>9</sup>Cited from The Analyst, July, 1878 issue. Article appearing in Appendix A of the 1877 Report on Adulteration of Food, pp. 1-4.

there is no difficulty in realizing that the benefit to the nation is very great.<sup>10</sup>

But the results did not always make that conclusion apparent in shorter spans, a fact that may be verified by following the percentage adulteration figures progressively over the period for particular commodities, say milk, coffee and spices, all of which were commodities particularly prone to adulteration. It was a rocky road indeed and although it is possible to discern a downward trend throughout the period in the incidence of adulteration for most commodities, there were sporadic dramatic increases after periods of gradual decline (see Table III-1 and Fig. III-1).

### *The Analysts' Findings*

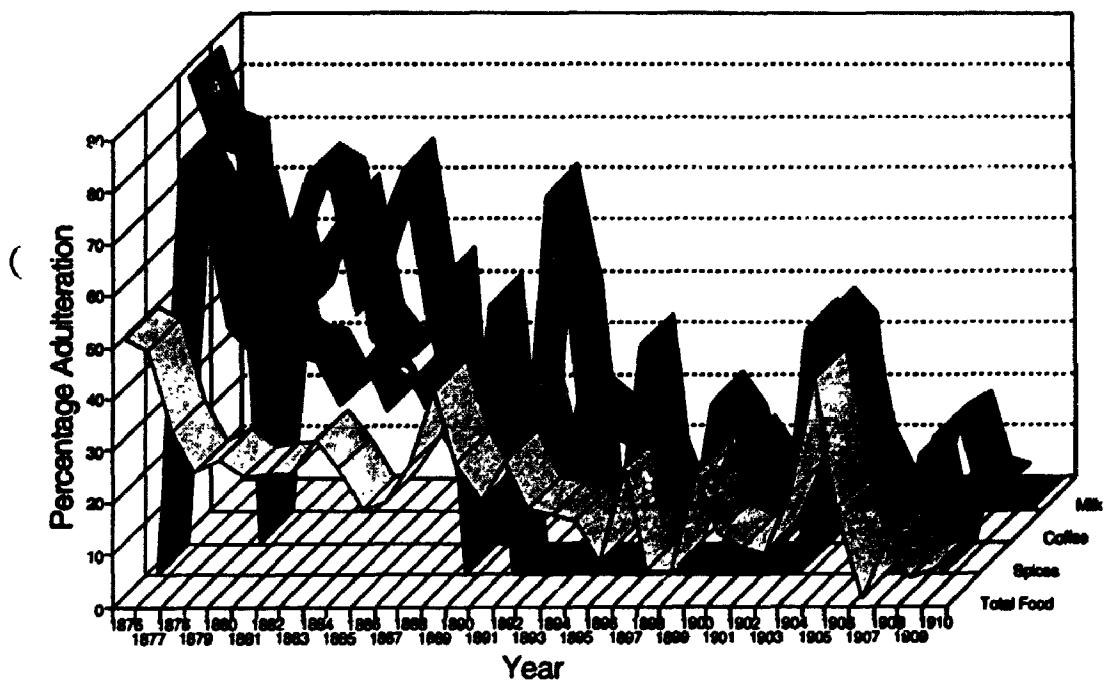
Summaries of the tabulated statements from the annual Reports on Adulteration of Food have been prepared and are shown in Tables III-2 to III-10. Each summary covers a five-year period, commencing in 1876 and ending in 1918. Different commodities were analyzed each year. The heading for a particular commodity analyzed was continued in the Tables through the ensuing years so that the reader can get a feeling of continuity, as well as realizing just how few food commodities were covered in any given year. It supports the view that any attempt to assess the extent of adulteration from such data and make general conclusions about the overall wholesomeness of the food supply is difficult.

In those cases in which the number of total samples of a particular commodity was known, but the analyst did not provide any decision as to the number of genuine samples, adulterated samples, etc., the number of samples examined was not included in the total of all samples analyzed upon which the percentage adulteration was calculated. In other situations

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<sup>10</sup>Anthony McGill, "Federal Inspection of Food in Canada", Proceedings and Transactions of the Royal Society of Canada, Third Series - Volume V (Meeting of May, 1911), Appendix D, pp. LXXI - LXXXIV.

**Fig. III-1. Adulteration, 1876-1910**  
 Milk, Coffee, Spices and Total Food



during this later period, the analyst fell short of stating his decision as to the number of samples declared adulterated outright, but left no doubt in the text of the report as to how such samples were viewed. In such cases, the liberty has been taken of estimating a definite number of adulterated samples.

The first reports issued dealt with food only. As time went on, agricultural chemicals, drugs for humans, drugs for cattle, sundry items, and even paint colorants and paints themselves were analyzed by the Laboratory of Inland Revenue and the results published as part of the reports entitled Adulteration of Food appearing in the Appendix to the Annual Reports of the Department of Inland Revenue. In the tables, these groups were "broken out" from the group of true foods in order to be able to gain a more focused insight into food adulteration *per se*.

#### *Limitations of the Adulteration Prevalence Data*

In tabulating these results, no attempt was made to alter the figure for the number reported as "adulterated". It was not always straight, clean and simple, however. In the beginning (1876) the total number of samples of a commodity examined, the number adulterated, and the number unadulterated were presented. In examining progressive reports throughout the period, new categories<sup>11</sup> of the analysts' decisions emerge. In 1878, there is first mention of a "doubtful" classification. In 1894, the term "unclassified" appears. In 1897, the terms "sold as compound"<sup>12</sup> and "sold illegally"<sup>13</sup> are used. In 1898, the "not classed"<sup>14</sup> category is dropped,

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<sup>11</sup>These new categories are not shown in the tables.

<sup>12</sup>Although at first frowned upon and considered adulteration, selling a commodity as "compound" became an accepted practice in later years if it was represented and labelled as such.

only to reappear in 1899, along with the category "below guarantee"<sup>13</sup>. In 1900, a return is made to the simple "genuine", "adulterated" and "doubtful" categories.

The above reveals the increasing difficulties that analysts and regulators ran into in categorically classifying a sample as simply "genuine" or "adulterated", especially in the absence of legal standards. Right from the very beginning, in fact, in the first Report of 1876, one of the deficiencies noted by the Commissioner of Inland Revenue was the want of standards for individual commodities. In the absence of standards, it was possible for analysts to cause injustice in that their own views on the composition of a particular foodstuff were often too rigorous. The problem was particularly noted with milk. Reference had been made to the same problem in the Report of a Committee appointed in 1874 by the English House of Commons to enquire into operation of the *Adulteration of Food Act of 1872*.

Not only does the quality of milk vary with the food, the breed of cattle, the time of year, and treatment of the animals, but the milk of the cow of the same breed will differ greatly from that of another managed under a precisely similar system; and further, the first and last pint of milk which a cow gives at the same milking will present all the difference between an extremely poor and an exceedingly rich milk. Allowances should therefore be made for these natural variations, which some purely scientific chemists seem to have occasionally overlooked.<sup>14</sup>

Analysts were beginning, however, to obtain a clearer understanding of the composition of foods, or at least of the variability in their composition, as we progress through the period. This clearer understanding was obtained by the accumulated results obtained from the analysis of individual

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<sup>13</sup>Some foods were considered by the Inland Revenue analysts as being perfectly wholesome products but their sale was nonetheless forbidden. The most pertinent example was margarine the sale of which was illegal after 1886. Filled cheeses and imitation maple syrups are other examples of products that were prohibited from sale at some point during the period studied.

<sup>14</sup>In cases in which a standard did not exist for a food against which to compare the results of an analysis, the analyst would usually not pass judgement as to whether or not the sample was genuine or adulterated, but would simply designate the sample "not classed".

<sup>15</sup>The designation "below guarantee" was usually employed for fertilizers which were not true to the requisite label declaration of their composition.

<sup>16</sup>Cited from Report on Adulteration of Food, Supplement No. III to the Report of the Department of Inland Revenue (Ottawa: Maclean, Roger & Co., 1877), p.vii.



food commodities over the years.

Some attempt at treatment of the figures may be useful, if for no other reason than to demonstrate the shortcomings of the voluminous data in these reports. Sampling is frequently undertaken to ascertain what proportion of a population possesses specified characteristics.<sup>17</sup> In this case, let us suppose that the population is the total food supply and the specified characteristic of interest is adulteration. Each member of the population is either adulterated or not (genuine). From general sampling theory, calculations may be made to assess the probability that an individual sample is adulterated. The standard error for a proportion is given by:

$$\text{s.e.} = \sqrt{pq/n}$$

where  $p$  = probability that an individual food sample is adulterated

$q$  = probability that the individual food sample is genuine

$n$  = sample size

To put it another way that will be more usable for our purposes,  $p$  is the estimated proportion (percentage) of samples that are adulterated and  $q$  is the proportion of samples that are not. Using the 51 percent adulteration figure for the 180 samples examined in 1876, the standard error expressed as a percentage may be calculated as:

$$\begin{aligned} \text{s.e.} &= \sqrt{51 \times 49/180} \\ &= \sqrt{13.9} \\ &= 3.73 \end{aligned}$$

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<sup>17</sup>W.J. Reichmann, Use and Abuse of Statistics, (Harmondsworth, Middlesex, England: Penguin Books Limited, 1970 Reprint of the original 1961 Methuen Edition), p.234.

From this statistic, the confidence limits may be derived. The 95% confidence limits lie 2 standard error measurements about the mean. Thus, the interpretation of the 51 percent adulteration value is that there is 95 percent confidence that the parametric proportion would be within the limits  $51 \pm (3.73 \times 2)\% = 51 \pm 7.5\%$ , i.e. between 43.5% and 58.5%.

The next year, 1877, the percentage adulteration found in the samples analyzed was also 51 percent. But 488 samples were analyzed that year. It would be no revelation to a student of statistics that the 95% confidence range would be narrowed due to the larger number of samples and the increased confidence that this affords. The 95% confidence limits for that year are calculated in the same manner as above to be 46.5% and 55.5%. But extreme caution must be taken in the interpretation of these simple findings.

First, decisions about whether samples were adulterated or not were not always made on the same basis from one public analyst to another. Second, the criteria for adulteration from one commodity to another were not always the same. Third, because of the limited resources at the disposal of the Department of Inland Revenue, only a small number of food commodities were chosen each year for analysis. Fourth, not every commodity examined in one year was also examined the following year, or even in the one after that. Thus, it is wrong to place undue emphasis on the comparison of the *total* percentage of adulteration in any given year with that in another year. In essence, it would be extrapolating data from different commodities analyzed in those two years in order to make a commentary about the whole food supply. Fifth, adulteration was much more practised in the case of some foods than in the case of others (*viz.* milk, spices, coffee, tea, etc.). It might have occurred that in one particular year, the inspection undertaken mainly pertained to classes of foodstuffs which were least prone to adulteration. Even those commodities most susceptible to adulteration changed from year to year. For instance, maple syrup became more subject to easy adulteration after the turn of the century due to greater

availability of glucose syrups, which in turn, were made more readily available due to a rapidly expanding home industry. Sixth, in some years, a high proportion of samples were obtained from firms known to have adulterated in the past. This could skew the results either way, depending upon whether the firm owners knew the identity of food inspectors and recognized their presence on their premises or were alerted to their coming.

In summary, the figures are based on the premise that it was a simple, clear-cut, yes/no decision as to whether an individual sample from the population possessed the specified characteristic (i.e. was adulterated). The figures do not take into account the mechanics of sampling and analysis. They do not even provide a commentary on the comparative degree of seriousness of the adulteration from product to product. They only presume that, for better or for worse, a sample was either declared adulterated or genuine, without regard to the significance of that adulteration. To put it another way, the samples were, in one way or another, problematic to the Department of Inland Revenue, or were not problematic at all. In a sense, these statistics are levelling statistics and do not reflect the fundamental nature of food adulteration during this period. If anything, they highlight the limitations of the data gleaned over all these years and the conclusions that may be drawn from them, especially about the general wholesomeness of the food supply.

But there are other implications of the addition in later years of other categories besides "genuine" ("unadulterated") and "adulterated". The main implication is that the results reported in those later years may represent an under-estimate of the number of samples actually adulterated. In order to obtain revised estimates of the percentage of adulteration, it would not be unreasonable, in the case of analyses undertaken after 1878, to add to the numbers of samples classed as "adulterated" the numbers of samples classed as "doubtful". One might even, in the case of analyses undertaken after 1894, add the numbers of samples considered "doubtful" and

"unclassified" to obtain a "maximum possible number of adulterated samples" for these years and express this number as a percentage of the total number of samples examined. Tables III-11 and III-12 are summaries of the percentage adulteration figures and recalculated figures for foods and total samples, respectively, for the years 1876-1918. The recalculated figures represent the maximum possible percentages of adulterated samples assuming that the doubtful were, in fact, adulterated. Since the "unclassified" represent a greater degree of doubt than the "doubtful", and thus might have a greater chance of being determined as "genuine", rather than "adulterated", the unclassified samples were not, in the end, added with the doubtful. To cite an example from the Tables (see Table III-11), in 1884, 17.7% of the food samples examined were considered adulterated. If the doubtful food samples were, in fact, adulterated, then as much as 27.9% of the food samples examined might have been adulterated - an increase of 10.2%. In this particular case, the figure for the number of adulterated samples might have been underestimated by a factor of 1.6. It must be recognized that, inasmuch as we can never know the precise thinking that led *those* analysts *at that time* to reach the conclusions that they did, it might be valid to question the propriety of undertaking such an exercise. In other words, the argument would be that, for better or for worse, we have no choice but to accept the judgements of the "men on the spot". They, after all, had the power to render judgements whether a sample was adulterated or not.

This leads to another issue with the tables that have been prepared. In many cases in and after 1911, the Chief Analyst in his final report to Parliament *alluded* to the fact that some samples were adulterated, but fell short of actually *pronouncing* them adulterated. This is because there was an increasing recognition that it was improper to consider "misbranded" samples as being "adulterated". A case in point to illustrate this is the situation with wines and liquors in 1918. On February 2, 1911, an Order in Council was passed in which the Department of Inland Revenue defined wine, beer, whisky, rum, gin, etc. and the definitions given were consistent with the ordinary use of these terms. But several provinces at that time either severely restricted or

forbade the sale of such alcoholic liquors. In some instances, interested parties thus placed on the market would-be substitutes for these beverages and did not hesitate to adopt the terms wine, beer, rum, etc. to describe them. Thirty-nine of the 114 samples of wines and liquors analyzed in 1918 were judged to be clearly fraudulent in the sense of claiming to be what they were not.

About these, the Chief Analyst said:

All of these samples are technically adulterated. Whether or not it would be well to inflict penalty in these cases, I leave you<sup>18</sup> to decide. I have expressed the opinion that they are not what they claim to be; and the above-quoted section<sup>19</sup> of the Adulteration Act applies.

I would especially draw your attention to the fact, which becomes more and more evident as my correspondence increases, that in the majority of cases, the manufacturers are meeting exceptional conditions to the best of their ability, and without any intention of violating the provisions of the Act.

Recent provincial temperance legislation has interfered with the legitimate business in alcoholic beverages, and it is not a matter of surprise that manufacturers should attempt to meet existing conditions.

Until our Act distinguishes between "misbranding" and "adulteration" I think that it will be only fair to these people that the Department should exercise leniency in interpretation, and I would respectfully suggest that in all cases of technical adulteration of the kind referred to, no legal action be taken.<sup>20</sup>

Two questions might be raised in regard to the statistics. First, *was* there a genuine and/or serious problem of adulteration during this period and, second, can it be concluded on the basis of the available data that the percentage of adulteration did actually go down?

The first question begs brief comments on the terms *genuine* and *serious*. The adulterations documented by the Public Analysts at the time were certainly perceived by them to be genuine. That is to say, for one reason or another, some samples out of all those examined proved to be problematic and, under the criteria of the time, were judged to be adulterated. The evidence seems to suggest, however, that the problem was not serious, if the term *serious* is taken to denote

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<sup>18</sup>"You" refers to the Assistant Deputy Minister of the Inland Revenue Department, to whom Anthony McGill, the Dominion Chief Analyst, wrote his reports.

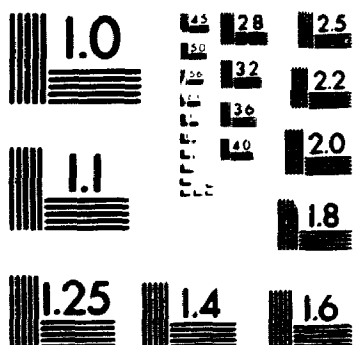
<sup>19</sup>i.e. Section 3(d)

<sup>20</sup>Inland Revenue Department, Wines and Liquors, Bulletin No. 394, in Adulteration of Food, Sessional Paper No. 14, 9 George V, 1919, p.74.

*hazardous to human health.* Table III-13 shows a breakdown of adulterated samples of butter into the three types of common adulteration for the years 1877-1881. Butter was chosen as a model for this exercise because it is a commodity that, when adulterated, might have been subjected to all of the three forms of adulteration noted in the Table. Only one five-year period was chosen and the results clearly show that adulteration of the fraudulent kind was the most prevalent; in fact, in the particular quinquennium examined, the proportion of samples fraudulently adulterated increased from 30 percent to 90 percent. By the same token, the proportion of samples harmfully adulterated generally fell, from 22 percent to 5 percent, in one year dropping even as low as 2 percent. Generally, the type of adulteration most commonly noted for all commodities in this period was fraudulent adulteration and it did not pose a serious health hazard. The categories of fraudulent, misrepresentation, and harmful adulteration are not mutually exclusive, however. The addition of water to milk, for instance, was indeed fraudulent, but because water addition had the effect of nutrient dilution, then it could be said to be harmful, particularly to those in the population who depended on milk as a sole or important source of nutrition.

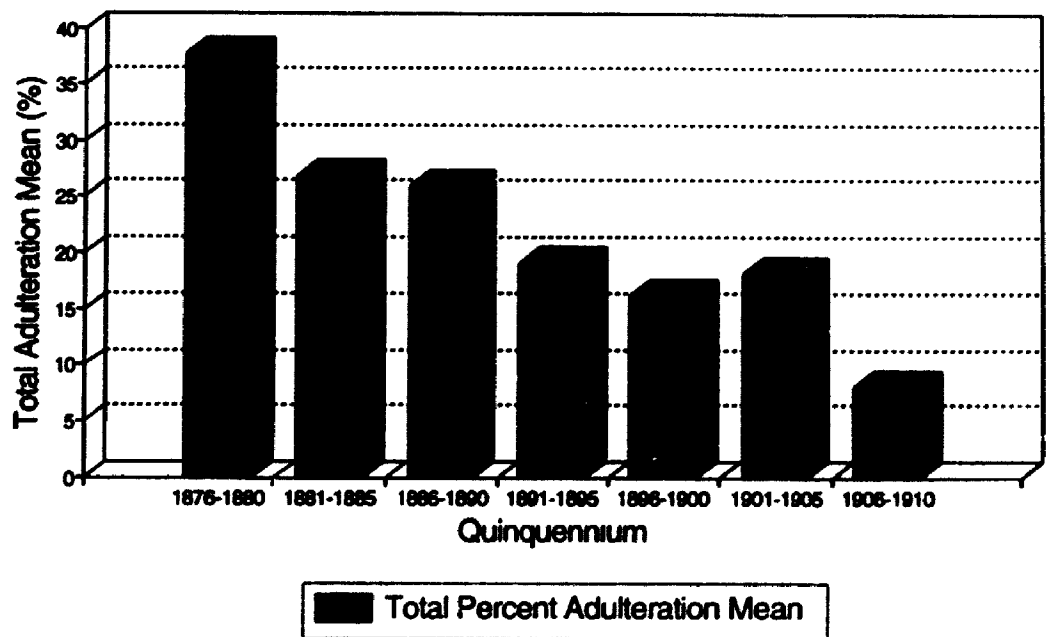
As shown in Tables III-11 and III-12 and in Figure III-1, the total percentage of samples deemed to be adulterated fell from 51 percent to about 5 percent between the years 1876 and 1910. While, for any given year, the total percentage of adulterated samples may have been a poor reflection of the extent of adulteration in the total food supply for the reasons previously discussed in this Chapter, there is no doubt that the long-term trend was downward. This long-term trend becomes more apparent if means are calculated for the annual total percentage adulteration figures for the seven quinquennia occurring between 1876 and 1910. These results appear in Table III-14 and the results are graphically represented in Figure III-2.

2



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)

**Fig. III-2. Adulteration**  
Quinquennial Means, 1876-1910





*The View from Outside*

In 1878, the Society of Public Analysts commented on the 1877 Report on Adulteration of Food and made some remarks about the distribution of food commodity sampling. The Society indicated that the samples "comprised a tolerably fair mixture of goods and condiments of all kinds, but if anything there is a leaning towards condiments rather than to articles which possess actual nutritive value."<sup>21</sup> The fact of the matter is that spices were particularly susceptible to adulteration, and they *were* largely adulterated, as the record demonstrated. For instance, during the period, 1876-1883, the percentage of adulteration of spice and condiment samples examined ranged from about 50 to 90 percent. In the 1883 Report, the analysts attributed the high percentage of adulteration to the activities of Canadian spice mills.

When it is borne in mind that over 900 tons of spice and condiments are annually entered for consumption in Canada, of which two-thirds are imported unground, to be manipulated at Canadian spice mills, the fact that the consumer is seriously defrauded is clearly manifest. Of the samples submitted for analysis, 64 per cent were adulterated. These contained foreign farinaceous substances to an extent varying from 20 to 50 per cent. It would appear, therefore, that a very considerable proportion of what is purchased by the consumer is perpetrated through the agency of Canadian spice mills.<sup>22</sup>

Still, the remarks made five years earlier by the Society of Public Analysts do suggest misplaced priorities on the part of the Department of Inland Revenue in its electing to place undue emphasis on foods that had little nutritional importance in the diet. The 1883 Report also concluded by saying that although there was evidence of a considerable amount of fraudulent adulteration, there was much less than popularly believed of injurious adulteration.<sup>23</sup> Thus, the Department maintained a continuing interest in fraudulent adulteration throughout the years.

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<sup>21</sup>Appendix A to the 1878 Report on Adulteration of Food, p.1.

<sup>22</sup>1883 Report on Adulteration of Food, p.vii.

<sup>23</sup>Ibid., p.8.

*Henry Sugden Evans*

The 1884 Report heralded the coming of a new era with the appointment of Mr. H. Sugden Evans as Chief Dominion Analyst. Up to this point, the government was loathe to prosecute offenders based on the report of a single analyst. Under amendments that had been recently passed, one-third of each sample taken for analysis had to be transmitted to Ottawa where the test of the local analyst was "revised"<sup>24</sup> by the analyst-in-chief. In cases in which prosecution was necessary in the public interest, the evidence of these two specialists, in the words of the Commissioner of Inland Revenue, "would doubtless be deemed conclusive."<sup>25</sup>

The Commissioner also called for increased public exposure in local papers of the names of those who would adulterate because publication in an obscure department report once a year "led traders to attach but little importance to such publication, inasmuch as the Department Reports do not find their way into the hands of the general public."<sup>26</sup> This action, he believed, would enable the public to have the opportunity of "forming an intelligent judgement as to the reliability, or otherwise, of the parties from whom they purchase their supplies."<sup>27</sup> He went on to say that it was "also desirable that all cases of adulteration should at once be prosecuted."<sup>28</sup> Yet, one discerns<sup>29</sup> a continuing reluctance of the department to prosecute offenders.

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<sup>24</sup>"Revised" was a curious word to use. Undoubtedly, the Commissioner meant "corroborated". That is, if the local public analyst's result leading to a food being called adulterated was confirmed in Ottawa, then prosecution would be on a sure footing; if not, the local analyst's result would then be "revised" and any proceedings would be contraindicated.

<sup>25</sup>1884 Report on Adulteration of Food, p.vi.

<sup>26</sup>Ibid.

<sup>27</sup>Ibid.

<sup>28</sup>Ibid.

<sup>29</sup>i.e by use of the word "also", and by observing that the idea of prosecution was almost an afterthought.

Senior Inland Revenue officials were loath to rush into prosecutions and become entangled in legal arguments based on science. For all its purported exactitudes, there was still uncertainty in scientific findings. It was an uncertainty based on the inherent variability in biological materials and in living systems. Thus, the preferred way of ensuring compliance with the Inland Revenue Act, and later the Adulteration Act, was to cajole vendors by publication of the names of those from whom samples were collected in the Annual Reports or in the Laboratory Bulletins. There seemed to be a continuing belief that the problem of food adulteration would solve itself if only the public knew about it. But adulteration was again on the increase, the total rising from 24.3 percent in 1883 to 31.9 percent in 1884. The fact of the matter was that the public was excluded: the government had the results of the analysis of foodstuffs and had the problem of how to release these scientific data to the public. If publication was the way that the government hoped to control adulteration, it was based on the assumption that the public possessed a detailed knowledge about food composition.<sup>30</sup> Surely at the base of it all, the government simply had a distaste for the potential political fallout that would result from prosecution.

Sugden Evans's report of 1885, his first and last as Chief Analyst, broke the tradition of dullness and stands out in stark contrast to earlier reports. The report is more descriptive than enumerative and contains detailed analysis of the types of adulteration encountered with various

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<sup>30</sup>In examining the annual tabulated statements of the results of analyses, it is difficult in many instances to determine which samples were obtained from vendors selling adulterated goods and which ones were not. It must be remembered that in these published reports, the results of all samples, adulterated or genuine, were published. In some instances, the analyst clearly indicates that a particular sample was adulterated. In others, he would make remarks such as (in the case of butter), "Too much water" or "Contains annatto" or "Genuine; but rancid and poorly made." In the case of the samples designated "Too much water" and "Contains annatto", one is unsure about whether this sample was deemed adulterated or not. It is difficult for a person with food science expertise to second-guess the analysts, let alone a lay person faced with reading these reports at the time. The conclusion must be that these reports were of limited value, and even ineffective, in advising the general public about who the adulterators were and which retailers should have consequently been avoided.

commodities. The analysis, opinions and recommendations of Evans provide valuable insight into the thinking of the Inland Revenue Department at this time. Such treatment in a report would not occur again during the period studied. Evans had a degree of enthusiasm, professionalism, and sincerity compared with his successors. Unfortunately, he died of pneumonia on February 23, 1886 while on Government business in New York City. It is quite likely had he lived longer that developments in legislation and enforcement would have been quite different than they were. It is therefore worthwhile dealing at some length with his report.

First, Evans was concerned with ending the isolation of Public Analysts in their own districts and bringing them together into a "field operations" organization that acted coherently. In this regard, he called the analysts to Ottawa for a meeting to discuss how greater uniformity could be achieved in methods of analysis and the expression of results. This would facilitate the comparison of results between districts and regions. Also, the aims of analysis of various commodities were more clearly spelled out so that when samples were pronounced adulterated, such pronouncements would be on a common basis. Finally, analysts would from now on only be able to identify a sample by a number assigned to it by the Inspector who procured it, and the same number would identify the portion of the sample sent to Ottawa. The analysts would thus be relieved of all knowledge of the source from which the sample under examination was received. The object of this entire exercise was to reduce bias and secure uniformity of workmanship and expression of results. In Evans's own words,

Much benefit, it was felt, was derived from this meeting, through the personal discussion of questions of difficulty or doubt, tending greatly to the production of increased uniformity in work and results, and the personal intercourse tending to create an *esprit de corps*, which could not previously have existed amongst the analysts. It would be well if such a conference could be held annually.<sup>31</sup>

Under Evans's leadership, there was increasing recognition that if Dominion-wide operations were to be successful and bear some semblance of fairness to all, there had to be reproducibility and repeatability in methodology and consistency in the expression of results.

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<sup>31</sup>1885 Report on Adulteration of Food, p.2.

Second, Evans's tenureship was the first to see on-site inspection<sup>32</sup> of food manufacturing establishments. This procedure was instigated in the case of spice grinders with a view to ascertaining whether or not the adulteration was practised by manufacturers or dealers. His conclusion was that "the results prove that whether or not the retail vendor still 'improves' his spices before retailing them, his demand for a cheap, adulterated article is amply provided for by the manufacturing dealer."<sup>33</sup> The spice producers objected to the requirement that spices be labelled and sold as "impure" if they contained other substances in admixture. Some even contended that the public benefitted by a slight admixture: that a better article could be supplied at a lower price if the finest and freshest spices were ground with an inert substance. Evans dubbed this "a specious contention, utterly untenable in the true interests of the public."<sup>34</sup>

At the same time, though, Evans suggested that manufacturers' arguments were not entirely unreasonable. In a rather damning condemnation of what he perceived as public ignorance, he expressed a certain sympathy with manufacturers caught up in the prevailing commercial mood of the time - the "*rage for cheapness*".<sup>35</sup>

But have not the producers of these sophistications some justification: is not the supply of a demand, which, undoubtedly, has existed, a justifiable enterprise whatever that demand may be, so long as it is within the law? Ignorance does, undoubtedly, demand cheapness, and a demand thus ignorantly made is only too surely supplied, and hence the need for costly legislation to protect an ignorant and thoughtless public against itself, for it does demand the very goods which the analyst must condemn, and the vendor be prosecuted and fined for selling; whereas, the public's reckless ignorance is the chief cause, and should suffer some measure of the penalty. It is time that through the operations of this Act such ignorance should be cleared away, and the public be enlightened and awakened to its own true interests.<sup>36</sup>

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<sup>32</sup>In his report, Evans used the term "systematic visitation."

<sup>33</sup>1885 Report on Adulteration of Food, p.8.

<sup>34</sup>Ibid.; Adulteration of spices continued and, in fact, worsened. In his 1888 report, Commissioner Edward Miall said that spice adulteration, "while not so serious to the public as many other adulterations, is, at the best, a commercial fraud, and is so serious in extent that the question of licensing spice mills and systematically inspecting the product seems to be one which may be urged upon the Government in the not very distant future."

