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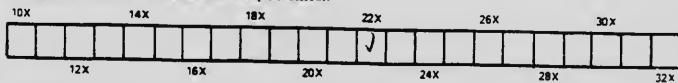
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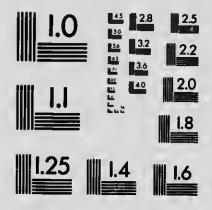
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THIRTY-EIGHT YEARS

OF

Liberal Government

IN

NOVA SCOTIA

GENERAL ELECTION, 1920

Pointers for Liberal Candidates, Newspapers and Platform Speakers



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THIRTY-EIGHT YEARS

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Liberal Government

in

NOVA SCOTIA

The following points are aggested for the use of Liberal candidates and other platform speakers. Fuller information on the subject referred to can be obtained in the reports of the speeches of members of the Government and on the public platfor.

Provincial Finances.

In order to maintain liberally and in an efficient manner, the various services of the Province, the Murray Government and its Liberal predecessors found it necessary to devise means of augmenting the revenues. In 1882, the Provincial revenue amounted to \$541,729.53. In 1919, the revenue of the Province totalled \$3,280,313.42, principally from five sources: royalties on coal, Dominion Subsidies, taxation on Companies earrying on certain businesses, Succession Duties, motor vehicle fees and theatres and einematographs. The means adopted by the Government to secure this revenue have been most successful.

The following table will show how, without imposing direct taxation, or increasing the burdens of the people in any material manner, the revenues have increased during the past years, so that today the total revenue of the Province is more than double what it was in 1915.

Year.	Amount of Revenue.	
1915	\$1,953,30194	
1916	#1,505,501.94	
1917	2,165,33813	
1918	2,118,61846	
	2,332,63214	
1919	3,280,313,42	
1920 Estimate	4,008,132.80	

Royalties from Mines.

The principal source of the increased revenue has been in royalties from mines. The effect of legislation adopted in 1893, providing for increased royalties, referred to more particularly in the paragraph on coal mines, has been to increase the revenue from that source.

In 1913, prior to the War, the revenue from this source had increased until the Province received \$852,954. War conditions and searcity of labor operated to reduce this during the last five years, but the release of men from military service and the revival of industrial activity are operating to increase materially the output of coal and augment the revenue of the Province accordingly. While the revenue from royalties in 1919 was \$622,419, the estimates for the current year show an increase to \$722,400.

The Dominion Coal Company's legislation meant more for Nova Seotia than a mere increased output of eoal. It gave the Province the financial strength to assume expenditures for progressive action in all parts of the Province.

In former general elections our opponents denounced in the strongest possible manner this legislation.

e increastotal reat it was

They resorted to the most extreme efforts to disturb the public mind on this question. They did not hesitate to say that the most unfortunate results would follow, even boldly asserting that the mines would be closed in the interests of American coal combines. We have had twenty-seven years experience in the practical results of this legislation and the position which was taken by the Government, and the wisdom of the legislation enacted has been completely sustained.

The greater industrial development within the Province, indicated by recent amalgamations, fore-shadow great progress and advancement, and will furnish and provide an enlarged and assured market for our coal and other products within our own horders.

Increased Dominion Subsidy.

In 1906, at a conference at Ottawa under the Laurier administration, of ministers representing the several Provinces, resolutions effecting a rearrangement of the subsidies payable by the Dominion Government to the Provinces were re-affirmed. At that conference Nova Scotia took a leading part in pressing its claims upon the Dominion, and carried its points to a successful conclusion. As a result of this the Province is today in receipt annually of a Dominion subsidy of \$636,666.86, an increase of \$203,865.58, which increase is a direct result of these efforts. The terms of granting this annual subsidy were also so changed that after each decennial census this amount will be increased according to the population of the Province at the time, until our population reaches 1,500,000. This matter has been pressed by Liberal Governments in Nova Scotia since 1887, and it is satisfactory to know that their claims were finally recognized and "better terms" were accorded. It was the persistent agitation of the Liberal Government of Nova Scotia and that alone which brought about this much desired increase of Provincial revenue.

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ouncation.

THIRTY-EIGHT YEARS

Other Sources of Revenue.

Additional revenue is being derived from what is called the Succession Duties, a tax imposed on wealthy estates when they go into the Probate Courts for settlement. This form of tax is adopted in many countries, and is generally recognized as a sound one.

Further revenue is received through the Provincial Secretary's Department, last year amounting to \$524,702.68, an increase of \$389,032.82 over 1915. This eonsists of certain fees and licenses for the Incorporation of Joint Stock Companies, the registration of all Joint Stock Companies transacting business in the Province and the licensing of motor vehicles as well as a special taxation on Companies carrying on the business of banking, insurance, loan and trust companies, telephone and telegraph companies, railways, gas and electric companies and express eompanies. Theatres and einematographs which are enjoying such a large measure of popular patronage will hereafter contribute to Provincial revenue not less than \$200.000 annually.

These are the main sources of revenue. There are, of eourse, other sundry items of revenue, and the fact is there has been no burden of taxation to produce revenue for provincial purposes. These have come from sources which affect the average man, but little, if any. There has never been any direct taxation, as in some Provinces, for revenue purposes.

Purposes to which Revenue Applied.

The manner in which the Provincial Government has expended these increased revenues is dealt with in detail in subsequent paragraphs. The Government has been enabled to subsidize railways, providing for greater development; to give increased encouragement to agricultural development; to liberally provide for education in all its phases, including the progressive policy in connection with technical edu-

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cation; to maintain efficiently the public charities of the Province; to erect permanent bridges, and construct smaller bridges and culverts of durable material; to develop an improved road policy and expend large amounts for road maintenance; to grant aid and relief to miners' societies; to subsidize steamboats, packets and ferries operating on our coast; and to provide for the various other services of Provincial administration.

The Question of Debt.

Former Government Found Debt Necessary.

The Opposition has frequently made representations in regard to the incurring of a debt by the Government for Provincial purposes. They desire first to convey the impression that the present Government was the only one to incur debt, and secondly that in general the amount of the debt is not justifiable. On these two points the Government at once take distinct issue. It is, and has been, absolutely impossible to carry on public affairs with the ordinary revenue, and at the same time provide adequately for capital outlay for large and important public purposes, such as the construction of railways and the building of public works. Prior to Confederation a large debt was incurred for public works, which debt was assumed by the Dominion in 1867. After Confederation moneys were required to aid public works, and although these were not raised by borrowing, what was done amounted to the same thing. The moneys which the Province had to its credit at Ottawa were trenched upon, and the interest on these moneys which had been added to our annual revenue was thus The Holmes-Thompson Government withdrew about a quarter million dollars from the Ottawa Fund, and thus went into debt to the extent, at least, of this amount. When the Liberals took office, in 1882, they immediately put a stop to this policy, so that today there remains at Ottawa \$1,055,929.12 and has drawn a higher rate of interest than it heretofore has been necessary for the Province to pay in its borrowing. Had the Liberal Government continued the policy of drawing this money, they could have avoided going into debt to the extent of this amount.

What the Debt Amounts to.

The gross debt of the Province on the 30th of September, 1919, was \$15,342,055.57. Against this total debt the Province possesses valuable and realizable assets which total \$7,062,695.86. These assets include a first mortgage on the Halifax & Southwestern Railway from Halifax to Yarmouth and from Lunenburg to Middleton, and from Middleton to Victoria Beach, in all 396 miles of railway. The debt account at Ottawa amounts to \$1,055,929.12. There were royalties due at that date of \$202,365.87, and the sinking funds established to liquidate certain loans amount to \$797,153.76. There are some other small amounts, making the total debenture and cash assets of the Province as above stated. This amount deducted from the liabilities of the Province at the close of the last fiscal year leaves the net debt at \$8,279,359.71.

What then has the Province received for this amount of more than eight million dollars? As a matter of fact, the Province has valuable assets to cover every cent of this liability; indeed, the balance is on the other side. There are the ordinary subsidies to railways which have been given by the Province in order to improve the transportation system. But the Province has also constructed and has today permanen. bridges and culverts. There are our educational institutions in Truro, the Normal School, the Agricultural College and Farm, the Science School, the Horticultural Experimental Farm (near Kentville), the Technical College, the Victoria General Hospital in Halifax, the Provincial Building and its Annexes, the Government House property, the building and farm of the Nova Scotia Hospital (near Dartmouth), the Provincial Sanatorium at Kentville, and the half-inrrowing. e policy ed going

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the al in the arm the f-interest of the Government in the Exhibition grounds. There have been large amounts paid out in subsidies to railways which it was necessary to expend in order to secure construction. The bridging of our streams and the construction of our railways contribute largely to the welfare of our people and the value of their property. In addition to this the Government owns the Crown Lands and also possesses all the mineral wealth. These mines capitalized on the present income at 4 per cent., would show an equivalent in value of over \$20,000,000.

Liabilities and Assets, Nova Scotia, 1919.

Gross Liabilities, Province Nova Scotia, Sept. 30, 1919.........\$15,342,055.57

Debenture and Cash Assets, September 30th, 1915.

Assets.

Dominion of Canada. Provincial Debt Account.	\$	1,055,929.12
Invested Assets. First Mortgage H. & S. W. R'y	1,447,000.00	
Interest	797,153.76	5,244,153.76
Current Assets.		0,241,100.10
Cash advanced Educ.	2,749.00	
Cash advanced Pub. Uti- lities	2,000.00	
Cash Nat. Prov. & Union Bank of Eng.	82,474.12	
Stock of N. S. S. B. Bureau	9,882.02	
Accounts receivable, N. S. Hospital	36,927.25	

THIRTY-EIGHT YEARS

	TEATING	
Accounts receivable N.		
5. Sanatorium	50,231.69	
Unpaid Royalties from	00,401.09	
Wincs	202,365.87	
Unconcerca Highways	202,000.01	
Taxes	49,19303	
Taxes	40110009	
in Halifax	326,79000	
_		769 019
Property Assets.		762,612
agricultural College		
raim, etc	250,000.00	
NORMAL College Trues	125,000.00	
recunical College	275,000.00	
Victoria General Hoss	-,-50,00	
pital	275,000.00	
*10 va Ocona Hospital	300,000.00	
140Va Scotta Sanatorium	150,000.00	
LIOVINCE Building	250,000.00	
Province Building, Annex No. 1	, = 5 . 5 .	
Province D. I.	120,000.00	
* *OVINCE Difficting		
Annex No. 2.	45,000.00	
Province Building,		
Annex No. 3 Government House	125,000.00	
Farm Lands	200,000.00	
	92,000.00	
3	,600,000.00	
Provincial Lands and I	5,80	07,000.00
Crown Lands 1,750,000	Mines.	
acres. # 1	720.000.00	
Income 4% 20,	θου σου σο	
- /0 · · · · · · · 20,1		
	21,75	0,000.00
	34,619	9,695.86
Assets (at a conservative valu Gross Liabilities		
Gross Liabilities	15 045	,695.86
	• • • • • • • 10,342	.055 57
Surplus	\$10.977	040.05
		,040.29

In addition, the Province has paid out for the construction of roads and road machinery owned by it \$4,866,000, and has paid in subsidies for the construction of railways over \$1,328,000 in addition to the amount of \$1,030,000 for the subsidy and interest paid to the Halifax and South Western Railway. In other words, in addition to the \$34,619,695 of tangible assets held by the Province, we have paid out over \$7,224,000 for these Railway and road services which have been necessary in order to provide the benefits of railway travel and road transportation.

When these are taken into consideration it will be seen that the net debt of the Province is small in comparison with what has been obtained for this expenditure, and in fact the assets possessed by the Province, when given a conservative valuation more than counter-balance all its liabilities by about \$20,000,000. The net debt incurred according to the present population amounts to \$16.55 per head, taking into consideration only the liquid assets, and there is something to show for every dollar of it. When we come to consider the very conservative estimate of the assets of the Province there is a surplus of nearly twenty million. Our debt, either gross or net, is less per capita than almost any other Province in Canada.

Debt not Onerous.

It cannot be said with the net Provincial debt now at eight million dollars or even at a much larger sum as is contemplated to carry out the advanced road policy announced by the Government, and, in view of the great development of the Province, the construction of railways, the opening to the markets of the world of vast stretches of the Province heretofore deprived of railway communication, the completion of highways to carry the heavy vehicle traffic of today, the affording of transportation facilities for the products of the mine, the forest, the farm and the sea, that such a debt is too heavy for this Province to bear. The Holmes-Thompson Government, on the 25th of

762,612 98

7,000.00

,000,00

695.86

695.86

055.57

540.29

. . . . NOVA SCOTIA PUBLIC

1 1/ 1. S.

November, 1878, only a few weeks after they of tained power, passed a minute of council authorizin the Provincial Secretary to enter into negotiations t borrow \$2,000,000. Over forty years ago the Cor servatives did not think the debt of \$2,000,000 onerous The money was not borrowed owing to various cir cumstances. At the next session of the Legislatur they sought to pass a Bill authorizing the borrowin of \$800,000 and without specifying the purposes to which the money was to be applied. This Bill die not become law because they refused the necessary information. That is not the way the Liberal Gov ernment have treated such matters, but have taker both the Legislature and the people into its confidence and have given full and thorough statements as to every item of expenditure or proposed expenditure.

Every item of this debt can be defended on its merits. It is worthy of note, that the votes to increase the debt in the Assembly have in practically every case been supported by the Opposition; so that not only when the Opposition was in charge of Provincial affairs did they seek to place a heavy debt upon the Province, but since that time the Opposition has supported every Bill having for its object an increase of the debt. Moreover, the Opposition have urged further expenditures for the construction of railways, which would add very largely to the debt account. When, therefore, the Opposition seek to place upon the Government the sole responsibility for the debt of the Province they are stopped by the action of their own representatives whether on Government or Opposition benches.

Sinking Fund.

By the terms of the loans placed on the London market, a Sinking Fund for the ultimate extinction of the debt has been created. Under the three and one-half per cent. loan, \$4,866.66 is paid annually. The Sinking Funds for two other loans amount to \$797,153.76 and will be sufficient to retire these loans at maturity.

High Credit of Province.

No better testimony could be given of the high esteem in which the credit of the Province is held than the terms upon which the loan of \$3,000,000 has recently been negotiated by the Province of Nova Scotia. This money was required to meet certain maturing obligations and to provide sufficient money for the carrying out of the advanced Road Policy of the Government. The successful tenderer offered to give \$2,200,000 at 101.19 and interest payable in Halifax funds, and \$800,000 payable in New York funds at 91.21 and accrued interest. This means that though we are giving 6% for the money in interest, owing to the result of the 'ban we are only paying 5.72 interest. It is interesting to note that tenders were received from many of the most important Brokerage and Financial Institutions in Canada as well as in the United States, indicating how highly our Provincial Securities are appraised by financiers and their desire to secure them. In every case but one the tenders were for prices in excess of par. As a matter of fact, the Province received a very substantial sum as a premium on the amount of the loan required in Halifax funds.

As compared with recent offerings the price secured by Nova Scotia is very gratifying. The best offer received by the sister Government of New Brunswick a few weeks ago for \$2,800,000 ten years 6% bonds was 97,1747; the best bid for the City of Halifax 6% 1953 bonds was 94.11; while the Dominion of Canada 5½% Victory Loan due 1934 was selling at the same time at 96 and accrued interest, or on a 5.90 interest basis, Nova Scotia got its money on a 5.72 interest basis.

A week or so after Nova Scotia loan was so successfully negotiated the Province of Manitoba went out on the market with a \$2,769,000 issue of new bonds and received 89.66, payable in American funds, which is 1.55 less than that portion of the NovaS cotia issue payable

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in American funds. But further than that the Prince of Manitoba was only able to get quotations \$1,000,000 of the issue, while Nova Scotia was also get all the money it asked for.

A recent bond issue of \$2,000,000 was called for I British Columbia for five years and interest at trate of six per cent. the same as for Nova Scotia. The price paid was 88.14 in American funds, which is 3.1 lower than was paid for the Nova Scotia issue.

The Halifax Herald on the 22nd June, published letter from a correspondent in Hollywood, Californi in which was stated:

"As proof of the high esteem in which Nova Scoti is held by investors, I might mention the faet that a issue of \$2,000,000 Nova Scotia bonds were sold her recently in a surprisingly short time, in fact, as th bankers put it, all records were broken in the disposin of Canadian bonds."

The Herald on the morning of May 19th, after the flotation of the Nova Scotia issue further said in regard to this loan:

"WORKS OUT A RATE OF 5.72 PER CENT."

"The Nova Scotia Loan of \$3,000,000 obtained on better terms than other Canadian Provinces and shows our splendid credit."

"The favorable terms on which the Province of Nova Scotia borrowed three millions of dollars, as stated in the Herald yesterday, was the subject of general comment on the street. The bonds were sold at a price considerably better than those of Ontario and New Brunswick, disposed of recently. As Herald readers have been informed the price for \$2,200,000 of the five year 6 per cent. bonds was 101.19 and for \$800,000 of New York funds, the price was 91.21, exactly the

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Province is of dolwas the et. The ly better vick, disave been five year 00,000 of actly the same rate when the difference in exchange in taken into account, for the larger loan is in Halifax funds, interest payable in this city.

"Not only is the rate remarkably good, but it is better than figures of about a year ago for a Nova Scotia loan—a signific nt fact when it is remembered that money generally is higher now than last July, when that loan was floated. Another thing to be remembered in connection with the present loan is that it was effected with no expense for brokerage or commission of any kind.

"The interest charge works out at a rate of 5.72 per cent. As compared with the offers the city of Halifax received for Its loan of a week or two ago it carries more than one per cent. lower interest and is almost three quarters of one per cent. better so far as interest rate is concerned than Hallfax has to pay on its amended plan of selling by brokers in this city, for the 1½ per cent. commission they charge runs the rate up. This loan shows how good is the credit of the Province. The Syndicate that loaned the money was formed by R. A. Daly & Co., of Toronto, with whom are associated E. H. Rollins & Sons. Lee Higginson & Company & Merrill Oldham & Company, all of Boston."

This is testimony to the sound business administration of the Murray Government, and shows the high standing enjoyed by this Province, because of the successive Liberal administrations.

The Murray Government's Financial Record.

When the Holmes-Thompson Government came into office in 1878, they found a deficit balance of \$118,331.67. They gave up office in 1882 with a deficit balance of \$58,713.07. When they assumed

office on the 22nd of October, 1878, there was to the credit of the Province, at Ottawa, in what is known the "Debt Fund Account" \$477,753.48, (see page appendix 16, Journals 1879, "Debt Account"). Who they left office in 1882 there was by the Debt Accoun statement \$6,533.25 at credit, (see page 2, append 16, Journals 1883). The Conservatives therefor withdrew from the amount standing to the credit of the Province at Ottawa, during their four years terr of office, \$471,220.23. Of that amount they expende on the ordinary services of the Province, such as road and bridges, \$242,901.30, and secured a loan of \$40,00 from the Western Counties Railway and utilized it fo the same purpose. Add to that the deficit when the went out of office of \$58,713.07, and their total in debtedness was \$341,614.37. Deduct from this the deficit balance of \$118,331.67, on their as ming office, and it will be seen that they went into debt to the extent of \$223,282.70 for the ordinary services of

During the previous four years, 1875—1878, of Liberal administration, there had been expended on the roads of the Province \$914,926.00. During the four years of Conservative administration, 1879—1882, there had been expended on the roads of the Province \$467,482.90, a reduction of expenditure on this item of \$447,444. In other words, during the Holmes-Thompson administration the Province went into debt to the extent of \$223,282.70, they starved the roads of the Province by \$447,444 and went out of office showing an indebtedness of \$341,614.37.

During the succeeding fourteen years under Liberai administration, there were six years during which there were surpluses totalling \$150,889.10. During the same period there were eight years in which there were deficits amounting to \$225,286.17. This leaves a net deficit during these years in revenue account of \$74,397.07.

The following is a detailed statement of these years:

Fiscal Year ended.	Excess Receipts over expendi- ture.	
	Surplus.	Deficit.
1883 1884	\$ 22,765.84 13,793.77	
1885 1886		7,674.30 23,203.10
1887 1888	44,551 13	7,464.28
1889 1890		45,167.12 45,559.28
1891 1892		30,997.65 52,486.40
1893 1894	40,182.44 25,370.81	
1895 1896	4,225.11	12,734.04
Totals Net Deficit	\$150,889.10	\$225.386.17 74,397.07

During the succeeding 23 years, there have been, under the administration of the Honourable G. H. Murray, 13 years in which there has been an excess of receipts over expenditure and showing a surplus in revenue account. These in the aggregate amount to \$557,872.30. During the same period there have been ten years in which there were deficits or excess expenditures over receipts, totalling \$1,224,947.91. This leaves a net deficit account during these years of \$667,075.61.

was to the is known as (see page 2, t"). When ebt Account 2, appendix s therefore ac credit of years term y expended ch as roads of \$40,000 ilized it for when they r total inn this the asrining to debt to services of

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THIRTY-EIGHT YEARS

Fiscal Year ended.	Excess Receipts over Expendi- ture.	Excess Expe diture over Receipts.
	Surplus.	Deficit.
1897		2 01 150
1898	\$ 6,630.25	\$ 21,458.41
1899	24,448.66	
1900	76,861.82	
1901	1,303.32	
1902	52,814.91	
1903	66,250.55	
1904	33,299.61	
1905	20,822.98	
1906	16,041.11	• • • • • • • • • •
1907		101 000
1908	158,707.58	101,002.17
1909	190,101.96	00 700
1910	*******	20,528.62
1911	*******	133,550.76
1912	37,980.80	165,125.00
1913		1000000
1914	State Andrews	29,218.61
1915	*******	213,435.42
1916	22 200 40	120,369.90
1917	33,203.48	200
1918		200,293.34
1919	29,507.23	219,965.68
Totals	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	224,947.91

Net Deficit as between expenditure and revenue.....\$667,075.61

Four of the deficits totalling \$632,481.08 occurred in years where there was a coal strike, reducing receipts from royalties on coal and in four other fiscal years the revenue from mines was seriously affected by the financial stringency and the outbreak and continuance of war reducing the available supply of labour for operating the mines.

cess Expenture over Receipts.

Deficit.

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curred in receipts al years d by the tinuance for opThe Conservative press has alleged that one cause of the increase of deht is due to yearly deficits since Mr. Murray came into power. As a matter of fact, the total increase of deht owing to expenditure being greater than revenue during the whole 37 years of Liberal administration is hut \$741,472.68 or \$20,039.80 per year. During the four years in which a Tory administration was in power the excess of ordinary expenditure over receipts was \$223,282.70 or \$55,821 per year—or $2\frac{1}{2}$ times greater per year than under Liberal administration.

An Indefensible Opposition Policy.

Premier Murray has always thought it in the best interests of the Province to utilize these surpluses for the general reduction of the public debt and the payment of expenditure on capital account, and has so applied the amount of \$557,872.30. In this view he was supported by every banking institution and financial authority in the Province, irrespective of politics. The Opposition, however, in 1901, moved a resolution to the effect that these surpluses, when they oecur, should he expended in additional grants to roads and bridges. The Provincial debt was the great cry of our opponents in former years, but when this debt was being reduced by sound financial methods they supported a resolution which would have the effect of increasing the debt. Mr. Mitchell moved the following amendment to the resolution of Mr. Tanner:

"That all the words after \$76,861.82 be struck out and the following substituted: 'In the opinion of this House, notwithstanding the importance of additional grants to the roads of Nova Scotia. the Government acted in the best interests of the Province by utilizing the surplus of \$76,861.82 in the reduction of the general indebtedness of the Province;

" 'And further, that this House deprecates the unsound principle raised by the resolution that yearly surpluses, when such occur, should be ap-

propriated for the general services of the Proving when the expenditure on capital account and the the general expenditure of the Province exceed the revenue.'

Against this the Conservative members of the House voted. The people of the Province in the general election of 1901 acquiesced in the policy of the Government as contained in that amendment—policy that has since then been adhered to.

Honest Administration.

Attention should be drawn to the fact that the Lib eral party has administered the affairs of the Provinc from 1882 up to the present time, and that there ha never been a charge sustained that one dollar of public money has been misappropriated. Whatever differ ence of opinion may be held in respect to public issues every elector in the Province should admit that the people of Nova Scotia have had honest government The public accounts are open to the inspection of all. The Financial Returns are brought down every year and show every item of expenditure. Not one of these has been questioned, though carefully scrutinized by the Committee of Public Accounts of both Houses of the Legislature, on which the Opposition is fully represented. The estimates are each year subjected to searching criticism in which the financial record of the Government in every department is closely scrutinized. Differences of policy may arise, but there has never been any suggestion of misappropriation, graft or dishonesty in the administration. A Provincial Auditor countersigns every cheque paid for services rendered or work performed. He is directly responsible to the Legislature and cannot be dismissed except by a twothirds vote of the Assembly.

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THE MINING INDUSTRY.

The Coal Question.

The Government has devoted much time and attention to all matters calculated to foster our mines. It was felt that much could be done to enlarge that industry, and to make it a greater factor in the development of the Province and incidentally to materially increase the public revenues.

With the idea of further enlarging this important industry the Government at the last session introduced and passed legislation of far reaching importance. The effect of this legislation was to vest in the Crown, i. e., the people of the Province, all the minerals of the Province, not heretofore reserved to the Crown, notwithstanding the terms of any previous grant or lease, but upon terms that safeguarded any vested interests from confiscation. This legislation is one of the most important ever enacted. It will doubtless result in still greater development of the valuable mineral resources of the Province, particularly of those minerals whose existence and value were previously unknown. All the minerals of the Province irrespective of the terms of any grant are now vested in the Crown, for the benefit of the people of the Province. This simplification of title will favorably influence investment and result in greater activity for future industrial development.

The recent discovery of Salt at Malagash, Cumb. Co., is a case in point. As the title to this mineral is now assured there is offered an undoubted opportunity for investment without which development would be delayed or rendered difficult. This is the only known deposit of Salt in Canada that can be mined direct from the deposit.

The oil shales of Pictou as well as the oil deposits in other parts of the Province are also affected by the same legislation and are already attracting attention.

THE SECOND SOTIA

When the coal trade was in a depressed condition no additional burdens were imposed, but occasion was taken to enable the more ambitious among the mining population to acquire more than a manual dexterity in their profession, and to prepare themselves for higher positions. This was done by means of special schools imparting the instruction in the different branches of mining.

When the profits of the coal trade showed a material increase, the Government required the mining companies to pay a higher rate. The royalty was increased from seven and a half cents to ten cents per ton some years ago and on the first of January 1913 was further increased to twelve and a half cents per ton for all operating companies.

Our opponents claimed that this increase of royalty sounded the death knell of the coal trade, and that capital would be driven out of the country. These predictions have not been fulfilled, and the Government can justify their action by pointing to the capital that has flowed into the country, and to an output of coal nearly four times that of the year 1892.

By an arrangement made between the Government and the Dominion Coal Company, Limited, and also between the Government and the Acadia Coal Company, the Province received from these companies not only the increased royalty, but also, in return for the concession of a longer lease, which costs the country nothing—but which, in the opinion of foreign investors gives greater security for their investments in Nova Scotia coal mines—an additional rate of two and a half cents per ton in all, twelve and a half cents per ton of the coal sold by them.

As a matter of fact the Dominion Coal Company has paid from its inception, in 1893, to the end of the fiscal year, 1919, \$1,741,961 for this concession alone, that is to say, for the extra two and a half cents paid by them as a royalty, and will continue to pay for it a still larg-

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any has le fiscal that is y them Ill larger amount, and the Acadia Coal Company, for the same concession, has paid to the Government during the past five years an increased sum of over \$79,988.

The amount of royalty secured by the Government has, therefore, increased proportionately with the increase of trade. In the case of coal mines generally, previous to 1st January, 1913, the rate per ton collected was 33 per cent. more than was formerly paid, and in the cases of the Dominion Coal Company and the 'Acadia Coal Company, the rate was 66 per cent. more. The public interests are getting the benefit of this increased rate, and the coal trade continues to flourish. The development consequent upon the increased output of coal is shown in splendidly equipped mines, well constructed railways, modern shipping piers, a superior line of coal transports and first-class discharging facilities at points of consumption, Halifax, St. John, Quebec, Three Rivers, Montreal. By this legislation a stimulus was not only given to the coal areas already operated on, but the effect was general. The old methods of other days were abandoned and the coal trade took on new life.

