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SESSIONAL PAPERS

VOL. LXI.—PART IV

THIRD SESSION

OF THE

SEVENTEENTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO

SESSION 1929

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TORONTO:

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1930



LIST OF SESSIONAL PAPERS, 1929

PRESENTED TO THE HOUSE DURING THE SESSION

TITLE	No.	Remarks
Accounts, Public Advertising, Departmental, Return Agriculture, Department of (Minister), Report Agriculture, Department of (Statistics), Report Archives, Report Auditor's Report	1 54 21 22 45 27	Printed. Not Printed. Printed. Printed. Printed. Printed. Printed.
Children's Protection Act	19 48	Printed. Not Printed.
Education, Orders-in-Council. Education, Report. Elections, By-, Return from Records. Estimates. Extra-mural Employment, Report.	30-32 11 25 2 33	Not Printed. Printed. Printed. Printed. Printed. Printed.
Game and Fisheries	9	Printed.
Health, Report of Registrar-General, Department of (Births, Marriages, and Deaths) Health, Department of, Report. Highways, Report. Highways, Construction and Maintenance, Return. Highways Improvement Fund. Hospitals and Charitable Institutions, Report. Hospitals for Insane, Feeble-minded. Hydro-Electric Power Commission, Report. Hydro Concessions, Return.	13 14 43 50 35 17 15 26 39	Printed. Printed. Printed. Not Printed. Printed. Printed. Printed. Printed. Printed. Not Printed.
Insurance and Friendly Societies Insurance Act and Guarantee Companies Securities Act. Orders-in-Council	6 31	Printed. Not Printed.
Labour Department, Report. Lands and Forests Department, Report. Legal Offices, Report. Liquor Control Board, Report. Loan Corporations, Registrar of, Report.	3 5 20	Printed. Printed. Printed. Printed. Printed.
Mines Department, Report. Minimum Wage Board, Report. Mothers' Allowances Commission, Report.	40	Printed. Printed. Printed.

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TITLE	No.	Remarks
Niagara Parks Commission, Report	52 34	Printed Not Printed.
Report	49	Printed.
Ontario Athletic Commission. Report Ontario Railway and Municipal Board, Report Ontario Veterinary College, Report		Not Printed. Printed. Printed.
Parole and Probation Board, Report Police Commissioner, Report Prisons and Reformatories, Report Public Works, Report Pulp and Timber Limits, Return	47 18 8	Printed. Printed. Printed. Printed. Printed. Not Printed.
Rural, Public and Separate Schools, Grants to, Report	37	Not Printed.
Secretary and Registrar, Report. Spruce Falls Paper Company, Return. Statutes Distribution, Report. Superannuation Fund, Report.	51 36	Not Printed. Not Printed. Not Printed. Not Printed.
Temiskaming and Northern Ontario Railway, Report Timber Cutting Rights, Return Toronto, University of, Report	. 53	Printed. Not Printed. Printed.
Workmen's Compensation Board, Report	. 28	Printed.

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Arranged in Numerical Order with their Titles at full length; the name of the Member who moved the same, and whether ordered to be printed or not.

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- No. 1 Public Accounts of the Province of Ontario for the twelve months ending October 31st, 1928. Presented to the Legislature, February 26th, 1929. *Printed*.
- No. 2 Estimates supplementary for the service of the Province for the year ending October 31st, 1929. Presented to the Legislature, February 26th, 1929. Printed. Further Supplementary Estimates for the year ending October 31st, 1929; presented to the Legislature March 20th, 1929. Printed. Estimates for the year ending October 31st, 1930; presented to the Legislature, March 25th, 1929. Printed.

CONTENTS OF PART II

- No. 3 Report of Department of Lands and Forests, Ontario, for year ending October 31st, 1928; presented to the Legislature, March 22nd, 1929. *Printed*.
- No. 4 Annual Report of the Department of Mines, Ontario. Presented to the Legislature, March 8th, 1929. *Printed*.
- No. 5 Annual Report of the Inspector of Legal Offices, for year ending December 31st, 1928. Presented to the Legislature, March 25th, 1929. *Printed*.
- No. 6 Report of the Superintendent of Insurance for year ending December 31st, 1928. Presented to the Legislature, March 25th, 1929. Printed.

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- No. 7 Report of Registrar of Loan Corporations for Province of Ontario, for year ending December 31st, 1928. Presented to the Legislature, March 25th, 1929. *Printed*.
- No. 8 Report of the Minister of Public Works for the Province of Ontario for the year ending October 31st, 1928. Presented to the Legislature, February 28th, 1929. *Printed*.

- No. 9 Annual Report of the Game and Fisheries Department, Ontario, 1928.
 Presented to the Legislature, March 26th, 1929. *Printed*.
- No. 10 Annual Report of the Department of Labour, Province of Ontario, 1928. Presented to the Legislature, February 52th, 1929. *Printed*.
- No. 11 Annual Report of the Department of Education, 1928. Presented to the Legislature, March 26th, 1929. *Printed*.
- No. 12 Report of the Board of Governors of the University of Toronto for the year ending June 30th, 1928. Presented to the Legislature, January 31st, 1929. *Printel*.

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- No. 13 Annual Report relating to Registration of Births, Marriages and Deaths, Ontario, for the year ending December 31st, 1927. Presented to the Legislature, March 26th, 1929. *Printed*.
- No. 14 Annual Report of the Department of Health, Ontario, 1928. Presented to the Legislature, February 28th, 1929. *Printed*.
- No. 15 Annual Report of Inspector of Prisons and Public Charities upon Hospitals for the Insane, Feeble-minded and Epileptics of Ontario for year ending October 31st, 1928. Presented to the Legislature, March 25th, 1929. *Printed*.
- No. 16 Annual Report of the Ontario Board of Parole for years ending October 31st, 1927, 1928. Presented to the Legislature, February 6th, 1929. *Printed*.
- No. 17 Annual Report of Inspector of Prisons and Public Charities upon the Hospitals and Charitable Institutions of the Province of Ontario for year ending September 30th, 1928. Presented to the Legislature, March 26th, 1929. *Printed*.
- No. 18 Annual Report on the Prisons and Reformatories of the Province of Ontario for year ending October 31st, 1928. Presented to the Legislature, March 26th, 1929. *Printed*.
- No. 19 Report of the Superintendent of Neglected and Dependent Children of Ontario for year 1928. Presented to the Legislature, March 26th, 1929. *Printed*.
- No. 20 Annual Report of the Liquor Control Board of Ontario as at October 31st, 1928. Presented to the Legislature February 13th, 1929. *Printed*.
- No. 21 Report of the Department of Agriculture, Ontario, for year ending October 31st, 1928. Presented to the Legislature, March 25th, 1929. *Printed*.

- No. 22 Annual Report of the Statistics Branch, Ontario Department of Agriculture, 1928. Presented to the Legislature, March 25th, 1929. *Printed*.
- No. 23 Annual Report of the Temiskaming and Northern Ontario Railway Commission for the year ending October 31st, 1928. Presented to the Legislature, February 5th, 1929. *Printed*.

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- No. 24 Annual Report of the Ontario Railway and Municipal Board for year ending October 31st, 1928. Presented to the Legislature, March 22nd, 1929. *Printed*.
- No. 25 Return from the Records of the By-elections to the Legislative Assembly held on 1st day of November, 1927, and the 16th and 27th day of June, 1928. Presented to the Legislature, January 30th, 1929. *Printed*.
- No. 26 Annual Report of the Hydro-Electric Power Commission of Ontario for year ending October 31st, 1928. Presented to the Legislature, March 8th, 1929. *Printed*.
- No. 27 Report of the Provincial Auditor, 1927-1928. Presented to the Legislature, March 26th, 1929. *Printed*.
- No. 28 Report for 1928 of the Workmen's Compensation Board, Ontario. Presented to the Legislature, March 25th, 1929. *Printed*.
- No. 29 Report of Ontario Veterinary College for year 1928. Presented to the Legislature, March 25th, 1929. *Printed*.
- No. 30 Regulations and Orders-in-Council made under the authority of the Department of Education Act or of the Acts relating to Public Schools, Separate Schools or High Schools. Presented to the Legislature, February 25th and March 13th, 1929. Not Printed.
- No. 31 Orders-in-Council made pursuant to the Ontario Insurance Act and Guarantee Companies Securities Act—Department of Insurance. Presented to the Legislature, January 31st, 1929. *Not Printed*.
- No. 32 Regulations and Orders-in-Council, made under the authority of the Department of Education Act or of the Acts relating to Public Schools, Separate Schools or High Schools. Presented to the Legislature, February 5th, 1929. Not Printed.
- No. 33 Annual Report of the Commissioner under The Extramural Employment of Sentenced Persons Act for year ending October 31st, 1928. Presented to the Legislature, February 6th, 1929. *Printed*. (See Sessional No. 16.)

- No. 34 Orders-in-Council made under the authority of The Northern Development Act, 1927, from March 1st, 1928, to January 29th, 1929. Presented to the Legislature, February 6th, 1929. Not Printed.
- No. 35 Statement showing all sums credited to the Highway Improvement Fund and all sums chargeable thereto for year ending October 31st, 1928. Presented to the Legislature, February 12th, 1929. Not Printed.
- No. 36 Report of the Distribution of the Revised Statutes and Sessional Papers for fiscal year ending October 31st, 1928. Presented to the Legislature, February 12th, 1929. Not Printed.
- No. 37 Comparative statement of the Legislative grants apportioned to the Rural Public and Separate Schools in the Counties and Districts for the years 1927 and 1928. Presented to the Legislature, February 12th, 1929. Not Printed.
- No. 38 Report of the Secretary and Registrar of the Province of Ontario with respect to administration of The Companies Act, The Extra-Provincial Corporations Act and The Mortmain and Charitable Uses Act, etc., for the year ending October 31st, 1928. Presented to the Legislature, February 13th, 1929. Not Printed.
- No. 39 Return to an Order of the House, dated February 21st, 1928, That there be laid before the House a Return showing—1. How many power rights have been granted to corporations or persons in Northern Ontario. 2. Where are such power rights. 3. To whom were they granted. 4. When were they granted. Presented to the Legislature, February 25th, 1929. Mr. Fletcher. Not Printed.
- No. 40 Annual Report of the Minimum Wage Board of Ontario, 1928. Presented to the Legislature, March 4th, 1929. *Printed*.
- No. 41 Annual Report of Ontario Athletic Commission for year 1928. Presented to the Legislature, March 8th, 1929. Not Printed.
- No. 42 Return to an Order of the House, dated February 8th, 1929, That there be laid before the House a Return showing—all areas of pulp or timber limits sold or disposed of from November 1st, 1927, to October 31st, 1928, the date when each area was first advertised, the date when each area was sold, the number of tenders received in respect to each area, the amount bid in each case by each one tendering for each of said areas, including the successful tenderer, the location and acreage or mileage of each parcel sold or disposed of, and the names and addresses of all tendering in each case, including the name of the successful tenderer. Presented to the Legislature, Mrach 13th, 1929. Mr. Mewhinney. Not Printed.

