

BOARD OF INQUIRY

INTO

COST OF LIVING

REPORT OF THE BOARD

VOLUME I.



OTTAWA

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BOARD OF INQUIRY INTO COST OF LIVING

OTTAWA, ONT., August 1, 1914.

To the Right Honourable Sir R. L. BORDEN, G.C.M.G., P.C.,
Prime Minister of Canada.

The undersigned members of the Board of Inquiry, appointed by Orders in Council on the 20th December, 1913, and 22nd January, 1914, to make an investigation into the increase in the cost of living in Canada and the causes which have occasioned or contributed to such result, have the honour to present the following report:—

I.

INTRODUCTORY.

A. Orders in Council appointing the Board of Inquiry, and instructions issued in connection therewith, are as hereinafter set forth, viz.:—

P.C. 3195. Certified copy of a Report of the Committee of the Privy Council, approved by His Royal Highness the Governor General on the 20th December, 1913.

Upon a memorandum from the Prime Minister setting forth that representations have been made to the Government by the governing bodies of several of the cities of Canada and by other representative bodies and persons asking that an investigation be made into the increase in the cost of living in Canada and into the causes which have occasioned or contributed to such result.

The Prime Minister reports that having conferred with the Minister of Customs, the Minister of Agriculture, and the Minister of Labour, he has been informed by them that such an investigation in the first instance might be made by permanent officials of the Government, and that they recommend that John McDougald, Esquire, Commissioner of Customs; Charles C. James, Esquire, Agricultural Commissioner, and Robert H. Coats, Chief Statistician of the Department of Labour, should conduct such inquiry and report thereon as soon as possible.

The Prime Minister, therefore, recommends that such an investigation be made forthwith and that the Minister of Customs, the Minister of Agriculture and the Minister of Labour be authorized to instruct the said officials to enter upon such investigation and to co-operate for that purpose, employing and utilizing all information which may be available in the several Departments of the Government and obtaining such further data and information as may be necessary or useful for the purposes aforesaid, and that the said officials report upon the matters aforesaid with the least possible delay.

The Prime Minister further recommends that John McDougald, Esquire, act as Convenor and Chairman of the Board so constituted.

The Committee concur in the foregoing and submit the same for approval.

RODOLPHE BOUDREAU,

Clerk of the Privy Council.

P.C. 194. Certified copy of a Report of the Committee of the Privy Council, approved by His Royal Highness the Governor General on the 22nd January, 1914.

The Committee of the Privy Council, on the recommendation of the Right Honourable the Prime Minister, advise that Joseph Ulric Vincent, Assistant Deputy Minister of Inland Revenue, be appointed a member of the Board authorized to be constituted by the Order in Council of the 20th December, 1913, for the purpose of inquiring into and reporting upon the increase in the cost of living in Canada and the causes which have contributed to or caused the increase.

RODOLPHE BOUDREAU,

Clerk of the Privy Council.

Further instructions are as follows:—

PRIME MINISTER'S OFFICE,

OTTAWA, January 8, 1914.

SIR,—In connection with the investigation which is being carried on by yourself and by Messrs. C. C. James, C.M.G., and R. H. Coats, I desire to inform you that in case you and your colleagues in the inquiry should find it desirable or convenient to be invested with power to subpoena witnesses, to examine them on oath or affirmation and to send for persons, papers and records, the necessary Order in Council for that purpose will be passed and submitted for the approval of His Royal Highness the Governor General. If, in addition to the powers alluded to, you should find it convenient or desirable to be invested with any other powers within the scope and meaning of the Inquiries Act and the amendments thereto, the Government will be glad to have your suggestions and will give immediate consideration and attention thereto.

Yours faithfully,

R. L. BORDEN.

JOHN McDOUGALD, Esq., C.M.G.,

Chairman of Commission to Investigate the High Cost of Living,
Ottawa.

In undertaking to comply with the terms of the Order in Council for an investigation into the increased cost of living in Canada, and the causes which have occasioned or contributed to such result, the Board has availed itself of materials which have been collected by various executive departments and other existing materials.

Meetings have been held, and data and information relative to the subject of the inquiry have been obtained by the Board in the following cities, viz.:—

Halifax, in the province of Nova Scotia.

Saint John, in the province of New Brunswick.

Quebec and Montreal, in the province of Quebec.

Ottawa, Hamilton, Toronto, and Port Arthur, in the province of Ontario.

Winnipeg, in the province of Manitoba.

Regina and Saskatoon, in the province of Saskatchewan.

Calgary and Edmonton, in the province of Alberta.

Vancouver and Victoria, in the province of British Columbia.

It should be noted that this report deals with conditions only up to August 1, 1914.

The cost of living is not really a simple question, and the more closely it is examined the less simple it appears.

The phrase "cost of living" means different things to different people, quite apart from the fact that it is identified with the standard of living.

The standard of living has an important influence on the cost of living, but that standard changes from time to time and from country to country, and it is different for different classes of people in the same country at the same time, and differences are observable in the modes of living of the same class, time and locality.

The cost of living has been defined, in a concrete form of expression, as meaning "the sum of the exertions and sacrifices necessary to maintain life."

It is, however, the advance in commodity prices, rents and in cost of service, which has chiefly attracted attention in Canada and is attracting attention in all countries—the advance in prices being world-wide.

The subjects bearing on this inquiry cover such wide grounds that the report of the Board is of necessity somewhat in summary form.

Detailed statistical tables, with explanatory notes and various memoranda relative to cost of living appear in the appendix to our report.

II.

STATISTICS.

In an investigation into the increase of the cost of living the first step is manifestly to determine the facts as to the extent of the advance in prices.

In collecting and presenting price statistics it is necessary to distinguish between wholesale and retail prices. The former are more sensitive to industrial and commercial changes. Competition operates less effectively upon retail than upon wholesale prices. It is the level of retail prices however as a general rule that directly concerns the consumer.

For the purposes of this inquiry therefore, special attention has been directed to the increased prices of commodities required to serve the needs of the masses in the form of necessaries, comforts and the commoner luxuries.

Money, the common measure of value, supplies the means of measuring the cost.

The cost of living requires consideration, not only absolutely but relatively. The level of prices, whether high or low, is of significance only in comparison with the amount of income.

Rising prices, if accompanied by increase of incomes, may mean reduced cost of living, if measured by the ratio of expenses to earnings. On the other hand, falling prices, if accompanied by diminished incomes, may mean increased cost of living.

The statements set forth below have been furnished to the Board, relative to the cost of living, 1914, from records actually kept at Winnipeg by the persons concerned:—

BOARD OF INQUIRY INTO

STATISTICS RE COST OF LIVING, 1914.

Average number of persons in thirteen families 5.15

Average number of rooms for thirteen families 5.45

No. 10 shows a monthly deficit of \$10.75, income of the father \$50 per month. Children's ages, 14-10-7-4. Pays \$3 a month taxes, owning his house.

Income of father ranges from \$75 to \$114—Average, \$89.53 (twelve cases).

Three cases at \$ 75 00 month=\$ 225 00	1 case increased by lodger	\$26 00 a month.
One case " 76 00 " = 76 00	" " "	children 14 00 "
One " " 80 00 " = 80 00	" " "	" " "
Two cases " 85 00 " = 170 00	" " "	lodger 5 00 "
Three cases " 100 00 " = 300 00	1 " " "	" 24 66 "
One case " 110 00 " = 110 00	1 " " "	children 20 00 "
One " " 114 00 " = 114 00		
	1,075 00	89 66

Total average income for the twelve cases, \$97.53.

Twelve cases (omitting No. 10) average income	\$97 53
Twelve " " " " expenditure	95 52
Saving	2 03 per month.

Three of above cases show monthly average deficit of \$1.51.

		Father.	Other Sources.	Children.
No. 6 deficit \$ 93	Income \$75 00	\$		6-10.
No. 7 " 3 25	" 80 00			14-5-14-14.
No. 12 " 45	" 76 00	14 00		14-12-9-5-2-3 months.

Seven of the above cases show monthly average saving of \$6.31.

		Father.	Other Sources.	Children.
No. 1 saving \$ 93	Income \$ 100 00	\$ 20 00		13-11-7.
No. 3 " 2 93	" 114 00			13-10-3.
No. 4 " 12 20	" 75 00	26 00		5-3-2.
No. 5 " 03	" 85 00			9-5-2.
No. 8 " 20 57	" 100 00	24 66		Three.
No. 11 " 03	" 100 00			7-3.
No. 13 " 7 75	" 110 00			9-8.

No. 1 and No. 3 pay \$13 and \$10 respectively, for furniture (per month).

		Father.	Other Sources.	Children.
No. 2 made ends meet, see details	\$85 00		5 00	7-5-4.
No. 9 " " "	75 00			11-6-1.

Case.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.	No. 13.	Average
Family.....	5	5	5	5	5	4	6	5	5	6	4	8	4	5 15
Rooms.....	7	6	6	5	4	8	4	7	4	5	5	5	5	5 46
Lodgers.....	1	1		5				2						
Children's ages.....	13-11-7	7-5-4	13-10-3	5-3-2	9-5-2	6-10	14-5-1		11-6-1	14-10-7-4	7-3	14-12-9-5-2-8M	9	
Heating.....	H. Air.	H. Air.	Stove.	Stoves.	H. Air.	Stoves.	Stoves.	H. Air.	Stoves.	Stoves.	H. Air.	Stoves.	H. Air.	
Income, father.....	\$100 00	\$85 00	\$114 00	\$75 00	\$85 00	\$75 00	\$80 00	\$100 00	\$75 00	\$50 00	\$100 00	\$75 00	\$110 00	
" lodgers.....		5 00		25 00				24 66						
" children.....	20 00											14 00		
Total income.....	\$120 00	\$90 00	\$114 00	\$101 00	\$85 00	\$75 00	\$80 00	\$124 66	75 00	50 00	100 00	90 00	110 00	97 55
Rent.....	\$27 50	\$25 00	\$20 00	\$20 00	\$24 00	\$23 00	\$15 00	\$25 00	\$15 00	\$ 3 00	\$32 50	\$27 00	\$22 50	\$23 04
Light.....	1 00	1 00	1 00	1 50	70	1 25	75	1 00	1 00	70	1 00	70	75	95
Fuel.....	9 00	9 75	7 25	5 85	7 50	8 50	8 00	12 50	7 00	6 25	6 66	6 00	8 20	7 88
Water.....	82	75	82	70	77	93	50	87	75	65	66	60	66	69
Insurance.....														
Lodge, church, etc.....	4 00	2 00	4 25	2 75	3 30	75	5 50	5 42	3 00	3 90	1 66	2 00	3 58	3 24
Doctor and dentist.....	50	1 00	3 00	2 50	2 00	50	5 00	2 50	1 00	2 00	2 25		42	1 89
Magazines, papers, etc.....		50	1 50	1 00	25	50	25	80	25	50	50	25	80	59
Post, stationery.....	1 25	50	25	1 00	25	25	25	25	1 00	25	08	30	25	45
Car fare.....	1 00	75	1 50	50	1 00	50	2 00	50	50	1 75	50	2 00	2 08	1 13
Holidays, Christmas.....														
Recreation.....	3 00	1 00	3 50	1 25	1 00	3 50	1 00	80	1 50	1 75	4 16		6 66	2 42
Furnishing.....	\$13 00	2 50	\$10 00	1 25	1 00	1 00	1 00	1 75	1 00	75	2 08	3 00	80	1 46
Schooling.....	1 00		4 75		25	75	6 00		20	50	09		25	1 53
Groceries.....	20 00	13 25	28 00	20 00	20 00	14 75	20 00	20 00	20 00	19 00	25 00	18 00	30 00	20 61
Meat.....	8 00	10 00	9 00	7 25	1 25	8 00	6 00	12 00	10 00	4 25	3 33	14 00	10 00	7 93
Milk.....	3 00	3 00	2 75	3 25	4 50	2 80	7 00	3 00	3 00	3 00	1 50	5 60	3 00	3 72
Bread.....	2 50	3 00		2 50	2 20	1 45		2 50	5 00		3 00	4 00		2 90
Clothing, father.....	5 00	5 50	2 50	3 75	3 33	2 00	1 50	6 00	1 00	5 00		7 00		11 35
" mother.....	8 00	4 00	2 25	5 00	3 34	2 00	1 50	2 00	1 00	2 50	6 25		2 00	
" children.....	9 00	5 50	7 00	6 25	4 33	3 00	2 00	2 50	1 30	5 00	3 33		8 30	
Soap and brushes.....	1 50	1 00	1 75	2 50	2 00	50		20	2 00					1 43
Laundry.....					2 00			4 00						3 00
Saving.....	93		2 93	12 20	03			20 57			03		7 75	6 34
Deficit.....						93	3 25			10 75		45		3 84
Total expenses.....	120 00	90 00	114 00	101 00	85 00	75 93	83 25	124 66	75 00	60 75	100 00	90 45	110 00	95 52

COST OF LIVING IN CANADA

¹ Taxes. ² Instalments on furniture not included in average.

An investigation for the British Board of Trade was made in 1911 into "Working Class Rents, Housing and Retail Prices, together with the Rates of Wages in certain occupations in the Principal Industrial towns of the United States of America," and compared with conditions in the United Kingdom.

The following extracts are taken from the introductory memorandum thereto:—

One peculiarity shown by the budgets is the comparatively small consumption of baker's bread in the average American working-class family, the consumption being $8\frac{1}{2}$ pounds weekly per family as against 22 pounds in the United Kingdom, the place of bread being taken in the United States to some extent by rolls, cakes, biscuits, etc., on which the expenditure is about three times as great as that shown in the average British budget. On the other hand, the consumption of meat is much larger in the United States and the consumption of vegetables is also larger. The budgets indicate in general that the dietary of American working-class families is more liberal and more varied than that of corresponding families in the United Kingdom.

The comparison of wages, hours of labour, rents and prices in the areas of investigation in the two countries has been made on the bases indicated above, and, as regards prices, on the same assumption as that made in the preceding inquiries, that an English workman with an average family maintained under American conditions the standard of consumption as regards food to which he had been accustomed. Under such conditions the workman's wages would be higher in the United States by about 130 per cent, with slightly shorter hours, while on the other hand his expenditure on food and rent would be higher by about 52 per cent. The detailed figures and argument from which this conclusion is deduced are stated on pages lv to lxxvi of this report; on which pages are further elaborated the qualifications to which any such comparison is necessarily subject.

As conditions in the United States and Canada are much alike it is easy to see at a glance how the cost of production and of carrying on business in Canada is greater than in the United Kingdom.

Ratio—Wages in the United Kingdom, 100—in Canada . . . 230
Ratio—Cost of living in the United Kingdom, 100—in Canada. 152

Statistical memoranda, furnished by the Department of Labour, Canada, on conditions affecting the cost of living in Canada, are appended hereto, as follows:—

Appendix No. 1.—Introduction.

- " 2.—Wholesale prices, Canada, 1890-1913.
- " 3.—Retail prices, Canada, 1900-1913, with comparison of wholesale and retail prices in Canada.
- " 4.—Prices wholesale and retail in other countries.
- " 5.—Prices of services.
- " 6.—Rents in Canada and in other countries.
- " 7.—Wages in Canada and in other countries.

The Board of Inquiry has not undertaken to deal in this report with other statistical data and memoranda on prices of securities, interest, monetary and financial conditions in Canada, which have been gathered by the Department of Labour.

In Appendix No. 39 will be found "Press Extracts as to cost of living in former times."

III.

MOVEMENT OF POPULATION FROM THE LAND.

That products of the farm and food products have advanced much more rapidly than have manufactured articles is probably due to the fact that the demand has to some extent outgrown the production of such commodities.

This condition has no doubt been brought about to a considerable extent by the withdrawal from the farms of a large number of persons who have become food consumers rather than food producers.

The following may be stated as the main reasons suggested for preference for city or town life: higher wages in the cities and towns; working on regular and shorter hours with holidays; social advantages; better schools; amusements; the general desire of people to avoid isolation and to live where the crowds are.

The following table shows the growth of urban population as compared with rural population in Canada. This table of course, does not mean an exact classification of producers and consumers. Urban population includes all cities, towns and incorporated villages; all others are included under rural population. There is some production of food in towns and villages, and some lines of food are completed or finished as foods in the urban centres. Further, and this is important, the exclusive wheat growers of the western provinces, who are numbered under rural population, are really consumers; since they buy everything they require as food, even their flour. The removal of a mixed farmer from Ontario to a wheat farm in Saskatchewan changes him from a producer to a consumer, but he still remains in the rural class.

RURAL AND URBAN Population of Canada in 1901 and 1911 by Provinces.

Provinces.	1901.			1911.		
	Total Population.	Percentage Rural.	Percentage Urban.	Total Population.	Percentage Rural.	Percentage Urban.
Prince Edward Island ...	103,259	85.52	14.48	93,728	84.03	15.97
Nova Scotia	459,574	71.85	28.15	492,338	62.20	37.80
New Brunswick	331,120	76.66	23.34	351,895	71.71	28.29
Quebec	1,644,898	60.20	39.80	2,003,332	51.65	48.35
Ontario	2,182,947	57.12	42.88	2,523,274	47.35	52.65
Manitoba	255,211	72.39	27.61	455,614	56.02	43.98
Saskatchewan	91,279	80.77	19.23	492,432	73.32	26.68
Alberta	73,022	71.76	28.24	374,663	62.12	37.88
British Columbia	178,657	49.62	50.38	392,430	48.10	51.90
Yukon	27,219	66.41	33.59	8,512	54.59	45.41
Northwest territories	20,129	100.0	.....	18,481	100.0	.....
Canada	5,371,315	62.36	37.64	7,206,643	54.47	45.53

IV.

STANDARD OF LIVING—NECESSITIES AND LUXURIES.

The demand for better conditions and the general advance of the standard of living throughout all the ranks of the population are manifestly most potent causes of the increase of the demand for commodities, and therefore of the advances of prices.

The methods of living of our so-called plain people are on a much higher plane than have existed in this country at other times.

The wants of the people have been multiplied and diversified on every side. They demand more and better things. Their requirements are larger, more varied and more exacting.

The movement is world-wide, but perhaps its influence upon existing social conditions is nowhere so strongly emphasized as in this Dominion, and in the United States of America.

There is a measure of truth in the aphorism that the high cost of living is due to the cost of high living and that our people live on a far more extravagant scale than ever before, but it is also true that food, raiment and habitation cost much more than heretofore.

In itself the improvement in the standard of living is a sign of progress, but if not rationally guided and safeguarded the advance threatens to bring about a decline of the standard to a lower level.

In the discussion of the reasons leading to the increased cost of our manner of living, consideration must be given to the increased cost not only of necessities but also to the increased cost of luxuries.

Take one of our latest large industries, the automobile, as more or less illustrative of this point.

Statement of automobiles imported and manufactured during the year, for use in Canada—exclusive of automobiles of foreign and domestic manufacture exported from Canada during the year.

Total value, \$12,000,000.

These figures are startling, especially when we consider that less than 10 per cent of all these cars are for industrial use, and that over ninety per cent are essentially devoted to purposes of recreation.

In the development of the commercial car, the automobile industry is destined yet to be the source of great reproductive activity, and an important agent in the future production of wealth.

The results of the automobile industry thus far, however, are largely represented by the opportunity it affords for luxurious recreation.

Reasonable recreation and reasonable luxury may be necessary for modern progress, but the price has to be paid and the bill is found in our high cost of living.

V.

INDUSTRIAL EFFICIENCY—SERVICE, PRODUCTION.

The opinion is widely shared throughout this Dominion that inefficient service through lack of vocational training is one of the notable causes which have brought about the recent advance in prices of commodities, and that the teaching in the public schools should be supplemented by courses in vocational training, in order to promote and maintain industrial efficiency.

The cost of production is affected by the supply and efficiency of service.

The scarcity of trained farm labour at a reasonable price has been the despair of the farmer.

In the cities and towns the difficulty of obtaining efficient domestic service has been a leading cause in the transfer of families from commodious homes into contracted apartments.

The "gospel of ease," preached from every platform, has permeated the national life of the Anglo-Saxon race and has had its influence in the formation of present conditions.

It is beyond question that productive efficiency is essential in the average citizen if he is to be capable of maintaining his economic value in the community, and becoming and continuing socially and industrially a sustaining and helpful unit rather than a burden.

The nations which have outstripped others in industry have done so by working harder, or rather, more efficiently. The man who works will beat the man who does not.

The spirit that has won success is the spirit of duty and work. The lessons of history teach beyond dispute that a life of ease is not conducive to individual or national well-being.

Work is the discipline of life, and when the necessity arises, we should have the energy to respond to its call.

With equal efficiency, no standard of living made possible by the wealth produced by ten hours of labour in the factory or on the farm could be maintained with fewer hours, unless wages or the value of the product be increased.

In this Dominion we are proportionately working fewer hours than ever before, and we have a greater number of the inefficient and the idle in our midst.

The result of proportionately fewer men working shorter hours with more valuable land has been an increased cost for which labour-saving devices have not compensated. These are underlying economic conditions which through the law of supply and demand have contributed to the increased cost of the necessities of life.

The following extracts from the Massachusetts Report on the Cost of Living, 1910, are worthy of consideration as bearing to some extent on conditions in this country:—

During the last five years, Massachusetts has been aroused to a realization of the inefficiency of its present educational methods. The reorganization of the State Board of Education in Massachusetts, following the work of the Commission on Industrial Education, indicates that, in this State at least, we are on the road to remedy what evils may have grown out of the old forms of education. Ever since the beginning of the public school system in Massachusetts the school child has been headed for the arts and professions, in spite of the fact that only half of the pupils graduating from the elementary grades enter the high schools, and approximately only 5 per cent finally enter college.

The per capita cost of public school education has been advancing greatly.

The teachers personally have not benefited, for their remuneration is practically unchanged; the money has been spent in the extension of a system which is not adapted to modern needs, but, on the contrary, is contributing to the causes making for the advance of commodity prices. As a result, manual labour has become a reproach. Children are ashamed of the honest occupations of their fathers, and their education leads them to the counting room and office, and away from the farm, factory and workshop. The testimony before the commission in regard to the shoe trade was to the effect that graduates from the high and grammar schools refuse to become artisans, and seek employment as clerks, bookkeepers and the like, where the remuneration will be less from the start and the chances of advancement may be smaller. The same condition is to be found in practically all manufacturing trades.

It is beyond question that productive efficiency is essential in the average citizen, if he is to be capable of maintaining his economic value in the community, and becoming and continuing socially and industrially, a sustaining and helpful unit rather than a burden.

The purpose of public school education is to secure intelligent citizenship in a democratic society, whose individuals through their suffrage govern and legislate for the commonwealth. The development, training and direction of

the intelligence of pupils should be so conducted as to supplement that intelligence with economic efficiency; and any course of studies which ignores this consideration and directs the energies of pupils into channels from which the great majority will derive no benefit, is, from the economic point of view, a waste of time, effort and expense. The ox team has been replaced by the locomotive; the sailing ship by the 200,000-ton ocean express steamer; scratching the soil to make it produce is no longer profitable, but intensive cultivation is required for success. To meet these conditions, human quality and ability must be increased; yet the essential thing to meet these changed conditions—the industrial training of the children in the school has—under great difficulty and opposition, only recently been begun.

Massachusetts is dependent on her industries for her economic well-being; the majority of her citizens are workers in those industries. In this industrial commonwealth it should be the function of the schools to train children for the work that the majority of them must do. No sane man would attempt to do away with public school training for the colleges, and thence for the arts, sciences and professions; but the 95 who must work with their hands at manual labour to live, must not be sacrificed to the 5, who need not so work.

Massachusetts is a community of workers, of producers; and yet until very recent years all the energies of our school system, its efforts, zeal and enthusiasm were diverted from the training of efficient industrial units to so-called cultural education. The more urgent needs of the productive vocations have been neglected; the mill and shop and farm, the bases of our social life and economic being, have been subordinated. Year after year we have turned out thousands of children who are unable for many causes, to attain the professions, and unfitted by misdirected education and training for industrial life. Necessity compels them to enter into competition with the crowded ranks of unskilled workers, or they must enter industrial occupations handicapped by ignorance and lack of training; in either case their inefficiency makes them a burden to the community or an expense to their parents or guardians.

Educated sufficiently to give them a distaste for manual labour, which must be the inevitable lot of the majority in all communities, the products of such a school system are insufficiently educated and trained to enter the ranks of skilled labour; their future must compass years of idleness or semi-idleness. If in the hard school of necessity they do not develop economic efficiency, they fall back into conditions and circumstances that are morally and industrially dangerous to the body politic. Misdirection of education in the public schools is disastrous in its effects on morals and industry, and surely leads to unemployment, crime and pauperism. The mockery of the plea that the poorest shall have an opportunity through education for higher and better things lies in the plain fact that our system, as it has been, makes its victims discontented with what they have, and not fit to attain what they have not.