<sup>35</sup>To be discussed at greater length in Chapter IV.

<sup>36</sup>Ibid.

In the end, both government and industry, while admitting that adulteration had to be ended, both apportioned to the public a high degree of blame for its prevalence. But was the public not just exercising its normal right of choice to purchase at the lowest possible price? Was adulteration of a foodstuff the only solution to lowering its price?

If the public was not to bear the entire blame for adulteration, then Evans would not allow the retail vendors to escape blameless, as they often tried. His view lent some credence to the view that adulteration *was* the only solution to cheapness: if a retail vendor bought some goods at a lower than normal price, then, *ipso facto*, they must be adulterated.

It has been the policy of the Department charged with administering this Act to exercise leniency, and not to force its operation upon the innocent or unwary; therefore, the originators of frauds have been sought amongst the manufacturers and wholesale distributors. But, at the same time that it is laudably desired to punish only the guilty, it cannot be logically sustained that the retail vendor is not presumably cognizant of the adulteration, and therefore equally culpable.

He is - or if not, he is unfit to carry on a responsible business - aware of the current market value of the commodities he purchases, and if he finds he can purchase such commodities at wholesale, for less money than the current market rates, he should be held responsible for his so doing, as much in the case of adulterated goods as that of stolen property, and the plea of ignorance of the quality should not serve him.

For instance, cream of tartar has been found largely adulterated. Can there be any justification to the dealer who insists upon purchasing this article, in powder, at about one-half, or one-third the value of the crude drug on the market? He cannot, under such circumstances, plead ignorance of the fact of adulteration without stultifying his commercial responsibility. Nevertheless, such pleas are daily made, and even in the face of assurances of the impossibility of pure goods being supplied at the prices named, the answer too often made is: "It will suit my customers who won't pay me a profit on a higher price."<sup>37</sup>

With this preface, Evans served notice that after receipt of a first notice of adulteration, a repeat occurrence would lead to prosecution.

Finally, on the subject of Sugden Evans, it is difficult not to be impressed with his sincerity when he spoke about the high calling of the analyst. On one hand, by "the careful and conscientious exercise" of his professional knowledge, the analyst had to see that justice was done in protecting the public against intentional fraud. On the other hand, he had a responsibility to the manufacturer to protect the reputation of the honest vendor by exercising skilful analyses and

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<sup>37</sup>Ibid., p.12.

giving due consideration to the probable causes for any adulterations discovered. In Evans's words,

In the popular mind, the value of science is measured by its application to the useful purposes of life, and undoubtedly it becomes most attractive when it confers practical benefits upon man; hence the keen competition of the world is only too ready to avail itself of the discoveries of science for fraudulent purposes. Consequently, the discovery of fraud becomes daily more intricate, and the labors of the analyst more elaborate, calling into his service that questioning of nature which arises when the intellectual conception of the causes of phenomena attach themselves to ascertained facts as well as to their natural environments.<sup>38</sup>

These words of Evans recall the thoughts of Armstrong and Nelles when they stated that "the theatre of science was more than a glorious entertainment; in proper nineteenth century fashion it was also a moral pageant" and its spin-off accomplishments promoted social and intellectual betterment.<sup>39</sup>

#### *Laboratory Bulletins: Forerunners of Standards of Purity*

The Public Analysts were scientists and were convinced that science afforded the possibility of unequivocally revealing adulteration and exposing those who adulterated. Their ardour did confer on them a police mentality. However, to analyze a foodstuff and pronounce it adulterated was one thing; to have a court of law uphold this decision was another. It very quickly became apparent that a Chief Analyst was required, a person who would perform a coordinating role and ensure that interpretations between district analysts were consistent and that the findings of district analysts were reproducible. Furthermore, the analysts soon came to the realization that in order to be able to launch effective prosecutions, legal standards for individual commodities were required.

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<sup>38</sup>Ibid.

<sup>39</sup>Christopher Armstrong and H.V. Nelles, Monopoly's Moment (Toronto: University of Toronto Press, 1988), pp. 64-65.

In 1887, therefore, the Inland Revenue Laboratory began a series of methodical analyses of specific foodstuffs with a view to establishment of "standards of purity" which, it was anticipated, would "so reduce the cost of systematic and general analysis and inspection as to exercise a noticeable influence upon the general character of food products offered for sale in the Dominion."<sup>40</sup> The results of these analyses were published as "Laboratory Bulletins" and these bulletins were appended to the Reports on Adulteration of Food published annually. Bulletin No. 1 was entitled Milk Standards and was dated October 1, 1887.<sup>41</sup> Based on the analyses of milk obtained from herds located at Halifax, Saint John, Quebec City, Montreal, Ottawa and Toronto, the Chief Analyst recommended a milk standard embodying a minimum content of 12.0 percent total solids, 3.5 percent butterfat, and 8.5 percent of solids-not-fat.<sup>42</sup> The enthusiasm of the Chief and Public Analysts would be shortly dampened by the Commissioner of Inland Revenue, Edward Miall, who, in his 1888 report, stated:

The undersigned, while admitting the extreme desirability of determining some definite standard, is of the opinion that the Department has not yet such information as would justify the hope that one could be fixed which would be fair to all localities and conditions.

Further tests will be made over a wide extent of territory, and it is hoped that before long the Department may feel itself justified in recommending some more definite action.<sup>43</sup>

In fact, the standard for milk was not set until November 14, 1910 and by that time, it had been the subject of analysis 26 times since the Act had come into force. It seems that the initial enthusiasm of the scientists was tempered by experienced managers who had the political acumen to realize that promulgating a standard based on one year's analytical results was foolhardy and that the results of analysis of a large number of samples, collected over several years, from different locations, and from different types of dairy cattle were necessary to avoid unwarranted exclusion from the market of well-meaning dairymen.

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<sup>40</sup>1888 Report on Adulteration of Food, p.1.

<sup>41</sup>Appendix D to the 1887 Report on Adulteration of Food, pp. 91-103.

<sup>42</sup>The means for the 162 samples analyzed were 12.48 percent total solids, 3.86 percent butterfat, and (by difference) 8.62 percent solids-not-fat.

<sup>43</sup>1888 Report on Adulteration of Food, pp. 1-2.



There was a second reason in the matter of standards for the reluctance of the Commissioner to move swiftly. The upper echelons of Inland Revenue, undoubtedly including the Minister, had an aversion to science. In his 1887 report, Commissioner Miall had alluded to the difficulty of the "technical points almost constantly raised" when prosecutions were entered upon, "which it seems almost impossible to avoid".<sup>44</sup> Non-scientific types like Miall did not want to follow the legal route, if there was another way. They were uncomfortable with science and were only trying to avoid something that they did not understand, if possible. This is why the department favoured the publication of the results of analyses, the names of the vendors, the description of the article analyzed and the finding of the analyst. Senior officials naïvely thought that this course of action would be more effective than court proceedings. At least, they *hoped* it would! The same thinking applied to establishment of standards. If a basis of fraud could be found to justify excluding something from the standard, this was a better reason to do so than safety. For in the latter case, scientific proof had to be provided and this led to endless legal arguments, the need for expert testimony, etc. Fraud was more subjective and was conducive to the articulation of *policy* arguments. Even the Commissioner could understand these. As evidence for this contention, consider Miall's remarks in the 1889 Report about baking powder:

The Chief Analyst, as well as his Assistant, takes very strong grounds against the use of alum in baking powders. In the report of the former....he says that the use of alum in bread-making is prohibited in most countries where food adulteration laws have been enacted, and that alumina is not to be found in any species of food or drink used by man, nor does it occur in any part of the system. On these grounds he thinks the use of alum in compounding baking powders should be prohibited. The latter reason appears to have considerable force, but I am inclined to think the use of alum in bread is prohibited on the ground that it is an agent by the use of which bread made from inferior flour can be so whitened as to be undistinguishable from that made from the best, the legislation being directed rather against commercial fraud than against the unwholesome character of the agent.<sup>45</sup>

Both arguments were valid, but from the Commissioner's point-of-view, *policy* arguments were politically less dangerous and more easily defensible than *scientific* ones.

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<sup>44</sup>1887 Report on Adulteration of Food, pp. 1-2.

<sup>45</sup>1889 Report on Adulteration of Food, p.vi.

*Categories of Food Adulteration*

Until actual standards were set for various foodstuffs, how did the Public Analysts make judgements about the authenticity of foodstuffs? Essentially they sought published compositional information anywhere they could find it, against which the composition of the food they had analyzed could be compared. Dr. W. Hodgson Ellis, Public Analyst for Toronto said in the 1876 Report concerning 12 samples of milk that he had analyzed:

In the absence of any extensive series of reliable observations made in this country with a view to ascertain the normal composition of genuine milk, and establish a standard of normal milk, reliance had to be placed on what had been done elsewhere.<sup>46</sup>

He cited the experiments of M.M. Henrie and Chevalier (normal composition of milk), Poggiale (mean of 10 analyses), Wanklyn (mean of 10 analyses undertaken in 1871 of milk from various counties in England), McNamara (8 analyses of the Bengali cow performed in Calcutta), Hassal (mean of all reliable analyses), Müller and Eisenstuck (mean of the daily analyses for 1 year of a herd of 15 cows of different breeds; work performed for the Royal Agricultural Society of Sweden), Dr. Stevenson Macadam (results of analyses of a large number of samples of milk supplied to Edinburgh), Dr. Cameron (mean of 40 samples of pure milk from Dublin dairy cows), Dr. Trout Girdwood (analyses of the milk supplied to the City of Montreal from a dairy of 150 cows), and lastly, the standard established by the Society of Public Analysts of Great Britain. In instances such as milk, where at least there were some available reference data, there was an element of objectivity in the determination of whether a sample was adulterated<sup>47</sup> or not.

This did not hold true for all commodities, however. In the case of cocoa or cacao, the determination was more subjective. What was even more disquieting was that analysts from

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<sup>46</sup>Appendix II to the 1876 Report on Adulteration of Food, pp. 4-12.

<sup>47</sup>The criterion of adulteration of milk was usually added water. Later milk would be examined for the presence of preservatives. In one report, milk was examined for both, and might be declared adulterated with respect to one, but genuine with respect to the other!

different regions made their pronouncements on different bases. The Commissioner of Inland Revenue, A. Brunel, said of cacao in his 1878 Report:

The name implies a preparation of the cacao bean, and the admixture of any foreign matter is an adulteration, unless the purchaser is advised thereof by the label on the package in which the article is sold, or by some other equally distinct notification. This is the view taken by Dr. Larue of Quebec, who returns five of the samples of cocoa analyzed by him as adulterated. Dr. Ellis, of Toronto, simply gives the proportion of foreign substances, and Dr. Edwards, of Montreal, treats it, with chocolate, as a proprietary preparation.<sup>48</sup> But whether the one view or the other be taken, it is certain that since the value of the manufactured article is increased or diminished by the proportion which the genuine cacao paste bears to the whole, the excessive substitution of such articles as sugar, wheat flour, bean meal, animal butter or fat must be a proportionate deterioration of the value of the article, and it therefore appears reasonable, at least with regard to cocoa, that when any such foreign matter is added, the article should be considered adulterated, unless the fact is notified to the purchaser.<sup>49</sup>

Another possibility was to use another country's regulations to determine adulteration in Canada. An example was the 1886 Report in which F.X. Valade, Public Analyst for the District of Kingston used the standard of strength required by the U.S. Pharmacopia to judge brandies, whiskies and gins, and W.H. Ellis, Public Analyst for the District of Toronto used the English Act. In the latter's words:

We have no regulation as to the strength of liquors. The English Act fixes as the limit below which addition of water is adulteration at 25 under proof for brandy, whiskey and rum and 35 under proof for gin. Two of the whiskies and one of the gin fell below the limit. Unless the Department makes some regulation in this matter, I shall in future follow the English Act.<sup>50</sup>

Determinations of adulteration were naturally easier to make in those cases in which the foods involved were single-component ones, or more precisely, were not compounded foods in the first instance. By the same token, an "adulterant" was easier to justify in a compounded<sup>51</sup> food than in a single ingredient one. Thus, it would be hard to defend the presence of water in milk under any circumstances, even if its presence were declared, but it would not be

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<sup>48</sup>Chocolate could be looked upon as a proprietary mixture, composed of the cacao bean and other ingredients of less value, but not of a deleterious nature. These cheaper additions varied at that time in quantity from 33 to 70 percent of the whole, and, of course, affected the real value of the manufactured article.

<sup>49</sup>1878 Report on Adulteration of Food, p.vii.

<sup>50</sup>Appendix A of the 1886 Report on Adulteration of Food, p.22.

<sup>51</sup>i.e. multi-component, fabricated

unreasonable to rationalize the presence of sugar in ice cream, even if its presence were not declared. Indeed, it would be unusual for ice cream *not* to contain sugar.

Some cases were more difficult to comprehend and require other explanations. Sucrose (cane sugar) in jam would be a perfectly acceptable ingredient, but glucose (corn sugar) in jam, although admitted to be safe and wholesome, was problematic. It was perhaps more of a problem for the industry than for the government. Why was glucose problematic in jam? From the very beginning, glucose itself became known first and foremost as an adulterant. It was used to cheapen sucrose. Sucrose was used in the manufacture of so-called "pure" jams. If glucose, when added to sucrose, was known as an adulterant, then why would it not be similarly known as an adulterant when added to jam? Just as it was possible to have "pure" cane sugar (i.e. containing only sucrose), it was also possible to have "pure" jams (i.e. containing only sucrose).<sup>52</sup> Glucose, even if 100% pure, became associated with impurity and adulteration. While jam manufacturers urged the Department of Inland Revenue to condemn jams containing glucose as adulterated, and while public analysts acquiesced in the beginning, as time went on, they had difficulty in rationalizing such actions to themselves. In the end, they could not, in all good conscience, pronounce products containing it with label declaration as being "adulterated".

It was easier to justify a decision that primary goods had been adulterated if the purpose of addition was clearly to cheapen the goods. A moderate amount of a substance that had a technological purpose in such goods might be tolerated by the analysts, but crass addition motivated by profit was certainly adulteration at its worst. Spices, in particular, fell into this category of adulterated goods. Consider the remarks of Chief Analyst Thomas Macfarlane concerning the adulteration of mustard:

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<sup>52</sup>Now, it would be difficult to find a "pure" jam that is made without glucose.

It may be remarked that it is held by the manufacturers that it saves trouble in grinding mustard seed to add a small percentage of flour, and that this is also requisite to ensure the keeping qualities of the product. Even if this be admitted, it appears, from the analyses of the seven pure samples above given (Keen's and Coleman's best), that not more than 6 per cent is necessary for these purposes. The admixture of larger quantities, even in those qualities which are fairly called "compound," brings with it the necessity of using tumeric to restore the yellow colour. This substance is said to be harmless, but the introduction of any dyestuff into food should be discouraged. In the large class of adulterated mustards above indicated, in which the amount of diluting material ranges from 30 to 80 per cent, it appears that frequently some substance has to be added to restore pungency. This accounts for the presence of cayenne pepper in a considerable number of the samples. The most inexcusable adulterant is, however, terra alba, or sulphate of lime, and no doubt its use is occasioned by the insatiable demand of the retailer for "cheap goods." When it is considered that 83 per cent of the samples collected contain over 30 per cent of adulteration, it cannot be denied that a remedy is urgently called for, which would probably be as welcome to the manufacturer and dealer as to the general public.<sup>53</sup>

Table III-15 shows some examples of adulterants of various commodities which were documented in the Inland Revenue Reports from 1876 through 1881. While certainly not exhaustive, the Table nonetheless gives some idea of the nature of food adulteration during the period studied.

### *Standards of Purity*

From 1904 on, almost every report of the Chief Analyst and the Commissioner of Inland Revenue mentioned the desirability of standards. It was clear at this point that the United States was following this route. Right from the very beginning, regulators were aware of the exclusionary nature of standards. This fact probably accounts for their lateness in coming. In order to minimize the effect on manufacturers and to avoid surprises, there was a conscious effort made to maintain lines of communication open with manufacturers and consult closely with them. Chief Analyst Anthony McGill captured this best in the 1909 Report:

The question of defining standards for foods has been referred to in all recent reports, and hopes have been held out, from year to year, that some definite action might be expected. The matter has proved to be a very difficult one to deal with. All nations feel its importance, and some have attempted legislation which experience has shown to be impracticable. I have realized the necessity of well considered action; and have been particularly anxious not to advise rash measures in a matter which, by injudicious precipitancy must seriously hamper trade,

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<sup>53</sup>Bulletin No. 19 - MUSTARD; Special Report Appended to the 1891 Report on Adulteration of Food, p.104.

and bring discredit upon honest efforts for food control.<sup>54</sup>

Anthony McGill single-handedly drafted the early standards himself, employing the best of the United States standards developed since 1906, information gleaned through the many analyses of foodstuffs undertaken in Canada by the Laboratory of Inland Revenue, and other information obtained internationally. Nonetheless, he worried about taking the entire responsibility for the project. He thought that one way of diffusing the responsibility was to establish a board of three, with himself as Chairman, to give sanction to the individual standards.

He said:

The scheme now submitted is based upon Food Standards as defined by the Department of Agriculture at Washington, but modified by my own experience, and by such recorded work done in England, France and Germany as I have had access to. The list is not complete, and I may specially mention the absence of spirituous liquors and baking powders.

Nor can I assert that the definitions as given, although prepared with every possible care, are to be taken as beyond criticism. Indeed, as already pointed out to the Deputy Minister, I consider that this subject is of such importance as to justify the naming of experts who should share with me the responsibility of dealing with it. I have taken the liberty of suggesting Dr. Ellis, of Toronto, and Dr. Donald, of Montreal, as suitable members of the board so constituted.<sup>55</sup>

McGill recommended that broad consultations be undertaken with food manufacturers, not only to receive their comments, but also to sell them on the idea of food standards. He believed that those who would be required to submit to these standards should certainly have a say in how they were drafted.

It is my conviction that a great deal of friction may be avoided by submitting advance copies of this scheme to manufacturers of food products who will be affected by it.

I would respectfully ask your sanction to my doing this, with a view of obtaining critical opinions and suggestions from such manufacturers; as well as personally interviewing representative men and associations, for the purpose of giving explanations and reasons for departmental action in the matter of food standards.<sup>56</sup>

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<sup>54</sup>Report of the Chief Analyst in 1909 Report on Adulteration of Food, p.5.

<sup>55</sup>Letter from Anthony McGill to the Acting Deputy Minister of Inland Revenue, January 27, 1908. Op. cit., p.5.

<sup>56</sup>Letter from Anthony McGill to the Acting Deputy Minister of Inland Revenue, March 16, 1908. Op. cit., p.5.

Finally, McGill recognized that there was a greater risk of manufacturers being excluded when standards were being written for single component foods than when written for compound foods. In the first, there was less argument about the nature of the pure article. In the case of the second, the composition of what constituted a "pure" compound food was debatable. In the latter instances, then, it was all the more important to consult with manufacturers.

Certain classes of food are in their nature, capable of absolute definition, such as meats, vegetables, sugars, &c. But manufactured articles, such as sausage, lard, condensed milk, preserves, syrups, flavouring extracts, &c., must be defined with reference to local conditions. The same is true of spices, which are imported in a crude state, and this condition necessarily influences the nature of the prepared spice, to some extent. On these matters, the manufacturer has a right to be heard.<sup>57</sup>

### *Conclusion*

Was anything at all achieved during this period? The answer is in the affirmative. By an arduous route, regulators were able to sort out in their own mind the difference between adulteration of a non-injurious kind, harmful adulteration, and misbranding or misrepresentation. An example of non-injurious adulteration would be the addition of glucose to jam. Glucose was not harmful, but its intentional addition had the deliberate effect of cheapening products to which it was added. An example of harmful or injurious adulteration would be the deliberate addition of borax (as a preservative) to butter. Another example would be the inadvertent presence of lead in canned foods (from the leaching of lead from the soldered joints of the tin containers). An example of misbranding would be the use of the name Lea and Perrin's Worcester Sauce by a company other than Lea and Perrin. An example of misrepresentation would be the mixing of glucose, flavouring and colour to make an imitation maple syrup and the representation of the compounded product *as* maple syrup.

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<sup>57</sup>Ibid.

Misrepresentation involved trading one product on another product's name. For instance, oleomargarine was often sold overtly as butter or more subtly as "butterine". This kind of adulteration was usually so offensive to various vested interest groups, especially farmers, that it was usually solved by the politicians in the form of prohibition of sale. The *Oleomargarine Act* of 1886, discussed in the previous chapter, is a case-in-point.

Harmful adulteration was usually ameliorated by technological developments stemming from recommendations in the Annual Reports. The lacquering of cans to be used in the heat-processing of acidic vegetables such as tomatoes, or even the use of glass jars instead of cans, are examples. Harmful adulteration would also be prevented by regulations standing on a clear health basis, such as the "standards" for preservatives and food colours promulgated in the second decade of the 20th century. In fact, these were not really standards at all, but rather "positive" (enabling) lists of preservatives and colours which essentially authorized their use in specific foods up to specified maximum levels. They can be considered the first food additive<sup>58</sup> regulations in Canada.

Non-injurious adulteration, or adulteration of the fraudulent kind, was the type most frequently encountered in Canada. Cheating people has always been seen as immoral, if not criminal. Swindlers command no respect. Cheating is even more heinous when applied to vehicles, such as food, that are necessary for the sustenance of life. Large-scale fraud in the food business had the capacity to destroy not only the reputation of individual food manufacturing firms, but the reputation of Canada as a quality supplier to world markets. There was no impulse to regulate for the sake of regulating. Rather, the impulse to regulate foods was adulteration

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<sup>58</sup>The term "food additive" was not formally recognized until 1964, when specific regulations were issued governing preclearance and use of such substances.



motivated by the *rage for cheapness*<sup>99</sup> and the government had no choice but to intervene to control it. Honest businessmen would demand no less, and the public deserved no less. And the way that would be chosen to control the rage was to promulgate federal standards for foodstuffs.

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<sup>99</sup>The expression, *rage for cheapness*, used in the title of this thesis and appearing in italics throughout this work, is derived from the headline of an article appearing in *Merchants' Review* and reprinted in the *Canadian Grocer*, Vol. VII, No. 13; March 31, 1893; p.24.

## CHAPTER IV

### "WELL-PAID BUSYBODIES, STICKLERS FOR EXACTITUDE": THE REACTION OF RETAIL GROCERS TO MEASURES CONTROLLING FOOD ADULTERATION

#### *The Canadian Grocer*

The *Canadian Grocer* was a trade newspaper published weekly "in the interest of grocers, canners, produce and provision dealers, and general storekeepers."<sup>1</sup> The venture was begun by Col. J.B. MacLean and the *Grocer* made its first appearance as a monthly periodical in the fall of 1886. Ten thousand copies of the first issue were sent to retail merchants in the Dominion. Weekly publication commenced on January 7, 1888. At this time, the publication had not more than 1500 subscribers.<sup>2</sup>

In catering to the interests of the retail and wholesale trades, the *Grocer* published articles of widespread interest to the food industry. Editorially, the publication dealt with such issues as competition, honesty in the grocery trade, morality in business, associations and combines, businessmen and good government, the bonusing of industries, the need for insolvency legislation and laws for early closing, and so forth. During the years from the beginning of its publication up until 1918, numerous articles, both editorial and narrative, were published about food adulteration and related topics. Activities of the Department of Inland Revenue and reports about its Bulletins were given detailed coverage.

The *Canadian Grocer* is not indexed and therefore undertaking a survey of it for specific articles of interest is a daunting and laborious task. The issues examined for purposes of this

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<sup>1</sup>*Canadian Grocer*, Masthead, 1891.

<sup>2</sup>"In the Early Days of *Canadian Grocer*", *Canadian Grocer*, Vol. XXVII, No. 48; November 28, 1913; pp. 33-34.

study were all those published between 1891 and 1901 (571 issues), 1906 and 1907 (104 issues), and 1910 and 1918 (468 issues). Therefore, 1143 issues were examined in total. It will be noted that, for the most part, the first decade of the 20th century was omitted. This was necessary to make this task more manageable. However, the years 1906 and 1907 were included in the review, since they were particularly important ones from a food adulteration standpoint. During these two years, the U.S. *Pure Food Law* was passed, as was the *Meat and Canned Foods Inspection Act* in Canada. These were also the years of the Chicago meat packing house scandals that Upton Sinclair wrote about in his Socialist novel, *The Jungle*. Food regulatory issues tended to repeat themselves and did not differ appreciably throughout the period. Thus, it is unlikely that inclusion of the years omitted would have yielded significant new insight.

Whether calculated or not, trade journals such as the *Canadian Grocer* served as instruments for the industry to influence and moderate public policy about food adulteration. In 1891 and 1892, for example, Department of Inland Revenue inspectors, working under the guise of consumers, were busy sampling coffee from retailers, even restaurateurs, with a view to clamping down on "compound mixtures".<sup>3</sup> The story was reported<sup>4</sup> of a man who asked W.N. Luke, a Toronto storekeeper who ran a small restaurant in connection with his business, for a pound of coffee. The store normally sold candies, cigars and fruits. Mr. Luke's coffee,

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<sup>3</sup>The *Canadian Grocer* put it this way:

Inspectors are descending upon the reputable merchants of this country, with apparently not the object of raising the standard of purity of the coffee sold, but to mulct (i.e. extract money from by fine or taxation or by fraudulent means) somebody in penalty and costs. There is no law against the production of coffee which contains no harmful constituent, if such is properly labelled "compound".

(Editorial, *Canadian Grocer*, Vol. VI, No. 9; February 26, 1892; p.3)

<sup>4</sup>"Coffee samples analyzed for \$14 per lb.", *Canadian Grocer*, Vol. VI, No. 1; January 1, 1892; p.10.

which was correctly labelled as "compound coffee" (a coffee and chicory mixture), was not normally sold as such, but reserved for sale in the prepared state to patrons of the restaurant. Soon after the transaction, the man who purchased the coffee identified himself as Mr. J. Watson, an inspector of the Inland Revenue Department. Mr. Watson procured a sample and had it analyzed. A few weeks later, Luke received a letter from Mr. Edward Miahl, Commissioner of Inland Revenue at Ottawa, saying that the sample was found (as expected) to contain chicory. Luke was billed \$14 for the expense of procuring the sample and analyzing the coffee. In commenting on the case, the *Canadian Grocer* said:

Why should he be picked on to contribute \$14 for the public enlightenment as to the constituents of so-called coffee? But why was an example made at all? The manufacturers admitted in their labels that the coffee was not pure. Then do the eyes of the public need opening? The public were warned by the label, which protects maker and seller alike. What these inspectors are supposed to forward are samples of what is branded and sold as Coffee, not Coffee Compound....<sup>6</sup>

It is evident from an examination of pages of the *Canadian Grocer* that by these types of actions, retailers felt that they were the subjects of government heavy-handedness and were being victimized. They felt generally that the honour of the merchants of Canada was at stake and that the publicity given to cases such as Luke's not only brought the individuals involved into disrepute, but lowered the self-esteem of all grocers. Consider the following excerpt<sup>7</sup>

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<sup>6</sup>Ibid.

<sup>6</sup>It might be argued that Luke was not entirely blameless. He did not verbally tell Watson and solicit his agreement that he was substituting Compound Coffee for the Coffee demanded, although the can labelled "Compound Coffee" was purportedly within view of Watson. The *Canadian Grocer* advised the trade in the article (Ibid.), "When a man asks for coffee, and you have what is marked coffee compound, call it the latter." The *Grocer* was quite aware of the misdemeanour and therefore its arguments were in a sense ill-founded. Second, how would patrons of Luke's restaurant know that the cup of coffee they had ordered was, in fact, compound coffee? Was it less of an offence to serve a patron compound coffee in a restaurant than to sell it to a consumer?

<sup>7</sup>"The Official Analysis of Coffee", *Canadian Grocer*, Vol. VI, No. 9; February 26, 1892; p.4.

from a letter by H.H. Laing, another victim:<sup>4</sup>

...The admixture of chicory and farinaceous substances with coffee has been carried on since Mr. Coffee was a very young baby, and not only is the mixture demanded by the majority of consumers, but there is no idea of anything injurious to the system in the ingredients used....

Where then is the necessity or what is the reason for the government swooping down on one or two individuals, and subjecting them to undesirable notoriety and heavy and unwarranted expense, without a solitary note of warning, and being quite unaware that they were in any way acting contrary to the laws of the land, in doing what is and what has been the universal custom of the trade? I question whether a person travelling over the Dominion and buying "a pound of coffee" would get pure and unadulterated coffee unless he specifically asked for it, and still less likely if he asked for cheap coffee.

There was thus a clear difference in the thinking of government officials of the Inland Revenue Department and retailers about food adulteration, especially as it related to compound mixtures, and, more importantly, the need to control it. Government officials thought that if a consumer asked for coffee or any other commodity, they should get the pure commodity. Retailers thought that unless a consumer asked for pure coffee, then it was perfectly normal and right to provide a compounded mixture. In the early days of enforcement, fraud was such a large aspect of food adulteration in the priorities of government inspectors, that the two were really synonymous.

Not only did retailers think that they were being badly treated by government, but their ire was heightened when they saw that manufacturers and wholesalers, who had previously handled the supposedly adulterated goods, were not equally harried and pursued by government inspectors. Said the editorialist of the *Canadian Grocer*:

It is an unreasonable and unjust law which makes the grocer the scapegoat of manufacturers who produce impure goods. In the case of the manufacturer or wholesaler charged with selling adulterated goods, the package is allowed to speak for itself. Upon its evidence the accusation stands or falls. The word "compound," plainly marked on the package, saves the accused, if the mixture be one of the permitted sort. Why should not the same evidence be acceptable in the defence, as it is in the prosecution of a grocer?<sup>5</sup>

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<sup>4</sup>Mr. Laing, proprietor of a Hamilton bargain store, and W.H. McLaren, a well-known Hamilton grocer, were each defendants in cases brought by the plaintiff, Her Majesty Queen Victoria for alleged adulteration of coffee. The fines for each totalled \$94, the penalty for adulterating the coffee being \$50, for selling the same &30, and the cost of analysis \$14.