- No. 43 Annual Reports of the Department of Public Highways, Ontario, 1926-1927. Presented to the Legislature, March 13th, 1929. *Printed*.
- No. 44 Eighth Annual Report of the Public Service Superannuation Board for the year ending October 31st, 1928. Presented to the Legislature, March 18th, 1929. Not Printed.
- No. 45 Report of the Department of Public Records and Archives of Ontario, 1928. Presented to the Legislature, March 19th, 1929. *Printed*.
- No. 46 Annual Report of Mothers' Allowance Commission, 1927-1928. Presented to the Legislature, March 22nd, 1929. *Printed*.
- No. 47 Annual Report of Commissioner of the Ontario Provincial Police for year ending October 31st, 1928. Presented to the Legislature, March 22nd, 1929. *Printed*.
- No. 48 Annual Report of the Civil Service Commissioner of Ontario for year ending October 31st, 1928. Presented to the Legislature, March 25th, 1929. Not Printed.
- No. 49 Report on operations under the Northern Development Act and Colonization Roads Act for year ending October 31st, 1928. Presented to the Legislature, March 26th, 1929. *Printed*.
- Return to an Order of the House, dated March 22nd, 1928, That No. 50 there be laid before this House, a Return, giving the following information.—1. The total amount expended by the Province in 1927 upon the construction and maintenance, including interest, if any, paid on outstanding obligations upon.—(a) Suburban roads; (b) Provincial highways; (c) Provincial Suburban highways. 2. The total amount received by the Highway Improvement Fund in 1927: (a) From the issuing of motor licenses; (b) From the gasoline tax; (c) From payments made under The Highway Improvement Act, by the following cities, namely: Belleville, Brantford, Chatham, Fort William, Galt, Guelph, Hamilton, Kingston, Kitchener, London, Niagara Falls, North Bay, Oshawa, Ottawa, Owen Sound, Peterborough, Port Arthur, St. Catharines, St. Thomas, Sarnia, Sault Ste. Marie, Stratford, Toronto, Welland, Windsor and Woodstock, with the amount contributed by each of such cities: (d) From payments made by all other municipalities in Ontario. 3. (a) The total number of automobiles licensed in Ontario in 1927; (b) The total amount of automobile license fees paid in 1927; (c) The total number of automobile licenses in 1927 in each of the cities mentioned in clause 2 (c); (d) The total automobile license fees paid in each of the cities mentioned in clause 2 (c). Presented to the Legislature, March 27th, 1929. Mr. Pinard. Not Printed.

- No. 51 Return to the Order of the House, dated March 29th, 1928, That there belaid before this House a Return, showing—1. The townships and lots in said townships now or formerly in the Crown, which were valued since January 1st, 1927, in connection with the acquirement of the same by or on behalf of the Spruce Falls Paper Company.

 2. What disposition was made of such lands since such valuation.

 3. The amount of the valuation of the same.

 4. The parties who had charge of the inspection and valuation.

 5. The total cost of the inspection and valuation. Presented to the Legislature, March 27th, 1929. Mr. Scott. Not Printed.
- No. 52 Annual Report of the Niagara Parks Commission, 1928. Presented to the Legislature, March 27th, 1929. *Printed* (not bound in Sessional Volumes).
- Return to an Order of the House, dated March 31st, 1927, That there No. 53 be laid before this House a Return showing—1. (a) Over how many townships or parts of townships, has E. W. Backus or any company controlled by him been granted timber cutting rights. (b) What is the total extent of such timber limits. 2. Under the original terms and conditions of such grants, have the said E. W. Backus or the said Companies been required (a) to install any pulp or paper manufacturing plant or machinery at any points and within any periods of time, and if so, at what points and within what periods; (b) to exercise their timber cutting rights within definite periods, and if so, within what periods. 3. (a) Have those requirements been strictly complied with, or have any extensions of time been granted the said E. W. Backus and the said companies to comply with same. (b) If so, when and for how long were such extensions granted. Presented to the Legislature. March 27th, 1929. Not Printed.
- No. 54
 Return to an Order of the House, dated March 29th, 1928, That there be laid before this House a Return furnishing the following information—1. In what newspapers, magazines and other publications, during the fiscal year ending the 31st October, 1928, has each Department of the Government inserted advertisements, notices and other like matter and where are the same published.

 2. What total sums have been paid to each such newspapers, magazines and other publications. Presented to the Legislature, March 27th, 1929. Mr. Belanger. Not Printed.





REPORT

RELATING TO THE REGISTRATION OF

BIRTHS, MARRIAGES AND DEATHS

IN THE

PROVINCE OF ONTARIO

FOR THE

YEAR ENDING 31st DECEMBER

1928

(BEING THE FIFTY-NINTH ANNUAL REPORT)

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

SESSIONAL PAPER No. 13, 1929





SIR:-

I have the honour to submit for your approval the Fifty-ninth Annual Report made in conformity with and under the provisions of the Act respecting the Registration of Births, Marriages and Deaths in the Province of Ontario, for the year ending December 31st, 1928.

I have the honour to be, Sir,

Your obedient servant,

Deputy Registrar-General.

To the Hon. Forbes Godfrey,

Registrar-General of Ontario.

To His Honour the Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I herewith beg to present for your consideration the Fifty-ninth Annual Report of the Registrar-General, relating to the Registration of Births, Marriages and Deaths in the Province of Ontario during the year 1928.

Respectfully submitted,

FORBES GODFREY,

Registrar-General of Ontario.

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REPORT UPON

Births, Deaths and Marriages

FOR THE YEAR 1928

Herewith is presented the Fifty-ninth Annual Report of Vital Statistics for the Province of Ontario.

POPULATION

The estimated population is 3,229,000, distributed as follows:

City municipalities	1,336,421 or 41.38 per cent.
Towns (over 5,000 population)	213,255 or 6.60 per cent.
Rural (including all other municipalities)	1.679.324 or 52.00 per cent.

ESTIMATED POPULATION BY AGE GROUPS

	Total	Male	Female
	3,229,000	1,638,000	1,591,000
- 1	72,011	36,691	35,320
1	66,358	33,743	32,615
2	73,457	37,182	36,275
3	73,457	37,182	36,275
4	73,298	37,182	36,116
5- 9	356,641	180,835	175,806
10-14	341,478	173,628	167,850
15–19	331,249	166,421	164,828
20-24	315,028	155,610	159,418
25–29	269,725	134,808	134,917
30-34	228,768	115,807	112,961
35–39	206,197	105,487	100,710
40-44	178,424	91,237	87,187
45-49	152,934	78,952	73,982
50-54	132,895	68,141	64,754
55-59	102,551	53,071	49,480
60-64	89,958	46,683	43,275
65-69	64,772	33,907	30,865
70-74	46,993	24,242	22,751
75–79	28,748	14,906	13,842
80+	24,058	12,285	11,773

BIRTHS

	1928		1	927	
Number	r	Ratio	Number		Ratio
Province		21.2	67,671		21.2
Cities		23.6	30,393		22.7
Towns 5,939		27.8	4,041		26.0
Rural		18.4	33,237		19.6

The rate per 100,000 of population remains unchanged and but 839 more births registered than in 1927.

NUMBER OF BIRTHS AND RATE FOR 10 YEARS

Year	Number	Ratio	Year	Number	Rato
1919	62,774	 22.0	1924	71,510	23.3
1920	72,511	 25.1	1925	70,122	 22.6
1921		 25.3	1926	67,617	 21.5
1922		 23.9	1927	67,671	 21.2
1923	70,056	 23.1	1928	68,510	 21.2

NATURAL INCREASE PER 1,000 OF POPULATION

			Natural					Natural	
Year	Births	Deaths	Increase	Ratio	Year	Births	Deaths	Increase	Ratio
1919	62,774	34,010	28,764	10.1	1924	71,510	33,078	38,432	12.5
1920	72,511	40,440	32,071	11.1	1925	70,122	33,960	36,162	11.6
1921	74,152	34,551	39,601	13.5	1926	67,617	35,909	31,708	10.0
1922	71,320	34,034	37,286	12.5	1927	67,671	34,775	32,896	10.3
1923	70,056	35,636	34,420	11.4	1928	68,510	37,128	31,382	9.7

The natural increase, i.e., the number of births over deaths, was 9.7 per 1,000 of population and is the lowest rate since 1918 when it was but 7.7.

ILLEGITIMATE BIRTHS

Rate per 1,000 living births.

Year	Rate	Year	Rate	Year	Rate	Year	Rate
1901	17.9	1908	14.9	1915	21.9	1922	21.2
1902	17.5	1909	13.7	1916	20.9	1923	22 . 5
1903	16.4	1910	19.3	1917	19.5	1924	24 . 2
1904	16.2	1911	19 . 4	1918	18.2	1925	26 . 8
1905	12.5	1912	21.3	1919	19.8	1926	26.9
1906	15.9	1913	21.6	1920	19 . 7	1927	28.9
1907	14 . 4	1914	22.1	1921	21.5	1928	31.7

The highest rate of illegitimacy occurred in 1928. The above table shows the rates for twenty-eight years. The increase in that period was 77 per cent.

STILL-BIRTHS

	Registered	Ratio per 1,000
Year	as Births	total births
1919	2,091	32.5
1920	2,495	33.3
1921	3,234	40.9
1922		41.8
1923	3,028	41.4
1924	2,594	34.9
1925		38.1
1926	2,812	39.9
1927	2,758	39.2
1928	2,793	39.2

PLURAL BIRTHS CLASSIFIED TO SHOW NUMBER OF CHILDREN BORN ALIVE AND STILLBORN BY SEX, 1928

CLASSIFICATION OF BIRTHS	Ontario
Cases of twins	
Two males (both living)	232
Two males (both living)	264
One male and one female (both living)	204
Two females (both living)	226
One male living and one male stillborn	32
One male living and one female stillborn	6
One male stillborn and one female living	12
One female living and one female stillborn	22
Two males (both stillborn)	11
One male and one female (both stillborn)	6
Two females (both stillborn)	8
Cases of triplate	6 7 2 2
Cases of triplets	
t wo males and one temale (all fiving)	2
One male and two females (all living)	2
Three females (all living)	
One male living and two males stillborn	1
Total multiple births	
	M. 847
	F. 812
Total single stillbirths	No. 2,669
	M. 1,488
	F. 1,181
Total single living births	No. 66.975
Toral surfic trains out cus	M. 34.526
The state of the s	F. 32,449
Total confinements.	70,470

MARRIAGES

	19	28		1927	
	Number		Ratio	Number	Ratio
Province				24,677 14.059	
Cities				1,499	9.6
Rural	8,374		4.9	9,119	5.3

There were but 51 more marriages registered for 1928 than for 1927.

NUMBER AND RATIO PER 100,000 POPULATION FOR TEN YEARS

Year	Marriages	Ratio	Year	Marriages	Rati	io
1919				24,038		
1920				23,074		
1921				23,632		
1922		7.8		24,677		
1923	24,842	8.2	1928	25,728	7.	9

The average age for men was 28.9 years and for women 24.9 years. The greatest number of marriages occurred at the ages of 24 for men and

21 for women.

DEATHS

	19	28		192	27			
	Number		Ratio	Number	mber I			
Province	37,128	٠.	11.5	34,755		10.9		
Cities	16,999		12.7	15,784		11.0		
Towns	3,101		14.5	2,043		13.1		
Rural	17,028		10.1	16,948		9.9		

There was an increase of 2,373 deaths registered over those registered in 1927. The rate rose from 10.9 to 11.5, being an increase of 0.6, and is the highest rate since 1926.

DEATHS AND RATE PER 1,000 OF POPULATION FOR TEN YEARS

Year	Deaths	Ratio	Year	Deaths	Ratio
1919 1920.	40,440	14.0	1924 1925	33,960	10.9
1921 1922 1923	34,034	11.4	1926 1927 1928	34,775	10.9

Rates per 100,000 of population in round numbers of tens to enable calculation of rates not published, based on population for 1928.

10	.309	60	1.858
20	.619	70	2.168
30	.929	80	2.478
40	1.238	90	2.787
50	1.548	100	3.096

To use—Example: 46 deaths. rate for 40 = 1.238 + rate for 6 = .185 = 1.423.

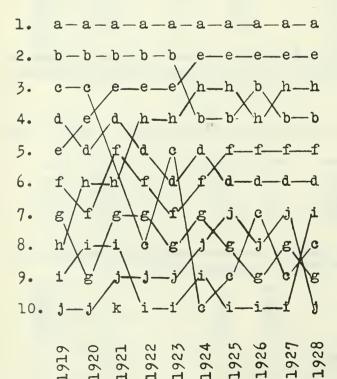
Example: 129 deaths.

rate for 100 = 3.096 + rate for 20 = .619 + rate for 9 = .278 = 3.993.