So long as the efficient members of every state must carry the inefficient on their backs, so long as the productive members of society are compelled to support the unproductive, living must continue to cost more than it should. One remedy, a wider range in the ideals and methods of public school education, which the commission hopes and believes is under way in this state, is of intense interest to the citizens who must pay the bill. Because it believes that this is one of the causes of a decrease in production through the abandonment of the farm and the turning over of manufacturing industries to the alien, the commission feels that duty requires it to refer to this subject.

PRODUCTION.

The nation's welfare can be maintained only by increasing the productiveness of its labour and by judiciously directing it in reproductive channels.

Labour expended in the fields, or in the manufacture, transportation or distribution of the necessities of life, is reproductive, but labour expended in the production of luxuries is principally lost in an economic sense.

Industrial efficiency grows along lines of specialization, organization and interchange. In the stage of industrial evolution, when each man provided for himself by his own unaided exertions, we find the maximum of effort with the minimum of product.

Wealth comes from production. All must agree that the more a country produces the richer it is.

It is a vital question, therefore, to consider what course of policy will effectually develop the producing forces of a nation.

Prices are influenced by the law of supply and demand. The most rapid advance since 1900 in prices in Canada (and in the United States) has been in finished farm products (meats, dairy products, eggs, etc.), and in such articles of food as are subject only to minor manufacturing processes.

Canada is an agricultural country. Agriculture is its most important industry.

Underproduction in many lines of agricultural products in Canada appears to be an important cause in the rise of prices.

The following statement shows the course of Canadian imports and exports for three years in the commodities undermentioned:—

STATEMENT for three years ending March 31, 1914.

Commodity.	Value—Imports.	Value—Exports Domestic and Foreign.
	\$	\$
Sheep.....	1,851,557	340,907
Mutton and lamb.....	1,409,834	115,362
Poultry and game.....	908,786	409,636
Canned meats.....	1,115,560	152,195
Eggs.....	7,031,803	209,283
Butter.....	4,922,401	2,709,279
Wool.....	5,495,126	1,007,364
Hides and skins, other than fur.....	30,807,900	21,596,512
	53,542,967	26,540,538

VI.

ADULTERATION AND INSPECTION OF STAPLE COMMODITIES.

The adulteration of products results in giving the consumer a poorer quality or smaller quantity for the same price.

The object of this practice is to obtain a larger return for a smaller value.

With rising prices it might be reasoned that the manufacturer, getting more and more for his product, would be under little temptation to practice adulteration. The facts, however, show the contrary to be true.

Adulteration has been conspicuously prevalent during the recent period of advancing prices.

Instead of advancing the prices of the products, in many instances the quality has been lowered or the quantity of the goods offered for sale at the same price has been reduced.

The ease with which milk may be adulterated makes the liability of the abuse in this case greater than in that of other food products.

This adulteration has probably affected the community more by reason of illness and disease than in direct addition to the cost of living.

Federal and provincial laws and regulations have been enacted for the inspection of food products in the interests of the public health.

These pure food laws have added unquestionably to the cost of commodities but the money spent in the prevention of disease is doubtless saved in other ways—such as in hospital maintenance, cost of sickness and other charges which are the invariable accompaniment of preventible disease.

A memorandum on the Adulteration and Inspection of Food-stuffs by Dr. A. McGill, Chief Analyst of the Inland Revenue Department, is submitted herewith as Appendix No. 15.

VII.

WASTE AND EXTRAVAGANCE.

FOOD WASTE.

Food waste occurs in three principal ways:—

1. Waste in marketing, including purchase of inedible material, purchase in small quantities, purchase for flavour or tenderness instead of nutrition, and sheer extravagance.

2. Waste in preparation, including preparation of too large quantity for the meal or day; food made inedible by poor cooking; and food unwholesome by wrong cooking.

3. Waste in supplies and cooked food thrown away.

The waste through servants is emphasized in a letter from a house-wife as published in a report on Cost of Living, 1910, as follows:—

It seems to me that the elimination of waste is nearly impossible in households where there are numerous servants; at least I have found it so, with only one, and the waste rises in geometrical progression with the number employed. I have now been doing my own cooking for nearly a year, and I feed my family twice as well on about two-thirds of the cost. A large part of the saving comes in the economical use of meat. I make a delicious dinner with a few scraps of meat that a cook would give to the dog.

Then I depend a good deal on soups, which I invent to suit my larder. A few cold baked beans with a little tomato and a bit of meat on a bone, or a little left-over gravy, make a soup that all eat with much pleasure, and it is so nourishing that it goes far to make the dinner. . . . Most people do not understand how different a soup is when it has simmered a good many hours. The soup that has been boiled fast a couple of hours will taste flat and uninteresting, whereas the same soup five hours later will have such a delicious blend of flavours that all you know is that it is nice without being able to distinguish the ingredients. Again, it is time that counts. . . . Cooks waste the coffee and tea horribly. Mix the coffee with cold water the night before, with an egg-shell, and bring it to a boil in the morning, and you do not need a great deal for a good cup of coffee. The tea in the kitchen is piled into the tea-pot and thrown out with but little of the goodness extracted. Another frightful waste is the coal. I use less than half as much as any girl I ever had, and my stove bakes better. I never complain of the draft as she does or did after burning all the goodness out of her coal in the first hour after lighting.

There is no way that I know of to eliminate waste except by looking after things yourself. This is disagreeable and practically impossible with the aver-

age type of servant. This type is created by the lazy, supercilious, absolutely stupid type of mistress who will not touch anything with the tips of her dainty fingers, and reserves the right of despising the person who does it for her. Just hear any of them talk about their servants when they are together. I always feel like telling them they have exactly what they deserve. If they could organize their households on a business basis, with the same consideration and respect for their employees that a successful business man shows, and the proper supervision that any business requires, the matter could be adjusted on a more satisfactory basis, and a different class of girls would be willing to take positions.

Notable causes of waste in marketing, kitchenette and storage facility are to be found in social conditions over which the individual has no control. The crowded living conditions in towns and cities, whether in tenement or apartment, demand the kitchenette, which has no place for supplies in bulk.

The high temperature of the apartment house prohibits any storage except for a short period.

The necessity of purchasing in small quantities comes with the kitchenette and small ice-box.

The saving in rent is partly offset by the increased costs in food supplies. The apartment-house woman buys ready cooked foods as she comes home from the city, not thinking that one-third the amount would have served had she considered it her duty to stay in and prepare it.

A potent cause of the high cost of food, as well as of waste in edible material, is the recent and increasing demand for perishable foods.

The standard of "leisure" costs much. To putter all day over cooking such materials as take time is relegated to the workers.

Thrift is no longer inculcated as of old. It is easier and quicker to buy a new article than to repair the old.

Only the highest skill can save in the French fashion, and this requires training. Such training takes time and such skill means taking pains in each small detail.

There are wrong notions about food as to what is nutritive or economical. The cost of perishable meats, in distinction from dried, salted or smoked, is a case in point; fruit and vegetables are also expensive.

The wholesomeness of the monotonous fare of the fathers has been denied and the abundance of the modern table praised as evidence of our advanced civilization.

Education in food values and better cooking of standard foods may lead to a wiser expenditure.

ADVERTISING.

In the discussion of advertising as a possible element in the increase of prices, a distinction is to be made between the legitimate advertising that performs a useful function by informing the public concerning the merits of commodities and the wild-cat advertising that is designed to exploit the public.

The advertising in periodicals falls into two classes: magazine advertising, and newspaper advertising.

Undoubtedly, advertising is a paying proposition from the point of view of the individual business man, or it never would have extended to its present proportions.

While recognizing the many benefits arising from advertising the fact cannot be obscured that the consumer does pay the bill, and that the bill has grown to enormous size in recent years. It is one of the many forms of waste in the distributive process.

The reduction of waste in this field would help to bring prices back to a lower level.

WASTE FROM FIRE.

Fire waste is disproportionately large in this country. This waste is an absolute destruction of property. The belief is common that the insurance companies pay the loss if the loser is fully insured. This is a false idea. The insurance company is nothing but a clearing house, receiving money from many and distributing it among a few.

The loss from every fire comes back to the people, and they pay every cent of it in rent and taxes, in the food they buy and the clothes they wear.

In addition to the huge waste by fire in this country there is another phase of the cost to the people shown in the expense of maintaining fire departments in all cities and towns; the cost of enforcing building laws; the expense of insurance companies with their adjuncts of inspection bureaus, rating organizations, etc.; and part of the expense of water-works systems. All these items are charged back to the public.

As in other items of waste, the total is found to be stupendous.

The cause to a large extent is wooden buildings, poor construction and national carelessness.

Such a loss as that suffered by fire is certain to have its effect in the increased cost of commodities, and demands a remedy. The remedy is largely with the people themselves.

Extracts from an address by Mr. Franklin H. Wentworth, secretary of the National Fire Protection Association to the Canadian Manufacturers' Association, containing excellent suggestions on the subject, is submitted herewith as Appendix No. 17.

UNPRODUCTIVE EXPENDITURE.

In weighing the causes that have contributed to increase the cost of living, this board is convinced that a far-reaching influence in perpetuating high prices is unproductive expenditures on armies, navies and on national and local services which are not reproductive.

The diversion of labour and capital from productive industry to waste and destruction, with the accompanying diminution of the necessaries of life and an inability to supply the world's demands, inevitably resulted in an advance of the prices of the commodities of common consumption.

The effect of lavish public expenditure is contagious and is sure to result in private extravagance as well. Our tendency has been towards growing extravagance in both private and public life.

It is recognized, of course, that much of this unproductive expenditure for national defence and government services are unavoidable under existing conditions. Yet it is undeniable that public opinion has been all in the direction of spending money on every conceivable object and it has not been sufficiently alarmed to devote its thought towards economy and the reduction of expenditure.

Experience in the stern school of adversity may yet exert an influence in modifying this tendency. No other school appears to have much influence in this direction.

VIII.

UNECONOMICAL HOUSEHOLD EXPENDITURES.

(1) PACKAGE GOODS AND SHORT WEIGHTS.

The consumption of various food products specially prepared and distributed in packages of various sizes has increased enormously of late years.

While these packed goods are attractive, convenient and wholesome, they undoubtedly, as a rule, cost more to the consumer than does the same quantity of food pur-

chased in bulk. The consumption of package goods makes for increasing comfort, pleasure and luxury in the household, but it adds heavily to the expense of living.

The practice of buying package goods, instead of purchasing the same food products in bulk, involves a threefold addition to cost:—

(1) The buyer has to pay for the extra cost of fancy packing and of distribution in small quantities.

(2) As most of the package goods are heavily advertised, the consumer has to pay for this expense.

(3) The packages are in many instances short in weight, so that the purchaser usually pays higher for the food value that he obtains than if he bought in bulk. While the buyer thinks he is buying by the pound, the seller is really selling by the package.

The following list of retail prices is the result of an inquiry made by one of the food inspectors:—

Kind of Food.	Cost per pound.	
	Bulk.	Package.
	cts.	cts.
Rolled oats.....	4	7
Cream of wheat.....	4	10
Gem meal.....	4	10
Corn meal.....	3½	5
Puffed rice.....	10	15 cts. for 6 oz.

In the case of staple commodities, such as flour, the package system has been carried to costly extremes in towns and cities. Formerly, flour for the household was usually bought in barrels; then the half-barrel came in; then the quarter-barrel, followed by further subdivisions until now the sale of flour in 5-pound packages is quite general.

In defence of the package goods, it is contended that this method of bringing goods to the consumer is more convenient and sanitary than the method of bulk sale.

Undoubtedly the package method has an advantage in its favour in the matter of cleanliness and neatness.

It is not implied here that the consumption of package foods should be discontinued altogether and the old method of bulk purchase adopted exclusively. Consumers, however, should be made acquainted with the facts in connection with the purchase of package foods which reduce the amount of food value received for a given expenditure of money.

When the packed food-stuffs were first put upon the market, purchasers usually inquired concerning the weights or contents, as they had been accustomed to buying by weight. As the package method became established, customers ceased to take this precaution. This opened the way for a general reduction of the size of the packages by manufacturers. It is a well known fact in the grocery trade that the sizes of package goods have been decreased in many instances, while the purchaser has not been informed concerning this reduction.

Various remedies have been suggested for the abuses that have crept into the system of retailing goods in packages. One measure of protection which each consumer can apply for himself is to make inquiry concerning the weight and quantity of goods in packages, and to check up the results by weighing and measuring at home.

Home weighing would bring to light any shortage or deceit that might be practised, and would show the comparative economy of the purchase of goods in package or in bulk.

It is desirable, in the opinion of this board, that packages containing food products should be required by law to be labelled distinctly with a statement giving the net contents, in terms of weight measure or numerical count of goods, when they were packed.

Attention is directed to a memorandum on this subject by Mr. Way, Chief Inspector of Weights and Measures, submitted as Appendix No. 14.

(II) RETAIL DELIVERIES AND THE TELEPHONE.

The introduction of the telephone, while a convenience in many ways, cannot be regarded as conducive to thrift or economical expenditure in the ordinary households in towns and cities. The facilities provided by the telephone lead to demands for frequent deliveries of parcels of small value at irregular times. This adds immensely to the cost of deliveries all along the line.

(III) MEDICINAL PREPARATIONS.

Apparently medicinal preparations put up in "package" form, and sold under copyright names, are much higher than the same goods under their chemical name in bulk, as shown by the following statement:—

RETAIL PRICES of drugs as sold under copyright names and under chemical and trade names.

Copyright Name.		Chemical Name.	
Aspirin.....	\$0 60	Acetylc Salicylic Acid.....	\$1 75 lb.
Aristol.....	1 80 "	Thymol Iodide.....	0 53 oz.
Phenacetine.....	0 33 "	Acetylphenetidin.....	1 25 lb.
Duotol.....	1 50 "	Guaiacol Carbonate.....	0 40 oz.
Euophena.....	1 80 "	Iodobutylcresol.....	1 25 oz.
Iodothyrene.....	3 40 "	Thyroidin (Merck).....	1 30 oz.
Pyramidon.....	1 50 "	Aminopyrin.....	0 85 oz.
Selophen.....	1 00 "	Acetylamidosalol.....	0 50 oz.
Tannigen.....	0 80 "	Diacetyltannin.....	0 45 oz.
Tanalbin.....	0 85 "	Tannin Albuminate.....	0 45 oz.
Verinol.....	1 60 "	Diethyl Barbituric Acid.....	0 75 oz.
Verinol Sodium.....	1 60 "	" Sodium Salicylate.....	0 75 oz.
Diuretin.....	1 75 "	Theobromine Sodium.....	0 35 oz.
*Aminoform.....	0 60 "	Hexamethylenamine (or Formin).....	0 85 lb.
*Cystogen.....	0 85 "	" " ".....	0 85 lb.
*Hexamine.....	0 30 "	" " ".....	0 85 lb.
*Urotropin.....	0 60 "	" " ".....	0 85 lb.

* And several others, all being copyright names for what in the trade is known as Formin.

IX.

RENTS, HOUSES, TOWN PLANNING, PUBLIC UTILITIES, LAND SPECULATION, LAND TAX.

Rent is one of the large factors in the cost of living. The classes having the smallest incomes have the largest proportional expenditure for rents. Thus rent is not only one of the largest items in the family budget but its weight falls heaviest on those whose incomes are least able to bear this burden.

The increase in rents is due largely to the following causes (apart from over-speculation in real estate):—

1. The increased cost of building material.
2. The increased cost of labour.
3. Higher standards of construction fixed by more stringent building laws.
4. General demand for conveniences which a few years ago were luxuries.

The opinion was very generally expressed by representative workmen that in the cities the organized efforts to provide comfortable homes for workingmen at low rentals were progressing at a very slow rate.

The working people of to-day demand and are justified in demanding better habitation than they had twenty or thirty years ago.

Housing is unquestionably the most important of all home conditions, and it is naturally one to which increasing attention is directed in all western countries. This is due to the growing knowledge of sanitation and recognition of its influence on health.

The advantages of the English Cottage System for workmen's houses—in space, air, light, and having "the place to yourself" where practicable—outweigh many other considerations.

The proper housing of the working classes is of the greatest economic importance to the community, and this is only one of the important considerations involved. The science of economics cannot treat men as mere machines. It must not be forgotten that they have senses and minds and souls.

Mr. G. Frank Beer, of Toronto, contributes the following memorandum on this subject, under date of January 15, 1914:—

"I have pleasure in giving you the result of my own experience and observation.

(1) Apartments rented in 1900 at \$30 per month, now bring \$40 per month in face of a very large increase in the number of houses.

(2) Houses rented in 1906 at \$30 per month now bring \$40 per month, showing an increase corresponding with the previous instance.

"These illustrations are in districts in which no new development has taken place to affect the values. They may, therefore, be considered as fairly representative of the general increase in rents during the past ten years.

(3) Building land offered me at \$12 per foot, three years ago, is now selling at \$35 per foot.

"This is partly accounted for by the improvements since made in the district. Building land corresponding to that offered me at \$12 per foot three years ago, is now bringing \$25 per foot. By 'corresponding' I mean land with equal transportation facilities and equally near a thickly settled district. The normal growth in land values has been increased by an unusually rapid growth of population. It has also been artificially increased by the cornering of land in the suburbs by real estate agents and speculators.

(4) Office rents show the same percentage of increase within the same period.

(5) Houses occupied by wage-earners and artisans show the most marked increase of all in rentals. The increase in this class of houses approximates 50 per cent.

"In Toronto this is accounted for by several facts. The increase in the price of land has made the construction of small houses less profitable than formerly. The result is that few houses have been constructed to rent at from \$12 to \$15 per month. Another factor contributing to the increase is the lack of rapid transportation

facilities. The workmen occupying these houses must be at their place of work early in the morning, and as transportation is slow there is an abnormal demand for houses located near the heart of the city. A further cause of increased rents which applies to this class of building is more severe Housing By-law restrictions. The effect of these, unfortunately, is to discourage the construction of cheap houses, and to some extent place a premium upon the rent value of existing cheap houses. Other causes of higher rents which apply to all classes of building are: increase in cost of labour, owing to higher wage and shorter hours; higher cost of lumber, owing to its growing scarcity; and high cost of building material, owing to the local demand being fully up to, if not in excess of the supply.

"It is my conviction that one basic cause of the large increase in rents is the absence of wise city planning. Added to this is the misfortune that the administration of cities in Canada, as elsewhere, is largely in the hands of those who have no special training or qualification to deal with problems that are taxing the mature experience and best talent of European cities. The result of this is a waste which is very serious. Public services are planned and installed at large expense, which a few years later are found inadequate and useless. The waste in this respect alone must amount to a sum very imperfectly appreciated. Lack of foresight in acquiring land required for public purposes is another source of waste. In Toronto many millions of dollars have been wasted in this respect. True, the advantage has gone to individual owners of land which has been bought for city purposes, at greatly increased, if not highly inflated prices, but the cost to the community is a permanent charge.

"A further illustration of the need for city planning is shown in the matter of transportation. We have no rapid transportation. It takes longer to travel from one part of Toronto to another, than to go from Toronto to Hamilton. One other illustration of the need for city planning, an illustration which is possibly the most important of all, is the lack of laying out of the surrounding territory so that the natural and inevitable growth of the city may be rationally and economically guided. In Toronto huge sums have been paid for street paving, sidewalks, sewers, water supply and electric light facilities, in advance of existing requirements. Instead of the growth being reasonably centralized, it is widely scattered, causing an increase in fire protection, police protection and other public services upon a wasteful scale. All of these wastes ultimately effect the cost of living and the cost of rents.

"You will see by the above that I am, therefore, strongly of the opinion that no one cause in our cities generally is a larger factor in this problem than the absence of what is now described—for lack of a better name—as City Planning.

"It will be seen, however, that the interests of suburbs are equally involved in city planning. One of the objects to be accomplished is the rational linking up of the country with the city.

"The cost of housing is inseparably associated with the cost of land, and my study and judgment convince me that some measure of tax reform must be instituted. I am not a single taxer—it is not necessary to go to the extreme in order to advocate a wise mean. At one time I was chairman of the finance committee of a western city. We exempted improvements from taxation to the extent of 50 per cent, and the effect was decidedly steadying upon real estate values."

The report of The Toronto Housing Company, Limited, 1913, together with press extracts in regard to model homes for workingmen are submitted herewith in Appendices Nos. 37 and 38.

The building of cities, towns and suburban subdivisions without any well-devised "town-planning" scheme has contributed to the cost of living in the way of wasteful and uneconomical expenditure.

This subject is now attracting public attention in some degree. Mr. Thomas Adams, one of the leading authorities on town planning, explains that:—

Town or city planning is the application of scientific principles to all matters connected with the town or city. The factors which constitute a city and the order in which they do so, are:—

- (1) Industry and external transportation.
- (2) Healthy living conditions for the citizens.
- (3) Internal transportation.
- (4) Markets and food supply.
- (5) Education.
- (6) Recreation.
- (7) Civic centre and monumental buildings.

The first essential in any city is its water supply, and complementary to that is an efficient system of sewerage and garbage disposal.

The first object of the town plan should be to conserve and provide for the extension of its business interests, and to apply healthy conditions to the dwellings of the people. The next is to secure efficiency in its transportation and in the supply and distribution of food, etc., and the third is to give expression to those interests which are represented in the sites provided for universities, schools, parks, playgrounds, town halls, churches, etc.

In this connection, it is apparent that the interest of the community should be best served by the public ownership of such public utilities as water, gas, electric light and street railways in cities, towns and villages.

Over-speculation in Canadian real estate has been bad for the whole country, as a large part of the money which has been invested in this country has gone into this more or less unproductive class of security.

There has been a general desire to take advantage of a rise in price.

Business investments do not as a rule show a very quick turnover. The business has to be developed; and this takes time and money, but it builds up something which is of great importance to the whole community.

Subdivisions have been laid out so that the value of the land would be greatly increased. Some of these subdivisions will, no doubt, in due course be valuable, but it may be some time before they are even worth the price paid for them. While the boom lasted it was fairly easy to pass them on to some one else at a profit, and it was the fault of the last man if he got caught. The same money invested in business or production would have done infinitely more good.

When real estate is purchased at boom prices, the owners even to obtain a small percentage on their investment must secure a high rent; so that the cost of doing business is increased out of all proportion to the business being done.

The real estate speculator produces absolutely nothing. He gambles at the expense of a prospective tenant, and that tenant pays tribute in the form of increased rent and taxes.

The land speculator increases the price of farm lands in the neighbourhood of cities, and thus hinders the development of rural markets and adds to the cost of workmen's homes.

High values encourage unhealthy conditions and help to lower production by keeping large areas of good farming lands in idleness around the borders of our towns, and by attracting men off the land during the period of boom.

The taxation of "land values" is presented by its advocates as a remedy for many of these speculative evils.

A memorandum on this subject by The Single Tax Association is submitted herewith in Appendix No. 42 without expression of opinion thereon, however, by the Board of Inquiry, as the subject of direct taxation comes more especially under the legislation of the Provincial Parliaments, and as the theory in regard to the taxation of land values has not as yet undergone the effective test of practical experience, so far as we are aware.

X.

COLD STORAGE.

The use of cold storage in the preservation of food products, which has been developed greatly in recent years, has been connected in the popular mind with the recent advance in prices.

The popular idea as to cold storage is that it increases prices and that it menaces public health.

It is charged that prices have been raised by the action of food speculators in putting goods in cold storage and holding them there for long periods, thus creating a shortage of supply and forcing an artificial advance of prices.

It has also been charged that the public health has been injured through the consumption of food carried in cold storage, until it has become unfit for human consumption.

Impartial inquiry into the methods of cold storage leads, however, to the conclusion that the general principle is sound and beneficial.

It is a great advantage to be able to purchase perishable products when they are low and place them in cold storage where they will keep. If we had no cold storage and could not keep meat at all in that way, it would tend to raise the price, because there would be no way of doing it, except keeping the animals alive.

The cold storage process is simply the application on a large scale of the principle of food preservation, as used in the cellar of the farm, or the ice-chest of the home. The principle is the storing of food in the time of plenty for its later use in time of scarcity.

The effect of cold storage on prices is in general to make them steadier, preventing extreme fluctuations, either upward or downward.

The supply is reduced by the storing of products in time of plenty, and the price consequently does not fall so low. The supply is increased by the marketing of storage products in time of scarcity, and the price consequently does not rise so high.

Cold storage tends to increase production by extending the period over which perishable products can be marketed, and thus, of course, to lower the prices of certain commodities.

It is generally conceded that there takes place a change of flavour as a result of cold storage, but if the goods are properly handled there seems to be no danger to health. The effect of cold storage on quality differs widely for various commodities. For instance, cheese can be successfully preserved without deterioration of quality for a considerable period of time. In fact, curing or maturing in cold storage is strongly recommended. The storage period of butter is shorter; that of eggs is shorter still.

The length of time in which poultry can be kept in satisfactory condition appears to be variable.

The popular idea as to the great quantities of products held in cold storage in Canada seems to be in error.

Information has been obtained by the Board and compiled showing the products stored in these plants throughout the Dominion at the beginning of February, 1914, from which it would appear that the quantity in storage at that period was not in excess of the reasonable requirements of the people.