No Monopoly.

One of the cries of the Opposition was that the Government had given the Dominion Coal Company a monopoly of all Nova Scotia coal, and this grotesquely foolish statement is still occasionally made. As a matter of fact there have been issued by the Mines Department at the close of 1919, 1137 coal leases, of which the Dominion Coal Company was the owner of only 132, or about one-ninth of the coal lands of Nova Scotia now under lease.

It is not to be understood that the leases now issued cover all the core lands of Nova Scotia. Rights of search, from which selections of leases will be made, have been issued covering a large additional territory.

Competition is also afforded by the Nova Scotia Steel and Coal Company, operating at New Glasgow

and Sydney Mines; by the development of the codeposits in Inverness County at Inverness and Po-Hood; by the Acadia Coal Company; by the Green wood Coal Co.; by the Intercolonial Coal Minin Company, and by the development of the Maritim Coal & Ry. Co., and other operating collieries in Cumberland County.

Unworked Areas

At the session of the Legislature, 1916, an Act was passed, known as "An Act respecting Unworked Mining Areas." This measure effectually prevents the holding of large tracts of minerals lands by speculators to the detriment of our mining industry. By the terms of this Act, any area or tract of mineral land held by a speculator under license or lease and remaining unworked for a period of five years may be transferred by the Commissioner of Mines after a hearing to a subsequent applicant, upon the deposit by the applicant of the amount paid by the holder in fees with interest thereon. This amount will be refunded to the original holder if the Commissioner cancels his lease.

The Price of Coal.

Laws regulating the price of commodities have long since been acknowledged to be useless. The price of any article at the present day is subject to demand therefor. Coal, the same as any other commodity, will be delivered cheapest to markets of greatest demand.

It is asserted that the price of coal to Nova Scotia consumers is greater than the price obtained for Nova Scotia coal in the Quebec markets. Admit for a moment that this statement is true. It is also a fact that were it not for the Quebec and other outside dwindle to a fractional part of what it now is and many of the coal operating companies would be forced out of existence. Any one of the large coal companies can

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Seotia or Nova r a moa fact outside would I many out of es can supply all the present demand in Nova Scotia outside of the requirements for metallurgical purposes; to deprive the coal operators of the Quebec and outside market would instead of being a benefit to any one, precipitate a calamity. In 1919, 1,946,960 tons of coal were sold outside the Province. The royalty on this export amounted to \$243,370, which of course was paid by the consumer abroad. Thus owing to the farsighted policy of the Liberal administration nearly a quarter of million dollars was paid by outsiders last year to the people of Nova Scotia.

The Dominion Coal Company occupies a leading position among Canadian coal operators, its average yearly output alone being about 42 per cent. of the total coal output of Canada and about 75 per cent. of the coal output of Nova Scotia.

The distribution of this enormous output and the changes in distribution since 1914, provide an interesting sidelight upon the industrial importance of world movements in altering trade. Previous to 1914, about 2,500,000 tons of the annual output was conveyed by boat to the St. Lawrence and sold in central Canada. Of the remaining two and a half million tons, the Dominion Iron and Steel Company utilized about one and a half million in their Sydney plant, while the other million was distributed through the Maritime Provinces and New England generally. During the war, the shortage of shipping—on account of the company's freighters being taken over by the governmentcaused the St. Lawrence trade to fall to practically nothing. At the same time, however, the harbor of Sydney being used as one of the four convoy bases on the coast of America, the company's local bunkering trade increased enormously, making up for considerable part of the St. Lawrence trade.

Since the war, shipments to the St. Lawrence have remained largely in abeyance, but owing to strikes on the other side of the Atlantic, the demand for Canadian coal in that direction has been vastly increased, while the bunkering of ships has also shown a sterincrease since the cessation of hostilities. The resist that the approximate 2,500,000 tons annually which once went up the St. Lawrence are now go in the opposite direction to European countries, or being loaded directly into vessels at the companiers on Sydney Harbor.

When there was only one producer the people Nova Scotia would be left to a choice between a limed supply at home at an advanced price or an equal high price for a foreign supply. The condition of seing cheaper to an outside market, if such be the faction of some confined to coal alone, but prevails the worth over in most products. A barrel of flour is bought to day cheaper in Nova Scotia than at the mill in Wester Ontario, where it was ground. Even such commod ties as daily newspapers are supplied to foreign sulscribers for a less sum than to subscribers at home.

Moreover, the Local Legislature could not fix the price of coal. Trade matters are subject to the regulation of the Canadian Parliament, and it could if representation based on facts showed that the price of coal was too high, have removed the duties on foreign coal. When a short time ago an action was brought, alleging conspiracy to keep up the price of coal in Nova Scotia, after a long trial, judgment was given that there was no proof that the company maintained the price of coal to Nova Scotia consumers at a higher rate than they were entitled to.

It is utterly impossible as matters are now in Nova Scotia for any one coal company, no matter how large its trade, to increase the cost of coal to the consumer. The general increase in cost of coal is in proportion to and is a most certain measure of the general improvement of the country and is not singular in this respect from other products absolutely necessary to the general development. At the present time, owing to conditions caused by the war, the price of coal is neces-

sarily high. Both freights and cost of production have been largely affected.

The Use of Government Drills.

In order that the fullest advantage might be taken of the flood tide of prosperity in the coal business, the Government has provided a number of drills for the use of parties leasing Crown mineral properties. These are being utilized to great advantage in discovering coal deposits or in deterring investments in sections which would otherwise have turned out disastrously. By the use of these drills six new seams have been discovered in Pictou County, aggregating sixty-five feet of coal. One of these measures over twenty-one feet. This discovery adds many millions of tons to the available coal supply of the Province.

Technical Education for Miners.

No Government has done so much for the education and instruction of the working people as has the Liberal Government of Nova Scotia. Among the many good Acts passed by the Liberals after coming into power in 1882 was an Act providing for the establishment of Mining Schools. These schools are supported by the Government, and those that have taken advantage of them have received a mining education absolutely without any cost to them. They have now become part of the Government's Technical Education system and are taught by men of long practical experience in the mining of coal and possessed of educational qualifications that fit them for teaching. The schools have been brought up to the highest possible standard. The attendance at the coal mining and engineering schools in these districts was last year 289 and in 1918 453 and the Government's expenditure amounted to \$8,045.31.

Previously to these schools being established, the important positions at our mines were in almost every case held by aliens. These men did not understand

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v in Nova how large consumer, portion to improves respect the geng to conis necesindustrial conditions as they existed in Nova Second details necessary to cope successfully with the development of the coal industry in our Province, and consequently, in many cases, failures. So interedid our young miners become in the schools, and successfully have they been taught, that today necessfully have they been taught, that today necessfully is held by natives of the Province, with safaction to the coal companies and profit to the lynamical revenue.

Coal mining courses are also now being given in public schools in mining towns and are quite populated. The objects aimed are three—(1) To make the bounce efficient and intelligent coal miners. (2) arouse an interest in and appreciation of educatin themselves and their parents, so that they may tend school for a year or two longer than they do present. (3) To connect the instruction of the public schools with that of the evening schools for cominers, so that they would enter the latter immedially upon leaving the former.

Besides continuing the mining night schools, to Government, a few years ago, introduced legislation that brought into existence one of the best institution of its kind on the continent, in the Nova Scotia Tecnical College. This College stands unrivalled for equipment, and efficiency of its staff, and now the poorest boy, if he have ambition, can, through the school, get not only a mining education, but can receive degrees in any of the industrial sciences.

This is beneficence which must be appreciated by our working people and commended by every one that has an interest in our Province, and care for the intellectual advance of all its people. The Nova Scoti Technical College is a monument of the progressive ness of the Murray Government.

Miners' Relief Societies.

The desirability of securing some means of affording relief to workmen in case of illness or accident, and a their families, in case of the death of workmen, has for some time been a matter that has engaged the attention of the Government.

In order to encourage the formation of such societies egislation was enacted by which the Government was mpowered to contribute to any such society or fund, in amount to be determined by the tonnage of coal old from the mine in connection with which the society or fund was established, equal to 3-10ths of a cent per ion for every ton. This grant was generally on three conditions:

- (1) That the owners of the mine should contribute it least the same amount as that contributed by the Government.
- (2) That the workmen should make substantial contributions.
- (3) That it should not apply to any case for which compensation was provided by the Workmen's Compensation Act.

In addition the Government also makes a contribution by which the sum of \$50 is paid under certain conditions to the widow or defendant in case of the death of a member of a society.

The effect of these societies in encouraging habits of thrift and economy has been marked. The legislation in which the system is embodied, though simple, is of a very advanced character. The Dominion Coal Company in 1910 adopted, under the law, a new system of relief, which is even more advantageous to the miners employed by that Company. The Government expended in 1919, \$874.10 for this purpose. There was no such sum expended under the Holmes-Thompson Government.

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reciated by ery one that for the inlova Scotia progressiveA somewhat similar plan of co-operation has been adopted in connection with the furnishing of medical attendance and medicine to miners and their families. A small monthly fee insuces skilled medical attendance and medicine for miners and their families.

Another special boon to the miner is contained in the Government legislation enacted in making it compulsory on the coal companies to pay the miners wages weekly instead of fortnightly. This is much appreciated by the men who have desired this reform in the interests of their families as well as themselves.

A Policy of Progress.

To the forethought of the Government is due the development of steel-making in Nova Scotia. It became evident to the capitalists who saw the profits derivable from Cape Breton coat that there was, owing to the favored position of Nova Scotia, an opportunity to rival the great steel industries of the world. In this Province were conjoined within easy reach coal, iron ore and fluxes on the seaboard, and nearer to the great European markets than any industrial centre of the United States. Hence the gigantic works of the Dominion Iron and Leel Company, which have transformed a pastoral district into a hive of industry, and the establishment of another steel making plant at Sydney Mines, operated by the Nova Scotia Steel and Coal Company.

Numerous other enterprises have been attracted to Sydney as a result of the establishment of these steel works. The company is making steel rails and supplying them for the construction of railways in Canada A merchant mill for the manufacture of bars, rods, etc., a 22 inch mill to manufacture shapes, rolling angle bars, etc., as well as a plate mill, have all been erected. Machine shops of greatly increased capacity have also been erected to take care of the increased work which is being carried on.

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The subsidiary interests that have grown up around the Steel Company are as follows: The Dominion Tar and Chemical Company, which have greatly increased their works in order to take care of the increased quantity of tar that, under their contract, they are bound to take from the Dominion Iron and Steel Company. In addition to this, they have installed appliances for cresoting timber. The Sydney Cement Company, whose product before the war found a market in all portions of the world. The Sydney Pressed Brick Company, which is making a manufactured product out of the slag formerly cast away by the Dominion Iron and Steel Company. The bricks manufactured by this Company have been used in important structures, notably, the Academy at Sydney, and the re-constructed works of the Steel Company at Sydney, The power house was also built of this material, Alexander Cross & Sons, Ltd., have established a fertilizer plant, to use the by-products of the Dominion Iron and Steel Company, and large expenditures have been made thereon. In addition to this, there has been a great extension to he original plant of the Company, including the erection of one of the largest nail mills in America. Toluol is also being manufactured to be used in the manufacture of high explosives.

The establishment of these works in Nova Scotia has made a ship building plant a possibility within the near future. Moreover, the initiation of this important enterprise has been the means of developing iron-ore, lime stone and other mineral deposits in the Province. The manufacture of one ton of steel practically necessitates the manufacture of a ton of pig iron and a proportionate quantity of coke, requiring a tremendous tonnage of coal besides the quarrying of lime stone and dolomite.

Results of the Policy.

When the Holmes-Thompson Government went out of power, in 1882, the coal production of Nova

Scotia was 1,000,000 tons. In 1914 it had grown to over 7,000,000 tons. Conditions due to the war reduced the output in 1919 to 5,004,757 tons.

The valuation of our coal production in 1882 was \$2,048,000; 1914, it was \$21,100.000. In 1919 the valuation was \$25,000,000.

The number of men and boys employed in the coal mines in 1882 was about 4,300; 1915, was 16,326 and in 1919, 12,925.

The Iron and Steel production in 1882 was nothing; in 1914, was valued at \$20,050,000. In 1919, despite very unfavorable conditions, the output was valued at \$19,000,000.

The complete plant of the Dominion Iron and Steel Company, the largest in Canada, covers 725 acres in the heart of Sydney city, and is two miles in length. It comprises everything necessary to handle iron and steel manufactures in all stages "from ore to finished product."

The blast furnace battery of the Dominion Iron and Steel Company, with a yearly capacity of 550,000 tons, turns out between 40 and 50 per cent. of the Canadian production of pig iron every year, the largest single production in Canada, and approximately 70 per cent. of the annual production in the Province of Ontario, the only other iron and steel center in the Dominion, outside of Nova Scotia. As the record of one city against a Province, these figures illustrate something of the importance of Sydney as a metallurgical center.

The Dominion Company maintains six blast furnaces at Sydney, three of 250 ton capacity, two of 275 ton capacity, and one of 350 ton capacity. One of the smaller furnaces is to be remodelled shortly to give it a capacity of 350 tons, which will still further increase the output capacity of the plant.

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Iron and f 550,000 at. of the larg-mately 70 rovince of ter in the record of illustrate metallur-

blast furtwo of 275 . One of shortly to till further For the making of steel, the company maintains ten 50-ton and two 1.0-ton open hearth furnaces, with a supplementary point of three 12-ton Bessemer convertors and the usual auxiliary equipment. This plant has an average yearly productive capacity of 424,000 tons of steel. Of actual manufactured steel products—or what are technically known as rolled products—the company's maximum production in the past has been 325,000 tons yearly.

In addition to the main plant required for the smelting of iron from ore, and the making of steel and steel products, the company maintains a huge plant for the making of coke to be used in the furnaces, and the refining of coal by-products. The present coke ovens which cost over \$5,000,000 to erect have a yearly capacity of 600,000 tons and are shortly to be increased by a new battery of ovens, now in course of crection, which will make the total yearly capacity of the coke plant 825,000 tons, with an approximate construction cost of \$8,000,000. This coke oven plant, like the blast furnace section, is the largest in Canada and in equipment is equal to any in North America. It is the very latest word in industrial equipment of the type.

Pages might be spent in enumerating and describing the manufactures of which this gigantic steel and byproduct plant is capable, but the purpose can be served here by a brief catalog of the yearly outputs in various lines which have been attained in the past. As stated above, the company's maximum yearly output of rolled products has reached 325,000 tons. This production is divided as follows:

Blooms—i. c., long steel billets, five to	
ten inches square or what might be	
called "steel in the raw," for sale or	
rc-rolling	325,000 tons.
Rails—for which the company is now	
handling an order from the Cana-	
dian Government Railways	175,000 tons.
Two to three inche billets	160 000 tons.

	90,000 tons.
Wire rods	33,000 tons.
Small Miscellaneous Bars	50,000 tons.
Drawn Wire	17,000 tons.
Barbed Feneing	11,000 tons
ar in the Co. 1 of all brinds in 1997.	400 000 kore
pound kegs	400,000 Kcgs.

As by-products in the making of the company's 600,000 tons of coke, the following are produced:

600,000 tons of coke, the following are pro-	ducce	•
	6,000	
Sulphuric Acid	2,000	tons.
Motor Fuel—Benzol, Toluol, Naptha, etc. 90	00,000	gals.
Coal Tar—12 gals, to the ton of coke 7,00	000,00	gals.

The manufacture of motor fuel increased largely during the years of the war, when the refining of some of the products mentioned was undertaken at the request of the government on account of their use in explosives. The company is now undertaking extensive experiments for the combining of these ingredients to make the highest quality motor fuel possible. In view of the increasing price and scarcity of gasoline, this is an important feature of the by-product manufacture.

The annual output of seven million gallons of coal tar, which will be materially increased with the completion of the new coke ovens, is sold by the Iron and Steel Company to the Dominion Tar and Chemical Company, in whose works here a part of it is further refined and the remainder shipped away for manufacture elsewhere.

The Dominion Iron and Steel Company has now under construction a brick plant for the manufacture of silica bricks, which will result in the solution of the fire-brick problem both in the company's plant and in the district at large. The new brick plant will turn out 7,000,000 brick a year.

To maintain its large capacity production of iron and steel, the company requires 1,100,000 tons of ore annually, brought from the mines at Wabana, and 720,000 tons of limestone, used as a flux in the furnaces and brought from the company's quarries in Cape Breton and Newfoundland. Of the Dominion Coal Company's output as already mentioned, the Dominion Steel Company's plant at Sydney utilizes about one and a half million tons annually.

The Ship Plate Mill.

The figures given above have taken no cognizance of the company's new \$5,000,000 ship plate mill opened in Sydney during February last. This mill is not only of importance for its normal production of ship plates at a time when shipbuilding is greatly needed, but is of national importance to Canada, as the only shipplate mill in the Dominion. Its significance in this regard as a part of the possesions under control of the new British Empire Steel Corporation, will be dealt with later.

The ship-plate mill at Sydney covers five acres of ground under one roof and has a normal capacity of 150,000 tons yearly of all kinds of sheared plates up to 98 inches in width. It is modelled after the famous Liberty nill in Pittsburg and in equipment and machinery is the equal of any similar plant in the United States.

Under a government contract, calling for the production of 50,000 tons of ship plate yearly, to be used in government shipyards, the new plate mill at Sydney is guaranteed a successful start. The government contract alone guarantees a normal operating activity on single shift for the next five years.

This mill is capable of taking care of Canadian requirements for ship, tank and car plates for years to come, and was designed with that end in view. Its

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importance to the Canadian shipping and car building industries in thus providing a source of supply within the limits of the country can be readily perceived.

The concentrating of the largest steel plant in the country and the only ship plate mill in the Dominion, practically at the pitheads of the most valuable coal area in Canada indicates briefly the importance and advantages of the Sydney steel plant over all others in the country. Practically one-half the steel industry of the Dominion is located on these 725 acres in the heart of Sydney, and it is so designed that as the ship building trade expands the result of increased activity in that direction will be felt through all sections of the plant, extending out into increased activity in the coal areas.

The Dominion Iron and Steel Company employs in its Sydney plant an average number of 4,500 workmen, including those employed at the plate mill. Running to capacity, the plant provides occupation for a total of 7,500 men. At its ore mines and limestone quarries, the company keeps 1500 men busy.

Last year the company's pay roll at the Sydney plant was \$5,000,000 and at the mines and quarries, \$1,500,000, making a total of \$6,500,000, the greater part of which came directly into Sydney City. Combining these figures with the payroll figures of the Dominion Coal Company, the total amount of money put into circulation in the district last year by these two companies alone, was \$18,500,000.

The Nova Scotia Steel and Coal Company Activities.

At Sydney Mines, about 20 miles away from Sydney, across the harbor, lie the two blast furnaces, the coke ovens and subsidiary plant of the Nova Scotia Steel and Coal Company, and from that point as radius, the company's colliery activities stretch out through the surrounding district on the west side of

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m Sydces, the Scotia oint as tch out side of Sydney Harbor. At North Sydney, the company has its shipping piers for bunkering and loading coal for export.

The Nova Scotia Steel and Coal Company owns five operating collieries, with an average output of 800,000 to 900,000 tons of coal annually. It employs in its mines about 2,200 workmen. The company owns and operates its own railway system about the mines and steel plant and connecting the collieries with the shipping piers.

"Scotia" has two big blast furnaces at Sydney mines, utilizing ore brought from Wabana and maintained by coal mined on the spot. These furnaces have a yearly capacity of about 100,000 tons net, of pig iron. The company's coke ovens in connection with the plant produce about 45,000 tons of coke yearly.

The company's steel finishing plant is located at New Glasgow, on the mainland of the Province, where its machine shops are situated. Ingots shipped from Sydney Mines are completed and rolled into finished forms at this plant. The Scotia Company has also a steel ship building plant located at New Glasgow.

During the past five years the total tonnage of steel manufactured was 2,274,219 tons, and for this steel and the products, such as rails and rods derived therefrom, value has been received amounting to \$94,400,000.

The tonnage and value for each year are as follows:

Year.	Tons.	Value.
1915	369,310	\$15,000,000
1916	502,106	18,000,000
1917	515,538	20,000,000
1918	512,377	22,400,000
1919	374.888	19,000,000

Gold Mining.

Gold Mining in Nova Scotia commenced in 1861 and since that date a total of 2,190,585 tons of ore have been erushed, yielding 958,712 ounces of gold, or an average of about \$8.33 pcr ton erushed. The greatest production was in 1898 when 86,331 tons crushed gave 31,104 ounces of gold. From that date the production remained fairly constant for some years and then slowly declined reaching a minimum in 1919, when only 1362 tons were crushed, producing 935 ounces.

The tremendous rise in the cost level of labour and materials in the last few years had effected the gold mining industry by causing a rising in the cost of production which, due to our monetary system, can not be balanced by a proportionate rise in the price of the product.

In Nova Scotia, where gold mining has been struggling for a number of years, this added burden has made profitable mining almost impossible. There were only three companies that carried on any regular mining operations throughout the past year, and in the case of at least two of these, the operating expenses were at least five times the value of the gold recovered. Therefore, their hope lies in the value of the product being increased by some means at present not apparent, or something done to reduce the cost of production.

RAILWAYS.

The Government has recognized that there is no more potent means of bringing about industrial and commercial development than the possession of railways. A progressive policy has been pursued in order to accomplish this and to meet the needs of sections in the Province hitherto deprived of railway connection. In the year 1896 there were, in addition to the Intercolonial and the Dominion Atlantic Rail-

ways, five railways, with a total mileage of 169 miles, in operation. In 1916 there were in operation nine railways, with a total mileage of 650 miles. As the Halifax and South Western has been merged in the Canadian National Railways there are in 1919 in addition to the Canadian National Railways eight with a total mileage of 202.

Altogether there are in the Province 1,480 miles of railway, including the Halifax and Eastern, which is a part of the Intercolonial system. Without the subsidies given in the past by Liberal administrations, it would have been impossible to have served the interests of the Province so well by railway communications.

The Halifax & South Western Railway.

The completion of the Inverness and Richmond Railway from Hastings to Broad Cove has been a most important factor in the development of the Province, tapping, as it has, large and important coal fields. Likewise the construction of the Cape Breton Railway, from Point Tupper to St. Peters, has opened up a section of country that required railway communication. But by far the most serious railway problem which has ever engaged the attention of this Province was the construction of a line of railway from Halifax to Yarmouth. The construction of this railway gives intercourse to all the South Western Counties, namely, West Halifax, Lunenburg, Queens, Shelburne and Yarmouth, and brings all the central points within these Counties in direct communication with the capital of the Province. The necessity for the construction of this railroad was universally admitted, and the great advantage to our Province generally can scarcely be estimated. A rich and fertile country has been opened up and additional facilities have been afforded for marketing the produce of the mine, the forest and the sea. The scenic beauty of the shore route has already made this railway a popular thoroughfare for tourist travel. There is every confidence

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that this road will ultimately prove a good paying proposition, and the Province has good security in the road for the money advanced for its construction.

The Government felt that it was absolutely essential in the interests of the South Shore of Nova Scotia to construct a Railway that would traverse that region. The Government accordingly assumed considerable financial responsibility in this connection, which took the form of a loan of \$13,500 a mile. Upon that loan the company paid interest at the rate of three and one-half per cent. The Railway was, however, a burden on the resources of the Provincial Government.

The taking over of that Railway by the Dominion Government and the assumption of all financial responsibility in connection therewith has released the Province of all obligations in this direction. The fact that these indirect obligations have ceased is an important factor in enabling the Government to undertake larger responsibilities in other directions.

It is a matter on which special emphasis may be laid that solely by reason of faith in this enterprise and the loaning of the Provincial credit such a large number of the people of the Province have been furnished with the advantages of railway communication, and development has been facilitated without any additional financial burden to the Province.

ROADS AND BRIDGES.

Soon after the Liberals came into power in 1882 they realized the importance and necessity of vigorously grappling with the problem of the highways of the Province. With a full recognition of this, one of the earliest acts of the then Government was to recommend added legislation for the construction of the larger bridges of the Province, mainly, of durable material, iron, stone and concrete. It was one of the first steps necessary to secure any real system of per-

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manency in connection with the public highways of the Province. Subsectionally various other steps have been taken all with this distinct object in view. All of these several steps have been taken by the Liberals, opposed as they each and all were by the Conservatives in the House.

Larger Bridges.

In 1882 it was found the bridges in this Province, all of which at that time were wooden structures, were rotting and falling into the streams and the renewal of these structures was a matter beyond the reach of the Municipalities, and so that year there was passed what is known as the Larger Bridge Act, which relieved the Municipalities altogether from the burden after that time of constructing and maintaining the larger bridges of this Province.

As a result of that policy we have today in Nova Scotia provided for almost all the larger bridges of the country, and we find our streams crossed by a system of iron, steel and concrete bridges, which are not equalled, certainly not excelled, by any Province in Canada, nor by any State in the United States.

This action on the part of the then Liberal Government, saved the situation, and although the policy was at the time criticised and opposed by the Conservatives it is now admitted that the policy was a sound and wise one, and one that has met with popular approval. Up to the 31st of December, 1919, over 1,300 of these larger bridges had been completed at a total Capital Account cost of \$3,673,689.36.

The fact that 1,300 larger bridges have been constructed furnishes some idea of the extent to which this Liberal policy has been aggressively prosecuted and the very serious problem involved. It is doubtful if any other Province in Canada or State in America of the same area and population as Nova Scotia ever had such a serious problem to solve and has done so

much towards solving it with as little cost to those who are benefited thereby. Every county in the Province has evidence of what has been done and must appreciate that but for the undertaking of this work by the Government, the bridges must have remained down, or have been crected as the result of direct taxation upon the people by the various counties.

Down to 1907 the interest on Capital Expenditure on Larger Bridges was deducted from the Road and Bridge grants allotted to the Municipal Councils. This is estimated at \$1,360,000.20. Since 1907 the entire interest on the capital cost of these structures was assumed by the Province and has been paid out of the general Provincial revenue. While it is apparent that this is a heavy charge upon the revenues of the Province, the direct effect was that the various counties have had their allotment for the construction and upkeep of highways increased to a like amount. The action of the Government in assuming this obligation formerly charged against the Municipal road grant was a wise and proper policy and has enabled it to carry out a progressive and generous policy in dealing with the various County road problems.

No reasonable person can condemn this interest expenditure as being excessive nor the bridge policy as being the cause of an annual drain from the treasury. Had the Bridge Act never been passed, approving the construction of permanent work, the 1,300 large bridges, which are now of iron and stone and concrete, would have cost many times the amount of the present structures to maintain and there would have been not one dollar of assets remaining from such expenditure; whereas at the present day we have a larger bridge system which is fully equal to that of any country and considerably better than the majority of the States and Provinces, and structural assets amounting to \$3,370,000.

Not only has this large number of bridges been constructed, but they have been properly maintained at a

cost of \$391,294.46 to date. There is no Province in Canada or State in the Union which can show as good a system of larger bridge structures as in Nova Scotia.

Expenditure by Counties to Dec. 31st, 1919:

4 11	\$	168,118.59
Annapolis	₽	
Antigonish		128,254.12
Cape Breton		245,085.98
Colchester		307,031.50
Cumberland		418,776.03
Digby		156,965.65
Combons		203,238.88
Guysboro		217,273.10
Halifax		287.741.18
Hants		
Inverness		283,896.41
Kings		142,442.89
Lunenburg		173,099.90
Pictou		269,255.25
		82,314.16
Queens		205,646.55
Richmond		97,527.20
Shelburne		
Victoria		147,419.15
Yarmouth		139,602.82
Total	\$	3,673,689.36

The Law Changes.