TEN HIGHEST CAUSES OF DEATH IN EACH YEAR PER 100,000 OF POPULATION

	1								1	
	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
(a) Organic heart diseases	3,240	3,570	3,394	3,757	4,373	4,190	4,416	5,132	5,295	5,609
(a) Organio notification	113.6	123.4	115.6	126.0	144.3	136.8	142.2	163.1	166.1	173.7
(b) Pneumonia (all forms)	3,070	3,638	3,005	3,137	3,084	2,332	2,468	2,872	2,447	2,736
(b) I neumonia (an iome)			102.4							84.7
(c) Influenza	2.522	3,276		960	2,098	554	1,004	1,598	959	1,711
(c) Imidenza:	88.4	113.2			69.2		32.3			52.9
(d) Tuberculosis	2,215	2,280	2,083	1,979	1,989	1,823	1,842	1,835	1,803	1,832
(d) Tubercalosio	78.0	78.7	71.0	66.4	65.6	59.5	59.3	58.3	56.5	56.7
(e) Cancer	2.182	2,464	2,585	2,609	2,724	2,946	2,951	3,116	3,177	3,441
(e) Cancer	76.5	85.2	88.1	87.5	90.0	96.2	95.1	99.0	99.6	106.5
(f) Accidents	1.630	1,805	1,893	1,807	1,791	1,760	1,871	1,901	1,997	2,355
(1) Medidents	57.2	62.4	64.5	60.6	59.1	57.4	60.3	60.4	62.6	72.9
(g) Apoplexy	1.554	1,394	1,553	1,587	1,552	1,372	1,340	1,405	1,329	1,395
(g) Tipopiexy	54.5			53.2	51.2	44.8	43.2	44.6	41.7	43.2
(h) Diseases of the arteries	1.297	1.878	1,824	2,051	2,129	2,455	2,610	2,718	2,738	3,111
(II) Diseases of the arteries (11)	45.5	1 :	62.2	68.7	70.3	80.1	84.1	86.3	85.9	96.3
(i) Infantile diarrhoea	0.4		1,327	948	692	659	883	615	573	643
(1) Infantile diarribea	33.9				22.8	21.5	28.4	19.5	17.9	19.9
(j) Bright's disease	918				1,193	1,306	1,436	1,568	1,629	1,743
(J) Diigitt a diocase	32.2		33.3	32.1	39.4	42.6	46.2	49.9	51.1	53.9
(k) Diphtheria			65.3							
(K) Dipitulciia			22.2							
										

Diagram showing changes in position of the ten chief causes of death over a period of ten years.



- a. Organic heart diseases.
- b. Pneumonia (all forms).
- c. Influenza.
- d. Tuberculosis (all forms).
- e. Cancer.
- f. Accidents.
- g. Apoplexy.
- h. Diseases of the arteries.
- i. Infantile diarrhoea (under two years).
- j. Bright's disease.
- k. Diphtheria.

It is interesting to note the changes in the ten chief causes. In 1919 cancer was holding fifth place. It began to climb and five years later, took second

place, which it has held for the past five years.

Heart diseases hold first place in all the ten-year period; indeed for many years earlier than here shown these diseases have held this position and are not likely to be displaced for some time to come. Influenza is the only disease which superseded the heart affectations in this position. That was in 1918. during the famous "flu" epidemic. Its running-mate, in such circumstances, pneumonia, stood second in that year and indeed, held second place until 1923 when it dropped to the fourth position which it holds this year.

Tuberculosis has dropped from fourth to sixth place and its steady position here for the last four years indicates the need for continued warfare against this

insidious foe.

Accidents, while showing a fluctuation during the first six years of the decade are altogether too near the top. These being largely preventable should not be so high.

Diseases of the arteries show a spectacular rise from eighth to third place which it has maintained in four out of the five latter years of the decade.

Infantile diarrhoea and Bright's disease show great fluctuations and diphtheria appears but once as a "chief cause" in the decade.

CHIEF CAUSES OF DEATH BY AGE GROUPS

CIII	Er CA	OSES OF DEATH	Di A	AGE GROUPS	
UNDER 1 1. Premature birth 2. Malformations 3. Inf. Diarrhoea 4. Pneumonia 5. Congenital debility. 6. Injuries at birth 7. Dis. of early inf'cy. 8. Influenza 9. Whooping-cough 10. Convulsions	1,477 651 571 533 341 273 230 144 114 89	1 AND 2 1 Pneumonia 2 Diarrhoea. 3 Inf. Diarrhoea. 4 Accidents. 5 Diphtheria 6 Whooping-cough. 7 Tuberculosis. 8 Measles. 9 Meningitis. 10 Malformations	230 98 74 69 49 39 29 26 23 10	3 AND 4 1. Accidents 2. Diphtheria 3. Influenza 4. Pneumonia 5. Diarrhoea 6. Tuberculosis 7. Whooping-cough. 8. Appendicitis 9. Scarlet Fever 10. Measles	60 52 32 28 28 24 14 11 9
5 TO 9 1. Accidents 2. Diphtheria 3. Appendicitis 4. Pneumonia 5. Tuberculosis 6. Influenza 7. Heart diseases 8. Scarlet fever 9. Diarrhoea 10. Rheumatic fever	121 73 48 46 42 36 22 19 16	10 To 14 1. Accidents 2. Tuberculosis 3. Appendicitis 4. Heart diseases 5. Pneumonia 6. Influenza 7. Diphtheria 8. Rheumatic fever 9. Malformations 10. Bright's disease	111 61 39 32 28 24 15 15 12	15 TO 19 1. Tuberculosis 2. Accidents 3. Appendicitis 4. Heart diseases 5. Influenza 6. Pneumonia 7. Puerperal causes. 8. Rheumatic fever. 9. Epilepsy 10. Typhoid fever	154 149 52 51 37 33 30 12 11
20 TO 24 1. Tuberculosis 2. Accidents 3. Puerperal causes 4. Heart diseases 5. Pneumonia 6. Influenza 7. Appendicitis 8. Cancer 9. Suicides 10. Bright's disease	252 163 71 57 52 39 34 18 17	25 TO 29 1. Tuberculosis 2. Accidents 3. Puerperal causes 4. Heart diseases 5. Pneumonia 6. Influenza 7. Suicides 8. Appendicitis 9. Bright's disease Typhoid fever 10. Cancer Epilepsy	213 165 80 71 59 55 27 25 18 14 14	30 TO 34 1. Tuberculosis 2. Accidents 3. Puerperal causes. 4. Heart diseases 5. Pneumonia 6. Influenza 7. Cancer 8. Bright's disease 9. Appendicitis 10. Suicides	194 120 103 77 61 49 43 27 26 22

CHIEF CAUSES OF DEATH BY AGE GROUPS-Continued

35 TO 44 1. Cancer	248 235 230 180 161 141 106 104 61 56	45 TO 54 1. Cancer	55 TO 64 1. Cancer
65 to 74 1. Heart diseases 2. Cancer 3. Diseases of arteries. 4. Bright's disease 5. Apoplexy 6. Pneumonia 7. Accidents 8. Influenza 9. Diabetes 10. Tuberculosis	1,001	75 AND OVER 1. Heart diseases 2,156 2. Diseases of arteries 1,547 3. Senility 814 4. Cancer 695 5. Pneumonia 597 6. Bright's disease 547 7. Influenza 498 8. Accidents 374 9. Apoplexy 296 10. Paralysis 110	

CHANGES OF POSITION OF THE TEN CHIEF CAUSES OF DEATH BY AGE GROUPS

It will be noted at once, when analyzing the chief causes by age groups that certain causes appear in certain groups only and not in all. This is, of course, due to the susceptibility of those groups to certain causes. It will be just as interesting to note those which do appear in many or all and their relative positions as group is compared with group.

In the first group, out of a total of 4,880 infant deaths the causes listed carried off 90 per cent. of all deaths in that group. Pneumonia is the only cause in this group which appears in the others and it appears in all the other groups.

It stands fourth "under 1" and first in "1 and 2" after which it falls back to fourth in "3 and 4" and in "5 and 6." From here on it stands in or close to the

middle of each group.

Influenza, being eighth in the first group follows pneumonia fairly closely into the "3 and 4" and the "5 and 6" groups, being separated from it by diarrhoea in the former and by tuberculosis in the latter groups. After these, influenza and pneumonia alternate for fifth and sixth places up to the "30-34" group and then pneumonia continues on to the end more fearful than influenza which fluctuates a good deal in the older age groupings.

Organic heart diseases manifest themselves in the "10 to 14" group and hold the fourth place in every group to the end of 34 years when they are more active moving to second place from 35 to 64 years. Then they appear as the chief

cause of death in all ages from 65 years onward.

Puerperal causes appear in the groups from 15 years to 44 years, but in the groups from 20 to 34 years in third place. This reflects strongly the need for education and instruction in respect to both pre and post-natal care. Puerperal causes in these groups really occupy second place since most accidents are to males. Indeed, 53 females only are reported from accidents in the three groups.

Diphtheria is active in all the younger groupings especially from 3 to 9 years

of age.

Whooping-cough appears in ages from birth till the age of four years is passed, while scarlet fever makes itself felt from 3 to 9 years of age.

Typhoid fever appears in only one grouping, viz.: "15 to 19." Whether this is due to the thoughtlessness of youth linked with youth's daring which both manifest themselves in these ages would be interesting to know.

Tuberculosis soon makes its impression. Beginning with the "1 and 2" group it steadily advances until the age of 14 is passed, when it breaks into fury and slays in large numbers at the best and most hopeful ages of life, holding first place from 15 to 34 years, and taking its terrible toll out of the "20-24" group. That there is a steady general decline indicates that the health officials all over the province are keenly alive to its dangers.

Accidents makes its first appearance in the "1 and 2" group. The ages of learning to walk. Strangely, this cause disappears until the approach of active youth is reached, "15 to 19." This group includes the age of beginning work and accidents attains second place, which it maintains through young manhood that is, to the end of 34 years. Apparently men and women are beginning to learn how to take care of themselves for there is a slight drop. When full maturity is reached accidents ceases to be so effective and continues downward as a cause to the last group, but still holds a position which points to the need of education in respect to the avoidance of accidents.

Appendicitis is a cause in all groups from 3 years to 44 years, and is most prominent from 5 to 19 years.