The table so compiled is set forth below:—

TABLE OF COMMODITIES in cold storage at the beginning of February, 1914, in all plants in Canada.

Commodities.		Quebec and Maritime Provinces.	Ontario.	Manitoba and West.	Total for Canada.
Meat.....	Lbr	4,536,227	14,764,582	20,573,330	39,874,139
Poultry.....	"	552,621	357,924	1,397,481	2,308,026
Butter.....	"	3,047,431	1,207,410	1,385,465	5,640,306
Cheese.....	"	796,110	447,140	210,157	1,453,407
Fish.....	"	1,806,763	330,491	6,583,624	8,728,878
Apples.....	Brl.	18,920	12,637	5,838	37,395
Eggs.....	Doz.	9,240	33,056	44,385	86,681
Canned goods.....	Gal.	7,560			7,560
".....	Cases		75,620	1,575	77,195
Evaporated Apples.....	Brl.	78			78
".....	Lb.		277,650		277,650
".....	Cases		1,500		1,500
".....	Boxes		50,000		50,000
Other Fruits.....	Brl.	71			71
".....	Lb.			7,292	7,292
".....	Cases			1,663	1,663
".....	Boxes	23,384	965	2,904	27,253
Vegetables.....	Brl.	659	90		749
".....	Cratee		150		150
".....	Sacks			10	10
Lard.....	Lb.	9,000	95,970	309,557	414,527
Pork stuffs being cured.....	Tierces	9,000			2,000
Frozen eggs.....	Lb.		78,620		78,620
Honey.....	"		11,000		11,000
Grape juice.....	"			5,730	5,730
Casings.....	"			3,000	3,000
Sauer Kraut.....	"			6,235	6,235
Milk.....	Cases			20	20
Rabbits.....	Lb.			2,400	2,400

Many people do not understand the meaning of these figures. Some of them seem so large that strange arguments are advanced and wrong conclusions drawn. The meat in storage in February, 1914, would supply 250,000 Canadians for one year—about 3 per cent of the entire population. In all the cold storage warehouses there was barely enough at that time to supply the city of Toronto for six months.

The butter was 2½ per cent of the year's product. There was about 3½ pound of butter for every family in Canada.

The cheese represented less than 1 per cent of the year's production.

The eggs would not be enough to allow one egg to every family. The number of eggs was low because of the steady winter demand. It would not pay to hold them much longer, and, furthermore, they would soon become unfit for use.

The charges for cold storage are not uniform throughout Canada. Variations in storage rates are shown in Appendix No. 11 to this report.

The Board is of the opinion that cold storage warehouses should be subject to federal inspection and also to inspection by health officers.

Chapter 85, Revised Statutes of Canada, provides for the inspection and sale of certain staple commodities.

The Cold Storage Warehouse Act of 1914 (as per copy in Appendix No. 12 hereto) provides authority for the supervision of all cold storage warehouses.

The following documents are submitted herewith, viz:—

Appendix No. 8.—Memorandum on the Cold Storage Industry, by Mr. J. A. Ruddick, Dairy and Cold Storage Commissioner.

Appendix No. 9.—Memorandum on Cold Storage, by W. R. Ingram, of the Swift-Canadian Company, Winnipeg, Man.

Appendix No. 10.—Cold Storage, by Frank G. Urner, Editor, New York Produce Review.

XI.

MONOPOLIES, INDUSTRIAL COMBINATIONS, MERGERS AND TRUSTS.

It is impossible from the information acquired by the board to measure the extent, as expressed in percentages, to which trusts, monopolies and combines have raised prices in Canada, but there is no doubt that some prices have been appreciably raised at times through the operations of these bodies.

Trade combinations on this continent were, in the first instance, adopted for the purpose, amongst other things, of eliminating unnecessary expenses in the cost of manufacture and distribution, and were this the sole object of such combinations the consumers would have benefited, as all improved services, such as labour-saving machinery, cheaper transport, railway, postal, cable and telegraph services are distinctly beneficial to the whole community. Many industrial combinations are not trusts in the sense of being organized for the purpose of controlling prices in restraint of trade, but by reason of manufacturing or controlling a large percentage of the output, they are able to exercise some control over prices.

It is a comparatively easy matter for a few wealthy individuals, in any given industry or business, to secure substantial control of the output by consolidation of capital, or by unwritten understandings.

It is admitted, however, that associations may be legitimately formed so as to regulate industry, that it may become more profitable to those in whose interests it is regulated. One would not condemn, for instance, a combination of traders who buy in concert in order to obtain maximum discounts, cheaper transportation and other legitimate objects of a like nature, such benefits being passed on to the consumer.

Combinations regarded as specially reprehensible are those formed in any branch of trade not merely fixing selling prices, but bringing pressure to bear on suppliers to refuse goods to independent traders, who do not conform to their selling conditions.

Documents have been examined by the Board of Inquiry indicating that prices or other agreements are to some extent in vogue, which may contravene the provisions of the Combines Investigation Act, in respect of certain articles that are the subjects of trade and commerce. It did not appear, however, from any information obtained by the Board, that these restrictions had any effect in enhancing prices materially to the consumer.

A copy of the Combines Investigation Act, under which such cases may be dealt with, is submitted for reference in Appendix No. 13.

Trusts and industrial combinations are generally understood to mean great corporations whose operations are conducted on a large scale. There may, however be local combinations which have possibly a more considerable influence upon the cost of living than the larger combinations. There do not appear to be any trustworthy statistics available, to prove the extent of such influence by local combinations.

During the last few years more, perhaps, has been said regarding the increased cost of living from the increased price of meat than about any other cause.

It has been popularly supposed that for a number of years the large packing houses in Canada have controlled the price of meats and likewise the price of cattle and hogs.

We do not find that there has existed any combination in restraint of or affecting trade in cattle, sheep or meat in Canada, such as would infringe on the laws of the Dominion.

The conditions, however, seem to have developed in some respects to a semi-monopoly, semi-trust condition, with competition largely eliminated as a regulating principle.

There are six large packing houses operating in Canada, viz.—

Matthews-Blackwell, Limited; head office, Toronto.

The William Davies Co., Ltd.; head office, Toronto.

The Harris Abattoir Co., Ltd.; head office, Toronto.

Gordon, Ironsides & Fares Co., Ltd.; head office, Winnipeg.

The Swift-Canadian Co., Ltd.; head office, Winnipeg.

P. Burns & Co., Ltd.; head office, Calgary.

The causes contributing to the increased prices of meats are dealt with in the chapter on live stock, meats and dairy products. We do not find that in the past the causes are chargeable to the operations of the large packing houses.

Combinations of capital in their very nature make for economies in production by placing the control of the business in the hands of a few individuals, and thus reducing general expenses; they also reduce materially the cost of distribution by enabling products to be distributed from the nearest producing point; and they are able to maintain or steady prices.

The statement has been made by witnesses engaged in slaughtering cattle that all the profit they would ask would be the value of the by-products, which they are not able to utilize, but which the large packers are able to dispose of.

While industrial combinations may result in economies of production and distribution, the fact that competition is either wholly or partly removed, may lead to abuses.

Under fair competitive trade the best and most economical methods of distribution from the producer to the consumer should succeed, with benefit to the whole community.

In order to aid in securing effective competition in the purchase and sale of cattle, hogs, sheep and meat, the most favoured remedies which are mainly in line with the recommendations of the Manitoba Beef Commission, 1907, are as follows:—

(1) That the necessary steps be taken to encourage a more equable marketing of live stock by the farmers, preventing overmarketing and under-supply at different times of the year. Representations have been made to us that if the supplies could be so arranged as to come on the market in a more regular manner the companies now in operation could care for all the meat products to the advantage of both producer and consumer. This we consider of the very highest importance looking to the future of the live stock industry and in the interest of the consumer in that it will steady prices. It is a matter that may well receive the most earnest attention and one in which the Government, the meat companies and the live-stock producers may co-operate.

(2) That a public market and abattoir with cold storage under proper regulations and management, be provided in each large centre as fast as the trade will justify.

(3) That the railways should provide Union Stockyards, under independent management, when justified by the trade.

CAPITALIZATION.

Regarding the relation of capital stock of joint stock companies and of industrial amalgamations, to the cost of the commodity to the consumer, the following statements are made by Mr. Fred. W. Field, Managing Editor of *The Monetary Times* of Canada:—

The relation of the capital stock of joint stock companies, to the price paid by the consumer for commodities has been the subject of little complaint. The chief exception is in regard to industrial amalgamations. The corporations represented by the

words "merger", "combine" and "trust" have generally come into disfavour with the public. This may be ascribed partly to the abuses of trusts, particularly in the United States, to the occasional regulation of prices to what is regarded as too high a level, and to the failure or reorganization of many industrial amalgamations, particularly in Canada.

The most common charge is that the industrial combine dictates throughout the country the price of the commodity it sells. This is not necessarily so, simply because the combine is a combine representing a group of allied industries under one management.

The other charge is that the average industrial combine is over-capitalized and therefore having what is commonly known as "watered stock" is placing improper burdens upon the consumer.

It should first be made clear that unless an industrial merger or trust has a monopoly, or practically so, in its own sphere of business it cannot easily, if at all, dictate prices with any success. Suppose a merger is formed with the idea of securing a monopoly. It can fix prices with sole regard to the welfare of its promoters, directors, management and shareholders only until competition appears. If the would-be monopoly is selling an article at thirty cents and independent companies are selling a similar article at twenty-five cents or less, there are apparently only two alternatives: (1) to force the competitors out of business or (2) to meet the competition by reducing prices.

The experiences of recent years in Canada have proved that it is not by any means an easy matter to eliminate all competition. The industrial amalgamations which can claim truly to have a monopoly in Canada are comparatively few.

There are several limitations to the freedom of monopolies, such as, for instance, the power which consumers possess of substituting other goods for those monopolized; the danger of monopoly exciting new competition; and the decreasing sales that frequently accompany increasing prices. These help to confine the profits of many monopolies within fixed limits.

Some industries are natural monopolies and others may exist because of defects in the law. The contention is often made that the charges exacted and the service rendered by natural monopolies should be controlled by the government and that monopolies created by defective laws should be attacked through such laws revised. Another contention is that in every industry in which free competition is permitted by the government, the government should enforce fair competition. The prices of many commodities are undoubtedly affected by monopolies in basic materials, and it would seem that it is in this direction that the high cost of living can in any well defined way be ascribed to joint stock companies, whether "over-capitalized" or not.

The industrial amalgamation in Canada as a financial and economic factor has been strikingly unsuccessful. The life of what may be termed "the merger movement", which extended notably over the years 1909 to 1912 inclusive, was so short in the aggregate, and still shorter in the case of many individual amalgamations, that it had little opportunity to operate as an economic factor of importance in relation to cost to consumers. This refers to the movement generally, there having been several individual exceptions to the rule.

The number of industrial mergers negotiated from January, 1909, to January, 1913, was fifty-six. The aggregate authorized capitalization, including bonds, of these mergers, was \$456,938,266. The fifty-six amalgamations absorbed 248 individual companies. The aggregate capitalization of 206 of these individual companies was approximately \$167,289,182, which amount in various ways was increased upon amalgamation. The forty securities issued to the public, resulting from the amalgamation movement, totalled \$57,346,666. With sixteen of these, amounting to \$16,500,000, an aggregate bonus of \$6,750,000 was given.

These figures representing authorized capitalization are very large, but they have

not so much significance as might at first appear. The most important figures are in regard to capital actually subscribed and paid-up. This information is somewhat difficult to obtain. Even allowing for the fact that the above figures represent authorized and not paid-up capital, and allowing for money required for extensions, reorganizations, new factories, etc., one may safely conclude that a proportion of the securities issued by the mergers generally in Canada has been watered stock.

A large number of industrial amalgamations of recent years have met failure, many have had to undergo drastic reorganization and many have had to defer dividends on bond and stock issues. The history of what we have termed the merger movement is, briefly, a comparatively short craze with the object of combining corporations in many lines of business, followed by long list of failures and reorganizations and consequent disappointment to investors. Had this merger movement, in the aggregate, been successful, eliminating competition and creating monopolies in various lines, the effect upon the cost of commodities to the consumer must naturally have been marked. As it is, the movement having been unsuccessful, competition has not been strangled; monopolies with a few exceptions, have not been created, and the investor has had to bear losses in connection with his investments. The craze for merger making appealed to many promoters as an easy means to acquire wealth. From a study of the available figures, it would appear that this was done. In many cases, however, the amalgamations by no means proved as successful as the promoters and the participants apparently anticipated. The experiences of the past few years will probably prevent any such financial carnival during the next few years, while the memories of investors are green.

Among the objects and advantages to be gained by consolidation, the following were cited by promoters during an investigation into the matter conducted by *The Monetary Times*:—

- The standardization of brands.
- Elimination of needless competition.
- Obtention of further working capital.
- Prevention of increase in prices to the public.
- To keep pace with the growing market demand.
- Elimination of a large amount of freight charges.
- Savings from the concentration of the executive force.
- Economics in the purchasing, manufacturing and selling departments.
- The obtention of branches of the one company in various parts of the country.
- Specialization of various plants, dispensing with unnecessary duplication of output and patterns.

During the period when the formation of industrial mergers was most in evidence, it was repeatedly asserted as an undeniable fact, that there would be savings effected from the concentration of executive forces and economies effected in the purchasing, selling and manufacturing departments. On that assumption and on past earnings of individual companies, profits of the combined companies were chiefly estimated. In a large number of cases, the actual profits of the combine were a long way short of the amount estimated. Consolidation in itself, by no means guarantees economies as compared with the individual operation of plants, nor does it guarantee larger profits than earned by the individual plants. The question of management in this connection is important as is also the question of capitalization and the natural difficulties confronting the welding of individual plants into a manufacturing unit.

The factor of over-capitalization and watered stock enters also into the discussion of joint stock companies generally. According to a compilation made from the Federal Government and the Provincial Government official *Gazettes*, there were incorporated in Canada by these Governments in the calendar year 1912, 4,651 new

companies with total authorized capitalization of \$1,245,927,701; and in 1913, 4,178 new companies with total authorized capitalization of \$992,943,949. These figures of capitalization naturally may mean anything, as here again enters the difficulty of knowing how much of this authorized capital has been issued and paid up.

To ascertain the extent of watered stock, if any, would entail an expert examination of the financing, the assets and general position of the companies individually, —an Herculean task.

It seems a fair assertion that unless a corporation has a monopoly or unless there is a price agreement between several corporations, prices to the consumer cannot be regulated to a high level with any success.

Coming to the merits of the second charge "over-capitalization" and "watered stock", a close analysis shows that it is not the consumer of the commodity sold, who suffers, but the investor in the company's "over capitalization" and "watered stock." The bonus of common stock, manipulation of its price in the stock market, the roseate estimates of profits, glowing prospectuses, heavy capitalization, all may be financial sins, but if their operations are traced, they affect chiefly the promoters, the investors and their funds. As stated previously, mere "over capitalization" of a company would have little effect on prices, unless in some way the over capitalization assisted the company to become a complete monopoly, which is unlikely.

In Canada the words "over capitalization" have been used often in relation to those industries whose capital has been determined by their probable earning power rather than by their assets. The estimated income of the company—particularly if the merger is under the auspices of ambitious brokerage firms—has frequently been the basis of the capital calculations. A business which is thought to be able to earn \$100,000 net per annum, is said to be able to pay dividends on a \$1,000,000 capital when the rate of interest on other investments involving similar risks is, say, 10 per cent. So the company is capitalized at \$1,000,000 with little reference to the tangible assets. But even this method of computing capital scarcely affects the consumer. In the example above taken, assume the assets to be worth \$600,000, the paying of \$1,000,000 capital into the treasury of the company, does no harm if all other operations are honestly and capably managed. For there will be \$400,000 cash assets then belonging to the company in addition to the other assets, whether fixed or circulating, which have been purchased to the amount of \$600,000. Legitimate income can be earned on the \$400,000 as well as on the \$600,000, assuming that the number of workmen, or working units, are increased in proportion to the capital; or if the capital is suitably re-invested until actually required by the proper expansion of the business.

But even if, through dishonest promotion methods, excessive amounts are paid for tangible assets, for patents, good-will or promotion's services, and the shareholders receive for their \$1,000,000 only \$600,000 assets, with little or none of the \$400,000 cash left in the company's treasury, even then the company cannot be said to have been "over capitalized." It has simply been "milked"—in plain words, robbed.

The above example assumed the actual payment of \$1,000,000 capital into the company by the shareholders. It supposed that stock had been issued at, say, par value (\$100) to the extent of 10,000 shares. Had this same company possessed or purchased assets with an actual value of \$600,000, and had it issued 6,000 \$100 preferred shares and 4,000 \$100 common shares; and had two shares of common stock been given away with every three shares of preferred stock sold—the company would still have \$1,000,000 nominal capital, but would be liable in no way to suspicion of over capitalization, because only \$600,000 would be paid capital, the \$400,000 common stock being of no present value. The issuance of common stock having no present value is not in itself an act of wrong-doing. The common stock merely represents an agreement between the shareholders and the promoters that the shareholders will share in any future increased earnings of the company—the foundations for which were laid by their paid capital contributions—in proportion

to their holding of the common stock. So long as it is recognized that such common stock simply represents "future hopes" and has no present value (though some persons with betting proclivities might be willing to buy it as a speculation), the common stock is harmless. Moreover it is a method of making proper adjustments that is frequently invaluable to the most honest financiers. But in the hands of dishonest persons, common stock is frequently a dangerous tool. Through the medium of stock exchanges, wash sales, publicity campaigns and misrepresentations, the common stock is raised to an unwarranted "price" and foisted upon investors.

In issuing common stock as a bonus or otherwise, as in securing more capital than is represented by the assets possessed, no wrong is necessarily done. In both cases the wrong may be created later by dishonest financial methods. The regulation of these dishonest methods is another matter.

To return to the main theme—the effect of over capitalization on prices of commodities. The manager who is left in charge of the destinies of a "milked" company will likely find difficulties in earning dividends on his paper capital. If his company were "over-capitalized" but not robbed, probably he would have no such difficulties. But the manager who must earn \$100,000 dividends with \$600,000 assets, when he should have \$1,000,000 assets to earn dividends of that amount, is in trouble. The popular theory is that he sails smoothly out of the troubled waters simply by raising the prices at which he sells his factory's product—thus increasing the high cost of living. But he cannot solve the problem so readily. The experience of many of Canada's industrial mergers of recent years prove that he cannot. Assuming that his "over-capitalization" firm is not a monopoly, he cannot raise the prices much, because his competitors would undersell him and he would soon have to meet their prices again, or give greater value in quality for the increased prices he asks, or "reorganize" his merger.

The "over-capitalization" is not likely to make his firm a monopoly unless it has supplied him with so much surplus cash that he can crush competition. This is not only likely to be prevented by the Dominion Government's "Investigation of Combines Act", but competition, in Canada at least, has been hard to crush. No sooner does the field seem barren of competition than a dangerous new rival arises to take advantage of the apparent opportunity.

"Over-capitalization" seems therefore to create burdens for the investor as such (a problem outside the scope of the present inquiry), not affecting the prices to the consumer.

TORONTO, February 11, 1914.

FRED W. FIELD.

XII.

LUMBER AND OTHER BUILDING MATERIALS.

During the period since 1890-99, bricks have gone up 60 per cent, and lime has advanced 40 per cent, while cement prices have been reduced by nearly 50 per cent.

During the same period, manufactured lumber and wood products have increased in price from about 25 per cent to 50 per cent—due principally to higher wages, increased operating costs in lumber camps, enforcement of stricter regulations, exhaustion of supplies of largest trees, and to waste by forest and other fires.

The waste of natural resources by fire is a question to which special attention has been directed by the Commission on Conservation.

XIII.

CLOTHING.

To investigate comparative prices of clothing is a task of much difficulty. Fashions change and in the matter of fabrics and other materials experts often disagree.

The advance to the consumer has generally been felt in inferior goods for the same money, since there is a strong tendency in the retail clothing business to maintain certain price standards.

In cotton-wool goods the advance is felt in greater proportion of cotton and less proportion of wool for the same money, or in lighter-weight fabrics.

The all-wool garments are of lighter weight for the same money, or higher price. In cotton garments the situation is similar to that of woollen garments.

The advance in clothing since 1897 is estimated at from 30 per cent to 40 per cent, due to increased cost of production, in materials, wages, rents, etc.

The following statements furnished by a large wholesale firm manufacturing clothing, show the rise in prices for material and for labour from 1900 to 1913 in a few lines:—

Garment.	Material.	Year 1900.		Year 1905.		Year 1913.	
		Price per yard.	Selling price of garment.	Price per yard.	Selling price of garment.	Price per yard.	Selling price of garment.
Overcoat.....	Beaver.....	.85	7.50	1.00	8.70	1.10	10.00
".....	Melton.....	.85	7.50	1.00	8.50	1.10	10.00
".....	Frieze.....	.90	7.50	1.00	8.50	1.10	10.00
Suit.....	Serge.....	2/3	7.00	2/6	7.50	3/-	8.50
".....	".....	3/8	10.00	4/1	11.00	4/4	12.50
".....	Tweed.....	1/11	6.00	2/2	7.25	2/5	8.00
".....	Fine Worsted.....	3/8	10.00	4/-	11.00	4/6	12.50
Linings.....	Body Lining.....	10d.	.....	1/-	.....	1/3	.....
	Sleeve ".....	7d.	.....	8d.	.....	9d.	.....
	Canvas.....	3d.	.....	4d.	.....	5d.	.....

LABOUR.

	Year 1900, Per Week.		Year 1905, Per Week.		Year 1913, Per Week.	
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Cutters.....	12 00	- 14 00	14 00	- 15 00	18 00	- 20 00
Pressers.....	8 00	- 10 00	12 00	- 14 00	15 00	- 20 00
Machine Hands, Male.....	9 00	- 12 00	13 00	- 15 00	15 00	- 25 00
" " Female.....	3 50	- 6 00	6 00	- 8 00	10 00	- 12 00
Hand Sewers, Male.....	8 00	- 10 00	12 00	- 14 00	15 00	- 20 00
" " Female.....	3 50	- 6 00	6 00	- 8 00	10 00	- 12 00
Hours of Labour, per week.....	60 hours.		55 hours.		49 hours.	

Another firm of merchant tailors submitted price statements as follows:—

	1890.	1913.
Laid down cost of Bellwarp serge, per yard.	\$2.10	\$2.75
" " " Scotch tweed, " "	2.00	2.25

XIV.

LEATHER, RUBBER, BOOTS AND SHOES.

The prices of leather are approximately 40 per cent higher than in the nineties.

The constant addition in the cost of practically all the factors of production and distribution, as to leather and its various products, including boots and shoes, is the chief cause of the increased cost to consumers during the past decade.

The reasons as to the increase in price of leather since 1900 are stated by Mr. S. M. Wickett, of Toronto, as follows:—

1. Increased demand for leather through wars, automobiles, and new uses of leather, and general growth of demand.

2. I understand there was a very serious destruction of cattle and hides during the Russo-Japanese war.

3. Falling-off in supply of cattle on account of a couple of bad seasons and in increased cost of fodder.

4. Labour and tanning materials have all advanced 30 to 75 per cent.

5. The manipulation of the United States packers has frequently facilitated the establishment of a higher level of hide prices. This they were able to do by controlling a number of important tanneries in the United States. I understand that they control a very large proportion of the sole leather output of the United States and have a number of plants of light leather as well. When the market is more or less inclined to fall off or to hesitate they are able by filling up these plants to clear the market of floating supplies and give it the appearance of strength.

The following tables have been submitted as representing increases in standard lines of men's and women's boots (wholesale):—

	1897.	1907.	1914.
	\$ cts.	\$ cts.	\$ cts.
Men's Welts.....	1 90	2 35	2 65
" McKay.....	1 60	2 00	2 25
Women's Welts.....	1 50	1 85	2 20
" McKay.....	1 25	1 55	1 90

Rubber boots and shoes have increased in price at about the same ratio as boots and shoes of leather, and for similar reasons.

XV.

CEREALS, FLOUR AND BREAD.

WHEAT AND OTHER CEREALS.

No one claims that wheat is in any way controlled by any great corporation, although there have been certain times when, for a brief period, a partial corner of the market may have raised the price.

The price of wheat is determined by the supply coming from large or short crops in different parts of the world.

The changes in the prices of cereals both in the way of increase and decrease, seem to be no greater than might be expected from change in demand with the fluctuating general conditions of business.

WHEAT IN CANADA.

Year.	Acres.	Yield per Acre.	Total Yield.	Average Price per Bushel.
		bushels.	bushels.	cents.
1910.....	8,863,151	14·89	132,049,000	75
1911.....	11,100,673	20·80	230,924,000	64
1912.....	10,996,700	20·38	224,159,000	62
1913.....	11,015,000	21·04	231,717,000	67
1914.....	10,293,900	15·37	158,223,000	

The above shows the average prices received by the farmers for all Canada, as compiled by the Census and Statistics Branch of the Department of Trade and Commerce. It will be seen that for the three crops of the years 1911-12-13 the farmers received a little under 65 cents a bushel.