The road building programme in Nova Scotia for a number of years consisted of statute labour supplemented in some instances by government grants, with the municipalities responsible for the construction of bridges. Even under the old system and before 1917, there were changes made in the law with respect to the expenditure of the provincial grant. We find in the first instance that the expenditure of this grant was controlled by members of the legislature and that led to a very considerable scandal in some counties in this Province. The result was found to be unsatisfactory. It was found that we were not getting the benefit which we should get; and as an al-

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een conined at a ternative to the control of the expenditure by the Legislature the control was given to the municipal councils, and for some years the grant per county was handed out and divided up amongst the different roads of the county according to some system and the municipal councillors then divided it up into job lots. The result was that no extensive work of any kind was The holes here and there were patched up it is true, but under such a system it was of course impossible to have any forward policy for two reasons: first, the amount of division and subdivision of the money and, second, the very small amount of money which was available in any event. A new Road Act was enacted in this Province whereby a Road Division was added to the Department of Public Works and that Department undertook the road expenditure of this Province. The condition of the highways after that time showed the wisdom of the change.

The Public Highways Act.

Under the terms of Chapter 3, Acts of 1917, the Public Highways Act, the duty of administering all the revenues available for road construction and maintenance was centered in the Highways Board. This Board consists of the following gentlemen, two of whom were selected by the Leader of the Opposition, and all of whom are men of the highest integrity:

Members of Highways Board:

W. G. Clarke, Chairman. Walter, Crowe Thos, Cantley. James K. Kelleher, Secretary. Percy C. Black.

The Highways Act of 1917, was passed at the general demand of the people of this Province. Statute labour had become obsolete. It was conceived and made use of at a time when people made their own elothes; when people made their own boots; but as

conditions went along and labour changed, as far ners had all they could do to attend their farms, and as industries sprang up, it was found to be obsolete. In many of the Counties of this Province, where one would look for something better, Statute labour was not performed at all; in many other districts conscientious work was done, but generally nothing was done in the way of continuity; one district might provide enough Statute labour to keep the road in that district in fair shape, but frequently the traveller before he reached the next district went over a section where there was no Statute labour available and where the roads were abominable.

We had a distinct clamour from many of the towns and municipalities for good roads and their expressions of being willing to pay for them. We had resolutions from Boards of Trade all over the Province asking that a change be made and Statute labour abolished, and that construction of the roads and bridges should be all gathered together under one head. We had resolutions from the Union of Municipalities, which is supposed to represent the last thing in Municipal ideas in this Province, not only asking for what we afterwards did, but recommending a distinguished member of that Union as a possible member of the Road Board which should carry out the provisions of any law which might be made; both of which recommendations were carried out. We also had resolutions from the Farmers Association of Nova Scotia asking for a change and the abolition of the old conditions and the adoption of new, and the constituting of some progressive policy in this Province under which, with the new conditions of greater traffic and increased prosperity we might have a better system of highways in the Province than we have ever had before; and we also had the press of this Province without exception, demanding that something be done to get rid of the old state of things and adopt a new policy.

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The Opposition were able to see the absolute fairness of the provisions of the Act, and they were able to interpret public opinion on the matter so that when the Act passed the House it received the unanimous assent of all the members.

Duties of Board.

It may not be generally known just what are the duties of the Board. The sections of the Act dealing with that subject are as follows:

"The Board, shall, subject to the approval of the Governor-in-Council, appoint a Chief Engineer and such other Engineers, Officers, Clerks and assistants, as it deems necessary, for the due administration and carrying out the provisions of this Act, and shall fix the remuneration of each person so appointed."

Then, "The Board shall, subject to such approval, make such rules and regulations as it deems necessary or desirable relating to—ia; the duties of all officers, engineers and other employees appointed under this Act, and ib; the conditions and qualifications for employment as foreman, sub-foreman, mechanics, workmen and teams, and ic; all matters incidental to the performance of any of the duties of the Board or of such employees."

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"It shall be the duty of the Board and all such employees to perform the duties imposed by this Act, and such other or further duties in connection with the administration thereof as may from time to time be required by the Minister, or by any regulation of the Governor-in-Council."

"It shall be the duty of the Board:—To compile statistics and collect information relative to the mileage, character and condition of highways in the several Municipalities of the Province, and make such in-

vestigations relative thereto as it shall consider expedient. It shall investigate and determine upon the various methods of road construction and maintenance best adapted to the various sections of the Province and establish standards for the construction and maintenance of highways in the various sections, taking into consideration the topography of the country, the natural conditions and the character and availability of road building materials."

"It may be consulted and shall without charge, advise the Municipal representatives or officers and shall when requested advise and give information to such representatives or officers relative to the construction, alteration and maintenance of highways and bridges. It shall at all times assist in promoting road improvement throughout the Province, and prepare and compile useful information relative to road building and maintenance, which it shall disseminate by means of printed bulletins."

They are also required "to report annually to the Minister upon all work done and moneys expended under its direction; to prepare or cause to be prepared, such maps, plans, specifications and estimates as are necessary for all public highways proposed to he constructed, altered or repaired; to make such inquiries and reports as the Minister directs respecting any matter dealt with by this Act, or incidental or relevant thereto."

Then there are regulations with regard to the duties of superintendents, requiring the superintendents properly to qualify themselves to beneficially act as such. Then, the Board shall have the power to invite tenders by public advertisement or other public notice for performing any work under the provisions of the Act in any case where from the nature of the work it cannot be more expeditiously and economically performed or carried out under the direction of the officers of the Board.

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Sources of Revenue.

The following are the Provincial sources of revenue for roads in Nova Scotia and the amounts estimated from each during the current year:

Provincial Highway Fund	\$603,502.67
Revenue from Cities, Towns and Municipalities. Crown Land Moneys.	350,105.34 17,644.03
	\$971,252.04

The annual grant given by the Government for road maintenance for a great number of years has varied little from year to year. The municipal tax takes the place of the old statute of labor. A new road tax was for excellent reasons imposed upon the eities and Anybody approaching a eareful study of the road problem concedes that it is as much to the interests of our towns as it is to our country districts to have good roads. The fees arising from automobile registrations is the only elastic source that we have for road improvement and maintenance in this Province. Our income from this source increased twenty per cent. or more last year, and it is believed that at the end of five years our revenue from this source will have more than doubled. In addition to that we have the Federal Aid.

Federal Aid.

The policy of Federal Aid to Provincial Highways, embodied in The Canada Highways Act, became law on July 7th, 1919. Briefly this Act appropriates \$20,000,000 for payment during the period of five years from the first day of April, 1919. to construct and improve highways in Canada. The sum is apportioned to the Provinces as follows:—

(a) "Eighty thousand dollars shall be paid each year to the Government of each Province;

(b) "The remainder of such sum shall be allotted and paid to the Government of the respective provinces in proportion to the populations of the said provinces respectively, as determined by the latest Federal census of each Province;"

Payments are made subject to the following con-

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- (a) "Any highway for which aid is granted shall be constructed or improved, as the case may be, in accordance with the terms of an agreement to be made by the Minister with the Government of the Province. Such agreement must be approved by the Governor-in-Council and shall contain such provisions as to location, cost, description, specifications, time and method of construction, supervision and other necessary particulars as are essential to protect the public interest. Except for reasons set forth in such Order-in-Council, and except with the consent of both Governments, all expenditure under this Act shall be by tender and contract;"
- (b) "The aid to be given in any case shall be forty per cent. of the amount which in the opinion of the Minister is the actual, necessary and reasonable cost of the construction or improvement of such highway, as the case may be."

The highways to be aided under the Act are to be "such main and market roads," as shall encourage production and stimulate trade and commerce, and they are to be approved by the Minister of Railways and Canals.

The expenditures called for under the Act are to supplement the usual amounts granted by the Province, and are not to be used for the purpose of diminishing the customary grants.

The Government of the Province shall submit a programme for construction or improvement of a system of highways. The programme shall include

first, roads having greatest local importance and second, roads having both local and general importance.

All expenditures to be made on tender and contract, except as provided in the Act, and unit prices to be the basis. If necessary to protect the public interest the Province may itself submit a tender.

In determining the cost of a highway for the purpose of fixing the amount to be paid under the Act, the cost of the following shall not be considered as a part thereof:—Cost of right-of-way and incidental damage, bridges, viaduets, subways, exceptional grade separation, overhead and administrative expenses, making of surveys, plans, specifications and estimates, or any engineering expenses incident to the project prior to the beginning of actual construction. Cost of culverts having a clear width of twenty feet may be included.

The supervision of each project by the Provincial Highways Department shall include adequate inspection of work and material by competent engineers throughout the course of construction.

The Province shall agree that when he highways constructed or improved with Federal aid have been accepted as completed, the Province shall maintain the same with all necessary repairs, and renewals, so as to preserve the standard of construction of each particular class of completed highway.

The Amount that Nova Scotia will Receive.

The Canada Highways Act is about \$300,000 for each year of the five year period, or to be accurate \$293,744.00 and to secure this aid the Province must spend on approved projects \$450,000 for each year in the same period, or to be exact \$440,616. In other words, if a five year programme is adopted there will be available about \$1,500,000 of Federal money, to secure

which must be added \$2,250,000 of Provincial money, or in all there will then be available \$3,750,000 for the construction ,reconstruction and improvement of carefully selected portions of the roads in Nova Scotia.

The character of the road has been discussed with the Commissioners who will administer the Federal Act, and they agree that a road of proper width, well drained, and surfaced with good wearing material, would be of a standard to secure Federal Aid. The Board's Engineer advises that the average cost of such a road in this Province will be not less than \$4,000 per mile; whether contractors will build for that figure remains to be seen. In the light of the Board's experience of rising cost of labor material, the figure is not excessive. Many miles of such road, particularly on the southern shores of the Province will cost very considerably over \$10,000 per mile.

The Federal aid money will be devoted towards helping to provide a system of main or provincial roads, say about 1200 miles in extent, and at the figure stated would in the five year period overtake and reconstruct 900 miles of these.

In the first years of the five year period the first rate of progress will be slow, it being advisable to undertake the reconstruction of the worst parts of the system; these will be of course the most expensive portions, and in these years cost of the reconstruction will be above the average price stated above.

The Federal aid programme will do much towards satisfying the growing needs of the Province for better roads, but the rate of progress is too slow. The towns and cities are insisting that their highway taxes shall be expended on the thoroughfares leading into them; the motor owners are clamorous for better roads everywhere, and are claiming that they are paying in license fees sufficient moneys to warrant better roads, and the farmers all over the Province, whether living

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on primary or secondary highways, demand with justice that they are entitled to consideration. The time has come for the Province to deal with the road problem in a large and generous way.

The Provincial Road Programme.

The Province would not be satisfied with the 900 miles of reconstructed and improved roads which the Federal aid alone would provide within five years. In consequence the Nova Scotia Government has, therefore, adopted a program for the construction and improvement of roads extending over a period of five years and involving an expenditure of \$13,000,000.

The question is often asked—Why a five year program? Why not a one year program as usual? The answer is that under the Federal aid we are getting forty per cent. of an expenditure to which we are obliged to contribute sixty per cent. We obtain allotments from the Federal Government year by year for five years. The fund will not lapse for any one year if it is not taken up, but it cannot be anticipated and two years taken in one. At the same time if the Province waited until the completion of the five year period it would obtain the entire amount.

Classification of Roads.

In accordance with the requirements of the Dominion Act and in order to carry out successfully the Provincial Roads program the Highways Board have made a classification of our roads as follows:

Class 1. Includes that mileage of roads heretofore generally known as trunk roads, or those roads connecting countics, and also all the county roads of chiefest importance, the total mileage of which will be about 4,000.

Class 2. Will include the rest of the roads, 11,263 miles. It is not intended that this classification shall

remain fixed or unalterable, but that there shall be some elasticity about it,—thus, if any road under Class 2 develops a traffic, it may be placed in Class 1, the factor being the traffic the given road is called upon to bear.

In addition to reconstructing and completing to Federal standard an average of 180 miles yearly we shall under the Provincial programme reconstruct and improve a further 60 miles annually of the Provincial Trunk Roads for five years. There will then be left 2,800 miles of Class 1 roads requiring treatment. The recommendation is that 560 miles of these be taken in hand each year for five years at an average cost of say \$1,500 per mile, which amount should bring these roads to the point of surfacing with gravel or other suitable material.

Regarding Class 2 roads it is recommended that preliminary work to the extent of \$500 per mile be undertaken on 1,000 miles of these roads annually for the next five years.

This programme will construct 9000 miles in five years of the quality of roads mentioned, and the completion of such a five year prgramme the road question in its most pressing phases would largely be solved.

It is estimated that to carry out this programme just detailed, that is to say for the 180 miles under Federal aid, the sum of \$450,000 a year will be required, for the second 60 miles a year to Federal standard we will have to provide \$240,000; the amount necessary to reconstruct 560 miles each year of Class 1 road is \$840,000 a year and the amount necessary to reconstruct 1000 miles each year of Class 2 roads at \$500 per mile is \$500,000 a year. The amount necessary to provide machinery for eonstruction purposes as needed, to accomplish this work will be \$500,000; amount necessary each year for machinery for maintenance and patrol purposes is

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,263 shall \$75,000; or an annual requirement altogether of \$2,605,000 or a total in five years under this head of \$11,025,000.00.

Secondary Roads.

The question may very properly be asked, while these roads are under construction, what will become of the roads which will not be completed until the seeond or third or fifth year as the case may be and what provision is being made for the fixed expenses. proposed that there shall be voted annually the sum of \$1,078,150.00. It will require \$100 per mile for roads that have been brought up to Class 1 standard and \$50 per mile for the eare of all other roads and by this programme it is believed that we shall be able to provide for every mile of road in Nova Scotia at least \$50 a mile which is now under construction of a higher order. That is to say that whereas hitherto we have had per mile for road construction in Nova Scotia considerably less than \$30.00 we will have \$50 per mile.

Comparisons.

It will be seen then that under the present program, Nova Scotia will have at the end of five years, 9000 miles of roads of a Class 1 standard. This is considerably more than fifty per eent. of the total road mileage of the Province. In this respect Nova Scotia will stand comparison well with even the more populous and wealthy States of the United States of America.

For instance, take the State of California, where road construction is comparatively easy compared with Nova Scotia, not only on account of climate but on account of wealth and other things. They have only succeeded up to now in making 2.9% of their roads to this standard. The State of Virginia only 11%, West Virginia 5%, Connecticut 22%, Rhode Island 34% and Massachussetts the largest, 47.5%. The States nearest to us and where conditions are more like our own, Maine 14.5%, New Hampshire 14.1% and Vermont 15.7%.

While none of these States, although some of them have been working at this problem for more than five years have succeeded in getting more than 50% of their roads in first class condition; of the roads that have been resurfaced less than 6% have a surface of a better quality than gravel and less than ten per cent. of the roads of the whole United States have any kind of a surface and less than two per cent. are suited to heavy motor traffic.

Changes in Administration.

Under the old dispensation there were three District Engineers; one in Cape Breton Island; one in the Eastern portion of the mainland and one in the Western part of the Province.

The office of the District Engineer has been abolished, but, in order to comply with the Dominion Act and obtain the Dominion subsidy, the Province has been divided into ten residences or areas, each under the supervision of a resident engineer, reporting direct to the chief engineer.

In each of these residences a sufficient number of superintendents will be appointed to make it possible for them to instruct the foreman carefully as to the work to be done and inspect the work as it progresses to see that it is being carried on properly.

Carrying this method of organization still further down an ultimate area as contemplated of from forty to sixty miles of road is to be in charge of a working foreman or overman. Thus during the entire year there will always be some one definitely charged with the care and oversight of every mile of highway in the Province.

Difficulties in Nova Scotia.

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> Under the program outlined we shall be able to put a greater percentage of our roads in good condition

than has been done in any Province of Canada or any State in the Union. There are, of course, difficulties in the way. In the first place we have an excessive road mileage in this Province. Our road mileage is almost as great as that of the State of Massachusetts with its immense population and great wealth.

Moreover in Massachusetts they have an automobile fund available for road purposes of over three million and a half dollars; in Nova Scotia we have but one hundred and fifty thousand dollars. In Quebec their road mileage is very little over double ours while their available funds for road purposes out of motor fees amount to about a million dollars. The Province of Ontario with a little more road than Quebec has an automobile fund of over a million and a half dollars, so you will see that when we put our hand to the plough we are having some courage and we are up against some difficulties that are not to be reckoned with in larger and more populous and wealthy centres on the continent.

Another thing that we have to put up with in Nova Scotia, and our Province in that regard is worse than any Province or State, and that is climatic conditions. Owing to the constant freeze and thaw in this Province, in Spring and Fall, it is almost impossible for some time during that period to provide any system of road, no matter what they are made of, which will withstand the climate conditions. In fact, it would be impossible and impracticable to put down a permanent, concrete way in Nova Scotia because in some of those States where the climate is not as severe as ours, con rete roads are broken and cracked by the frost and ...e in a bad state of repair today. Another thing which takes a great deal away from our road fund is the innumerable water courses. Few, if any countries have so many small streams and arms of the sea coming in as in Nova Scotia. These all have to be bridged and looked after and renewed and the consequence is that they take a very large amount of money from the available fund which would otherwise be put

on the surface of the roads. Another thing is the long distance between centres, and we have to build roads between centres, in many places through districts from which there is no revenue whatever; in order that people can get from one centre to another we have to build expensive roads in a country like that from which we get no revenue.

Another thing that is not generally appreciated is the value of the dollar. You cannot get done today for a dollar what you could get done five years ago for forty cents and that fact is not always fully appreciated. We really up to now, have not had, owing to the fact of the depreciation of the dollar, as much money to expend on the roads as we had ten years ago. That fact, I think, in some instances is overlooked by our friends in the country. Then there is the greater traffic; enormous traffic,—growing all the time; motor cars extending to places that people never went before, and it has increased 20% during the past year.

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Counties Voluntarily Increase Tax.

Several counties have voluntarily increased their road tax. Annapolis led the way in this regard and voluntarily increased its tax from 40c, to 50c, on the \$100, and again from 50c. to 60c.; Guysboro, is another county which has voluntarily done the same thing and increased the tax from 40c, to 50c. This year the Cape Breton district has done the same thing. Perhaps some of the other counties do not know the benefits accruing. The Road Board has passed a resolu-, tion stating that every county that voluntarily increases its tax will get dollar for dollar more in expenditure than the county that does not do it. This is the Carnegic idea; it is a sign that some of the counties have seen the benefits of good roads and what the Road Board after two years has tried to do, and they have voluntarily raised their tax for the purpose of expenditure on the roads within the limits of those counties. Even the criticisms, even the hurry up call

is encouraging because it shows the people are anxious as quickly as possible to have the roads in this country put into better shape.

Criticisms.

Of course there have been some criticisms made. In one locality the criticisms that all the money has been spent on what are called the trunk roads; in another locality that all the money has been spent upon byroads, but any fair-minded person who will take the trouble to analyze the figures in the Highways report will come to the conclusion that there has been a very equitable distribution of the road money over class one and class two roads, and of course the future will take care of itself because we are providing double the means for the by-roads than we ever had in Nova Scotia heretofore.

Overhead Expenses Reduced.

Under the old Act before 1917, when we were getting a provincial grant of \$230,000 to \$250,000 a year, it was of course necessary in administering the road and bridge fund that engineers should be employed and an office staff should be employed and it cost 10.06 per cent, to administer that grant. In the first year of the Road Act when we had very little more funds it cost for overhead expenses 7.06 per cent, and this last year, 1919, the total administrative expenses had become 6.07 per cent. Reports have been circulated that it cost all the way from 50 per cent, to 70 per cent.

Diverting the Motor Vehicle Fees.

There is observable the beginning of an agitation to divert the motor vehicle fees from the Provincial Treasury to the cities and towns where the licensee lives.

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- 1. "The registration of motor cars is necessarily a function of the Provincial Government, since for purposes of law enforcement it is essential that all cars be registered in a central department. The Province thus relieves Municipalities from the responsibility and expense of registration, and the registration fees are primarily indicated as a source of Provincial Revenue.
- 2. "By the legislation of 1913, a portion of the motor revenue was specifically appropriated for expenditure on the great Provincial roads. In 1918, the fees were advanced in order that a substantial fund might be created for road improvement; on the strength of this advance, \$500,000 has been borrowed for improvement, and payment of interest and principal of this debt has been made chargeable to the motor revenues.
- 3. "As the motor revenue increases there is the probability of further substantial sums being borrowed thereon. Indeed the ability of this Province to undertake a forward movement for the improvement of the roads depends in keeping these revenues as. Provincial, not Municipal.
- 4. "Motorists are relying on the law of 1913, and on the implied promise made when the motor fees were increased, that the purpose was to provide for road betterment. It is incumbent, therefore, for the Provincial authorities to see that this money is applied to substantial road improvement, and not returned to local Municipalities to enable them to reduce the local tax rate.

5. "The road laws have been placed on their present broad basis in the belief that revenue from motor vehicle licenses would form a permanent fund for road improvement. If this revenue is to be lessened, Provincial expenditure on roads will be necessarily decreased.

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- 6. "The use of the motor car is not confined to the Municipality in which it is owned. The result is that cars owned in the cities and towns of the Province are used freely on all the rural roads, and the demand for the improvement of the rural roads is as urgent from the cities and towns as from any other quarter.
- 7. "If motor car fees were returned to the place where the car is owned, then the moneys so received from the cities and towns would be returned to them, and would be unavailable for use on the country roads, the improvement of which as previously stated, is largely urged by the residents of these cities and towns. Cities and towns should contribute to the construction of the Provincial roads. This is done directly or indirectly by every country which has built up an adequate system of roads. So far as Nova Scotia is concerned it can be done in no other way.
- 8. "The great need in Nova Scotia, and it is the basis of the Highway Act, is concentration of funds for highways work.
- 9. "Briefly, roads must be built in proportion to the traffic over them. Roads of heaviest traffic are those radiating from shire towns and shipping points, or roads connecting the cities and towns of the Province. These are the roads of concentrated motor traffic, and the roads expensive to build and maintain. Any system which results in diffusion of the motor revenue and lessens the funds available for roads of this character would defeat a fundamental need of the Province."

A Good Act.

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This Road Act we have in Nova Scotia is the best Road Act on this continent. We have Road Acts and systems in every Province in Canada. We have Road Acts in the various states of the Union; but there is no Act that pretends to do what the Road Act of Nova Scotia aims to do, that is, to look after every foot of road and every single bridge in this Province. The other provinces boast of their State highways, but they are leaving the country roads to the Municipalities, leaving the bridges to the Municipalities, and placing all their forces on building trunk roads connecting large centres; in Quebec, Ontario and the various States of the Union, that policy is being conducted by them and they are leaving the rest to the Municipalities; whereas under the Road Act of Nova Scotia we have taken the bold step of seeking not only to provide passable trunk roads, but taking up the higher standard of providing for every mile of road and every single bridge and culvert. For that reason the Road Act of Nova Scotia is the most progressive of any Province in Canada or any State of the Union. There is no other way—under no other law can we provide the machinery to take care of all the roads of the Province and the bridges, be it burdensome and difficult—than by such an Act as we now have in Nova Scotia. During the last two years of the war, 1918 and 1919, had it not been that we had this road Act in Nova Scotia, had it not been that we were doing the road business under different conditions from the old. on account of labour conditions we would have had no road work done at all, and the roads would be in a worse condition at this moment, with the greater traffic, than they have been for many years.

EDUCATION.

In the department of Education things are in an eminently satisfactory condition. Whatever complaints have arisen and whatever suggestions have been made looking to the improvement of existing con-

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ditions, have received careful consideration, followed by such action as seemed to be in the best interests of the Province, and steady and substantial progress is being made in all lines.

During the last few years the Council of Public Instruction has been assisted in its actions by the co-operation of the Advisory Board of Education.

The Advisory Board.

In 1906 legislation was passed authorizing the appointing of an Advisory Board of Education. Board consists of seven members, two of whom are elected by the licensed teachers of the Provincial Educational Association, and they must themselves be licensed teachers actually engaged in teaching in the Province, while the other five are appointed by the Governor-in-Council. In the appointment of these, care is taken to see that different interests may be fairly represented. The duties of this Board are to advise the Council of Public Instruction with regard to text books and apparatus for use in the schools. books for school libraries, qualification and examination of teachers; courses of study for the public schools, and the standard of admission to county academies and high schools; the classification, organization and discipline of the Normal College, county academies and the public schools, and such other educational matters as may from time to time be referred The members of the Board hold office for two years, but are eligible for re-election or re-appointment.

This Board began its duties in 1907 and since then the Council of Public Instruction has had the advice of these experts on such educational question as havarisen. Nova Scotia has thus had 'the benefit of the advice of the following educational experts, as members of the Board, namely:—William Cameron, ex-M. P. P., Chairman, Pictou; Burgess McKittrick, Secretary, Lunenburg; Willard F. Kempton, Yar-

mouth: D. G. Davis, Principal of Truro Academy; A. G. MacDonald, Inspector of Schools for Antigonish and Guysboro; Dr. Howard Murray, Professor of Classics in Dalhousie University and G. K. Butler, Supervisor of Halifax Schools.

Among the matters which have been dealt with by the Board probably the most important have been the revising of the High School Course of Study and the selecting of suitable text books for use in the schools.

The Course of Study.

In 1907, the High School Course of Study, which had then been in effect for fifteen years, was, on the recommendation of the Board replaced by a new one. There had been a considerable amount of dissatisfaction manifested with regard to the old course. This dissatisfaction had manifested itself more especially with regard to the rigidity of the course and the number of subjects which it included. In the preceding year the Provincial Educational Association had declared itself upon this question. This is the body with which had long rested the responsibility for the Course of Study. After a vigorous discussion that body by a virtually unanimous vote declared itself in favour of a new course of study which should be somewhat less rigid than the old one, and in which the number of subjects required to be taught and studied should be not so great. The Advisory Board drew up a Course of Study which received the approval of the Council of Public Instruction, and this has been in force now for a period of thirteen years with annual revisions.

No Course of Study has ever yet been devised which has met with the unqualified approval of everybody, but there is reason for congratulation in the fact that this course, which has been in effect in our Province since 1907 has met with such general acceptance and approval.

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Total Education Expenditure.

The following table of the total expenditures on education out of revenue for the past five years will show how generously the Government has treated the educational services of the country—always on an ever-increasing scale:

Year. I 1915 1916 1917 1918	General Education. 369,004.70 370,145.98 375,050.68 373,195.71 372,600.44	Education. 62,406.55 55,439.79 57,233.34 54,288.85	43,656.29 43,350.99 48,724.12	Total. 464,411.25 469,242.06 475,635.01 476,208.68 483,812.41
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\$1,859,997.51 289,264.68 220,047.22 \$2369,309.41

From this table it will be seen that the Government has expended from revenue during the past five years a total sum of \$2,369,309.41 on the general education, technical education and agricultural education of our youth—an average per year of \$473,861.88.

During the past eight years the expenditure on education in Nova Scotia was as follows:

General Technical Agricultural Total. Education. Education. \$3,571,674.15 \$582,684.66 \$383,858.53 \$4,538,217.34

Pensions to Teachers.

The Provincial Government has contributed, during the last thirteen years, \$122,210.14 out of revenue for the pensioning of aged teachers and those incapacitated for further active duty. The grants have been very liberal. The amount of the retiring annuity is equal to the amount of the annual Government grant paid to the teacher, and based on the class of license last held. School Boards, Municipal Councils and Trustees are empowered to supplement these grants under

an approved superannuation system if they so desire. The Government has, in recent sessions of the Legislature, extended this pension system to the higher academic teachers and to the school inspectors, who now will receive the benefits of the superannuation system. The adoption of legislation providing for the pensioning of our teachers and subsequently of our inspectors has tended to ensure a greater permanency in the teaching profession of the Province.

Annuities.

1916	\$11,91807
1917	13,63616
1918	13,64234
1919	14,47001
	\$53,666 58

Assisting Rural Schools.

By the rural school library regulations, progressive rural schools can obtain for their teacher from \$5 to \$10 per year more than the ordinary Provincial Aid. This gives such progressive teachers more Provincial grant than the highest grants ever awarded to teachers before in Rural Schools.

Regulations have been framed to facilitate the consolidation of small sections and out of the vote for this purpose, about \$4,500 has been given yearly to poor sections, which could only be strengthened by union.

Provincial Grants to Teachers.