INFANT MORTALITY

DEATHS OF CHILDREN UNDER ONE YEAR—PRINCIPAL CAUSES OF DEATH

TOTAL DEATHS

(A)	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	Mean
Total	5,999	7,802	6,763	5,921	5,950	5,418	5,530	5,302	4,812	4,880	5,837.7
1. Whooping cough 2. Influenza 3. Convulsions 4. Respiratory diseases 5. Diseases of digestive tract 6. Malformations 7. Congenital weakness. 8. All others		248 231 971 1,420 515 3,423	170 825 1,176 470 2,908	488 2,859	236 113 826 741 492 2,723	128 647 650 553 2,596	123 107 643 767 567 2,440	594 481 2,501	96 84 510 564 439 2,414	690 430 2,323	143.5 721.6 831.7 471.5 2,701.5
o. All others			1,003					620	584	502	684.5
	(1)	.) KA:	re per	1,000) Livi	NG RII	RTHS				
Total	<u> </u>							79 5	71.0	71.2	92 56
Total	<u> </u>			83.2				78.5	71.0	71.2	83.56
1. Whooping cough	95.5	107.5	89.2		84.9	75.7	78.9		71.0		83.56
1. Whooping cough 2. Influenza	95.5 1.7 3.3	107.5	89.2	83.2 1.7 1.4	84.9 2.7 3.4	75.7	78.9 2.4 1.8	2.2 2.4	1.8	1.7	
1. Whooping cough 2. Influenza 3. Convulsions	95.5 1.7 3.3 4.2	3.3 3.4 3.2	89.2 2.9 2.3	83.2 1.7 1.4 2.0	84.9 2.7 3.4 1.6	75.7 1.3 1.8	78.9 2.4 1.8 1.5	2.2 2.4 1.5	1.8 1.4 1.2	1.7 2.1 1.3	2.17 1.92 2.06
Whooping cough Influenza Convulsions Respiratory diseases	95.5 1.7 3.3 4.2 12.3	3.3 3.4 3.2	89.2 2.9 2.3	83.2 1.7 1.4	84.9 2.7 3.4	75.7 1.3 1.8	78.9 2.4 1.8 1.5	2.2 2.4 1.5	1.8 1.4 1.2	1.7	2.17 1.92
Whooping cough Influenza Convulsions Respiratory diseases Diseases of digestive	95.5 1.7 3.3 4.2 12.3	3.3 3.4 3.2 13.4	89.2 2.9 2.3 11.1	83.2 1.7 1.4 2.0 10.5	84.9 2.7 3.4 1.6 11.8	75.7 1.3 1.8 9.0	78.9 2.4 1.8 1.5 9.2	2.2 2.4 1.5 10.3	1.8 1.4 1.2 7.5	1.7 2.1 1.3 8.6	2.17 1.92 2.06 10.37
Whooping cough Influenza Convulsions Respiratory diseases Diseases of digestive tract	95.5 1.7 3.3 4.2 12.3 14.4	3.3 3.4 3.2 13.4	89.2 2.9 2.3 11.1 15.9	83.2 1.7 1.4 2.0 10.5 11.3	2.7 3.4 1.6 11.8 9.3	75.7 1.3 1.8 9.0 9.1	78.9 2.4 1.8 1.5 9.2	2.2 2.4 1.5 10.3	1.8 1.4 1.2 7.5 8.3	1.7 2.1 1.3 8.6	2.17 1.92 2.06 10.37
1. Whooping cough 2. Influenza 3. Convulsions 4. Respiratory diseases 5. Diseases of digestive tract 6. Malformations	95.5 1.7 3.3 4.2 12.3 14.4 4.5	3.3 3.4 3.2 13.4 19.6 7.1	2.9 2.3 11.1 15.9 6.3	83.2 1.7 1.4 2.0 10.5 11.3 6.8	2.7 3.4 1.6 11.8 9.3 7.0	75.7 1.3 	78.9 2.4 1.8 1.5 9.2 10.9 8.1	2.2 2.4 1.5 10.3 8.8 7.1	1.8 1.4 1.2 7.5 8.3 6.5	1.7 2.1 1.3 8.6 10.0 6.3	2.17 1.92 2.06 10.37 11.76 6.74
Whooping cough Influenza Convulsions Respiratory diseases Diseases of digestive tract	95.5 1.7 3.3 4.2 12.3 14.4	3.3 3.4 3.2 13.4 19.6 7.1 47.2	2.9 2.3 11.1 15.9 6.3 39.2	83.2 1.7 1.4 2.0 10.5 11.3	2.7 3.4 1.6 11.8 9.3 7.0	75.7 1.3 1.8 9.0 9.1 7.7 36.3	78.9 2.4 1.8 1.5 9.2 10.9 8.1 34.8	2.2 2.4 1.5 10.3 8.8 7.1 37.0	1.8 1.4 1.2 7.5 8.3 6.5	1.7 2.1 1.3 8.6 10.0 6.3 33.9	2.17 1.92 2.06 10.37

The number of deaths of children who died before completing the first year of life was 4,880, and, while the next smallest number in the decade, the rate per 1,000 living births is 0.2 higher than last year.

COMMUNICABLE DISEASES

The following table shows the number of deaths and rate per 100,000 of population for the communicable diseases:

	19	19	19	20	19	21	19	22	19	23	19	24	19	25	19	26	19	27	19	28
Typhoid Fever Smallpox Measles Scarlet fever Whooping cough Diphtheria Influenza	5	16.5	33 303 170 376 745	7.0 1.1 10.4 6.0 13.0 25.7 113.4	24 54 144 310 653	7.2 0.8 1.8 4.9 10.5 22.2 17.3	6 67 136 200 411	0.2 2.2 4.4 6.7	109 156 318 316	7.9 0.1 3.6 5.1 10.5 10.4 19.3	47 180 159 147 322	3.5 1.5 5.8 5.1 4.7 10.5 18.0	5 80 134 273 251		5 156	2.4 0.1 4.9 2.9 7.8 7.2 50.4	3 82 87 181 297	3.4 0.0 2.5 2.7 5.6 9.3 30.0	2 62 67 175 213	2.4 0.0 1.9 2.0 5.4 6.5 52.9

Among the communicable diseases typhoid fever has again touched the low spot it reached in 1926 which was the lowest ever attained.

Smallpox, too, reached its lowest point ever attained there being but two deaths reported in the year.

While deaths from measles are lowest since 1921, in 1919 there were just about half the number of deaths as compared with this year.

Deaths from scarlet fever are the smallest in number during the decade.

Whooping-cough is lowest since 1923.

Diphtheria has reached the lowest point ever attained.

Influenza is up about 73 per cent. over 1927, but still did not reach an alarming rate.

TUBERCULOSIS

DEATHS IN ONTARIO FROM TUBERCULOSIS BY AGES 1919–1928

		100,000	τ	Inde	er 5	year	s										over	stated	eaths
Year	Total	per	0-1	1	2	3	4	5-9	10-14	15-19	20-29	30-39	40-49	50-59	69-09	62-02	80 and	Not sta	Total deaths from all causes.
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928	1,979 1,989 1,823 1,842 1,835 1,803	78.0	48 54 45 47 33 50 39	32 37 36 31 35 27 32 38 27 22	21 24 28 19 18 22 22 21 13 7	13 22 13	14 7 13 11	61 52 39 39 52 41 43 36 37 42	54 74 47 51 55 63 46 67 59 61	175 177 162 154 141 127 146 147 171 154	575 602 578 548 507 448 471 428 417 465	459 480 428 408 422 372 361 363 365 338	311 323 259 261 282 242 257 256 279 278	192 195 192 175 168 182 182 181 160 208	155 146 145 127 158 150 132 142 127 125	66 55 80 75 60 77 56 75 72 59	9 8 9 10 7 13	5 2 1 13	34,551 34,034 35,636 30,078 33,960 35,909

It will be noted that the death rate from tuberculosis is still down to a point which indicates the influence of the preventive measures against it by the health authorities. The greatest drop in the rate appears as between the years 1923 and 1924 and there has been no rise. There is no let up, however, to combating its ravages, which takes place especially among the youth of the land.

NUMBER OF DEATHS IN EACH AGE GROUP AND RATE PER 100,000 POPULATION.

		19	224			1925	i			19	26			19	27			19	28	
	Male	Rate	Female	Rate	Male	Rate	Female	Rate	Male	Rate	Female	Rate	Male	Rate	Female	Rate	Male	Rate	Female	Rate
Under 1 yr. " 1 " " 2 yrs. " 3 " " 4 4" 5 to 9 yrs. 5 to 9 yrs. 5 to 9 yrs. 20 " 24 " 15 " 19 " 20 " 24 " 30 " 34 " 33 " 39 " 40 " 44 " 45 " 49 " 70 " 79 " 80 yrs. and over	16 7 12 6 7 17 31 43 88 119 111 78 74 59 105 88 36	22.2 37.9 19.0 21.5 10.4 21.4 29.8 71.6 95.4 93.9 67.0 74.2 69.6 78.4 100.6 88.7	7 7 24 32 84 140 101 89 94 64 45 77 62 41	22.6 22.3 15.1 22.5 69.0 111.4 81.4 77.0 83.0 66.7 54.6 59.9 71.8	17 8 10 2 22 17 60 84 104 107 71 73 110 79 32	70.4 53.1 25.6 31.2 6.07 13.3 11.5 41.0 66.1 81.9 80.6 91.8 70.7 85.7 85.7 85.7 85.7	13 14 12 5 21 29 86 158 125 95 55 74 39 72 53 24	45.2 38.6 15.7 13.0 20.0 69.7 124.9 99.7 81.2 47.5 75.8 45.7 54.6 60.3	24 12 6 3 13 30 47 82 94 91 92 87 67 98 83 45	66.5 74.0 36.8 18.5 8.99 7.79 20.0 63.1 72.4 74.8 78.4 85.8 78.2 71.3 92.7 107.2	17 14 9 7 10 23 37 100 121 131 102 78 60 42 83 59 30	44.0 28.7 22.0 30.5 14.0 25.2 73.8 95.1 103.4 86.0 66.0 60.3 48.2 63.1 66.1	12 7 4 5 16 26 47 80 92 91 97 77 72 85 68 38	73.7 78.4 73.2 79.1 60.3 73.4 92.4	6 3 6 21 33 124 128 117 97 80 64 66 75 59 34	65.1 78.6 60.2 66.7 81.0	4 7 4 19 18 60 100 103 87 76 86 70 126 65 31	26.6 10.7 18.8 10.7 10.5 10.3 36.0 64.2 76.4 75.1 72.0 94.2 88.6 103.9 80.6 79.1	13 3	45.3 39.8 8.2 22.0 13.8 13.0 25.6 57.0 95.3 81.5 94.7. 67.5 87.1 71.7 80.9 76.5

CANCER

The death rate from cancer and the number of deaths continue to increase. The number reported in 1928 being 3,441, which represents an increase of 10.4 per cent.

Table showing the distribution of deaths from various types according to class as follows:

	19	19	19	20	19	21	19	22	19	23	19	24	19	25	19	26	19	27	19	928
Buccal cavity. Stomach Peritoneum	82 623 305	2.8 21.9 10.7	782	4.0 27.0 13.6	860	3.3 29.3 13.0	869	3.1 29.2 14.7	938	4.4 31.0 14.1	1023	5.2 33.4 15.0	1050	4.6 33.8 15.5		4.3 35.4 16.3	1115	4.4 34.9 16.5	1205	4.1 37.3 18.7
Female genital organs Breast Skin	181 128 58	6.3 4.5 2.0	198	8.0 6.8 1.7	236 235 66	8.0 8.0 2.2	244 231 77	8.2 7.7 2.6	279	9.4 9.2 2.7		10.5 10.4 2.7	331	10.7 10.7 2.6	307	11.2 9.8 2.8	310	10.9 9.8 2.3	344	10.4 10.7 2.2
Other or Un- specified	805	28.3	688	23.7	699	24.1	656	22.0	531	19.2	571	18.6	533	17.2	610	19.4	662	20.8	746	23.1
Total	2182	76.5	2464	85.2	2585	88.1	2609	87.5	2724	90.0	2946	96.2	2951	95.1	3116	99.0	3177	99.6	3441	106.5

PERCENTAGE OF INCREASE OVER PRECEDING YEAR

1919	3.7	1924	8.1
1920	12.9	1925	
		1926	
		1927	
1923	4.4	1928	8.3

	Males	Females
Cancer of the buccal cavity. " " stomach and liver. " " peritoneum, intestines and rectum. " " female genital organs. " " breast. " " skin. " " other or unspecified organs.	2 43	24 561 321 337 342 29 256

The following table shows the difference in rates for the years 1908, 1918 and 1928.

	19	08	19	18	19	28
	No. Deaths	Rate	No. Deaths	Rate	No. Deaths	Rate
Buccal cavity. Stomach and liver. Peritoneum, intestines and rectum. Female genital. Breast. Skin. Other organs.	24 419 106 113 82 32 572	1.0 18.8 4.7 5.0 3.6 1.4 25.6	647 281 148 129 71	2.7 23.1 10.0 5.3 4.6 2.5 26.8	337 344 72	4.1 37.3 18.7 10.4 10.7 2.2 23.1
Total	1,348	60.5	2,103	75.7	3,441	106.5

SPECIFIC DEATH RATES PER 100,000 POPULATION FROM CANCER BY AGE GROUPS

٠	192	23-1927	1928			
Ages	Deaths	Ratio	Deaths	Ratio		
Under 30. 30-39. 40-49. 50-59. 60-69. 70-79. 80 and over. Total.	299 593 1,658 2,941 4,355 3,630 1,436	3.3 26.4 95.3 235.4 528.0 862.2 1,148.0	67 115 386 691 1,010 873 299 3,441	3.3 26.4 116.4 293.4 652.7 1,152.6 1,242.8		

MATERNAL MORTALITY

Province—396, being 5.55 deaths per 1,000 births.* Cities and towns—289, being 7.38 deaths per 1,000 births. Rural—107, being 3.33 deaths per 1,000 births.