All the evidence which we have gathered from many sources leads to the conclusion that under present conditions it costs about \$12 to produce and market the wheat from 1 acre. This includes interest on investment and allows the farmer average western wages for his work. At twenty bushels to the acre it gives us 60 cents as the average cost of producing a bushel of wheat in the three prairie provinces. This leaves a margin of 5 cents.

The above calculation is based on an average of 20 bushels per acre. It will at once be seen that the only farmers who really made money above their wages in growing wheat are those who produced in excess of 20 bushels per acre. When the crop dropped considerably below twenty bushels to the acre the farmer was not making even fair wages in the three years referred to. Further, this calculation does not take into consideration the fact that every bushel of wheat removed from the farm takes from the land soil material having a market value of 25 cents, which includes nitrates, phosphoric acid and potash, and the calculation is based on prices before the war.

When we take the national cost as well, the cost of placing the farmer on the land and the cost of enabling him to live and work where he is and all the contingent expenses undertaken by the whole people of Canada to put him where he is, it is very doubtful whether, during the three years 1911, 1912, and 1913 the wheat growers of the west were making much more than good wages. This must have had an important bearing on the question of the cost of living for all Canada, the concentration of an immense amount of labour on the production of one staple food, which, while so necessary, has not increased in price. The great importance of adding to wheat production by the introduction of live stock on an extensive scale is so important that it need not be enlarged upon. Exclusive wheat farming has been one of the important factors in increasing the cost of living for all Canada.

A memorandum from the Director of the Dominion Experimental Farms, concerning the cost of production of Canadian field crops, is submitted herewith as Appendix No. 21.

FLOUR.

There are 1,100 mills in Canada for grinding cereals, of which 650 are "merchant" mills. These are sufficient to grind all the wheat and other cereals produced in Canada.

It is admitted that the larger mills have an advantage over the smaller mills, in being able to maintain uniformity in the product of flour for the Canadian market.

The large number of independent mills precludes for the present any effective combination for controlling the prices of wheat or flour in Canada—the prices being affected by world conditions.

Complaints have been made as to the higher prices being charged for flour in Canada than in the United Kingdom. The answer made to these complaints is, in effect, that only the highest grades of flour can be sold in the Canadian market, and that the quantity of such flour, produced from Canadian wheat, is limited, so that the consumer has to pay the price accordingly. What is left has to be sold in competition with the surplus products of the world.

The Canadian miller says that the English mills use a dozen different kinds of wheat and mix to obtain uniformity of product under world conditions as to price, consumers accepting intermediate grades of flour blended with flour of other quality, which could not be profitably marketed in Canada.

A consumer's and the millers' views on this question, as published in the *Canadian Miller and Cerealist* of June and July, 1914, are submitted herewith in Appendix No. 20.

Comparisons cannot be made fairly between the cost of bread in Canada and in England, because the flours are different, the loaves are different, and the costs of distribution vary greatly.

BREAD.

The price of bread varies in different towns and cities and the increase in the price appears to arise from the increase in wages, rents, factory operating costs, delivery service, including horses, feed, delivery vehicles, harness, etc. In recent years these increases have been quite marked.

There is no agreement as to cost of delivery in any two cities in Canada. The general estimate for delivery from house to house is 2 cents for a 3-pound loaf; wholesale or store delivery, $\frac{1}{2}$ cent for 3-pound loaf.

Opportunities for economy in the production of bread are shown by experience at Aldershot, as reported in *The Statesman* of February, 1914, viz:—

“The Army bread is produced by a plant of the very latest type,” says *The Statesman*. “Labour is strictly economized, and the work made exceedingly pleasant. Altogether the Aldershot bread plant is in striking contrast to the manufacture of bread by unhealthy bakers' men working for small masters.

Making army bread.—It is probable that many of us would not greatly enjoy our daily loaf if we could witness its manufacture, and it is also probably true that in the interests of health a considerable proportion of existing small bread plants ought to be promptly closed. The Aldershot bread factory, on the other hand, using the best material with the latest appliances, can be witnessed with pleasure and even with enthusiasm, the process used is so economic, so cleanly and so clever.

But the product is even more remarkable for its cheapness and for its goodness. According to the Board of Trade *Labour Gazette* for December, the price of bread throughout England, Wales and Scotland averaged between 5.39 pence and 6.36 pence for 4 pounds, the average for the whole of Great Britain being 5.92 pence, or as nearly as possible sixpence per 4-pound loaf. The cost price of the Aldershot bread during the first half of 1912 came out at 8s. 6d. for 100 pounds, or as nearly as possible fourpence for the 4-pound loaf.

One-third less cost.—There is a comical side to this statement of plain fact. Think of the fuss that has been made in the United Kingdom during the past ten years about the incidence of a small corn duty and its effect upon the price of bread, and contrast it with the fact that a War Office, reputed to be particularly unintelligent, can manufacture bread for itself at one-third less cost than is paid by the public for an inferior product.”

In Appendix No. 19 there is submitted a memorandum on the prices of flour and bread in various cities in the United Kingdom, Canada, and in the United States, by W. W. Moore.

XVI.

FISH.

The price of fish has not advanced to the same extent in recent years as products of the farm.

While fish are among the cheapest of food products, the consumption does not vary widely. The price depends on supply and demand. As the source of supply in the sea and inland lakes and rivers is abundant, the further development of the fisheries and the more extensive use of fish as an article of food should be of some benefit in reducing the cost of living.

The total marketed value of fish, fish products and marine animals, taken by Canadian fishermen from the sea and inland lakes and rivers during three years ended March 31, 1913, as stated in the fisheries reports, are:—

	Value.
Year ended March 31, 1911.....	\$29,965,433
“ “ “ 31, 1912.....	34,667,872
“ “ “ 31, 1913.....	33,389,464

A booklet, issued by the Department of the Naval Service, Ottawa, Canada, on “Fish and how to cook it” is worthy of public attention.

The following extracts are taken from this booklet:—

In these days when the cost of living has become such an important factor, it is necessary for the average housewife to give careful thought to providing for her table. The articles procured must not only be reasonably cheap, but they must be palatable and nourishing.

As fish meets these requirements, attention is called to it as one of the articles that should daily have an important place on each bill of fare.

Not only from an economic, but from a health standpoint, is it desirable that fish should be much more freely used. Sir James Crichton-Browne, M.D., D.Sc., Lord Chancellor's Visitor, etc., in an article on the Value of Fish as Food, states that it cannot be too strongly insisted on that for working people of all classes,—those who work with their heads as well as those who work with their hands—fish is an economical source of energy necessary to enable them to carry on their work, and that for children and young persons it furnishes the very materials that are needed to enable them to grow healthy and strong.

The same authority states that another very important reason why fish should be generally used is its easy digestibility. Even feeble stomachs, that cannot readily deal with butcher's meat, find little difficulty in assimilating fish. The rapidity with which any kind of meat dissolves in the stomach depends largely on the fineness of its fibres. Thus beef is less digestible than mutton because the fibres are longer and harder, and again mutton is less digestible than the breast of fowl. In fish the muscle fibres are very short and are arranged in flaky masses, which are easily separated from one another. Hence fish lends itself to comparatively speedy digestion. Of course, fish differ greatly in

digestibility, the lean kinds being more rapidly disposed of than the fat, and salt fish, owing to the hardening of the fibre during salting, lingers longer in the stomach than fresh fish. Moreover fish is less stimulating as a food than meat, which is a matter of importance in these days of heavy nervous tension.

In this connection, however, an important feature must not be overlooked, viz., that as in other foods, the digestibility and nutritive value of fish largely depends on the cooking of it.

COMPARATIVE VALUE OF FISH AS FOOD.

As is explained in "Recipes for Sea Foods", although foods are so different in appearance and taste, analysis shows that they are made up of a comparatively small number of compounds. These are water and the so-called nutrients—protein or nitrogenous materials, fat, carbohydrates and ash or mineral matter. Familiar examples of protein are the lean of fish and meat, white of egg, casein of milk and gluten of wheat. Fat is found in the fat of fish and meat, in milk (butter) and oils. Starches, sugars and woody fibre or cellulose form the bulk of carbohydrates.

Food serves the twofold purpose of supplying the body with materials with which it is built up and repaired and the energy for heat and muscular work. The value of food depends upon the amount of digestible nutrients it contains, and the cheapest food is that which supplies nutriment at the lowest cost.

Fish, like meat, is nitrogenous food. While it contains fat it is not a fertile or economical source of such, nor of carbohydrates. It should therefore, as a food, be supplemental to cereals and other vegetables, which, though rich in these elements, are deficient in protein.

Owing to the practically unlimited natural supply of sea fish and the unexploited supply of fresh-water fish in some provinces, it would appear that an increase in the home demand and the further providing of transportation facilities should result in a decrease in the retail price of fish. Several witnesses suggested that a greater endeavour should be made to encourage the supply of Canadian fish for Canadian people.

The Board of Inquiry has been favoured with a memorandum on the subject of steam trawlers and the fishing industry in the United Kingdom, by Mr. George S. F. Edwards, of Smiths Dock Company, Limited, South Banks, near Middlesborough-on-Tees, England, through the courtesy of Major H. C. Blair. The memorandum is submitted herewith as Appendix No. 18.

XVII.

LIVE STOCK, MEATS, DAIRY PRODUCTS, ETC.

It is in the cost of farm products that the source of the higher level of prices is to be found.

The increase in prices being much greater on products coming directly or indirectly from the farm than on any other products, with the exception of forest products, it seems obvious that the main cause of the high price of food will be found by a study of agricultural conditions.

The price of manufactured articles does not show the same ratio of increase, new equipments having met the strain of higher wages.

Agricultural development has lagged behind industrial—science having been apparently less helpful, or less applied, on the farm than in the factory.

A feature of this situation is that the vast sums that have been paid on better communications and improved machinery are not always showing the expected result of an increased production at lower cost. The improvements in transport have been enormous, but they have had to be paid for heavily, and wherever they have been made the price of land has gone up.

The increased cost of live stock is due to under-production. The increase in cattle has not kept pace with the increase in population in the principal cattle raising countries, except Australia.

Farmers tell us they have found dairy work, and some other productions of the farm, more remunerative than raising live stock, and that these conditions have tended to a falling off in the supply of cattle.

CATTLE AND BEEF.

On reference to the tables of commodity prices it will be seen that "western" cattle have risen from \$2.77 (1894) to \$6.77 (1913), the early quotations being for ranchers; while "eastern" cattle have risen from \$3.02 (1896) to \$6.99 (1913). Beef has followed, the rise in forequarters having been considerably more pronounced than in hinds, being from \$4.06 (1895) to \$11.75 (1913), or by *two and one-half times*.

The high cost of fresh meats by retail in cities is attributed in a large measure to the general demand for the "best cuts," heavy charges for delivery, telephone and other services, including the expense of "attractive" meat stores.

A large dealer in fresh meats furnishes the following information to illustrate this point:—

We deliver about 25 per cent of all purchases. From October 7, 1913, to November 3, 1913, 94,006 retail sales were made, of which over 23,000 were delivered to consumers.

Average value of each sale, 53 cents.

Average cost to deliver, 5.86 cents.

Average weight of parcels, 2 pounds.

One of the largest dealers in fresh meats, with store sales of nearly \$3,000,000 a year, gives the unit of store sales at 50 cents per customer.

The following comparative table showing annual per capita consumption of meats in Canada and Great Britain, Germany and France, is interesting:—

Annual per capita consumption in Canada, 175 pounds.
" " " " Great Britain, 120 pounds.
" " " " Germany, 104 pounds.
" " " " France, 80 pounds.

The increased cost of fresh meats is, of necessity, borne largely by the more expensive cuts, on account of the great demand for them, and also for the following reason:—

The rise in meats is generally greater than the rise in live animals. This may be illustrated as follows: a live bullock weighing 1,000 pounds is bought by the butcher or abattoir at 6 cents a pound. The dressed carcass will weigh about 500 pounds. This carcass will be sold for \$60, or, as a rule, from \$55 to \$57.50 (11 cents to 11½ cents per pound). The abattoir must cover all costs and profits and the difference between the selling price of the carcass and the purchase price of the live animal by whatever can be made out of the offal. If the market price of the live animal should advance to 7 cents, the carcass would be sold for \$65 to \$67.50 (13 cents to 13½ cents per pound). In other words, 1 cent per pound rise in the animal on the hoof will mean 2 cents per pound in the wholesale price of the carcass. When the retailer divides the carcass and distributes the cost over the various cuts he will add the increase mainly, to the better or higher priced cuts, so that every rise in the market of 1 cent for live weight may mean the addition of several cents to the more expensive cuts. It is upon those who insist on having only the best cuts that the increased price of live stock falls most heavily. Herein lies the advantage of knowing how to cook the cheap cuts.

The same statement applies to hogs and hog products. In good times the rough cuts are hard to sell and housekeepers generally do not know how to cook them.

STATEMENT No. 1.—Showing product; 48 Cattle, Lot N, Drover, Toronto; killed January 8, 1914.

24 steers.....25,560 pounds.	Invoice.....	\$ 4,391 75	Cost about 9 cents per lb. live weight.
24 "23,340 "	Freight.....	75 35	
48,900 "	Killing.....	48 00	
		\$ 4,515 10	

LESS.

Tripe, 583 pounds at 5 cents.....	\$ 29 15
Skirting, 143 " 4 "	5 80
Tongues, 232 " 10 "	23 20
Hearts, 235 " 5 "	11 75
Livers, 470 " 4 "	18 80
Headmeat, 312 " 5 "	15 60
Casings, 48 " 12½ "	6 00
Neck, 381 " 2 "	7 68

Total By-products\$ 117 98

Tallow, 2,150 pounds at 5 cents.....	\$ 107 50
Hides, 3,617 " 13 "	470 21
	\$ 695 69

Net cost.....\$ 3,819 41

82 pounds (shrinkage in transit).....\$ 7 20

Cost.	Yield.	Dressed weight, 23,395 pounds.
Live, \$7.75, \$8.40, \$8.45.	Hides, 75 pounds per carcass.	Less 2½ per cent, 710 "
Fresh killed, \$9.13.	Tallow, 45 " "	
Less 2½ per cent, \$13.80.	Beef, 57 per cent.	27,685 "

STORE TEST—January 16, 1914, showing "Cuts" of Beef as prepared for Market.

	Pounds.	Cents.	\$ cts.
Frontquarters.....	134	12½	16 75
Brisket.....	33	11	3 63
First rib cut.....	63	20	1 35
Second rib cut.....	72	22	1 59
Third rib cut.....	93	18	1 75
Shoulder bone.....	21	4	10
Neck.....	10	10	1 05
Shoulder (bone in).....	12	5	1 88
Shank.....	9	5	48
Chuck.....	41	15	6 15
	132½	.....	17 98

Selling price.....\$ 17 98
 Cost " 16 75

Gain.....\$ 1 23 or 7.3 per cent.

STORE TEST.—January 16, 1914, showing "Cuts" of Beef as prepared for Market.

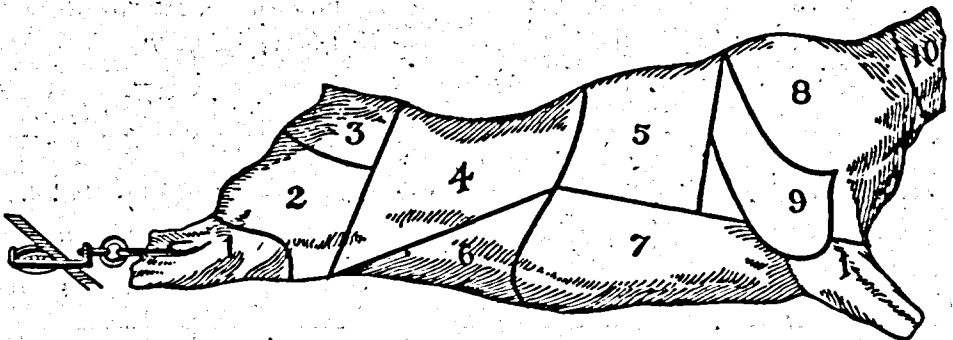
	Pound.	Cents.	\$ cts.
Hindquarters.....	143	15½	22 16
No. 1 sirloin.....	15½	28	4 27
No. 2 ".....	13½	23	3 05
Centre cut.....	14½	28	4 13
Porterhouse.....	12½	25	3 19
Short cut.....	6½	22	1 43
Flank.....	4½	8	37
Rump soup bone.....	3½	5	19
Kidney.....	1	15	15
Rump roast.....	13½	16	2 20
Round steak.....	28½	22	6 19
Hamburg.....	8½	15	1 24
Shank.....	13½	5	71
Suet.....	3½	18	58
Bones.....	1½	2	03
	140	.....	27 73

Selling price.....\$ 27 73

Cost ".....22 16

Gain.....\$ 5 57 or 25 1 per cent.

DIAGRAM SHOWING PRIMARY CUTS OF A SIDE OF BEEF.



1.—Shank.
2.—Round.
3.—Rump.
4.—Loin.
5.—Rib.

6.—Flank.
7.—Plate.
8.—Chuck.
9.—Clod.
10.—Neck.

NOTE.—Tenderloins, sirloin butts and strips are cut from No. 4. Rib rolls are cut from No. 5. Insides, outsides and knuckles are cut from No. 2.

The evidence obtained by the Board of Inquiry (summarized as follows), supports the opinion that it is more economical to slaughter by the modern methods in vogue than by the old method of local butchering:—

Under the old method it was the custom to kill two or three cattle per week at the various small slaughter houses located throughout the country. Also the help was inexperienced compared with the men doing the work to-day under modern methods. Previously it was the custom for the men to work in the retail stores during the day and at night to slaughter cattle.

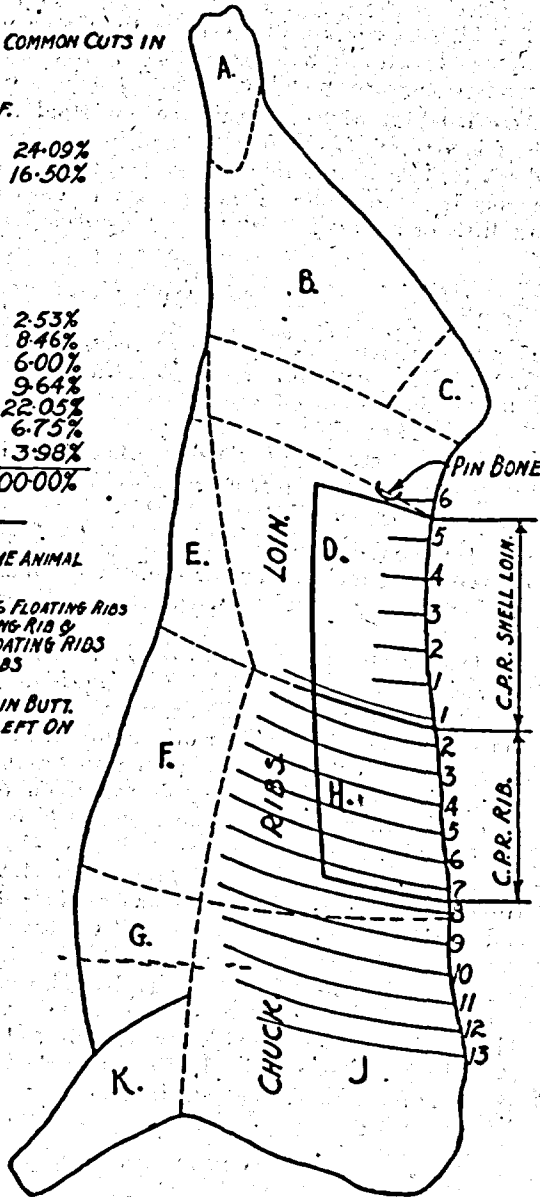
The hides would not be taken off as well and the intestines would be wasted, whereas to-day, under modern methods, there is no waste whatever.

----- DOTTED LINES INDICATE COMMON CUTS IN CHICAGO MARKET

- A. HIND SHANK
- B. ROUND, RUMP & SHANK OFF.
- C. RUMP
- A.B.C. ROUND, RUMP & SHANK ON 24.09%
- D. LOIN 16.50%
- CONTAINS:-- SHORT LOIN.
- LOIN END.
- STRIP LOIN.
- SIRLOIN BUTT.
- BONELESS STRIP
- TENDERLOIN.
- E. FLANK 2.53%
- F. NAVEL END 8.46%
- G. BRISKET 6.00%
- H. RIB 9.64%
- J. CHUCK 22.05%
- K. FORE SHANK 6.75%
- SUET 3.98%
- 100.00%

———— HEAVY LINES SHOW SAME ANIMAL CUT FOR C.P.R.

CARCASS CONTAINS 13 LONG RIBS & 6 FLOATING RIBS
 C.P.R. SHELL LOIN CONTAINS NO. 1 LONG RIB &
 NO. 1 TO 5 INCLUSIVE FLOATING RIBS
 C.P.R. RIB- SIX RIB CUT LONG RIBS
 NO. 2 TO 7 INCLUSIVE.
 NO. 6 FLOATING RIB LEFT ON SIRLOIN BUTT.
 NO. 8 TO 13 INCLUSIVE LONG RIBS LEFT ON
 THE CHUCK.



C.P.R. STANDARD BEEF CUTS

MONTREAL: 1ST JAN. 1915.

W. C. Cooper
 MANAGER, J.D. & P.C. DEPT.

Where a staff of men are kept to do nothing but kill, better work and more economy are the results than in the case of a man who kills two or three cattle per week.

All abattoirs are inspected by the Government, and all modern plants are equipped with refrigerating machinery, where, regardless of weather conditions, the beef is properly chilled and well handled, as compared with the old method.

In the handling of fresh meats the important fact is to be borne in mind that fresh beef is a *perishable commodity*, and in the sale of it the entire stock has to be cleaned out (unless there is refrigeration) whereas in the matter of pork, if the entire store supply is not sold the balance remaining unsold can be cured, so that there is therefore little or no loss in pork through depreciation in value.

HOGS AND HOG PRODUCTS.

The tables of commodity prices as to hogs and hog products show that a price of \$9.08 in 1913 compared with one of \$3.86 in 1896 for live hogs. Dressed hogs and various hog products show increases from 100 per cent up in the past fifteen years.

Mr. W. E. Matthews, of Matthews-Blackwell, Ltd., who carry on business at several places in Ontario and Quebec, made statements as follows before the Board of Inquiry, on January 26, 1914:—

Telephone orders are the cause of a large number of parcels having to be delivered and incidentally for some of the increase in the prices of meats. It was necessary to employ an operator to do practically nothing but take telephone orders.

One trouble they have to contend with is the "c.o.d." order. Ordinarily their men are instructed to leave the goods in the case of c.o.d. orders when the price thereof is not forthcoming and to return next day for the money. Sometimes it is necessary for their drivers to call three and four times for payment of c.o.d. orders. All this has a bearing on the increased cost of meat, and it was admitted that such increase was passed on to the consumer. Mr. Matthews stated that they themselves were unable to bear this increased operating cost.

Upon being asked whether retail prices had advanced proportionately more than wholesale prices or cost prices, Mr. Matthews stated that they had not. He stated, however, that there was a wider difference relatively in the retail and wholesale prices of "best cuts," the best cuts having to carry the burden of the increased cost of operation.

As to increasing the supply, Mr. Matthews said that the present is an opportune time to improve the breed of hogs, especially in Eastern Ontario. The scrub stock has been pretty well cleaned out, and what is wanted is new blood in its place, both in the line of cattle and sheep. Live stock in sheep is becoming inbred and a new strain is needed.

PRICES IN ENGLAND AND IN TORONTO.

Mr. J. W. Flavelle, of the William Davies Company, Ltd., Toronto, made to the Board a statement regarding the difference in the prices of bacon in England and in Canada, of which the following is a summary:—

In Canada the situation in regard to the distribution of products differs greatly from the congested districts in Great Britain where distribution is easier. The expense of doing business in Great Britain is less than in Canada. There the congested centres have a larger volume of business to the individual store than here in Canada. There is no demand for the cheaper cuts in Canada. The surplus of Canadian shoulders is exported. A Wiltshire

side of bacon will give about three per cent more yield of meat than a Canadian side. In Toronto there is sale for hams only of a certain size and bacon only of a certain type. Big hams are not wanted. Their bacon and ham trade in England is a week-at-a-time market. Whatever is left over on Friday is sold on Saturday if possible and there may be a break of 3, 4, 5, 6 or even 7 shillings per 100 pounds. Market quotations frequently quoted in the newspapers are not sound. On the broad issue Canadian meats are not marketed in England at lower prices than in Canada.