The first act performed by the Provincial Government, after they were assured that the Liberal administration at Ottawa had granted an increased subsidy to the Province, was to increase the amount given for teachers aid so that there is now no reduction from the maximum grants as fixed by statute for teachers. These grants are:—For "D" teachers, \$60:

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for "C" teachers, \$90; for "B" teachers, \$120, and for "A", according to the class of school, \$150, \$130 or \$210. The total expenditure from revenue for education last year was \$471,464.62, including the Provincial grants for technical and mining schools and for the upkeep of the Technical College amounted to \$59,895.95.

Of this amount, \$249,354.02 went to the teachers as Provincial Aid, and \$12,956.11 to retired teachers by way of annuities. This is by far the largest amount given as Provincial Aid to teachers in the history of the Province. The total estimated grant for education, including technical education, for the current year is \$541,180. The Liberal Government have not only given more money to education generally, but have given more money in the way of grants to teachers in common schools, as well as to the academies. The following is given as proof, taken from public records and shows the more generous attitude of the present Government towards the public schools than during the Holmes-Thompson Government:

Grants by the Holmes-Thompson Government.

Year. 1879 1880 1881 1882	Common Schools. \$151,65539 143,49392 148,17350 149,05822	County Academies. \$ 6,67500 6,60000 5,45700 7,45000	Total for Public Schools. \$158,33039 150,09392 153,63050 156,50822
Tota	al \$592,381 .03	\$26,18200	\$618,56303
Averag	ge ar\$148,09526	\$ 6,54550	\$154,640 76

Grants by the Murray Government.

Compare this average annual grants to the common schools and academies with the same grants under the Liberal administration. In the last five years the grants by the Liveral Government were:

	Common	County	Total for Pub-
Year.	Schools.	Academies.	lic Schools.
1915	\$ 246,560.82	\$10,000.00	\$ 256,560.82
1916	256,488.20	10,00000	266,488,20
1917	260,156,51	10,00000	270,156.51
1918	256,970.30	10,00000	266.970.30
1919	249,354.02	10,00000	259,354.02
	\$1,269,529.85	\$50,000.00	\$1,319,529.85
Average per year	253,905.97	10,000.00	263,905.97

In 1901 the teachers in the county academies were made participants in the Provincial aid. The county academy grant was fixed to correspond at a maximum of \$10,000. The distribution of the grant was made uniform to teachers of the same class of license, no matter whether they were teaching in county academy or in any high school. There has, in recent years, been a great simplification of the law and at the same time an increase in the total of all grants. As a result of the legislation of 1906 the teachers of the Province have drawn during the past eight years, an increased amount of \$685,229, for before that time the maximum that could be paid to the public schools and county academies was \$200,000 per annum. It will thus he seen that under the Liberal administration the yearly scale of payment is greater than that of the average year of the Holmes-Thompson Government by the respective amounts of \$105,810.71 for common schools; \$3,455. for county academies and \$109,265.21 for total for public schools. Last years grant was greater by \$104,713.26 than that of the average of the last Conservative administration.

War conditions during the last few years so raised the remuneration of labor and the cost of living that the usual salaries of teachers became far less than their services were sought for in other employments within the Province, and than they were being offered in the

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schools of the Western Provinces which had the advantage of school funds derived from Dominion lands.

The Government then arranged for a gradual and equitable raising of the salaries of teachers which began to come into force in 1918, continued through 1919 and in 1920 made a second advance through the increase of the Municipal School Fund and the fixing of minimum salaries to which a 163 per cent. increase of the Provincial Aid to teachers has been made law.

Teachers & Teachers . Academies.
Average grants H. T. Govt \$148,095.26 \$ 6,545.50 \$154,640.76
Average last five years 234,452.14 10,000.00 244,452.14
Grants to teachers first year of Holmes- Thompson Govt
FOUR years of Holmes-Thompson Govt. 5,000.15
Average yearly increase for the past eight
years since legislation increased the scale of payment

Normal College and Manual Training.

But at the same time that common and high school education was being generously supported, public grants commenced to be paid to aid the manual training branches of education—Mechanic Science for the boys and Domestic Science for the girls. Commencing at something over \$2,000 it rapidly increased in five years to nearly \$10,000 a year without any reduction from the other grants. At the same time the grants for the education of the Deaf and Dumb and the Blind were also increased without prejudice to the public school grants. Government night schools, elementary technical schools for the miners, agricultural schools, and perhaps more important of all, the

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Provincial Normal College, which has been the most powerful factor in improving the educational work in the public schools, were being made more effective and better adapted to the needs of the people. The influence of this college is shown in the steady growth in the number of Normal trained teachers employed in our public schools, now amounting to over 50 per cent. of the total number engaged in teaching. In 1893, out of 2,319 teachers, 408 were Normal trained. In 1919, out of 3,012 teachers, 1,640 were Normal trained.

The exact figure of the amounts paid for each of the last six years for Mechanic and Domestic Science and for the Deaf and the Blind are as follows:

	Mechanic and	Deaf
Year.	Domestic	and
	Science.	Blind.
1915	\$ 9,347.35	\$19,087.50
1916	8,788.47	18,112.50
1917	9,003.29	18,450.00
1918	8,642.13	18,833.75
1919	8,456.18	13,578.75
Totals	\$44,237.42	\$88,062.50
Average per year	8,847.48	17,612.50

Closed Schools.

The Opposition endeavor to show that the Province has too many closed schools. The fact shows that the number of closed schools in the Province is comparatively very small. In the last school year there were nominally 124 school sections without schools in the Province, and of these nearly one-half have now no school population or are temporarily served by the schools of the adjacent sections.

In 1880, under the Holmes-Thompson Government, there were 176 schools closed all the year around (469

in winter and 330 in summer), and the greatest number of schools in session during the summer term was 1861 (only 1687 in winter).

In 1919, owing to conditions developing as a consequence of the world war, closed schools increased since 1917 from 67 to only 124, while there were 2812 schools in session, only 71 being in session for less than half a year.

Provision has been made by the Legislature to place school sections which make no provision or insufficient provision, for school before the first day of October, under the administration of the District Boards and Inspectors. During the past year the provisions made by the Government for the small rural schools have been so generous that 414 schools have been kept going where the average attendance on the whole amounted to not more than 7 in each school, some of them not having more than 5 pupils.

Charge of Closed Schools.

The charge is frequently made that the cause of closed schools in Nova Scotia is the lack of financial support on the part of the Government. This charge is generally followed by the statement that if higher salaries were paid the teachers fewer schools would be closed.

While the Government fully realizes the importance of an adequate remuneration to school teachers, it cannot be truthfully said that high salaries will solve the Closed School problem.

The Province of Alberta, through its large land holdings is able to pay much higher salaries to teachers than can this Province; nevertheless there were 400 schools in Alberta closed during a portion of the current year. This goes to prove that even a large increase in teachers salaries would not cure the Closed Schools evil.

Statistics Showing Progress.

Apart from the technical schools, the regular public school enrolment increased from 106,351 in 1914 to its maximum, 109,189 in 1916, and during the war conditions since which have depressed school attendance everywhere by raising the value of labor and cost of living, it fell no lower than 106,982 in 1919. The technical schools in some departments were similarly affected by the same conditions, but are more ready than ever before to supply the coming demand.

The Rural Science (vacation) School in Truro, under the auspices of the Normal and Agricultural Colleges, was attended last year by 146 teachers, of whom all were specially preparing themselves to give more practical instruction in rural schools.

Since 1908, 10,500 persons have taken advantage of the physical training course provided for teachers. This training has already proved its value throughout the schools generally in improved form, health, manners and school discipline. School libraries have increased in value from \$42,260 in 1910 to \$50,000 in 1919.

There were 2,812 schools in operation in the Province taught last year by 3012 teachers, of whom 1640 were Normal trained.

The Provincial Aid to teachers increased from \$220,855 in 1910, to \$249,354 in 1919, an increase of \$28,499, and annuities to teachers from \$6,555 in 1910. \$14,470 in 1919, an increase of \$7,915.

The total value of school property in the sections amounts to \$4,137,743, and shows an increased value since 1910 of \$1,557,368. The total expenditure in 1919 by the Government for general education and technical education and received out of the municipal funds and by sectional assessment was \$2,097,593.37. An increase of \$225,149.23 over 1918,

PUBLIC ARCHIVES OF NOVA SCOTIA

HALIFAX, N. S.

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and ers 400 curinThe high school pupils increased from 8,657 in 1910 to 9,864 in 1919; the candidates for high school certificates from 4826 to 5487; the numbers obtaining the certificates applied for, from 2202 to 2869, and the Normal-trained teachers employed by trustees increased from 1097 to 1640—an advance all along the line.

The Nova Scotia School Book Bureau.

The Nova Scotia School Book Bureau has been established by the Government in connection with the Department of Education and is under the regulations of the Council of Public Instruction. The aim of the Bureau will be to provide the people of the Province with the prescribed school books, not only at as low prices as possible, but at prices which will be uniform throughout the Province.

All books prescribed for both the common and high school grades, as well as the books necessary for the M. P. Q. examinations, are kept in stock at the wareroom of the Bureau, in the Provincial Building Annex, Cheapside, Halifax, N.S. A full list of the books supplied by the Bureau is printed on the Bureau's Requisition Form, which is also the Price List. not on this list is kept in stock by the Bureau. Among other things this list contains the retail price at which the books supplied by the Bureau are to be sold, and the purchaser should know that the book dealers have agreed with the Bureau not to sell any books at a ptice higher than that which is shown on the Bureau's price list. The necessary postage per copy is also given, which must be sent in together with full list price, when small orders are to be sent by mail. amount shown in column for postage is not part of the list price.

The Bureau will supply its books to any person, dealer or otherwise, who remits the necessary amount with his order, which order, for convenience, should be filled in on the printed Requisition Form supplied

by the Bureau. School trustees and teachers are the proper persons to purchase the supply of books for the use of the pupils of the section. The conditions of purchase are printed in each Journal of Education, year by year, for their guidance as follows:

To Trustees and Teachers.

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uld lied School trustees and teachers may now purchase all the prescribed books for the use of the jupils of the section direct from the Bureau. When sear of trustees or teachers send in an order to the Bureau, amounting to three dollars list price or over and cartie that the books are ordered for the use of the schools of the section, the Bureau will allow a discount of 10 per cent, from the list price of the Bureau Remittance to cover must accompany order.

Further, on all orders of three dollars or over the Bureau will pay transportation charges under the following conditions. The Bureau will endeavor, as far as possible, to ship by the route designated in the order received from the teacher or trustees, but the Bureau reserves the right to ship the cheapest way, if such is considered of equal advantage with that specified in the order. If, however, person ordering demands that shipment be sent by express, post, or other costly conveyance, the Bureau will pay an amount not more than the "freight" equivalent. Balance of transportation charge must be paid by the person sending in the order.

The teacher or trustees ordering must, in such cases, sign the Agreement on Requisition Form, and they are at liberty to arrange to distribute the books at cost to them, or at reduced price. They must not, he wever, demand more than the price on the price list of the Bureau.

All orders under three dollars ordered to be sent by post, must be accompanied by full list price, together with necessary postage per copy as on price list of the Burea'1; if ordered to be sent by other eonveyance full transportation charges must be borne by purchaser. It should be noted that the small costal packets require prepayment of charges in every case. Consequently when books are to be sent this way, sufficient to prepay charges should be sent in with order.

TO BOOK DEALERS.

How books may be obtained by dealers from The Nova Scotia School Book Bureau.

- 1. Dealers, when ordering books from the Bureau, should, as far as possible, use the printed Requisition Form, and should be very careful to fill in exactly and earefully all spaces, showing number of eopies, shipping instructions, name and address, etc. This will obviate many mistakes that are liable to occur when orders are sent in not on the printed form. Dealers should state explicitly how they wish goods shipped.
- 2. Each and every Requisition for books must be accompanied by cash payment in full for all books ordered, calculated at 85% of the prices on the list issued by the Bureau. Payment may be made by Postal Order, Express Money Order, Postal Note, Bank Draft, Cash or Bank Cheque. Bank cheques must be payable at par in Halifax.
- 3. Dealers who wish to keep a stock of the books supplied by the Bureau, to sell at retail, must sign the agreement on Requisition Form, when sending in their initial order. This agreement will be taken to cover future orders as well.
- 4. The Bureau will pay **freight** charges on orders amounting to \$10.00 (list price) or over, but purchasers are expected to take delivery from the railway, steam boat, schooner or stage company at the nearest available station or point, and to defray thereafter the cartage or other transportation charges: On orders of

\$10.00 or over to be shipped by Express, the Bureau will pay an amount not greater than the freight charges, as outlined above, the difference between freight and express to be borne by the purchaser. The Bureau reserves the right to ship cheapest way.

- 5. On orders of less than \$10.00 (list price), transportation charges from Halifax to destination, by whatever conveyance, must be borne by person sending in the order. (It should be noted that the small costal packets require prepayment of charges in every case. Consequently when books are to be sent this way, sufficient to prepay charges should be sent in with order).
- 6. The Bureau agrees to repurchase from dealers, at the actual price which they paid to the Bureau, all unused books on hand in good condition which had been previously purchased from the Bureau, if and when such books cease to be prescribed for use in the schools of Nova Scotia. In this case those returning books to the Bureau must pay the transportation charges.

What Other Provinces are Doing.

While most persons would probably be willing to admit that the Nova Scotia Bureau scheme for the procuring and distributing of school books has proven of great benefit to the people, and that it has marked a great advance over the methods that have prevailed in the past, yet some may desire to know something about the methods in actual use elsewhere.

British Columbia to a greater extent and Manitoba, Saskatchewan and Alberta to a less extent are furnishing free to the pupils a few of the books used in the elementary schools, leaving all of the others to be procured in the ordinary way, and doing nothing further for the protection of the public in the matters of prices than to issue a leaflet showing the place of publication of authorized books, the names of the

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The Nova Scotia system is better and more satisfactory than the Ontario one in that it secures for the people uniformity of retail prices, and also secures equality of profit for all dealers, no matter what their distance from the distributing depot.

The system adopted by Prince Edward Island is very similar to our own. Both systems require the purchaser to send the cash along with his order, and both allow the same discount from the list prices. The P. E. I. system does not, however, make provision for supplying the books of the High School Course whereas the Nova Scotia system supplies all authorized books, those for high schools as well as for common schools.

The Nova Scotia system is so elastic that if a change to free text books were decided upon such a

change could be effected without any change in the present equipment.

Text Books.

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The School Book Bufeau was established in June, 1915, following legislation secured at the session of the Legislature in the spring of 1915, and was ready to distribute books for the school year beginning 1 August, 1915. It is interesting to note that, on the recommendation of the Advisory Board of Education, the low priced set of Readers, known as the Ontario Readers, were prescribed for use in the schools of Nova Scotia for the school year beginning August. 1915. Those Readers are still in use in Nova Scotia, and also in the neighboring Province of Prince Edward Island.

It had been estimated by the Advisory Board that the adoption of the Ontario Readers, the full sett of 5 books selling for only 49c., would effect considerable saving to the parents of the children. The Bureau, not operating for profit, was able to make this saving considerably greater than it would have been under the former method of distribution.

As a Matter of Fact the Saving Effected was Nearly \$90,000 for the Past Five Years.

The Common School Readers were prescribed for use for the school year beginning August, 1915, the prescription synchronizing with the establishment of the Bureau.

The New Readers could not have been distributed under the former system, at the very low prices on the Bureau list. Each Reader would have been somewhat higher. Hence the establishment of the Bureau enabled the Education Department to adopt a set of Readers, whereby in five years a saving of \$89,354.00 to the people was effected. Also, in the other texts a direct saving to the people of over \$6,000 was brought about.

Books Distributed from June, 1915 to September 30th, 1919.

Title.	Number Distri- buted. .126.678\$	Price Old Series. 19,001.70 \$	Price New Series. 8,142.68	Saving. \$11,401.02
Reader, " No. 1 " No. 2 " No. 3	80,888 2 88,845 3 60,188 4 35,871	16,177.60	7,013.04 10,314.95 7,462.13	9,706.56 34,649.55

 $392,170\,\$129,231\,.\,58\,\$39,877\,.\,58\,\$89,354\,.\,00$

Other text books were used to the number of 65,196. At the old prices these would have cost our people \$31,495.15. The actual cost was \$25,457.75, a saving of \$6.037.40.

Taking the remaining books on the course of study, generally publishers' prices had increased year by year, in some cases greatly. Yet it is reasonable to suppose that, in view of the fact that the Bureau kept the prices of books, publishers' prices of which had not increased, below the list prices of 1914, the prices of those remaining books would be much higher than the present Bureau prices were the former method of distribution in use.

The Balance Sheet.

The Bureau's claim to be self-sustaining is not lightly made. The Table D, which follows, shows Loss and Gain Account to the credit of the Bureau \$7,632.31. Due Provincial Treasury actual Cash-Receipts and Expenditures; \$2249.71. The Inventory of Books in stock \$9882.02. The foregoing are figures at 30th Sept., 1919. It will also be seen that the Bureau must always keep a stock in trade valued at from \$10,000 to \$15,000 at any one time.

NOVA SCOTIA SCHOOL BOOK BUREAU.

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Accumulative Balance Sheet at 30 Sept., 1919.

Provincial Cashier.

Dr.	
Sept. 30/15 Deposits	\$ 10,808.51 28,915.82 38,663.49 45,409.11 43,748.85 2,349.71
Cr.	\$169,795.49
Sept. 30/15 Cheques. '' 30/16 '' '' 30/17 '' '' 30/18 '' '' 30/19 ''	\$ 10,879.42 34,949.32 41,999.69 42,998.73 38,968.33
Loss and Gain.	\$169,795.49
Dr.	
Sept. 30/15 Expense. " 30/16 " " 30/17 " " 30/18 " " 30/19 " Balance.	\$ 2,180.21 4,085.87 5,657.69 6,146.46 6,915.59 7,632.31
	\$32,618.13
Sept. 30/15 Books	\$ 2,437.39 4,504.03 7,117.04 9,615.81 8,943.86 \$32,618.13

Balance.

Sept. 30/19 Inventory of Books on hand	\$9,882.02
•	\$9,882.02
Sept. 30/19 Prov. Cashier	\$2,249.71 7,632.31
	\$9,882.02

One Million School Books.

The stand may be taken that there should not be a credit balance, if the Bureau is to be self-sustaining and no more. But the Bureau has promised to take back from dealers all unsold books in their hands, when such books are removed from the course of study. At 31 Dec., 1919, there were books unsold in the hands of dealers to the value of \$7000. There are over 100,000 children to be supplied, and a stock of books at many convenient points in the Province, to supply demand for any one or more of 100 different titles among 100,000 children is not at all too large.

All of which shows that the School Book Bureau is by no means a small undertaking and this is even more apparent when it is known that since its establishment the Bureau has distributed

> 785,755 Common School Texts. 150,541 High School Texts. 4,346 Teachers' Manuals.

a total of 940,642 text books or almost One Million.

National Service.

The Bureau with its fine wareroom and up-to-date conveniences for packing and shipping seems to have been providentially provided at a critical time.

may not be generally known that the Bureau played a most important part during the period of stress and strain, caused by the War, and also in the trying times since November, 1918.

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It was ready before hours and after hours, morning and night, to look after the distribution of literature during the campaigns for Food Production, Food Conservation, National Service, Recruiting. The Provincial Victory Loan Committee can also testify to its usefulness, for the Bureau bundled and shipped literally by the ton. It did its bit for National Service without neglecting an order for even one Primer.

Technical College.

As the years go by the wisdom of the Mrray Government in passing constructive legislation in 1907, providing for a comprehensive system of technical education becomes more and more apparent. foresight of the Government is all the more remarkable because it was simultaneous with the introduction and development of technical education in the United States. Massachusetts, which has long been regarded as the foremost state in the Union in educational matters, passed legislation providing for the industrial education of its workers at almost precisely the same time as this step was taken in Nova Scotia. After these pioneer steps were taken, technical education forged ahead at an astonishing rate in North America, with the result that every state in the United States has made generous provisions in this direction, and every Province of Canada except one has followed the lead of Nova Scotia.

The need of teachnical education for the large numbers of industrial workers in this Province was evident enough, but it required energy and courage to initiate it. Organized industry had gone ahead by leaps and bounds with the introduction of labor saving machinery until occupations had been divided and subdivided. The boys who entered factories were taught to operate

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a machine instead of being made proficient in a whole trade. The old thorough method of making competent workmen by a four year apprenticeship has almost disappeared. The young men in manufacturing establishments found themselves yoked to their machines, doing the same deadly routine work day after day and year after year, with little opportunity to learn the whole of a process and to advance themselves. Employer, were calling for more thoroughly trained workmen and for bosses and superintendents, but could to t provide the education themselves. The solution of the riddle was technical education and more technical education. This one point capital and labor agreed upon perfectly.

The Murray Government has always firmly believed that the most important factor in a democracy is education and they have ever tried to develop the intelligent people of this Province to its fullest power by education. The public schools were being conducted in a sane and efficient manner. Various phases of specific education and training from the lowest to the highest had been provided for those following the basic industry of agricultume. To round out the educational system, therefore, there were needed comprehensive and efficient measures to give the great numbers of working men in organized industry the technical training necessary to make him fully competent. Hence the establishment of the Technical College, Evening Technical Schools, etc.

The Technical College.

As a capstone to the system of technica! education a college was established in Halifax to give instruction of an university grade in engineering and to be used as an administrative centre. In this great undertaking the Government acted wisely and carefully in not duplicating any work that could be carried on by the colleges and universities already established. Representatives of the four great institutions of higher learning of Nova Scotia and Mt. Allison College in New Bruns-

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wick met in a conference in 1907 and agreed on a basis of cooperation that has been successfully carried out ever since. Each representative stated that it was virtually impossible for his college to provide the expensive apparatus and equipment and extra staff necessary to give full four year engineering courses in the various departments of applied science without unduly straining its resources which were sorely needed forexpansion in other directions. All agreed, however, that they could each provide adequately for the first two years of engineering training if the government would carry on the higher protessional training of the last two years. All commended the Government heartily for the advanced step it was taking which they were sure would mean much for the future development of the Province. This cooperative agreement commends itself to the common sense of any individual.

Consequently, the Government has erected buildings and purchased equipment to the extent of about \$400,000 to furnish the facilities for engineering training. The four basic divisions were selected, viz., civil, electrical, mechanical and mining, and the education in these subjects is as complete and thorough as is to be found anywhere.

The Government is convinced that mechanical genius may exist quite as well in the boy who comes from the poorest surroundings and should be developed for his individual good as well as for the benefit of the community. Accordingly, twenty free scholarships, each covering the full cost of tuition were established. There is one for each county and two each for Cape Breton and Halifax. Thus there is ample opportunity for any young man who has the ability and ambition to get this highest form of engineering training absolutely free if he can pay for his board, lodging and clothes. This is certainly a praiseworthy attempt to establish the equality of opportunity for all.

During the war, the Technical College, like all similar institutions was almost entirely stripped of its students, who enlisted to fight for their country. An extremely high percentage of the graduates and students were in active service at the front and acquitted themselves in a noteworthy manner which resulted in many distinctions and promotions to the higher ranks. Since the armistice, however, great numbers of young men have turned to engineering as a profession to enter. Most of these are coming forward through the first two years course in the affiliated colleges. The number in attendance at the Technical College this year was 30 and indications point to double that number next year and a further increase in the future.

Retraining Soldiers.

The Technical College has accepted all students who were discharged from military service without any tuition fees whatsoever during their course. It stands in a small group with three or four others in all Canada in this recognition of the patriotic service of those who enlisted.

Even though its halls were deserted, during the war, by engineering students, it continued to render its full quota of service. It has been privileged in providing vocational retraining for great numbers of returned disabled soldiers. In fact the idea of putting the mainted and shattered men back on their feet in an earning capacity originated in full memoranda in the Dominion Government as early as July, 1915. The proposals were eagerly accepted and acted upon with the results accomplished in the industrial retraining of disabled men which are known to every one and of which Canada may be justly proud. The first vocational class for returned men in the Dominion was started in the Ross Hospital in Sydney.

When this new and complex problem presented itself to the people of Canada, the wisdom of the Murray Government in providing adequate facilities for tech.

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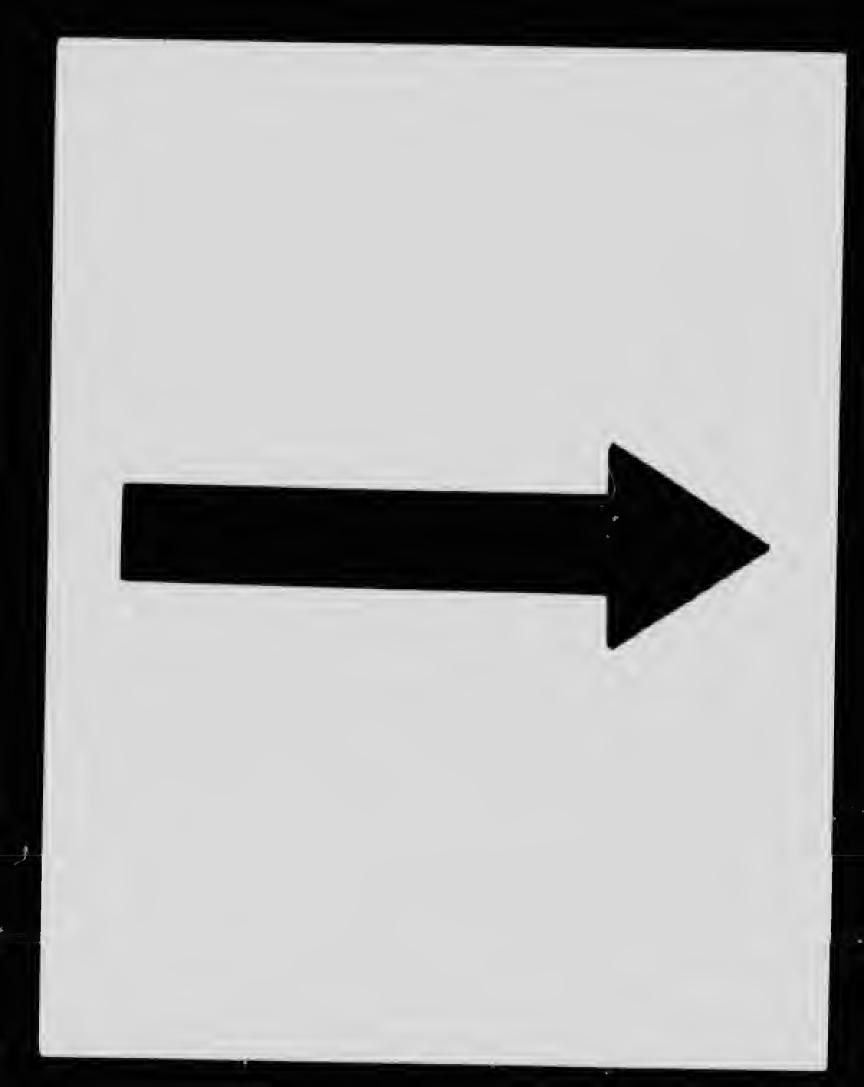
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nical education was apparent. Nova Scotia had the buildings, equipment, and—what was more valuable the experience which enabled her to make an immediate start in vocational training for soldiers. Government placed all of its facilities for technical education at the disposal of the Dominion. It also permitted a number of the staff at the Technical College to give part time to this great work. number of cripples who were being trained grew and grew with the fearful progress of the war until over 300 were taking courses there at one time, although the buildings were planned for only 100. Up to the present over 3000 men have taken training for 200 different occupations in Nova Scotia and the work is still going on. Over 80 per cent, of the men who have completed their courses are satisfactorily employed throughout the Province. If the Technical College had not been established and equipped before the war, the Nova Scotian boys who were disabled could not have received the thorough and efficient training which they have been able to secure. It must be a great source of gratification to every native of the Province to know that we could properly care for our injured soldiers so that they could be fitted for a continued life of usefulness and satisfaction through technical education.

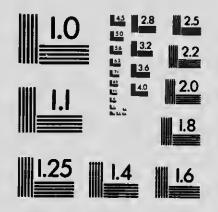
Red Cross Work.