*Still births included.

NUMBER OF DEATHS AND RATE PER 1,000 BIRTHS (INCLUDING STILL BIRTHS)

	Prov	ince	Cities		Towns		Rural	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
1919. 1920. 1921. 1922. 1923. 1924. 1925. 1926. 1927.	284 489 387 370 369 418 388 381 403 396	4.38 6.52 5.00 4.96 5.05 5.60 5.32 5.41 5.72 5.55	126 247 189 178 182 214 200 226 246 260	4.63 7.45 5.59 5.54 5.73 6.63 6.20 7.30 7.74 7.94	36 53 26 34 40 45 33 30 32 29	8.31 8.98 5.08 6.69 7.83 8.51 5.91 7.18 7.58 4.67	122 189 172 158 147 159 155 125 125	3.66 5.13 4.46 4.24 4.06 4.30 4.41 3.54 3.62 3.27

DEATHS OF FEMALES FROM PUERPERAL CAUSES AND FROM ALL CAUSES BY AGES-1924-1928

	Death		
Ages 15–49	All causes	Puerperal causes	Deaths from puerperal causes per 100 deaths from all causes
15-19. 20-24. 25-29. 30-34. 35-39. 40-44. 45-49.	403 480 482 447 529 683 789	30 71 80 103 72 34 6	7.45 14.80 16.60 23.01 13.60 4.98 .76

DEATHS AND DEATH RATES PER 1,000 TOTAL BIRTHS (INCLUDING STILL-BIRTHS) FROM SPECIFIED PUERPERAL CAUSES

		Puerp			eident egnar						ts of	Puerperal Septicaemia			Albuminuria and Convulsions			Other Puerperal Causes			
	Deaths	Rate	Per cent.	Deaths	Rate	Per cent.	Deaths	Rate	Per cent.	Deaths	Rate	Per cent.	Deaths	Rate	Per cent.	Deaths	Rate	Per cent.	Deaths	Rate	Per cent.
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928	489 387 370 369 418 388 381 403	6.52 5.00 4.96 5.05 5.60 5.32 5.41 5.72	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	76 98 78 53 54 45 40 30	1.01 1.26 1.05 .73 .73	21.0 14.4 12.9 12.6 10.5 7.4	40 45 47 55 28 37 51 40 49	.60 .61 .74 .38 .50 .70 .57	12.1 14.9 7.6	42 51 48 42 29 53 47 51 38	.68 .62 .56 .40 .71 .64 .72	12.7 12.1 13.4	75 59 116 120 103 118 143	1.59 1.62 1.41	32.0 19.4 15.9 31.4 28.7 26.6 31.0 35.5	123 81 85 97 98 91 95	1.64 1.04 1.14 1.33 1.32 1.25 1.35 1.51	20.1 25.2 20.9 23.0 26.3 23.4 23.5 24.9 26.3 24.5		.63 .75 .70 .52 .52	

The following table shows the percentage rates from the different types of puerperal causes:

DEATHS FROM SPECIFIED PUERPERAL CAUSES PER 100 DEATHS FROM ALL PUERPERAL CAUSES By Age, Ontario, 1924-1928

	Total 15-49	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
Total puerperal causes.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Accidents of pregnancy Puerperal haemorrhage Other accidents of labour Puerperal septicaemia Albuminuria and convulsions Other puerperal causes	9.10 11.36 12.89 30.30 24.48 11.87	6.66 13.33 6.67 40.00 26.67 6.67	9.86 2.81 7.04 36.66 35.18 8.45	10.00 10.00 15.00 30.00 23.75 11.25	7.77 11.65 16.50 27.19 17.47 19.42	6.94 18.06 8.33 30.55 26.40 9.72	8.82 17.65 26.48 17.65 20.58 8.82	50.00 33.33 16.67

PUERPERAL DEATHS BY AGE GROUPS

	Total	Ages at Death										
	15-49 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40–44 years	45-49 years				
Total	396	30	71	80	103	72	34	6				
Accidents of pregnancy Puerperal haemorrhage Other accidents of labour Albuminuria and convulsions Puerperal septicaemia Other puerperal causes	36 45 51 120 97 47	2 4 2 12 8 2	7 2 5 26 25 6	8 8 12 24 19 49	8 12 17 28 18 20	5 13 6 22 19 7	3 6 9 6 7 3	3 2 1				

The number of deaths from maternal mortality was 396, with a rate of 5.55 per 1,000 total births—including still births. This number of deaths has been exceeded three times during the decade, viz., 1920, 1924 and 1927. The rate is higher in the urban municipalities by nearly 122 per cent. than it is in the rural municipalities and yet it is these urban centres that are presumably better equipped with hospitals and skilled physicians than the rural municipalities.

The table showing the number of deaths from puerperal causes, compared with the number of living births taking place in institutions and in the homes shows a preponderatingly larger number of deaths per 1,000 births in the institutions than out of them. The table is worthy of a close study.

MATERNAL MORTALITY, ONTARIO, 1928

	То	tal	Institu	tional	Non-Ins	titutional
Cities and towns, 5,000 population and over	Living births	Deaths from puerperal causes	Living births	Deaths from puerperal causes	Living births	Deaths from puerperal causes
Belleville. Brantford Chatham. Fort William. Galt. Guelph. Hamilton. Kingston. Kitchener London. Niagara Falls. North Bay. Oshawa. Ottawa. Owen Sound. Peterborough. Port Arthur. St. Catharines. St. Thomas. Sarnia. Sault Ste. Marie. Stratford. Toronto.	371 711 494 664 266 362 3,007 576 751 1,438 445 435 703 3,003 368 558 558 570 341 426 627 401 12,342	6 9 3 3 29 8 6 6 1 3 9 13 6 1 7 5 3 3 3 111	222 412 309 280 131 174 1,488 373 283 897 120 103 300 1,737 209 428 330 226 196 206 165 210 6,522	5 9 3 2 21 8 5 4 1 2 9 12	149 299 185 384 135 188 1,519 203 468 541 325 332 403 1,266 159 130 228 344 145 220 462 191 5,820	1 1 8 1 2 1 1 1 1 2 1 1 2 1 1 5 1 5 1 5 1 1 1 1

MATERNAL MORTALITY, ONTARIO, 1928—Continued

	То	tal	Institu	utional	Non-Ins	titutional
Cities and towns, 5,000 population and over	Living births	Deaths from puerperal causes	Living births	Deaths from puerperal causes	Living births	Deaths from puerperal causes
Welland Windsor Woodstock Barrie Brampton Brockville Cobourg Collingwood Cornwall Dundas Eastview Ford City Fort Francis Hawkesbury Ingersoll Kenora Leamington Lindsay Midland Mimico New Toronto Orillia Pembroke Port Colborne Preston Renfrew Smith's Falls Sudbury Timmins Trenton Walkerville Waterloo Whitby	279 1,681 225 169 135 217 121 95 488 62 185 347 189 194 101 216 93 178 223 129 125 244 292 137 131 148 166 453 432 113 425 116 53	1 1 2 1 1	76 662 130 96 68 177 58 47 271 8 4 34 17 45 125 19 84 82 21 26 176 125 9 46 114 130 40 317 6 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	203 1,019 95 73 67 40 63 48 217 54 185 343 155 177 56 91 74 94 141 108 79 68 167 137 104 102 52 323 392 113 108 110 52	1
Total, cities and towns of 5,000 and over	37,541 30,969	289 107	18,335 2,433	246 19	19,206 28,536	43 88
Grand total	68,510	396	20,768	265	47,742	131

Deaths of women not classified to pregnancy or child-bearing but returned as associated therewith, 1928.

ONTARIO

Causes of death			ımber
All causes			. 82
All causes. Scarlet fever.			. 3
Influenza			. 23
Mumps.			. 1
Erysipelas			. 2
Tuberculosis of the respiratory system		٠	. 6
Tuberculosis of the intestines and peritoneum	٠.		. 1
Cancer of circulatory system	٠.		. 1
Pernicious anaemia			. 4
Exophthalmic goiter			. 2
Other diseases of the thyroid gland	٠.	٠	. 1
Acute myocardus	٠.		. 1

ONTARIO-Continued

ONTARIO—Continued		
Causes of death		 ber
Valvular diseases	 	4
Chronic endocarditis	٠.	2
Other diseases of the heart		1
Lobar pneumonia		11
Pneumonia—not otherwise defined		3
Pleurisy		1
Other diseases of the respiratory system (tuberculosis excepted)	 	1
Ulcer of the stomach		1
Hernia		1
Intestinal obstruction		2
Acute yellow atrophy of the liver		3
Chronic nephritis (including unspecified 10 years of age or over)		1
Homicide		6

ACCIDENTAL DEATHS

The following table shows the chief causes of accidental deaths, and rate per 100,000 of population.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	Per cent. change
Total	1,630 57.16	1,805 62.04	1,893 64.52	1,807 60.60	1,791 59.11	1,760 57.45	1,871 60.28	1,901 60.41	1,997 62.66	2,355 72.90	
Drowning Falls Railroads Automobiles Fractures Other Acci-	328 11.50 76 2.66 135 4.73 91 3.19 207 7.26	130 4.49 119 4.11 261 9.01	358 12.21 128 4.36 117 3.99 108 3.68 301 10.26	277 9.29 128 4.29 123 4.13 103 3.45 247 8.28	266 8.58 242 7.99 160 5.28 208 6.87 145 4.78	308 10.05 198 6.46 169 5.52 205 6.69 169 5.52	326 10.48 190 6.11 115 3.70 256 8.24 196 6.41	259 8.50 208 6.83 242 7.96 199 6.54	313 9.82 266 8.34 160 5.02 387 12.1 192 6.02	373 11.5 325 10.0 168 5.20 437 13.5 191 5.91	+18.2 +22.2 +10.5 +10.5 +12.9
dents	620 21.7	657 22.7	773 26.3	796 26.7	637 21.0	598 19.5	666 21.4	565 17.9	575 18.0	718 22.2	+1.05

The number of deaths from accidents was 2,355, and the rate was 72.90 death for each 1,000 of the population. This represents an increase of 17.8 per cent. over the rate for 1928. It will be noted that burns, as a cause, shows the largest increase, falls are second, drowning third, and automobiles fourth, contrary to the general belief that they are the greatest accident menace of the day. Railroads came fifth and there was a slight decrease in the number of deaths from all other types of accidents combined.

Suicides as a cause are not shown in the above, although an external cause of death. There were, however, 285 during the year, 207 being males and 78 females. The largest number in any one age group was 27 males, 50-54 years, and 14 females, 25-29 years.

Table 1—General Summary of Births, Deat hs and Marriages in Ontario by County Municipalities (including Cities and Towns), 1928.