The following article communicated to the International Institute of Agriculture by W. J. Kennedy, Director of Agricultural Extension, Iowa State College, will be found of special interest and worthy of attentive consideration:—

AN AMERICAN VIEW ON THE BEEF CATTLE SITUATION. PRESENT STATUS OF THE INDUSTRY.—Communicated to the International Institute of Agriculture by W. J. Kennedy, Director of Agricultural Extension, Iowa State College.

The solution of the beef cattle situation is one of the most important problems before our American people. This is something which concerns every man, woman and child in the United States. For the first time in the history of modern civilization our people are facing what appears to be a near beef famine. It has been gradually approaching us ever since 1907. The rapid increase in our population, thus a much heavier demand for beef, has caused high prices for all kinds of meat; thus many farmers have sold their breeding herds as well as the normal increase. The result has been a marked increase in demand and a very noticeable falling off in supply.

The World's cattle supply.—A shortage at home would not be so serious a matter from the consumers' standpoint, if there were an abundant supply in other countries. For some time the writer has been gathering data concerning the world's supply of cattle. It has been necessary to include all classes of cattle, because few countries outside of our own are able to furnish separate figures for beef and dairy cattle. Fairly reliable figures have been obtained concerning the increases or decreases in the number of both cattle and people in practically all of the leading meat-producing and consuming countries of the world since 1900. These figures show conclusively that in all of the countries, except Australia and France the increase in cattle production has not kept pace with the increase in the number of people. A careful study of the same will clearly reveal the fact that there is a world-wide shortage of cattle and that the most alarming condition of affairs prevails in the United States.

The average increase in population is 19.9 per cent and of cattle about 2.18 per cent.

Country.	Population Increase since 1900.	Cattle.	
		Increase.	Decrease.
		since 1900.	
	p. c.	p. c.	p. c.
France.....	2	2	—
Germany.....	16	4	—
United Kingdom.....	10	4	—
Austria-Hungary.....	10	2	—
European Russia.....	14	—	12
Canada.....	35	20	—
Brazil.....	20	—	20
Argentina.....	40	—	6
Australia.....	18	40	—
New Zealand.....	30	16	—
United States.....	24	—	30

Free meats from foreign countries.—A great deal has been said concerning the effect of putting meat on the free list. Some people have claimed that it would insure an abundance of good beef for the American people at moderate prices. Others have maintained that the putting of meat on the free list would drive the American farmer and ranchman out of the cattle raising business, on account of the low prices for meat and consequently of cattle on foot, which were sure to follow such legislation. A careful study of the world's supply would indicate that both factions are almost sure to be disappointed. That there is a world-wide shortage of beef cannot be denied. This being true the placing of meats on the free list is not likely to reduce appreciably the prices of beef to the consumer or the prevailing prices for beef cattle. It is a well established fact that Europe is meat hungry and must look to Argentina and Australia for its supplies, and must thus bid against the United States or any other contender in the world's market. Even the most optimistic believers in free meat figure that at the very outside not more than 4,000 head of cattle per week, or 2,000,000 pounds of beef, can be expected. This amount would barely furnish enough beef for our annual increase in population. The very lowest estimates on our annual beef consumption place the amount at 56 pounds per person, or for the whole population 14,400,000 pounds per day; thus our people would eat the entire amount of anticipated yearly importation of beef, some 100,000,000 pounds, in about seven days. This is a case where the law of supply and demand will be the controlling factor in the establishing of prices.

Conditions in the United States.—The beef cattle industry of the United States is in a most precarious condition. Between January, 1907, and January, 1913, the number of beef cattle in the United States decreased by 15,970,000 head, or about 32 per cent. During the same time our population increased about 10,000,000 people. Conditions are going to be worse in the next two or three years. A few weeks' study of any of the stockyards' markets will convince the most optimistic person that there are altogether too many cows, heifers and calves being rushed to market for the future good of the cattle business. It is a most pitiful sight, in the face of the present marked shortage of cattle, to look over the daily receipts of our southern and western markets and find from 15 to 40 per cent of the animals offered to be good young she stuff, just the kind that are needed for breeding purposes on the farms. This condition of affairs, if continued, can mean but one thing, namely, fewer and fewer cattle in the years to come.

The Farmers' Duty.—It has been said that it is the farmers' duty to feed our people. This must necessarily include meat supplies, one of the most important of which is beef. If he is to fulfil his duty, he must get busy and raise more cattle. The present indications are that the future prices of beef cattle will be high enough to make the business a profitable occupation. Beef production must also be regarded as a factor in the conservation of the fertility of our soil. Soil conservationists claim that every time a bushel of corn is sold off the farm about 16 cents worth of fertility is removed. If corn be fed through beef cattle, but 5 cents worth of fertility is removed. About the same ratio prevails for the other grain and forage crops of the farm. These are factors worthy of careful consideration. There is no more important problem before our American people than the maintaining and building up of the fertility of our soil. Considering the labour involved, no line of farming is better adapted to soil-building than beef production.

Factors necessary to insure successful production of beef in the Corn Belt of America.—1. We must put more of our land under blue grass pasture. Many Iowa farmers are getting from \$10 to \$15 per acre from the blue grass pastures through the utilization of the same for beef production and cattle feeding purposes. This is an excellent way to help solve the labour problem on the farm, as beef cattle require but very little labour during the grazing season.

2.*The farmers of Iowa annually leave from five to seven million acres of corn stalks in the fields, thus very largely wasted. This is a wasteful method of farming, something unknown in the more densely populated countries where land is on a par with or higher in value than our own. A large amount of this waste could be, and will be, eliminated through the use of the silo, and then we shall be able to winter economically more beef cows and young stock on our farms.

3. There should be some alfalfa grown on every Iowa farm. This is the heaviest yielding, most drought resisting, most palatable and most nutritious crop that can be grown on our farms. No other crop is so valuable in the growing and finishing of baby beef.

4. The wise farmer will retain his heifer calves and cows for breeding purposes. Future prices for beef cattle should be as high as or higher than those of the present time; thus it is a short-sighted policy which leads a man to dispose of his breeding stock. This is a time when men should increase, not reduce their breeding herds.

5. A man to be successful in any line of work must stay by the job. The fellow who is always changing never makes much progress. This is especially true of the beef business. No man can anticipate the high markets or the low ones, but the man who is always in the business is sure to reap profits when the other fellow is short, that is, when the demand is greater than the supply.

PROFITS OF PACKERS AND ABATTOIRS.

A full statement of profits on meats for the years 1901 to January 30, 1914, was furnished the Board by the Harris Abattoir Company, of Toronto, and from it the following statement was compiled showing the relationship of profits to meat handled:

1904-5, profits were	34.40	cents per	100	pounds of	meat.
1905-6	49.20	"	"	"	"
1906-7	33.11	"	"	"	"
1907-8	35.44	"	"	"	"
1908-9	43.30	"	"	"	"
1909-10	39.85	"	"	"	"
1910-11	25.60	"	"	"	"
1911-12	21.14	"	"	"	"
1912-13	52.90	"	"	"	"
1913-14	19.22	"	"	"	"

Taking in all the business lines of the company the profits represented 39.69 cents on every hundred pounds of dressed meat sold and eliminating the departments entirely independent of the meats the profits were 30.13 cents for every hundred pounds of meat, a little less than one-third of a cent a pound.

The report of Swift & Company, of Chicago, shows a turn-over in 1913 of over \$400,000,000, with a net profit of \$9,250,000 after paying a dividend of 7 per cent on their capital of \$75,000,000. The profits represent a small fraction of 1 cent per pound of meat handled.

Statements in regard to the shipment of meat within the provinces of Canada, submitted by H. S. Arkell, Assistant Live Stock Commissioner, Department of Agriculture, appear in Appendix No. 26.

A memorandum prepared by James Audley, of the Veterinary Director General's Branch, in regard to meat inspection in Canada, appears in Appendix No. 16.

The subject of dairy production in Canada is dealt with by J. A. Ruddick, Dairy Commissioner, in an address which appears in Appendix No. 23.

Appendix No. 27 contains memoranda prepared at the Central Experimental Farm, Ottawa, on "Cost of Beef Production," "Cost of Pork Production," "Cost of Mutton Production," and "Cost of Milk Production."

MILK.

The advance in the price of milk to consumers east of the Prairie Provinces appears to be over 40 per cent. The high prices of feed are undoubtedly the direct

factor in the advance in milk prices. The crusade for farm sanitation and pure milk has also contributed to the advance in the price of milk.

In reducing the high cost of the distribution of this article of prime necessity, the means may be found of reducing the price to the consumer and of checking unnecessary advances.

A prominent milk producer in British Columbia stated that he received 18 cents per gallon for his milk, while the city consumer paid 40 cents per gallon for the same. He suggested that the expense of delivery be reduced by eliminating the duplication of carriers—delivery to be made by one body through a clearing-house system or by municipal distribution on a cash basis.

TABLE No. 1.—Comparative statistics of the dairying industry expressed in terms of milk, showing production, exports, imports, and total and per capita consumption in the census years 1901 and 1911; prepared in the Markets Division, Dairy and Cold Storage Branch, Department of Agriculture, December 24, 1913.

	Census. 1901.	Census. 1911.	Per Cent of Increase or Decrease.
Population of Canada	5,371,315	7,204,838	34.13
	Lb.	Lb.	
Total production of milk.....	6,866,834,000	9,871,178,103	43.75
Exports of dairy products as milk.....	2,514,596,967	2,236,663,637	11.05
Imports of dairy products as milk.....	34,886,346	39,871,207	14.28
Total consumption as milk	4,387,123,379	7,674,383,623	74.92
No. milch cows in Canada.....	2,408,677	2,594,179	7.70
Average pounds milk per cow	2,850	3,805	33.50

¹ As milk production was not included in the 1901 Census, the quantity shown in the 1901 column was arrived at as follows: The total value of all dairy products in 1900 was \$66,470,953, which included the manufactured value of cheese and butter made in factories, and the average gross value of the milk supplied to factories was 96.8 cents per hundred pounds. Taking this figure as a basis, the above total value represents a total milk production of 6,866,834,000 pounds.

² At the average production per cow of 1901 it would have required 3,463,571 cows to produce the quantity of milk shown by the 1911 Census—an increase of 1,054,894 cows, or 43.79 per cent.

TABLE No. 2.—Comparative statistics of the Butter Industry showing production, exports, imports, and total and per capita consumption in the census years 1901 and 1911; prepared in the Markets Division, Department of Agriculture, December 24, 1913.

	Census. 1901.	Census. 1911.	Per Cent of Increase or Decrease.
Population of Canada.....	5,371,315	7,204,838	+34.13
	Lb.	Lb.	
Total production of butter.....	141,409,815	262,796,699	+43.41
Exports of butter.....	16,335,528	3,142,682	-80.76
Imports of butter.....	1,146,639	1,227,390	+7.04
Total consumption.....	126,220,926	200,881,407	+59.15
Per capita consumption	23.49	27.83	+18.68

CHEESE.

The rise in the price of cheese since 1896 is between 50 and 60 per cent as will be seen on reference to the tables of wholesale prices.

The consumption of cheese in Canada has not been as large as its value as an article of food would warrant. When the prices of other commodities have gone up, the consumption of cheese has increased. There is an increasing demand for it now on account of the high prices of beef and other commodities.

The outlook for increased production of cheese in Canada in the immediate future is not encouraging, according to the opinion of representative men in this industry.

The following is an extract from Mr. R. M. Ballantyne's statement before the Board of Inquiry at Montreal on the 12th January, 1914:—

The farmers to-day can get such good prices for their veal calves that they prefer to raise them and sell them as veal, and they can only do this by keeping the milk at home to raise the calves.

There are fewer young cattle on farms to-day than there has been on the Quebec and Ontario farms in twenty-five years, and with this situation we are bound to have high prices for veal, beef, and cheese for years to come—butter also, but not to such a great extent.

Milk is being shipped to the United States out of the section south of Montreal. For years past they have been taking large quantities of milk, but now they take both cream and milk when they can and when it pays them to do it. This condition applies to the whole district along the river border, where it is easy to transport across the river, consequently the supply is going to be shortened for home consumption.

In the district west of Toronto the growth of towns and cities, and the growth of condensed milk factories has reduced the production available to the consumer.

The exports of domestic cheese from Canada during ten years ended March 31, 1914, are shown in the following table:—

Year.	Quantity.	Value.
	Lb.	\$
Year ended June 30, 1890	40,368,678	3,893,366
" 1890	94,260,187	9,372,212
" 1891	106,202,140	9,508,800
" 1892	118,270,052	11,652,412
" 1893	133,946,965	13,407,470
" 1894	154,577,480	15,488,191
" 1895	146,004,650	14,253,002
" 1896	164,689,123	18,956,571
" 1897	164,220,699	14,676,239
" 1898	196,703,323	17,572,763
" 1899	189,827,839	16,776,765
" 1900	185,984,450	19,856,324
" 1901	193,923,897	20,606,951
" 1902	200,948,401	19,986,281
" 1903	229,090,925	24,712,943
" 1904	233,980,716	24,184,566
" 1905	215,733,259	20,300,500
" 1906	215,874,543	24,433,169
Year ended March 31, 1907 (9 months).....	178,141,567	22,006,584
" 1908	189,710,463	22,887,237
" 1909	164,907,139	20,384,666
" 1910	180,859,886	21,607,692
" 1911	181,895,724	20,739,507
" 1912	163,450,684	20,888,818
" 1913	155,216,392	20,697,144
" 1914	144,478,340	18,868,785

POULTRY AND EGGS.

The rise in poultry since 1897 has been about 150 per cent. Fowls have doubled in price, and chickens and turkeys have more than doubled.

In eggs, the rise is approximately 150 per cent in fifteen years.

A large packer suggests the best way of reducing the price of eggs, is to eliminate the loss before the eggs get into cold storage. He said he had seen a case of eggs holding 30 dozen, (May, June, and July eggs) with three or four dozen of the eggs bad.

The Live Stock Branch of the Dominion Department of Agriculture has been engaged for some months in an investigation of the Canadian egg trade.

At this time when the subject of eggs is being discussed so freely by the press and the public generally it may be of interest to cite some of the conclusions reached as a result of this investigation to date.

THE CONSUMPTION OF EGGS IN CANADA.

Canadians are large consumers of eggs and the consumption per capita of eggs in Canada is steadily increasing. The following table will give some idea of the rate at which consumption is expanding:—

TABLE I.—Relation of Consumption to Production in the Canadian Egg Trade.

	Census of 1891.	Census of 1901.	Census of 1911.
Population of Canada	4,833,239	5,371,815	7,204,838
Poultry population of Canada	12,696,701	16,562,084	29,548,723
Total egg production.....	64,499,241	84,134,802	123,002,132
Exports of eggs	8,002,935	11,563,064	92,164
Imports of "	602,533	951,745	2,378,640
Total consumption.....	57,078,839	73,723,483	125,288,608
Average consumption per capita	11·8	13·72	17·39

It may be noted that the increased consumption per capita between the years 1901 and 1911 amounts to nearly four dozen. This increase is not by any means confined to the cities. Farmers, generally, are eating more eggs than ever before. In many rural districts, it is practically impossible to secure fresh meat at certain seasons of the year. At such times eggs are usually plentiful and are used freely.

In Appendix No. 24 there will be found reports prepared by W. A. Brown, B.S.A., of the Department of Agriculture, on the "Canadian Egg Trade," the development of co-operative poultry work in the Province of Prince Edward Island, and on the relation of the preservation of eggs by cold storage to the development of the poultry industry in the United States and Canada.

SHEEP-RAISING.

Four distinctive classes of meat animals supply nearly the entire meat production of this country. These are milch cows, other cattle, sheep, and swine.

There has been a considerable decline in the number of sheep in Canada in recent years with an increase in price, which has contributed in part to the advance in cost of living.

We have no generally accepted standards for the determination of the various grades of wool. This lack of standardization makes it impossible for the wool grower to know the grade of wool he is producing or the value of it in the market.

Were wool standardized into grades intelligible to the grower it would encourage him to produce a better quality of wool, and would do much to place the entire wool industry on a more satisfactory plane.

In this connection the suggestion has been made that experiments should be conducted, under the supervision of experts, to determine what type of sheep produces the most desirable quality of wool and is best adapted to the conditions existing in the various parts of the territory concerned, and that for Canada the industry should be primarily established on a meat basis with wool as a by-product.

The following "Brief Summary of the Status of Sheep Raising in Canada" has been furnished to the Board of Inquiry by Mr. T. R. Arkell of the Live Stock Branch, Department of Agriculture:—

Sheep-raising in Canada has been in a decadent condition for the past thirty years. In 1881, the sheep population was given at 3,048,678, and in 1911, 2,160,000. Since then a slight increase has occurred mostly in the maritime and western provinces.

The reasons for the reactionary state of the sheep industry especially in the middle, western and eastern districts may be given as follows:—

(1) The general indifference of the present generation of farmers to the advantages of sheep-raising when maintained as a permanent and specific asset to mixed farming operations. Unfortunately the vast majority of farmers still cling to the idea that sheep, in order to return a suitable profit, can only be ranged on the roadside and back pastures, where no other class of domestic animals can thrive. When grazing was prohibited to a great degree upon public roads, many small flocks disappeared. Besides, sheep kept under such conditions did not thrive, which tended to discourage the breeder.

(2) The dog menace, which has almost become a bogey. True, destruction of sheep by dogs in many districts, especially near cities, has been bad, yet it is by no means worse than most farmers think it to be. John Jones has some sheep killed, and very soon many farmers in that section forego sheep-raising. Yet such an accident may not occur again in a decade or more. The man who takes care of his sheep and does not abandon them in some back lot, where he may not see them throughout the entire summer, seldom has cause to fear unduly depredations by dogs. Of course, dog laws can be improved, and the running of dogs at large freely over the country should be restricted.

(3) Cost of fencing: Well-built fences are absolutely necessary for sheep, and it is only too true that farmers are loathe to expend money in permanent improvements, little realizing how much wisely spent money in this respect will enhance the value of the farm.

(4) Lack of care and the prosecution of efficient methods of management. Sheep will not thrive under neglect, and too many of our educators have been misleading the people in this respect. Farmers who adhered to this idea did not produce animals that would command a ready sale on the market, so they jumped to the conclusion sheep-raising was not a profitable industry and forsook it.

(5) Our breeders of registered animals have done little to develop the industry on the average farm. They catered almost entirely to American customers and most frequently it was only the rejects that found their way for breeding purposes to Canadian farms.

(6) Canadian consumers are too easily satisfied with an indifferent class of mutton on their table and not appreciating the taste of exquisitely flavoured mutton, do not demand it. Consequently, frozen mutton obtains a ready sale, which does not help to encourage the home industry.

(7) Lack of effective marketing facilities for mutton and especially wool: This I consider, a very potent agency indeed. The farmers in most instances have to be satisfied with the price the local buyer gives them which may be "any old price," depending upon the extent of competition existing in that locality, and competition is seldom keen, for districts are frequently well divided amongst drovers and dealers, so as to prevent the contingency of active bidding one against the other. Co-operation, I think, should comprehend an efficacious remedy in this regard.

(8) Few farmers recognize clearly the benefits of sheep in maintaining soil fertility and destroying weeds. The manure of sheep is rich and, besides, evenly distributed over the field. They will eat and apparently relish almost every class of weed, even the Canadian thistle.

A re-development in sheep-raising is undoubtedly occurring now. It is obvious at the present time in the maritime and western provinces and is due principally to the high prices for mutton and wool which have obtained for the past few years, due to the great scarcity, compared with the demand, of both products in Canada. The removal of duty upon wool entering the United States has especially raised the price of it this year, since it brought American buyers here, thus creating keen competition. This feature has also directly created the revival in the Maritime Provinces, for breeders there are now able to cater to the Boston market by cheap water transportation and are not forced to depend upon home demand which is restricted. The development in the west is due to another cause namely, the introduction of mixed farming in what were formerly exclusive grain belts.

The status of the sheep industry in Canada and the relation between supply and demand as regards dressed mutton and lamb can best be illustrated by a comparative statement which will set forth the statistics of population, imports, exports, marketings and interprovincial trade as detailed in the Census and Customs reports.

SUMMARIZED STATEMENT with respect to the discussion upon the statistical status of the industry.

SHEEP IN CANADA.

	1912 ¹	1901 ²	1891 ²	1881 ²	1871 ²
Canada.....	2,360,600	2,510,239	2,563,781	3,048,678	3,155,509
Prince Edward Island.....	104,500	125,546	147,372	166,496	
Nova Scotia.....	343,200	285,244	331,492	377,801	398,377
New Brunswick.....	179,300	182,524	182,941	221,163	234,418
Quebec.....	519,800	654,503	730,282	889,833	1,007,800
Ontario.....	888,700	1,046,456	1,021,769	1,359,178	1,514,914
Manitoba.....	32,300	29,464	35,838	6,073	
Saskatchewan.....	111,800				
Alberta.....	181,000	153,152	64,920	346	
British Columbia.....		33,350	49,163	27,788	

¹ Census and statistics. ² Census.

EXPORTS OF SHEEP AND MUTTON FROM CANADA.

	Sheep.	Mutton.
1896 ¹	391,490	150,013
1906 ¹	244,262	105,062
1909 ¹	118,896	39,030
1911 ¹	46,597	17,865
1912 ¹	21,418	49,107
1912 April 1 to September 30.....	2,774	12,542

¹Fiscal years ending March 31.

SHEEP AND MUTTON IMPORTED INTO CANADA.

	Sheep.	Mutton.
1910 ¹	35,844	2,034,023
1911 ¹	68,673	2,768,161
1912 ¹	192,530	4,041,263
1912 April to September 30.....	* 154,435 ²	2,580,018

¹Fiscal year ending March 31. ²Not revised. * Total—1912, April to September 30.

British Columbia.....	44,974 head.
Alberta.....	62,919 "
Saskatchewan.....	24,258 "
Manitoba.....	20,304 "
Ontario.....	1,980 "
* Total.....	154,435 "

SHEEP AT LEADING MARKET CENTRES.

	1910.	1911.	1912 to Oct. 31 (10 mos).
Toronto.....	196,542	227,903	149,750
Montreal.....	96,023	117,779	102,199
Winnipeg.....	30,775	43,614	39,682 ¹
Total.....	319,340	389,296	291,631

¹ It is reported that all of these, with the exception of about 1,000 head, were imported sheep.

A memorandum by Charles W. Peterson in regard to the bearing of Australian mutton on the cost of living in Canada appears in Appendix No. 25.

XVIII.

CO-OPERATION.

It is the production and distribution of food that agriculturists are beginning to find the greater cause of the unfavourable condition in which both producer and consumer are finding themselves to-day.

Manifestly the most wasteful part of our economic system is that concerned with distribution. There is enormous waste of effort now in getting the product to the consumer. We have made little progress in getting products direct to the consumer in the least costly way, except in the matter of transportation.

The possibilities of co-operation as a means of eliminating the wastes in distribution and reducing the final cost of goods to consumers, and also increasing the purchasing power of wages and incomes, have hardly been touched in this country.

The advance of the cost of living is now directing attention to distributive co-operation, notably in the direction of co-operative storage facilities at shipping points and in central distributing agencies.

It is difficult to determine the present extent of co-operative merchandising in Canada, owing to the condition of the movement.

Our attention has been directed to the United Fruit Companies (Limited) of Nova Scotia, The British Columbia Fruit Growers' Association, The National Fruit Growers' Association, The Grain Growers' Grain Company, and other associations.

In Appendices Nos. 33, 34, 35, and 36 the following documents are inserted:—

(1) An Explanation of the Provisions of the Agricultural Co-operative Associations Act of Saskatchewan, 1913.

(2) History of the Co-operative Movement in Nova Scotia, by A. E. Adams, Secretary of the United Fruit Companies of Nova Scotia (Limited).

(3) Official Memorandum respecting Agricultural Co-operation in France, as published in the Monthly Bulletin of Economic and Social Intelligence, April, 1913.

(4) Fundamental Principles of Co-operation in Agriculture, being Circular No. 123, University of California Agricultural Experiment Station, by G. Harold Powell, General Manager of the California Fruit Growers' Exchange.

XIX.

MARKETS AND MARKETING.

Markets regulate and tend to make "fair and reasonable prices."

The lack of a comprehensive and aggressive policy for the development of the market along modern methods constitutes a considerable factor in the needless expense of the necessaries of life to consumers in the cities and towns of Canada.

Modern appliances with terminal and other facilities are required for the prompt and economical handling of incoming and outgoing commodities and to enable merchants and traders to render satisfactory and efficient service to the consuming public.

A solution, to a notable extent, in the high cost of living, has been suggested from many quarters, in the operation of public markets in every town and city, to be absolutely controlled by the civic authorities and to be provided with facilities and conveniences for preserving fruits, vegetables, milk and other products, and where produce from farm, field, flock and sea can be sold directly by the producer to the consumer every month in the year.

Circulars were addressed by direction of the Board of Inquiry to the mayors of the principal cities and towns of Canada, on the subject of Public Markets. A summary of the information furnished in reply to these circulars is compiled in Appendix No. 28.

The effect of markets on the cost of living has been carefully studied by Mr. John Wanless, Toronto. His pamphlet on the subject is submitted herewith for special consideration.