The College was of further use during the war, as a Red Cross Centre. A certain portion of the building and part of the equipment was given over to the Red Cross Society where patriotic women in great numbers made all of the accessory clothing, hospital supplies, etc., for the boys who were overseas. This work started with the emergency created just before our 25th Battalion embarked for England. The horrible news flashed through the world that the Germans had used asphyxiating gas in their attack on Ypres. Two days before the 25th sailed, the call came for respirators for each man in the battalion. The Red Cross ladies gathered to the number of 200 or more and be-



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fore the ships bore the soldiers away, enough respirators had been made. The Society then asked to continue their work at the College. This request was immediately granted. For three long years large numbers of faithful women came day after day to make the enormous number of things which would alleviate the suffering of our soldiers who were crowding the hospitals of France and England and later—Canada.

During one year of the war over half a million articles were made at the College. A prominent official who came to Halifax as a visitor stated that the group at the College constituted the largest single Red Cross manufacturing centre in the Dominion.

At the time of the Halifax Explosion the Technical College lived up to its reputation for service. The whole building was taken over as a medical supply depot. A regular dispensary was set up to fill prescriptions, all of the vast amount of drugs and chemicals, bandages, bed clothing, etc., needed by the hospitals was sent out from this centre. In addition to this all of the people were suitably and completely clothed from this depot as they left hospitals and returned to their devastated homes. For nearly two and a half months the building was stuffed from top to bottom with stores and thronging with busy voluntary workers.

The School of Navigation.

Another war service rendered by the Technical College was the provision of means whereby seafaring men were prepared for examinations for masters and mates. In cooperation with the Dominion Department of Marine and Fisheries a School of Navigation was established in 1915. This school was planned to meet the needs of the seamen as closely as possible. The classes are open all day every day and any student may start his training on any day that it is convenient. All of the instruction is completely indivi-

dual; each man studies by himself and may forge ahead as fast as he wishes. The sailor may study for anyc ertificate from that needed on a tug boat to that required for the master of an ocean-going liner. Books and tuition are absolutely free. During the war as the shipping condition became more and more critical the cry came for more ships and certificated men to handle them. The School of Navigation was kept open night and day. Large numbers of seamen attended the classes and more than 200 were enabled to pass for certificates. There were also many naval officers who came for instruction in navigation to make themselves more proficient in their work, but who did not wish to take regular examinations. This school of navigation has been a great boon to the seafaring men of the Province. It has an enviable reputation in the Dominion and has prepared more men for sea-going certificates than any other school of its kind in Canada A number of returned soldiers, disabled from war service so that they could not go back to their old occupation of sailor, have been trained here so that they have secured mates and masters certificates, and thus have been enabled to follow the sea which they loved in a better capacity than before they were wounded.

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An educational innovation was undertaken in 1915, in order to spread the usefulness of technical education to men employed in industry who could not afford to spend four years in the regular engineering courses. Short courses covering a period of two months in the winter when industrial activity was at its lowest were instituted in several subjects. Training was provided in steam engineering, mechanical draughting, machine design, structural steel draughting, architectural draughting, land surveying, electrical machinery, coal mining, metallurgy of iron and steel, technical chemistry and assaying. The students who took advantage of these courses were those full of ambition who found they could not advance further without special technical knowledge. They spent all day, every day for two months on one subject and thus gained almost as much knowledge of this speciality as an engineering student would in his whole course. These students made remarkable progress in their studies and returned to their positions to apply what they had learned. Almost invariably these men have forged ahead to places of greater remuneration and responsibility. In 1918, these short courses had to be discontinued, but they were so successful that it is intended to reestablish them next year and to widen their scope.

Correspondence Course.

In order to bring the advantages of technical education within the reach of everyone in the Province no matter how remote his dwelling, the Technical College started correspondence courses in 1916. branch of the work was started in a modest way by offering training in the following branches:-shop arithmetic, advanced shop arithmetic, practical mathematics, care and operation of marine motors, mechanical drawing, machine drawing, dress-making, steam boilers, theory of steam engines, simple steam engines, steam power plant engineering. The price of each course was \$10, which barely covered the cost of text books, postage and the work of correcting the papers. Some of the texts were prepared especially for the needs of Nova Scotian workers by the staff at the College and a promising start was made in 1917. The economies forced on the College hy the long-continued war caused a temporary abandonment of the work but the work will be resumed and enlarged in the near future.

Commercial Spanish.

Another step forward in technical education was made in 1919, in provisions made at the College for teaching Commercial Spanish. Increased trade between Canada and the West Indies and South America has been recognized as a desirable achievement for a number of years. Nova Scotia is especially well situated to profit by expansion in this direction. It is

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well known that we cannot do business with these eountries unless our salesmen and correspondents use the Spanish language. The Bank of Nova Seotia, Royal Bank of Canada and Canadian Bank of Commerce with the Halifax Board of Trade united in providing the funds necessary to establish a chair of Commercial Spanish for three years. They selected the Technical Collège as the most suitable institution to carry on this work and for the past year, day and evening classes have been held. These were attended by clerks, stenographers, salesmen and business men. This is a splendid effort and tangible results should be expected in the near future.

Secondary Technical Education.

In addition to engineering education, short courses, eorrespondence courses, etc., at the Technical College there is a widespread system of secondary technical education throughout the Province. This system includes Evening Coal Mining Schools, Engineering Schools and Evening Technical Schools. This branch of the work brings technical cation right to the door of the workingman in the coal mining communities and manufacturing centres. He ean secure the training he desires without leaving his job or losing These schools have been of inestimable an hours pay. value to the men and women in this Province who are ambitious to make themselves more efficient and competent in their daily work and to improve their condition in life.

Coal Mining Schools.

every colliery centre in the Province designed to prepare coal miners for certificates of competency as shot-firers, mine examiners, overmen, underground managers and managers. They are a continuation of the schools established by the Liberal Government of 1885. Preparatory classes are held in each centre for those whose early public school education was defec-

tive or for those who wish to "brush up" their general knowledge before entering the more technical work. The coal mining instructors are all practical men with long experience and all hold certificates of competency. During the last year these schools were operated in fourteen coal mining towns as follows:—Glace Bay, Dominion, Dominion No. 6, Caledonia, New Waterford, Sydney Mines, Florence, Inverness, Port Hood, Westville, Stellarton, Thorburn, Springhill and Joggins Mines. 506 men were taking mining and engineering courses and striving to become more competent for the arduous and skilled work of coal mining.

The opportunities provided by these schools are not usually recognized at their full value. The classes have been carried on so long that they are taken as a matter of course. Two provinces only have imitated the policy of Nova Scotia in this respect, but the schools are not maintained there in the same degree of fulness and efficiency. One great coal mining State in the United States copied the Nova Scotian system but did no maintain it for many years. But Nova Scotia has carried on this work year after year in the belief that every coal miner should have the opportunity to prepare dimself for the Government examinations for certificates of connetency. The general favorable results of this special education has completely vindicated the policy of the Government. Most of the official positions in the great collieries are held by men brought up in Nova Scotia and students in the coal mining schools. The coal miners of this Province are as intelligent as any in the world and with the advantage of the technical education provided have so efficiently conducted their hazardous occupations that the death rate per thousand employees per annum in Nova Scotia has been the lowest on the North American continent over a long period of years.

Engineering Schools.

The laws of the Province require that a stationery engineer operating a regular hoist at a colliery shall

have a certificate of competency. There are also other regulatio: 3 regarding the employment of steam engineers in the mechanical plants of the coal mines. Therefore, examinations are conducted each year for first, second and third class engineers. In order to provide the opportunity for mechanies, firemen, etc., employed around the power plants of the collieries to pass the examinations, classes in the related subjects are offered in the principal colliery centres. Here the men receive instruction in mathematics, steam boilers, steam engines, air compressors, mine pumps, feed punips, mechanical drawing and electricity. Nearly all of the certificated engineers around the coal mines in the Province have been students in these schools and the classes are widely recognized as being of great practical benefit to this class of industrial workers.

Evening Technical Schools.

The Government recognized that a further step than the provisions already outlined for technical education was necessary. The academies offered an opportunity for any boy to be trained for a college where he could prepare himself for one of the professions, but there was little chance for the poor man's son who wished to fit himself for a special vocation; so the next forward step was to provide a practical education for the working man and the working man's son. and for this purpose evening technical schools were The expenses of the conduct of these established. evening technical sehools are borne equally by the Province and by the locality. Each school has a local advisory eommittee, which consists of the members of the school board, local manufacturers, foremen in the local shops and representatives of the trades unions.

The schools are not trade schools where young men are fitted for a trade. They are industrial continuation schools where men who have settled down to some satisfactory occupation may receive the mathematics, science, drawing, etc., related to his vocation and women may secure instruction in household

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ery hall economy an 'arts. The classes supplement the knowledge gained in daily work and makes the worker more intelligent and proficient. All of the instruction is thoroughly practical and without cost to the pupils. In 1919 these schools were carried on in ten of the principal industrial centres as follows: Halifax, Sydney, Sydney Mines, Amherst, Truro. Westville, Stallarton, New Glasgow, Yarmouth and Glace Bay. The special classes held in each place were not all the same, but were suited to the dominant industrial needs of each community.

A very wide range of subjects is covered as may be inferred from the following list of classes offered: Business English, Shop Arithmetic, Practical Algebra. Geometry, Mechanical Drawing, Machine Design, Architectural Drawing, Building Construction Drawing, Architectural Design and Estimating, Structural Steel Drafting, Ship Drafting, Elements of Electricity. Dynamo-Electric Machinery, Alternating Current Machinery, Elements of Chemistry, Elementary Chemical Analysis, Technical Chemical Analysis, Metallurgical Chemistry, Surveying and Mapping. Conversational French, Railroad Car Design, Gasoline Engines, Dressmaking, Millinery, Home Economy Bookkeeping, Stenography and Typewriting and Commercial Spanish, also the Care and Operation of Automobiles.

The attendance in these classes fell off considerably during the war as might be expected, but since the armistice, the classes have been growing very rapidly. In 1919, 2500 pupils were enrolled and pursued various courses in different towns in the Province. With the students in the coal mining schools this makes 3000 pupils in the secondary schools. These schools have proved of the utmost value to industrial, business and household workers. Since they opened in 1907, no less than 15000 people have received some training of this kind and in many instances young men have attended as many as five or six successive years. Many men in responsible positions have stated that

they owe their rise to the instruction received in these classes. Some students have gained enough knowledge so that they have forged ahead and established businesses of their own. The schools have had the hearty support of employers and some of them have paid certain numbers of their staff to attend, others have granted various concessions to employees who did take classes. Prizes for competition in the schools have been contributed by employers, business men, boards of trade and others and practically everyone who is acquainted with the work is loud in praise of the Murray Government in providing these facilities in technical education for the workingmen all over the Province.

Dominion Subsidy for Technical Education.

In season and out of season the Murray Government has besought the Federal authorities to assist the Province in extending the provisions for teahnical education. When the Dominion Government appointed a Royal Commission in 1910, to enquire fully into this question, it was hoped that their report issued in 1913, would be followed by some action in the way This was not done immediately but the of subsidy, provincial authorities continued to press its views in favor of some action. The war absorbed all the attention of the Dominion but just as it was over they passed a bill providing large sums of money to assist the provinces in extending technical education. sum of \$10,000,000. has been voted to cover a period of ten years. This money is apportioned to the separate provinces on the basis of its population and one dollar is granted from the Federal Treasury for every dollar spent by the Province on secondary technical education. This is exactly what the Province of Nova Scotia has been wishing for many years because the Government felt it was giving as much as possible for this purpose. Now the plans for extending technical education can be consummated and these will be undertaken during the coming year.

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The Legislature which has just risen has increased the appropriation for technical education to \$88,290, for the present year (fiscal) and will be able to increase it from year to year because of these Federal subsidies.

The policy of the Murray Government toward technical education has never wavered or vacillated. It was a pioneer in its policy regarding industrial training and has supported it to the fullest extent possible. The ambition of this Government is to so improve the industrial intelligence and productive power of the Nova Scotia mechanic that he will be the best in the world.

AGRICULTURE.

The Provincial College and Farm.

The service of agriculture has received in a special way the fostering care of the Government. The Agricultural College, in its present capacity, was established in 1905. The first regular course opened with an attendance of 17, which has now grown to 151, of which 47 are returned soldiers. The first short course registered an attendance of 68, which increased before the war broke out to 352. In 1919, short eourses were held at Truro, Lawrencetown, Yarmouth and Antigonish with total attendances of 506. addition 42 persons attended the Maritime Dairy School held at Truro during March and April. large attendance at the College and the Short Courses is evidence of the fact that the investment at the Agricultural College has been approved by the farmers of Nova Scotia.

The College of Agriculture at Truro is the foundation of the Provincial Government agricultural policy. It has been made so because:

1. Permanent progress along any lines cannot be made unless provision is made for education along those lines. Many farmers who have never even visit-

ed the College have directly or indirectly profited by the educational work conducted at the institution.

2. You cannot hold a set of the class that the Nova Scotia Government sow have employed at Truro without providing for them a strong central institution where they can develop themselves by practical experimental work along various lines.

The Agricultural College proved particularly valuable to the Dominion Soldiers Civii Re-establishment Board who were advised by the Provincial Government that they could have the services of the members of the staff and the use of the plant at the Agricultural College for purposes of giving Agricultural instruction to returned soldiers who required such instruction before settling on the land.

Since October, 1918, 130 soldiers have taken advantage of this Course. The D. S. C. R. paid the salaries of from one to three instructors, but the major part of the instruction was provided without cost to the Soldiers Board by the members of the staff of the Nova Scotia Agricultural College.

The College Farm is equipped with what the Hon. Sydney Fisher, former Minister of Agriculture for the Dominion of Canada, said was the finest collection of live stock he had ever seen at any public institution in Canada. Stock from the College is being distributed as rapidly as possible through the Province, and is bound, in the course of a few years, to effect a great improvement in our live stock.

In addition to the Educative short course at the College the Department has already organized extra rural short courses in other centers where courses lasting for three or four days or more are held every winter. These courses have been markedly successful and have been very largely attended. This policy will be developed until ultimately agricultural and cuction will be carried into every community of the Province.

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Agricultural Societies.

There are now 269 Agricultural Societies organized in the Province, an increase of 22 over 1916; and, this, it must be remembered, despite a much stricter control of these societies and the passing of a law in 1908 making it illegal for societies to use their money for purposes other than the improvement of live stock. The Agricultural Society Act was supplemented in 1915 by legislation authorizing the incorporation of these societies for purpose of co-operative byuing and selling.

The total number of subscribing members in 1919 was 10,116, and the grant in aid from the Government, which was \$15,000 in 1916, is now \$20,000. When the Holmes-Thompson Government went out of power, in 1882, there were in the Province but 87 societies, with a total membership of 4,800 and a Government grant of \$6,000.

The societies have been placed under the direction of an officer of the Department, Mr. F. L. Fuller and through his work considerable progress has been made in the line of purchasing a better quality of animals and in getting societies to adhere to a definite breed of stock instead of crossing breeds, as heretofore. one-third of the societies, including all the newly organized ones, have pledged themselves to one breed of stock, and the rest are getting in line. Provision has been made for the incorporation of Agricultural Societies and County Farmers' Associations under the "Farmers' Co-operative Societies Act, 1914." This Act provides for the incorporation of bodies of farmers without fee for the purpose of purchasing commodities ordinarily used on the farm and of selling farm products. Legislation passed in 1915 makes it possible for the members of the Agricultural Societies and of

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the Farmers' Association to become incorporated and to buy, and sell co-operatively under the 1914 Act, thus very materially adding to the extent of their usefulness.

An important step in live stock improvement was the passage of a Scrub Sire Act at the 1919 session of the Legislature. The Scrub Sire nuisance is a live issue in Canada today and the Ontario Department of Agriculture propose spending a large sum of money for the purpose of eliminating this enemy to live stock improvement. Other provinces have received copies of our Act and propose making it the basis of their operations. It is gratifying to know that we have the most advanced legislation along this line of any Province in Canada.

Exhibitions.

For a number of years, prior to 1906, only two or three local exhibitions, in addition to the Provincial Exhibition at Halifax, were held in the Province. Since 1905 there has been a phenomenal development of the Winter Fair at Amherst, to which the Government contribute \$1200 per year. Last year fifteen local exhibitions and six seed fairs held in various parts of the Province were successfully carried on.

Exhibition Associations prior to 1905 received less than \$1,000 per year. The total amount paid in 1918-19 for these County Exhibitions, Seed Fairs and the Maritime Fair was \$9.094.55. While this represents an increased agricultural appropriation over ten years ago on this account alone of about \$8,000, yet it has yielded good fruits in the incentive which has been given to organization and to the improvement of farm products and live stock.

Farmers' and Fruit Growers' Associations.

The Nova Scotia Farmers' Association, constituted by an Act of 1895, deals with matters pertaining to the

general interests of farming and has through its recommendations been responsible for some of the most progressive features of the Department. The Farmers' Association receives from the Government a grant of \$1,000 per year. In addition the County Associations receive a grant of \$25 annually from the Provincial Government and \$25 a year from the County Councils. In some counties these County Associations have taken hold of the County Exhibitions, Seed Fairs and other tangible measures.

The Nova Scotia Fruit Growers' Association has passed its 54th birthday. It is an organization with a membership confined largely to the fruit counties. Its work is confined largely to an educational propoganda. It receives a grant of \$300 per year from the Nova Scotia Government and also is allotted by the Provincial Department of Agriculture out of the Federal Grant a sum not exceeding \$300 to be used for printing.

Live Stock Improvement.

In addition to the several hundreds of pure bred animals of all kinds owned by the Agricultural Societies and the Agricultural College, the Government to further encourage the improvement of live stock, imported and sold in 1905 and 1907 some 35 head of pure bred horses, mostly drafters, the blood of which is gradually spreading through the eountry. They also imported and sold in 1905, 1906 and 1907 about 200 pure bred rams. The policy for the improvement of the heavy horses of the country has been most suceessful. Prior to 1900, there were not more than 5 registered heavy horses in the Province. Today there are over 50, and the demand seems as far from being supplied as ever. The Government foresaw this development of the demand for heavy horses and by its importation has helped to relieve the situation. accordance with the legislation of 1912 and 1913 it is now compulsory for every person, firm or eompany

keeping a stallion for public services to have the name, description and pedigree of such animal enrolled in the Department of Agriculture and a certificate of such enrolment secured. Provision has also been made for the optional inspection of stallions for soundness and for the issuance of certificates in accordance with such inspection. It is believed that if the horsemen of the country will stand behind this legislation for at least a few years they will reap results in a decidedly improved class of horses. It is in line with the most up-to-date legislation in force in the best horse-breeding regions of Canada and the United States.

The Dairy Industry.

The officials of the Nova Scotia Department of Agriculture have always held that Nova Scotia is essentially a dairying country. It was for this reason that such a strong herd of dairy cows has been gathered together on the College Farm, and it is for this reason that every effort has been directed to develop the industry. In 1903 travelling dairy schools were organized in the Province and these were continued for some four years. They accomplished a large amount of good. Beginning about 1910 an organized effort was made to increase the output of the creameries of the Province with the idea of putting the farmer in the position to place on the market a uniform quality of a high grade of butter which would bring him a better price, and also with the idea of getting ready for an export trade which must finally come if the present growth in dairying is continued. In 1910 there were manufactured in the creameries of Nova Scotia 256,420 lbs. of butter. In 1919 this amount had increased to 2,093,804, being an increase in less than a decade of more than 750%.

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Cheese Factories and Creameries in Operation at November 30th, 1919.

Name of Cheese Factory P. O. Address. or Creamery.	Pat-	f Value of business done 1919
Lawrencetown C.	10118.	done 1213
& B. Co., Ltd Lawrencetown	110	26320.00
So. R. C. Co., Ltd. Loch Katrinc	150	
Milburn C Co Ltd Malignant Cove.	166	30687.60
Antigonish Dairy	100	18400.00
Co., Ltd Antigonish	230	57001 00
Intercolonial Cr.	230	57081.22
Co., Ltd So. Riv. Station.	200	40004 00
Brookfield Cr Brookfield	290	48064.03
Crystal Spring Cr. Little Bass River	159	106335.27
Great Village Cr Great Village	48	11318.00
Cumberland Co-	90	45869.47
Operative Cr.		
Co., Ltd River Hebert	145	45401 50
Malagash C. & B.	145	45461.76
	0.5	10055 50
	35	13055.73
Biden's, Limited. Amherst Clare Cr. Co., Ltd. Meteghan River.	185	24000.00
LaSociete d'Indus-	80	7180.00
trie Laitiere Me-		
teghan, Ltd Meteghan	75	9955.36
Model Creamery. M Musquodoboit	213	77935.58
Bayview C Co Ltd Selma	165	55000.00
Margaree Cr Margaree Forks.	219	28604.55
Acadia Dairy, Ltd. Wolfville	325	87250.00
Fairview Cr Berwick	_40	11000.00
LaHave C Co Ltd Bridgewater		126965.70
Scotsburn C C Ltd Scotsburn	700 2	243235.18
Pictou Co. Dairy		
Co., Ltd Stellarton	248	75729.31
Baddeck Cr Baddeck	155	32973.74
Yarmouth C., Ltd. Dayton	400 1	l21164.53
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The feature of the present policy of the Dairy Division is not to multiply the number of creamerics, but

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The advantage of this is that the overhead charges for manufacturing 100,000 to 200,000 or more pounds of butter are very little greater than for manufacturing a quarter of that quantity. Most of these creameries have accordingly been established on what is known as the cream gathering basis, which means that instead of farmers bringing in their whole milk six mornings a week to be separated at the creamery, they bring in their cream, separated at home, three times a week in summer and twice per week in winter. This makes an enormous reduction in the cost of hauling, and also makes it possible to bring in cream from a large territory of country. The principal objection is that more difficulty is encountered and more skill required to manufacture a high grade of butter.

Prior to 1912 the organized dairy industry was looked after by the Secretary for Agriculture and other officials of the Department. At this time, the Secretary for Agriculture, seeing that results were beginning to accrue from the educational policy carried on at the College, recommended that a Dairy Superintendent be appointed who should make it his business to promote organized dairying in the Province. W. A. MacKay, the present Dairy Superintendent, was accordingly appointed in 1912. That he has been successful in his work is evident by the following agures:

Output of Nova Scotia Creameries, 1912 to 1919.

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Year.	No. of Creameries in operation.	Pounds of butter made.	Value of butter made.
1912	11	470,603	130,076.17
1913	14	709,012	194,802.46
1914	17	913,273	257,600.00
1915	20	1,224,483	366,011.24
1916	21	1,612,627	475,814.61
1917	22	1,760,871	645,253.30
1918	21	1,762,364	872,328.27
1919	22	2,093,804	1,172,410.90

Horticulture and Fruit Growing.

In 1901, "An Aet to Encourage Horticulture," was passed, making provision for the setting out of model orchards in those parts of the Province where fruit growing had not been scientifically developed. In that same year two orchards were set out and the following year twelve more. There are now thirty-five, varying in size from one-half acre up to two acres. They have been placed in every county of the Province except Kings. Some of these orchards have done very well, notably those at Faliland Ridge, Annapolis County; Bear River, Digby County; Deerfield, Yarmouth County; Gore, Hants County; Loehaber, Antigonish County and West Bay, in Cape Breton County. In general, very valuable information in regard to varieties which can be grown profitably as well as proper methods of growth have been ascertained. As a result of the work conducted in these orehards Mr Shaw, the Horticulturist at Truro, is now in a position to state what varieties of apple and other fruits are likely to succeed and what varieties are almost certain to fail in the counties outside of the regular fruit distriet. 🔗

Recently there has been added to the orchard work as such some demonstration work in gardening. It is proposed to develop this phase of horticulture to a large extent in the next few years.

The major part of the experimental work in the Annapolis Valley is conducted at the Experimental Fruit Station at Kentville. This property was purchased and paid for by the Government of Nova Scotia in the spring of 1910. It is now maintained by the Federal Government. A strong Horticultural Division is being built up at the College at Truro. Some thirty acres of land have been set aside for the purpose, a special Horticultural Building has been erected and the staff under Professor Shaw has been much strengthened. All the above work, with sal-

aries included, is paid for out of the Provincial Appropriation.

Control of Insects and Plant Diseases.

A Provincial Entomologist has been appointed in the person of Mr. W. H. Brittain, B. S. A. The importance of having a well organized Bureau of Entomology in connection with the Department of Agriculture has been particularly emphasized in the control that has been obtained over the Brown Tail Moth. This insect, left for a few years unchecked in the New England States, has caused the destruction of orchard and fruit trees and the expenditure to control it has amounted to nearly a million dollars per annum in Massachusetts and corresponding amounts in the other New England States. It is now about eleven years since the pest was discovered in Nova Scotia, but owing to active measures taken, it has been kept in control, and it is hoped that this most pernicious pest may not become established. The total number of localities found infested in 1919 was 54 as compared with 92 in 1918.

At the 1910 session of the Legislature an Act known as "The Injurious Insect Pest and Plant Disease Act" was passed, under which regulations were adopted for the carrying out of measures to prevent the introduction into the Province or the dissemination therein of any plant disease, insect or pest that would be injurious to vegetation. Inspectors have been appointed under the Secretary of Agriculture for the effective working of the Act and fumigation stations established at Truro and Digby. So exacting have been the regulations that up to the present time very few nursery firms have been able to comply with them, and in consequence the amount of nursery stock imported has been comparatively small. Ultimately, however, these firms will get their stock cleaned up and the fruit growers of Nova Scotia will have an opportunity to secure nursery stock free from all injurious pests.

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The strenuous campaign that has been waged against the dread San Jose Scale since its presence was first discovered in 1912, is proving to be most successful. In that year, 723 trees infected with living scale were destroyed. In 1915, a most careful search throughout the fruit belt revealed the presence of this pest in only six trees. It is believed by the Department that this pest is now practically exterminated.

Farm Drainage.

The Government of Nova Scotia in 1910 purchased a Traction Drainage Machine, the first purchased by any Government in Canada. It was used quite extensively up to the opening of the war but unsettled conditions since that time have temporarily interfered with the development of this work. Believing that drainage is a most important part of farming in the Province of Nova Scotia the Government in 1910 passed "The Tile, Timber and Drainage Act," for the purpose of making provisions under which a group of farmers in any municipality might borrow money for under drainage purposes. A similar act has proven a most effective one in Ontario, but the outbreak of war was again responsible for not giving it a fair test in Nova Scotia. Plans are now under way to amplify this farm drainage policy just as soon as labor conditions and costs become normal.

Assistance in purchasing Power Machines for Agriculture Purposes.

Believing that such machines as Traction Ditchers, Clover Hullers, Dyking Machines and other power machines, were very necessary to the successful development of Agriculture, the Government in the year 1912 passed an "Act to Assist the Purchase of Power Ditching Machines," which was amended in 1917 to include Clover Hullers and other power machines.

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Under the provisions of this Act two Clover Hullers have been bonused, one in Pictou County and one in Kings County, in addition to one purchased and operated by the Government itself; two Dyking machines were bonused for marsh owners in Cumberland County; three Lime Crushing plants in Guysboro and Inverness County were bonused, and it is planned to continue this assistance from time to time. It is worth noting as an indication of advanced policy that this very year the Government of Prince Edward Island are considering means of bringing the first Clover Huller to that country.

The idea of a Clover Huller is to develop clover seed growing in Nova Scotia. During the past three or four years the Government of Nova Scotia has sent their Huller to points in Inverness, Antigonish. Pictou, Colchester, Halifax, Kings, Annapolis and Lunenburg Counties. This policy is being continued.

Demonstrations in Agriculture.

For a period of vears, under its County Agents, the Department of Agriculture conducted demonstration plots in turnip growing in the Cape Breton Counties which have accomplished most practical results. It is estimated that since these demonstrations were commenced the turnip crop of the Cape Breton Counties has been more than doubled.

This year demonstration in the use of various fertilizers are being conducted at strategical points in the Province. Particular attention is being paid to demonstrations with the use of the new salt and potash deposit from Malagash. Department officials are always on the alert for new developments in Agriculture and will always be ready to carry on demonstrations along any contemplated new lines of practice.