	D		RŢH		000'l				D	EA?	rhs	;			000,1			1,000 ion
COUNTIES	Esti- mated popula- tion		lusive -birtl		Ratio per 1,000 of population	A	ll age	s		der ear		4 ars		ears over	tio per 1,000 population	Still-births	arriages	Ratio per 1,00 of population
		Total	M	F	Ra of 1	Total	M	F	М	F	М	F	М	F	Ratio of pop	Stil	Ma	Ra of 1
Total	3,229,000	68,510	35,299	33,211	21.2	37,128	19,457	17,671	2,735	2,145	200	209	16,022	14,919	11.5	2,793	25,728	8.0
Addington Algoma Brant Bruce Carleton Cochrane Dufferin Dundas Durham Elgin Essex Frontenac Glengarry Grenville Grey Haldimand Haliburton Halton Hastings Huron Kenora Kenora Kenora Kenora Lambton Lamark Leeds Leundon Manitoulin Middlesex Muskoka Nipissing Norfolk Northumberland Ontario Oxford Parry Sound Peetl Prince Edward Rainy River Renfrew Russell Simcoe Stormont Sudbury Thunder Bay Timiskaming Victoria Waterloo Welland Wellington Wellington Wellington Wentworth York	6529 26000 55119 47777 22748 63337 55928 33889 34943 12144 56007 10518 114718 119910 39648 25522 32099 51537 51000 28377 119828 47711 44244 27599 17538 13611 55166 22277 87016 29065 47399 5736 31233 27773 134988 68630 57701	1027 810 3719 1687 820 92 82 811 17 31 1220 5660 17 662 881 1479 120 120 120 120 120 120 120 120 120 120	1941 148 143 225 364 469 217 102 560 401 1722 504 431 830 551 551 127 101 88 515 527 421 431 830 840 143 143 143 143 143 143 143 143	4999 504 392: 1778 808 1099 163 3215: 367 1868 450 210: 1277 51868 450 210: 1277 1868 450 210: 1277 187 187 187 187 187 187 187 187 187 1	19.3 18.8 18.9 17.9 254.5 29.2 29.2 21.6 4.6 4.1 3.2 2.3 4.1 4.1 4.1 5.2 6.6 4.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 1.1 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	80 430 430 652 532 1999 523 187 1470 666 224 4187 758 592 224 314 4187 758 592 223 331 269 616 608 369 523 312 961 608 368 412 412 413 414 415 415 415 415 415 415 415 415 415	3211 1111 988 1600 2844 7788 342 216 95 357 146 46 316 47 1188 3188 318 318 316 557 57 311 152 22 188 201 197 30 30 30 30 30 30 30 30 31 31 31 31 31 31 31 31 31 31 31 31 31	400 173 326 251 173 326 202 276 93 314 99 332 303 137 129 380 274 303 350 292 22 153 369 22 303 313 77 292 292 213 363 274 375 380 380 380 380 380 380 380 380 380 380	9 11 119 137 137 333 200 5 5 37 16 8 8 133 466 322 42 27 5 5 38 8 9 9 21 13 5 12 22 12 11 166 22 13 32 14 17 5 5 33 6 5 3 6 5 2 3 3 14 17 7 5 5 3 6 6 2 2 7 12 5 12 2 12 12 12 12 12 12 12 12 12 12 12 1	3 25 23 20 167 89 57 71 88 13 1200 311 144 88 33 134 177 477 475 200 155 355 200 114 12 14 11 15 14 17 3 9 9 49 30 377 666 363 32 34 92 29 25 23 34 92	15 15 22 55 123 223 23 23 25 44 55 10 44 45 50 11 11 11 11 12 19 44 44 43 38 88 88 88 88 88 13 16 16 16 16 16 16 16 16 16 16 16 16 16	5 12 14 4 6 6 8 3 2 2 2 3 7 7 4 2 2 9 9 8 8 5 4 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	32 193 288 253 194 100 84 141 121 297 91 125 100 318 291 264 463 27 27 27 27 27 27 27 27 27 27	1355 257 121 144 1104 219 244 219 444 1219 434 136 136 136 136 137 157 157 157 157 157 157 157 157 157 15	9.0 10.9 6.3 12.0 12.8	50 144 111 177 277 140 366 51 19 9 9 9 8 8 51 7 55 54 1 42 4 6 34 4 7 4 7 11 6 10 20 20 20 20 20 20 20 20 20 20 20 20 20	84 84 135 315 315 326 85 97 4200 141 343 3433 433 433 433 433 43	7.356.661 12.55.44.63.66.661 11.61.61.61.61.61.61.61.61.61.61.61.61.6

Table 1A—Number of Births, Deaths and Marriages, and the ratio per 1,000 of population in each county (excluding cities and towns of 5,000 population and over), Ontario, 1928

popu	nation and	over), O	irtario,	1740			
Counties	Estimated population	Births exclud'g still- births	Ratio per 1,000	Deaths exclud'g still- births	Ratio per 1,000	Mar- riages	Ratio per 1,000
Total including all municipalities	3,229,000	68,510	21.2	37,128	11.5	25,728	8.0
Total, excluding cities and towns of 5,000 and over	1,679,324	30,969	18.4	17,028	10.1	8,374	5.0
	1,679,324 7,391 26,577 25,383 45,098 40,795 19,069 15,389 18,139 25,213 30,389 37,949 24,063 21,469 16,995 47,774 22,259 26,000 36,301 47,777 15,040 47,828 39,384 26,784 25,621 12,144 32,680 10,518 48,586 19,910 24,965 25,527 26,721 25,733 35,661 28,372 14,728 29,503 22,476 22,232 17,538 8,312 40,896 22,271 58,293	30,969 143 436 316 810 531 1,255 257 306 440 390 1,364 343 427 7229 791 371 173 344 811 755 292 905 572 441 391 174 397 273 564 433 785 560 398 504 450 593 571 253 577 271 253 577 271 803	18.4 19.3 16.4 17.9 13.0 65.8 17.4 12.8 13.4 12.8 13.4 16.5 16.6 26.4 13.2 21.5 15.8 19.4 16.5 16.4 13.2 21.6 16.4 13.2 22.3 15.8 19.4 16.5 16.4 17.4 18.7 16.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7 21.6 21.7	80 202 249 532 279 345 187 191 309 323 514 221 224 187 448 283 66 247 446 592 131 440 392 290 352 129 285 112 1568 264 217 368 299 318 343 343 343 345 345 345 345 345 345 345	10.1 10.8 7.6 9.8 11.7 6.8 18.0 12.1 10.5 12.2 10.4 11.0 10.2 12.7 10.1 9.1 12.3 12.4 8.7 9.2 9.9 10.8 13.7 10.6 8.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.7 10.7 10.7 10.6 10.7 10.6 10.7	8,374 41 138 90 252 119 242 84 84 135 156 85 156 85 97 298 141 34 163 214 276 555 162 1146 120 68 115 57 188 128 140 174 142 148 140 179 195 93 146 97 23 218 107 229	5.0 5.5 5.5 5.5 5.6 12.6 4.6 5.3 5.4 4.6 5.3 5.7 6.3 5.7 6.3 5.4 4.7 5.6 5.3 4.1 4.7 5.6 6.8 5.3 6.4 6.6 6.6 6.6 6.7 6.7 6.7 6.7 6.7
Stormont. Sudbury. Thunder Bay. Timiskaming. Victoria. Waterloo.	18,736 37,094 15,520 31,233 20,542 82,144	434 1,026 180 896 295 521	23.2 27.6 11.6 28.6 14.3 6.3	252 313 94 283 188 285	13.4 8.4 6.0 9.0 9.1 3.4	56 139 18 256 71 163	2.9 3.7 1.1 8.1 3.4 1.9
Welland. Wellington. Wentworth. York.	34,329	781 736 367 3,059	22.7 19.1 10.1 21.4	403 500 381 1,214	11.7 12.9 10.4 8.5	239 192 132 653	6.9 4.9 3.6 4.5

Table 2—General Summary of Births, Deaths and Marriage in Ontario for Cities, 1928

			RŢH		1,000				D	EAT	rHs				1,000			1,000
CITIES	Popula- tion		lusive -birth		per	A	ll age	s	Un 1 y	der ear	1- yea	-	5 ye and		per	Still-births	arriages	Ratio per
		Tota	М	F	Ratio	Total	М	F	М	F	М	F	М	F	Ratio	Still	Mar	Rat
Cities	1,336,421	31,602	16,333	15,269	23.6	16,999	8,693	8,306	1,288	974	339	286 ·	7,066	7,046	12.7	1,384	15,242	11.4
Belleville Brantford Chatham Fort William Galt Guelph Hamilton Kingston Kitchener London Niagara Falls North Bay Oshawa Ottawa Ottawa Ottawa Owen Sound Peterborough Peterborough For Arthur St. Catharines St. Thomas Sarnia Sault Ste. Marie Stratford Troomto Welland Welland Woodstock	13018 28903 15509 23544 12977 19202 127447 21365 26709 66132 19013 14683 20609 120799 12368 18305 21768 18305 23327 16743 16544 22176 18208 569899 10985 66893 10195	279 1681	208 366 269 323 149 182 1584 286 393 720 231 169 288 295 291 160 200 331 31 212 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 211 212 212 213 214 215 215 215 215 215 215 215 215 215 215	345 225 341 117 180 1423 290 3588 214 223 346 1454 1459 270 263 279 181 226 296 185 5948 127 786	28.4 24.6 31.8 28.2 20.5 18.8 23.6 26.9 28.1 21.7 23.4 4.8 29.6 34.1 24.8 24.4 4.4 24.4 24.4 24.6 27.6 28.2 27.6 28.2 27.6 28.2	239 403 306 211 181 241 1471 445 293 1122 220 129 227 1645 172 305 222 331 214 216 228 129 6962 155 689	112 1188 173 125 100 122 765 214 146 549 125 74 117 853 96 157 132 110 103 3497 92 355 86	127 215 133 86 81 119 706 231 147 573 95 55 51 110 792 76 148 90 161 112 106 98 96 3465 63 334 87	18 25 32 9 9 25	10 12 10 18 3 21 13 11 397	3	3 4 6 3	73	188 110 65 75 75 77 132 531 77 132 531 77 140 105 77 140 105 75 29 52 53 26 22	11.0 13.6 13.9 14.0 12.1 14.1 12.7 13.0 10.2 10.9	25 36 25 28 13 17 128 24 30 72 26 13 11 15 38 29 18 11 11 11 11 11 11 11 11 11 11 11 11	309 189 255 104 1327 230 319 267 962 237 240 259 159 134 276 132 7058 896	11.1 10.4 10.7 11.9 10.7 12.9 10.8 12.9 7.9 9.8 10.8 13.1 11.1 9.4 8.1 12.4 7.2 12.3 16.6

Table 2A—General Summary of Births, Deaths and Marriages for Towns of 5,000 population and over, Ontario, 1928