The Board desires to emphasize the desirability of educating women in the art of marketing and economic housekeeping. This implies a knowledge of the values of foods, especially the food values of various cuts of meats, knowledge of best methods of buying, storing and saving food, and of preparing and cooking food.

It appears also of importance to encourage the artisan and small householder to cultivate his garden plot, if at all possible, to supply his table with fresh vegetables in season, and such vegetables as potatoes, onions, beets, carrots, cabbage, cauliflower, and celery through storage for winter use.

THE EFFECT OF MARKETS ON THE COST OF LIVING.

(By John Wanless, Toronto.)

When it is realized that 50 per cent of the budget of the average person goes for food, it is readily seen why the citizens of Toronto, in common with many people in various parts, are feeling the large increase in the cost of the necessaries of life, and are anxiously inquiring for the potential causes, with a view to the possibility of their removal, or at least their counteraction. From a cosmopolitan standpoint the great increase in the production of gold, and the fabulous sums wasted every year in military and naval expenditures are mentioned, but there are local grounds of importance more within our reach, and to these reference will be made.

There is no doubt that the standard of living is much higher than that of a quarter of a century ago, and the same general attention is not given to the science of good housekeeping as in former years. Social workers have discovered that many housekeepers are not familiar with the most economical methods of purchasing, and what is still more serious, are not adepts in preparing wholesome, edible foods, at the lowest cost to the family purse.

This, to a certain extent, may be accounted for by the employment of girls and women on outside work, such as is performed in factories and stores, and also apartment house life, all of which discourage slowly prepared, inexpensive meals, and have led to a demand for foods easily and quickly prepared over a gas stove. Shrewd men with an eye to business, have been prompt to avail themselves of an opportunity to meet the demand, and through persistent advertising of specially named goods in cans or packages, identical with bulk goods that sell in bulk more cheaply, have met the requisition. The amount of water in canned goods, it is estimated, may make a difference of 10 per cent to 20 per cent in their value, and the weight of food in package is usually reduced so that it is said that ten or twelve ounces are given for a supposed pound. In other words, customers who purchase in this manner, pay for water, tin cans, cardboard and labels, at an unnecessary computed average in cost of from 50 per

cent to 100 per cent. Buying in small quantities, on credit, over the telephone, and insisting on a delivery that costs at least 12 per cent and purchasing out-of-season goods, all help to pile up a formidable bill for food.

On the other side producers and their families enjoy many comforts and luxuries that several years ago were practically unknown. Whereas the family did the work about the farm or garden, now the young people are in the city, and hired help must be employed at an enhanced wage. In the butchers' realm the killing of young calves has helped to bring about a serious shortage of meat. So much so is this the case that the government of the Argentine Republic, for instance, has been compelled to take drastic action in its enactment, forbidding the slaughter of female cattle under six years of age. The abandonment of the raising of sheep has also contributed to an advance in the price of mutton, but the difference in price between sweetbreads at 20 cents in Hamilton, and 65 cents in Toronto, or new laid winter eggs at 40 cents a dozen on the outside, and at 60 cents a dozen in the city, must be accounted for on other grounds, as we shall see further on.

During the last twenty-five years the rural districts of Ontario have witnessed a considerable exodus to Northwest Canada, and to the various cities. As a result, production here has not kept pace with consumption, and we all know that prices advance when the demand exceeds the supply. This perhaps might not have become as aggravated if our governments had inaugurated an attractive back-to-Ontario land propaganda, or had replaced our departed Ontario people by substituting immigrants from the sturdy yeomanry of the country districts of Great Britain.

Then the breaking up of farms and gardens in the environs of the city, to be used for building lots to meet the expansion of Toronto, has not only taken thousands of acres out of tillage, but has also pushed the cultivated areas farther back and thereby increased the cost of haulage. It has been estimated that the price accumulation between producer and consumer averages 136 per cent under present conditions, of which 45 per cent is due to cost of carriage, and this latter can be traced to a defective, inadequate transportation system from outside points to Toronto. All are aware that the Steam Roads are fairly well and conveniently situated in Toronto. We have them on the Esplanade, across the centre of the city, and on what is known as the "Belt Line." While it is true that the railroad business is separate from the storage and supply handling business, it is proper that the railroads should be required to furnish terminals and storage facilities for the sale of produce at certain convenient points on their lines, with a view to giving immediate connection between the terminal and the merchants. This plan would secure a large saving in the cost of handling. If in addition to this the railroads were generally to supply facilities for the auction of food supplies as received by them, the matter of primary prices could be adjusted at the terminal point, on the most definite and equitable system known. It is computed that a saving of from \$10 to \$20 per car can be effected by proper track delivery alone. Then again there is room for considerable improvement in transmission. The services are, as a rule, too infrequent, too slow, and the charges too high. In one instance it was discovered that almost a week elapsed between the time when milk was taken from the cows and delivered to the private consumer. Toronto has been sadly neglected by the steam railroads not furnishing a better service within a radius of fifty miles.

Further, the trolley freight service has hardly materialized as yet. What we have is in an inadequate and unsatisfactory condition. Its extensive development would mean giving transportation facilities from every section of the city to each outlying hamlet, and would make it possible to bring direct to the several parts of the city, country produce, fresh and in variety, from the farms and gardens within a radius

of fifty miles in every direction. Such a development would in effect add about 1,000 square miles of productive territory, upon which Toronto could depend for its country produce. It would not only make it possible for farmers in certain regions now without adequate transportation facilities, to freight supplies more cheaply and more quickly into every section of the city, but it would develop the farming communities, focus their attention upon the possibilities of Toronto's markets, and would give an inter-trade avenue for the distribution in the suburban and rural districts, of commodities that are manufactured or sold within Toronto.

Great possibilities lie in the development of water transportation, and the extended use of fast motor-boats on lake Ontario. This will, in all probability, come to pass as soon as the Harbour Commission carries its proposed plans to completion. Through the development of water transportation, through the increased use of the motor-boat, through more efficient freight service by steam roads, through a complete system of good inter-county roads, through the parcels post, through the use of motor-trucks, and through the development of trolley freight, a more facile, cheaper and more complete transportation system can be developed, which will cover in a complete network all the outlying agricultural sections. Such a system, now not existent, will make the farm at once more productive and more attractive, will make it possible to ship Toronto goods directly to the farm, will make Toronto a prosperous distributing urban centre, and will give Toronto consumers better country produce at lower prices.

There are three main systems by which prices are regulated by dealers. They are by private treaty, by interested parties meeting and distributing by mutual agreement and by auction sale. *But perhaps the best regulator is an abundant and continuous supply, and effort needs to be made with this in view.* Suitable selling marts, free from onerous ordinances, available for bona fide producers, in convenient, accessible, well located districts, will encourage an abundant inflow. Hitherto our distributing centres have been too far from residential sections, and for this reason people who object to lose time and car fare, have held aloof. In the past a narrow policy has been pursued, the main object appearing to have been to obtain a revenue by penurious methods, instead of by the swing of a broad, generous, attractive course of action. Antagonistic, selfish interests, too, have been allowed to intrude, and be heard, and they have crowded out the type of producer who is useful to the public, and the one originally intended to have the right of way.

Given then an adequate supply of food stuffs, it is apparent that the cost will still be enhanced if the supply must pass through numerous hands and be carted from place to place in the city. Of course there are many people who do not and need not object to any price they are asked to pay, but on the other hand there is a vast number of people who find it necessary to closely scrutinize every cent they expend, and these citizens are entitled to have a voice as to how and where they shall buy. If a householder prefers to buy from a farmer's wagon and carry her purchases home, she has a perfect right to be provided with market facilities that admit of her so doing. It is quite evident that the time is come when we must do some thinking. In every line we find more and more system in getting goods to market, and efforts are being made to cut down the cost of production and eliminate waste. But in that one article, food, so absolutely necessary to human life, we find the least system at every point, and the greatest possible percentage of waste. In the belief that producers' markets will lower the cost of living, many cities and towns are clamoring for such institutions. At the present time the consumer is not doing his own marketing from the producer, and something is necessary to bridge the hiatus.

In northern climes home grown products could be sold in a market during June, July, August, September and October. During the other months that which might be sold would be limited, and the consumer would be at the mercy of the profit takers if a remedy could not be provided. When goods are in season the producer and consumer are brought together without difficulty. During the cold months goods not grown in hot houses, must necessarily be shipped from a distant section where summer conditions prevail, and these could be consigned to an indispensable individual known as "The Market Master," from producers with whom the master is in touch. The only difference then will be the cost of transportation and the small expense of operating the market. In the case of fish, tropical fruits and so forth, the market master could carry out the direct buying plans throughout the year, his tropical fruits coming from an importing company. This is a modified form of municipal ownership. Its successful working would largely depend on the capability of the market master, who should not be the brother-in-law of some one's cousin, but be a strong, brainy, active, tactful business man, familiar with the produce trade, and be paid as much as \$2,000 per year salary, and held responsible for successful operation.

If you compare Toronto with other cities of similar population, as will be shown later on, you will find that we have practically only one market, and that an apology for one. Everywhere in Europe the provision of adequate terminal markets, under municipal control, is pointed to as a powerful aid in keeping food prices down. A central position is necessary for such a mart. The city should have effective control not only over the market, but also the adjacent streets, wharves, and railroad sidings. In Dayton, Ohio, that city by its curb markets, has gone farther in bringing producer and consumer together than any other city of its size. On three mornings every week an exclusive farmers' uncovered market stretches along the curb for fourteen city blocks, and all farm products are sold at rates fixed under free competition. Each farmer is assigned space to back his wagon up to the curb and sell till 10 a.m., when the market ends. Another important adjunct feature is what is known as the "basket market." This is supplied largely by women, who come by train from neighbouring towns and villages, carrying their products with them. They stand behind counters, without any seating accommodation, we regret to say, and are very liberally patronized by eager buyers. The idea is popular and effective, and would respond freely if properly encouraged. Yet again there are butchers' markets, devoted almost exclusively to meat and fish. These are usually arranged with stalls, and should have suitable cold storage facilities attached to them. St. Patrick's market, so long and shamefully neglected, could be transformed into an ideal meat market and made revenue producing at an insignificant cost.

The wholesale fruit market is one of the most important for Toronto. We are excellently situated in this city, between the fruit belt and the Northwest, for the establishment of such an institution. We are a centre for water and rail traffic and would soon become a great distributing centre if this important trade were encouraged and provided with suitable, convenient and commodious premises near the boats on the esplanade.

The mistake is often made in erecting structures that cost far more than is necessary to spend. Just think of the immense amount wasted in unused overhead space in St. Lawrence Market. Some of the most successful markets are little more than simple shelters. But in conjunction with any market there should be horse sheds, motor sheds, lavatories, water supply and waiting rooms, and necessary attractive conveniences.

It is better to have more land and less pretentious buildings. A study of conditions in other cities is helpful in dealing with the situation here. In Buffalo, N.Y., there are four public markets, owned and controlled by the city. They are considered a success, as the people get a larger assortment at a lower cost, this lower cost being brought about by intense competition. The Market Master is paid \$2,200 per annum, and total expenses in 1911 were \$19,000, and total receipts \$63,000. The stalls in the main building are rented at from \$80 to \$150 per year, and there are 556 booths in all. During the producing season from 500 to 600 farmers use the market daily, and sell from wagons. The commission men act in a friendly manner towards the markets, and outside goods are shipped in by various dealers in the market. To each farmer a 6-foot wagon space is allowed; single wagons are charged 15 cents a day; teams 25 cents a day. Their space is reserved daily until 7 a.m. If at that time they are not on the market, the space is rented to a huckster. The booth holders in the brick building take out a yearly lease, payable quarterly, in advance. The rent is fixed by the Board of Aldermen, through its Market Committee and Superintendent of Markets. The main building is open at 4 a.m., from April 1 to November 1, and from 5.30 a.m. from November 1 to April 1. Only certain lines are allowed to be sold. The main market building closes at 2.30 p.m. Booth holders on streets are open until 4 p.m. or 6 p.m. Besides the booths in the main structure, those contiguous to the streets and space for farmers, there are hucksters who do business at tables. Weekly tickets are issued to them, payable in advance. The charges vary from \$1 to \$2 per week. Besides the superintendent of markets, there are two clerks at each market for collecting, at salaries of \$1,100 per year, two sweepers at \$2 per day, and a lady caretaker attendant, at \$360 per year.

There are three markets owned by the city, and one by a private corporation in Cleveland, Ohio, all of them well patronized by the public. The market master receives a salary of \$1,800 per year. The three markets furnish a total of about 500 booths, with unlimited curb space for farmers. The booths rent for from \$60 to \$200 yearly, according to location. About 1,100 farmers are allotted 7 feet each at curb in the market district, at a rental of \$10 per year. Renters of the stalls in the market houses receive shipments from other communities, and wholesalers are friendly to the market. Competition between the 500 renters of stalls and the fact of them having but a low rent to pay, together with "no charge" for telephones and no delivery service, keep down the prices.

Cleveland boasts of having the handsomest market house in the world. Its cost was \$500,000. There are 110 stalls; three aisles of meat dealers occupy the stalls in the centre of the floor, while butter and poultry dealers are allotted the stands along the side walls. The fish market is in the northeast end of the building. The floors inside the stands are cement. None of the stalls have telephones, it being the belief that the use of *telephones* would tend towards costly delivery and credits. A shed for fruit and vegetable dealers will adjoin the main building, and will be completed soon.

Cincinnati has four public markets, all owned by the city. The rules and regulations are governed by ordinances passed by the city council. The annual expenses of \$12,000 per annum include the salary of the market master, which is \$900, and also repairs, heat, light and other expenses. Inside stalls, which are occupied by the butchers, butter vendors and so forth, bring a yearly rental of \$100 each, and yearly payment of \$15 entitles the payer to a stand 6 feet wide on the curb. A certain amount of space is set aside for farmers and truck gardeners, and they may occupy

this space free of charge. Approximately 500 farmers use these markets. Commission men and produce dealers do not clash with the markets, and during the season commission men receive shipments of fruit from other communities at the market houses. The success of the Cincinnati public markets is unquestioned, the city receiving an average net income from them amounting to \$1,000 yearly, and they make it possible to place all foodstuffs before the class of people who need them most.

There are three successful markets in Dayton, Ohio, one privately owned, and two owned by the city. Two of these are in the down-town district. The older is open on Tuesday, Thursday and Saturday, and the other on Monday, Wednesday and Friday. The down-town district also contains eight or ten squares, where curb spaces are auctioned off in May of each year, at prices ranging from \$15 to \$300 per year for each space. The income from these rentals is approximately \$30,000 per year, while the expenses are about \$2,600, thus giving a good profit to the city. Prices are slightly lower than those of the stores, and the produce is always clean and fresh. The markets are supplied from the immediate country, and no shipments from other communities are received. Commission men are friendly.

In Detroit, Mich., there are two markets, both owned by the municipality. They are a success because they have been successfully operated for many years. The market master gets a salary of \$900, and the total expenses of the two markets in 1911 were \$6,474. Neither market is "inclosed," each being nothing more than a cement foundation, with a raised walk, forming a cross in the centre of a square city block, the walks being about 60 feet in width, to which all wagons back, permitting the customers to pass around, examine the products and ascertain the prices. These walks are sheltered by roofs. There are no booths or stands, and there appears to be the nearest approach to direct marketing from the producer to the consumer.

Grand Rapids makes the claim of having the largest wagon market in the world. Not only self-sustaining, but a profit maker. It is owned and operated by the municipality. The market master receives \$1,000 per year, and the annual expenses of the market are about \$4,000. The stall rents are from \$5 to \$25, of which there are 760, and 372 were rented in 1912. Farmers using the market number from 100 to 200 per day, paying a daily entry fee of 25 cents. The commission men are friendly and co-operate. Goods are shipped in from other localities during out-of-season periods, these being fruit and vegetables. The total annual income approaches \$10,000 a year, and every effort is made to attract.

The public market of Hamilton, Ontario, is owned by the city, and is governed by rules and regulations issued by the city council. The market clerk receives a salary of \$1,900 per year, and secures his own help. In addition to this expense is that of the caretaker, who receives \$720, and repairs amount to from \$300 to \$1,000 annually. This market is kept strictly for farmers and butchers. During the busy season it is patronized by from 300 to 600 wagons in one day. No shipments from other communities are received, and *nothing is sold in the market except the produce grown by the farmers*. Prices are controlled by supply and demand.

New York now has under its jurisdiction six public markets, one of which, and part of one are uncovered. These are open squares restricted to farmers and gardeners' wagons. There is no restriction upon the farmer as to his customers, and the market is open from 9 p.m. to noon of the following day. One is in Manhattan and the other in Brooklyn. The maximum using each market square is 700.

Washington market is covered, 175 by 253 feet, and serves the down town restaurant trade. Fulton market is for fish, and is covered, 203 by 170 feet. Business is principally transacted with hotels and steamship lines.

West Washington wholesale market is covered, and deals in dressed meats and country produce. It is 389 x 400 feet. In and about this market the meat and poultry supply of the city is handled, and a very extensive business is carried on. Jefferson market is retail, with an area covered of 36,000 square feet. It is now in a business section and not well located.

Wallabout market is for general wholesale trade, with open square for farmers. It supplies the large and rapidly increasing residential section of Brooklyn. The matter of letting differs from all other city markets, the land being laid out in lots and averaging 20 by 50 feet, and leased for a term of ten years, with privilege of renewal. The lessees put up their own buildings which conform to a universal style of architecture and do not exceed two stories in height, giving the surroundings a very attractive appearance. The rental per lot is \$7 and upward monthly. It is located on the waterfront.

Oklahoma City has received much publicity owing to its establishment of a city market, which consists of stalls along one of its widest streets; 318 stalls are in use, extending along three blocks of the street.

Oklahoma is to-day experiencing the same feeling that has existed in all the cities where markets were opened; that is the importance of direct contact of producer and consumer.

In Vienna, Austria-Hungary, there are seven enclosed market buildings and about four open air market places. The buildings are large, well ventilated, with stone floors, and are kept scrupulously clean. All of the public markets are regulated by municipal ordinances, the article sold being provisions, agricultural products as well as all articles produced on farms, and other commodities in general use. The general supervision and management of the markets is in the hands of market commissioners appointed by the municipality. The aldermen decide what places are to be given up to public markets, and what wares may be sold in such market places. If there is a special market place for one class of commodities, then such commodities may be sold only in this one market place in larger quantities. The market hours are fixed by the board of aldermen, separately for each market place, and are posted there. At the wholesale fruit market sales are stopped at 2 p.m., though goods may be received there after that hour. The stands are assigned to dealers according to their priority of application. Dealers are permitted to sell larger quantities of wares in original packages, but any contrivance whereby the purchaser is misled concerning the real contents of the packages, is strictly prohibited. The products intended for sale reach the market either by rail, wagons or boats. There are stationary and portable stalls, the latter being removed after the closing of the markets. The total receipts from the markets were \$382,508, and the expenditures \$321,412, the profits being therefore \$61,000 a year.

In Berlin, Germany, public marketing is carried on in 14 city market halls, located in places convenient for trade. Halls No. 1 and 1a adjoin, and form the central and principal market hall. Both have direct connection with the Berlin city railway, and have extensive sidetracks and unloading platforms and sheds. The general administration is in the hands of the municipal deputation, composed of five aldermen and ten selectmen, but the immediate control and management is in the hands of a managing director. These halls are well ventilated. The floors and walls are of cement or brick and a strict police inspection insures cleanliness. A bright, airy room is set apart as a sort of hospital or rest room, to which persons becoming suddenly ill or tired may go. Markets in the suburbs are held twice a week in certain open spaces set apart for the purpose. Stand space is rented from an official appointed by the city, and stand renters furnish their own stand material, which must be removed when the time comes for closing. In bad weather the dealers provide an awning to cover their space. During the fiscal year 1907-08, the total receipts were \$835,256. The total expenditures were \$699,937, leaving an excess of receipts over expenditures of \$135,319.

All the public markets of Amsterdam are owned and operated by the municipality. The city is divided into five districts, each of which is in charge of a director. The principal markets are those for vegetables, plants, flowers, fish, cattle, eggs and other articles, and several of these are in the most populous districts. The egg and fish markets are those under cover. The others are either in large open squares set aside for the purpose, or run along the middle of the streets or alongside the canals. In the year 1907 a net profit was made of \$36,959.

In the Commune of Brussels, Belgium, there are four covered markets and numerous open air market places, all managed by the municipality. Merchandise arrives in all sorts of conveyances and prices are regulated by supply and demand.

Bordeaux, France, has seven covered markets, divided into two classes. The first give facilities to consumers to purchase direct from producers, and the second are conducted by retailers or middlemen who buy at wholesale, but both were built and are operated by the civic authorities. The entire structure of one market is of iron, the metal roof being in part glass covered, to light the floor space of the interior. It is an airy, graceful edifice, open on all sides, and protected from the sun and rain and snow by canvas curtains, raised or lowered by pulleys and ropes. Street cars pass through the building along this thoroughfare. In the wide portion of the street hundreds of stands are placed during market hours, and a scene of swarming activity presents itself.

One of the interesting features of the central market at Lyons, France, is the auction market, where an auction sale of food products is held every morning, and often twice a day. It is provided by law that all products sold at auction must come from outside the city. This prevents dealers about the city from making the auction department a dumping ground for their surplus and stale stocks. All commodities must be offered in lots supposed to be superior to the wants of a retail purchaser. During the auction the market women and the keepers of small stores replenish their stocks. This market is most emphatically favourable to the poorer classes. Many poor people band together and bid on a bunch of game or fish, dividing the expense among themselves, and thus procure luxuries they could not otherwise enjoy.

The system of public markets through which the people of the French metropolis, Paris, are supplied with fresh food materials, is one of the most extensive and carefully administered of its kind in Europe.

The dominant unit of the markets of Paris is a vast establishment in the central part of the city, near the Louvre, occupying an oblong space of 22 acres in area, that cost \$10,000,000. In this vast entrepot the various supplies are received by rail, drays, vans, boat on the Seine river, or by great wagons from the country, and are classified, inspected and sold by auction, bargain and sale to retailers and consumers throughout the city. A majority of its pavilions are reserved exclusively for wholesale trade; in the others sales in ordinary quantities are made to consumers. The products sold at wholesale are purchased by marketures, who in turn sell from the thirty-three smaller public markets which are located throughout the city and to the numerous stores.

Underneath the pavilions of the central market are immense cellars for the storage of produce, the space of which is divided into sections and used by vendors, the same as the spaces and stalls on the main floor. Thus organized and intelligently administered, an abundance of various supplies may be received, inspected, weighed, stored and sold so efficiently as to preclude unwholesome food and prevent extortion and trickery. In the financial report of the municipality the total revenue for 1906 was \$1,817,164, the total expenses \$318,923, leaving a surplus of \$1,498,241.

The most important markets in Marseilles, France, are used for the sale of fish. At these three elements of cost enter into market transactions: (a) The percentage on the sale of fish at wholesale; (b) The cost of space devoted to market purposes; and (c) The payment to the sworn weighers. The greater part of the fish shell-fish

and sea produce, is brought to the quays near the wholesale market by the boats of the fishermen's society, and thence carried directly in baskets to the place of sale. The market garden produce is principally brought in carts from the surrounding country, which arrive in great numbers in the early morning. These carts start usually long before dawn and return late in the evening.

The cost of transporting this merchandise is almost entirely a question of the producer himself bringing it to the market. That which arrives by train is disposed of to the stores which deal in the more expensive articles of food. The sellers in the market are almost invariably women.

Munich, Germany, with a population of half a million, about the size of Toronto, has the most modern of all European municipal markets. It was opened in February, 1912, and embodies the improvements suggested by experience of market administration in other cities. The total cost was \$797,000, and the whole establishment covers 46,500 square metres. At the northern extremity of the building is the toll and receiving department, where produce is delivered at special sidings connected with the south railway station of the city. Next comes a succession of halls with covered connections, terminating in a small retail section and the administration offices. At the northern end of the great market is a section where express delivery traffic is dealt with, while the western side is occupied with sidings for loading produce sold to buyers from other German centres. Below the toll house and the market generally, are vast cold storage and refrigerating plants for the preservation of food supplies till the demand in the market above calls for their delivery. Each market hall is devoted to a separate section of produce, and the cellars below correspondingly distinct, so that there is an absence of confusion, and rapid deliveries facilitated. Across this underground space from north to south run three roadways, while down the centre, from east to west, a further broad aisle is provided, with an equipment of great hydraulic lifts. There are nine of these elevators allowed for heavy consignments, while "each stand owner in the market has, in addition, a small lift connecting his stand and storage cellar."

Both market halls and underground cellars are so constructed as to facilitate ventilation and complete cleanliness. The floors are of concrete and every stand is fitted with running water, with which all the fittings have to be scoured every day. There is both roof and side light and ample ventilation, while the entrances are well secured to prevent dust and keep out flies. Electric light is used underground, and the cellars are inspected as strictly as the upper halls, to ensure due attention to hygiene.