Similar demonstrations in spraying potatoes with Bordeaux mixture to prevent blight and consequent rot have led to the wide adoption of this measure of protection.

Growing of Wheat and other Cereals.

During the session of 1915, legislation was passed giving the Governor-in-Council power to expend a sum not exceeding \$10,000 for the purpose of encouragement of the growing of wheat and other cereals. Under the provisions of the Act the Department of Agriculture has already secured a quantity of seed wheat which is being sold at cost f. o. b., (the Department paying the freight), in those sections of the Province where wheat growing has not been carried on for many years; but where, owing to present conditions, farmers desire to produce enough flour for their own The Government has assisted financially in the erection of eleven modern flour mills, these being in parts of the country where the farmers have no facilities for getting their wheat ground. These mills are now in operation and are giving splendid satisfaction.

Field Crop Competitions.

A most successful measure which was established by the Department of Agriculture some ten years ago, has been the Field Crop Competition. This competition was provided for the purpose of encouraging farmers in the home growing of seed oats, wheat, turnips and potatoes. 406 farmers participated in this competition in the year 1919. Perhaps no other single measure was responsible for so much seed being available to farmers of Nova Scotia during the progress of the war as this competition which had fortunately been the means of getting hundreds of farmers into the way of growing their own seed. This competition is being improved and will ultimately result in large supplies of registered seed being available in every part of the Province of Nova Scotia.

Growing Wheat.

As soon as the war commenced the Government recognized that there would be a grave danger in respect to the wheat supplies of the world. Conse-

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quently in 1915, Legislation was passed, which was amended in ensuing years during the progress of the war, under which eleven new Roller Process Wheat Mills were either billed outright or bonused at various strategical points in the Province. Moreover, each year during the war substantial quantities of seed wheat were brought in to supplement local supplies and so insure the largest possible seeding. Statistics show that the result of this policy was the more than doubling of the wheat area of the Province. Fortunately the early termination of the war prevented the people of Nova Scotia from fully realizing the wisdom of this constructive policy which would have made it possible for Nova Scotia to have become reasonably near self-supporting in respect to her wheat supplies.

Valuable Information Disseminated.

An evidence of the interest of the farmers of Nova Scotia in the work of the Agriculture Department is shown in the demand for the Annual Reports, which, during the past eight years, have dealt in a thorough manner with the various phases of dairying, sheep raising, soils and soil cultivation, orcharding, gardening, horse breeding, swine breeding and poultry. The Secretary of Agriculture will from year to year continue to publish such complete statements of value and interest to our farmers.

The Agricultural Department and the Agricultural College have been creating a decided interest in the development of Agriculture and are co-operating in every way with the farmers of the Province. The Conservative party had for years, in resolutions adopted at party conventions, and in statements made by party leaders in the Legislature, adopted a sneering attitude with respect to this College and its management have assailed it in every possible way, have continued to block in every way the proposals made for its advancement, and have given the Government no assistance in carrying out any of its policies,

The Provincial Expenditure.

The total grant for Agriculture for the last year under the Holmes-Thompson Government was \$12,607. Last year there was expended, out of Provincial revenue, for Agriculture, \$115,643.45. The estimates for the current year, 1920, indicate an expenditure for Agriculture, out of revenue, of \$111,450. In fact, the generous attitude of the Government towards the development of Agriculture in Nova Scotia is one which receives commendation from all sides, both from Farmers' Associations, Fruit Growers' Associations and other agricultural mediums.

The Nova Scotia Government has invested in capital account in the College of Agriculture, about \$110,000, being \$85,000 for buildings and \$25,000 for lands. The Federal Government has invested in the plant approximately \$150,000, being for buildings. This puts the total capitalization at present at \$265,000. In comparison the Agricultural College at Guelph, Ontario, is capitalized at about \$2,500,000. MacDonald College, Quebec, is capitalized at about \$3,000,000, and the Agricultural College at Winnipeg, Man., is capitalized at \$4,000,000. In comparison with these enormous expenditures in other Provinces, the expenditure in Nova Scotia seems very small, but nevertheless the College at Truro is recognized as one of the most efficient, as far as it goes, in all Canada.

Agricultural Department Accounts.

During the 1916 session of the Legislature the Opposition discovered a typical mare's nest in connection with the payment of accounts in the Agricultural Department. A description of the system is therefore in order.

All the bills presented for payment to the Department of Agriculture at Truro are first examined, checked and certified to as correct by the person in charge of each separate service, as Farm, Horticulture,

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Dairy, etc., then by the accountant of the Department, C. R. B. Bryan. The accounts are thereupon re-examined by the Secretary for Agriculture, Dr. Cumming, who also initials them as correct. All the bills are then transmitted to the Provincial Auditor at The Auditor checks over each item in every account and sees that the figures are correct. If every thing is in order a cheque for the to al amount is made out to the Secretary for Agriculture and sent to him. Dr. Cumming deposits this cheque to the account of the Agricultural College and sends a duplicate receipt to the Auditor for the amount of deposit. Cheques are then issued against that deposit on specially printed cheque forms in settlement of the various The cheques are signed by M. Cumming, accounts. as Secretary for Agriculture, and must be countersigned by C. R. B. Bryan, the accountant for the De-The system in vogue is simple and effecpartment. Any further elaboration of system would merely mean unnecessary work. An unnecessary number of entries in a bookkeeping system not only needlessly increases labor but also materially increases the liability to error. It may be stated that the system of payments in vogue in the Department of Agriculture for Nova Scotia is superior to that in effect at the Ontario Agricultural College at Guelph, where the audit takes effect after accounts have been paid-in Nova Scotia accounts are audited before being paid.

Dominion Aid to Agriculture.

Under the British North America Act, Agriculture is one of the matters in which joint jurisdiction is exercised by Dominion and Provincial Governments. It is therefore, incumbent on the Federal Government to see that this service is liberally provided for. Under the Agricultural Instruction Act of 1913, appropriations are annually payable by the Dominion Government to each of the Provincial Governments of Canada, for the encouragement of Agriculture. Prior to the passing of the Act, in the year 1912, a special grant was made of which Nova Scotia's share was \$34,288.45

In that year \$3,000 was used to supplement the grants to Agricultural Societies, and the balance \$30,288.45 was used to pay for the erection of an addition to the main building at the Agricultural College, Truro.

In the following years the grant was gradually increased until it reached the maximum account of \$81,716.69. Under the provisions of the Act money appropriated may only be used for educational purposes. An agreement is entered into annually between the Government of Nova Scotia and the Federal Minister of Agriculture at Ottawa. In respect to the details of expenditure the lollowing are the amounts and the principal branches of expenditure for the past few years.

- (1) \$12,000 is set aside for the use of the Education Department in encouraging Nature Study and Elementary Agriculture teaching in the public schools.
- (2) \$23,000 is granted to help meet the increased cost of maintaining an efficient Agricultural College.
- (3) \$8,000 is provided to pay for Interest and Sinking Fund on a Science Building at the Agricultural College.
- (4) \$5,500 is appropriated for the encouragement of Dairying.
- (5) \$7,500 is appropriated for the work which is conducted for the control of insect pests in the Province.
- (6) \$4,000 is appropriated for carrying on the work of the Women's Institutes and for instructions in Household Science throughout the country.

The balance is granted in amounts of from \$1000 to \$1500 to each of the following services:

Short Courses, Poultry, Experiments in Soils and Fertilizers, Field Crop Competition and Fruit Growing.

Careful acknowledgment of this appropriation is regularly made in the report of the Secretary for Agriculture and every effort is used to give the Federal Government full credit for the excellent assistance granted. There is operated at the Agricultural College, Truro, a first class Poultry plant which in itself has been responsible for considerable assistance to the Poultry industry. Instruction has been given to regular and Short Course students and to farmers attending meetings held in the country. Excellent bulletins have been issued and circulated. Under the Acts of 1913, for the Encouragement of Poultry Raising the Nova Scotia Poultry Association has been organized. This Act provides for a Government bonus to Poultry Shows in every County of the Province. Last year, eight counties took advantage of the offer. When a resolution was passed by the Nova Scotia Poultry Association, asking that an Egg Laying Contest to encourage poultry raising in Nova Scotia be held at the Agricultural College the Government at onceappropriated the money necessary for Buildings and it is gratifying to learn that the first contest which commenced November 1st, last, has to date produced the highest records in egg laying in any contest held in Canada during this year. This, among other things, is an indication of the readiness with which the Department of Agriculture as now organized will take hold of any practical proposition that is submitted to them by a group of farmers or stock breeders in the Province.

Increased Production.

When during the war the necessity arose for stimulating food production, the Government did not rest content with mere exhorting as was done in some of the provinces. When it was found that there was shortage of fertilizer, 2000 tons were immediately imported and sold at cost. When it was found that

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there was a shortage of seed, provision was made for a sufficient supply at a cost of nearly \$14,000. When it was represented that some help should be given to enable farmers to purchase labor saving devices such as two-furrow ploughs, an announcement was made that a bonus of 25 per cent. would be available for the purchasers of such implements. As a result 278 two-furrow ploughs, 141 seed-drills and 19 fanning-mills were purchased by farmers, who otherwise could not have afforded them.

When a shortage of feed for cattle transpired in 1917-18, 40 cars of feed, each of 40 tons capacity were purchased in New York and sold at cost throughout the country.

When it was represented that wheat mills were necessary in order that a possible bread famine might be prevented, the Government granted a bonus and assisted in the erection of eleven new roller process wheat mills. When it was represented that the farmers needed some special eredit for purchasing seed, arrangements were made for that and nearly \$16,000 actually advanced. The Government were, of course, prepared to advance many times that amount if additional applications had been received.

In other words, aside from the general agricultural policy of the Government, which is conceded to be one of the best in Canada the Government have in a practical way not hesitated to spend money to assist farmers in any sound proposition that they have submitted.

Pursued a Practical Policy.

The present Government has done as much, if not more, for the farmers of this Province than has any Government in Canada. They have met every reasonable request that has been made to them. They have pursued as progressive, as sound and as effective and practical an agricultural policy as was possible for them to do, or for any Government to do under like

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There is no Government which has circumstances. There is not a phase of agricultural education along any line which has not received their at-Even the political opponents of the administration in the Legislature, who at one time had doubts as to their optimism and wisdom in respect to the Agricultural College and the importation of stock have changed their views. While not now so hostile and antagonistic to the College as when it was first proposed they are still decidedly critical of its administration and in every way seek to minimize the good the College is doing for the farmers of the Province. A testimony that was not expected by the Opposition came from their own party leaders in the Federal arena when they devoted the large part of the Dominion grants to aid in the extension and maintenance of a central collegiate institution. Their financial testimony not only offsets the antagonistic attitude of the local Tory Opposition, but shows how absolutely inconsistent and impractical were their criticisms in the light of present day conditions. The agricultural policy of the Government is one that is generally regarded as unassailable by all who are not party bound and no more advanced legislation on this matter has been introduced in any country.

PUBLIC CHARITIES.

Victoria General Hospital.

At a considerable expenditure of money the Victoria General Hospital has been enlarged, altered and modernized within and without. At this time the hospital is the largest and most up-to-date in the Maritime Provinces and the people of Nova Scotia may rightly feel proud of it. In recent years a new dormitory has been provided for the male help and also a building for the isolation of contagious diseases developing in the hospital. Changes have been made in the main building to give furt! r accommodation.

New diet kitchens have been fitted up in connection with each of the four large wards.

The heating system has been centralized in a fine new building, and is thoroughly modern and efficient. The nurses home has been enlarged. The operating section has recently been completely reconstructed under the direction of an architect who is recognized as a leading specialist in hospital architecture and the institution is now provided with three thoroughly modern and splendidly equipped operating rooms with the necessary accessory rooms. The X-ray plant has been extended and is now capable of meeting practically any demand which may be made upon it.

This plant has been placed in charge of Dr. W. H. Eagar, who has had a wide experience in X-ray work and is a recognized expert in this specialty.

Contracts have recently been made for the erection of a finc new building for private patients, for the further enlargement of the nurse's home, and for a new service building. Applications for admission of private patients have increased in number very rapidly of late years—another evidence of public confidence in the institution—and the provision of additional accommodation for this type of patients has become imperative. The new private pavilion will meet this requirement and will also swell the revenues of the hospital and effect a reduction in the nct cost of the institution to the Province. As the nursing staff will necessarily need to be enlarged when the new building is ready for occupancy, an addition to the nurse's home is being made. The new service building will contain a thoroughly up-to-date kitchen, with accessory rooms.

It is of interest to note that the memorandum issued jointly by the Carnegie Corporation and the Rockefeller Foundation relative to their splendid gifts to the medical school of Dalhousie University refers to this hospital in such a way as to suggest that the enlargem

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ments under way influenced them in their decision to come so materially to the assistance of the University.

The Government appointed, some time ago, a Provincial Pathologist and Baeteriologist, whose work in the study of the origin of disease has been productive of much benefit. The Government felt nevertheless, that it was essential in the interests of the hospital, as well as of the Province, to establish a first-class pathological laboratory. A laboratory building has consequently been erected and equipped, which has proved to be a most useful acquisition. At its head has been appointed Dr. A. G. Nieholls, a gentleman who enjoys a world-wide reputation as an expert pathologist, and the author of much notable literature on the subject of his specialty. The establishment of this laboratory means that every doctor in the Province is enabled to send in specimens for examination, and so to be aided in deciding difficult points in the diagnosis and treatment of eases under his care. This building contains the Provincial Health Laboratory, which has been of incalculable value through the assistance it has afforded to the physicians of the Province in the early diagnosis of infectious diseases, and by other ways in which it has served the public interests.

Fitted and equipped in accordance with the most recent ideas, this hospital offers the sick poor of the Province all the advantages for care and treatment which could formerly be obtained only by going abroad.

Except that a nominal charge of \$1.00 per day, which represents only one-third of the actual cost, is made to the town or municipality, from which a non-paying patient is admitted, treatment is tree to all who cannot afford to pay for it.

The training school for nurses connected with the institution prepares many young women (and also a considerable number of young men) for the intelligent per-

formance of their duties, and during their pupilage and after graduation they minister to the needs of the patients of the hospital. That they perform their duties faithfully and attend to the instructions received has been evidenced time and time again.

From October 1st, 1918 to October 1st, 1919, there were 2186 persons treated for various ailments, and of these 48.6 per cent. completely recovered, 28.7 per cent left much improved in health and only 6.45 per cent. died. This is a record of which any hospital might be proud.

The Government spent \$158,409.31 last year in thus caring for the suffering poor in this magnificent institution. The health of the people is the nations greatest asset. A life saved is a citizen gained.

For many years the Conservatives said that the Victoria General Hospital was not well administered by the Government, which felt that this institution was too frequently being made a subject of political attacks. As a matter of fact, the Government was as well able to manage it as any commission, but unfortunately political prejudices were so strong that any seeming irregularity was tortured into a seeming The Government, therefore, in 1910, passed an Act vesting the control of the Hospital, its general and internal management, in a Board of Commissioners, the members of which hold office for five years and receive no salary. These men hold frequent meetings at the hospital to discuss matters with the Superin-They appoint the attending and consulting medical and surgical staff, and also the nursing staff of the hospital.

The Government appointed as members of this Commission, Mr. Justice Drysdale, Judge Wallace and Mr. O. E. Smith, an absolutely non-political Board. The Government has every confidence in their judgment, a confidence that is placed in them by the whole community. It is well to remember that

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not a word of criticism has been offered with respect to this Commission, or the members composing it. The Government has, as a matter of fact, silenced all criticism in this matter.

The hospital is fortunate in having as its Superintendent Mr. W. W. Kenney, a gentleman who is keenly interested in his work, a most efficient administrator and greatly esteemed for his many sterling qualities.

Nova Scotia Hospital.

The Nova Scotia Hospital is another institution of which the Province can feel justly proud. Here, under the able administration of Dr. F. E. Lawlor, who has had many years of experience in his specialty, and who is assisted by a corps of resident physicians (two of them being ladies) the insane members of the community may receive the most humane and enlightened care and attention that kindly soliciture, skill and wisdom can afford. To make it more efficient, a training school for nurses was established some years ago, which has done and will continue to do much to elevate the standard of care given the patients, in whom, more or less directly, every family of the Province is or has been interested.

To improve the sanitary condition of the hospital, the Government has in recent years introduced an electric lighting and power system, replaced antiquated plumbing by the most modern fixtures and appliances, and established a new plant where all steam for heating, cooking and laundering, and for heating water for bathing, etc., is generated. In providing the new heating system, care was taken to secure proper ventilation. In order to ensure the quality of the water supply a large filter has been constructed, composed of two filtering beds, each with a capacity of 100,000 gallons a day. Various other changes have been made to insure comfort and cleanliness. A new kitchen, a new laundry and a new bakery have been fitted up. The approaches to the fire escapes have been enlarged

to permit a more ready cgress in the event of need. Two large pumps have been installed in the power house.

All the wards in the older part of the hospital have been renovated.

Unfortunately, Nova Scotia has shared with other countries a rapidly growing demand for more accommodation for the insane. This may in part be due to an actual increase in the prevalence of insanity, but is also in no small measure the result of a greater tendency than formerly to send patients suffering from minor mental defects to institutions. In consequence it became necessary to enlarge the institution and a fine new building has recently been constructed. This is intended particularly for the care of cases of recent development, but it is so designed that the present needs of the hospital may also be met in the way of suitable accommodation for patients suffering from tuberculosis and other infectious conditions. building is planned and equipped in accordance with the most advanced ideas in the care of the insane and has proved a most valuable addition to the plant of the hospital.

This new building was, during the War, and for some time afterwards, put to a use entirely different from that for which it was designed, but which it nevertheless served most admirably. So large a number of cases of infectious disease developed amongst troops being mobilized in Halifax, that the military authorities appealed to the Government for the privilege of sending such cases to this building for care and treatment. This was agreed to so promptly that in less than 24 hours after the appeal was made one-half of the building was made ready for military patients, and within three days the whole building was being used for the treatment of soldiers. The Government continued the administration of the building, providing for the medical care, nursing, etc., of the soldiers at a rate agreed upon. In this way a

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very serious problem was solved in a manner which has been highly satisfactory to the military authorities.

The farm in connection with the hospital, is well stocked and so utilized as to effect a great saving in the cost of supplies. A fine new barn, embracing the most modern ideas in the arrangement for convenience and sanitation, is now all but completed.

In all that has been done at the hospital, the aim has been to increase efficiency and at the same time to manage economically. In order to obtain better prices for the various requirements of the institution a new system of purchasing was inaugurated some years age. Tenders are asked for each individual item required, as far as can be foreseen and contracts are awarded to the lowest tenderer in every instance. This system is that which has been followed for many years in the English institutions for the insane, and it is interesting to note that it has also been adopted by the hospitals for the insane in the State of New York.

At the close of last year there were 467 patients in residence. The expenditure for the year amounted to \$243,891.02, of which \$130,857.09 has been received as income from the Department of Militia and Defence, counties, private patients, etc., for maintenance and clothing.

The Government has ever been most generous in providing for the insane, ever willing to go to any legitimate expense which could add to their comfort, if incurable, and increase the chances of restoration to health of the curable eases.

Nova Scotia Sanatorium.

Recognizing the trend of modern ideas in regard to the duty of the State to its consumptive poor and the benefit likely to accrue from the sanatorium treatment of tuberculosis, the Government erected a sanatorium at Kentville for the reception of incipient cases. It was formerly opened on June first, 1904, and was the first institution of its kind to be constructed by any Government in Canada. It is beautifully situated and the most modern ideas were embodied in the architectural plan. The institution has proved of decided benefit to many.

In 1913, two pavilions were added and more recently, in order to assist in the care of tuberculous soldiers, other pavilions, a particularly fine infirmary building, a nurses home, a building for infectious cases, a new power building, a new laundry and a vocational building have been erected. The original building was enlarged in order to provide sufficient kitchen and dining room accommodation and suitable administration offices. The Military Hospitals Commission cooperated in this new construction, but the administration has remained throughout in the hands of the Government. While the need remains, preference must be given to applicants desiring admission who are referred by the Department of Soldiers' Civil Reestablishment, but as the number of soldier patients becomes reduced the newer buildings become available for the treatment of civilians.

This institution is now one of the largest and best equipped sanatoria in Canada and is fitted out with the most modern apparatus for diagnosis and treatment. As the accommodation required for military cases is rapidly lessening, it will soon be able to receive all the civilian patients of the Province who are likely to seek admission, unless it be far advanced cases. The new infirmary building permits the reception of a goodly proportion of moderately advanced cases, so that henceforth admissions will not be limited, as has been necessary in the past, to cases in the incipient stage. There is now accommodation for 314 patients.

In 1910, Dr. A. F. Miller, was appointed Medical Superintendent. Dr. Miller received very special and thorough training in the care of tuberculosis patients,

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under the late Dr. E. L. Trudeau, of Saranac Lake, than whom there has been no more celebrated man for this special work in the world. He was for over two years on the staff of the institution at Saranac and since his appointment to his present position he has taken front rank amongst Sanatorium Superintendents. Dr. Miller has three assistant physicians, of whom one is a lady. That it was a wise move to have a resident Superintendent specially trained in tuberculosis work has been amply demonstrated.

In addition to a large number of soldiers, 123 civilian patients were treated in the sanatorium last year with most encouraging results. 91 per cent. of these patients were greatly benefited and only 9 per cent. failed to respond to the treatment. It has been the aim of the Government to have an institution at Kentville where every patient will receive the most modern treatment that is known today for tuberculosis: where the food will be in abundance and of the best quality procurable, and where every suitable patient applying for admission will be accepted in turn, according to date of application. That they have succeeded is shown by the after results of treatment of patients who have left the institution. From 1904 to 1919, 918 patients have been treated. Of those who were discharged from the institution during the year ended Sept. 30, 1914, 67 per cent. were known to be still living at the end of the last fiscal year and of these 95 per cent. were carrying on their work as usual. If full records were available the figures might be even more satisfactory. This is conclusive proof of the excellence of the results being achieved at the Provincial Sanatorium.

Nova Scotia was the first Province to build, equip and manage such an institution. As an evidence of the confidence the medical fraternity of Nova Scotia has in the institution, it may be pointed out that in March of 1912, a delegation of physicians, representing 140 medical men, waited upon the Government, congratulating the members on the present management of the sanatorium and expressing their confidence in it.

The Government is also prepared to assist cities, towns, municipalities or organizations which may erect sanatoria, by paying a fixed sum per day toward the support of all persons under care, the only requirement being that certain most reasonable and proper conditions must be complied with. The legislation of 1913, which permits the Government to assist municipalities to the extent of one-half of the cost of erection and equipment of district sanatoria, is regarded as the most advanced tuberculosis legislation in Canada.

Local Hospitals.

The same policy that has been pursued in regard to the chief public charities of the Province has been most vigorously prosecuted respecting the maintenance, supervision and direction of those lesser charitable projects which claim more directly the attention of the general public. Nowhere does any Government more fully cope with the question of dealing with the unfortunate and the unprotected than does the Government of this Province.

Local hospitals are scattered all over the Province and the Government feels justified in the expenditure of large sums to bring assistance and help directly and immediately to those suffering from disease in the various districts of the Province reached by these institutions. The sick and suffering have been taken into consideration by the Government in a way that the Province.

An Act is now upon our statute books for encouraging the erection of local hospitals by cities, towns, municipalities or benevolent organizations or persons, by giving financial aid towards the maintenance of such institutions. The amount to be paid is comput-

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ed at the rate of 30 cents for each days actual treatment and stay of a petient, until the amount in any one year reaches \$1,500 and after that amount, at the rate of 20 cents for each additional days treatment and stay of the patient. The Government has dealt with these local hospitals with increasing liberality and last year contributed towards their maintenance \$37,20450. The estimate for the current year for the expenditure on local hospitals is \$36,310.

The institutions now receiving aid are, the Aberdeen Hospital, in New Glasgow; the St. Joseph's Hospital and the Glace Bay General Hospital, in Glace Bay; the Harbour View Hospital in Sydney Mines; the Hamilton Memorial Hospital, North Sydney; the St. Martha's Hospital in Antigonish; the Pictou Cottage Hospital in Pictou; the Highland View Hospital in Amherst; the Payzant Memorial Hospital in Windsor; the Yarmouth Hospital in Yarmouth; the New Waterford General Hospital in New Waterford; the Children's Hospital and the Salvation Army Maternity Hospital in Halifax and the Sydney City Hospital. All these institutions serve a most useful public purpose. Many of them have been enlarged since first erected to meet the demand on their accommodation.

The Inspector of Hospitals and Asylums and of Penal and Humane Institutions, an office created by the present Government, has rendered excellent service in supervising and reporting upon conditions prevailing at county asylums, poor farms, hospitals and gaols. Dr. W. H. Hattie has now charge of this work and in his reports offers valuable suggestions and directs the interest of the people to the institutions (numbering 69 in all) under his watchful care. The county authorities have greatly improved many of the asylums for the chronic insane and for the poor. These humane institutions are today on a higher plane of excellence owing to the admirable service rendered by this official.

A Forward Movement.

Recognizing the fact that othing is more essential to the prosperity of any people than good health, and that sickness is not only a cause of suffering but also a cause of much financial loss, the Government has launched upon a forward movement in an attempt to conserve the public health. As tuberculosis causes so large a share of the sickness and deaths amongst our people, especial effort is being made to lessen its prevalence. Reference is made under the heading "Public Charities" to the establishment of the Provincial Sanatorium at Kentville, which is intended not merely to be a place where people suffering from tuberculosis may go for treatment, but also as an institution for the education of the people in the methods to be adopted for the prevention and for the cure of this disease. The assistance which the Government is prepared to give toward the establishment of district sanatoria, also referred to under the heading of "Public Charities," is another part of the scheme aimed at the control of tuberculesis. A considerable reduction of the death rate from tuberculosis has resulted from what has already been done, and the Government feels encouraged to put forth still further effort in this direction.

There have been recently appointed two additional physicians experienced in health work; to the Department of the Public Health —one of whom is now engaged particularly in the establishment of benereal disease treatment centres in six of the larger towns and in other anti-venereal work, but who will soon extend his activities to include tuberculosis and child welfare work in connection with health clinics which are being established in all the counties, while the other is devoting himself to sanitary work in various parts of the Province, more especially in connection with the schools. In order to be in a position to extend the advantage of expert advice to every part of the Province, the Government is endeavouring to secure the cooperation of the various municipal, city

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and town councils in the establishment of County Health Clinics, where persons suspected to be suffering from tuberculosis, expectant mothers, sick babies and others may go for expert advice and treatment. These clinics will be visited at regular intervals by officials of the Health Department. They will also be headquarters for the public health nurses, which will shortly be placed in the field to carry to the homes of our people the benefit of their skill and teaching in the conservation of health. The Red Cross Society is cooperating with the Department in this matter and a group of graduate nurses is now being trained at Dalhousie University for this special work—the officials of the Department together with officials of the Massachusetts-Halifax Health Commission, members of the teaching staff of Dalhousie Medical College, of the Victorian Order of Nurses, of the medical inspection staff of Halifax and Dartmouth schools and others having undertaken to give the requisite instruction. Several weeks of training in tuberculosis nursing at the Kentville Sanatorium is included in the very complete course which is being given to these nurses, so they will go out through the Province well qualified for the work to be required of them, which will consist mainly of teaching and demonstration of methods to preserve health and to prevent the spread of infectious They will also devote much of their time, in cooperation with medical officials, to the medical inspection of school children, with the object of disvovering and having remedied the defects which are so common in these children and which, if not corrected, not only retard their progress in school work but prejudice their whole future.