TOWNS 5000 population and over	Popula- tion	(exc	RTH lusive	of	Ratio per 1,000	A Total	ll age			ATH der ear	1-		5 ye and M		Ratio per 1,000	Still-births	Marriages	Ratio per 1,000
Total	213,255	5,939	3,108	2,831	27.8	3,101	1,660	1,441	275	227	74	58	1,311	1,156	14.5	263	2,112	6.6
Barrie Brampton Brampton Brockville Cobourg Collingwood Cornwall Dundas Eastview Ford City Fort Frances Hawkesbury Ingersoll Kenora Leamington Lindsay Midland Mimico New Toronio Orillia Pembroke Port Colborne Preston Renfrew Smith's Falls Sudbury Timmins Trenton *Walkerville Waterloo Whitby	7365 5100 9322 5328 5652 10329 5009 5731 13531 53567 5150 7708 5072 7331 7820 5327 7886 5203 5697 5217 7105 10301 11855 5800 10208 7459 5195	169 135 217,7 121 95 488 62 2185 347,189 194 101 216 93 31,78 223 3129 910,5 244 292 213,137 31,148 453 453 453 453 453 453 453 453 453 453	92 74 109 70 52 262 262 36 101 183 47 119 46 91 111 111 111 115 74 54 69 87 74 249 2230 55 205 58 30	108 51 43 226 26 84 164 95 91 54 97 47 47 112 60 51 114 142 63 55 79 20 4 20 20 5 8	22.9 26.4 23.2 22.5 16.8 47.2 23.3 35.6 6 28.0 18.3 23.3 35.6 6 28.0 19.7 30.9 32.3 33.3 33.3 33.3 35.6 44.7 22.3 36.1 19.7 30.9 31.9 32.3 33.3 34.3 34.3 35.3 36.1 36.1 36.1 36.1 36.1 36.1 36.1 36	120 80 1711 113 77 272 62 75 67 67 77 77 89 72 25 44 115 111 66 62 27 75 182 52 52 53 79 90 90 90 90 90 90 90 90 90 90 90 90 90	577 411 899 477 421 445 411 333 448 435 333 400 311 711 577 133 733 555 139 114 366 799 27 67	6339 822 666355 1277 344 349 149 5663 322 233 444 544 612 2466 544 614 377 677 677 677 677 677 641	54 111 53 38 11 188 11 14 66 77 22 43 31 11 88 66 63 34 23 71 12 31	5 4 4 6 2 2 2 19 2 15 14 3 8 3 6 6 1 4 4 4 5 5 4 17 5 2 8 5 19 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 1 1 3 3 1 9 5 7 7 2 1 1 1 1 	1 1 3 1 1 1 7 7 5 2 2 3 1 4 4 2 1 3 7 7 1 1 1 1 1 1	500 366 777 399 388 277 188 153 370 266 322 299 655 477 766 447 882 267 477 888 227 646 666	73 63 63 63 63 63 63 63 63 63 63 63 63 63	16.2 15.6 18.3 13.6 26.3 13.0 4.9 12.4 15.3 10.6 11.2 5.0 11.2 5.0 11.2 15.3 13.2 10.6 11.2 15.3 10.6 11.2 15.3 10.6 11.2 15.3 10.6 11.2 15.3 10.6 11.2 10.6 11.2 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	13 8 10 4 3 20 6 7 6 5 2 7 7 9 4 11 12 4 8 8 15 25 1 7 7 7 23 3 13 6 6 15 2 3	81 59 52 200 36 33 117 50 45 69 755 90 29 90 64 28 88 48 48 154	7.1 5.7 8.6 9.4 6.3 9.7 5.8 13.6 10.3 4.9 8.5 5.4 11.4 9.8 8.8 11.2 5.3 6.7 14.9 12.4

^{*}The increase in births over last year is due to the opening of the new General Hospital.

Table 2B—General Summary of Births, Deaths and Marriages in Ontario, for towns of 1,000 population and under 5,000, 1928

	l	Di	RTH	c					DE	ATE	IS					1 1	- 1	
TOWNS 1,000 and over	Estim- ated	(exc	lusive	of	ratio per		All ages			der	1	-4 ars	5 ye		1800	Still- births		Ratio
and under 5.000	Popula- tion	Total	l-birtl	F	1000	Tota!		F	M	F	M	F	M	F	per 1000	DII CIIS	Hages	per 1000
3,000		- Ctar														220	2414	
Towns	237201 2284	5825	2896 29	2929	24.5 26.7	3370 35	1765 19	1605 16		182	51	40	1491 10	1383	$14.2 \\ 15.3$	230	2414 24	10.1
Alexandria	1329	34		18	25.5	34	17	17	1	1		1	16	15	25.5		11	8.3
Almonte	2376		44		34.0	24		13		1			10		10.1		17 28	7.1
Amherstburg	3017 4033	107	23 58		15.6 26.5	42 47	17 24	25		3	1	1	17 21		13.9 11.7	3	54	9.3 13.4
Aurora	2596	29	15	14	11.2	31	15	16		î			15	15	11.9		29	11.2
Aylmer	2050				14.6	33	17	16					17		16.1	i	40 29	19.5
Blenheim Blind River					21.9	25 49		15		5	i	2 2	22		15.7 21.0	1 1 2	27	18.2 11.6
Bowmanville	3630	112	54	58	30.8	51	28	23	4	4			24	19	14.0	6	35 41	9.6
Bracebridge Bridgeburg				39	$\frac{32.2}{19.4}$	32		20		3	1		11		13.0 7.5		47	16.7 14.0
Burlington	3389	20			5.9	26	10	16	1		1		8	16	7.7	2	30	8.9
Campbellford	2749				18.2 44.6	43 17	26	17		5	1 3		23	16 4	15.5 11.2	1 3	20 14	7.3
Carleton Place					16.2	55				3			22		13.1	4	41	9.8
Chesley	1801	30	17	13	16.6	24	11	13) 1		1	11		13.3		20 17	11.1
Clinton					23.8	45 50	26 28			6	2	2	26 19		23.3 11.9	4	34	8.8
Cochrane	2958	134	65	69	45.2	68	35	33	10		1	5	24	21	23.0	4	47	15.9
Copper Cliff					25.7	27		10			1	1	13	7	$10.2 \\ 16.7$	1	21 8	7.9
Deseronto Dresden					15.9 16.8	13		5				1	6	3	9.1		22	5.8
Dryden	1263	78	44	34	61.7	25		9		{ a			16	8	19.8	2 4	19 39	15.0
Dunnville Durham					$\begin{vmatrix} 30.2 \\ 23.8 \end{vmatrix}$	63	31	32	1				27		18.6 12.8	ا ما	21	11.5
Elmira					12.3	16	6	10		1		1	6	- 8	5.9		19	7.1
Essex		30			16.5 7.8	21 25				2	• • • •	1	10 13	11	11.5	1 2	24 21	13.2 15.5
Forest		71	33		20.6	39	22	17	5				17		11.2		40	11.4
Georgetown	1973				17.8	17		4					10		8.6		19 30	9.6
Goderich Gravenhurst					17.8 21.7	57 26		26				1	30 17		$13.4 \\ 14.6$	1 1	9	7.0
Grimsby	1976	4.5	27	18	22.8	25	14	11	1	1			13	10	12.6		18 28	9.1
Haileybury Hanover					24.5 20.8	32		11					13		11.2 11.5	2	37	9.8
Harriston	1145	14	8	6	12.2	15	5	10					5	10	13.1		12	10.5
Hespeler	2748 2670				12.7	21 30		13		1 1			12		$\frac{7.6}{11.2}$	2 4	35	16.0 13.1
Iroquois Falls	1426		30	31	42.8	14		2	3				.9	1	9.8		29	20.3
Keewatin Kincardine	1368				14.7 45.0	46		20		4	1		22	16	$\frac{2.9}{21.6}$	4	18	3.7 8.4
Kingsville		50	25	25	20.6	33	19	14	1		2		16	12	13.6	1	30	12.4
Listowel	2346				23.9 42.0	40 28	18 16			3	1	1	17 13		$\frac{17.1}{17.0}$	6	30 19	12.8 11.5
Mattawa Meaford	1650 2747				24.6	41	18						15		23.5	1	33	18.9
Merritton	2556				14.5	24				· · · i			3 8	6	3.5	1	21	2.3
Milton	1875 1574			14	10.1	29							12	16	$\frac{12.8}{18.4}$		20	$\frac{11.2}{12.7}$
Mount Forest					22.0	36							17	18	18.8		27 41	14.1
Napanee					9.4								16	21 11	13.4	1	38	13.7 15.0
Newmarket	3314	109	55	54	32.9	66	38	28	1	2			37	26	19.9	1	50 10	15.1
NiagaraOakville					6.3	34					1		12	12 17	8.9 10.2		28	5.2 8.4
Orangeville	2679	58	30	28	21.6	52	26	26	3	3		1	22	22	19.4	4	23	8.6
Palmerston	1650				20.0		15 32						14 29		15.8 13.8		23	5.5 5.7
Parry Sound			65	64	139.7	57	39	18	3	2		1	36	15	17.5	5	51	15.7
Penetanguishene					33.1	61 54					3	2	22 24		15.3 13.2		26 28	6.5 7.5
Perth Petrolia					27.0	65	36	29	5			i	31	28	25.8	4	18	7.2
Picton	3266				26.6		43						40 32		23.3 16.6		36 35	11.0 7.8
Port Hope Prescott	4468 2724				22.8	71					2		12		13.6	1	37	13.6
Rainy River	1570	47	23	24	29.9	12	9	3	1				8	3	7.6	1	12 22	7.6
Ridgetown Riverside					20.8			14			1 1	1 2	19 5		18.1 3.2	4	13	11.1
Rockland	. 277€	5 89	49	40	32.0	4(16	24	1 5	6	1	1	10	17	14 4	3	24 30	8.6
St. Mary's Sandwich	4023 10258			31	16.6	40 81					1	3	16 35	20	7.9	6 4	63	7.4 6.1
Seaforth	. 1670) 33	3 19	14	1 19.8	21	14	7	1	1			14	7	9.9 7.9 12.6 17.5	4 7	10	6.0
Simcoe Sioux Lookout	4581 1702	187			$\frac{1}{2}$ $\frac{1}{37}$ $\frac{1}{6}$	80					····i	1	38 16	30	17.5	3	58 21	12.7 12.3
Southampton	. 1691	34	1 20	14	20.1	18	3 9	9	3				6	9	10.6	1	14	8.3
Strathroy Sturgeon Falls	2702 4647	2 83	33	50	20.1 30.7 41.7	76				1 9	· · · · i	1	37 11	35	28.1 28.6	6	24 35	8.3 8.9 7.5
Thessalon	.1 1610			23	28.0	17					1	i	6	6	10.6	1	19	11.8
Thorold	. 4935	5 114	1 65	49	21.5	44	31	13	4	4	3		24 7	9	9.1 13.0	3	51 40	10.6
Tilbury Tillsonburg	. 1992 . 325			45	28.0 21.5 120.0 18.2	26					1 2		34	20	19.6	3	29 13	20.0
Uxbridge Vankleek Hill	1417	7 23	3 16	13	16.2	16	6	10) 1	1			5 8	9	11.3	2	13 23	9.2
Walkerton	. 2357			37	31.4	30	26		3 2	1	1		24	22	19.7 20.8	7	18	15.1
Wallaceburg	. 4234	1 108	3 55	53	3 16.2 3 2.3 7 31.4 8 26.7 15.5	38	3 22	16	4	3	2		16	13	9.4	7	34 45	8,4
Weston	.1 1854			મ ૭૫	JJ32.3	1 44				3 3 1	2 2 1	1	74	93	4.3 11.8	3 3 3 2 1 7 7 3 2	14	10.7 7.5
Wlngham	2260			31 29	22.9	41			2	2	1		19	17	11.8 18.1	1	22	9.7

Table 3—Births (exclusive of Still-births) by Months, Classified as Rural and Urban for Ontario by Counties—1928