In the centre of each market hall there are offices and waiting rooms for those using the markets. In the restaurant 150 at one time can be served with meals, or they can be accommodated with seats in the garden.

Associated with this market establishment is a great cattle market and range of slaughter houses on a neighbouring site. The live cattle market dates back for centuries, but the present accommodation was only completed in May, 1904, at a cost of \$1,600,000. As in Berlin, extensive bath rooms are provided for the slaughter-house staff, and baths are available at nominal charges. Though the new market halls have not been established long enough to provide a definite financial statement, the live cattle market and slaughter houses do "afford an indication of the success of municipal administration" in Munich. Last year the income was \$416,500, and the expenditure \$410,100, thus showing a profit of \$6,400. The new produce halls are certainly the best equipped in the world, and the only "element of doubt" as to their continued success arises from the fact that "three old-fashioned open markets are nearer the centre of the city," and for that reason are even now preferred by many. This fact emphasises the great importance of selecting a suitable central position in establishing a municipal terminal market.

The markets of London, Eng., are mainly wholesale depots to which the producer or importer sends his product, to sell to the tradesmen. The only semblance to retail markets which exist in London are the informal markets, established by the costermongers in the public streets, and these are unauthorized except by custom. The city has established and maintains nine great markets of the type already referred to, but in addition to these there are privately owned depots as follows: Covent Gardens, for vegetables, fruits and flowers; Spitalfields, for vegetables and fruit; The Borough, for vegetables and fruit; The Great Northern Railway Co., for potatoes; The Midland Railway, for potatoes and vegetables; The Columbia, for potatoes; Shadwell, for fish; Portman, for general produce; Greenwich; Woolwich; Whitechapel, for hay; Cumberland, for hay; and The Hide and Skin Market. As will be noticed, private interests are strongly represented, and this makes London differ in one striking particular, from perhaps every other important city.

The nine markets of Birmingham, Eng., under direct municipal control and management, are admirably administered in every detail, and a source of considerable profit to the city. Excellent facilities are provided for market purposes, and the markets are a pride to this great industrial centre of a million people. The city itself has a monopoly of market rights, which it guards most carefully, permitting no rivalry, and so arranging affairs that the establishment of rural private markets is out of the question. Besides those who have regular stands for which they pay a prescribed rent, based on the number of square yards occupied, are the so-called casual market people, who come twice a week on regular market days. Quite a number of these are regular in attendance and have the same location without being granted any legal rights to their positions.

The direct management is under a superintendent, who is paid \$1,460 a year and house rent, coal and gas free, which makes the salary practically \$1,825.

There are six markets belonging to the corporation of Liverpool, England, and their management is in the hands of an official, who is designated clerk and superintendent, and this official is responsible "to the committee for their government." The system of letting stalls is by tender. When premises become vacant they are billed to be let and offers are invited. A large proportion of the vegetable products offered for sale at the markets is grown by market gardeners and farmers residing within a radius of 15 miles from Liverpool, and these products are brought to the markets by the growers, so that customers have the advantage of supplying their wants direct from the producers.

The public markets of Belfast, Ireland, are under the control and direction of the markets committee of the city council. To the eastward of St. George's, the principal market, is a large, open space of several acres, which is occupied as a general market for farm produce. Every market day it presents an animated scene, dozens of farmers having come in with their carts loaded with produce. Cattle, pig and horse markets adjoin, and there are two large sale rings for the exhibition and inspection of animals.

Produce is brought by means of carts to the Edinburgh, Scotland, market, some of which come direct from the market gardens in the neighbourhood of the city, while others convey the produce from the city railway stations. These carts remain in the market house during the market hours, and the produce is sold from the vehicle. The stands in the market house are allotted by the gardeners and other frequenters, among themselves, once each year the allotment being subject to the approval of council. Stalls have been fitted up in the gallery of the building. Revenue is derived from dues, stalls, stands, poll tax, New Year carnivals, shows, Saturday evening concerts, refreshment rooms, cellars for storage, and the use of lavatories. In 1908 receipts exceeded expenditure by \$14,454.

The city of Glasgow is reputed to have one of the most advanced municipal governments in the world. It has seven markets. They are the cattle and horse bazaar, the meat market, the fish market, the cheese market, the clothes market, the fruit

market, and the bird and dog market, all of which are under the management of a committee composed of the Lord Provost, three magistrates and fourteen councillors. Each market is situated in the part of the city best adapted for its purpose and the convenience of the public. The buildings are solid stone structures, in keeping with the buildings in general throughout the city, and the management and control of the property and affairs is of the high order for which the corporation is noted. The old clothes market is a unique institution, patronized almost exclusively by the flotsam and jetsam of the city and district, and is said to be of considerable value to poor people.

Great intelligence and care have been manifested in devising a comprehensive, workable system, which was devised as a result of a report furnished by a deputation which visited markets and slaughter houses on the continent.

The receipts for the year ending May 31, 1908, were \$233,686, and the expenditures \$209,988, showing a profit of \$13,698.

It is generally conceded by those who know Toronto, that in all probability it will be the largest, wealthiest and finest city in the Dominion of Canada within the next twenty-five years. One obstacle at least stands in the way of more rapid advancement, and that is the abnormally high cost of the necessaries of life. When one considers the unusually fertile land with which the city is surrounded, within a radius of 50 miles, and when you compare the price of food products in the various towns and villages in this area, it is readily seen that something ought to be done to moderate the higher prices. The statement is often made that a man should not be blamed for trying to get as much as he can. Is this theory right? Is it not a reversion to paganism when the conservation of human life is involved? Old-fashioned business men considered it wrong to ask more than an article was worth, or to buy at a price less than it was worth. And especially is this true in so far as food is concerned. Common humanitarian feelings at least should force a man to provide food for the masses fresh and good in quality, at the lowest possible price. Particularly reprehensible and unchristian is the cornering of food supplies for profit. Producers and dealers should curb their desire for large profits. In the end they will feel more comfortable with gains perhaps more slowly made, but gathered by considering others as well as themselves. Producers who desire access to the markets of Toronto must remember that they pay no city taxes, have insignificant market expenses, no telephone, no delivery, and get cash, and that they should easily be able to save consumers from 25 per cent to 35 per cent. Citizens will not purchase from producers if they cannot effect the saving to which they are entitled.

In almost every city to which reference has been made, storekeepers are generally neutral on the market question, and have discovered that there is plenty of business for all, and that properly managed markets greatly increase the volume of trade for them and others in any city, especially in the trade centres that form around them. In villages and towns and smaller cities, the most desirable and eagerly sought location for a grocer's store is next to the market, or at least near the market square. Markets do not interfere with telephone trade, or draw away those who expect delivery. A little consideration of the whole proposition should make these merchants ardent advocates, as some in Toronto have become. The trouble is that this line of trade, as well as other lines, have become affected by the general purpose, not of gaining trade by doing the service most economically, but of getting as high prices as possible by the suppression of competition. Markets regulate and compel fair and reasonable prices to all.

The consensus of opinion seems to be that hucksters and pedlars add from 10 per cent to 25 per cent to the cost of food, and are in part responsible for the exclusion of farmers from St. Lawrence market. Of course these men have a right to the free exercise of their calling, but the methods of selling are answerable for fly-tainted, dust besprinkled, withered, germ laden produce. It would be better for the citizens,

as well as themselves and their families, if they were to become producers, by taking up land and thereby join with the farmers and vegetable growers in the great movement for better and cheaper food.

Students of the market question affirm that these marts, to be an all round success, must be of natural, steady growth, and in response to public demand. If this is so, it follows that the citizens must be educated and enlightened as to their value and effectiveness in lowering prices to a normal level. Incidentally here is a great work for the newspapers. If they are the champions of the toilers, the friends of the workers they claim to be, and have the courage of these convictions, they will at once become strong supporters of municipally owned pure food depots. They can do this by comparing prices in Toronto with those outside, by telling of successfully operated markets in other places, and by constantly giving favourable publicity to such civic enterprises. The question of expense is sometimes offered as an objection to the establishment of markets. There is no necessity for lavish expenditures. Some of the most successful in the world are in the open, or have buildings of the simplest description, made of structural steel, with cement floors and foundations that are little more than shelters. Sufficient land is of more importance than buildings. The St. Lawrence market cost a considerable sum of money, and it is a fine edifice, but a vast amount of useless ceiling vacuum accounts for an expenditure that would provide a half-dozen of a different and yet effectual type.

If the market question is not dealt with soon there is a possibility that privately owned markets may be introduced by aggressive men, with an eye to large profits. If this were to occur it would be regrettable and be more or less of a blow to public ownership, civic control of the necessaries of life, and the suppression of high prices. It would also deprive the city treasury of attainable profits.

Some persons oppose markets here by pointing to St. Lawrence market, and saying that it has not been a success. So far as can be learned it has not yet had a chance. It was tacked on to the Property Department, and regarded more or less as a troublesome encumbrance. It has always been without the master mind of a market expert, and no business institution can succeed or be a profit producer with a thoroughly qualified head right on the spot.

If from any cause the food supplies of Toronto were cut off, for how long could our citizens be fed? An emergency may never occur, but nevertheless such a possible contingency should be thought about and some suitable provision made, in which ample supplies may be constantly available. The establishment of the Municipal Abattoir will give a storehouse for the various meats, and should be of great value to the citizens. The erection of suitable food storehouses, if not taken up by the railways, should receive some consideration from the city.

What other people have done surely the intelligent people of Toronto can also do, and excel the accomplishments of others. As an incentive the following reference is made to the experience of another municipality:—"A municipal market as a possible method of reducing the cost of living, has been tried within the past few months, and this without any great expense on the part of the city on the construction of buildings, but simply by an endeavour on the part of the mayor to bring the consumer and producer together in the simplest, which is the best way possible. The market was started on the edge of a public square, without any preparation whatever. The papers were asked to invite the people from the country to bring whatever they happened to have to sell. The first day a few people came, many to look on. Next market day a greater number were on hand, and after that a double row of wagons and stalls were on the market for the length of two blocks. During the holidays this was augmented by a single row for the length of one block around the city square. The prices of articles sold upon the market have been substantially reduced; meats, for instance, from one-fourth to one-half. The market has been a wonderful success, and the producers see

the advantage of this system and are going to make a special business of raising supplies for their near-by home market. From one thousand to three thousand people are buying fresh, pure, clean food at a reasonable price. In the interests of the peoples' health, happiness and pockets, no less than in consideration of municipal finances, all should rally to support those who are seeking to secure the consummation of this urgent reform, at the earliest possible moment consistent with a full consideration of all its aspects."

If we extract from what has been written in the foregoing what is pertinent to conditions in our city, we shall find that relief apparently lies in dealing with at least four problems. In the first place it will be necessary to increase the food supply. The suggestion has been made that vacant land now lying idle in and around the city, should be leased at a nominal rent to those willing to cultivate it. Others are that the Ontario Government should provide seed, plants and fruit trees for all producers of table foods at specially low prices; that the government should make a strong endeavour to procure an ample supply of farm and garden labourers; that every encouragement, by way of prizes and even bonuses, should be offered to improve live stock of every description; that the slaughter of young stock should be stopped for a term of years; that good roads and better railway facilities should be insisted upon; and that the Noxious Weeds and Insect Pests Acts should be really enforced.

In the second place comprehensive steam and radial freight services should be devised, and steps taken to impress these needs upon the Ontario and Dominion Railway Boards, with the object of obtaining speedy relief. These lines should radiate out from the city at reasonable distances apart, "fan-shape," to the outlying districts. It has been demonstrated that cheap distribution is in a large measure a solution of the problem, and as a consequence re-routing of the present surface railroad, uniformity of gauge and a suitable tube system to the water front are indispensable. In addition the development of water carriage should be no longer delayed. The possibilities of our harbour and shipping are just beginning to be realized. In these we have facilities for cheap communication with every part on the lake and the wonderful Niagara fruit district. The improvements in motor boats may produce a type of craft that will revolutionize the carrying trade for moderate distances, in so far as speed and cheapness is concerned, and place what is possibly the greatest fruit belt in the world at our front door. Every encouragement should be given the Harbour Commission in their work of providing modern docks, with complete machinery for loading and unloading.

In the third place, it has been shown that suitable terminals are required in close proximity to and connection with wholesale and consumers' markets. A sine-qua-non for a successful retail civic market may be expressed in one word "land." Many have made the mistake of spending extravagant sums unnecessarily in elaborately constructed buildings, and this we must avoid. In some districts a good market can be established by simply widening a street for a block or two where land is cheap, and building a neat, light shelter of structural steel, two hundred feet long, by 50 feet wide in the centre of the highway, or a depressed piece of rough, broken ground can be transformed into a serviceable market place at little cost.

So far as present judgment goes, in addition to the St. Lawrence market and the St. Patrick's market, which should be retained, reconstructed and developed, necessity apparently exists for the establishment of a large, commodious, inexpensive wholesale market, absolutely under municipal control, on the Harbour Square, close to the boats, and at the exit of the underground tube railway from North Toronto, with trackage facilities in connection with it. Local farmers' markets might be located perhaps, with advantage, near (a) the subway, on Queen St. W., in Parkdale, (b) near the C. P. R. station in West Toronto, (c) Earls court, (d) near the C. P. R. station on North Yonge St., (e) near the corner of Broadview and Danforth Aves., (f), near the Woodbine, at the corner of Kingston Road and Queen St. East, or at points selected after careful consideration.

In the fourth place, the successful carrying out of these suggestions depends on "a man," known in market parlance as "The Market Master." His must be the master mind, and he must be chosen solely for merit, and well paid. He must be a genius for broad constructive work, possess experience and tact, an inflexible courageous will, and well directed enthusiasm. Upon him should all the responsibility be placed, and he should be employed with the distinct understanding that the institutions under his control are expected to be revenue producing.

This study has been written for the use of the Transportation Committee of the Corporation of the City of Toronto. It is for their information, and to form the basis of a discussion with the hope that it will be of some assistance in helping them to solve the weighty matters with which they are to deal, and that possibly it may contain the germ that will ultimately develop into the panacea for which the citizens are waiting.

The information contained in these pages was largely obtained from the following, to whom acknowledgements are given: The American City U. S. Consular Reports, The Press, New York Food Commission, Clyde Lynden King, Ph. D., City of Cleveland Report, Mrs. Elmer Black, N.Y.

XX.

STOCK YARDS, ABATTOIRS, REFRIGERATION.

The campaign of education which has been going on for the past year or more for greater attention to mixed farming and cattle raising is beginning to have some effect.

In the west a surplus of hogs is expected this year, and of cattle in two or three years.

To meet the situation arising from increased production of live stock and to aid in securing effective competition in the sale and shipment of live stock and meats, there is a growing demand to provide addition facilities in the matter of stock yards, abattoirs, and refrigeration, viz.:-

(1) Stock yards, abattoirs and packing plants, at large trading centres, under public control.

(2) A sufficient supply of refrigerator cars.

(3) Refrigeration on steamers, for the export of chilled meats and perishable products to the United Kingdom.

The Board of Inquiry regards these facilities as necessary and of the highest importance in securing and maintaining increased production of live stock and meat products and would recommend that increased attention be given to the question of marketing live stock involving the time of marketing, methods and rates of transportation, care of stock, and shipping and receiving stations, and the storing and distribution of meat. It appears to us as a result of our inquiry that live-stock production is of the greatest importance to the life of Canada.

XXI.

MIXED FARMING—LAND SETTLEMENT.

Western students of affairs are beginning to pay a great deal of attention to the relations between the man on the farm and his fellow in the city. Those who have the interest of the country at heart realize that Western development will not reach its highest until the rural and urban dwellers come to see that their interests are co-ordinate. An ideal condition would be to have the growth of the city and country keep pace.

The lure of great centres has drawn people off the land in the older provinces and has kept new land from being settled in the West. It is the very essence of the high cost of living and unless counteracted is the precursor of a very undesirable state of affairs generally.

Leaders in the agricultural schools are now discouraging the idea that a farmer can grow wheat alone and live, and are impressing upon students the advantages of having live stock on the farm. They are preaching the doctrine of mixed farming. Dr. J. G. Rutherford is quoted as saying at North Battleford:—

We have gone into the extensive occupation of land and not for the intensive farming of it. Western farmers are losing large sums of money by selling their wheat and exhausting the soil, instead of feeding their grain to stock. The man who tears up a few thousand acres with a steam plough, seeds it, waits for results and spends his winter in California is a gambler and not a farmer.

In Appendix No. 43 there is inserted a copy of a printed pamphlet by Mr. J. H. Menzies, F.C.A., of Winnipeg, on "The Economical Condition and Resources of the Canadian Middle West," from which we make the following extracts:—

Whenever the subject of the resources of this Middle West—of what we produce—is mooted, when we look for what means we have to pay our way, the mind reverts at once to our wheat fields. We have other products than wheat; the oat and barley crops last year were of the value of 90 million dollars, and we have flax, fish, minerals, the timber that skirts our prairies, and many other things; but the market value of all these products together is less than the value of the wheat; they do not bulk so large to the mind nor so strike it as of the first importance.

This foremost place of wheat in our produce has come about from the good prices once obtainable for it for local consumption. But when under such favour it was grown in great quantity it became necessary to export the excess, and this came into competition in the British market, beside American wheat, with the wheat grown by peasant labour in Russia, India, Egypt and Argentina. The price of their greater quantity of wheat then ruled the price of ours, and the return therefore for our higher priced labour became as low as theirs; though this effect was obscured to us for a time by the accident of good prices for wheat in Britain.....

Before all things—and this is the conclusion of the whole matter—the productiveness of the land somehow should, as it may, be increased. A note of doubtful value indeed would attach to the land if the result from such farming as obtains must continue always so poor. The Government statisticians cited above state the total yield of wheat for all Canada in 1913 at 232 million bushels, of the value of 156 million dollars, from a cultivated area of 11 million acres, and the share we in the West take in this wheat culture is evidently too preponderant in our farming. The wheat crop of the three prairie provinces was nine-tenths of the total wheat crop of Canada, whereas our oat and barley crops were each only six-tenths of the total for Canada. So that if our wheat crop had been diminished by one-third or 70 million bushels, it would still have borne the same proportion to the wheat crop of the rest of Canada as our oat and barley crops bear. (The continued preponderance of wheat growing in the West comes now no doubt from the easiness of cultivating our prairie fields.) But though the wheat crop may be increased in yield per acre, yet other branches of farming replacing it partly would pay better.

Homesteads have been allowed too freely to encroach on the ranges in the far West and crowd them out. Their cattle might otherwise by this time have

stocked all the farms, so cheapening meat for the whole country, whereas now, failing any adequate demand from the farms, the western ranges have to export much of their cattle to the south, and this causes scarcity and high prices to the consumer. This want mixed farming would supply; while also near every town and city there should be extensive market gardens and poultry and dairy farms, the want of which is another great cause of high prices in our housekeeping. With such agricultural resources at hand it is most wasteful not to produce enough of such things to supply our townspeople, but to be obliged to import them at a great extra cost from a distance.

The ideal is to make farm life more attractive and to set up an industrious and prosperous community of farmers who shall while farming better gradually adopt mixed farming where feasible.

An "agricultural survey" is one of the means recommended to carry out this ideal: so as to show, by means of maps, charts and information carefully tabulated, the characteristics of soil and climate in the various localities; also to indicate the kind of farming which is most suitable, what kinds of grain ought to be sown and other data useful for intending settlers.

In Appendix No. 22 there is inserted an article on "Cost of Production in Agriculture," and also an article on "Supply of Store and Dairy Cattle," as published in the *Journal of the Board of Agriculture*.

Outside the prairie provinces, the settlement of the land is a matter principally under provincial control.

The interests of the whole community are affected, however, so far as land settlement may tend to increase production and reduce the cost of living and in other respects.

Views presented to the Board of Inquiry in British Columbia are set forth in Appendix No. 41.

In the prairie provinces the information gathered from various sources pointed more particularly to the necessity for good roads, the desirability of having buildings erected for settlers on new lands—to be paid for in instalments—and to the need of facilities to provide farmers with "working capital."

The following information has been furnished in regard to the sale and settlement of Canadian Pacific Railway lands in Manitoba, Saskatchewan, and Alberta:—

GENERAL CONDITIONS OF SALE OF LANDS.

1. Lands are sold only to bona fide settlers.
2. Not more than two sections, 1,280 acres, will be sold to one purchaser.
3. Lands are sold on the basis of one-twentieth cash and the balance in nineteen annual instalments with interest at 6 per cent per annum. Purchasers who have complied with all the terms of their contract, after the expiration of five years, may make payment of the whole or any part remaining unpaid without notice or bonus.
4. The company reserves all mines and minerals, including gas and petroleum.
5. Applicants must, by themselves or authorized agents, make personal inspection of the land they propose to buy.

SALE OF LAND FOR SETTLEMENT WITHOUT LOAN.

1. Purchasers are required to enter into occupation within six months from the date of purchase.
2. Purchaser must undertake to build a house costing at least \$350 and a barn costing at least \$200 and capable of accommodating four horses and four cows.

3. Purchaser must agree to keep the buildings insured against loss from fire, and must undertake to sink a suitable well, fence the land and break and crop a stated area in each quarter-section.

4. Purchaser must undertake to keep during the entire period of his required occupancy of the land, at least three milch cows.

5. In lieu of cultivation and cropping of the land purchaser may agree to maintain on the land a stated number of horses, cattle, sheep or hogs. Such animals must be the unencumbered property of the purchaser.

SALE OF LAND FOR SETTLEMENT WITH LOAN FOR IMPROVEMENTS.

The \$2,000 loan to settlers is absolutely the strongest, most positive and convincing answer to any and all questions as to the quality of the Canadian Pacific lands, and as to the profits that can be made in farming these lands. Think of this—if a farmer purchases 160 acres of these lands at \$20 an acre, his first payment on our twenty-year terms is only \$1 an acre, or \$160 on 160 acres. Now, against this investment of only \$160 in the land, the Canadian Pacific is willing to prove its faith in the productiveness of the land by investing \$2,000 in improvements on this land. And this investment is made absolutely without any security other than payment of one-twentieth of the price of the land and the amount of the loan. Seeing this, can any reasonable man doubt that the soil of the lands offered is as rich or the profits that may be made are as great as the Canadian Pacific has always claimed they are? The conditions of this loan are:—

1. Applicants for land on this plan must be married men having agricultural experience.

2. Applicants must have sufficient capital to enable them to pay the first instalment of one-twentieth of the purchase price of the land they select and one-twentieth of the amount of the loan desired, in addition to the amount necessary to maintain their families for one year from the date of their entry into occupation.

3. Applicants must own free from encumbrances sufficient horses, cattle and other live stock, or have sufficient means to purchase same to enable them to go into occupation and proceed with the development of the land.

4. No application will be accepted for more than 320 acres.

5. The company will, within a reasonable time after the acceptance of the purchaser's application, expend a sum not exceeding \$2,000 for improvements to the land, including a charge for supervision of five per cent of the amount expended. Improvements will be made in the following order:—

(a) The erection of a house; (b) the erection of a barn; (c) the fencing of the farm; (d) the providing of a well and pump.

6. The character of the house and barn to be erected on the farm to be selected by the applicant from the standard plans of houses and barns erected by the company. In the completion of these improvements the purchaser of the land, together with any stock and equipment he has, will at the discretion of the company be employed in connection therewith, and be paid the current rates for same. The cost of all material and work will be paid by the company and charged against the advance.

7. The total amount of the advance of \$2,000 will be added to the list price of the land and repayment of the same made in twenty equal annual instalments with interest at six per cent, at the same time and concurrently with the payments for the land as above referred to.

8. Purchaser must undertake to enter into occupation of the land with his family, if any, within six months from the completion of the improvements

by the company and must undertake to reside thereon continuously for five years, and to break, cultivate and crop certain stated areas in each quarter-section. He must also maintain, during such required occupancy on the lands, at least three milch cows for each quarter-section and must insure the buildings against loss by fire.

The advantages that come to the settler from this policy are many. Not only is he enabled to make a start with a much smaller outlay of cash than otherwise, but his family is also protected from any of the inconveniences generally incidental to establishing a new home. The cash he receives for helping in the improvement of the farm is always a welcome addition to his treasury and he is assured that the buildings on his land are of the class that long years of experience have proven best. The reduction in initial expense is considerable.

The following article from the Monthly Bulletin of Economic and Social Intelligence for July, 1913, relates to Homë Colonization in Norway:—

For some years in Norway may be observed two increasing streams of emigration—one to foreign lands, the other from the country to the towns. An important feature in connection with this emigration is that more than two-thirds of the land surface is devoted to extensive farming for which many labourers are required. This want the Government is endeavouring to meet by internal colonization. An article on this subject appeared in the July number of the Bulletin of Economic and Social Intelligence published by the International Institute of Agriculture, Rome.