<sup>5</sup>Editorial, *Canadian Grocer*, Vol. VI, No. 15; April 8, 1892; p.3.

The reason for such uneven treatment was that enforcement of the *Adulteration Act* was undertaken at the point of sale. Before a violation of the Act could possibly occur, there had to be a transaction involving sale of a food. While it may be argued that sale was also involved in transactions between the manufacturer and wholesaler, and even between two manufacturers,<sup>10</sup> the point of application of legislation regarding food adulteration was at the retail level.

Retailers were relatively easy prey for what might be regarded as over-zealous government inspectors. The *Maritime Merchant*, in commenting on the case of a Halifax Grocer who was fined for selling adulterated pepper, echoed the sentiment felt by many that the retailer was made to "suffer for the sins of others" and that "some more practical way of enforcing the law" was necessary:<sup>11</sup>

We quite agree that there should be a law against the sophistication of food products, in order to protect the consumer, but it seems rather unreasonable that the retailer should have to stand the brunt and publicity of a prosecution under the Act; while the manufacturer, who is really the guilty person, should escape. In the case in question, we are assured, and we accept the statement of the retailer, that he bought the pepper in the usual way of trade as a pure commercial article, and in accepting the manufacturer's word for it, he felt that he was doing all that could be reasonable expected of him. It would be utterly out of the question for a grocer to maintain a system of analysis or tests as to the purity of the goods he is daily buying, even if he were willing to do so. The expense of doing so would be such as to make it easier to give up the sale of this or similar articles. If the law regarding the adulteration of goods is to be carried out in a just manner, it should provide for fining the man who makes and sells to the distributing trade an article below the legal standard of quality. This is the practical way of preventing fraud of that kind.<sup>12</sup>

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<sup>10</sup>Indeed, even manufacturers were known to have been the victims of adulteration. The journal of Mr. William Christie records the following entry for November 16, 1877 (p. 7 of Journal):

Got some samples of oil lemon greatly adulterated with some kind of oil - olive probably. C. W & Cos. of Montreal especially.

(Source: Archives of Ontario; MU 7728; #1 - Journal of William Christie, Christie, Brown & Co., Biscuit Manufacturers, Toronto, 1877-1896).

<sup>11</sup>*Maritime Merchant*, Article reprinted in the *Canadian Grocer*, Vol. XI, No. 1; January 1, 1897; p.40.

<sup>12</sup>*Ibid.*

After Anthony McGill became Chief Analyst of the Inland Revenue Department, he elucidated his own views on where he felt the responsibility lay for adulterated food and he made no bones about it - it lay with the retailer. In an article that he wrote for the *Canadian Grocer*, he said:

The purchaser, whether he is himself a dealer or a consumer, has direct relations with the person who sells the goods to him, and he, quite naturally, looks to this person as responsible for their quality....

The retailer has certainly had the goods in his possession. He is the only one who can establish the fact of their source; more than that, he is the only one who can vouch for the fact that they have not been tampered with while in his charge....

The retailer, in too many cases, is acting as the highwayman, on a small scale. He is buying the cheapest, mixed or compound goods, and selling them at the price of high grade and pure goods.<sup>13</sup>

There is reason to believe that Anthony McGill's views about the responsibility for adulteration properly resting with the retailer were shared by the courts. The "moral innocence of the defendant," although a compelling argument, did not find support in the courts. That is to say, in defending himself against a charge of selling adulterated goods, a retailer might plead that he played no role in the adulteration and could not have prevented it if done by others externally prior to receiving the goods from the wholesaler or manufacturer, or if done on his own premises by his employees after receiving them. The courts seemed to take the view that to concede his innocence, at least to the extent whereby he would be found "not guilty" of the charges against him, would be to weaken the law so greatly that it would be rendered ineffective. In an English case in which a seller of milk (unsuccessfully) pleaded innocence in this manner, the Chief Justice of England, Lord Russell of Killowen stated:

Taking it that the defendant was morally innocent of the offence, and that he was no party to the adulteration, and admitting that he had not even the means of protecting himself, ought the law to be construed in such a way as to protect him? I am of the opinion that any such construction would open a wide door for its total evasion.<sup>14</sup>

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<sup>13</sup>Anthony McGill, "Where Responsibility Lies in Adulterated Foods", *Canadian Grocer*, Vol. XXIV, No. 3; January 21, 1910; p.24.

<sup>14</sup>Peers Davidson, "An Interesting Pure Food Decision", *Canadian Grocer*, Vol. XIII, No. 5; February 3, 1899; p.7.

The *Adulteration Act* was drastic legislation and made no real distinction between the conduct of a morally innocent vendor who sold an article which, without his knowledge, had been fraudulently adulterated by his employees or by strangers.

It bothered grocers that they were singled out among other types of retailers for special harassment. Druggists, for instance, were made responsible for the consequences of their mistakes by physicians, whose prescriptions they filled. But the trade of the druggist was protected by certain legal requirements: examination, service and professional course. Even saloon-keepers had to submit to inspection and regulation, but like druggists, they were protected by a license fee and a limitation of competition. Adulteration was viewed as coming "from unbridled competition" and "the grocer alone," said the editorialist, "has to submit to vexatious espionage and be exposed to the risks of prosecution, without a single compensating privilege."<sup>15</sup>

These realities led to a venting of anger and frustration against government inspectors and calls for restraint and, if not for some form of industry self-regulation, then at least for appointment of inspectors who would have some ingrained sensitivity to the industry:

The inspector, if there is to be one, should be a member of the trade, acquainted with the situation in which the grocer is placed, and prepared to distinguish between cases of fraudulent intent and mere inadvertence. But a regular informer, chosen because of some lowly service as a party hack, can do no good to the cause of purity. Where inspection is carried on for the sake of the inspector rather than that of the public, who have made no complaint about adulterated coffee, it is apt to be oppressive.<sup>16</sup>

This discussion should not convey the impression that retailers were opposed to laws that would suppress adulteration. But they were in favour of a mechanism which would reduce the liability of the trader and place more onus upon the manufacturer. An idea, which

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<sup>15</sup>Ibid.

<sup>16</sup>Ibid.



would be later adopted by the Department of Inland Revenue, was advanced by a retail grocer from Shelburne, Nova Scotia:

My idea is to let the officials get samples of goods sold in the regular way, viz., by buying them from the retailer, and if upon analysis they prove adulterated let the party selling show that he bought honest goods, and thought he was selling such, which he ought to be able to do by his invoice or copy of order. If he can show himself innocent, then let the law take hold of the wholesale compounder and vendor of the goods, and make him pay the costs of analysis, etc.<sup>17</sup>

Of course, however useful such an idea was, it would not have absolved Luke, the Toronto small grocer and restaurateur who had given Inspector Watson compound coffee (out of a properly labelled tin) when Watson had asked for coffee. There appeared to be two levels of regulatory actions taken by Inland Revenue officers, and the type involving Luke was the most insidious and of dubious merit.

#### *Pursuit of the Offenders*

As to the pursuit of those true grocers selling compound coffee as coffee to unsuspecting consumers, there were definitely cases initiated by the government with a view to setting an example to the trade. And the trade took notice, for such cases were given detailed coverage by the *Canadian Grocer*, often with editorial and advisory comment. In the case of Vermette & Masse, Judge Dugas of Montreal ruled that a grocer was liable under the Adulteration Act for selling coffee admixed with other ingredients unless he took the precaution of labelling it as "Coffee Compound". In commenting, the *Canadian Grocer* said:

It requires such an action to settle whether the meaning or the language of the customer is to be taken note of by the grocer in filling orders for coffee.<sup>18</sup>

Two other cases in the Province of Quebec prosecuted under the Adulteration Act before Mr. Justice C. Dorion followed quickly on the heels of this one; Berthier L. Gouette and Romeo

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<sup>17</sup>"Responsibility for adulterated groceries", Letter to the Editor dated March 31, 1892, *Canadian Grocer*, Vol. VI, No. 15; April 8, 1892; p.4.

<sup>18</sup>Editorial, *Canadian Grocer*, Vol. VI, No. 17; April 22, 1892; p.3.

Roch, both grocers, were charged by Inspector J.J. Costigan and found to be guilty of selling him coffee which proved on analysis to be adulterated within the meaning of the Act, though not injurious to health. In these cases, the defendants pleaded guilty and were fined \$5 and the costs of the analyses, the total amounting to about \$30.<sup>19</sup> The outcome was the same in another case initiated by Costigan, tried before Judge Sicotte at Ste-Hyacinthe, involving R. Lafortune of Acton, Quebec, in which coffee was found to be adulterated with peas and chicory.<sup>20</sup>

An Ontario case against W.H. McLaren was not in itself as revealing as was the testimony of Dr. Ellis, the Public Analyst, who indicated that only one-quarter to one-third of the compound mixture that McLaren had sold to Inspector James Watson was coffee. And McLaren was widely respected in Hamilton as a reputable grocer!<sup>21</sup> This type of crass meddling with pure coffee led Thomas McFarlane, the Chief Analyst, to propose a "standard" for coffee which, when sold as a mixture or compound, would allow only chicory and coffee, the proportion of the former not to exceed 20 percent. Clearly, the Department was not satisfied with the idea of labelling being an "out" for adulteration; merely selling a product as "compound coffee" and labelling it correctly did not serve to limit the amount of added material. Commissioner E. Miall admitted in the *Canadian Grocer* that it was difficult to obtain convictions for the debasement of certain goods, including coffee, owing to the fact that no standard of purity for such products existed.

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<sup>19</sup>"Chat by the Way" (Regular feature column), *Canadian Grocer*, Vol. VI, No. 19; May 6, 1892; p.10.

<sup>20</sup>"Chat by the Way", *Canadian Grocer*, Vol. VI, No. 51; December 16, 1892; p.10.

<sup>21</sup>"A Coffee Case in Court", *Canadian Grocer*, Vol. VI, No. 27; July 1, 1892; p.6.

While the *Adulteration Act* provided for the imposition of fines and penalties, the route that was followed for the most part as a deterrent to adulteration was publication of the names of manufacturers and vendors of fraudulent goods. However, the Minister had discretion in the matter of fines and in recognition of the fact that the *Adulteration Act* marked a new departure in legislation, the fines levied were usually no more than the cost of procuring and analyzing the sample.<sup>22</sup> That the Department had experienced trouble in obtaining successful prosecutions was attested to by the Commissioner of Inland Revenue in his Report of 1887:

In view of the technical points almost constantly raised when prosecutions are entered upon, which it seems almost impossible to avoid where the testimony of experts is required, the undersigned ventures to recommend an Amendment to the Act, requiring the results of analysis to be published in one or more local papers, giving the names of the vendors, the description of article analyzed, and the finding of the Analyst. Such a course would probably be more effective than any proceedings in Courts of law.<sup>23</sup>

Thus, after 1887, the Department of Inland Revenue issued in bulletin form reports of the work done in its laboratory. By 1906, 116 bulletins had been issued and the results of analyses embodied in these bulletins later facilitated establishments of standards of quality, in that they established the norm of composition of individual foods made available in the marketplace.

By 1891, though, after 27 bulletins had been issued, the Commissioner had changed his mind:

The publication of the names of parties so offending against the law appears to be insufficient as a deterrent, and in future, prosecution will have to be resorted to, in order to cause the law to be respected.<sup>24</sup>

As it turned out, publication beyond the Annual Reports of the Department of Inland Revenue was very infrequently undertaken, probably due to lack of interest of the newspapers in

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<sup>22</sup>Anthony McGill, "Food Adulteration and the Law", *Canadian Grocer*, Vol. XX, No. 22; June 8, 1906; p.44 (Part I) and Vol. XX, No. 23; June 15, 1906; pp. 26-27 (Part II); Anthony McGill, "Federal Inspection of Food in Canada", Proceedings and Transactions of the Royal Society of Canada, Third Series, Vol. V (Meeting of May, 1911), Appendix D, Page LXXI-LXXXIV.

<sup>23</sup>Department of Inland Revenue, Annual Report, 1887.

<sup>24</sup>Department of Inland Revenue, Annual Report, 1891.

participating and in some cases, due to the newspapers considering this advertising for which the government would have to pay.

In any case, the propriety of publishing the names of manufacturers, albeit names "as given by the vendor,"<sup>25</sup> was of dubious merit. Aside from this practice serving as an opportunity, deliberate or otherwise, of doing damage to the reputation of a manufacturer,<sup>26</sup> the name was published with the *imprimatur* of the Department. After all, doubt still existed about the possibility of substantiating such a finding in a court of law. Indeed, in 1899, The New York Condensed Milk Company announced that it was preparing to take action against the Canadian Government for publishing the results of analysis and criticizing several makers, including this company. Said the *Canadian Grocer* in commenting on this matter:

The reports of this Department, while honestly prepared, are often unfair, misleading and impractical, as was the case a year or so ago, when they showed that all mustards were adulterated.

As *The Grocer* pointed out at the time, an absolutely pure mustard will not keep. There is plenty of good work for the public analysts to perform, but they go about their work in a theoretical, instead of a practical, way. They seldom touch articles that are so adulterated that they seriously injure those who consume them, or take steps to punish those who compound and sell them.<sup>27</sup>

### *Invitation to Regulation*

There was a certain amount of pressure applied by retailers to have the government step in and clean up adulteration. Some Canadian manufacturers were reported to be

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<sup>25</sup>The Commissioner of Inland Revenue said in his 1891 Report:

Complaints have been made by certain manufacturers of the mention of their names with samples indiscriminately taken from retailers. It will, however, be observed that the names are given as the "alleged" manufacturers only, or parties from whom the goods are stated to have been purchased by the vendor.

<sup>26</sup>For instance, a vendor could give the name of another, rather than the actual manufacturer.

<sup>27</sup>"The Condensed Milk Analysis", *Canadian Grocer*, Vol. XIII, No. 2; January 13, 1899; p.15.

supplying cream of tartar labelled "pure", but which in fact contained 30% starch. There were also reports of cochin and other substances, which cost 21 to 25¢ per pound, being sold as pure ground Jamaican ginger, normally worth 30 to 33¢ per pound delivered. There were even reports of "spent" ginger,<sup>28</sup> which cost 2¼ to 2¾¢ per pound, being sold as the pure article for 10 to 15¢ per pound and as high as 20¢ per pound. However, although the trade whined for government action, it had a deeply-ingrained suspicion about the ability, or rather, the desirability of public servants being involved in drafting "pure food laws" (standards) which might be used against the trade. The *Canadian Grocer* said:

It is time that the Inland Revenue Department took the matter in hand. Let the Comptroller confer with the leading manufacturers and dealers and arrange some sensible and business-like plan whereby adulteration and fraud in the sale of food products may be stopped and the offenders punished.

Some years ago, the canned goods packers found their business suffering because some dishonest packers soaked peas, corn and beans, put them in tins and sold them as freshly-packed goods. Through the efforts of a sensible business man, Wellington Boulter, president of the Canned Goods Association, a law was passed making it a misdemeanour for anyone to sell goods in this way as fresh vegetables unless the words "Soaked," in letters three-quarters of an inch high were printed across the can. Several men accustomed to the careless way in which the Inland Revenue Department enforced its regulations proceeded to soak goods and sell them.

The association took the matter in hand, and one of the worst offenders suddenly found himself called on to pay a fine amounting to about \$4,000. He was dealt leniently with. He was let go on the payment of a few hundred dollars. Since then, no complaints have been received.

Laws can be made to apply as effectively to other goods. But they must be prepared by experienced business men. We object to such pure food laws as Civil Service officials and theorists might suggest. Some of the states of the Union have had an experience of such. We want none of them in Canada.<sup>29</sup>

While the retail trade did not wish to be defrauded by manufacturers or the wholesale trade, it equally did not want to be subjected to legislation that would be used against it at the retail level. Pure food laws or standards were too rigorous, especially if left to inspectors to police. A more self-regulated regime seemed to be in order since there was some elasticity in its enforcement. In fact, with such elasticity, a promise to do no wrong in future might

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<sup>28</sup>The major principles and strength of such ginger were extracted by aerated water manufacturers to make beverages, and then the spent residue, which still had some flavour, was placed on the market.

<sup>29</sup>"Adulterated Baking Powder", *Canadian Grocer*, Vol. X, No. 50; December 11, 1896; p.19.

enable negotiation of a lesser penalty. One might ask if the retail trade was really seeking continued licence to adulterate certain foods themselves and to place themselves in a better position to appropriate illegitimate profits that were now going to wholesalers or manufacturers. In other words, could it be that the retail trade simply wanted a "piece of the action"?

The salient cause of the prevalence of adulteration was the *rage for cheapness*.

Essentially, there existed a market for cheaper goods and the grocer, in the face of competition, was eager to fill the demand. Certain classes of consumers could not afford to pay the price for the genuine article and therefore fell back on cheap substitutes, but persisted in applying the names of the genuine articles when asking for them. The grocery trade, it seems, was faced with a dichotomy: many of the public demanded a low-priced article and felt that they obtained fair value for their money, but in supplying the demand, entrepreneurs often found their way into court.

Again and again, the cause for adulteration was attributed to competition. A material reduction in prices below levels at which similar goods were ordinarily sold could only mean one of two things: either the merchant was doing business at a loss,<sup>30</sup> or the quality of the merchant's goods were not as represented:

How often is the assertion made that a certain article is "just as good" as something else of known quality, and that the goods offered have the additional merit of being much cheaper? A person who will reflect upon the conditions under which business is conducted, and consider the pressure which is brought to bear by competition in all lines to force prices down to a minimum, will readily perceive the impossibility of an individual or a class underselling, to any material extent, their contemporaries in the same line of business

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<sup>30</sup>It was taken for granted that no business was purposely conducted at a loss. One of the reasons that grocers through their trade publication continually berated department stores, which were just starting to become a threat to them, was because of their practice of selling well-known articles in general use at a loss as a decoy (i.e. a "loss leader") to attract customers, from whom it was expected that the damage would be made good on other purchases that they might make. (Ibid.)

and still maintain the same or equal quality of merchandise.<sup>31</sup>

It came to be understood that cheapness was associated with adulteration and that quality was associated with purity. Firms, playing on this perception, began to place advertisements in the trade magazines. The following, for example, is the text of an advertisement for the Chas.

Southwell & Co.'s line of jams, jellies and marmalades:

Don't buy cheap and adulterated goods at any price. If you have any regard for your customers and their trade, have on hand pure and reliable goods. We guarantee ours strictly pure, made from finest selected fruit by improved processes.<sup>32</sup>

Interestingly, no standards for jams, jellies or marmalades had yet been established by the Department of Inland Revenue<sup>33</sup> and therefore such texts made good advertising copy, but had little meaning and would have been difficult for any competitor or for the Department to challenge.

If cleanliness was next to godliness, then pure foods and honesty were next to cleanliness. None less than Walter M. Lowney, chocolate and cocoa manufacturer, thought it incredible that any voter would allow their legislature to neglect food laws for the protection of the health and purses of their own citizens. "It is the duty," he said, "to give time, thought and influence to prevent such neglect." He further remarked,

Let us fight it out to a finish now and get complete protection everywhere from impure and dishonest foods....Pure food is important for us and important for our descendants for generations to come. It means much for the happiness of the people and perhaps still more for their success in the competitive strife with foreign industrial nations. It is more important than good coal is in the engine room because the machine whose efficiency is at stake is the human machine and the damage done by impure food may last to the third and fourth generation.<sup>34</sup>

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<sup>31</sup>Ibid.

<sup>32</sup>*Canadian Grocer*, Vol. IX, No. 41; October 11, 1895; p.40.

<sup>33</sup>The Standards for Fruits and Fruit Products, including preserves, jams, marmalades, and jellies, was not advanced to Cabinet until October 14, 1912 [RG-16 (Department of Inland Revenue), Vol. 830, Reports and Submissions to Council, Book 14, Document No. 100086, p.4].

<sup>34</sup>Walter M. Lowney, "Pure Food, Honesty and Cleanliness", *Canadian Grocer*, No. XXI, No. 4; January 25, 1907; p.20.

Grocers themselves were annoyed that nothing appeared to be done about adulteration of this kind. It was clear that adulteration that allowed a contemporary to compete unfairly was the type that bothered them the most.<sup>35</sup>

While excitement runs high in Toronto through the danger to public health by impure water, through a break in the conduit, there is still a more hydra-headed monster to be dreaded; that is, the danger to the public health by impure articles of food. There are some bottled pickles to be seen in nearly every grocery store, which are selling at from nine to ten cents a bottle. Now, it is impossible to put them up in pure vinegar and sell them at any such price. It is said by men who claim to know, that they are put up in what they call acid vinegar, a barrel of which can be made for about 50¢, whereas pure vinegar would cost about \$7 or \$8 a barrel. This is serious when you think that this acid vinegar will burn the inside lining of the stomach....It seems to me that inspectors of food should look into this matter. To the trade I would say: Deal with reputable houses only.<sup>36</sup>

Many in the retail trade would have some reason to object in the future to the onslaught of so-called "Pure Food Legislation". They felt that such legislation did not recognize the responsibility of either the consumer, the manufacturer or the wholesaler, but made the retailer the scapegoat, demanding from him an impossible degree of vigilance and a degree of intelligence and skill that only the highly-educated chemist or expert could supply. On the other hand, while the *Grocer* opposed oppressive and unfair laws for the prevention of the sale of adulterated food, it did advocate elevation of the standards of quality by retailers and advised against the urge to weakly surrender to the demands of the public for cheap and inferior goods.<sup>37</sup>

### *Things Fall Apart*

An examination of various articles published in the *Canadian Grocer* in the last decade of the 19th century leads one to the conclusion that the industry was becoming increasingly

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<sup>35</sup>i.e. when compared against adulteration of the injurious kind and adulteration represented by compound mixtures

<sup>36</sup>*Canadian Grocer*, Vol. IX, No. 30; September 20, 1895; p.38.

<sup>37</sup>"The Rage for Cheapness", Article reprinted from *Merchants' Review*, *Canadian Grocer*, Vol. VII, No. 13; March 31, 1893; p.24.



frustrated with its perceived loss of ability to pursue its own agenda and control things in its own way. It did not help matters that the Department of Inland Revenue appeared to be equally ineffective at stopping adulteration, and yet its spectre always represented a threat to unsuspecting retailers. In part, the reason for the ineffectiveness of the Department of Inland Revenue was that analysts were not entirely agreed as to what the composition for certain commodities should be:

As to what constitutes adulteration, there is considerable room for debate. Coffee, for instance, is rarely, if ever, sold in its pure state, because there is no demand for it in that condition, as the tastes of most consumers of this beverage require a greater or less proportion of chicory to be added, and this fact is familiar to most buyers who have given even but slight attention to the subject.<sup>38</sup>

Food technology was becoming increasingly complex and even ingredients added to food were no longer single-component (pure) ones, but were in themselves compounded. Baking powder was a case-in-point. Some of the better<sup>39</sup> powders contained alum and were known as "alum powders". While Inland Revenue Department officers worked on the assumption that these powders were unsatisfactory, the prosecutions never amounted to anything and makers of the better quality powders and retailers desirous of handling the best kinds were left at the mercy of those selling inferior powders which authorities took no efforts to suppress.<sup>40</sup> Retailers claimed that, as a result, they lost business because customers proceeded to take their business elsewhere - presumably to retailers who were not intimidated by the ever-present Inland Revenue threat of prosecution.

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<sup>38</sup>*Maritime Merchant*, Op. cit.

<sup>39</sup>Whether they were "better" or not was debatable. In 1900, the alum-containing powders sold for about 12½¢ to 15¢ per pound, whereas pure cream of tartar baking powder retailed at 50¢ to 60¢ per pound. The *Canadian Grocer* aptly observed that:

The reason alum, instead of cream of tartar, is used as a constituent of baking powder is, of course, to satisfy the craving for cheapness which is so pronounced in trade today, the former....being a great deal cheaper than the latter.

("Adulterated Baking Powder", Vol. XIV, No. 23; June 8, 1900; p.15.)

<sup>40</sup>"To Stop Adulterations", *Canadian Grocer*, Vol. IX, No. 17; April 26, 1895 (Supplement); pp. 1-2.

But the threat was never that great. Often, manufacturers, whose articles such as baking powder were found upon analysis to be "adulterated", would be merely required to pay the \$14 cost of analysis after having received a letter from the Commissioner of Inland Revenue. They would also see their names published in the Annual Report or Bulletins of the Department, both documents not being widely-disseminated ones in any case. The cost of \$14 was not viewed as a functional deterrent:

This punishment is a mere flea bite. It is not a heavy penalty for doing wrong and it does not frighten anyone into doing right. Who ever heard of a second prosecution, or any serious effort to root out the abuse? Like the liquor men who get fined repeatedly for "first" offenses, because prosecution of second or third offenses would involve serious consequences, the adulteration offenders get off with \$14.<sup>41</sup>

However, the trade was getting a bad name and decried the state of affairs in which, in order to make a profit or to capture the market, firms had to resort to adulteration or cheap "come-ons". 'Why do firms need to adulterate?,' grocers asked. Why did it all have to come to this? "Let people sell their goods on their own merits," they said.<sup>42</sup> This state of affairs led to cries for reform. One industry "trial balloon" was for Inland Revenue to issue departmental licences to (spice) grinders or the wholesale trade, a condition of which would be mandatory inspection. While the *Grocer* noted that this seemed like a radical move which might not be of any value, it said in resigned frustration, "....something should be done, and that at once."<sup>43</sup>

Authorities were fair game for bashing in industry's efforts to control adulteration, the latter of which, when of the non-injurious kind, was really no more than "product compositional heresy" or deviation from the industry norm. It was unlikely that the various

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<sup>41</sup>Ibid.

<sup>42</sup>Letter to the Editor dated December 28, 1896 from the firm of Wilson & Smith of St. Catharines, *Canadian Grocer*, Vol. XI, No. 2; January 8, 1897; p.16.

<sup>43</sup>Ibid.

players in the industry could ever come together to agree among themselves on standards, so the next-best alternative was to criticize those in government responsible for making decisions and advocate the placement of one of industry's own into a position of power in government, including a sympathetic industry person in charge of the Inland Revenue Department:

When they put a practical business man in charge of the Inland Revenue Department, instead of a figurehead, it is probable we shall have a Food Act that will prevent frauds of this kind, and an Act that will be enforced.

....The Controller of Inland Revenue is an able lawyer, but he knows nothing about adulteration of foods. It is an able business man....that should be over this department.<sup>44</sup>

The Commissioner of Inland Revenue was not the only target of industry's ire. The industry sometimes accused public analysts of exaggerating health hazards to justify their oft-unappreciated regulatory actions. To this end, the food industry, including wholesalers and retailers, did not hesitate to use the testimony of other scientists with internationally-established reputations to vindicate its own position on contentious matters and to subvert the legitimacy of opinions of government scientists. It was considered that the best way to fight scientists was "on their own turf". For example, Inland Revenue officers had begun to express concerns about the unwholesomeness of copper as a colouring matter for certain food products, especially pickles.<sup>45</sup> The industry press said:

Despite all the fuss which has been made about the alleged noxious character of food preparations containing copper, this metal appears to be a normal constituent of most animal and vegetable substances. Lehmann and Mayrhofer, two German chemists of note, declare that they have detected and estimated copper in grain, beans, cocoa, bullock's liver and many other comestibles. They are of the opinion, from experiments which they have conducted on human subjects, that the effect of copper upon the economy is grossly exaggerated. They found that preserves containing 25 milligrammes of metal per kilogramme<sup>46</sup> had no deleterious effect; moreover, they found that 20 to 30 milligrammes of copper in the form of acetate or

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<sup>44</sup>"Frauds in Milk", *Canadian Grocer*, Vol. IX, No. 20; May 17, 1895; pp. 13-14.

<sup>45</sup>In this application, copper was not in itself a colour. The chlorophyll molecule, responsible for the green colour of vegetables and pickles, has a central atom of magnesium. The magnesium form of chlorophyll is unstable in acid solution, including vinegar, and the green colour of pickles can thus fade. The addition of copper ion, usually in the form of copper sulphate, replaces the central magnesium atom of chlorophyll, resulting in an acid-stable form of chlorophyll in the pickles.

<sup>46</sup>i.e. 25 parts per million (ppm) or 0.0025%

sulphate might be taken daily with impunity. Concerning the colouring of preserves, they are of the opinion that this is nearly always necessary in order to impart to them a marketable appearance....

It may be well for retail grocers to bear the above statements in mind when attacks upon preserves coloured with copper are made upon their hearing. Certainly, with opinions from such high authorities to sustain him, the retail grocer need not hesitate to handle this class of goods.<sup>47</sup>

The rhetoric was sometimes vitriolic and some grocers accused the Department of Inland Revenue's officials of being ill-informed and their activities, misdirected. In one case, a grocer accused Department officials - the "well-paid busybodies of mustard and oleomargarine fame, the sticklers for exactitude" - of wasting taxpayers' money in worrying about the fraud in mustard rather than the health-related adulteration of sugar.

At the expense of at least thousands of dollars, a report of the duplicate analysis of 'sixty-six samples of commercial mustard,' collected from one end of the Dominion to the other, was lately paraded, showing the summer's work of several highly-salaried scientific officials, and probably scores of understrappers, wherein a great wonderment is made that no pure mustard was found to be on sale. Now, any grocer's clerk or observant housewife could have informed these sapient officials what they ought to have known themselves, that an absolutely pure ground mustard is not an article of commerce....

Canadian granulated sugars are, as a rule, good, honest goods, and in the better varieties each barrel contains a copy of analysis showing almost 100 per cent purity, but, as is very well known, the brown or yellow grades contain only about 80 to 85 per cent of sugar. What composes the 15 to 20 per cent percentage of admitted adulteration has not, to the knowledge of the trade, ever given our well-paid laboratory officials even a passing thought....