The Department of the Public Health has issued a great deal of literature, dealing with the various communicable diseases and with other matters bearing upon the public health, which has been widely distributed. It publishes a Quarterly Bulletin, devoted to public health subjects, which is sent free, upon application to the Provincial Health Officer, to any address in the Province, and endeavours to further carry on

educational work by means of frequent Press Bullctins. Model by-laws, for the guidance of local boards of health, have been prepared, covering various matters which concern the public health, and the Department is always ready to advise and assist local boards in any practicable way. The erection at the Victoria General Hospital of a Pathological Building, now to be greatly extended, is a further part of the Government's plan on behalf of the public health, as a special laboratory is provided there for the examination of water, milk and other foodstuffs, for the laboratory diagnosis of certain of the infectious diseases (such as diphtheria, tuberculosis, typhoid fever, and ccrebro-spinal meningitis) and for the preparation of such vaccines as that used in the prevention of typhoid fever. Arrangements have been made by which diphtheria antitoxin and various other biological products may now be obtained very much more cheaply than was formerly possible. It is intended that a progressive policy in the matter of the public health will be maintained, and that the organization of our Provincial Health Department will be made as complete and as effective as the state of the Provincial finances will permit.

In furtherance of its policy to encourage public health work, the Government is cooperating with the Massachusetts-Halifax Health Commission, which is now engaged in a study of the sanitary conditions of the arca involved by the great disaster of December 6th, 1917, and in demonstrating the newer methods of dealing with public health problems. Office quarters have been provided for this Commission, the public health laboratory has been placed at its disposal, and the staff of the Health Department is rendering it all possible assistance.

In 1904, the Legislature passed an amendment to the Public Health Act, doing away with the Provincial Board of Health and replacing it with a Provincial Health Officer, whose department is under the Provincial Secretary. Dr. W. H. Hattie has been apılle-

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pointed to this position in addition to that of Inspector of Humane and Penal Lectitutions, and his activity in this connection has thready resulted most beneficially in respect to the public health of the Province.

Children's Protection Act.

The Children's Protection Act of Nova Scotia has been declared by prominent child welfare workers to be the best Act of its kind in existence. It provides the most modern, intelligent and humane methods of dealing with dependent, neglected and delinquent children.

The Act first passed the Legislature in 1906, but very little was done until 1912, when the Act was enlarged and consolidated with a number of Acts dealing with child welfare and a Superintendent was appointed by the Government, whose duty is to carry out the provisions of the Act. The Act was further amended and enlarged in 1917 and at the last session of the Legialature, further amendments were added extending the duties of the Superintendent.

The first Juvenile Court in Nova Scotia was established in Halifax in 1911, and has jurisdiction in the City of Halifax. The second Court was established in 1915, and includes the whole County of Pictou and the incorporated towns therein. The Superintendent of Neglected and Delinquent Children is chief probation officer for these courts and is also inspector of institutions caring for dependent, neglected and delinquent children.

The Children's Protection Act, in brief, provides that every child under the age of sixteen years must have a fair and reasonable chance to become a useful and happy citizen of the Province. If a child commits an offence against the law, it is not dealt with as a criminal, but as a child in need of training and parents and guardians are held responsible for the welfare and training of the children. If a child is neglected by its

parents, or ill-treated, or if a child is in grave danger of becoming delinquent because of its environment or the character and condition of its home, the Act provides that the child may be removed, either permanently or until such time as the home conditions are made right. A very large number of cases both of delinquency and neglect have been handled by the department. Many of these cases involved a great deal of labour in adjusting family and domestic difficulties. The total number dealt with since the establishment of the department exceeds two thousand, and over one thousand children have been made wards of the Superintendent.

When the Act first came into operation, the Superintendent found some dificulty in inducing the municipalities to see the value of earing for the neglected ehildren; but today the municipalities co-operate most eordially and many of them frequently request the Superintendent to take eare of children who are public charges or who are in grave danger of becoming delinquent from the condition of their homes. operating with these municipalities a large number of ehildren have been placed in excellent forster-homes and the municipalities have thus been saved eonsiderable expense for the children's maintenance in institu-In one town alone, seventeen dhildren were tions. taken eare of and placed out by the Superintendent during the year 1919. The total cost to the town would be less than the cost of maintenance of these children for three months in the institutions.

Where the Juvenile Courts are in operation the number of delinquents kept in the institutions at public expense is very much smaller than the number before the establishment of the courts, and the number of delinquents committed to institutions from the Juvenile Courts is very much smaller in proportion to the population than the number committed from the parts of the Province where the Act is not in force. This is due to the method of placing the children out on probation and keeping careful supervision over

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them in their own homes. This feature of the work must soon be extended through the whole Province. many of the boys placed out by the department went Overseas and rendered good service for their country. At least three who went over as privates, came back as commissioned officers and a number lost their lives in the great struggle for freedom. A number of the older girls have married and have now comfortable homes of their own. Several are school teachers. Others are now in the high school grades of the public schools. It is safe to say that none of these would have had the slightest opportunity of obtaining an education or of becoming self-supporting and useful citizens without the assistance rendered them by this department.

The Children's Protection Act makes provision for co-operation between the provincial and municipal bodies and the philanthropic and charitable organizations. While the Province does its share and each municipality is required to pay towards the maintenance of children, a considerable part of the actual work and the cost of caring for the children is borne by the various Children's Aid Societies established under the provisions of the Act. The membership of these Societies is non-sectarian and non-political and they have carried out the purposes of their organization with a great deal of enthusiasm.

The objects of the Children's Aid Society are:

(a) To protect children from cruelty. (b) To protect and care for friendless and destitute children. (c) To endeavor to prevent children from becoming incorrigible or criminal. (d) To endeavor to prevent children from becoming destitute or dependent on public charity. (e) To teach neglectful or cruel parents their duties towards their children. (f) To endeavor to provide suitable foster homes for such children as may require them. (g) To co-operate with the Superintendent of neglected and delinquent children in every way possible for the proper treatment

of delinquent, neglected and dependent children.
(h) To do any act or thing which by any Statute of the Province or regulation made thereunder a Children's Aid Society is empowered to do.

Several of the Societies maintain Shelters or Homes for their districts. Glace Bay expended over three thousand dollars last year in their work. Sydney has two workers in the field and maintains a Detention Home or Shelter. A number of the municipalities are contributing to the maintenance of these Societies and Shelters. The Superintendent issues annually to the Legislature a report which is comprehensive and gives much valuable information regarding the institutions caring for children, the work in the Juvenile Courts and the Children's Aid Societies. Many favorable reports have been noted in the Press concerning these annual reports.

The Government has been frequently commended for establishing this department. It deals with eomplicated social problems and there are connected with the various Children's Aid Societies persons of the various religious denominations and political parties, but there has never been friction or strife. All have worked harmoniously for the good of the children. The money spent in this work gives good results in this generation and will give greater results in the generations to come. Public opinion today demands that each child receives a good start in life and has a fair chance of developing the best that is in him. It is gratifying to know that the Government of the Province is prepared to spend money to properly eare for the neglected and delinquent children.

Water Powers.

During the 1914 session of the Nova Scotia Legislature there was passed "An Act Respecting the Development of Water Powers Within the Province," authorizing the appointment of a Commission not only to seeure data in regard to the value and capacity

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of the water powers of the Province but also to formulate some general policy with respect to hydro-electrical development.

The Commission subsequently appointed under this Aet eonsisted of Hiram Donkin, Deputy Commissioner of Works and Mines, Chairman; W. G. Yorston, Assistant Road Commissioner; F. H. Sexton, Prineipal of the Nova Scotia Technical College and A. S. Barnstead, then Secretary of Industries and Immigration, Secretary.

This Commission initiated negotiations with the Dominion Water Power Branch of the Interior Department at Ottawa as a result of which the whole time of an experienced engineer of this Department was made available for the Province at the expense of the Dominion Government.

Active investigations were begun early in 1915. From time to time as information became available, reports were issued by the Commission. In all, five reports have been issued, containing a great mass of information and fully illustrated with maps, plans and photographs. These reports have been in great demand from all parts of the country and the information contained therein has been of inestimable value to engineers dealing with all sorts of problems involving the use of water not only in this Province, but also in the adjoining Province. It has been freely stated by eminent engineers considering various problems in this Province, that no where else have they been able to get such complete and satisfactory information as from these reports. This Commission a ted until 1919, when, under the Aet of 1919, the present Power Commission was formed.

As the investigations proceeded, it became apparent that Nova Scotia has comparatively large hydroelectric resources particularly suited to her needs. It has a large number of sites that are large enough to

secure maximum economy in construction and operation and yet not so large that the heavy initial capital expense involved precludes their immediate development for existing and growing power demands. While a number of the larger rivers of the Province and a great many small sites have not yet been completely investigated, it is very conservatively estimated that the commercial capacity of the larger water power sites of the Province is in the neighborhood of 300,000 h. p. All these sites are so located and of such a nature that they may be developed under present day conditions to supply energy at rates comparable with rates being charged in other parts of the country.

Contract prices in connection with the Margaret's Bay Development of the Commission now under construction as mentioned hereafter, indicate that power may be generated from Nova Scotia water powers at $\frac{1}{3}$ to $\frac{1}{2}$ the cost of generating power under similar conditions by any other means available in the present state of the art of power generation. The present cost of generating power in the smaller towns of the Province where steam is used can be reduced to about 1-10 of the present cost and greater reliability of service assured.

With this information available as to the physical capacity of the water powers of the Province, it became absolutely essential that some steps should be taken to reconcile the interests of agriculture, of industrial and lumbering pursuits and of the numerous riparian owners along the banks of the streams in order that the development of these natural resources might be facilitated and carried out along proper engineering and economic lines.

In 1918, therefore, an Act was passed with a view to taking control of the waters and water courses of the Province, while at the same time doing justice to riparian owners and to those who were now or had used the water courses for one purpose or another. This Act was repealed in 1919, and a new Act substituted

The new Act was essentially the same as the original Act of 1916 in principle. Briefly, it vested all water courses in the Crown, so that today all streams, lakes, ponds and water courses in general are the property of the people of the Province as a whole and are in somewhat the same position as the highways of the Province. There are, however, provisions in the Act safeguarding the rights of those who have already used water courses by way of water power development, saw mills or for any other purpose or have made provision to do so. In addition to safeguarding the interests of those who had previously used the water courses of the Province, it may further be pointed out in connection with this Act, that no development of any kind on any water course, can be made without encroaching to a greater or less extent on the adjoining banks. The Act does not in any way affect the title to lands adjoining the water courses, so that a riparian owner in practically every case of power development or use of a water course for any other purpose, is bound to have his rights considered and to receive compensation where he is entitled to the same.

Having, therefore, cleared the ground as it were in regard to the rights and titles in water courses, the further question arose of how actual developments were to be carried on, either entirely by private initiative or by some public body organized along the lines of the Hydro Electric Commission of the Province of Ontario. Apart from any argument as to fundamental principles underlying the development, ownership and operation of public utilities by private enterprise or some sort of public organization, there were certain peculiar conditions, physical and otherwise in the Province of Nova Scotia, which rather indicated that the development of the water powers of the Province by public enterprise in the great majority of cases was preferable.

From an engineering and economic standpoint, it is highly desirable that the various water powers of the Province should be linked together in a network of transmission lines which would supply the more important sections of the Province with an adequate amount of electrical energy. Obviously, the interconnection of a number of plants could more advantageageously be carried out by a public body than by any private body or by a number of private corporations. It is also desirable as power demands grow, that hydro-electric generating stations should be electrically connected with existing steam plants or plants which may be built at strategic points utilizing the coal, oil, peat or other power producing resources of the Province apart from water power.

In 1919, therefore, a Bill was passed known as the Nova Scotia Power Commission Act, following the lines of a similar Act and amendments thereto in Ontario but with alterations to suit local conditions. This Act provided for the appointment of a Power Commission with ample powers to generate electrical energy whether from water power or other sources. A Commission was subsequently appointed under this Act consisting of the Honourable E. H. Armstrong, Commissioner of Public Works and Mines, Mr. R. H. Mackay, of New Glasgow and Mr. F. C. Whitman, of Annapolis.

It was logical that the Honourable Mr. Armstrong as Commissioner of Public Works and Mines should be appointed Chairman of this Commission which it was expected would carry out a considerable amount of essentially public work. In addition, Honourable Mr. Armstrong had from the inception of the investigatory work, taken a keen interest in all matters pertaining to it; had been largely responsible for the cooperative arrangement with the Dominion Water Power Branch of the Interior Department, Canada, and had very materially assisted in legislation already mentioned. Mr. Mackay in addition to being a resident of New Glasgow, and, therefore, familiar with the local conditions in that large industrial centre requiring a large amount of power, was closely in touch

with the fuel and power problems of the whole Province as a result of his experiences as Provincial Fuel Controller. Mr. Whitman, a successful business man of the western part of the Province had some knowledge of hydro-electric problems as a result of his experiences as Chairman of the Electric Light Committee constructing and operating the municipal Hydro Electric Plant at Annapolis Royal.

It was not intended that a Commission consisting of engineering experts should be appointed. Members of a Commission of this sort are appointed essentially to determine matters of policy acting on the advice of their permanent expert staff and such other experts as may be secured from time to time. The duties of this Commission differ entirely from the duties of the former Commission which was essentially an engineering organization whose duties were confined merely to consideration and recommendation.

The Power Commission now has under way at St. Margaret's Bay some 15 miles from Halifax a power development with a total installed capacity of 10,700 The complete development of this project calls for the installation of about 15,000 h. p. Contracts for all the major portions of the initial development including both hydraulic and electrical machinery and general construction work, have been let and work is proceeding vigorously. It is expected that some power may be available from this development early next year and that the complete initial development of 10,700 h. p. will be available about the middle of next year. This will be the first hydro-electric development in the Province of Nova Scotia which from the standpoint of magnitude and type of construction will be comparable with modern hydro-electric developments in other parts of the world. It will represent the most approved engineering practice in matters of this kind of the present time.

In addition, the Power Commission has plans well advanced for a development of considerably larger

magnitude on East River Sheet Harbour, intended primarily to supply the industrial section of Pictou County, but eventually to be linked up with the Margaret's Bay development and other developments throughout the Province.

At the urgent request of the communities interested, consideration is being given to developments in Lunenburg County, the Annapolis Valley and Bear River and the Commission will shortly be in a position to take some definite action in regard thereto. In fact, the Commission is being pressed on all sides to carry out developments in various parts of the Province and undoubtedly, there is a great demand for power. will be apparent on reflection however, that the Commission cannot meet all the pressing demands immediately. Mature and ample consideration must be given to all proposed developments from an engineering standpoint in order that the most satisfactory results, both economically and otherwise, may be secured. In addition, there are physical limitations to the speed at which construction work can be carried on. Delivery of machinery is also uncertain and all construction problems, are complicated by the existing labor and material situation.

In addition to this work, on its own account, the Commission is constantly giving advice to those operating or interested in small power developments and to those utilizing water or watercourses for whatever purpose. A number of new hydro-electric developments have recently been completed and others have been enlarged or improved. The information ohtainable through the investigations carried on by the local Government either through the former Nova-Scotia Water Power Commission or the existing Power Commission have been of great assistance in all this work and it is probable that the new developments may be directly attributed to this investigatory work and the activities of the Provincial officials in matters of this kind.

The progress which has been made during the last few years in regard to the power problems of the Province has been freely commented upon by those interested in matters of this kind outside of the Province. It was not believed to be possible by those outside of the Province and even by some within the Province that such progress could be made and at the present time there are probably more activities of this kind in the Maritime Provinces than in any other part of Canada. For eight years the United States have been struggling to get satisfactory legislation to enable water power projects to be proceeded with. Their Congress recently barely agreed on legislation which offered some promise of success but the Bill failed to receive the sanction of the President and praetically no progress has been made. It is barely five years since these problems in Nova Seotia were attacked and it is now believed that a fairly satisfactory solution has been reached.

There can be no question as to the necessity for the development of the hydro-electric resources of any country and efforts along those lines are being made the world over. France, for example, a country presumably hard pressed financially, has made enormous strides during and since the war, chiefly for economic reasons. The improvement in the art of hydro-electric development and transmission and the increasing cost of coal, together with transportation and labor difficulties, have been largely responsible for the great impetus to hydro-electric development.

The adjoining Province of New Brunswick after eonsiderable delay has now followed the example of Nova Scotia and at the 1920 session of their Legislature adopted legislation similar in all essentials to the Nova Scotia Power Commission Act.

There can be no question, therefore, but what Nova Scotia is keeping in line with all other parts of the civilized world in matters of this kind and so far as this part of the world is concerned, deserves the credit for

blazing the trail which others are now following. Whereas the Province of Nova Scotia was the first to realize the advantages of co-operation with the Dominion Government in the investigations of its water power resources, now New Brunwick and Prince Edward Island have taken this step as well as the Province of Ontario, which, of all the Provinces might be expected from its magnitude and wealth to be the last to seek co-operation from any one.

Workmen's Compensation Act.

The Workmen's Compensation Act of 1915 may be described as a new code of law respecting compensation for accidents to workmen. The Act applies to practically all industrial employments and covers all workmen engaged in manufacturing, building, construction, lumbering, mining, quarrying, transportation, navigation, stevedoring, the operation of public utilities, etc. Farm laborers, domestic servants and persons employed in wholesale or retail businesses are not covered unless the employer expressly applies to have his industry admitted. In the industries to which the Act does apply the compensation for the injury is payable irrespective of any question of negligence or absence of negligence and the old defences of common employment and voluntary assumption of risks are no longer applicable.

Purposes of the Act.

Among the purposes of the Act the following are important:—

- 1. To abolish completely the whole system of litigation on account of industrial accidents.
- 2. To establish a new system whereby every workman injured in industry should automatically become entitled to a reasonable percentage of the amount of wages lost on account of the accident, entirely regardless of whether he was injured by reason of his own

fault or that of his employer, the only exceptions being as to injuries which do not disable the workman for so long as seven days, and as to minor accidents due solely to the serious and wilful misconduct of the workman himself.

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- 3. To improve the relations between the employer and his men. As, after the happening of an accident, the employer cannot be sued on account of the injury, he will be glad to take a friendly interest in seeing that the accident is promptly and fully reported in order that the Board may promptly pay his injured workman whatever compensation may be due him on account of his injuries.
- 4. To promote the prevention of accidents by removing all incentive to conceal the cause, or perhaps the fault which may have been the true cause, of the accident; and so to make possible an open and frank investigation as to the real reason why the accident happened, in order that the recurrence of similar accidents may be prevented. By removing all cause for anxiety as to who was to blame, an immense step is taken in the great work of accident prevention.
- 5. To pay stated and regular sums to the widows and children of the victims of industry instead of a single payment of a sum in damages, thereby assuring them of continuance assistance toward their support and so preventing the probability of their becoming dependent upon public or private charity.
- 6. To give effect to the general conviction that a substantial part of the cost of all work accidents chould, like the cost of accidents to machinery or the wearing out of equipment, form a recognized part of the cost of manufacture or construction, and, as such, should be paid by the employer and passed on to the consumer as a legitimate part of the cost of the product.
- 7. To avoid the great economic loss involved in making payments to injured workmen through liabi-

lity insurance companies whose expenses for agents, adjustors, lawyers and stockholders absorb a large proportion of the employers money and represent nothing but a waste so far as the employer and his injured men are concerned. This waste, amounting to very many thousands of dollars, must necessarily result either in increasing the eost to the employer or in preventing the men from receiving as much on account of their injuries as their employers were willing to pay. der this Aet the money paid by the employer is used directly for the purpose for which it was intended and is paid to the injured men by a Board appointed for the purpose, and no third parties whatever are allowed to make a profit out of workmen maimed or erippled in industry, nor to try to prevent them from receiving the compensation to which they are entitled.

General Provisions

One of the most important features of the Aet is the provision for eollective, or grouped, liability in substitution for the old principle of individual liability. The various industries of the Province are divided into certain groups or classes with reference either to the general similarity of the nature of the work or of the hazard. The whole body of employers in each class is responsible for the cost of only such accidents as occur in the work of the class in which their industry is listed. If different kinds of work are listed in the same class which involve different degrees of hazard, the difference in risk is compensated by a corresponding difference in the rate of assessment.

The employers in each class are required to contribute to the Accident Fund a sufficient sum each year to pay the entire cost resulting from the accidents which occur in the work of the class during the year. By this means the industries of each year pay the present and future cost of the accidents which occur during the year and thus no growing liability is carried into future years on account of past accidents. Provision is made, however, so that, if exceptional accidents

should occur, that the cost may be divided over a number of years.

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Rates of assessment in proportion to the probable hazard in the different industries are fixed by the Board. The assessments may be collected yearly, half yearly or quarterly, but if the funds in any class are sufficient for the time being any assessment may be omitted or deferred. At the close of each year adjustments of previous provisional assessments are made. By this means the seasonal employer will contribute to the fund in equal proportion to his annual pay roll with the employer whose operations continue throughout the year.

No part of the amount payable to the accident fund by the employer is to be charged against the workmen, and the compensation cannot be assigned, charged or attached except with the approval of the Board. An employer may earry himself on his wage list at a reasonable salary not exceeding \$100 per month and, if he applies for the protection of the Act and makes return to the Board accordingly, he or his dependents will be entitled to compensation if he should be injured just as in the case of an ordinary workman.

How the New Law Differs from Old.

The Legislature in 1910, passed a Workmen's Compensation Act, along the lines of the English Act but limited in its scope and application. This was undoubtedly a great step in advance over previous legislation and has been productive of much benefit to our workmen. Owing, however, to the prior existence of Miners' Relief Societies as well as active Relief Societies in the great steel plants at Sydney and Trenton, practically all the coal miners and steel workers of the Province were excluded from the operation of the Act of 1910. The important industry of lumbering was also excluded. Then also this Act contained the limitation that an industry must employ five or more men before the Act applied. The principle of this Act

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(1910) was that each industry must carry its own risk, and if an industry where an accident occurred were bankrupt the injured employee eould get nothing. The Act of 1915 gives a much higher scale of compensation and insures that it will be paid. Under the new law none of these things is of any consequence. new law recognizes that the misfortune of a crippled workman or the needs of his widow or children are not any less because he was at fault or someone else was not at fault, and it provides that the workman or his dependents are to be entitled to compensation irrespective of negligenee or any other circumstances, except only, as before mentioned, that the accident must not be attributable solely to his own serious and wilful misconduct; and even where it is attributable solely to his serious and wilful misconduct he or his dependents will still be entitled if the accident results in serious disablement or death.

Under the old law a workman disabled from work for two weeks could claim compensation from his employer on the basis of half his previous weekly wages, not to exceed seven dollars per week, until he had completely recovered. If the workman met with a fatal accident, any or all relatives, near or distant, in whole or in part dependent upon him, could elaim from his employer compensation to the amount of either one thousand dollars, or a sum equal to his wages of the previous three years—calculated on an average of so much per week—the sum to be paid over in no case to exceed fifteen hundred dollars. If the workman left no dependent relatives, the employer was liable for the funeral expenses, not to exceed \$200 in any case. Under the new law there is greater certainty and a more equitable rule as to the amount. A very importany feature of difference in the new law is the periodical continued payments instead of a lump sum in settlement of damages. Often lump sums in damages recovered by a widow or other dependents have been badly invested, frittered away, or otherwise lost, and the widow and ehildren perhaps in the end left without

support. The policy of the new Act is to provide continued support.

The old system of recovering damages by law suit, which applied to cases not covered by the Act of 1910, was unsatisfactory and oppressive to one or both parties. Those who deserved compensation most often got nothing, while some not entitled, harassed employers with vexatious actions. Under the new and more comprehensive Act all matters as to the right to and the amount of compensation are settled by the Board with little or no expense to the parties and employers will no longer be liable to be sued for or to pay damages or costs of litigation, but will be liable only to contribute to the fund out of which the compensation is to be paid.

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Scale of Compensation

During the entire period of total disability resulting from accident, the workman is entitled to a weekly or monthly payment equal to 55 per cent. of his average carnings before the accident.

In case of partial disability, he is entitled to 55 per cent. of the difference between what he was carning before the accident, and what he carns or can earn in suitable employment after the accident.

No account shall be taken of any wage or salary earned by the workman in excess of \$100.00 per month, the purpose of paying compensation.

Where death results from the injury and the workman leaves a widow but no children, the widow is entitled to a monthly payment of \$20.00 until her death or re-marriage; after Oct. 1st, 1920, she will be entitled to \$30.00 a month.

If he leaves a widow and children the payment to the widow is \$20.00 a month and \$5.00 for each ehild under sixteen years, but not exceeding \$40.00 in all. After October 1st, 1920, the widow will be entitled to \$30.00 a month and \$7.50 for each child under sixteen years, but not exceeding \$60.00 in all.

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If he leaves children only the payment of \$10.00 per month for each child under sixteen years but not exceeding \$40.00 in all. After October 1st, 1920, these amounts will be \$15.00 and \$60.00 respectively.

If he leaves no widow or children but leaves other dependents they are entitled to a sum reasonable and proportionate to the pecuniary loss occasioned by the workman's death as determined by the Board, but not exceeding \$20.00 per month to a parent or parents and not exceeding in the whole \$30.00 a month. After October 1st, 1920, these amounts will be \$30.00 and \$45.00 respectively.

Upon the re-marriage of a widow who is in receipt of a pension she is entitled to a sum equal to the value of her pension for two years and further payment of her pensions shall cease, but payment of any pensions due the children may continue until they attain the age of sixteen years.

The necessary expenses of the burial of the work-man, not exceeding \$75.00, shall be paid in all cases.

The number of persons who have received benefits under the Act between January 1st, 1917 and December 31st, 1919, is 15,035.

PUBLIC UTILITIES POARD.

In 1909, an Act was passed by the Local Legislature, ereating a Public Utilities Board. The object was so to control all public utilities in the Province that they should be compelled to provide safe and adequate service to all alike and at reasonable rates.

Included under the term "Public Utilities" are all persons, firms or corporations owning or operating

telephone lines, tramways for the conveyance of passengers and equipment for the production or transmission of light, heat, water, electricity or power to the public. The Board is composed of three commissioners who hear and determine complaints. Expenses of the Board are not paid by the Government but are assessed upon and paid by the several companies in proportion to their revenues.

Every public utility—and there are in all 301 in the Province-must annually make full report of its financial standing to the Board and more particularly disclose amount of its capital, liabilities, assets, revenues, operating and other expenses, interest and dividends paid. Issues of stock, shares, bonds and debentures may only be made when approved by the Board. Before giving approval the Board demands full disclosure under oath of the purpose for which new capital is required, and will only sanction such an amount as the circumstances may warrant. When an issue is permitted the company is required to account strictly to the Board for every dollar realized and prove that it has been used in the proper extension of the system. The result of this supervision is protection to the public from the demand which vatered or fictitious stock issues and extravagant or inefficient management makes for excessive earnings and at the same time investment is encouraged by the assurance that if the company is well managed such earnings may be permitted as will give a reasonable return on the investment. This has already prevented the attempted watering of the stock on the part of some large corporations, a reduction being ordered by the Board in the amount of stock authorized to be issued.

A uniform system of accounting has been prescribed for all public utilities of the same class, enabling the Loard to make more accurate comparison of efficiency and more readily detect and control extravagance or mismanagement and also to assist the company itself to operate more economically.

Schedules of all rates and tolls and regulations affecting the same must be filed with the Board and open to the public at the office of the company. These rates, etc., may not be altered without the consent of the Board and where any increase in rates or alteration prejudicial to the public is intended an opportunity to be heard in protest is afforded. absence of such protest the Board itself investigates and requires the public utility to justify any departure from existing rates. This provision effectively checks any arbitrary increase of rates or vexatious regulation, and has resulted in the reduction in very many cases of rates and consequent great saving to the public. the case of rural telephones alone the rates of 160 companies, affecting 2,831 subscribers, have been considered by the Board.

Upon formal complaint of a municipal corporation or any five persons the Board must investigate any alleged failure of the public utility to furnish good service at reasonable rates and to avoid unfair discrimination. If upon such investigation the complaint appears well founded, the Board may order a reduction in rates or such relief as the case calls for and penalties may be imposed for non-compliance with its orders. Should this not prove effective an order of the Supreme Court may be obtained to compel obedience.

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Less, formal complaints made to the Board on numerous occasions have been promptly brought to the notice of the public utility affected. In many instances redress is obtained; in others an explanation satisfactory to the complainant removes misunderstanding. If neither of these results is obtained and facts are in dispute, the way is pointed out by which a formal hearing may be had, evidence taken and a decision on the point obtained.