Internal colonization in Norway is based on a law of 1903 which established an Official Credit Bank, the Norsk Arbeiderbruk og Boligbank (Norwegian Small Holdings and Houses Bank), which grants loans for home colonization. Its capital is furnished by the State and consists at present of 10 million crowns. Its working capital is raised by bonds payable to bearer guaranteed by the State, the total amount of which must not exceed six times the capital. They are repayable in from 30 to 50 years from date of issue.

The bank accords two kinds of loans, the brukslaan for the acquirement of small farms and the boligaan for the purchase or building of workmen's houses. A maximum interest of 3½ per cent is paid on the first; of 4 per cent on the second. To obtain either loan special formalities are required, varying according as the request is made by a local association or by a person who needs financial assistance. Of these formalities, full particulars are given in the article already mentioned. From 1903 to 1912, the Norsk Arbeiderbruk og Boligbank granted 11,579 loans amounting to a total of 16,098,430 crowns for the purchase of small holdings, and 8,142 loans amounting to a total of 11,161,057 crowns, for building. The total amount of interest paid during the same period was 3,632,384 crowns.

XXII.

AGRICULTURAL CREDIT IN CANADA.

Credit facilities are of the utmost importance to the farmer. The raising of immense crops, and live stock for the world's market is, in the final resort, dependent on the farmer being able to make the most of his opportunities by command of the requisite capital and by adequate use of labour- and time-saving machinery and transport facilities.

More especially in that portion of the Dominion to the west of the Great Lakes, the question of capital to be loaned at reasonable rates of interest for carrying on the operations of the farm stands pre-eminently in the front rank.

That the production of live stock and other farm products has been retarded or diminished through the lack of organized credit facilities for farmers' requirements, is the view widely and firmly held, particularly in the western section of Canada, and thus constituting an important factor in the increased cost of living.

The Royal Commission appointed in Saskatchewan has presented a comprehensive and searching report on the whole subject of agricultural credit. The commissioners recommend the establishment of a co-operative mortgage association, covering the whole province and controlled and secured by the Provincial Government. Its object is "to facilitate on the part of the farmers of the province, the establishment upon a sound basis of a system of local and central rural co-operative societies, for purchasing and selling farm products and supplies."

A synopsis of the report of the Saskatchewan Royal Commission on Agricultural Credit is submitted herewith as Appendix No. 31.

A bulletin of the Department of History and Political and Economic Science in Queen's University, Kingston, Ont., on "The Problem of Agricultural Credit in Canada," by H. Michel, is also submitted in Appendix No. 30.

A memorandum on the subject of Cattle Loaning Companies, submitted herewith as Appendix No. 29, has been prepared by Mr. Coats from information obtained on a visit to St. Paul, Minn., in connection with this inquiry.

Special attention is directed to this memorandum, as pointing out an effective method of encouraging the raising, and particularly the feeding and finishing of stock by farmers.

The work of the Special Agricultural Credit Institution of Italy, 1913, reported in the Monthly Bulletin of Economic and Social Intelligence, October, 1914, appears as Appendix No. 32 hereto.

XXIII.

REGULATION OF INDUSTRY—BUREAUS OF INFORMATION— UNEMPLOYMENT.

Unemployment causes distress, and leads to increase in commodity prices through decreased production.

The unemployed man is injured by idleness, his skill deteriorates, his "zest of life" is weakened, and his habits of thrift are soon on the down-grade. The habit of asking assistance grows by indulgence.

Under our present social organization periods of unemployment seem inevitable. There is a constant alternation of booms and depressions in our present system.

Times of prosperity are followed by depression and distress.

When the market is good, every productive machine is at work, and goods are piled on the market with reckless disregard for the future.

There is little effective attempt to gauge capacity or consumption or to ascertain where the balance between supply and demand is fixed.

Lines upon which there may be some reconstruction in our social system are now being studied in various countries.

A convention of Farmers' Institute workers was recently held at Washington for the discussion of various subjects of common interest.

It was there stated that the American Government is about to establish a station where the producers and consumers can obtain information with regard to buying and selling farm products.

Good service can no doubt be rendered by the establishment of stations or bureaus where reliable information is furnished regarding employment and wages, and also as to prices, supply and demand in various products of the soil and industry.

There is a group of people who advocate a price-fixing industrial commission with power to fix food prices at a point that will bring reasonable returns on the investment, and with power as well to prevent abuses in weights and measures and quality. But as schemes of price regulation of foodstuffs by an industrial commission offer little hope of immediate adoption, they cannot be looked to as a remedial agent for the present conditions.

Arthur Shadwell, in his book on Industrial Efficiency, writes:—

“The industrial expansion of Germany presents another picture. The industrial population has not been left to carve out its own destiny, but has been guided and helped at every step. All sections of the community, from the throne to the workhouse, have contributed something. ‘Laisser faire,’ or ‘Manchesterism,’ as they say in Germany, is dead; ordered regulation is accepted and applied with infinite pains by the Legislature, government departments, municipalities and private citizens. It is seen not only in the scientific tariff, but in the careful and judicious factory code, the State system of insurance, the organization of traffic and transport by railway and canal, the fostering of the mercantile marine, the educational provision, municipal action and poor-law administration. So the edifice has been built up four-square and buttressed about on every side. It is a wonderful achievement in which every unit has played a part.”.....

An article from the Monthly Bulletin of Economic and Social Intelligence, for October, 1914, on “The Problem of the Economic Distribution of Agricultural Products in the United States” is submitted, without comment, as Appendix No. 40.

XXIV.

THE CUSTOMS TARIFF.

The purpose of a protective tariff in Canada, as represented by its advocates, is to maintain an industrial system which shall keep Canada independent, shall make adequate use of its natural resources and diversify the occupations of the people, at the same time providing revenue for our national requirements.

The protection afforded by a tariff undoubtedly stimulates industries and tends to increase production.

One of the objects of a protective tariff system on this continent is to maintain a wage scale and standard of living above that found in other continents. This element in the system tends to increase the selling price for commodities in the home market, subject to modification in prices according to extent of production. By securing a remunerative home market, Canadian producers expect to sell a portion of their products abroad, although at a lower rate than they otherwise could, and so increase their output to its highest economic capacity.

The Customs tariff is a *tax* paid in part by the consumer and in part by the exporter, according to the conditions of trade.

Taxes, however, are needed for revenue purposes, and it is a matter of controversy whether such revenues are best raised by one form of taxation or another.

Customs taxes cannot be abolished without provision for other taxes to take their place.

Whether any other practicable and satisfactory system of taxation can be found to replace the Customs tariff system is an unsettled question. It is to be remembered that political economy is not an exact science, and that an investigation into the

ultimate economic bearing of protection and free trade, for practical purposes, must take into consideration the question of unemployment and other factors bearing on the welfare of the community as a whole. Writers on this subject contradict each other, and they in turn are contradicted by events.

It is undeniable that protection with its corollaries does give the protected competitors a great immediate economic advantage over unprotected ones. Whether this pays or does not pay a protecting country as a whole, or in the end, is a question which we leave to the controversialists.

That the tariff is not the cause of the present advance is shown by the fact that the greatest advance has been made in commodities which are least effected by the tariff and on which the tariff rate has not been raised during the period of increased prices.

The advance in 1913 as compared with 1897, by groups of articles, was as follows:—

	Index No. 1897.	Index No. 1913.	
Textile and other manufactures, 172 articles.....	92.9	133.7	Advance = 44 p.c.
Imported foods, 17 articles.....	90.5	110.7	" = 22 p.c.
Products of the farm, crude, 39 articles.....	86.3	142.3	" = 65 p.c.
Products of the farm, manufactured, 30 articles.....	89.9	145.7	" = 62 p.c.
Products of the forest, raw.....	98.4	174.6	" = 77 p.c.
Products of the mine, 12 articles.....	86.5	126.1	" = 46 p.c.

XXV.

GOLD PRODUCTION—SUPPLY AND DEMAND.

The price of a commodity is the value or purchasing power of that commodity expressed in terms of money. Money is the common medium of exchange.

The money with which exchanges are made consists of: (a) gold in circulation, and (b) credit money based on gold, and on other forms of property deposited in the banks, the latter usually taking the form of bank-notes, cheques, and bills of exchange.

The rule holds good that the prices of commodities are affected by the general law of supply and demand—subject, however, to other influences.

As gold is a medium of exchange and is the basis of credit, the increase in the gold supply has obviously an important influence in raising the prices of commodities and services in general, "other things being equal."

The extent of this influence is a disputed question, but that it has had a considerable effect in raising the price-level of commodities seems apparent to us.

As the general advance in prices has been world wide and not confined to any one line of industry, with here and there an exception, there must be some general cause tending to raise prices.

A cause which will affect all prices in civilized countries in much the same way is a cause that has to do with a standard of measurement of prices.

There can be no question that there has been this general increase in prices, and that at the same time there has been an increase in the output of gold, the monetary standard of the civilized world, sufficient to decrease materially its value as compared with the values of other goods, and in consequence to increase prices.

The following are extracts on this subject from the report of the Director of the Mint at Washington, U.S.A., for the fiscal year 1911:—

THE WORLD'S ABSORPTION OF GOLD AND THE RISE OF PRICES.

The enormous increase in the production of gold which has occurred in recent years, and the relationship that may exist between these enlarged supplies and the advancing prices of commodities, has awakened a world-wide

interest among economists. It has seemed for this reason worth while to undertake the task of tracing the yield of the last two decades into actual use for the purpose of discovering where it has been located, and how much of it has been placed where it would probably exert an influence for the expansion of credit, the stimulation of industry, and the rise of prices.

The new golden era may be said to have had its beginning with the discovery of the Transvaal deposits in South Africa and the development of the cyanide process, which was first used successfully in the treatment of the Transvaal ores, but has since contributed in an important degree to the increased production of nearly all gold-mining districts.

The introduction of the cyanide process was an epoch-making event in the history of gold production and must be taken into account in any well-considered review of the gold-mining industry. Recently the suggestion has been made that some kind of a memorial should be provided in the Transvaal to Messrs. McArthur and Forrest, who originated the process. In a published letter making this proposal a prominent resident of Johannesburg says:

"It is many years ago since mining men, if my memory does not play me false, were confronted with the problem of how to win the gold from the pyritic ore which the mines were found to contain when the red free-milling ore changed to blue hard rock, from which the gold was not easily obtainable with the then existing methods of gold winning. The advent of the McArthur-Forrest process was a wonderful piece of good fortune for these fields, and there are men still in Johannesburg who know all about it from the very beginning, and others competent to place on record the history of the process are in England or Scotland, and it has often seemed to me that in the rush of life we have to all intents and purposes, failed to remember how the Rand was saved by the cyanide process."

The Mining World and Engineering Record, of London, commenting upon this proposal, says:—

"The discovery of the cyanide process must be regarded as one of the greatest achievements of modern times. And there can be no doubt that cyaniding will be hailed by coming generations for its importance, not so much to the mineral industries directly, as for its bearing upon world economies in rendering possible a greatly increased output of gold and silver year after year. In the comparatively brief 20-year interval since 1891, when Messrs McArthur and Forrest brought the modern perfected cyanide process prominently before the mining world the output of gold has amounted to 284,081,289 fine ounces. This is a most astonishing showing, especially when compared with a total output of 401,311,148 fine ounces for the entire 397 years previous—from 1493 to 1890.

"For the great expansion in the world's output, particularly noticeable in the past 15 years, the spread of the cyanide process is directly responsible. Nor, if we except the Klondike, has this record production been boomed by the development of new fields. The cream of the world's gold fields had already been skimmed in previous years in California, Australia, South Africa, Siberia, India, and elsewhere. It is mainly on the cast-off leavings of the old fields that the cyanide process has achieved a record production of the yellow metal. And among those leavings, we must not forget the innumerable lower-grade properties whose exploitation has been rendered fundamentally possible only by the cyanide process. It is these latter which now furnish the bulk of the world's supply of gold, and upon which the world must depend very largely for its future requirements."

The total production of the Transvaal from 1884 to June 1 1889, was reported by this Bureau in 1889, at \$11,037,676. During the decade from 1880 to 1889, inclusive, the production of gold in the world was lower than in any other 10 years after the California discovery, the annual average for the period being estimated at \$106,250,000. In 1888 the output was \$110,000,000; in 1889, \$123,000,000, and for the next 21 years as shown below.

The production of the world for the ten years from 1890 to 1899, inclusive, and for the eleven years from 1900 to 1910, inclusive, is given in separate tables and the yield of the three principal producing countries is also shown separately. The African product is mainly from the Transvaal, but includes Rhodesia and lesser fields which altogether had in 1910 a production of \$19,592,679.

GOLD PRODUCTION, first period, ten years.

Years.	Africa.	United States.	Australasia.	Others.	Total.
	\$	\$	\$	\$	\$
1890.....	9,887,000	32,845,000	29,808,000	40,699,620	113,149,620
1891.....	15,742,400	33,175,000	31,399,000	50,333,600	130,650,000
1892.....	24,232,000	33,000,000	34,159,300	55,424,100	146,815,100
1893.....	28,943,500	35,955,000	35,688,600	56,907,700	157,494,800
1894.....	40,271,000	39,500,000	41,760,800	59,643,900	181,175,600
1895.....	44,728,400	46,610,000	44,798,300	62,626,900	198,763,600
1896.....	41,581,100	53,088,000	43,776,200	60,806,300	212,251,600
1897.....	58,558,700	57,363,000	52,665,700	67,486,300	236,073,700
1898.....	80,123,500	64,463,000	64,860,800	77,427,400	286,879,700
1899.....	73,023,000	71,053,400	79,321,600	83,326,100	306,724,100
Total.....	420,095,600	467,152,400	458,238,000	614,591,820	1,959,977,820

GOLD PRODUCTION, second period, eleven years.

Years.	Africa.*	United States.	Australasia.	Others.	Total.
	\$	\$	\$	\$	\$
1900.....	8,671,900	79,171,000	73,498,900	94,292,700	255,634,500
1901.....	9,089,500	78,866,700	76,880,200	98,738,300	263,574,700
1902.....	39,023,700	80,000,000	81,788,800	96,135,100	296,947,600
1903.....	67,998,100	73,691,700	89,210,100	96,902,800	327,702,700
1904.....	85,913,900	80,464,700	87,767,300	92,941,400	347,087,300
1905.....	113,254,700	88,189,700	85,926,500	92,926,900	380,298,700
1906.....	135,358,000	94,373,800	82,391,400	90,379,800	402,503,000
1907.....	151,984,100	90,435,700	75,677,700	94,869,100	412,966,600
1908.....	166,520,500	94,560,000	73,327,300	108,069,100	442,476,900
1909.....	170,983,600	99,269,100	71,007,900	112,475,800	454,145,700
1910.....	175,189,900	96,269,100	65,470,600	117,774,300	454,703,900
Total.....	1,123,992,900	956,386,800	862,736,700	1,095,505,200	4,037,621,600

* The falling off in the production of Africa in the 1899-1903 period was due to the Boer war.

WORLD'S INDUSTRIAL CONSUMPTION as estimated by the Bureau of the Mint.

Calendar Year, First Period.	Value.	Calendar Year, Second Period.	Value.
	\$		\$
1890	50,000,000	1900	76,291,600
1891	50,000,000	1901	79,417,600
1892	50,000,000	1902	75,865,100
1893	50,517,300	1903	74,556,200
1894	52,520,200	1904	77,845,000
1895	59,080,800	1905	82,975,200
1896	59,730,200	1906	93,145,900
1897	59,940,300	1907	97,168,600
1898	65,576,200	1908	88,572,300
1899	73,262,100	1909	100,506,100
		1910	111,848,500
Total	570,627,100	Total	958,192,100

These estimates are confessedly inconsistent and unsatisfactory in many respects, and have been given as estimates only. It now seems probable that the bureau erred in treating the results of the German inquiry of 1907-8 as showing the consumption of new material. If a deduction of one-third is made from these figures the result is more consistent with the returns from the inquiry of 1896-97, and this has now been done for the years 1909 and 1910, the only ones for which the bureau has used the high figures. The figures for Great Britain and France have also been reduced to make them conform more reasonably with those for Germany, and because there is reason to believe that sufficient allowance has not in the past been made for old material entering into the articles presented at the French stamping office.

EXPORTS TO ASIA.

In the estimates for industrial consumption as given above no amounts have been included for Asia for the reason that it is impossible to distinguish the amounts that have been taken by India and most Asiatic countries for currency and hoards from what has been taken for ornaments etc. It is more satisfactory to deal simply with the amounts of gold which these countries have drawn from the world's supply for all purposes.

There are practically no figures for the absorption of western or central Asia. The statistics for China are of little value, but on the whole there is a movement outward, showing that the production, possibly augmented by unrecorded imports, exceeds the recorded imports.

In statistics of the precious metals India is the most important country of Asia, and has long been one of the most important in the world. The Government of India has advised this bureau that the uncoined gold imported into that country might be considered to be used for ornaments and in manufactures. This amounted in 1910 to \$47,026,698.

The movement to India deserves to be treated in a class by itself. A large part of the gold and silver that goes there sinks out of sight, and whether it is made into ornaments or buried in the ground, is withdrawn at least in large part from the monetary stock of the world. Some of it may be brought out in periods of emergency, such as times of famine, and reconverted into money, but in the past a steady stream of the precious metals has moved into India and disappeared as a factor in the commercial world. Sir James Wilson, K.C.S.I., for many years in the Government service in India, in a comprehensive

address delivered before the East India Association of London, on June 14, 1911, reported the net imports of gold by India since 1840 at about 1,200,000,000, or one-tenth of the world's production in that time.

THE HISTORICAL PARALLEL.

The most impressive circumstance in favour of the theory that the present movement of prices is mainly due to the increased supply of gold is the fact that just such a movement of prices followed fast upon the discovery of gold in California and Australia. There are many features of similarity between the conditions of that period of expansion and the present one.

The production of gold in the world prior to the discovery in California was about \$35,000,000 a year, and of silver probably about the same. Estimates for that period are vague. The amount of gold actually in sight in banks and treasuries was very small. England was practically the only country in Europe that had a considerable amount in circulation. January 1, 1850, the stock in the Bank of England was about \$85,000,000, and Tooke and Newmarch estimated the amount of gold coin in circulation in the United Kingdom at \$250,000,000. On the continent, silver was the common money of trade. France was estimated to have \$500,000,000 in silver coin and \$15,000,000 in gold. The United States, according to an estimate by the Secretary of the Treasury, had about \$150,000,000 of gold and silver. In any calculation of the relative importance of the new supplies of money, of course the entire stock and production of both gold and silver must be taken into account. Also the use of paper money. The later years of the decade ending with 1849 had been years of industrial depression and social unrest in Europe. Political agitation, extending in several countries to attempts at revolution, prompted in large degree by the desperate condition of the people, was general over Europe. Gold was discovered in California in 1848 and in Australia in 1851, and by 1852 these new fields were producing together over \$100,000,000 per year.

Prof. Stanley Jevons, a contemporary writer of high repute, held more positive views as to the influence of the gold supplies upon prices. Writing in 1865 and reviewing prices since 1849, he said:—

“If we compare prices now (March, 1865) with what they were at their lowest in 1849, we find there has been a rise of 21 per cent. If we take the average of 1845-1850 as our standard of comparison the rise is 11 per cent. The real permanent rise due to the gold discoveries is doubtless something between these, or probably nearer the higher limit, 21 per cent. The gold discoveries have caused this rise of price. They have also neutralized the fall of prices which might have been expected from the continuous progress of invention and production, but of which the amount is necessarily unknown.”

He gave much importance to the large exports of specie to India, and expressed the opinion that European markets alone could not have absorbed the new supplies, without a revolution in prices. He said upon this point:—

“Asia, then, is the great reservoir and sink of the precious metals. It has saved us from a commercial revolution and taken off our hands many millions of bullion which would be worse than useless here, and from the earliest historical ages it has stood in a similar relation to Europe. In the Middle Ages it relieved Europe of the excess of Spanish-American treasure, just as it now relieves it of the excess of Australian treasure. ‘The Indian trade,’ says Macpherson, ‘arose to considerable magnitude at the same time the American mines began to pour their treasures into Europe, which has happily been pre-

served by the exportation of silver to India from being overwhelmed by the inundation of the precious metals, as it must have been had no such exportation taken place.’”

Dr. James Bonar, Deputy Master of the Canadian Mint, speaking before the Canadian Club, Ottawa, January 11, 1913, expressed these views:—

But, now, the extent of the depreciation caused by the great production of gold *is not known*. We had with us a most charming man the last time, I think, we met in this room—Professor Irving Fisher of Yale, and he discoursed to us on this question, “The Rising Cost of Living,” especially that aspect of it which I have just touched on,—the rise in prices, which is not the same thing, but is a part of it. According to some people it is nearly the whole. He spoke to us of the difficulty of getting accurate enough statistics on the subject. He told us of a conference that was going to be held—an international conference of economists, to determine the causes of the increased cost of living, and amongst other things, to persuade the statisticians of various countries to adopt something like uniformity in their methods. Now at present they are not uniform. The statistics of one country are drawn up on different principles from the statistics of another. You heard from Professor Fisher himself that, if you were to go by the index number to regulate his plan, to work his plan, for keeping up the value of money, you would need to have an index number you could rely on and you would need to get all the various countries of the earth to adopt the same kind. At present they use each a different one. Well, when a very young boy indeed, I had the notion that all grown up people were infallible, except of course when they were giving me good advice. After that I had the notion—when I had given up the first position—I had the notion that the press and printed book were infallible, but from that position too I was driven. And finally I fell back on the view, and held it a long time, that at least government blue-books were infallible. But I have been thirty years in the “silent service,” that speaks through blue-books. My faith is a little shaken. I won’t say that it is gone. I have a philosophic faith that accurate statistics will be forthcoming and comparable ones will be forthcoming. And one realizes the difficulties in the way; one also recognizes the prodigious efforts, and heroic efforts, made by the most patient, self-denying officials, to procure accuracy in those statistics. But, when all is said, the statistics remain defective, and, as to those of one nation as compared with those of another, well, they are not so useful as they might be; *they are not comparable*.

So that we do not know the magnitude, the dimensions of the phenomenon that we are going to study. We know that the gold is only one cause, that there has always been a race between the expansion of industry and gold discoveries, and that on all previous occasions the expansion of industry has won the race.”

XXVI.

CONCLUSION.

The preparation of this report was commenced before the outbreak of the great war in August, 1914, and does not deal with conditions arising since that date.

The increase of the gold supply appears to have reduced the purchasing power of money and to have brought about a corresponding increase of values, measured in money, in all the leading commercial nations since 1897. We have not attempted to estimate the extent of the advance in prices, due to the increase of the gold supply, but are of opinion that the influence of the gold supply has been a real factor in the rise of prices.

The advance of prices in Canada has been stimulated greatly by the enormous expenditure on railways and public works and by large investments in non-productive

lines incident to the development of a young country such as Canada, great in territorial area, rich in resources and occupied by a people most optimistic regarding the development of these great resources.

The advance of prices in Canada has been largely increased through manifold forms of extravagance and wastage, public and private, individual and social.

Among the contributory causes to the advance of the cost of living may be included the loss, through expenditure on a rising scale, for luxuries, and through wasteful methods in the household.

The main factor in restricting supply and enhancing the cost of commodities, is the withdrawal of population from the land, which has decreased the proportion of persons engaged in producing the food supply.

Uneconomic methods of distribution have also contributed materially to the enhanced cost of commodities.

The chief influences on the side of demand are the concentration of population in towns and cities, which has increased the proportion of non-producing food consumers; the general advance of the standard of living and habits of extravagance which have extended and diversified the demands for comforts and luxuries.

In the preceding part of this report reference has been made to various causes contributing to the increase in commodity prices, with suggestions for improvement in existing conditions.

We look for such improvement through land settlement, greater attention to mixed farming, increased production, with standardization and improvement of quality in farm products, together with co-operation in their distribution. A campaign of education in progress to this end has been actively promoted by the Department of Agriculture of Canada, and by the Departments of Agriculture in the several provinces.

That the work done in disseminating information on agricultural topics through these agencies and the teaching of the agricultural schools and colleges will be productive of good results in the future, is our confident hope.

The extension of the parcel post system and the making of good roads would, in our opinion, contribute towards a reduction in the cost of producing the staple commodities of the farm.

There is a growing demand amongst the farmers, more especially west of the Great Lakes, for cheaper and more accessible "working capital" to develop their farms and to enable them to supplement the growing of cereals, by the production of meats and dairy products, which we have found to be among the most important items in increasing the cost of living.

The general demand for an improvement in conditions of living, arising through the spread of education, has been an important contributory cause to the increase in the cost of living. "You cannot educate people and expect them to live under the old conditions."

If the teaching in the public schools of Canada be supplemented by courses in vocational training, we are firmly convinced that such action on a proper scale will tend to promote and maintain industrial efficiency and thus serve the best interests of this country.

The cordial thanks of the Board of Inquiry are due to Mr. Thomas J. Lynton, secretary of the Board, and to the federal and provincial officials and others, who gave valuable assistance to the members of the Board in the course of their inquiries.

The whole respectfully submitted.

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Chairman.

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