It may be easier to hunt the hard pushed corner grocer than to tackle such large game as the sugar barons, but this is a matter of the public health<sup>48</sup>, and the Minister of Inland Revenue should let no time pass without insisting on a change of tactics and let poor folks know what the residuum of 15 or 20 per cent of their sugar food is composed of and cease to annoy well-meaning merchants, whom, instead of being subjected to fines and penalties, should be the recipients of the Department's apologies for the meddlesomeness of its ill-informed officials.<sup>49</sup>

It is easy to understand the message of, and empathize with, the author of this letter, but on

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<sup>47</sup>"Copper as a Constituent of Foods", Reprinted from *Merchants' Review, Canadian Grocer*, Vol. VII, No. 38; September 22, 1893; p.7. The press was vindicated, because some four years later, in a speech to the Society of Chemical Industry in Manchester, England, the president of this prestigious organization gave a fine scientific discourse on this whole matter, indicating an amazing understanding for the times of the concept of dose-response relationships (see "Copper in Pickles", *Canadian Grocer*, Vol. XI, No. 33; August 13, 1897; p.8).

<sup>48</sup>The author of this letter to the editor of the *Kingston Whig* had pointed out that the unknown adulterants of these less refined sugar types were "foisted" on the public, including children and "delicate" women.

<sup>49</sup>"Fussy and Expensive Officials", *Canadian Grocer*, Vol. XI, No. 50; December 10, 1897; p.8.

the other hand, one can also understand the position of the government regulators who had to rely on science to glean the evidence required to enforce the Act and avoid being laughed out of court. Still, the views of this grocer must have hit the mark and undoubtedly reflected the thinking of a sizeable proportion of retail grocers who perceived inequities and obvious unfairness in the system. It is hard to imagine what other course of action was available for the officials though, and it probably hurt them deeply to be the subject of such derision.

In a more general light, while science itself was viewed as contributing much to progress, merchants now perceived that it was beginning to be turned against them. Science was going too far and government scientists emphasized the risks rather than the benefits in the risk/benefit equation. For instance, microbiologists were beginning to understand the role of food and water as vehicles in the dissemination of microorganisms of public health concern (e.g. those implicated in typhoid, malaria, etc.) and in the transmission of disease. The Grocer asked whether the evil propensities of animicular life were not being magnified at the expense of the beneficial.<sup>50</sup>

In their zeal to utilize the latest methodology that science afforded them, analysts sometimes "fell flat on their face", often becoming the laughing stock of the industry. It was not so much a case of their incompetence in some of their dealings, but that they did often did not have as much expertise and knowledge about food science as did some of their industry counterparts. An example was the finding on one occasion that 63% (about 69) of 110 samples of lemon extract that they analyzed contained 50% alcohol, the inference being that "inebriety lurks on the housewife's pantry shelves and that the seeds of it are sown in pastry, ice cream

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<sup>50</sup>Editorial, *Canadian Grocer*, Vol. VII, No. 46; November 17, 1893; p.3.

and cake."<sup>51</sup> But worse, the *Grocer* noted, the analyst was startled over the absence of lemon oil:

Such samples contain only traces of lemon oil. Of the total samples, two contain above six per cent, three from four to five per cent, four from two to three per cent, fifteen from one to two per cent, and seventy eight below one per cent.<sup>52</sup>

Owing to the non-existence of a standard regarding alcoholic strength and content of lemon oil, the analyst was loathe to declare any of the samples adulterated. Any knowledgeable person in the industry would have known that by definition, essences (containing the valuable oxygenated compounds like esters, aldehydes, ketones, alcohols, etc.) were alcoholic extracts and that essential oils (containing terpenes, sesquiterpenes and waxes) were insoluble in the ethyl alcohol that was used to remove the desired compounds. The object in preparing a lemon extract was to deliberately leave the lemon oil and its components behind. Thus, assuming a constant amount of solvent, say 50% ethyl alcohol, the lower the oil content, the higher the quality of the extract. The whole incident was said triumphantly by the *Grocer* to be "humorous" to the few who knew something about the manufacture of extracts. This was a rather haughty position for the *Grocer* to take, but it was merely retribution for some of the grief caused the industry by government analysts.

Not only was there an increasing industry perception that public analysts were impractical and were going overboard, but so too there was the perception that they had too much power; their role appeared to extend beyond that of mere food analysis, the science for which they were trained:

....it appears to us that whilst it is the province of the analyst to determine the quality of an article, it is somewhat beyond his proper limits to interpret the law relating to the sale of goods. We have noticed in more than one instance that a public analyst has appended to his certificate an expression of his opinion as

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<sup>51</sup>"Alcohol Oil in Lemon Extracts", *Canadian Grocer*, Vol. XX, No. 12; March 23, 1906; p.30.

<sup>52</sup>*Ibid.*

to how the law should be interpreted in relation to the article which he had been called upon to examine.<sup>53</sup>

Neither did retailers place a high evaluation on the consumer. In fact, in large measure, they were assessed the responsibility for adulteration. It was said that, "Many persons, whose time is of no value, will walk several blocks to save a cent," and, further, that "the public must learn the fact that there is a difference between cheapness and lowness of price; an article can be low in price, yet by no manner of means be cheap."<sup>54</sup> It was argued, without any detail as to *how*, that people ought to possess the means of ascertaining who among storekeepers were honest, and who were not, and then the just grocers would meet with justice and the unjust would suffer for their own sins. For the consumer, it was a matter of *caveat emptor*, and for the grocer who transgressed, then *the way of the transgressor was hard* indeed.

Some grocers gave up and conceded that when you had to make your living by the public, then you had to please the public, irrespective of your own views about quality. It was not the role of the grocer, they argued, to educate the public about quality. Such condescension would simply provide the basis for backlash and consumers would proceed to search elsewhere for a grocer that would satisfy their needs. One grocer put it this way:

They (*i.e.*, the public) have been so trained to adulteration that they don't understand what pure goods means. They would spit purity out of their mouths, as if it were poison; their taste has become depraved. Why, the majority of people don't know what the finest tea means. Give them a good strong tea, one that would almost knock you down, and they would tell you that was the best tea, and laugh at you if you tried to tell them different. So what are you going to do as far as quality is concerned? It's a hungry crowd; give them something to fill up, and lots for the money, and they don't care for the quality in most cases. Of course, there are exceptions. In fact, some grocers have become so accustomed to goods being sold as pure that are not pure that they would tell you the pure goods were not half as good as the adulterated....If an

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<sup>53</sup>"Exhausted Ginger", Article reprinted from *Grocers' Chronicle, Canadian Grocer*, Vol. VII, No. 46; November 17, 1893; p.30. Analysts were required to render an opinion as to whether a food was genuine or adulterated, according to the form and certificate that had to be completed upon analysis of a food sample.

<sup>54</sup>"A Retired Grocer's Reflections", *Canadian Grocer*, Vol. VII, No. 16; April 21, 1893; p.7.

article is adulterated well and the people want it, they will have it if they hunt all over the city for it. They will go through fire and water to get it. The harder it is to get, the more they will try. If the customers would only leave it to the grocers, it might be all right - but they won't.<sup>55</sup>

The demand ruled the quality. The *rage for cheapness* not only involved grocers lowering prices and offering cheaper goods in order to increase their individual market share, but people *demanding* the cheaper goods because those were the goods to which they had become accustomed. These people could not justify - or afford, for that matter - to pay the higher prices demanded by grocers for quality goods which the average person did not particularly like anyway.

Those who knowingly adulterated an article of food with a view to deception were viewed as nothing more than common thieves.<sup>56</sup> So too were those who imitated other manufacturers' goods, packages or labels, a practice that apparently was common with canned goods, pickles and other staple package goods. Said the editorialist,

The manufacturer or the merchant who, in order to build up his own business, steals what his own unimaginative and sterile brain cannot create, namely, ideas, is full brother to a thief and first cousin to a coward....

Fight a competitor day in and day out, but fight fair. Use all the ideas you can command, but use your own. "Thou shalt not steal" applies to ideas as well as to commodities. Stealing is taking whatsoever is not your own, no matter what the shape, form or condition of the thing taken may be.

Every man in business ought to be able to stand upon his own bottom. If he cannot he has no right to be in business. And rob his competitors as he may it is only a question of time before he will have to get out.<sup>57</sup>

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<sup>55</sup>"The Demand Rules the Quality", Letter to the Editor from R.M. Corrie, Secretary, Toronto Retail Grocers' Association, *Canadian Grocer*, Vol. VI, No. 34; August 19, 1892; p.5.

<sup>56</sup>Editorial, *Canadian Grocer*, Vol. VIII, No. 27; July 6, 1894; p.8.

<sup>57</sup>"A Scurrilous Practice", *Canadian Grocer*, Vol. XI, No. 22; May 28, 1897; p.15.



***Raising Professional Status***

One way that grocers could elevate their professional status was to participate in the dissemination of sound advice concerning public health. It was desirable to be associated with doctors because of their status in the community. In the 1890s, there were recommendations by various medical authorities against the use of cow's milk which had not been boiled, sterilized or condensed. Tuberculosis, or "consumption," could be imparted by milk, and so could scarlet fever, scientific reports revealed. It was extremely difficult, and often impossible, to know whether a cow was diseased or not, without killing the animal. Therefore, the danger of catching the disease from milk was a menace.

Condensed milk fortunately supplies the need, and it can be recommended by dealers with the double satisfaction that it conforms to the latest medical opinion, and is besides a profitable item to deal in.

The facts which have been appearing in these columns lately on the subject of disease germs in milk, ought, apart from even commercial conditions, to be widely diffused, and grocers who read them would do well to draw the attention of the newspaper editors in their localities to what constitutes a great modern medical reform.<sup>50</sup>

Notwithstanding the opportunity for profit, it was considered the duty of grocers to provide such advice. Said the *Canadian Grocer* after publication in England in 1895 of the Royal Commission Report on Tuberculosis, "ordinary cow's milk must go", and:

No further argument is needed. The milk diet used by all classes of people cannot well be dispensed with. For young people especially it contains too valuable qualities to be abandoned, but it must first be properly treated. The condensed milk, which is now so much in demand, has been sterilized, and thus deprived of all disease germs; so that it behooves dealers, both for reasons of health and on commercial grounds, to lay the evidence collected by *The Grocer* before the public, and see that raw milk is not used. Grocers, by recommending suitable articles of diet, can often do as much for the public health as chemists or doctors. In this case, their duty is clear.<sup>51</sup>

In fact, the *Canadian Grocer* also used the Royal Commission Report to give a little advice of its own - to medical men - and rebuked the (Ontario) Provincial Board of Health for neglecting its duty when it did not insist on a vigorous inspection of the milk cows in every part of the

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<sup>50</sup>"Disease Germs in Milk", *Canadian Grocer*, Vol. IX, No. 17 (Supplement); April 26, 1895; p.3.

<sup>51</sup>"Ordinary Milk Must Go", *Canadian Grocer*, Vol. IX, No. 20; May 17, 1895; p.31.

country, especially in towns and cities where the greatest amount of disease lurked.<sup>60</sup>

The association of foods with good health in a more general way became an accepted technique of marketing during this period, to the extent that medical-like claims were made for some foods. Making medical claims for those foods often associated with adulteration was one way to confer upon them some redeeming value. It also allowed grocers to provide "health advice" and, in doing so, enabled them to elevate their perceived professional status and become more like doctors and druggists. The fad became so popular that the *Canadian Grocer* glibly chortled that grocers would have to add to their signs the phrase "and Druggists" because:

The curative qualities of the articles sold as groceries are developing so rapidly that it now takes an article a month to describe them. A dispensary for groceries, as well as druggists, will next be in order.<sup>61</sup>

For instance, Monsieur Chambelland of Pasteur's laboratory was reported as finding that no living disease germ could resist for more than a few hours the antiseptic power of essence of cinnamon. Therefore, concluded *The Grocer*, "to combat the approaches of influenza by adding ground cinnamon to puddings and tarts would certainly be a pleasant way of taking antiseptic precautions against the prevailing epidemic."<sup>62</sup> In fact, some foods, such as "Kola Tonic Wine", were reputed to have been endorsed by physicians. This preparation, manufactured by the Hygiene Kola Company of Toronto, was touted as being able to "strengthen all parts of the body and (function as) a specific aid for digestion, dyspepsia,

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<sup>60</sup>*Canadian Grocer*, Vol. IX, No. 21; May 24, 1895; p.30.

<sup>61</sup>"Curative Groceries", *Canadian Grocer*, Vol. VII, No. 32; August 11, 1893; p.10.

<sup>62</sup>"Cinnamon for Influenza", *Canadian Grocer*, Vol. VI, No. 6; February 5, 1892; p.4.

bronchitis, rheumatism and nervous diseases."<sup>63</sup>

Claims for some other foods that were associated with adulteration were often more moderate: coffee was a beverage consumed as brain-bracers by preachers, orators, editors and lawyers - presumably intellectuals, but in any case, "men of literary habits who exhaust much nerve force":

The mental exhilaration and physical activity and buoyancy which coffee causes...explains the fondness which has been shown for it by so many men of science, scholars and others devoted to writing or thinking at all times, and for which reason it has been styled the "intellectual beverage."<sup>64</sup>

It was not even unknown to flog fish as a brain food. Consider this light-hearted ode, for example:

Some think that clam chowder does grow upon trees,  
 But I bet you a dollar it don't;  
 And that fish will make any sized brain that you please,  
 But I bet you a dollar it won't!  
 For if put to the test you will find that it fails,  
 As our statesmen like chickens, and oysters, and quails,  
 When you'd think, by their brains, they eat nothing but whales,  
 But I bet you a dollar they don't.

Others think a fish diet will sure make them bright,  
 But I bet you a dollar it don't;  
 That their heads will increase till their scalps are too tight,  
 But I bet you a dollar they don't!  
 For I've noticed fish - that's just in my line -  
 And observed that the mackerel when rotten do shine,  
 So these chaps, to be bright, must eat these all the time,  
 But I bet you a dollar they won't!<sup>65</sup>

It is not surprising that the trade would use physicians' testimonials when doing so was beneficial to it. But it is perhaps surprising that the trade rejected their advice when it was not. In 1901, the Department of Inland Revenue sent out circulars to 4,348 medical men in the Dominion

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<sup>63</sup>"Kola Tonic Wine", *Canadian Grocer*, Vol. XV, No. 15; April 12, 1901; p.12.

<sup>64</sup>"Why Coffee is Liked", *Canadian Grocer*, Vol. IX, No. 6; February 8, 1895; p.28.

<sup>65</sup>"Fish as Brain Food", *Canadian Grocer*, Vol. XII, No. 5; February 4, 1898; p.17.

asking whether over the past few years they had noted any cases of illness attributable to the use of canned goods. Out of the 1,131 replies received, 1,059 answered in the negative and 254 in the affirmative. There were 112 affirmatives and 466 negatives from Ontario, and 66 affirmatives and 22 negatives from Quebec. The number of cases in Canada attributable to the use of tinned goods averaged about 128 per annum in a period of about 7 years. As a result of this little epidemiological survey, the Department made some recommendations in the interest of public health: (1) subjecting imported canned goods to inspection, (2) using vessels of glass or earthenware instead of tins or cans, (3) stamping the date of filling and the name of the factory and its proprietor on the tin itself, (4) using the contents of the can within 24 hours of opening, (5) prohibiting sale of tinned goods after a certain lapse of time from manufacture (6 months to 2 years), (6) keeping canned goods in cold storage and never storing them on grocers' shelves, and (7) keeping them from exposure to the sun's rays or heat.<sup>66</sup> The trade was particularly upset about recommendations (2) and (5) and turned upon doctors in a vitriolic way:

All physicians are not fools - God help the human race if they were - but many fools are physicians....it is really amusing to think of the opinions of the impracticable medics. And it is difficult to avoid the suspicion that, having found canned goods unproductive of patients, the dear doctors would send the industry to the bow-wows if they could. It would go there in a jiffy if their suggestions were carried out. That glass is more expensive and is liable to loss on account of its being so easily broken, settles the question of its displacing tin to any calculable extent, while the use of earthenware is too ridiculous to be given a moment's thought. The physician who would prohibit the sale of canned goods six months old must have a head like a gourd. Such ignorance, hardly excusable in a layman, is unpardonable in a graduated doctor of medicine. The baldest diploma-mill in the world would be ashamed of such an ass.<sup>67</sup>

It would not be the physicians in any case who would prohibit the sale of canned goods. It is possible that the Department believed in these recommendations and engaged the support of physicians in this endeavour to deflect criticism from itself. The cynic might conclude that the industry was only too willing to acquiesce in bashing doctors as a concession to the Inland Revenue regulators. In the final analysis, it was really the Inland Revenue regulators who should have been the subject of the criticism.

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<sup>66</sup>"A Medical Report on Canned Goods", *Canadian Grocer*, Vol. XV, No. 34; August 23, 1901; p.14.

<sup>67</sup>"Physicians and Canned Goods", *Canadian Grocer*, Vol. XV, No. 48; November 29, 1901; p.11.

*Adulteration as a Trade Barrier*

There is a good deal of evidence to suggest that adulteration was used as an excuse by importing countries to keep goods out to protect their own markets. In 1898, a motion, proposing that the Government pay a bonus to farmers on butter to be exported to Great Britain, had been introduced in the House of Commons by Dr. Reid:

That our Government should take immediate steps to do something more to assist in the development of our butter trade, and this House is of the opinion that the Government should place in the estimates, for the present session, an amount to be paid to the farmers direct by way of a bonus, of 1e per pound on a specified quantity of our finest fresh creamery butter to be exported to Great Britain while fresh and in condition to secure a reputation for itself and establishing a lasting demand, and that this bonus be continued for three consecutive years. This bonus, to be increased at the discretion of the Government, on butter made during the winter months. All such butter to be subject to a rigid Government inspection.<sup>68</sup>

The motion, while defeated, came at a time when retailers in Great Britain were being subjected to fines for having sold butter, principally from Australia and Ireland, containing boracic acid. The Montreal Butter and Cheese Association, realizing the potential ramifications of these actions on the part of Britain, and in general, the ability, deliberate or otherwise, for adulteration to serve as a weapon to be used by governments against importation of a country's exported produce (i.e. a so-called "trade barrier"), panicked and wrote a letter,<sup>69</sup> reproduced as Appendix IV-1, to the Ministers of Agriculture of the Dominion, Ontario and Quebec. The *Canadian Grocer* warned:

It is of the utmost importance to the Canadian trade that the English customer should be assured of the purity of the butter shipped from this side, and every effort should be made to prevent the possibility of anything being done by our manufacturers to injure the present high standing of Canadian produce on the markets of Great Britain....<sup>70</sup>

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<sup>68</sup>Motion cited from "The Proposed Butter Bonus", *Canadian Grocer*, Vol. XII, No. 13; April 1, 1898; p.15.

<sup>69</sup>"Adulteration of Butter", *Canadian Grocer*, Vol. XII, No. 14; April 8, 1898; p.38.

<sup>70</sup>Ibid.

The boracic acid in butter scare is a splendid example of the pressure that could be exerted by the industry on the government. In the event of trouble, the exporters would, in certain cases,<sup>71</sup> have recourse against those selling them adulterated product represented as pure product. To obviate this unpleasantness, they urged the Provincial Government to instruct their inspectors to warn creamery-men to make sure that the preparations they used in the manufacture of butter contain none of the ingredients that would render the product adulterated within the meaning of the English law. The prospect of losing trade was undoubtedly a great deterrent to those who stood to lose business through execution of foreign countries' adulteration laws. The Minister of Agriculture of the Province of Ontario, John Dryden, responded with a circular<sup>72</sup> which condemned the use of preservatives (reproduced as Appendix IV-2). The ante had been raised: the British public had become alarmed, the British and Canadian press were actively discussing the matter, and Canadian public officials had no choice but to act. These were all of the ingredients for a public relations disaster and the reputation of an industry was at stake. Whether or not the British public was really alarmed or not is debatable; in fact, the farming interests in England may have been a party to heightening the publicity given to the matter in the British press:

The contention on the subject is largely one between city and country, the farming interest desiring to place obstacles in the way of imported substitutes for their own fresh products, which the cities, on the other hand, consider essential for the supply of the wants of their population.<sup>73</sup>

The closing sentences of Mr. Dryden's circular were rather emphatic and may have helped to perpetuate the view that the use of preservatives in butter was unacceptable. After all, if butter was a pure food, it could not contain preservatives. Not only, then, did the idea of pure foods come more

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<sup>71</sup>i.e. Cases in which action was taken by Inland Revenue officers in against creameries involved in export to Great Britain whose product was also sold in Canada.

<sup>72</sup>"Beware of Preservatives". *Canadian Grocer*, Vol. XII, No. 17; April 29, 1898; p.42.

<sup>73</sup>"English Muddle over Adulteration", *Canadian Grocer*, Vol. XI, No. 21; May 21, 1897; p.33.

and more to signify those which had a defined standard of composition, but it also suggested that they could not contain preservatives. By definition, a food was not pure if it contained preservatives. Also, because purity became to be associated with quality, foods containing preservatives were not quality foods. In commenting on the Ontario Ministry of Agriculture Circular, the *National Provisioner* said, "The European buyer looks for quality, and he wants his purchases to weigh meat and not chemicals."<sup>74</sup> The *Grocers' Journal* of London, England thought that Mr. Dryden had taken an exaggerated view of the attention paid in Britain to the subject of boracic acid adulteration of butter, suggesting perhaps that those with the most to lose, namely, the merchants of the Montreal Butter and Cheese Association were the ones who over-reacted and precipitated the government of Ontario into action. Nonetheless, the editors of that journal said that Dryden was wise in warning Canadian buttermakers to avoid a practice which was bringing discredit upon the butter imported from most of England's principal suppliers.<sup>75</sup>

Mr. Dryden's views were shared by others in the dairy industry. They were not unusual. The Dairy and Food Commissioner of the State of Minnesota said in a speech<sup>76</sup> concerning colours and antiseptics in butter that:

The use of any preservative or antiseptic in milk or cream should be absolutely prohibited. Cleanliness and cold temperatures are all that is necessary in handling these products, and the use of antiseptics encourages carelessness in handling the products, as well as drugging the stomachs of consumers.

The use of preservatives in butter and cheese should be absolutely prohibited. Common salt is a necessary item of the human diet, and no argument can be raised against its use. In fact its use as a preservative or antiseptic is only a secondary consideration. Its most important mission, as in all food products in which it is used, is to improve the taste and tickle the palate of the consumer.

Butter or cheese manufactured from milk or cream produced under sanitary conditions, ripened along scientific lines

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<sup>74</sup>"Boracic Acid in Butter", *Canadian Grocer*, Vol. XII, No. 22; June 3, 1898; p.18.

<sup>75</sup>"Boracic Acid in Butter", *Canadian Grocer*, Vol. XII, No. 23; June 10, 1898; p.18.

<sup>76</sup>From Hon. E.K. Slater (Dairy and Food Commissioner, Minnesota), "Color and Antiseptics in Butter" in (Proceedings of the) Association of State and National Food and Dairy Departments (Interstate Pure Food Commission), Meeting Held at Hartford, Connecticut, July 17-20, 1906 (New York: John Wiley & Sons, 1907), pp. 106-108.

and properly manufactured, does not need a preservative, and the use of one only serves to lower the quality of the article, inasmuch as carelessness in producing the article would soon enter into the operation.

What is true with butter, cheese, milk, and cream is true with other food products to a greater or less extent, and I want to go on record here as advocating better methods in manufacturing articles of food products, better raw material, and less preservatives or antiseptics.

But in this same speech, Slater defended the coloration of butter if for no other reason than to ensure uniformity of colour throughout the entire year and maintain the natural June shade of the article.

But there was a greater reason pointed out by Mr. Slater:

The greatest foe of the butter industry is oleomargarine, and under the present national law this article has been compelled to sell upon its own merits; it can no longer be palmed off upon an unsuspecting public as genuine butter. And what has made the operation of such a law possible? The yellow coloring of butter, thus distinguishing it from oleomargarine, has made this possible, and any move towards prohibiting coloring of butter would be a move toward removing that barrier which prevents the fraudulent sale of oleomargarine. Already the oleo manufacturers are starting their campaign toward "educating" the butter-consumers of this country regarding the harmful effects of coloring-matter in butter, and it does not require the wisdom of a Solomon to locate their reasons for so doing. I sincerely hope that no member of this Association will ever use the powers of his position to further the interests of the oleo people. Sworn to work for the best interests of the people of his State, shame upon him if he ever disregards those interests to the extent of working against the dairy industry.<sup>77</sup>

#### *Pure Foods*

The movement towards pure foods did have a health component, but pure food campaigns based on health were grounded in actions at the municipal level. In all of the large cities and towns such as Montreal, Toronto, Winnipeg, Edmonton, and Saskatoon, wars were being waged by medical officers of health against "food unfit for human consumption".<sup>78</sup> It was the medical officers of health that administered provisions of provincial health acts. Federal actions in the area of health were scant and Anthony McGill's work in the pure food arena was focused on development of food standards. Thus, in the movement towards pure foods, provincial activity was largely in the area of health and federal activity was largely in the area of fraud. While both activities provided protection to the consumer, national activity was between the federal government and corporate Canada and provincial activity was between municipal health authorities and retail vendors and local food processing

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<sup>77</sup>Ibid.

<sup>78</sup>"Meaning of Pure Food Campaigns", *Canadian Grocer*, Vol. XXVI, No. 29; July 19, 1912; p.28.



establishments, such as slaughter-houses. However, the federal government was often asked to intervene on health-related pure food issues in those provincial jurisdictions that had not yet promulgated public health legislation. An example was a resolution forwarded by the Vancouver Young Liberals to Prime Minister Sir Wilfrid Laurier in 1908 requesting appointment of a public analyst. According to the text of the resolution, milk there was being adulterated by the "addition of water, deleterious drugs and various chemical compounds injurious to health."<sup>79</sup>

"Pure Food Shows" began to occur at the end of the 19th century. One of the first in Canada was held April 5-10, 1897 in Hamilton under the auspice of the Retail Grocers' Association of Hamilton and the ladies of the School of Domestic Science.<sup>80,81</sup> The show was opened by the Hon. G.W. Ross, the Minister of Education for the Province of Ontario, and he was reported in his speech to have considered the art of cooking and the knowledge of how to select pure foods of great importance and he specifically referred to the teaching of domestic science in the schools of Toronto.<sup>82</sup> Dr. G.S. Ryerson, M.P.P., who spoke on "Physicians' Day",<sup>83</sup> was reported as believing that if one confined himself to the pure food exhibited at this show he would live forever, but should illness come he could desire no better physician than Mrs. Rorer.<sup>84</sup> This would suggest that the purpose of these shows was to restore the confidence of the consumers in the wholesomeness of the food supply and

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<sup>79</sup>National Archives of Canada; Personal Correspondence of Sir Wilfrid Laurier; Microform, Reel #C-870; Document No. 149368.

<sup>80</sup>"Hamilton Pure Food Show", *Canadian Grocer*, Vol. XI, No. 9; February 26, 1897; p.17.

<sup>81</sup>"Hamilton's Pure Food Show", *Canadian Grocer*, Vol. XI, No. 11; March 12, 1897; p.30.

<sup>82</sup>"Hamilton's Pure Food Show", *Canadian Grocer*, Vol. XI, No. 15; April 9, 1897; p.18.

<sup>83</sup>The individual days of the show were designated: "Opening Day", "Physicians' and Invalids' Day", "Grocers' Day", "Farmers' Day", "Citizens' Day" and "Education Day".

<sup>84</sup>Ibid. Sarah Tyson Rorer, described as "the most famous lecturer on the art of cookery in America," was a regular contributor to the popular magazine, *Ladies' Home Journal*.

integrity of the suppliers, and allow manufacturers to liaise directly with the consumer to convince them about the purity of their products. Pure food was in vogue and manufacturers had better be seen to be on the bandwagon of the pure food movement.

Grocers were seeing things slip away from them.<sup>85</sup> Their profession was now being undermined by ladies from the schools of domestic science. The grocers had long considered themselves to be confidants of, and advisors to, consumers on questions of food quality. They were now being by-passed. Students of Domestic Science were dependable industry allies. They were becoming, if not authorities on food matters, then at least the appropriate vehicles upon which the industry would convey its message to consumers. Manufacturers considered that having a consumer on side, imbued with industry ideas about what constituted pure food, would serve as a moderating influence on Civil Servants charged in future with writing food standards:

The people need to know more about the trade problems and the trade laws under which the industries operate. And the industries must be taught to respect the rights of all the people while performing with their organized and economical systems the several lines of public service. Those who would correct the evils which business practices against the people should begin with the proposition that all business is not bad, and that much of the bad is due to systems which the majority of the industries would gladly free themselves from. Those who manage the industries need to learn that the laws of the State and the nation are to be obeyed, and that graft or power or the more stable public pay which comes to the man who only does the necessary routine work of a public office are not the purposes which all of the officials have in the enforcement of laws. It is time for that which is good in government and that which is good in business to unite against their common enemy - the rascal in politics and the rascal in industrial organizations.<sup>86</sup>

Commenting on the failure of a later pure food show in Toronto, the *Canadian Grocer* seemed to confirm the slippage of interest by the educated consumer from grocers and their wares to home economists and leisure pursuits:

...the lecture on cooking, the brass and string band and the blowball games were greater cynosures to the people than

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<sup>85</sup>At first, the *Canadian Grocer* had a very negative view of Pure Food Shows, saying that they only served to fill the pockets of their promoters. ("Shows and Exhibitions", *Canadian Grocer*, Vol. XI, No. 46; November 12, 1897; p.17)

<sup>86</sup>Robert McDowell Allen, "The Pure Food Issue - Some of Its Problems." In Association of State and National Food and Dairy Departments (Interstate Pure Food Commission). *Proceedings of 10th Annual Convention, Hartford, Connecticut, July 17-20, 1906*. New York: John Wiley & Sons, 1907, p. 171.

were the exhibits. They all realized that the articles of food occupied a secondary place in the eyes and minds of the people who visited the show, and the class of people who visited the shows are declared to have been of the better class as a rule...