The decision of the Board on questions of fact is final. If it errs in law an appeal may be taken to the Supreme Court. The Board is a court always open to

the public, and readily accessible. Its activities include subjects other than those mentioned. Altogether this Act of the Legislature is a most advanced piece of genuinely democratic legislation designed to protect and safeguard the interests of the public. The machinery provided is simple and effective, the procedure easy and direct.

Rural Telephones

The Rural Telephone Act of 1913, is now recognized as one of the most important Aets passed by the Legislature of Nova Seotia. The Murray Government wisely coneluded that one of the very best methods of making rural life more attractive and the business of the rural population more easily and expeditiously managed would be to provide aid and encouragement for the connecting up of the seattered settlements with each other and with the populous centres by means of the telephone. Aecordingly the Telephone Aet of 1913, was introduced providing for the formation of small eompanies to place poles, run wires and install the plants necessary for the purpose and also for the granting of a Government subsidy of \$20, now inereased to \$25 per mile for each mile of telephone line constructed or acquired under the provisions of the Act. In addition a subsidy of \$15 a mile is given for second eireuits and \$10 additional if mileage is taken through a sparsely settled or uninhabited region. further aid these rural eompanies it was also deereed that their properties should be exempt from all assessments, rates and taxes and also be free from seizure by landlords' lien, for rent, or for any elaims against the person in whose possession any such property might 160 companies were organized under the prosisions of this Act up to September 30th, 1919, 146 of which had their lines in operation. These operating companies have a pole line mileage of 1950 miles and a wire mileage of 2026 miles of single wire. The number of telephones in use was 2831. The approximate value of the lines and their equipment now operating under the Aet is \$200,000 of which \$35,509 represents the eash subsidy paid by the Government. It must be remembered that the Government pays the eost of organization, incorporation, instruction and inspection. A population of 85,000 is being served by these lines.

FACTORY INSPECTION.

Among the many "labor laws" which have been put on the statute books of this Province by the Murray Government, there are none more outstanding or more important to the industrial workers than the factory laws. This Act eams into operation in 1907 as the result of representations made to the Government by a delegation of trade unionists who urged the wisdom and necessity of such a law.

The principal features of the factory laws may be dealt with under the following heads:—Sanitary requirements, conditions of employment and hours of labor, prevention of accidents, prohibition of child labor, fire escape regulations and the authority of the inspector to enter and inspect a factory at any time.

"Sanitary requirements" eovers a variety of subjeets pertaining to the health and morals of factory employees. Factories and workshops must be properly ventilated and the dust fumes, gases, etc., incidental to many processes of manufacture and so injurious to the health of employees, must be removed by some mechanical arrangement. The benefits resulting from the enforcement of the law in this respect are appreeiated more and more every day by those who work in our factories. Keeping workrooms elean, providing washing and suitable toilet aecommodations properly segregated for employees, the heating of factories and the supplying of good drinking water are other matters with which the factory inspector has to deal in the interest of the comfort and welfare of the many thousands who must earn their living in the factories and workshops of this Province.

By the regulations governing conditions of employment and hours of labor for women, young girls and boys, the principle is admitted that this class of workers must receive special attention. The Governor-in-Council may prohibit the employment of girls under the age of eighteen years and boys under the age of sixteen years, in factories the work of which is deeined by the Governor-in-Council to be dangerous or un-No young girl or woman is allowed by law healthful. to clean any part of the machinery in a factory while the same is in motion, nor is any young girl under the age of eighteen years allowed to work between the fixed and traversing parts of any machine while it is in mo-The hours of labor are also regulated, and in this respect our law compares favourably with the most modern legislation on the subject.

The preservation of the lives and limbs of our industrial workers is of such vital importance that the factory laws wisely provide that adequate means shall be taken by the employers, by fencing and guarding dangerous machines and places, to prevent as far as possible the danger of injury to their employees. Moreover, every accident which incapacitates a worker for at least six days must be reported in writing to the factory inspector. Hundreds of accident reports are received every year, and the last annual report of the Factories Inspector shows that there were 989 accidents reported, of which thirteen were fatal. This fact is an indication of how serious a matter industrial accidents are in this Province, and how vast are the opportunities for accident prevention. law gives the factory inspector power to hold an inquiry to ascertain the exact cause of an accident and he may subpoena witnesses and administer an oath if he thinks it necessary. The law also authorizes him to require employers to provide guards and to see that they take whatever other precautions he may think necessary to prevent accidents. Day after day this humane work of protecting the workmen from death or injury is being carried on as the result of our factory law, and the reduction in the number of accidents reported each year is the best evidence that the law is performing a useful mission and preventing very much suffering and sadness among the industrial employees of this Province.

In the factory laws ample provision is made to guard against the evil of child labor in our factories. Parents are too often willing to condemn their children, at a tender age, to the drudgery and monotony of factory life. The law has therefore, placed its protecting arm around the helpless little ones and does not allow them to work until they have reached the age of fourteen years, by which time they will have had an opportunity to acquire at least a common school education and enjoy some of the innocent pleasures of childhood.

This very important matter of protecting the employees of factories in case of fire panic is amply provided for in the factory laws. Fire escapes must be provided and there are other provisions required which will insure safe egress in case of an emergency.

The factories inspector has authority under the law to enter and inspect any factory at any hour of the day or night, the factory can thus be seen in its ordinary condition. The employer not being aware of the time when the inspector will visit his establishment has not the opportunity of making special preparations for the inspection.

For almost thirteen years a factory inspector has been visiting factories in every city, town and village in this Province, instructing, encouraging and sometimes composing the employers to keep the children out of the factories. This has given them an opportunity to enjoy the sunshine of youth and develop into intelligent citizens. It has made conditions such that our women and young girls will not be exposed to injury to their health or morals, but may be surrounded by cheerful and healthful working conditions. It has resulted in the necessary means being taken to pre-

vent accidents and reducing to a minimum the yearly toll of suffering and sadness from industrial accidents.

INDUSTRIES AND IMMIGRATION.

In 1907, the Government established a department of Industries and Immigration. It was designed to gather information respecting the various resources of the Province; to tabulate this information; to prepare handbooks concerning the Province and to distribute these booklets in such a way as to attract capital for our industries and settlers for our land. A systematic effort has been made to advertise the Province abroad and the co-operation of the Dominion Immigration Officials in Great Britain has been sought and given. Advertisements have appeared in publications circulating in sections of the country from which we can draw a satisfactory class of people. News items respecting the Province appear from time to time in newspaper publications in the Old Country, and members of the staff of the Dominion Immigration Office in the British Isles have in the last two or three years, visited the Province and made themselves acquainted with the conditions here. In connection with the reports of the Department, interviews with and letters from successful settlers have been published in order to induce others to come, and handbooks have been published describing in full, the present industrial life, as well as the industrial possibilities of the Province. Representatives of the Department, have been engaged to travel in the old land, lecture and personally interview those who were considering the possibility of emigrating.

Until the establishment of this Department there was practically no immigration into the Province of Nova Scotia. Since then a large number of people have come in, of whom many have secured suitable homes. The Provincial Immigration Department has been in touch with practically all the persons who have settled in this Province during recent years. Many have settled in the coal mining districts and in

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other parts of the Province; some coming to join members of families who had previously acquired a home here.

During the active immigration season, the various boats bringing passengers to Halifax, are met and every possible effort is made to place the advantages of the Province squarely before the intending settlers. Information has been secured respecting available farms to purchase and the Immigration Department has possessed itself with accurate information in respect to these. During the war, immigration declined but the officials of the Department were engaged in Patriotic Fund work and other lines of Patriotic activities.

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The result of the work of this Department may be summarized by saying that Nova Scotia has been advertised abroad as never previously. This very advertising is undoubtedly stirring up a greater spirit of optimism among our own people. Farmers have been assisted in securing help to carry on their operations more successfully. Settlers have been placed on farms and in other situations throughout the Province, and their interests, so far as possible, properly safeguarded. Statistics of various kinds have been gathered and tabulated. Publishers of periodicals and handbooks have been afforded full information respecting the Province. Particulars respecting various industrial opportunities throughout the Province have been secured and widely distributed. Capital has been induced to come into the Province to invest, not only in land, but in various other directions. Extensive correspondence is being carried on with persons interested both at home and abroad, the result of which will become apparent in future years.

Office of Agent General.

The Government has had for some years, in London, an Agent General, who has been able to represent its interests, assist in the negotiation of loans and be of

very practical assistance in connection with the emigration work more recently carried on. The total expenditure for this office is very small in comparison with that of other Provinces, but the Agent General, Mr. Howard, has been enabled to furnish material aid to many Nova Scotians travelling in England, either on business or pleasure. His services have also been of very great value in connection with relief work and in rendering to soldier boys from Nova Scotia much assistance—work that is much appreciated and highly commended.

THE NOVA SCOTIA RETURNED SOLDIER COMMISSION

The latter part of 1915, found the problem of caring for Canada's returned soldiers assuming greater proportions than was anticipated. On the 29th of October, of that year, a Conference of representatives from the various Provinces was held at Ottawa. Among the chief plans discussed was that of providing suitable employment for disabled men and other returned soldiers. The suggestion was made that a committee be appointed by the Government of each Province to look after this matter as well as to assist and advise the Military Hospitals Commission on all local matters.

The Returned Soldiers' Employment Committee, or, as it was afterwards known, The Returned Soldiers' Commission, met at Halifax on November 30th, 1915, and was composed of the following:—Sir Frederick Fraser, The Hon. Chief Justice Harris, Hon. R. M. MacGregor, D. H. MacDougall, General Manager of the Dominion Steel Corporation. T. J. Brown, Superintendent of Mines, Nova Scotia Steel and Coal Company, Professor F. H. Sexton, W. R., Wakeley, G. Fred Pearson, John T. Joy and Senator J. S. McLennan of Sydney. Subsequently, W. H. Graham, of the Dominion Iron and Steel Company and the President and Secretary of the Nova Scotia Command of

the Great War Veterans Association, were added to the Committee as ex-officio members.

A general appeal was issued to every employer of labor in the Province, asking them to advise the Committee of their needs and to, as far as possible, give employment to all returned soldiers. An appeal was also issued to every Mayor, Warden, City, Town and Municipal Councilior in the Province, asking for their co-operation and in particular to report the names of any returned soldiers who were unable to secure employment.

The Departments of Militia & Defence, Customs, Public Works, Railways and Canals, also gave co-operation in placing returned soldiers. The Director of Technical Education, Dr. F. H. Sexton, reported on facilities existing in all the educational institutions in the Province for the possible training for some industrial activity of maimed, crippled, blind or otherwise disabled soldiers. Reception Committees for the purpose of welcoming the returned soldier on his arrival home as well as to assist him locally in securing employment, were organized in all parts of the Province. These Committees proved to be most satisfactory. On the arrival of transports or hospital ships the Head Office notified by wire the various committees throughout the Province as to the names, addresses and next of kin of soldiers on the ships nominal roll.

The interviewing of returned soldiers was carried on, in Halifax, at Pier Two and increased to such an extent that the permanent staff finally consisted of ten with the addition of several temporary interviewers. By this means the Commission was immediately in possession of all the facts concerning the soldiers service; the date and place of enlistment, age, previous occupation, whether service was in England or France, disability, permanent address and much other valuable information. From this date individual files were compiled and almost immediately upon his discharge

the soldier communicated with. In the case of men from other Provinces the information was forwarded to their respective headquarters.

The recent duties of the Commission, which has now ceased its labors, consisted of removing difficulties with regard to pay accounts; helping in correspondence on the subject; supporting claims for Pension. War Service, Gratuity, Insurance, etc.; taking affidavits and giving legal advice; helping and advising wives of families of soldiers; visiting homes and hospitals; aiding in finding employment as set out in this report and assisting in re-instating discharged soldiers in civil life.

Government Employs Returned Men

It may not be generally known that there are more than 170 returned soldiers in the employ of the Nova Scotia Government, the Government realizing fully the difficulties frequently met with by ex-soldiers in re-establishing themselves in industrial life. In addition to the above number several hundreds of returned men have been employed on the actual work of road construction in various parts of the Province. A Government is often in a position to give employment to returned men in cases where it might be difficult for them to obtain private employment. The Nova Scotia Government has in this way shown its practical sympathy with the demobilized soldier and its determination to assist him in every way possible.

CROWN LANDS AND FORESTRY

The Government has continued the policy inaugurated some time ago of conserving the Public Lands for settlers. From 1889 until 1910, timber lands were leased and not granted and every lease contained provisions holding every part of the land open for bona fide settlement. There are 845,074 acres of such land in the Province still ungranted. In 1904 the price of timber leases was raised from forty to eighty cents per acre.

In the same year, a further change in the Law was made and the leases now being issued are charged for, at the actual value of the land, but in no case is a lease issued for a less rental than \$1.00 per acre and cost of Survey. These leases are given with option of renewal and in every case specify the limit of size and reserves to the Governor-in-Council, the right to grant any portion of the land leased, suitable for Agricultural purposes to any bona fide settler who proposes to erect a dwelling house thereon, and to cultivate and improve the land so granted.

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This Act also provides for the issuance of "Licenses to cut timber." These licenses are for the period of two years, with option of renewal and specify in each case the limit of size and other regulations to govern the cutting. The price is fixed at the stumpage value for the product actually taken from the land, so that in the future the Province will reap the full value of the continuing growth and output of the forest lands.

In 1905, the Government established a system of protection of woods against fires, and from time to time further amendments and regulations have been made so that all reasonable protection is now secured to our forests. The system of personal supervision by fire rangers and assistants, with their power to call out help in time of fire, and the stringent provisions regarding campers, railways and portable mills, and for punishment of illegal or careless setting of fires, is to be credited with the result that preventable fire loss is being greatly reduced.

Messrs. H. R. MacMillan and G. A. Gutches, in their report to the Dominion Government of "Forest Fires in Canada," are strong in their praise of the Nova Scotia fire law and add: "The fire law appears to be enforced in Nova Scotia as it is nowhere else."

Nova Scotia is accorded the distinction of having the best system of statistics in reference to fire losses in Canada, and these show the most satisfactory results that any Province is securing in the operation of its fire protection laws.

Provincial Land Tax.

Under Chapter 6, of the Acts of 1917, as amended by Chapter 5, of the Acts of 1918, every person who is an owner or occupant of 500 or more acres of land in Nova Scotia is required to pay a tax of one cent per acre. This tax is collected by the officials of the Department of Crown Lands. During the fiscal year ended September 30th, 1919, the sum collected by this means totalled \$32,371.

Fire Prevention.

In the 1919 session of the Provincial Legislature a Fire Prevention Act was passed and a Fire Prevention Board created. This Board consists of two representatives of the Provincial Government, two of the Nova Scotia Union of Municipalities and two of the Nova Scotia Fire Underwriters. Under their direction a Fire Marshal will be appointed, whose duties include an enquiry into the cause of any fire occurring within the Province.

VITAL STATISTICS.

The Department of Vital Statistics was organized by authority of the Legislature in 1908. This Department collects the records of Births, Marriages and Deaths from every county in the Province. It is not necessary to emphasize the importance of this work, as it is recognized by every civilized country on the face of the Globe.

For many years it was a matter of difference of opinion as to whether the collection of Birth and Death Statistics should be undertaken by the Provincial or the Federal Government, and it is owing to this fact that previous to 1908, several years elapsed without any registration of Births and Deaths in Nova Scotia.

The records of Marriages were, however, kept by the Province during this period. Inasmuch as all the other Provinces of the Dominion had organized similar Bureaus, it was felt that for that reason and in our own interests as well Nova Scotia should make similar arrangements. The Department has been most successful in the gathering of these facts without demanding any fee of the individual who registers a Death or a Birth, as is done in some other countries.

The expenditure for this work in Nova Scotia is much less than in the other Provinces of Canada of similar population. Only six clerks are regularly engaged in the office of the Deputy Registrar-General. In Alberta, with about the same population, there are 21 clerks in the Department of Vital Statistics. In Saskatchewan, with practically the same population, there are 18 clerks.

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Last year the Provincial Marriage Bureau was incorporated with the Bureau of Births and Deaths, making one Vital Statistics Department for the Province. This change was brought about to secure greater efficiency in this important branch of the public service. New registration forms were introduced in order to make the system here uniform with the registration system followed in the other Provinces as well as in the majority of the States in the United States. Nova Scotia has in this Department, as complete and up-to-date a system of recording Births, Deaths and Marriages as exists in any other country in the world.

Municipal Statistics.

A few years ago the Legislature provided for a fuller compilation of municipal statistics which are now published annually and form an interesting record of the various activities of the cities, towns and municipalities within the Province.

Municipal Sinking Funds.

1909, an Act was passed by the Legislature, creating a Commissioner of Municipal Sinking Funds and power was also given to the municipalities to invest the sinking funds, now accumulated, more satisfactorily than they were enabled hitherto to do. This Act was consolidated in 1914. As a result of this Act. the municipalitics are receiving a higher rate of interest on their sinking funds than they previously were able to secure. The Act has also had the effect of increasing the vlue of the municipal securities inasmuch as the certificate of the Commissioner does away with any question of the legality or otherwise of their securities. This saves to the councils large amount's of money, and they are not now required to secure, every time, loans are voted or sinking funds established, legal opinion in connection therewith.

THEATRES AND CINEMATOGRAPHS.

An Act providing for the inspection of theatres and cinematographs, and for the censoring of films, was introduced and passed in the Legislature of 1915. This course has been universally adopted by the Province of Canada, as it has been found necessary, in the interests of uniformity and harmony, that these regulations should be centralized and that the public should be assured that the pictures exhibited are not morally objectionable, while at the same time appreciating the necessity of liberty of speech and creation. These facts have been appreciated and recognized by several Social Service and Commercial bodies, by resolution and editorial.

In addition, this Act also requires all theatres to pay a license and admission tax which gives to the Province an additional revenue of about \$200,000.00.

THE TOWN PLANNING ACT.

This Act was passed in the 1915 session of the Legislature. By its provisions Local Boards will be es-

tablished in the various centres of the Province, who will undertake to prepare or adopt and enforce a town planning scheme with particular reference to local conditions. These Boards will be under the direction of the Commissioner of Public Works and Mines. The fixing of building lines, the reservation of land for thoroughfares, the delimitation of residential areas, the width of streets, etc., are some of the questions which must be decided by those Local Boards. Thomas Adams, Advisor to the Canadian Commission of Conservation, when addressing the Rotary Club of Halifax on civic improvement said:—"You have in Nova Scotia today what is the best town planning legislation, if not in the world, at least in Canada. The procedure by which town planning can be adopted has been vastly simplified by this legislation and there is no red tape."

A MINIMUM WAGE FOR WOMEN.

Early this spring a Commission appointed by the Nova Scotia Government conducted an exhaustive enquiry into the hours of labor, wages and working conditions of women employed in industrial occupations in this Province. The striking disparity between the wages paid to men and their hours of labor as compared with women even where the same work was performed has given rise to the call for equal pay for equal work. This disparity, together with a large number of other disabilities, is largely due to the absence of organization among women workers and only goes to emphasize the need of legislative enactment to safeguard their interests. The Commission enquired into what had been done in this respect in other countries and held enquiries at various industrial centres throughout Nova Scotia. After hearing workers and employers and after inspecting the principal manufactories of the Province in which women are employed, the Commission presented their report to the Government and recommended certain remedial legisla-The recommendation of the Commission was accepted by the Government, and a very important

measure was passed, providing for a minimum wage for women employed in industrial occupations in this Province This measure places Nova Scotia in this important matter in line with the most advanced countries.

TEMPERANCE LEGISLATION.

The Government have a right to claim credit for the Temperance Legislation which it has put upon the statute books of the Province. In so far as it is possible to assist the cause of Temperance by legislation, legislation has been given.

The Nova Scotia Liquor License Act, so long in force in many of the counties of the Province, with the addition of such amendments as were from time to time passed, became a very effective piece of temperance legislation. So effective was it in its working towards the decrease of licensed places for the sale of intoxicants, that for some years previous to the year 1910, there were only two or three licensed places in the Province, outside the City of Halifax. Though not a Prohibition Act in principle, the Nova Scotia Liquor License Act had in fact and for practical purposes, become a prohibitory Act over the largest part of the Province in which it was in force.

It was felt in 1910, that the development and continuance of this condition under which the licenses were legally available under the Act, none were in fact issued, warranted the Government in taking a further step. The Nova Scotia Temperance Act of 1910, was then passed. This Act by amending legislation, has in its entirety been made applicable to the whole Province and the city of Halifax was brought under its provisions on the 30th of June, 1916. The Act has been strengthened and improved by several important amendments made since that date. Penalties have been increased. Amendments have also been made to the Provincial Prohibitory Act calculated to assist in the enforcement of the Canada Temperance Act.

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Every effort has been made to provide an effective working Act so far as the limitations of the Provincial legislative power can do it.

Penalties have been increased, stricter regulations for the sale of liquor for medicinal purposes have been adopted, and more effective means provided for dealing with pocket peddlers. Amendments made at the recent session of the Legislature include provisions for controlling the importation of and sale to vendors, physicians and druggists of all liquors that may be lawfully used or sold by them.

OTHER IMPORTANT LEGISLATIVE ACTS.

The Government has been the means of introducing into the Legislature various other Acts that have tended to promote the welfare of the community and to protect its individuals in every way. Among the measures making for the improvement have been Acts dealing with Life and Accident Insurance, with the formation of Mutual Insurance Companies, with Loan Corporations, with the Creditors' Relief Act, with the Organization of Fishermen's Unions, by which means the representatives of this great industry may unite for their own protection and discuss matters relative to their advancement. Legislation has also been passed with respect to the sale of goods within the Province, and with respect to partnership, bringing legislation on these important matters on a par with the advanced legislation passed by the British Parliament.

A most important Act was passed in the session of 1910, with respect to Provincial Land Surveyors, which has for its aim, accuracy in laying off and dividing lands and making a systematic and comprehensive system of records and thereby reducing the cost of service consequent on inaccuracy in the field work.

Legislation has also been passed to consolidate and improve the Election Law; to regulate the erection of

Tenement Houses; to Protect Shade Trees; to incorporate under the Nova Scotia Joint Stock Companies' Act; Farmers' Co-operative Societies and Fishermen's Co-operative Societies without payment of registration fees and without being required to incur the cost of printing articles of association; to provide for Workmen's and Mechanics' Liens for their Wages; Act relating to Bulk Sales; Act regulating Bonuses by Cities and Towns; Creditors Relief Act; Housing Act; Act respecting Fishing Rights; Act regulating Hours of Labor; Act creating a Great War Memorials Commission; An Act providing a minimum wage for women in industrial occupations. An amendment to the Act provided for fair rents for dwelling houses and to restrict the eviction of tenants.

PATRIOTIC GIFTS FROM NOVA SCOTIA.

Men volunteering for active service	40,414
Men accepted for Overso	36,914
Men engaged on manning home garrisons	3,500
Percentage of enrolment of male popula-	,
tion between 18 and 45 years	39.5
tion between 10 and 40 years	00.0
Subscribed for Dominion War and Victory	
Subscribed for Dominion War and Victory	000 000 90
Loans since 1914.	30,000,000
Provincial Government to British Gov-	100 000
ernment for relief purposes	100,000
Provincial Government to Belgian War	4 000
Relief Fund in Great Britain	4,866
Provincial Government to Serbian Relief	
Returned Soldier Commission, Citizens'	
Recruiting Association	30,000
British Red Cross	345,874
Canadian Patriotic Fund	1,882,000
Provincial Red Cross Society	945,623
Belgian Relief Fund	700,000
Women's Hospital Ship	10,000
British Sailors' Relief Fund	32,000
School Children's Ambulance Fund.	-2,237
	300,000
Y. M. C. A. Overseas Work.	115,000
Knights of Columbus Huts	
Machine Guns	140,000
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Various other Patriotic objects, such as Field Comforts, Ambulances, Regimental Funds, Field Kitchens, Hospital Unit, Oilskins and Boots for Navy. Navy League...

140,000 115,000

The contribution of the Government of Nova Scotia of \$100,000 was distributed to the soldiers and their families in England, who were in need of assistance, His Majesty's Government in Great Britain placing this amount in the hands of the Prince of Wales National Relief Fund for distribution.

It should not be forgotten that the first Belgian Relief Ship to reach Rotterdam from across the Atlantic sailed from Halifax and was laden with supplies from Nova Scotia. A representative of the Nova Scotia Government went over in this ship and superintended the unloading of the cargo. This first ship was followed by four other steamers sailing from Halifax. The total value of these cargoes was \$1,600,000, and of this amount, Nova Scotia contributed the sum of \$700,000. The Nova Scotia Government also contributed the sum of \$4866 to the Belgian War Relief Fund in Great Britain. Nova Scotia took the lead in Belgian Relief, and the example set by this country inspired larger and wealthier countries to take up the cause of the oppressed Belgians.

The service rendered by Nova Scotia in this matter was so noteworthy that His Majesty, the King of the Belgians, conferred the Degree of Grand Officer of the Order of the Crown on Mr. Murray, the Premier of Nova Scotia.

Patriotic Fund.

A branch of the Canadian Patriotic Fund was established in Nova Scotia on September 2nd, 1914. Sub-branches were also organized in every county. A total amount of \$1,882,000 has been voted by municipalities and supplied by individuals throughout the Province.

The organizing services connected with this work were all carried on under the direction of the following Committee:—Chairman, His Honour, the Lieutenant-Governor, Hon. G. H. Murray, Hon. Chief Justice Harris, Hon. E. N. Rhodes, Mr. G. S. Campbell and the Chairman of the local branches, with A. S. Barnstead, Deputy Provincial Secretary, as Secretary and H. A. Flemming, Treasurer.

In the distribution of the Federal Grant to Returned Soldiers the services of the Patriotic Fund were utilized and the executive duties were attended to by the Secretary of the Patriotic Fund.

FALSE OPPOSITION PROPHECIES.

The Opposition, from the beginning of the career of the Liberal Government, have steadily raised the cry of bankruptey and direct taxation. Every step taken by the Government to improve the condition of the eountry has been met by this alarmist ery. How ridieulous the predictions of our opponents appear now in the light of experience. The Province has had years of energetic, progressive administration. The Government has not hesitated to raise the money to carry on the public works of the Province. Railways have been added, bridges have been bullt, roads have been eonstructed and adequate appropriations have been made for all the other services of the Province. Everything has been done that could reasonably be asked in the way of public improvements.

The Government is able to point to the fact that the public eredit is better than it ever was before, that it is able to pay the interest on the debt and still give more money to the services of the Province than was granted before the Government eame into power. Our opponents have in times past raised and as quickly abandoned the ery that direct taxation will be necessary to provide for the increasing expenditure of the Province. They were forced to admit, although for years opposing it, that our claim for \$671,000 against the Federal Government was a valid one. They

firmly opposed the Whitney legislation; they are now forced to admit it was a success. They opposed legislation that was brought forward for the construction of the Halifax and Southwestern Railway. They cannot raise one of the issues of the past, for time has thoroughly vindicated the position of the Government.

No Flaw in the Administration.

The Opposition have spent days and days over the consideration of the estimates proposed by the Government. They have asked questions about every public service. They have had returns prepared and tabled on the Order of the House, with respect to practically every item of expenditure. They have had the privilege of questioning the Ministers in the Legislature, who have frankly and freely given them all information at their disposal. The Government have brought to the floors of Parliament their deputies to reply to questions on every feature of the administration. All accounts have been open for their inspection. Notwithstanding all this, the Opposition failed to find one flaw in the administration of the affairs of the Province justifying any charge that could be made by any member of the Legislature against the administration. It is an enviable record that the Liberal Party holds in the Government of Provincial affairs in Nova Scotia that when all the facts in connection with their administration are placed before the public no charge alleging malfeasance or corruption or anything of that nature was seriously thought of.

Moreover, the Liberals have so carried on their election campaigns that no objection has been made against the return of any sitting Liberal member. Not so with the Opposition, who, prior to the general election of 1916, after a campaign of debauchery, elected a member for the County of Victoria by a small majority. A subsequent investigation was held into the illegal and corrupt practices carried on in behalf of the Tory candidate. The member was unseated and several agents of the Tory member were named by the judge for corrupt practices.