From what the *Canadian Grocer* can gather, the feeling obtains in the trade that in order to the success of a pure food show, it must be promoted by and conducted by grocers for grocers.<sup>87</sup>

Grocers failed to recognize the new reality: the preparation of food was being done more and more outside the home. The manufacturers' interest was to have food laws to keep the domestic competition fair. Their pretext was that the home had to be protected by national laws to prevent fraud in food. Furthermore, the housewife now had to acquire new knowledge to protect herself and her family from the ravages of the rage of cheapness - fraudulent and adulterated foods in the marketplace and those who would foist these upon her:

She who provides for the table of a family should take the pains to know food good from food evil. It should be part of her training as a housekeeper to understand the comparative value of proprietary food products and just where she cannot afford to economize at the expense of health. She should take the trouble to know whether she is getting her money's worth or whether in paying for one thing she is getting another; whether she is being defrauded by that form of adulteration which only harms the purse. In delegating to the manufacturer the preparation of food for her family, she should at least see to it that she delegates it to honest manufacturers only. It seems....that the very rudiment of housekeeping is to know food.<sup>88</sup>

The views of manufacturers were ripe for the development of domestic science, and both manufacturers and consumers would derive greater benefits from food laws controlling adulteration than would grocers, the latter being left to bear the brunt of responsibility of the enforcement activities of inspectors working at the retail level.

There was a marked change, though, in the attitudes towards pure food exhibitions of the retail grocery trade by 1906, a little less than a decade later. In that year, the Retail Merchants' Association sponsored a Pure Food Exhibition, also at Toronto, in Massey Hall. The *Grocer's* comments this time were strongly supportive:

The Pure Food Show now in progress deserves public and trade support. It has not reached the zenith of pure food show possibility, but it is a move in the right direction; it is an educator, and education is undoubtedly the panacea for

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<sup>87</sup>"The Food Show a Failure", *Canadian Grocer*, Vol. XI, No. 50; December 10, 1897; p.14.

<sup>88</sup>Walter M. Lowney, Op. cit.

social and economic ills. To undertake such a show bespeaks a vast store of energy and a good deal of courage...The grocer within reach who does not patronize the show is unworthy of his position as a purveyor of the foodstuffs of the people."<sup>89</sup>

People were coming to the realization that the success of these shows was riding on the myth, and not the reality, of pure foods. But it did not matter - the shows were making money and served as opportunities for advertising by manufacturers, wholesalers, merchants and retailers:

The Toronto Pure Food Show has been a success. It has already considerably more than paid expenses, and it will return to the four gentlemen who promoted and financed it a handsome profit. They have earned it...

"When are you going to make it in fact, as well as in name, a pure food show, by requiring each exhibitor to furnish a certificate by a qualified chemist that his goods are pure?" he (*i.e. one of the show's managers*) was asked.

"We'll come to that," he replied, but he thought that for the present the undertaking could not make good on that basis.

"Do you find that the people come out of an interest in pure food?"

"No, but the demonstrations in the booths give it to them when they get here."<sup>90</sup>

The *Canadian Grocer* also had another change of heart, namely, the value of a pure food law with its attendant standards. The United States had passed in this year the *Pure Food Law* which would come into effect in July, 1906. The *Grocer* started to agitate:

True it is that "corporate bodies move cumbrously"; even necessity fails to arouse the needed animation. It has taken upwards of fifteen years of agitation to secure a move in the right direction by the United States Congress in the form of an enactment of a pure food law. Surely this should stand as a salutary warning to the Dominion Parliament. Are we free from the evils of adulteration? The Government reports from time to time conclusively answer that question in the negative....

To adulterate food is an offence so universal, so insidious and so difficult to detect that it has been committed with impunity.

One reason for this laxity is perhaps due to the fact that when a retail merchant is detected selling adulterated food and the adulteration can only be shown by a chemical analysis, the feeling arises that so far as he is concerned, at least, the offense is only technical. The grocer is not a chemist, nor can he be expected to add an analytical chemist to his staff.

The wholesale merchant also is generally held to have done his duty in buying his wares from a reputable source without having every consignment of goods subject to a chemical analysis.

We are thus thrown back upon the manufacturer, upon whom the responsibility for adulteration really rests, and in

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<sup>89</sup>"Toronto Pure Food Exhibition", *Canadian Grocer*, Vol. XX, No. 14; April 6, 1906; p.27.

<sup>90</sup>"The Pure Food Show", *Canadian Grocer*, Vol. XX, No. 16; April 20, 1906; p.30.

his case it is necessary that the law really anticipate the activities of irresponsible factories....

This is serious legislation, as it makes abundant provision for the enforcement of the law. Our own Government has an excellent example to follow.<sup>91</sup>

The Dominion Government, in particular, the Department of Agriculture,<sup>92</sup> was beginning to panic. The Hon. Sidney Fisher, Minister of Agriculture, convened a conference of fruit interests at Ottawa, and Anthony McGill of the Inland Revenue Department was "deputed" to read a paper on the adulteration of food products. E.D. Smith of Winona, after listening to the dull talk, argued that if people were assured that their jams were pure and wholesome, more would be consumed and hence there would be a larger demand for choice fruit. Although not of the injurious kind, there apparently had been widespread adulteration of jam as revealed in a bulletin issued in 1904.<sup>93</sup> The following resolution proposed by E.D. Smith was adopted by the conference of fruit interests:

Whereas a large percentage of the jams and jellies labelled 'genuine' or 'pure,' which are offered for sale within the Dominion are adulterated, and whereas the low prices quoted on these articles secure for them a ready sale to the disadvantage of the pure article.

And whereas the interests of the manufacturers of pure goods, the fruit growers and consumers are thereby impaired,

Therefore be it resolved that this conference urgently requests the Federal Government to secure the immediate enforcement of the Pure Foods Act and that the Act be so amended as to compel the manufacturers of jams and jellies to print their formulas on their labels.<sup>94</sup>

The rage for cheapness was at work. Confirmed by the *Canadian Grocer*, competition caused this adulteration and the industry once more looked to the government to keep manufacturers honest.

There is no doubt that competition, generally speaking, has a great deal to answer for in regard to this adulteration. Every manufacturer wants to go one better than his competitor, and every dealer wants to buy one better than his

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<sup>91</sup>"A Lesson from the U.S. in Pure Food", *Canadian Grocer*, Vol. XX, No. 9; March 2, 1906; p.31.

<sup>92</sup>The legislation in the United States largely owed its success to the efforts of Dr. Harvey Wiley, Chief, Chemistry Bureau, U.S. Department of Agriculture (USDA). At first, the USDA was charged with administering and enforcing that legislation.

<sup>93</sup>Of the 37 sample of jam analyzed in 1904, 15 were found to contain apple tissues, although sold as raspberry or strawberry jams. (Anthony McGill, "National Control of Food Supplies", Part II, *Canadian Grocer*, Vol. XX, No. 17; April 27, 1906; p.24.

<sup>94</sup>"Concluding Sessions of Fruit Conference", *Canadian Grocer*, Vol. XX, No. 13; March 30, 1906; p.28.

neighbour, and thus, questionable measures are resorted to to reduce cost of production.<sup>95</sup>

Now, Anthony McGill was sent out by his Minister to attend trade shows and to publish papers in the trade publications heightening awareness of the government's role in food adulteration. This was a new role for a Civil Servant, who was normally expected to maintain a low profile out of the public eye in deference to his Minister. McGill gave three talks at the Pure Food Show in Toronto mentioned previously. From editorial comment, it was clear that McGill was *imposed* on the convention and not *invited*. As it turned out, he would learn more from the convention than the delegates would learn from him:

It was intended to give daily lectures on food subjects, and half a dozen were given, three by Mr. A. McGill, analyst to the pure food branch of the Inland Revenue Department, Ottawa, but it was found expedient to discontinue them. They did not attract in opposition to the more sprightly form of entertainment of the show itself. Mr. McGill came at the instance of the Minister to try and disseminate knowledge about the working of the adulteration act. The attendance at his lectures was not sufficient to make that part of his mission a success. Even when all the grocers in the city were notified by post card of the lecture on cream tartar tests, a mere handful responded.

Mr. McGill, however, got into touch with the trade in a way that will prove useful to himself and the department, and he learned a lot about the pure food show which was also worth his while.<sup>96</sup>

McGill's speeches were later published in the *Canadian Grocer*.<sup>97</sup> The first dealt with food adulteration generally. In this discourse, he indicated first that the government had no fault to find with the inventor of a new food material; in fact, the inventor, as a discoverer of a new and nutritious foodstuff, was worthy of praise. But he indicated that the fact that they were new forms of a food should not be construed in the first instance as an endorsement:

The human digestive organism is a development through long centuries, and has adapted itself to a certain diet, varying in different countries. There is danger in trying radical experiments with it.

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<sup>95</sup>"The Pure Food Question", *Canadian Grocer*, Vol. XX, No. 5; February 2, 1906; p.31.

<sup>96</sup>"The Pure Food Show", *Canadian Grocer*, Vol. XX, No. 16; April 20, 1906; p.30.

<sup>97</sup>"National Control of Food Supplies", Part I, *Canadian Grocer*, Vol. XX, No. 15; April 13, 1906; "National Control of Food Supplies", Part II, *Canadian Grocer*, Vol. XX, No. 17; April 27, 1906; p.24.

It is reasonable to believe that the examples of the novel foods that he gave were those which at that time were problematic for the Department of Inland Revenue: glucose, cottonseed oil, cottonseed stearine, oleomargarine, renovated butter, milk-blended butter, condensed milk, and tinned meats and vegetables. He did touch on the chief grounds for complaint:

The chief ground of complaint rests in the non-acknowledgement of the presence of a foreign substance. The importance which this assumes depends greatly upon the point of view. To the consumer it means that he is ignorant of what he eats. This is always a perfectly tenable ground for complaint. It frequently amounts to a very serious matter indeed, as in cases where personal idiosyncrasy or invalidism prohibits the use of certain classes of food. To the honest manufacturer it is a very heavy grievance, since it means unfair competition.

To the producer, it is also a ground for complaining. What of the fruit grower who finds apple, turnip, or other pulp used as a basis for jams, sold as strawberry, raspberry, plum, etc., and dyed with coal-tar colours to imitate the genuine fruit? Just in the same way has the dairy farmer a right to complain of unacknowledged competition by the sale of oleomargarin: or renovated butter for the genuine article; the farmer who raises pigs has a *bona fide* grievance when cotton seed products are substituted for lard, and so on.<sup>98</sup>

McGill was adamant on one thing, however: that the consumer, *naturally and inevitably*, must hold the retail dealer responsible. But he explained that The Adulteration Act safeguarded the rights of the dealer in two ways: (1) that he could plead the guarantee of the manufacturer or wholesaler, provided he has taken the precaution to obtain such; and (2) that the Inland Revenue Department provided a service under which the retailer could obtain a chemical analysis of a suspect product at a nominal fee. Finally, he pointed out that these measures ensured that the manufacturer thus was held ultimately responsible for the correct naming of his goods. This was undoubtedly a point that the Department wished to get across to the trade, which always throughout this period was asking for legislation to hold the manufacturer responsible and for inspection of wholesalers and manufacturers, rather than harassment of retailers. Finally, McGill made another point clear: that other than butter substitutes, there was no bar to the manufacture and sale of any wholesome food in Canada provided that they were correctly and honestly labelled.<sup>99</sup>

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<sup>98</sup>Ibid. (Part I)

<sup>99</sup>Ibid. (Part I)

When the United States passes laws, other countries, especially trading partners, become interested. So it was that interest in food adulteration heightened in the first half of 1906 after the U.S. Congress had passed the first *Pure Food Law*. When it came into effect on June 30, 1906, the question was raised in the trade press: What would Canada do now? The answer was: Not very much, because Canada already had laws respecting adulteration on the books. What Canada had to do was to write standards in order to put teeth into its own legislation. The problem was not peculiar to Canada. McGill himself admitted that "the chief existing hindrance to the effective carrying out of food legislation in every country is the matter of definition."<sup>100</sup>

It is remarkable how little comment was elicited from the *Grocer* upon release of the report of President Theodore Roosevelt's commission (see Appendix IV-3 for partial report sent to Congress) formed to look into conditions in the Chicago Meat Packing Houses that had been the subject of Upton Sinclair's book, The Jungle. What the *Grocer* did do was an exercise in damage control - as it was for everyone else involved, including the industry and government. Representatives of the publication visited the William Davies Company of Toronto, the largest producer of hog products in the British Empire and an article was published showing the favourable conditions that existed in Canadian meat-packing establishments compared with those existing in the United States. The whole effort was directed at placating British importers and consumers, whose confidence in meats imported from the U.S., and by extension those imported from Canada, was shaken by the Chicago revelations. Said the *Grocer*:

If that packing house could be turned inside out and exhibited to the view of the United Kingdom, it would be the best possible assurance to the British consumers that American incleanness is foreign to the Canadian packing business....The manager of the Davies Company, Dr. Smale, speaking to *The Canadian Grocer* representative, said they did not believe there was any cholera or trichinae among Canadian hogs. The rule they worked by was that what was not good enough for their own tables was not good enough to sell, and the assistant manager, Mr. Van Beaver, who accompanied *The Canadian Grocer* representative through the factory, declared he would eat anything turned out by the

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<sup>100</sup>Anthony McGill, "Food Laws of Canada and the United States", *Canadian Grocer*, Vol. XXI, No. 21; May 24, 1907; p.39.



company except fertilizer.<sup>101</sup>

In his inaugural speech, Mr. W. Nuttall, President of the Federated Grocers' Associations summarized the feeling of British grocers:

We want the Government to help us to put down the rascality of adulteration and to punish with vigour the packer of impure food. Our federation stands for honesty of dealing and purity of food, and to all those who contravene those ideals, it offers warfare of a most relentless character.<sup>102</sup>

After the Chicago packing house scandals, the federation sent President Theodore Roosevelt a cablegram requesting assurances that in future, there would be some guarantee of the purity of goods sent to Britain from America. This was followed by a more ominous letter in which the executive of the federation threatened that it was prepared to boycott American preserved provisions unless the goods were accompanied by a government certificate attesting to their wholesomeness for human consumption. The President authorized the American ambassador in London to inform the Grocers' Federation that under the new law, the United States Government would guarantee the fitness in all respects of canned meat bearing the Government stamp. The federation congratulated itself:

The readiness of the grocers of Great Britain to take effective measures to protect the public against adulterated food is a good augury, showing that the best traditions of the trade are being strenuously maintained. It is only along such lines that a business reputation can be maintained and extended. Public opinion is thoroughly aroused in favour of maintaining the purity of the food supplies; and no small share of the credit of bringing about this position of affairs belongs to the grocers of Great Britain, who through their various organizations have powerfully influenced public opinion.<sup>103</sup>

Make no mistake about it, individual retail grocers of Britain were simply protecting themselves from the consequences of the potential finding of adulterated products by the Public Analysts in that country, and what better way was there to do so than to go public with appropriate hoopla in the hope that the British Government would take notice that they had done their collective part. The episode allowed Canadian grocers to point to such actions as being exemplary of the high

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<sup>101</sup>"No Scandal in Canada", *Canadian Grocer*, Vol. XX, No. 22; June 8, 1906; p.36.

<sup>102</sup>"State Inspection Only Hope", *Canadian Grocer*, Vol. XX, No. 33; August 17, 1906; p.29.

<sup>103</sup>Ibid.

calling of grocers' associations. It also left no choice for the Canadian Government but to institute meat and canned foods inspection itself to ensure the ultimate success of the meat industry in this country. This was despite the fact, mentioned in Chapter II, that by the Government's own admission, no problems similar to those noted in Chicago existed in meat plants in Canadian cities. The inception of meat inspection was motivated by an industry desperately needing the government mediation to keep it honest in appearance and in fact. But at the same time, the laws that would develop were in the consuming public's interest:

Recent history in the United States shows that the industry needs protection on the inside. A few unscrupulous men, greedy of immediate gains, could wreck the industry and inflict very severe losses upon manufacturers, dealers, farmers and a great army of wage earners. The Government owes it to the consuming public, to the meat industry, to the farmer and to the wage earners to deal effectively and speedily with the question of meat inspection.<sup>104</sup>

Said the *Canadian Grocer* upon introduction of the requisite legislation by the Hon. Sydney Fisher, Minister of Agriculture,

The trade of Canada will approve this measure as a move not alone in the interest of the public and the trade, but one that will tend to protect and foster the canning and packing industry which has grown to be one of the great natural industries of Canada.<sup>105</sup>

Not only did the meat packing disclosures have some impact on the Canadian consumer, but there is some evidence to suggest that they also affected choices and buying habits of the Canadian consumer; if not for the long-term, then at least during the immediate period following the scandals. Canadian women were reported as "turning their attention" to home-made meat jellies, veal loaf and other luncheon dishes that were "never as good when manipulated by a can opener as when they are turned out of the familiar mould."<sup>106</sup> "Chicago's little way of 'using everything'," if not having given an actual rise to vegetarianism, was reported to at least have given a boost to it.<sup>107</sup>

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<sup>104</sup>"Meat Inspection", *Canadian Grocer*, Vol. XX, No. 33; August 17, 1906; p.84.

<sup>105</sup>"Inspection of Canned Goods", *Canadian Grocer*, Vol. XX, No. 50; December 14, 1906; pp. 30 & 35.

<sup>106</sup>Jean Graham, "Food Fashions", *The Canadian Magazine*, Vol. XXVIII, No. 2; December, 1906; p.194.

<sup>107</sup>Ibi 1.

There was clearly a problem in the reporting of the incidence of adulteration in the period when no food standards existed. This was pointed out in an article written by E.D. Smith appearing in the *Canadian Grocer*. Mr. Smith was not a believer in the need for preservatives, colours, or glucose syrups (the latter in lieu of sucrose) in jams. He took the Department of Inland Revenue to task for concluding in Bulletin No. 191 that out of 116 samples analyzed, only one was pronounced adulterated and seven pronounced doubtful, when 49 either contained preservatives or dyes or contained unduly high levels of water. He asked,

What is the object of dyestuffs in jam or in marmalade, and what is the object of preservative in jam, jelly or marmalade? The only possible object is to cover up ignorance or carelessness. A clean, careful, up-to-date manufacturer has no need of either of these articles. They are absolutely superfluous....By the means of coloring matter a manufacturer can dress up otherwise off-colored goods; he can cover up a lot of defects and if the public prefer bright colored goods, it is very easy to use the dyestuff....If one manufacturer can use coloring matter in every sample tested and the jam still be pronounced pure, of course, it goes without saying that every manufacturer will use it in time because it is a great handicap for a manufacturer who does not use dyes if his goods are classed as of no higher standard in Government Bulletins than the goods which are colored.<sup>108</sup>

In light of the following statement appearing in the Bulletin, Mr. Smith pointed out that all of the jams may well have contained glucose as an adulterant:

It is true that no legal definition of jam or explicit standard for the article yet exists for Canada, nevertheless the meaning of jam as fruit boiled in mass with sugar and water is still recognized and the term has legal meaning in so many countries that I have no hesitation in declaring a product made of more than 10 per cent glucose as adulterated under the Act.<sup>109</sup>

This was very slippery wording on the part of the Chief Analyst indeed. He was basically saying that one could add up to 10 per cent glucose *without* the jam being declared adulterated, when by his own admission in the same line, he said that jam was well known to consist simply of fruit, sugar (i.e. sucrose) and water. What Mr. Smith was objecting to was not the sale of jams containing colour, preservatives, excess water, or glucose, but allowing them to be sold as "pure" (standardized) jams, and second, not requiring these other ingredients to be declared on the label. He rightly believed that his products were superior to others and that his firm should reap the benefits, or rather, that

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<sup>108</sup>E.D. Smith, "Time that Canada had a Definition for Pure Jam", *Canadian Grocer*, Vol. XXIV, No. 9; March 4, 1910; p.23.

<sup>109</sup>Ibid.

competing firms selling lower-grade products should be penalized. The language used by Department of Inland Revenue officials in these bulletins has to be carefully scrutinized in order to understand the full meaning of the statistics that were reported to Parliament and published.

In the decade from 1910 to 1920, all of these arguments would be encountered in drafting standards. What ingredients were to be appropriately included in the standard for a given product? How should the standardized product be differentiated from one not meeting the standard? By use of the word "Pure"? How does one treat products that do not meet the standard? Could they trade on the name of the standardized food, perhaps without use of the descriptor "Pure"? What about the label declaration of ingredients? Did they have to be declared on the standardized food? On the unstandardized one?

A Standards Advisory Board was established in 1910 consisting of Dr. Anthony McGill, Chief Analyst of the Inland Revenue Department (Chairman); Dr. W.H. Ellis, School of Practical Science, University of Toronto; and Dr. J.T. Donald of Montreal. Dr. McGill, himself, drafted the proposed standards which were "to some extent based on the standards of the United States."<sup>110</sup> These standards were then submitted to manufacturers by the Inland Revenue Department, either directly or through the Canadian Manufacturers' Association. The manufacturers were invited to provide critical comment and suggest alterations. The idea of this proposed effort, it was reported, was to produce standards that would protect the consumer and at the same time be fair and just to the manufacturer.<sup>111</sup> It was clear that more and more the food regulators in the Department of Inland

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<sup>110</sup>Canada had participated on a Commission established in March, 1903, by an Act of the U.S. Congress, which empowered the Secretary of Agriculture to appoint a Committee to establish standards of purity for food. McGill said, "There can be no difficulty in Canada availing itself of the work of the Commission referred to should such action be considered desirable." (Anthony McGill, "Food Laws of Canada and of the United States", *Canadian Grocer*, Vol. XXI, No. 21; May 24, 1907; p.39.

<sup>111</sup>"The Adulteration of Foods", *Canadian Grocer*, Vol. XXIV, No. 5; February 4, 1910; p.42.

Revenue were playing the role of arbiter, not only between the various manufacturing interests, but between the consumer and industrial sectors and between the agricultural and industrial sectors.

The grocery trade was beginning to recognize, out of necessity, the importance of science - this, after all, was an age of science. The visit of Halley's Comet in 1910, described as "that erratic aerial wanderer," had been predicted 75 years previously by men of science - men who were thorough and exact in their calculations. So must merchants be men of science, if they were looking for the best results in their business. The age demanded such men, said the *Canadian Grocer* in a flight of fancy, and they will be the retail grocers of the future.

They must be familiar with every phase of retailing; they must be scientific in their buying and selling; in their bookkeeping and in their advertising; their delivering, displaying, weighing and collecting accounts....Be men of science!<sup>112</sup>

Even Anthony McGill became an advocate of scientific retailing and food standards became an aspect of it.

....so far as fair dealing is concerned, there are great frauds perpetrated against the pockets of the people - that was the reason why it was decided that we should have Food Standards.

To promote scientific retailing the grocer must be absolutely certain that he is buying pure goods when he asks for pure goods. He can then be positive about what he is selling.<sup>113</sup>

One of the anticipated outcomes of writing and promulgating food standards was increased prices for the standardized commodities. In the case of spices, for instance, this was due to the fact that pure spices would be used in the place of foreign ingredients. It was argued that consumption of pure spices would increase because the genuine article would be substituted less and less by adulterants.<sup>114</sup> In fact, the press was quick to point out that in the pure-food agitation, sight had

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<sup>112</sup>"Scientific Retailing", *Canadian Grocer*, Vol. XXIV, No. 21; May 27, 1910; p.80.

<sup>113</sup>"The Pure Food Problem: The Effect of Food Standards on the Retail Trade", *Canadian Grocer*, Vol. XXIV, No. 21; May 27, 1910; p.87.

<sup>114</sup>W.L. Mortimer, "How Food Standards will Affect Prices", *Canadian Grocer*, Vol. XXIV, No. 44; November 4, 1910; p.55.

occasionally been lost of the fact that purity and cleanliness cost money.<sup>115</sup>

The year 1910, itself, was an important one. First, regulations were promulgated governing the inspection of preserved fruits, vegetables and milk under the *Meat and Canned Foods Act*. As with meat products, the regulations applied only to the inspection of canned foods for export from Canada or from one province to another. All fruits, vegetables, milk or other articles used for canning purposes were required to be in a wholesome condition and buildings were required to be kept clean and well-lighted. Finally, no injurious drug, dye or preservative could be used and employees had to be free of tuberculosis or any other communicable disease. All cans were required to bear labels containing the name of the packer, the date of packing, and a true and correct description of the contents.<sup>116</sup> Second, 1910 was the year in which the first standards were promulgated, namely, those for meat and meat products,<sup>117</sup> milk and milk products<sup>118</sup> and grain products. It is perhaps not surprising that the first standards were for products which formed the basis of the food industries in Ontario, the province in which the food industry was concentrated.

One of the interesting phenomena of this period was the appearance of articles in the trade and popular literature advocating that retailer and consumer should acquire a more than peripheral knowledge of food composition and analysis in order to be able to buy intelligently and make wise choices in order to avoid adulterated food. "Should you not have a practical knowledge of the goods on your shelves," asked the *Canadian Grocer* in a piece written for grocers, "in order to talk and sell

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<sup>115</sup>"Cheap Food, or Clean Food", *Literary Digest*, Vol. L, No. 22; May 29, 1915; p.1272.

<sup>116</sup>"Inspection of Canned Goods", *Canadian Grocer*, Vol. XXIV, No. 29; July 22, 1910; p.56.

<sup>117</sup>"Standards for Meat and Meat Products", *Canadian Grocer*, Vol. XXIV, No. 46; November 18, 1910; p.28.

<sup>118</sup>"Milk and Its Products Defined by Law", *Canadian Grocer*, Vol. XXIV, No. 46; November 18, 1910; pp. 29-30.

your groceries intelligently, know where they come from and, in a general way, how they are produced?"<sup>119</sup> Explanatory articles often provided practical advice and simple chemical tests that could be applied to determine whether or not a foodstuff was genuine. Both grocers and consumer were assured in these articles, that the detection of adulterated foods did not necessarily mean that they had to undertake "complicated tests made by the trained chemist in his well-equipped laboratory."<sup>120</sup> Both trade and consumer articles focused largely on adulteration of the fraudulent kind - the kind of adulteration that the *rage for cheapness* fostered, rather than that of the injurious kind. Grocers were told:

It is not the chemicals in his goods that the grocer should watch, but the actual cheapening of the goods by the use of fillers, which may be earthy, vegetable or watery. Chemicals, as a rule, cost too much to be used as adulterants. Certain seed and woody material, however....make good imitations of....spices, and the grocer should train himself to know when they are offered him in place of the genuine.<sup>121</sup>

Consumers were advised to examine labels and watch for the word "compound", generally an index to the inferior character of the contents of the packaged goods.<sup>122</sup>

As long as five years after passage of the Pure Food Law in the United States, Harvey Wiley, Chief of the Bureau of Chemistry in the U.S. Department of Agriculture, was still parading around the country rebuking those who would sell adulterated foods. In his view, chemicals used to adulterate foods were drugs and he said, "The drug store and the grocery store should be distinct concerns and not sell each other's wares." His personal campaign assumed an almost religious-like zeal and echoed sentiments of the social gospel movement: the person who would add ground up peanut shells to pepper in the belief that the poor man could not afford to buy pure pepper, was "a thief and a

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<sup>119</sup>Charles Adams, "Knowledge of Food Composition Needed in Buying", *Canadian Grocer*, Vol. XXIV, No. 21; May 27, 1910; pp. 88-89.

<sup>120</sup>A.G. Woodman (Chemistry Department, Massachusetts Institute of Technology), "How Housewives Can Tell Adulterated Foods", *Ladies' Home Journal*, Vol. XXIII, No. 2; January, 1906; p.22.

<sup>121</sup>Charles Adams, *Op. cit.*

<sup>122</sup>A.G. Woodman, *Op. cit.*

corruptor of public morals." "The wealthy man," he said, "possibly may be able to afford peanut shells, but the poor man, never."

The man who dilutes the milk waters the stock of the wealthiest company in the world. Especially is this principle true as regards children, and no penalty is too severe for the man who deliberately puts a poisonous dye into candy to sell the stick for a penny and puts two-thirds of the penny into his own pocket.<sup>123</sup>

Unlike the situation in Canada, the movement towards Pure Food Legislation in the United States was led by the government, or more precisely, led by a public servant with strong moral convictions and was grounded in protection of the helpless from those who would profit by adulterating food. Wiley's counterpart in Canada, Anthony McGill, spoke publicly and published articles, but only when required to do so by his political masters. He too spoke of the consumer benefitting from pure food legislation, but only as a result of keeping the producer honest by the passage of standards. McGill published articles in the *Canadian Grocer* and addressed the Royal Society of Canada, but never addressed the consumer directly through the popular press. Wiley, on the other hand, was busy publishing catchy articles in popular magazines of which *Good Housekeeping* was his favourite.<sup>124</sup>

By the outset of World War I, the majority of standards for mainline foods had already been promulgated. In fact, the looming hostilities may even have hastened their coming. In 1917, it was announced that Canada would have a Food Controller who, when appointed, would act in conjunction with Herbert Hoover, President Wilson's choice to become the "food dictator" of the United States.<sup>125</sup> The Controller was to be the Hon. W.J. Hanna and his appointment was made pursuant to the War

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<sup>123</sup>"Wiley Attacks Manufacturers of Impure Foods", *Canadian Grocer*, Vol. XXV, No. 40; October 6, 1911; p.42.

<sup>124</sup>See for instance, "Scientific Champions of Dirty Food: Benzoate of Soda and Rotten Eggs," *Good Housekeeping*, Vol. 56; January, 1913; pp. 104-109; "Food and Fakery," *Good Housekeeping*, Vol. 62; April, 1916; pp. 503-506; "Do You Eat With Your Eyes?" *Good Housekeeping*, Vol. 68; May 1919; p.49; and "You Need a Food Standard", *Good Housekeeping*, Vol. 68; June, 1919; p.65.

<sup>125</sup>"Canada to Have a Food Controller", *Canadian Grocer*, Vol. XXXI, No. 21; May 25, 1917; p.50.



*Measures Act*. His role would be to fix prices and standards of staple commodities and deal with questions of distribution, transportation, conservation and extravagant handling charges.<sup>126</sup> An elaborate system of licensing was instituted for dealers, both retail and wholesale, in foodstuffs.<sup>127</sup> Perhaps Hanna's most notable achievement was obtaining repeal of the *Oleomargarine Act* of 1886. Notwithstanding these changes, the same issues as had been noted ever since the start of its publication repeated themselves over and over again in the *Grocer*.

In a sense, promulgation of the *Food and Drugs Act* in 1920 was an anti-climax, at least as far as food was concerned. What it did in the main was to consolidate principles and legislation that had been developing ever since 1875. The food regulations that it embraced were largely the standards that had been regularly promulgated from 1910 onwards. The pattern or thrust of the legislation had been initiated much earlier.

### *Conclusion*

How may we then characterize the period 1850 - 1920 as far as the retailing and manufacturing industry was concerned? Basically, it was a period during which the food retailers, exemplified by the grocers, yearned for the government to do what they could not: to clean up food adulteration - the main result of the *rage for cheapness* which, in itself, was a normal manifestation of competition. That the government had to do anything at all about adulteration demonstrates the failure of the trade associations and the trade press to succeed in their plea for grocers to embrace values of honesty and fair play and to deal only in quality goods.

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<sup>126</sup>"Canada's Food Controller", *Canadian Grocer*, Vol. XXXI, No. 26; June 29, 1917; p.31.

<sup>127</sup>Canada Food Board, *Canadian Food Bulletin*, No. 16; June 1, 1918; p.1.

Nonetheless, the inescapable conclusion is that adulteration during this period was largely that of the non-injurious kind - "a fraud against the pocket rather than a menace to the health of the consumer." It is clear from the comments of McGill that the Department of Inland Revenue was preoccupied with fraud matters. The *rage for cheapness* never was such that the consumer was insulted with poisonous foodstuffs. Of course, the science of toxicology was yet to mature to its present form; modern-day concepts such as the "acceptable daily intake" for a food additive or the "tolerable daily intake" for a food contaminant were unknown.<sup>128</sup>

It was also a period during which the food manufacturers used standards as a means to elevate the eligibility requirements for goods coming into the country. With the United States well advanced along the road of pure food legislation, the manufacturers saw standards as a means of keeping Canada from becoming a dumping ground for inferior American goods that would not meet even the U.S. requirements.

Finally, this was a period in which the grocers lost ground in being the only advisors and purveyors of food to the householder. The era saw the advent of catalogue houses,<sup>129</sup> the department store<sup>130</sup>, the "store on the automobile highway,"<sup>131</sup> and the "grocery" or

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<sup>128</sup>The "acceptable daily intake" is the amount of a chemical deliberately added to food that a human can ingest safely daily over a lifetime without adverse effects to health. It is established from toxicological testing of the food additive in laboratory species. The "tolerable daily intake" concept is similar, only it applies to adventitious chemicals in food, i.e. contaminants, which are not deliberately added.

<sup>129</sup>"Making War on Catalogue Houses", *Canadian Grocer*, Vol. XXI, No. 37; September 13, 1907; p.86.

<sup>130</sup>"A Counter Attraction to Department Stores", *Canadian Grocer*, Vol. XV, No. 10; March 8, 1901; p.13.

<sup>131</sup>"The Store on the Automobile Highway", *Canadian Grocer*, Vol. XXXII, No. 26; April 26, 1918; p.81.

"marketeria,"<sup>132</sup> all seen as threats to the neighbourhood grocer, and all transferring more of the onus for making food choices to the consumer. This required a new type of professional, namely, the domestic scientist, well-versed in issues pertaining to home economy. Despite the prodding of the associations, grocers failed to elevate their professional status to the point where they could sustain their role as the consumer's advocate. In fact, the industry itself, by at once initiating and endorsing the pure food movement, captured the mind of the consumer and employed avenues other than grocers, such as ladies of domestic science, to assist them in this process. The grocer never recognized and exploited the changing food habits that were developing in the first two decades of the twentieth century, especially the trend which related to the increasing propensity towards prepared foods. The grocer opposed, for instance, the packaging of sugar at the refinery, believing that the refineries would try to sell him short weight goods. Now he would not be able to sell short weight to the consumer. The grocer worried that things were slipping away and he was losing charge of the things that gave him the ability to make that little extra profit.

While the grocers continually advocated that something be done about food adulteration, they continually whined about bearing the brunt of responsibility for it. One issue that constantly preoccupied grocers was perceived undue harassment by Inland Revenue inspectors. The other was the implicit unfairness in applying the *Adulteration Act* at the point of retail sale. The fact that the government continued to apply the regulations at the retail level must have been an indicator of the influence and success of the food industry in keeping Inland Revenue inspectors from inspecting at the food manufacturing level. Moreover, when inspection did first come, it was in relation to maintaining Canada's reputation as a reliable and honest supplier of wholesome goods to an overseas market, and not in relation to any crisis in the actual safety of the Canadian food supply.

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<sup>132</sup>"Marketeria Idea: A Further Elaboration of the Serve Self System", *Canadian Grocer*, Vol. XXXII, No. 1; January 4, 1918; p.43.

There is no evidence to suggest that the consumer was terribly upset, or even preoccupied, with food adulteration. Generally speaking, the indication is that the housekeeper was prepared to buy cheaper goods, usually compound mixtures, as long as she and her family derived satisfaction from them. It was the Inland Revenue inspector, more than the consumer, who was upset about food adulteration. Inland Revenue inspectors could not stomach the thought of merchants or retailers getting away with selling adulterated goods. They were uncompromising in their belief that compound mixtures could not be substituted for pure goods, unless specifically demanded, irrespective of the possibility that the consumer may have been just as happy being supplied with the compound goods, and, in fact, may well not have been satisfied had she been supplied with pure ones. The inspectors had a "bee in their bonnet" and their position was intractable.

Even the grocers were more bothered about food adulteration than consumers. For them, the spectacle of competitors selling cheap, adulterated goods as pure ones was an issue about which they could not be silent. The phenomenon undercut their business and threatened to drive them under. Grocers could not stand seeing consumers getting a bargain. They berated both grocers who sold consumers bargain goods and consumers who sought the bargains out. When the threat of discount grocers would not go away, the grocers called for government intervention.

Neither grocers nor regulators could maintain their stance. In the end, everyone had to recognize the issues for what they really were. The writing of standards was essentially an exercise in defining pure foods. Pure foods came to mean ones that met the standards that everyone agreed upon. Thus, the pure food movement was a muddle to some extent, because the word "pure" came to have different meanings for different products. Pure milk, for instance, could never contain any added substance, especially chalk to whiten it. The addition of colour to milk was considered fraudulent because it made the product look better than it really was. On the other hand, pure butter could contain annatto colouring to make it yellow. This would compensate for the loss of colour

when dairy cattle were fed animal feeds in winter, rather than eating carotenoid-rich grass in summer which imparted a natural yellow colour to butter at that time of year. But was this not making the butter during the winter look better than it really was? Being part of the pure food movement meant a willingness to agree to "buy in" and conform to an industry-wide standard and to carry and sell goods conforming to it. Non-conformity was a form of heresy and it was hard to be an outcast. It was not that the sale of non-standardized goods was prohibited, but selling such goods was a sign that a merchant would compromise quality for cheapness and would not join the elect who had decided to conform to the standard and be seen as carrying pure, unadulterated goods. In a way, the pure food movement was a group of retailers and manufacturers which behaved like a cartel. It was part of the overall tendency to association and combination.

So the pure food movement was really a *way and means* or a *philosophy* of carrying on business. With few exceptions, an adulterated food was only adulterated if it was not labelled as a compound mixture. *There was a way* of undertaking the business of selling that food if it was properly labelled. In that case, it would not be adulterated, but neither would it be pure. It was all, by and large, a matter of orderly and honest representation and marketing of the inferior goods so as not to derive the benefits that would accrue to retailers selling the pure goods. In many ways, the whole business was a farce.

## CHAPTER V

### THE FOOD ADULTERATION QUESTION IN CANADA: A HISTORICAL SYNTHESIS

In Canada, the food industry, or rather, individual food industries, developed in the second half of the 19th century, largely in Ontario. While there were exceptions, such as cane sugar refining and fish processing, the food industries during the period, 1850 - 1920, were largely centred in Ontario, making the aggregate total in production values of those industries, in fact, even the flour milling industry alone, the greatest of all industries in the province. If production values are an indicator of economic might, then by 1920, Ontario was an economic powerhouse with regard to its food industries. With few exceptions, the Canadian food industry of 1920 essentially comprised the collective food industries of Ontario.<sup>1</sup>

The first food industries in Ontario were primary industries derived from agriculture. Early agriculture, and indeed, some historians have claimed, the economy of the province, were based on wheat farming. It is not surprising that flour milling became the number one industry in Ontario. Flour milling reflected creation of forward demand linkages. Developments in transportation, port facilities, and new food-processing technologies signified backward demand linkages. Brewing, distilling and baking were early secondary industries producing consumer goods representative of final demand linkages.

As wheat specialization moved west, mixed farming dominated in Ontario and the result was the development of new primary industries: dairy, meat-packing and fish processing. New secondary industries also appeared, including fruit and vegetable canning and wine-making. Food processing evolved from a simple industry based on the labour and services provided by

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<sup>1</sup>Bruce H. Lauer, Foodland Ontario, 1850-1920, Seminar Paper for History 24.532, Department of History, Carleton University. 1992.

millers, brewers and distillers to a sophisticated, factory-based, value added one characterized by specialist labour. Concomitantly, the wholesale and retail trades came into prominence. It was development of the latter trades that provided the possibilities for food adulteration, for it was through active competition that the *rage for cheapness* was nurtured and flourished.

While competition could under certain circumstances be annoying and seemingly needless, it was, as the *Grocer* pointed out, "at the foundation of prosperity and the development of the various interests of the trade."<sup>2</sup> When was competition annoying? When sales were made with no margins and when profits were very small. During such times, adulteration provided one means of increasing profit margins. It was a case of invocation of the doctrine "to get there at whatever cost," which when carried to extremes, was "the source of much disturbance to the business world, especially to the moral tone of the trade."<sup>3</sup> Of course, provided there was honesty attached to business, competition was "wholesome".

The evidence seems to suggest that adulteration was never a serious health problem in Canada. Rather, it was a question of fraud. By and large, it involved the cheapening of food by deliberate addition of ingredients of less value than those they replaced and the palming off of the finished adulterated foods as the genuine articles. There was nothing inherently wrong with the finished foods; in fact, in many instances it was preferable to offer for sale foods that were extended or compounded with other ingredients. It was not so much a question of *what* foods were sold as it was one of *how* they were sold. It was important in selling foods from manufacturer to wholesaler, from wholesaler to retailer, and from retailer to consumer that they were *represented correctly* and that in the event of analysis, they *actually were what they were*

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<sup>2</sup>"Competition in Business", *Canadian Grocer*, Vol. V, No. 17; April 24, 1891; p.8.

<sup>3</sup>*Ibid.*

*represented to have been. The rage for cheapness did not concern, and never involved, the addition of ingredients that posed an acute health hazard to the consumer. Even the rage had its ethical boundaries.*

There is no indication that the problem with food adulteration in Canada was so pressing as to require the government to regulate it in the first instance. The Canadian government became involved in the question because, as early as 1860, the British government was acting to control real problems that were experienced with food adulteration in that country. The refinements of British legislation in 1872 heightened awareness of the adulteration problem in that country and made Canadians realize that legislation in the Mother Country could affect overseas trade if Canada did not enact similar legislation, irrespective of whether or not there was a real problem with food adulteration in Canada. The perception that Canada was a reliable supplier of wholesome, pure foods was at stake.

The adulteration problem that existed in Canada was, in a sense, a problem that was invented by the regulators once they started to analyze foods and to study the variability in their composition. Their task became one of defining the limits of variability of the normal composition of foods. No one was sure up to that point what adulteration was in reality. Once regulators and analysts became familiar with the normal composition of foods, then it became easier to conceptualize the nature of adulterated ones. Those with compositional parameters beyond the established normal limits of variability were considered adulterated. But it was not a matter of simply declaring a non-compliant food as being adulterated: to arbitrarily exclude vendors of food having a composition beyond these limits was sure to cause a political problem for the government, especially if there was no health hazard involved. And so, the problem of controlling food adulteration would not be solved by outright prohibition of the sale of adulterated foods, but by representing correctly those foods which fell outside the established



limits.

Once the government became involved in the food adulteration issue, the ante was raised. Unless the outer limits were *written* into legislation, determining that a food was adulterated and initiating prosecutions was problematic. The regulators realized that unless the limits of variability were set out in a legal standard, it would be impossible for the government to succeed in litigation against offenders. The regulators' political masters realized, however, that to rush into setting standards would be sure to offend those who would be excluded by them. Basically, then, the 35-year period between 1875 and 1910, the latter date being when the first standards were promulgated, was a standoff between the analyst and lawmaker. While the first provisions that appeared in the *Inland Revenue Act of 1875* to control food adulteration in Canada were motivated by actions in Britain, the first standards were motivated by enactment in 1906 of the *Pure Foods Act* in the United States. The Canadian 1875 Act provided the impetus to develop solutions to the problem of food adulteration. The standards written between 1910 and 1920, and the Food and Drugs Act and Regulations of 1920, provided the means by which adulteration could be effectively controlled in this country.

The government response to adulteration was regulation in the form of food standards. The industry was not oblivious to the benefits of measures to control food adulteration. Indeed, if standards were to ultimately become the regulatory solution, then they provided an inconspicuous, but nonetheless legitimate, means to restrict competition. But during the 35 year period, 1875-1910, when the government attempted to enforce the various Adulteration Acts in the absence of enforceable standards, the food industry, especially the retail sector, experienced nothing but frustration. For the government was convinced that the retailer bore the ultimate responsibility for food adulteration - retailers, after all, had the responsibility to know everything about the goods that they sold to the public. Therefore, the retailer bore the brunt of government

activities to control adulteration during this period. This is the reason that the retail industry response to government efforts to control food adulteration is so important and accounts for the extensive use in this thesis of the premier food retail journal, *The Canadian Grocer*, in analyzing that response.

In the *Introduction to Close Ties*, Ken Cruickshank says that similar to other histories of regulation, his book was "an attempt to understand the social and intellectual forces that shaped and sustained those regulatory initiatives and institutions which scholars in other disciplines are so eager to reform or eliminate."<sup>4</sup> He goes on to state:

The history of railway rate regulation in Canada does not reflect their accounts of business corporations using governments to subvert the "people's" interests, any more than it appears as the tale of the righteous people overcoming the robber barons. Instead, it is the rather more complex story of how governments responded to the equally selfish demands of various participants in a competitive economy and tried to promote and accommodate those divergent and conflicting interests.<sup>5</sup>

So it was with this history. To be sure, the food industry saw the benefits of regulation in protecting its interests. The Canadian Manufacturers Association, which was dedicated to furthering the manufacturing interests of the Dominion<sup>6</sup> and was an ardent supporter of any measures, including a protective tariff,<sup>7</sup> was involved in scrutinizing and commenting upon standards that were developed by the Food Standards Advisory Board. But it would be wrong to suppose that this was the only dynamic at work - that the regulators responded to an industry

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<sup>4</sup>Ken Cruickshank, *Close Ties: Railways, Government, and the Board of Railway Commissioners, 1851-1933* (Montreal & Kingston: McGill-Queen's University Press, 1991), p.6.

<sup>5</sup>Ibid.

<sup>6</sup>See by-laws of the association appearing in Canadian Manufacturing Association, *Souvenir, 1893* (Toronto: James Murray & Co., 1892). The masthead of the association's journal, *The Canadian Manufacturer and Industrial World*, bore the rubric "Devoted to the Manufacturing Interest of the Dominion."

<sup>7</sup>See for instance the resolution passed by W.K. McNaught, President, CMA at the 16th Annual Meeting of the Canadian Manufacturers' Association, *Canadian Manufacturer*, Vol. 20, No. 9, May 1, 1891. The resolution summarizes the CMA opposition to any change in the National Policy on Protection that would subject Canadian manufacturers to the unequal competition of foreign manufacturers.

desire and were "captured" by it. There were many other self-serving interests also competing for government favour. Trade associations like the National Dairy Council<sup>8</sup> and the Dominion Millers Association; agricultural associations like the Farmers' Institute and the Ontario Bee-Keepers' Association; and retail and wholesale associations like the Toronto Retail Merchants' Association and the Wholesale Grocers' Guild<sup>9</sup> could all be seen as pursuing their own legitimate, but selfish, interests. In the end, they hoped that the government could reconcile through regulation all of the disparate parties, which on account of having to play to their own narrow constituencies, could never be expected to reach an accommodation themselves. Finally, the regulators themselves had their own interests in mind in developing regulations to control food adulteration. All parties had their own motives in desiring regulations.

In a recent book about the organization and regulation of public utilities<sup>10</sup>, the authors speak of "images of institutions and norms" or *markets of the mind*, which determine what is "fitting, just and acceptable in transactions." The markets of the mind were threefold: economic markets, political markets and moral markets. New technology creates dissonance between the three types of markets. Regulation restores equilibrium to such instability. Adulteration can be fitted to this typology. The novel foods made possible by new technologies of food processing created dissonance in the markets of the mind. The dissonance was caused by the competition made possible by the *rage for cheapness* and the manifestation of that rage was adulteration. The dissonance was exacerbated by the complicated food marketing system established in Canada

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<sup>8</sup>See for instance the resolution regarding oleomargarine passed at the Council's Annual Meeting at Winnipeg, February 11, 1920. National Archives of Canada, Files of the Dairy & Cold Storage Commissioner, RG-17, Volume 2487, File 523393 (Part 2).

<sup>9</sup>One of the more interesting emanations from this organization was: "There are often circumstances which interfere with businessmen's ability to make a living; the greatest of these is competition." (*Canadian Grocer*, Vol. V, No. 15, April 10, 1891; p.1)

<sup>10</sup>Christopher Armstrong and H.V. Nelles, Monopoly's Moment (Toronto: University of Toronto Press, 1988), pp. 321-328.

which had manufacturing, wholesaling and retailing components. All three sectors wanted to restore harmony but were hindered by their own organizational structures which required them to posture through their trade associations and to take strong entrenched positions defending their own self-interests. They did not initiate the process of reconciliation and accommodation because each sector feared criticism from within itself and from each of the other sectors. Meanwhile, the government had become involved in adulteration and public awareness of the issue was heightened by the activities of others in the international community to control it. Finally, the government had to initiate the solution and the industry was forced to react to it. To use Armstrong and Nelles's words when they spoke about electrical utilities:

Regulation was a means of restoring equilibrium in such an unstable situation. It was not one thing but many things; it was not a once-and-for-all act of reconciliation but a continuous process of seeking accommodation. Above all, it was a negotiated settlement arrived at within particular local settings with different resource endowments, power relationships, and political traditions.<sup>11</sup>

For the retail industry to agree to regulations in the form of standards, the development of which was initiated and mediated by government analysts and regulators, was to settle the issue of food adulteration. It was an end to the debate over definitions, a meeting of the minds, a propitiation of the *rage for cheapness*, a regulation of trade. It did not end food adulteration, but it ended the dissonance created by the cause of it.

In view of the questionable authority of the federal government in matters of property and civil rights, and its ambiguous competence in the area of health, it is remarkable that from the very beginning, it would intervene in these areas so confidently. The federal government saw that there was little interest on the part of the provinces in regulating foods, beyond the immediate public health concerns associated with sanitation in slaughter-houses, dairies, restaurants and other retail establishments involved in handling and exposing food for sale to the public. Perhaps it is presumptuous to assume that the government would have based any of its involvement on property, civil rights or health. The regulation of trade and commerce and criminal law were

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<sup>11</sup>Armstrong and Nelles, Op. cit., p.323.

powers assigned to the federal government. The main emphasis of the federal government in regulating food in this era was on its fraudulent representation. It has been suggested many times in this work that adulteration, both in reality and in the government's mind, was largely that of the non-injurious kind. The stated reluctance of the federal government to prosecute offenders who adulterated might be, first, an indication of its recognition that *administration of justice* was a provincial responsibility and, second, that it had difficulty in accepting the fact that adulteration offenses were really criminal ones. On the other hand, the fraudulent sale of foods, the major manifestation of adulteration, was arguably a matter of trade and commerce. Furthermore, when politically expedient, the government had no difficulty in banning the sale of some foods like oleomargarine. Such foods represented an external threat from south of the border to Canadian farmers and moreover were likely to enter inter-provincial trade. There was no question of the federal government's competence in these matters which were grounded in the federal responsibility of trade and commerce.

Left out of the whole process was the consumer. The consumer did not demand control over adulteration, but could hardly not have benefitted from it. The consumer was the bane and blessing of the grocer. It was the consumer, after all, who would walk miles seeking out a bargain. It was the consumer who was the cause of competition and its manifestation, the *rage for cheapness*. Yet, the consumer was the client and to ignore client wishes would simply be bad business. At the beginning, the grocers and their associations rejected the standards approach that characterized the U.S. Pure Food legislation. In the end, the grocers and their associations called for legislative measures to control food adulteration, if for no other reason, than to establish a "level playing field" in the marketplace.

Nor did the consumer have to worry about being excluded. There were sufficient checks and balances to ensure that the content of food standards would lead to consumer protection.

First, there existed a plethora of views about the composition and nomenclature of foods within any one industry and sufficient competition within domestic-based industries and between domestic-based and foreign-based ones in any given commodity sector. The "right" view was certain to be found among this diversity of views and therefore a standard for a particular food commodity was sure to be a high one. It would be too embarrassing for any one firm, or trade association representing it, to be associated with advocating cheap foods. Second, the government analysts and regulators, while perhaps not always *au courant* of the latest developments in food technology, had the scientific expertise, experience and the results of several hundred, if not thousands, of analyses of primary foodstuffs and would not be hoodwinked by anyone from industry into accepting standards legitimizing foods of mediocre quality, cheapened by crass adulteration. Finally, the analysts and regulators and all those in the production and distribution sectors, especially retail grocers and manufacturers, saw themselves as guardians of consumer interests. To be seen to act in any other manner would be to diminish their credibility in this regard.

At the end of the 19th century, and especially during the first decade of the 20th, a movement for "pure foods" swept North America, and to some extent, Britain. It was largely spearheaded by sanitarians, a curious alliance of regulators and industry food scientists. Eventually, the Pure Food movement would by-pass the retail grocer. The retail grocer through all these years had established himself as the advisor and confidant of his clients. But the day of the groceteria or super market was at hand and new consumer-manufacturer relationships would develop. The turn of the century would see the dawn of branded names. The new consumer advocate was the home economist, often carrying messages of nutrition and wholesomeness from the food manufacturer. She was a vehicle or a mediator through which consumer information could be transmitted. Standards, although often dealing with the allowable composition of compound foods, became associated with pure foods. A standard of quality was a standard for

a pure food. Cheapness was anathema to purity.

But it should never be presumed that the "pure food" issue was exactly that. Chicanery was at work here. The unsaid purpose and threat of standards is that they were exclusive. The threat of exclusion was a weapon that the powerful industries and their lobbyists had in their possession to exclude the competition. By the same token, it was important from any one industry's point-of-view that its products were not excluded from the marketplace by the pure food laws or standards. On the other hand, it was useful for competitors to try to use standards to do just that. That there were differences in what constituted a "pure food" should therefore not be surprising. As pointed out by Robert McDowell Allen, Head, Division of State Food Inspection for Kentucky:

One side of the pure food force is working to demonstrate the wholesomeness and to justify the use of artificial colors. Another side works to detect the color and prove that it deceives the people or is injurious to health. One side manufactures antiseptics and spends its time to prove that the minimum amount of a poison does not make the food unwholesome, while the other works to detect it and to show that the long-continued use of even a minimum quantity of a poison has a harmful effect upon the human system.<sup>12</sup>

In a sense, there was competition between the state and the industry for the minds of the consumer as to what was "right" in the matter of manufacturing food. It was almost a religion. A standard defining a pure food was really a postulate of a creed by which those who bought into the principle abided. Those who did not to choose to live with standards which characterized pure foods were excluded: they were the "heretics".

Not only did business and the consumer benefit from measures to regulate the sale of foods, but so did society as a whole. In Chapter I, it was suggested that the problem of food

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<sup>12</sup>From Robert McDowell Allen (Head, Division of State Food Inspection, Kentucky), "The Pure Food Issue - Some of Its Problems", in (Proceedings of the Association of State and National Food and Dairy Departments (Interstate Pure Food Commission), Meeting Held at Hartford, Connecticut, July 17-20, 1906 (New York: John Wiley & Sons, 1907), pp. 157-171.

adulteration and the state response to it of food regulation were not historically central, and, in fact, may have been quite peripheral to defining the need for the welfare state. But the fact remains, they were a manifestation or a product of it. By their very nature, the standards of quality established for various commodities *were* minimum standards of nutrition. Nutrition was an aspect of health, and fraud was an aspect of nutrition. To write a standard for a "pure food" not only proscribed fraud, but in doing so, promoted nutrition. In this regard, the understanding as early as 1875 of the acceptable composition of foods, and the actual promulgation of standards in the decade, 1910-1920, suggest a need to re-evaluate the date at which the welfare state is generally conceded to have appeared in Canada (1927; pension insurance). Writers on the subject of the welfare state, who were perfectly aware of the concept of the social minimum, seem to have missed or forgotten about the interventionist role of government in this aspect of health.

Furthermore, attributing the motivation for the establishment of food standards to an impulse to regulate is over-simplistic. They were established to control food adulteration, but the need to control food adulteration was perceived differently by the different sectors involved. The industry saw standards as a means of restraining unbridled competition. The government saw them as protecting the consumer, but at the same time benefitting the honest tradesman who was being enticed to offer cheaper goods by hucksters. The consumer probably did not even know about standards, let alone appreciate their purpose, but could not have failed to have derived some benefit from them.

The *rage for cheapness* was a healthy and normal phenomenon to have developed in a vibrant developing economy. It signified competition. It is to the *rage for cheapness* that we owe the existence of the standards. It is food standards that largely characterized the first Food and Drug Regulations promulgated in 1920, the 75th anniversary of which will be marked in 1995. The existence of standards has always been argued by some to have hindered progress. In the



case of the food industry, hindered progress might refer to impeded development and acceptance of new foods. At the present time, there is even more pressure today for governments to completely do away with standards, the argument being that as long as the label accurately describes a food, there is no need to have a standard to guarantee its composition. It is becoming more and more difficult for governments to justify expending valuable resources on legislation which largely assists members of industry to keep each other honest, a role that the industry has great difficulty in undertaking itself. But accurate labelling does not completely replace the function of standards, which is to maintain a high level of integrity and wholesomeness of foods. If the *rage for cheapness* continues today - and there is no reason to suspect that it does not - then standards are a necessary component of food regulatory legislation, irrespective of the existence of full disclosure of ingredients on labels and the accurate representation of foods. Be that as it may, the history of food and drug legislation in Canada has been largely based on the existence of the standard as a regulatory instrument. Students of food regulatory history cannot ignore standards, or fail to recognize the role of standards in controlling food adulteration in this country.

**TABLES TO CHAPTER III**

Table III-1: Percentage Adulteration of Selected Food Commodities for the Period 1876-1910

Year	Milk	Coffee	Spices	Total Food
1876	58	90	-	51.7
1877	59	77	80	49.5
1878	40	75	70	33.7
1879	30	-	48	25.8
1880	29	57	43	28.3
1881	20	71	65	25.0
1882	29	68	50	25.7
1883	19	44	64	25.4
1884	25	60	71	32.1
1885	17	72	46	26.4
1886	10	43	40	18.7
1887	17	28	43	20.1
1888	19	27	57	27.2
1889	19	-	-	41.8
1890	-	-	52	27.3
1891	20	67	-	20.6
1892	16	44	-	28.0
1893	13	-	-	18.7
1894	10	-	-	17.7
1895	-	38	-	16.6
1896	8	-	-	8.5
1897	-	-	-	26.5
1898	12	27	-	7.1
1899	5	20	-	6.6
1900	-	-	-	25.7
1901	12	-	-	14.4
1902	16	41	-	11.5
1903	10	-	-	10.1
1904	-	25	49	21.5
1905	-	-	44	43.7
1906	14	-	-	18.7
1907	17	-	-	1.6
1908	-	-	23	12.0
1909	-	10	-	5.7
1910	-	9	18	6.9

Table II-2: Incidence of Food Adulteration, 1876-1880: Summary of Reports on Adulteration of Food

Article of Food	1876		1877		1878		1879		1880	
	Samples	Adulterated	Samples	Adulterated	Samples	Adulterated	Samples	Adulterated	Samples	Adulterated
Almonds	5	2	13	7	12	11	18	10	21	6
Baking Powder	-	-	-	-	10	0	24	5	-	-
Bitters (Quinine Wine)	5	4	5	4	-	-	-	-	-	-
Bread	-	-	-	-	8	0	24	1	33	2
Butter	-	-	49	23	80	12	227	67	251	80
Canned Fruit	-	-	-	-	24	4	-	-	30	1
Cashe	-	-	2	0	4	2	1	1	-	-
Cloves	3	3	6	5	18	15	17	9	22	10
Cinnamon	5	5	6	6	9	6	19	16	22	16
Chocolate	-	-	-	-	47	0	-	-	50	8
Cocoa	-	-	-	-	48	6	-	-	40	11
Cocoa and Chocolate	2	0	2	0	-	-	-	-	-	-
Coffee	10	9	44	34	46	36	-	-	61	35
Cream of Tartar	-	-	-	-	8	2	-	-	-	-
Egg Powder	-	-	-	-	1	0	-	-	-	-
Ginger	6	6	21	17	13	8	11	6	17	6
Honey	-	-	-	-	-	-	2	0	-	-
Islands	-	-	-	-	-	-	-	-	3	0
Mace	-	-	-	-	-	-	6	1	-	-
Malt Liquor	-	-	-	-	6	0	-	-	-	-
Milk	58	34	90	63	176	70	251	76	251	72
Mustard	6	6	19	18	35	36	-	-	16	16
Nutmeg	-	-	-	-	-	-	3	0	-	-
Other Spices	-	-	4	0	-	-	-	-	-	-
Pepper	19	17	36	30	40	26	44	21	42	18
Potted Meats	3	0	3	0	37	9	-	-	14	2
Potted Meats and Fish	-	-	-	-	-	-	36	0	-	-
Preserved Vegetables	-	-	22	1	27	3	-	-	-	-
Self-Rising Flour	-	-	-	-	-	-	17	1	-	-
Spices	1	0	1	0	-	-	-	-	-	-
Sugar	15	3	34	4	50	8	101	9	55	0
Sweets	20	0	20	0	48	2	-	-	52	4
Tea	21	4	59	15	53	11	64	6	63	6
Unseasoned Apples	2	0	2	0	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	26	1	-	-
Cod Liver Oil	-	-	-	-	9	0	-	-	-	-
Pale Green	-	-	50	30	-	-	-	-	-	-
Guano	-	-	-	-	-	-	5	5	-	-
<b>Total (Food)</b>	<b>180</b>	<b>93</b>	<b>438</b>	<b>217</b>	<b>804</b>	<b>271</b>	<b>891</b>	<b>230</b>	<b>1043</b>	<b>295</b>
<b>% Adulterated (Food)</b>	-	<b>51.67%</b>	-	<b>49.54%</b>	-	<b>33.71%</b>	-	<b>25.81%</b>	-	<b>28.28%</b>
<b>Total (All)</b>	<b>180</b>	<b>93</b>	<b>485</b>	<b>247</b>	<b>813</b>	<b>271</b>	<b>896</b>	<b>235</b>	<b>1043</b>	<b>295</b>
<b>% Adulterated (All)</b>	-	<b>51.67%</b>	-	<b>50.61%</b>	-	<b>33.33%</b>	-	<b>26.23%</b>	-	<b>28.28%</b>

Table III. Incidence of Food Adulteration, 1881-1885. Summary of Reports on Adulteration of Food

Article of Food	1881		1882		1883		1884		1885	
	Number	Adulterated	Number	Adulterated	Number	Adulterated	Number	Adulterated	Number	Adulterated
Alfalfa	25	17	-	-	-	-	-	-	-	-
Baking Powder	-	-	17	0	-	-	-	-	-	-
Bacon (Quinine Wine)	-	-	-	-	-	-	-	-	-	-
Bacon and Light Wine	-	-	-	-	54	0	-	-	-	-
Bread	63	2	63	1	-	-	-	-	-	-
Bread and Breadcrumbs	-	-	-	-	79	2	71	7	?	7
Butter	209	56	197	48	163	46	166	50	141	18
Canned Fruit	22	3	26	2	-	-	-	-	-	-
Canned Fruit & Vegetables	-	-	-	-	69	7	66	17	63	26
Cocoa	-	-	-	-	-	-	-	-	-	-
Cloves	13	7	-	-	-	-	-	-	-	-
Cheese	-	-	-	-	-	-	-	-	19	0
Cinnamon	-	-	-	-	-	-	-	-	-	-
Cinnamon or Cassia	24	12	-	-	-	-	-	-	-	-
Chocolate	57	3	54	0	-	-	-	-	-	-
Cocoa	54	11	53	10	-	-	-	-	-	-
Cocoa and Chocolate	-	-	-	-	32	0	-	-	-	-
Coccolut, desiccated	-	-	-	-	12	1	-	-	-	-
Condiments, spices	-	-	-	-	134	66	156	112	241	90
Coffee	58	41	69	47	95	42	128	77	18	13
Cream of Tartar	-	-	-	-	-	-	79	50	43	19
Egg Powder	-	-	-	-	-	-	-	-	-	-
Flour	-	-	18	0	-	-	-	-	-	-
Ginger	12	5	23	16	-	-	-	-	-	-
Honey	-	-	-	-	-	-	-	-	-	-
Infants' food, etc.	-	-	-	-	-	-	28	0	-	-
Ketchup	-	-	-	-	-	-	-	-	-	-
Lard	-	-	-	-	6	0	-	-	-	-
Liquors, various	-	-	-	-	-	-	113	9	-	-
Liquors, whiskey	-	-	-	-	-	-	-	-	74	16
Mace	2	1	-	-	-	-	-	-	-	-
Malt Liquor	-	-	-	-	-	-	-	-	-	-
Milk	209	42	202	59	157	29	182	45	174	23
Milk Food	-	-	-	-	4	0	-	-	-	-
Mustard	4	2	-	-	-	-	-	-	-	-
Nutmeg	1	0	-	-	-	-	-	-	-	-
Other Spices	-	-	66	32	-	-	-	-	-	-
Pepper	46	29	43	28	-	-	-	-	-	-
Potted Meats	-	-	-	-	-	-	-	-	-	-
Potted Meats and Fish	22	2	23	3	54	8	106	16	53	10
Preserved Vegetables	-	-	-	-	-	-	-	-	-	-
Sausage and Fish	-	-	-	-	10	0	-	-	-	-
Self-Rising Flour	-	-	-	-	-	-	-	-	-	-
Soda Water (fourfold)	-	-	-	-	24	20	-	-	35	8
Spirits	-	-	-	-	-	-	-	-	-	-
Sugar	63	0	65	0	40	0	-	-	?	?
Sweets	56	4	65	5	10	2	80	8	?	?
Syrup	22	6	-	-	39	3	-	-	-	-
Tea	80	17	68	23	74	26	90	32	75	24
Unenumerated Articles	-	-	-	-	-	-	-	-	-	-
Vinegar	-	-	-	-	37	6	-	-	-	-
Water	-	-	29	14	-	-	-	-	-	-
Whiskey	-	-	-	-	26	8	-	-	-	-
Wine	-	-	-	-	3	1	-	-	-	-

Old Deer Cr	-	-	-	-	-	-	-	-	-	-
Deer	-	-	-	-	88	12	201	62	-	-
Park Ground	-	-	-	-	-	-	-	-	-	-
Ground	-	-	-	-	3	0	-	-	-	-
	1041	280	1122	288	1142	280	1318	423	938	247
	-	24.98%	-	25.67%	-	25.38%	-	32.07%	-	26.38%
	1041	280	1122	288	1243	302	1530	485	938	247
	-	24.97%	-	25.67%	-	24.30%	-	31.91%	-	26.38%

Table B-4 Incidence of Food Adulteration, 1888-1892: Summary of Reports on Adulteration of Food

Article of Food	1888	1889	1890	1891	1892	Total	Percentage	Percentage	Percentage	Percentage
Almonds	-	-	-	-	-	-	-	-	-	-
Baking Powder	10	0	81	45	-	136	102	-	-	-
Beans (Canned Whole)	-	-	-	-	-	-	-	-	-	-
Bread	14	1	-	-	-	15	-	-	-	-
Butter	16	8	115	5	69	213	31	0	180	30
Candy	-	-	-	-	-	-	-	-	24	3
Canned Fruit	50	5	-	-	-	55	-	-	-	-
Canned Vegetables	-	-	-	-	-	-	2	0	-	-
Cheese	-	-	-	-	-	-	-	-	-	-
Cheese	23	0	30	1	73	127	3	18	0	-
Chocolate	-	-	-	-	-	-	4	0	-	-
Cocoa	-	-	-	-	-	-	-	-	-	-
Cocoa	-	-	-	-	-	-	-	-	-	-
Cocoa and Chocolate	-	-	-	-	-	-	-	-	-	-
Coffee	168	72	117	35	85	477	-	-	-	-
Condensed Milk	-	-	-	-	-	-	-	-	7	0
Condensed Food	-	-	-	-	-	-	-	-	6	0
Cream of Tartar	-	-	40	12	33	85	13	145	63	30
Egg Powder	-	-	-	-	-	-	-	-	-	-
Evaporated Food	-	-	-	-	-	-	-	-	14	0
Food	-	-	2	0	-	2	-	-	-	-
Ginger	-	-	-	-	-	-	-	-	-	-
Honey	23	0	-	-	-	23	-	-	-	-
Infant Food	85	0	-	-	-	85	-	-	-	-
Infant/Child Food	-	-	-	-	-	-	-	-	32	0
Ising	-	-	-	-	-	-	-	-	-	-
Lard	-	-	-	-	-	-	380	182	-	-
Lard and Tallow	-	-	-	-	-	-	-	-	30	0
Liquors	210	31	30	6	164	441	23	-	-	-
Milk	-	-	-	-	-	-	-	-	-	-
Milk Liquor	-	-	-	-	-	-	-	-	-	-
Nests	45	0	-	-	-	45	-	-	-	-
Milk	126	12	330	55	148	671	28	307	40	-
Mustard	-	-	9	4	-	13	-	-	60	39
Mustard	-	-	-	-	-	-	-	-	-	-
Onion Spice	-	-	-	-	-	-	-	-	-	-
Pepper	-	-	-	-	-	-	-	-	30	21
Potted Meats	-	-	-	-	-	-	-	-	-	-
Potted Meats and Fish	-	-	-	-	-	-	-	-	-	-
Preserved Vegetables	-	-	-	-	-	-	-	-	-	-
Salt-Raising Flour	-	-	-	-	-	-	-	-	-	-
Spices	113	45	23	10	194	485	111	-	-	-
Spice	-	-	-	-	-	-	-	-	-	-
Sugar	-	-	44	2	-	46	-	-	-	-
Sweets	145	19	-	-	-	164	-	-	32	3
Syrup & Molasses	-	-	32	2	-	34	-	-	-	-
Tea	51	11	-	-	-	62	-	-	-	-
Unseasoned Article	-	-	-	-	-	-	-	-	-	-
Vinegar	-	-	18	2	-	20	-	80	26	-
Water	-	-	-	-	-	-	-	-	-	-
Whiskey	-	-	-	-	-	-	12	6	-	-

...	11	2	5	0	-	-	-	-	-	-
...	-	-	-	-	-	-	-	-	-	-
...	40	2	-	-	45	5	-	-	8	3
...	-	-	22	8	-	-	-	-	20	0
...	-	-	-	-	-	-	-	-	-	-
...	-	-	-	-	-	-	10	0	120	0
...	-	-	-	-	-	-	-	-	-	-
...	1091	204	982	177	788	214	1082	431	425	118
...		18.70%		20.07%		27.23%		40.87%		27.29%
...	1142	208	909	183	831	218	1082	431	573	118
...		18.21%		20.12%		28.38%		40.58%		20.72%



Table M-5. Incidence of Food Adulteration, 1891-1895: Summary of Reports on Adulteration of Food

Article of Food	1891		1892		1893		1894		1895	
	Number	Adulterated	Number	Adulterated	Number	Adulterated	Number	Adulterated	Number	Adulterated
Almonds	-	-	-	-	-	-	-	-	-	-
Baking Powder	-	-	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	8	0	-	-
Beans (Cultivo White)	-	-	-	-	-	-	-	-	-	-
Beef	-	-	-	-	24	0	-	-	-	-
Butter	-	-	-	-	-	-	114	13	113	24
Candy	-	-	-	-	-	-	-	-	-	-
Canned Fruit	-	-	-	-	-	-	-	-	-	-
Canned Lobster	-	-	-	-	-	-	-	-	-	-
Cheese	-	-	-	-	-	-	-	-	-	-
Chocolate	-	-	-	-	-	-	-	-	-	-
Cocoa	-	-	-	-	-	-	-	-	-	-
Cornmeal	-	-	-	-	-	-	-	-	-	-
Cornmeal or Cornstarch	-	-	-	-	-	-	-	-	-	-
Cornstarch	-	-	-	-	-	-	29	3	-	-
Cream	-	-	-	-	-	-	33	6	-	-
Cream and Creamery	-	-	-	-	-	-	-	-	-	-
Coffee	48	32	288	113	-	-	-	-	89	34
Condensed Milk	-	-	-	-	-	-	-	-	25	1
Condensed Peas	-	-	-	-	-	-	-	-	-	-
Cream of Tartar	-	-	-	-	-	-	-	-	-	-
Egg Powder	-	-	-	-	-	-	-	-	-	-
Extract of Beef	-	-	-	-	-	-	-	-	42	1
Flour	-	-	-	-	-	-	-	-	148	2
Food	-	-	-	-	-	-	-	-	-	-
Ginger	-	-	-	-	-	-	-	-	-	-
Honey	-	-	-	-	-	-	68	3	-	-
Instant Food	-	-	-	-	-	-	-	-	25	0
Instantaneous Food	-	-	-	-	-	-	-	-	-	-
Ketchup	-	-	-	-	-	-	-	-	-	-
Lard	30	21	-	-	77	33	-	-	61	13
Lard and Tallow	-	-	-	-	-	-	-	-	-	-
Liquors	175	13	-	-	-	-	-	-	-	-
Meat	-	-	-	-	-	-	-	-	-	-
Meat Larders	-	-	-	-	119	0	-	-	-	-
Milk	-	-	-	-	-	-	-	-	-	-
Milk	242	49	130	23	188	25	379	36	-	-
Mustard	30	25	-	-	-	-	34	29	-	-
Mustard	-	-	-	-	-	-	-	-	-	-
Other Salts	-	-	-	-	-	-	-	-	-	-
Pepper	83	29	-	-	-	-	62	27	-	-
Peas	-	-	-	-	-	-	-	-	-	-
Peas and Peasants	-	-	-	-	-	-	-	-	-	-
Preserved Vegetables	-	-	-	-	-	-	-	-	-	-
Self-Rising Flour	-	-	-	-	-	-	-	-	-	-
Salt	-	-	-	-	-	-	-	-	-	-
Salt	-	-	-	-	-	-	-	-	-	-
Sugar	-	-	-	-	-	-	-	-	-	-
Sugar and Syrup	282	13	-	-	-	-	-	-	-	-
Syrup	-	-	-	-	-	-	-	-	-	-
Syrup & Molasses	-	-	-	-	-	-	-	-	-	-
Tea	78	0	-	-	-	-	51	13	89	30
Unseasoned Articles	-	-	-	-	-	-	-	-	-	-
Vinegar	10	8	-	-	63	24	-	-	-	-
Wine	-	-	-	-	-	-	-	-	-	-
Whiskey	-	-	97	0	-	-	-	-	-	-
Wine	-	-	-	-	-	-	110	25	-	-

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...	18	12	58	4	-	-	-	-	-	-
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...	-	-	-	-	-	-	-	-	81	17
...	-	-	-	-	-	-	-	-	113	1
...	-	-	138	1	108	0	127	2	-	-
...	-	-	-	-	-	-	-	-	-	-
...	916	488	488	134	481	82	888	187	834	108
...	-	20.83%	-	27.88%	-	18.74%	-	17.88%	-	16.58%
...	834	201	888	188	888	171	1021	188	888	181
...	-	21.57%	-	21.07%	-	20.12%	-	18.47%	-	17.38%



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...	.	.	.	.	.	.	.	.	.	.
...	1040	89	743	187	744	53	604	40	672	173
...	.	8.59%	.	25.51%	.	7.02%	.	6.40%	.	16.74%
...	1285	105	889	251	570	67	600	60	768	180
...	.	8.20%	.	27.95%	.	5.97%	.	11.00%	.	24.80%



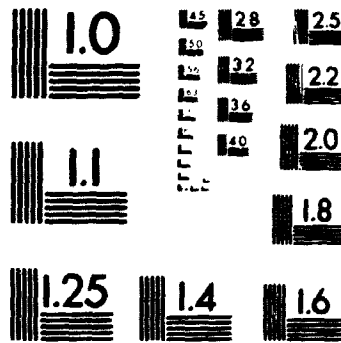


-	-	-	-	191	4	-	-	-	-
05	7	05	10	02	6	05	6	176	19
-	-	-	-	-	-	-	-	-	-
004	04	004	09	200	20	1174	202	613	208
-	14.29%	-	11.91%	-	10.0%	-	21.4%	-	43.72%
004	170	000	01	041	20	1417	270	700	207
-	20.72%	-	0.12%	-	7.72%	-	15.92%	-	26.30%





3 of/de 3



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)











Account of Land	-	-	-	-	-	-	82	-	-	-
Account of Persons	-	-	-	-	-	-	-	-	-	-
Account of	-	-	-	-	-	-	-	-	24	0
	161	0	161	4	264	3	431	21	460	36
	-	-	-	-	-	-	-	-	-	-
	2484	66	754	41	1563	222	1798	216	2022	238
	-	3.82%	-	8.44%	-	14.20%	-	12.18%	-	10.80%
	2007	190	1364	112	2662	264	2660	340	2916	406
	-	4.80%	-	9.21%	-	13.90%	-	11.80%	-	13.80%









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	-	-	-	-	-	-				
	-	-	-	-	-	-				
	328	28	-	-	354	12				
	-	-	-	-	-	-				
	-	-	170	-	148	59				
	-	-	-	-	-	-				
	88	-	-	-	-	-				
	-	-	-	-	-	-				
	430	12	308	9	349	11				
	-	-	-	-	-	-				
	-	-	-	-	7	7				
	2816	508	1874	243	1271	113				
	-	18.40%	-	18.44%	-	8.80%				
	3883	633	2332	286	2811	274				
	-	16.31%	-	12.85%	-	10.85%				

Table III-11: Percentage Food Adulteration and Recalculated Percentages of Food Adulteration when Samples Marked "Doubtful" and "Unclassed" are Included, 1876-1918.

Year	% Adulteration (Food)	Recalculated % Adulteration	Increase (Factor)
1876	51.7	-	-
1877	49.5	-	-
1878	33.7	36.1	1.1
1879	25.8	30.5	1.2
1880	28.3	30.2	1.1
1881	25.0	28.6	1.1
1882	25.7	27.9	1.1
1883	25.4	27.8	1.1
1884	32.1	34.3	1.1
1885	26.4	26.6	1.0
1886	18.7	22.5	1.2
1887	20.1	22.1	1.1
1888	27.2	30.4	1.1
1889	41.8	43.6	1.1
1890	27.3	30.4	1.1
1891	20.6	27.7	1.3
1892	28.0	34.0	1.2
1893	18.7	32.6	1.7
1894	17.7	27.9	1.6
1895	16.6	21.5	1.3
1896	8.5	13.3	1.6
1897	26.5	34.2	1.3
1898	7.1	12.4	1.7
1899	6.6	12.6	1.9
1900	25.7	32.3	1.3
1901	14.4	21.9	1.5
1902	11.5	18.9	1.6
1903	10.1	13.2	1.3
1904	21.5	41.1	1.9

1905	43.7	53.5	1.2
1906	18.7	31.0	1.7
1907	1.6	8.1	5.1
1908	12.0	23.1	1.9
1909	5.7	10.2	1.8
1910	6.9	11.9	1.7
1911	3.8	10.8	2.8
1912	5.4	7.0	1.3
1913	14.2	16.3	1.1
1914	12.2	13.9	1.1
1915	10.9		
1916	19.5		
1917	15.4		
1918	8.9		

Table III-12: Percentage Total Adulteration (Food, Drugs, etc.) and Recalculated Percentages of Total Adulteration when Samples Marked "Doubtful" and "Unclassed" are Included, 1876-1918.

Year	% Adulteration (Total)	Recalculated % Adulteration	Increase (Factor)
1876	51.7	-	-
1877	50.6	-	-
1878	33.3	35.7	1.1
1879	26.2	30.9	1.2
1880	28.3	30.2	1.1
1881	25.0	28.6	1.1
1882	25.7	27.9	1.1
1883	24.3	26.7	1.1
1884	31.9	35.0	1.1
1885	26.4	26.4	1.0
1886	18.2	21.8	1.2
1887	20.1	22.1	1.1
1888	26.4	31.1	1.2
1889	40.6	43.1	1.1
1890	20.8	23.2	1.1
1891	21.5	28.5	1.3
1892	24.0	31.2	1.3
1893	20.1	32.7	1.6
1894	15.6	30.9	2.0
1895	17.4	26.2	1.5
1896	8.3	14.0	1.7
1897	27.0	40.4	1.5
1898	9.9	19.5	2.0
1899	11.1	22.7	2.0
1900	24.6	30.7	1.2
1901	20.2	26.0	1.3
1902	9.2	17.6	1.9
1903	7.2	10.2	1.4
1904	19.2	40.0	2.1

1905	36.4	51.3	1.4
1906	17.1	36.3	2.1
1907	1.6	8.1	5.1
1908	9.8	13.9	1.4
1909	6.5	10.9	1.7
1910	4.6	8.2	1.8
1911	4.9	12.7	2.6
1912	8.2	13.3	1.6
1913	13.5	14.9	1.1
1914	11.9	13.5	1.1
1915	13.9		
1916	16.1		
1917	12.7		
1918	10.5		

Table III-13: Classification of Adulterated Samples of Butter into the Three Major Categories of Adulteration for the Quinquennium, 1877-1881.

Year	Total No. Adulterated	Fraudulent <sup>1</sup>	Misrepresented <sup>2</sup>	Harmful <sup>3</sup>
1877	23	7 (30%)	11 (48%)	5 (22%)
1878	12	6 (50%)	6 (50%)	-
1879	67	41 (61%)	14 (21%)	12 (18%)
1880	80	75 (94%)	3 (4%)	2 (2%)
1881	56	51 (91%)	2 (4%)	3 (5%)

<sup>1</sup>Adulterated with ingredients such as salt, water, casein and milk curds.

<sup>2</sup>Adulterated with any fat other than butterfat; may have also been adulterated as per Footnotes 1 and 3.

<sup>3</sup>Adulterated with preservatives such as borax or colour such as annatto; may have also been adulterated as per Footnotes 1 and 2. The heading "harmful" in this column denotes addition of a substance which, if added in sufficient quantity, could pose a human health hazard. Not all analysts would consider that the presence of borax or annatto would render butter adulterated. For instance, Dr. J. Baker Edwards, Public Analyst for the District of Montreal said:

I am informed that baborate of soda, or borax, has been used with great success by London milk dealers and dairymen, in lieu of salt. It is a slightly alkaline and perfectly wholesome substance, and is said to be highly preservative in the proportion of 1 or 2 percent. I should not regard its presence within these proportions as an adulteration, but rather beneficial to the consumer, as its antiseptic properties are well-known, as well as its tendency to arrest the growth of organic spores, and to arrest animal and vegetable decay. Where it is used, salt is unnecessary, except for sapidity, and it should, if employed at all, be sparingly used.

(1877 Report on Adulteration of Food, Appendix I, p.8)

Those that did consider butter adulterated because of the presence of these were more concerned that these additives were often used to improve butter that was otherwise adulterated by adding extenders, such as salt, water, casein or milk curds, or even animal fats such as lard. Old butter would be washed to eliminate any existing salt and colour, the adulterating extending ingredients would be added, and then the borax preservative and the annatto yellow colour would be added to make a visually pleasing product, indistinguishable from genuine butter.



Table III-14: Quinquennial Means of Total Adulteration, 1876-1910

Quinquennium	Total Percent Adulteration Mean
1876-1880	37.8
1881-1885	27.0
1886-1890	26.0
1891-1895	19.2
1896-1900	16.2
1901-1905	18.2
1906-1910	8.0

Table III-15: Examples of Adulterants of Various Food Commodities, Documented in the Reports on Adulteration of Food, 1876-1881.

Commodity	Adulterants
Baking Powder	Flour, tartaric acid, alum, carbonate of lime
Bread	Alum, Deteriorated wheat flour, <sup>1</sup> Maize flour (Indian Meal)
Butter	Salt, Sugar, Casein, Milk curds, Borax, Annatto, Other (foreign) fats (especially hog's lard)
Canned Vegetables	Copper (deliberately added for green colour), Lead and Tin (adventitious presence from solder)
Chocolate/Cocoa	Flour, Venetian Red, Sugar, Bean meal, Animal butter or fat, Arrowroot, Farina
Coffee	Chicory, Roasted Wheat, Roasted and Ground Peas, Beans and Corn
Milk	Water (Added), Cream (Abstracted)
Potted Meats	Juices (Abstracted), Gelatine & Brown Sauce (Added)
Quinine Wine (Bitters)	Excess alcohol, Gentian, <i>Nux vomica</i>
Spice <sup>2</sup>	Wheat flour, Corn meal, Ground Rice, Roasted Peas
Allspice	Wheat flour, Woody fibre, Sand, Toasted pea meal
Cinnamon	Cassia with Wheat flour
Ginger	Roasted wheat flour, bean flour, Indian corn meal, Cayenne pepper
Mustard	Wheat flour, Turmeric, Sulphate of Lime
Pepper	Wheat flour, Bean flour, Bread, Husks of mustard seed
Sugar	Glucose, Dextrine, Farinaceous substances, Carbonate/Sulphate/Phosphate of Lime
Sweet Goods	Chalk, Plaster of Paris, Chromate of Lead (Chrome Yellow), Bichromate of Potassium
Syrups <sup>3</sup>	Aniline dyes, Bitter Almond Essence (Prussic Acid)
Tea	Magnetic oxide, Prussian blue, Salts of copper, Foreign (and worthless) leaves

<sup>1</sup>Dr. F.A.H. Larue, Public Analyst for the District of Kingston, said about deteriorated wheat flour:

In these times of pecuniary distress, I do not look upon the making of bread with damaged flour, or that of inferior quality, as adulteration. It is better that the poor should be able to obtain a loaf of any kind at a low price than they should do without altogether.

<sup>2</sup>Dr. J. Baker Edwards, Public Analyst for the District of Montreal, said in regard to spices:

Few spices are sold in the genuine state, and the husks of corn, various grains, and indeed any refuse of the miller, is freely mixed with these spices, together with such kind of farina, flour, or ground rice, as may best suit the texture or general appearance of the particular spice. In these adulterations, however, I have not met with any ingredients injurious to health.

(1877 Report on Adulteration of Food, Appendix 1, p.7)

<sup>3</sup>Adulteration of these was particularly considered a travesty because they were used as the basis of "temperance beverages" (*soft drinks*).

**APPENDICES TO CHAPTER II**

## Appendix II-1

**INLAND REVENUE ACT OF 1875****Definitions of Food, Drink and Adulterated Food or Drink**

*Food* means and includes every article used as food in the state in which it is offered for sale, or that is used in the preparation of food by admixture therewith, either before, during or after cooking.

*Drink* means and includes any liquid used as a beverage and any article used in or for the preparation or partial preparation of any beverage.

*Adulterated food or drink* shall mean and include all articles of food or drink with which there has been mixed any deleterious ingredient, or any material or ingredient of less value than is understood or implied by the name under which the article is offered for sale.

Source: 37 Vict. Chap. 8, Sect. 1

**INLAND REVENUE ACT OF 1875****Duty of Inland Revenue Officers; Adulterated articles to be seized and destroyed**

The officers of Inland Revenue, the Inspectors and Deputy Inspectors of Weights and Measures and the Inspectors and Deputy Inspectors acting under the Act respecting the Inspection of staple commodities, or any of them, shall when required to do so by any regulation made in that behalf by the Department of Inland Revenue, procure and submit samples of food or drink or drugs suspected to be adulterated, to be analyzed by the analysts appointed under this Act; and upon receiving a certificate signed by an analyst, that such article of food, drink or drug is adulterated, shall seize the articles from which the sample was taken; and every such seizure shall be a seizure under the Act respecting the Inland Revenue herein cited, and shall be dealt with accordingly.

Source: 37 Vict. Chap. 8, Sect. 15

## Appendix II-2

AMENDMENT OF 1877 TO INLAND REVENUE ACT OF 1875

The definition of *Adulterated Food or Drink* would now read:

*Adulterated food or drink* shall mean and include all articles of food or drink with which there has been mixed any deleterious ingredient, or any material or ingredient of less value than is understood or implied by the name under which the article is offered for sale, or from which any essential constituent part has been in whole or in part abstracted.

[Bold type indicates phrase added by amendment]

Source: 40 Vict. Chap. 13

AMENDMENTS OF 1878 TO INLAND REVENUE ACT OF 1875**Fraudulent food articles**

And every purchaser who shall sell to the prejudice of the purchaser any article of food or any drug which is not of the nature, substance and quality of the article demanded by such purchaser, shall for every such offense on conviction of the same, incur and pay a penalty of one hundred dollars....etc....Provided that an offense shall not be deemed to be committed under this section in the following cases:-

- (1) When any matter or ingredient not injurious to health has been added to the food or drug because the same is required for the production or preparation thereof as an article of commerce, in a state fit for carriage or consumption, and not fraudulently to increase the bulk, weight or measure of the food or drug, or to conceal the inferior quality thereof.
- (2) When the drug or food is a proprietary medicine or is the subject of a patent in force, and is supplied in the state required by the specification of the patent.
- (3) When the food or drug is unavoidably mixed with some extraneous matter in the process of collection or preparation.

Source: 41 Vict. Chap. 11, Sect. 1

AMENDMENTS OF 1878 TO THE INLAND REVENUE ACT OF 1875**Butter and Oleo-Margarine**

Every person who shall manufacture for sale or who shall offer or expose for sale any article or substance in semblance of butter, but not the legitimate produce of the dairy, and not made exclusively of milk or cream, but into which the oil or fat of animals not produced from milk enters as a component part, or into which melted butter or any oil thereof has been introduced to take the place of cream, shall distinctly and durably stamp, brand or mark upon every tub, firkin, box or package of such article or substance the word "oleo-margarine," and in case of retail sale of such article or substance in parcels, the seller shall, in all cases, deliver therewith to the purchaser a written or printed label bearing plainly written or printed thereon the words "oleo-margarine."

Source: 41 Vict. Chap. 11, Sect. 2

## Appendix II-3

**ADULTERATION OF FOOD ACT, 1884****Definition of *Food* (Section 2)**

The expression "Food" includes every article used for food or drink by man.

**Adulteration (Section 2[2])**

An article is deemed to be "adulterated" within the meaning of this Act,-

- (a) In the case of Drugs:-....
- (b) In the case of Food:-
  - (1) if any substance has been mixed with it, so as to reduce or lower or injuriously affect its quality or strength;
  - (2) if any inferior or cheaper substance has been substituted wholly or in part for the article;
  - (3) if any valuable constituent of the article has been wholly or in part abstracted;
  - (4) if it is an imitation of, or is sold under the name of, another article;
  - (5) if it consists wholly or in part of a diseased or decomposed, or putrid or rotten animal or vegetable substance, whether manufactured or not,-or, in the case of milk or butter, if it is the produce of a diseased animal, or of an animal fed upon unwholesome food;
  - (6) if it contains any added poisonous ingredient, or any ingredient which may render such an article injurious to the health of a person consuming it.

**Source:** 47 Vict. Chap. 34, Sect. 2

**Appendix II-3 (cont'd)****INLAND REVENUE ACTS OF 1875 AND ADULTERATION OF FOOD ACT, 1884****Appointment of Analysts (1875 Act)**

The Governor may appoint in each Inland Revenue Division one or more persons possessing competent medical, chemical and microscopical knowledge, as analysts of food, drink and drugs purchased, sold or offered for sale within such division, and may cause such remuneration to be paid to such analysts as he may deem proper.

**Appointment of Analysts (1884 Act)**

The Governor in Council may appoint one or more persons possessing competent medical, chemical and microscopical knowledge, as analysts of food, drink and drugs purchased, sold, or exposed or offered for sale within such territorial limits as may be assigned to each of them respectively, and may also select from among the aforesaid analysts so appointed, or may appoint, in addition thereto, a chief analyst, who shall be attached to the staff of the Department of Inland Revenue at Ottawa.

**Source:** 37 Vict. Chap. 8, Sect. 14 and 47 Vict. Chap. 34, Sect. 3

**ADULTERATION OF FOOD ACT, 1884****Appointment of Inspectors and their Powers**

The council of any city, town, county or village may appoint one or more inspectors of food and drugs; and such inspectors shall, for the purposes of this Act, have all the powers by this Act vested in officers of Inland Revenue; and any such Inspector may require any public analyst to analyze and samples of food or drugs collected by him, provided such samples have been collected in accordance with the requirements of this Act:

**Source:** 47 Vict. Chap. 34, Sect 6



## Appendix II-3 (cont'd)

**ADULTERATION OF FOOD ACT, 1884****General Provisions; Sophistication of Milk**

16. If milk is sold or offered or exposed for sale after any valuable constituent of the article has been abstracted therefrom, or if water has been added thereto, or if it is the product of a diseased animal or of an animal fed upon unwholesome food, it shall be deemed to have been adulterated in a manner injurious to health, and such sale, offer or exposure for sale shall render the vendor liable to the penalty hereinafter provided in respect of the sale of adulterated food; except that skimmed milk may be sold as such if contained in cans bearing upon their exterior, within twelve inches of the tops of such vessels, the word "skimmed" in letters not less than two inches in length, and served in measures also similarly marked, -but any person supplying such skimmed milk, unless such quality of milk has been asked for by the purchaser, shall not be entitled to plead this section in any contravention of this Act:
2. Nothing in this section shall be interpreted to permit or warrant the admixture of water with milk, or any other process than the removal of cream by skimming.

Source: 47 Vict. Chap. 34, Sect. 16

**THE ADULTERATION ACT (1885)****Definitions of Food and Agricultural Fertilizer**

2. (a) The expression "food" includes every article used for food or drink by man or by cattle:
- (b) ....
- (c) The expression "agricultural fertilizer" means and includes every substance imported, manufactured, prepared or disposed of for fertilizing or manuring purposes, which is sold at more than ten dollars per ton and which contains phosphoric acid, or ammonia or its equivalent of nitrogen:

Source: 48-49 Vict. Chap. 67, Sect. 2

## Appendix II-4

**STANDARDS OF QUALITY: 1894-1920**

1894	Tea
1910	Meats and Principal Meat Products Grain and Grain Products Milk and Milk Products
1911	Beverages and Fruit Juices Maple Sugar and Syrup Grain and Grain Products Maple Sugar and Syrup
1912	Lard Edible Vegetable Oils Turpentine Fruit and Fruit Products Flavouring Extracts Canned Peas Honey Limits of Arsenic in Food and Food Materials
1913	Glucose Products Fruit and Fruit Products Vinegar
1914	Colouring Matters in Foods Preservatives in Foods Sugar Maple Sugar and Syrup
1915	Lime Juice, Lime Fruit Juice
1916	Fruit and Fruit Products
1917	Colouring Matters in Foods (Tartrazine) Flavouring Extracts (revision) Tea (revision) Grain Products (revision)
1918	Pepper Baking Powder Baking Powder
1919	Cloves
1920	Revision and Consolidation

Source: D.I.R., Submissions to Council, Index, Volumes 832-833, RG-16, National Archives of Canada.

## Appendix II-5

**THE "OLEOMARGARINE ACT" (1886)****An Act to prohibit the Manufacture and Sale of certain substitutes for Butter**

Whereas the use of certain substitutes for butter, heretofore manufactured and exposed for sale in Canada, is injurious to health; and it is expedient to prohibit the manufacture and sale thereof: Therefore Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:-

(1) No oleomargarine, butterine or other substitute for butter, manufactured from any animal substance other than milk, shall be manufactured in Canada, or sold therein, and every person who contravenes the provisions of this Act in any manner whatsoever shall incur a penalty not exceeding four hundred dollars and not less than two hundred dollars, and in default of payment shall be liable to imprisonment for a term not exceeding twelve months and not less than three months.

Source: 49 Vict. Chap. 42

## Appendix II-6

AMENDMENTS OF 1888 TO THE ADULTERATION ACT OF 1886

## Revised Definition of Food

1. (a) The expression "food" included every article used for food or drink by man or cattle, and every ingredient intended for mixing with the food or drink of man or cattle for any purpose whatever.

[Bold type indicates phrase added by amendment]

Source: 51 Vict. Chap. 24, Sect. 1

AMENDMENTS OF 1890 TO THE ADULTERATION ACT OF 1886

## Additional criterium of adulteration

Food shall be deemed to be "adulterated" within the meaning of this Act,-

- (1) if any substance has been mixed with it, so as to reduce or lower or injuriously affect its quality or strength;
- (2) if any inferior or cheaper substance has been substituted, wholly or in part, for the article;
- (3) if any valuable constituent of the article has been wholly or in part abstracted;
- (4) if it is an imitation of, or is sold under the name of, another article;
- (5) if it consists wholly or in part of a diseased or decomposed, or putrid or rotten animal or vegetable substance, whether manufactured or not, -or, in the case of milk or butter, if it is the produce of a diseased animal, or of an animal fed upon unwholesome food;
- (6) if it contains any added poisonous ingredient, or any ingredient which may render such an article injurious to the health of a person consuming it;
- (7) If its strength or purity falls below the standard, or its constituents are present in quantity not within the limits of variability, fixed by the Governor in Council as hereinafter provided.

[Bold type indicates phrase added by amendment] Source: 53 Vict. Chap. 26, Sect.2 (e)

**Appendix II-6 (cont'd)****AMENDMENTS OF 1890 TO THE ADULTERATION ACT OF 1886****Standards of Quality**

The Governor in Council shall, from time to time....establish a standard of quality for, and fix the limits of variability permissible in any article of food or drug or compound, the standard of which is not established by any such pharmacopoeia or standard work....and the Orders in Council fixing the same shall be published in the *Canada Gazette*, and shall take effect at the expiration of thirty days after the publication thereof.

Source: 53 Vict. Chap. 26, Sect 8

**AMENDMENT OF 1896 TO THE ADULTERATION ACT OF 1886****Honey**

The feeding to bees of sugar, glucose or any other sweet substance other than such as bees gather from natural sources with the intent that such substance shall be used by bees in the making of honey, or the exposing of any such substance with the said intent, shall be and be deemed a wilful adulteration of honey within the meaning of this Act; and no honey made by bees in whole or in part from any of such substances, and no imitation of honey, or sugar honey, so called, or other substitute for honey shall be manufactured or produced for sale, or sold or offered for sale in Canada: Provided that this section shall not be interpreted or construed to prevent the giving of sugar in any form to bees, to be consumed by them as food.

Source: 59 Vict. Chap. 12, Sect. 1

## Appendix II-6 (cont'd)

AMENDMENTS OF 1898 TO THE ADULTERATION ACT OF 1886

## Additional criterium of adulteration

Food shall be deemed to be "adulterated" within the meaning of this Act,-

- (1) if any substance has been mixed with it, so as to reduce or lower or injuriously affect its quality or strength;
- (2) if any inferior or cheaper substance has been substituted, wholly or in part, for the article;
- (3) if any valuable constituent of the article has been wholly or in part abstracted;
- (4) if it is an imitation of, or is sold under the name of, another article;
- (5) if it consists wholly or in part of a diseased or decomposed, or putrid or rotten animal or vegetable substance, whether manufactured or not,-or, in the case of milk or butter, if it is the produce of a diseased animal, or of an animal fed upon unwholesome food;
- (6) if it contains any added poisonous ingredient, or any ingredient which may render such an article injurious to the health of a person consuming it;
- (7) If its strength or purity falls below the standard, or its constituents are present in quantity not within the limits of variability, fixed by the Governor in Council as hereinafter provided.
- (8) **If it is so coloured or coated or polished or powdered that damage is concealed, or if it is made to appear better or of greater value than it really is.**

[Bold type indicates phrase added by amendment]

Source: 61 Vict. Chap. 24, Sect. 1

## Appendix II-7

**AMENDMENTS OF 1914 TO THE ADULTERATION ACT, R.S. 1906, CHAP. 133****Definition of Package**

"Package" includes any box, bottle, basket, tin, barrel, case, receptacle, sack, bag, wrapper or other thing in which any article is placed or packed.

Source: 4-5 Geo. V Chap. 19, Sect. 1

**AMENDMENTS OF 1914 TO THE ADULTERATION ACT, R.S. 1906, CHAP. 133****Regulatory Provisions regarding Maple Sugar and Syrup**

No person shall manufacture for sale, keep for sale, or offer or expose for sale, as maple sugar any sugar which is not pure maple sugar, nor as maple syrup any syrup which is not pure maple syrup, and any maple sugar or maple syrup which is not up to the standard prescribed by the Sixth Schedule to this Act or, if such standard is changed by the Governor in Council, to such standard as the Governor in Council may from time to time prescribe, shall be deemed to be adulterated within the meaning of this Act.

2. The word "maple" shall not be used either alone or in combination with any other word or words on the label or other mark, illustration or device on a package containing any article of food or on any article of food itself which is or which resembles maple sugar or maple syrup, and no package containing any article of food itself, which is not pure maple sugar or pure maple syrup, shall be labelled or marked in such a manner as is likely to make persons believe it is maple sugar or maple syrup which is not pure maple sugar or pure maple syrup, and any article of food labelled or marked in violation of this subsection shall be deemed to be adulterated within the meaning of this Act.

Source: 4-5 Geo. V Chap. 19, Sect. 4

**Appendix II-7 (cont'd)****AMENDMENTS OF 1914 TO THE ADULTERATION ACT, R.S. 1906, CHAP. 133****Honey**

The word "honey" shall not be used either alone or in combination with any other word or words on the label or other mark, illustration or device on a package containing any article of food or on any article of food itself which is or which resembles honey and which is not pure honey made by bees, and no package containing any article of food which is not pure honey shall be labelled or marked in such a manner as is likely to make persons believe it is pure honey, and any article of food labelled or marked in violation of this section shall be deemed to be adulterated within the meaning of this Act.

Source: 4-5 Geo. V Chap. 19, Sect. 5

**AMENDMENTS OF 1915 TO THE ADULTERATION ACT, R.S. 1906, CHAP. 133****Maple Sugar or Syrup**

No person shall manufacture for sale, keep for sale, offer or expose for sale, or sell, any article of food resembling or being an imitation of maple sugar or maple syrup, or which is composed partly of maple sugar or maple syrup, and which is not pure maple sugar or pure maple syrup.

2. Any maple sugar or maple syrup which is not up to the standard prescribed by the Sixth Schedule to this Act or, if such standard is changed by the Governor in Council, to such standard as the Governor in Council may from time to time prescribe, shall be deemed to be adulterated within the meaning of this Act.

3. The word "maple" shall not be used, either alone or in combination with any other word or words, or letter or letters, on the label or other mark, illustration or device on a package containing any article of food, or on any article of food itself, which is not pure maple sugar or pure maple syrup, and any article of food labelled or marked in violation of this subsection shall be deemed to be adulterated within the meaning of this Act.

Source: 5 Geo. V Chap. 9, Sect 1



## Appendix II-7 (cont'd)

AMENDMENTS OF 1919 TO THE ADULTERATION ACT, R.S. 1906, CHAP. 133**Bran, shorts or middlings**

Food shall be deemed to be "adulterated" within the meaning of this Act,-

- (a) if any substance has been mixed with it, so as to reduce or lower or injuriously affect its quality or strength;
- (b) if any inferior or cheaper substance has been substituted, wholly or in part, for the article;
- (c) if any valuable constituent of the article has been wholly or in part abstracted;
- (d) if it is an imitation of, or is sold under the name of, another article;
- (e) if it consists wholly or in part of a diseased or decomposed, or putrid or rotten animal or vegetable substance, whether manufactured or not;
- (f) if it contains any added poisonous ingredient, or any ingredient which may render such an article injurious to the health of a person consuming it;
- (g) If its strength or purity falls below the standard, or its constituents are present in quantity not within the limits of variability, fixed by the Governor in Council as hereinafter provided.
- (h) If it is so coloured or coated or polished or powdered that damage is concealed, or if it is made to appear better or of greater value than it really is.
- (i) in the case of milk or butter, if it is the produce of a diseased animal, or of an animal fed upon unwholesome food;
- (j) **in the case of bran or shorts or middlings, if it contains anything that is not a product of wheat, or in the case of corn bran, if it contains anything that is not a product of maize or Indian corn.**

[Bold type indicates phrase added by amendment]

Source: 10 Geo. V Chap. 4, Sect. 1

**FEDERAL AUTHORITY IN THE FIELD OF PUBLIC HEALTH****Its Legal Basis and Rationalization**

There is no reference in the British North America Act to the administration of Public Health as a function of Government. By 1867 such matters had hardly come within the scope of Governmental activity.

An assignment of certain subjects related to public health was made, however, in Section 91 of the Act. By this division, the Federal Government was charged with the responsibility for "The Census and Statistics" and "Quarantine and the Establishment and Maintenance of Marine Hospitals". On the other hand, the Provincial Governments were made responsible, in Section 92, for "the establishment, maintenance and management of hospitals, asylums, charities and eleemosynary institutions in and for the Province, other than marine hospitals."

Constitutionally such matters as are not specified in the B.N.A. Act fall within the jurisdiction of the Dominion. Technically, therefore, public health, which in the modern sense is a new subject, falls within the cognizance of the Federal Government. This principle is confirmed by the Clause in the Act of Parliament which constituted the Department of Agriculture in 1868 (31st Vic. Cap. 51) which assigns to this Department "Public Health and Quarantine".

The fact, however, that provincial boards of health were created by Ontario in 1882, and in New Brunswick, Nova Scotia and Quebec, a few years after, has been taken as evidence that the Federal Government was relieved of this function of government. Legally, however, the obligation resting on the Federal Government to assume the duties of public health administration has remained. Indeed it was natural that this burden should be left to the Provinces while the field of Public Health, as it was then understood, was more or less adequately occupied by them.

In a speech on February 28th 1916, in the House of Commons, the Honourable J.D. Hazen, M.P. gave his opinion on the constitutional propriety of the establishment of a Department of Public Health. The following is an extract from his speech:

*'There is no constitutional objection to the establishment of a department of public health, but the question will arise, if such a department should be established, with what subjects connected with public health that department should deal, so that it will not intrench upon what, by practice, has fallen under the jurisdiction of the different provinces, and before any such health department is established, it would be most desirable to consult the different Provincial Governments so that no action be taken that would be regarded as trespassing upon the jurisdiction of the provinces, and upon the work which they feel it is their duty to undertake.'*

The Honourable Martin Burrell, M.P., gave his opinion on this question in the House of Commons on May 2nd, 1917, as follows:

*'But when we come to legislation on health, as I understand the Constitution, it is specifically provided that the provinces have a limited jurisdiction, they being confined wholly to control of hospitals, the eleemosynary institutions. It is left to be inferred that the Federal power can deal with all other health matters.'*

The subject of vital statistics in Canada is constitutionally somewhat analogous to that of Public Health. The former subject is assigned to the B.N.A. Act to the Federal Government. In the absence of any Federal action, however, the Provinces, with one exception, have set up Bureaux of vital statistics in their own interest. Now that it has become expedient to supplement such Provincial organization federally, a Dominion Bureau of Statistics has recently been established to co-ordinate the work of the Provincial bodies.

In like manner a Federal Department of Public Health is justified, now that it is clear that Provincial Governments are no longer competent to deal with Public Health in its newer and wider application, and that their efforts require co-relation and amplification.

The establishment of a Federal Department of Public Health should, of course, be undertaken only after careful consultation with Provincial authorities. There would seem, however, to be few constitutional difficulties in the way, and provided that harmonious relations are maintained between the Federal and Provincial authorities the determining factor in such negotiations would be only the efficient administration of Public Health.

**Source:** Report to the Vice-Chairman of the War Committee of the Cabinet on the Establishment of a Federal Department of Public Health, 25th October 1918, Page 28, Chapter entitled "The Constitutional Question". National Archives of Canada, General Inventory RG-29 (Health and Welfare Canada), Volume 19, File 10-3-1 (Volume 1: "Organization and Functions of Department of Health & Welfare").

## Appendix II-9

**THE DEPARTMENT OF HEALTH ACT, 1919****Responsibilities of the New Department**

- (1) Co-operation with the provincial, territorial and other health authorities with a view to the co-ordination of the efforts proposed or made for preserving and improving the public health, the conservation of child life and the promotion of child welfare;
- (2) The establishment and maintenance of a national laboratory for public health and research work;
- (3) The inspection and medical care of immigrants and seamen, and the administration of Marine Hospitals;
- (4) The supervision as regards the public health of railways, boats, ships, and of methods of transportation;
- (5) The supervision of Federal public buildings and offices with a view to conserving and promoting the health of the Civil Servants and other Government employees therein;
- (6) The enforcement of any rules and regulations made by the International Joint Commission, promulgated pursuant to the treaty between the United States of America and His Majesty relating to boundary waters and questions arising between the United States of America and Canada, so far as the same relate to public health;
- (7) The administration of the statutes mentioned in the Schedule to this Act<sup>141</sup>, and of Acts amending the same, and also of all orders and regulations passed or made under any of the said Acts; and all the duties and powers of any Minister of the Crown under either the said Acts or any of the said orders or regulations, are hereby transferred to and conferred upon the Minister of Health;
- (8) Subject to the provisions of *The Statistics Act*, the collection, publication and distribution of information relating to the public health, improved sanitation and the social and industrial conditions affecting the health and lives of the people;
- (9) Such other matters relating to health as may be referred to the Department by the Governor in Council.

Source: 9-10 Geo. V Chap. 24, Sect. 4

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<sup>141</sup>The Quarantine Act, The Adulteration Act, The Public Works Health Act, The Leprosy Act, The Canada Shipping Act (Sections 406-408)

## Appendix II-10

**FOOD AND DRUGS ACT, 1920****Definitions of "Food" and "Drug"**

"Drug" includes all medicines for internal or external use for man or animal.

"Food" includes every article used for food or drink by man, and every ingredient intended for mixing with the food or drink of man for any purpose whatever.

Source: 10-11 Geo. V Chap. 27, Sect. 2

**FOOD AND DRUGS ACT, 1920****Food Adulteration Provisions**

- (1) Food shall be deemed to be "adulterated" within the meaning of this Act,-
- (a) if any substance has been mixed with it, so as to reduce or lower or injuriously affect its quality or strength;
  - (b) if any inferior or cheaper substance has been substituted, wholly or in part, for the article;
  - (c) if any valuable constituent of the article has been wholly or in part abstracted;
  - (d) if it consists wholly or in part of any diseased or putrid or rotten animal or vegetable substance, whether manufactured or not;
  - (e) if it is obtained from a diseased animal, or from an animal fed upon unwholesome food;
  - (f) if it contains any added poisonous ingredient, or any ingredient which may render it injurious to the health of the person consuming it, whether added with intent or otherwise; or
  - (g) if its strength or purity falls below the standard, or its constituents are present in quantity not within the limits of variability, fixed by the Governor in Council as hereinafter provided.
- (2) In the case of milk any adulteration shall be deemed to be injurious to health.

Source: 10-11 Geo. V Chap. 27, Sect. 3

## Appendix II-10 (cont'd)

**FOOD AND DRUGS ACT, 1920****Misbranding**

Food shall be deemed to be misbranded within the meaning of this Act,-

- (a) if it is an imitation of, or substitute for, or resembles in a manner likely to deceive, another article of food or drug under the name of which it is sold or offered or exposed for sale and is not plainly and conspicuously labelled so as to indicate its true character;
- (b) if it is stated to be the product of a place or a country of which it is not truly a product;
- (c) if it is sold or offered for sale by a name which belongs to another article;
- (d) if it is so coloured or coated or powdered or polished that damage is concealed, or if it is made to appear better or of greater value than it really is;
- (e) if false or exaggerated claims are made for it upon the label or otherwise;
- (f) if in package form, sealed by the manufacturer or producer, and bearing his name and address, the contents of each package are not conspicuously and correctly stated within limits of variability to be fixed by regulations as in this Act provided, in terms of weight, measure or number, upon the outside of the package....;
- (g) if sold as a compound, mixture, imitation or substitute, it is not labelled in accordance with the provisions of this Act;
- (h) if the package containing it, or the label on the package, bears any statement, design or device regarding the ingredients or the substances contained therein, which statement, design or device is false or misleading in any particular; or
- (i) if the package containing it, or the label on the package, bears the name of an individual or of a company, claimed to be the manufacturer or producer of the article, which individual or company is fictitious or non-existent.

Source: 10-11 Geo. V Chap. 27, Sect. 5

## Appendix II-10 (cont'd)

**FOOD AND DRUGS ACT, 1920****The terms "pure" and "genuine"**

Every article of a food which is a compound, mixture, imitation or substitute shall be plainly and correctly labelled as such; and the words "pure" and "genuine" or words equivalent to these terms, shall not be used on the labels or in connection with such articles, and such articles shall be so packed, marked or labelled as not to be likely to deceive any person with respect to their true nature.

Source: 10-11 Geo. V Chap. 27, Sect. 6

**FOOD AND DRUGS ACT, 1920****Regulations by Governor in Council**

- (1) The Governor in Council shall have power to make regulations,-
  - (a) prescribing standards of quality for and fixing the limits of variabilities permissible in any article of food or drug the standard of which is not otherwise prescribed by this Act or *The Meat and Canned Foods Act*;
  - (b) requiring a label to be attached to any article of food or drug designed to prevent the public or the purchaser being deceived or misled as to the character, strength, quality or quantity of the article.
- (2) All regulations made under this section shall be published in the *Canada Gazette*.

Source: 10-11 Geo. V. Chap. 27, Sect. 14

**APPENDICES TO CHAPTER IV**



## APPENDIX IV-1

**Letter dated March 29, 1898 from J. Stanley Cook, Secretary, Montreal Butter and Cheese Association to Hon. Sydney Fisher, Minister of Agriculture, Ottawa**

SIR.-I have the honour to inform you that at a meeting of the Butter and Cheese Association held this day, the question of the system of using boracic acid in the manufacturing of butter was brought up for discussion. As you are doubtless aware some of the creameries in Australia have been in the habit of using boracic acid in the process of manufacturing, claiming that it acts as a preservative, and in consequence of this, numerous prosecutions have taken place recently in England, resulting in heavy penalties being inflicted on the sellers, and the confiscation of all such butter. In consequence of this, Canadian exporters this season are compelled to guarantee all butter shipped by them as being absolutely pure and free from boracic acid or any other adulterants. While this association feels that it may not be the common practice in Canada, it has been reported that a few years ago some of our creameries used boracic acid. This association has also been informed that quite a number of farmers are in the habit of using a powder or liquid called "Preservaline", which we are given to understand is mixed with the milk as a preservative. This association is under the impression that this preservaline contains a certain percentage of borax, and if such is the case, butter manufactured from such milk would clearly come under the English Act. The London Home and Foreign Produce Board has gone so far as to appoint an analyst of its own, in view of any trouble that may arise on future shipments. You will, therefore, readily see that some prompt action should be taken in this matter, especially as most of the creameries have commenced, or are about to commence operations.

In view of these circumstances, this association feels that it is on the utmost importance that immediate notice should be given by your Department to all the butter factories in Canada, warning them against the use of boracic acid, or any other adulterants.

**Source:** "Adulteration of Butter", *Canadian Grocer*, Vol. XII, No. 14; April 8, 1898; p.38.

## APPENDIX IV-2

## Circular Issued by the Minister of Agriculture for Ontario

In building up the dairy industry of Ontario two things have been taught and urged, namely, purity and high quality of products and economy of production. Whatever set backs this great industry may have met in the past few years can be traced to a neglect of one or the other of these important points. The cheese industry of Ontario is now fairly well established, and the annual production of a large amount of well made, whole-milk cheese of uniform quality has given Canada a controlling influence in the British cheese market. Our creamery industry is now rapidly developing, and it is of vital importance that the strictest attention be paid to the turning out in an economical manner of butter of uniformly high quality, pure and unadulterated. This industry will, if properly conducted, assume very large proportions, since the average consumption of butter is much greater than that of cheese, and the British imports of butter greatly exceed those of cheese. In the British market our butter meets in competition similar goods from Ireland, Denmark, France, the United States, Australia and Argentina. Denmark has attained a chief place by studying the requirements of the market, and now produces nearly all of her creamery export butter from pasteurized milk or cream with the use of special ferments. In some of the countries exporting to Great Britain - Australia in particular - it has become a practice to use some kind of "preservative" in butter-making. Sometimes this is added to butter as a salt; sometimes it is added to the milk. These preservatives are sold under various names, such names as preservalene, preservatine, preservitas, being favorites. They are nearly all mixtures of boracic acid. The increasing use of these preservatives has alarmed the British consumer, and most radical measures are now proposed to exclude all butter in which traces of these preservatives are found. The British public has become alarmed, the press is actively discussing the matter, and public officials are now on the lookout for butter so adulterated. It must be carefully noted that all butter made from milk or cream to which anything but common salt has been added is adulterated. The butter producers of Ontario must make no mistake. The use of any of these preservatives is dangerous to the dairy interests of this country. Everything possible should be done to discourage the use of such substances, and the press should as far as possible prevent the advertising of them in this country. Ontario has a reputation for producing pure dairy goods of high quality. That reputation must be maintained, and every person interested in the dairy business of Ontario should assist in preventing these "preservatives" from getting a foothold in this Province. "An ounce of prevention is better than a pound of cure." We have a reputation now for making pure butter and cheese. Help to maintain that reputation. Do not advocate preservatives. Do not advertise preservatives. Do not use preservatives.

Source: *Canadian Grocer*, Vol. XII, No. 17; April 29, 1898; p.42.

## APPENDIX IV-3

**Brief Summary of the Findings of President Theodore Roosevelt's Commission examining conditions of the Chicago Meat Packing Houses**

The interior of most buildings is of wood, and where water is used freely the floors are soaked and slimy.

Workrooms are poorly lighted, in most of them artificial light being always needed. Many inside rooms where food is prepared are without windows, and may be described as vaults.

Systematic ventilation was not found anywhere. In a few cases, electric fans were used, but usually the workers toil without relief in a humid atmosphere heavy with the odors of rotten wood, decayed meats, stinking offal and entrails.

The work tables upon which meat is handled, meat racks and meat conveyors, are of wood, in nearly all cases inadequately cleaned, and grease and meat scraps were found adhering to them, even after being washed and returned to service.

Sanitary conveniences for both men and women are made by cutting off a section out of the workroom by a thin wooden partition, rising to within a few feet of the ceiling, usually without proper ventilation. These rooms are sometimes used as cloakrooms, and often lunch rooms similarly constructed adjoin the privies.

The worst feature of all was the frequent absence of washing sinks, soap, towels and toilet paper.

New buildings have the same defects as old ones.

The handling of meats for prepared food products is filthy and apparently without any pretensions to cleanliness. The men's clothes and aprons are unspeakably dirty, and no attempt is made to keep the meat from contact with them.

Old canned meats are heated to liven them up and re-labelled, labels bearing the statement that the contents have been "Government Inspected."

The unsanitary conditions in which the laborers work and the feverish pace which they are forced to maintain inevitably affect their health. Physicians state that tuberculosis is disproportionately prevalent in the stock yards, and the victims of this disease expectorate on the spongy wooden floors of the dark workrooms, from which falling scraps of meat are later shovelled up to be converted into food products.

Toilet rooms open directly into workrooms, and those for men and women frequently adjoin.

Rest rooms for women were rare exceptions.

No meal time provision is made for the men. In Summer their lunches are eaten on the street; in Winter or bad weather in the workrooms.

The neglect on the part of their employers to recognize or provide for the requirements of cleanliness or decency of the employees must have an influence that cannot be exaggerated in lowering the morals and discouraging cleanliness on the part of the workers employed in the packing houses.

Source: "No Scandal in Canada", *Canadian Grocer*, Vol. XX, No. 22; June 8, 1906; p.36.

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