			Lario										
Province and Counties	Total						MO	NTHS					
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Ontario	68510	5608	5508	6070	5734	6144	5989	5936	5921	5644	5495	5101	5360
RuralUrban	25144 43366	2004 3604	2035 3473	2265 3805	2207 3527	2262 3882	2242 3747	2181 3755	2158 3763	2084 3560	2051 3444	1799 3302	1856 3504
Addington	143 143	13 13	14 14	10 10	16 16	18 18	14 14	9	11 11	9	14 14	9	6
AlgomaRural	1063 284	81 20	80 15	103 39	100 26	103 28	96 31	90 24	93 23	72 21	76 20	79 16	90 21
Urban	779 627	61 51	65 49	64 55	74 63	75 65	65 48	66 48	70 55	51 42	56 47	63 53	69 51
Blind River, t	107 45	3	10	3	2	8 2	12	13	12	5 4 77	5	3	14
Brant	1027 227 800	100 22 78	92 11 81	88 25 63	86 28 58	85 18 67	85 18 67	88 13 75	84 18 66	15 62	91 31 60	60 16 44	91 12 79
Urban	711 89	73	67	58	53 5	60		64 11	58 8	54	53	40	71
Bruce	810 516	62 47	63	74 55	80 58	77 51	75 43	78 46	70 42	68 35	77 45	46 29	40 26
Urban	294 30	15	24	19 2	22	26 2	1	32	28 2	33 1	32 5	17	14
Kincardine, t	96 34	5 3 2	5 3	5 3	4 2	3	4	12	11	15	9	4	5 2
Walkerton, t	74 60	3	5 8	6 3	10	6	7	5	3	8	6	6	2
Carleton	3719 531	332 46 286	30	314 42 272	334	346 48 298	47	55	328 42 286	49		287 39	289 32 257
UrbanOttawa, cEastview, t	3188 3003 185	279			274 259 15	283 15	267	241 18	269 17		198		245 12
Cochrane	1687 1060	134 85	134	144	139	143 94	166	156	142	139	131	124 79	135
Urban	627	49			62 12	49	71		62 16	58	40	45	45
Iroquois Falls, t	61 432	35	6 29	31	43	33	53	7 42	10 36	32	3 27	34	3 ²
Dufferin	257 199		17	16		18 12	21	15	29 24	13	15	18	15 13
Urban Orangeville, t	58 58	5	4	5		6	3	2	5	6	8	7	2 2
Dundas	306 306	24	24	32	24	34 24 40	19	23	2.5	24	28	28	21 21 39
Durham Rural Urban	440 226 214	11	17	17	22	23	20	22	22	17	16	19	20 19
Bowmanville, t	112	7	9	. 8			8	10	11		4	11	11
Elgin	731	58	56	81	56	48	59	80	61		59	53	60 26
Urban St. Thomas, c	371 341	21 20	22	47	31	23		47	36	31		29	34 32
Aylmer, t Essex	30 3910	327					313		347	323	322	302	328
Rural Urban	928 2982	250	247	270	226	258	243	239	262	246	257	237	81 247
Windsor, c	,1681 47 30	3	7	3	141	140		5		4	6	3	133 4 3
Ford City, t	347	2.5	27		23		32	27		29	33		30
Leamington, t	93	5	2			6	10	2	13	4	15	10	6
Sandwich, t	218 425		1 8	22		46	43	43		48	39	46	17 45
FrontenacRural	919 343	30	24	2.5	21	36	2.5	36	32	41	25	23	71 25
Urban	576 576	5 59	43	40	44	46	53	65	42	54	40	44	
Glengarry	366	24	38	52	33	32	28	37	2.5	2.3	22	25	32 27 5
Urban Alexandria, t Grenville	61 61 229		5 1	9	2	(5 4	5	3	8	7	6 6 15	5
Rural Urban	180	1:	19	14	1 12	17	1 12	1.5	23	27	10	12	16
Prescott, t	1150) :	2 6	5 2	2	! 4	1 3	97	107	91	85	3	88 88
RuralUrban	649 510	63	5 5 2 4 3	52	49	67	58 2 43	57 3 40	59	55	48	38	45 43
Owen Sound, c Durham, t	368	1 2	3.5	3 2	5	11	1 4	3	4	1	. 1	1	4
Meaford, t		31	5 1 1 4	1 3	3 4 3 4	,	3 3	9	4			9	3 6

Table 3—Births (exclusive of Still-births) by Months, Classified as Rural and Urban, for Ontario by Counties, 1928—Continued

	·					920-	Com	mued					
Province and Counties	Total						MO	NTHS					
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Haldimand. Rural. Urban Dunnville, t. Haliburton. Rural. Halton. Rural. Halton. Burlington, t. Georgetown, t. Milton, t. Oakville, t. Hastings. Rural. Urban. Belleville, c. Deseronto, t. Trenton, t. Huron. Rural. Urban. Clinton, t. Goderich, t. Seaforth, t. Wingham, t. Kenora. Rural. Urban. Dryden, t. Keewatin, t. Kenora. t. Sioux Lookout, t. Kent. Rural. Urban. Chatham, c. Blenheim, t. Dresden, t. Ridgetown, t. Tilbury, t. Wallaceburg, t. Lambton. Rural. Urban. Sarnia, c. Forest, t. Petrolia, t. Lanark. Rural. Urban. Almonte, t. Carleton Place, t. Perth, t. Smith's Falls, t. Leeds. Raral. Urban. Brockville, t. Gananoque, t. Lennox. Rural. Urban. Brockville, t. Gananoque, t. Lennox. Rural. Urban. St. Catharines, c. Grimsby, t. Majarar, t. Majidelex. Rural. Urban. St. Catharines, c. Grimsby, t. Merritton, t. Niagara, t. Majidelex. Rural. Urban. London, c. Parkhill, t. Strathroy, t. Muskoka. Rural. Urban. Rural. Urban. Rural. Urban. Rural. Urban. Rural. Urban. Rural. Urban. London, c. Parkhill, t. Strathroy, t. Muskoka. Rural. Urban. Rural. Urban. Rural. Rural. Rural. Rural.	371 269 102 102 173 173 344 228 116 20 35 57 19 42 1295 789 506 371 22 113 755 48 207 46 63 33 52 508 137 77 78 20 216 63 31 37 75 46 63 49 49 49 49 49 49 49 49 49 49 49 49 49	33 3 2 6 7 7 1 3 3 1 3 3 6 2 9 7 1 1 2 1 1 3 3 7 1 1 3 3 6 6 9 9 8 3 5 1 3 3 3 6 2 2 2 4 6 6 8 8 4 4 2 4 4 1 1 6 6 1 7 6 6 6 8 4 4 1 2 2 2 3 1 7 6 6 1 4 1 2 2 2 3 1 7 6 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 7 6 1 4 1 2 2 2 3 1 1 5 5 3 2 8 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	39 27 12 12 14 14 14 14 14 22 6 6 6 13 13 3 3 4 4 1 5 7 7 5 9 1 6 6 6 6 6 6 6 6 6 6 7 7 7 8 7 8 9 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25 19 6 6 14 14 14 14 14 14 14 18 8 2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	366 100 118 118 118 118 118 118 118 118 118	399 277 122 128 138 30 222 21 120 755 34 44 50 36 6 4 4 121 1 1 1 1 52 69 50 1 1 1 1 1 5 52 69 50 1 1 1 1 1 1 5 52 69 50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	344 266 88 100 1100 377 234 1 1 7 4 0 4 3 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	33 32 11 11 11 11 11 11 10 17 10 10 17 11 15 62 33 38 80 15 54 44 55 33 80 80 80 80 80 80 80 80 80 80	288 23 5 5 12 12 22 13 3 4 4 4 26 6 20 1 1 2 2 13 3 106 6 6 32 2 2 10 94 4 5 49 42 2 8 8 34 4 11 1 9 10 6 6 6 32 2 2 2 10 94 4 11 1 5 7 5 15 5 15 5 15 5 15 15 7 1 30 7 1 1 1 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	28 24 4 4 4 15 115 15 16 4 4 4 1 1 7 7 8 6 6 4 4 1 1 7 7 8 6 6 4 4 1 1 7 7 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	244 4 144 1144 1142 29 5 5 1 122 788 44 31 1 112 5 4 4 4 31 11 12 2 5 4 4 4 31 11 12 2 5 4 4 4 3 3 2 9 9 5 5 5 4 4 4 1 1 2 2 5 5 7 7 7 1 3 3 3 3 8 4 3 1 1 1 1 2 2 5 1 1 1 1 1 1 1 1 1 1 1 1 1	29 13 16 16 12 11 21 12 11 12 11 12 10 6 6 3 3 3 4 4 4 5 5 5 0 0 1 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1	236 1677 1441422133 9 1 2 2 2 4 777 556 200 1 5 6 6 6 9 177 4 8 8 1 4 5 7 3 8 8 1 0 7 7 4 2 5 8 1 1 0 7 1 1 5 5 5 7 7 4 1 1 1 5 5 5 7 7 1 1 1 5 5 5 7 7 1 1 1 1

Table 3—Births (exclusive of Still-births) by Months, Classified as Rural and Urban, for Ontario by Counties, 1928—Continued

					.100,								
Province and Counties	Total						MON	THS					
Province and Counties		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Muskoka—Continued Bracebridge, t. Gravenhurst. Huntsville, t. Nipissing. Rural Urban. North Bay, c. Mattawa, t. Sturgeon Falls, t. Norfolk. Rural Urban. Simcoe, t. Northumberland Rural Urban. Campbellford, t. Cobourg, t. Ontario Rural. Urban. Oshawa, c. Uxbridge, t. Whitby, t. Oxford. Rural. Urban. Woodstock, c. Ingersoll, t. Tillsonburg, t. Parry Sound Rural Urban. Parry Sound, t. Peel. Rural Urban. Brampton, t. Peel. Rural Urban. Brampton, t. Peeth. Rural Urban. Brampton, t. Peeth. Rural Urban. Brampton, t. Peeth. Rural Urban. Brampton, t. Peth. Rural Urban. Fort Frances, t. Rainy River Rural Urban. Fort Frances, t. Rainy River Rural Urban. Anprior, t. Pembroke, t. Renfrew, Rural Urban. Arnprior, t. Pembroke, t. Renfrew, t. Russell Rural Urban. Arnprior, t. Pembroke, t. Renfrew, t. Rural Urban. Alliston, t. Barrie, t. Collingwood, t. Midland, t. Orillia, t. Penetanguishene, t.	79 40 79 1220 520 700 435 71 194 560 373 187 519 348 171 120 481 779 703 58 418 225 101 92 593 464 129 129 418 283 135 135 4548 401 566 24 67 811 253 558 731 8243 144 67 811 243 67 811 244 67 811 253 67 81 244 67 81 25 88 73 40 27 00 89 89 89 89 89 89 89 89 89 89 89 89 89	4 4 5 5 5 9 4 9 9 9 9 3 6 6 5 5 5 5 5 6 5 5 6 6 5 5 6 6 5 6 6 5 6 6 6 7 2 7 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3	6 3 4 4 120 466 74 41 12 121 151 15 15 15 15 15 15 15 15 15 15 15 1	7	7 2 2 5 5 1100 555 55 35 6 6 144 550 44 550 44 550 45 12 12 12 12 12 12 12 12 12 12 12 12 12	6 1 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6 6 6 100 1133 488 422 166 6 6 100 588 422 166 6 120 16 16 16 17 17 122 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17	9 4 4 7 7 115 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 6 3 3 102 3 5 5 6 7 6 1 7 1 5 9 4 5 7 1 5 9 4 1 2 1 1 8 8 6 5 1 9 9 1 2 1 3 3 3 3 4 3 5 3 3 2 2 8 5 6 7 1 1 8 6 7 7 1 1 8 6 7 7 1 1 1 8 6 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 4 4 7 7 8 9 4 9 4 9 3 4 4 5 5 5 7 4 9 9 8 4 5 5 9 2 2 2 3 7 3 2 0 0 9 8 4 5 5 4 1 1 4 4 9 3 0 3 1 3 3 2 0 4 6 4 4 4 5 5 5 7 6 9 1 8 8 6 6 6 1 3 1 3 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2	6 33 7 83 44 41 28 43 43 43 44 42 48 49 57 7 7 7 7 7 7 7 7 7 7 7 7 7	5 1 1 8 8 8 7 7 3 9 9 4 8 2 9 9 9 3 1 1 4 4 4 3 5 3 1 1 0 4 9 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	9 3 6 6 103 3 7 6 6 4 1 8 1 7 1 10 10 10 10 10 10 10 10 10 10 10 10 1

Table 3—Births (exclusive of Still-births) by Months, Classified as Rural and Urban, for Ontario by Counties, 1928—Continued

Province and Counties	Total						MON	NTHS					
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec
Stormont Rural Urban Cornwall, t Sudbury Rural Urban Capreol, t Chelmsford, t Copper Cliff, t Sudbury, Thunder Bay Rural Urban Fort William, c Port Arthur, c Temiskaming Rural Urban Cobalt, t Haileybury, t New Liskeard, t Victoria Rural Urban Corner Cobalt, t Haileybury, t New Liskeard, t Victoria Rural Urban Clindsay, t Waterloo Rural	922 434 488 488 1479 844 6355 69 46 68 4533 1402 1222 664 558 896 587 309 103 700 136 473 473 473 473 476 476 477 476 476 476 476 476 476 476	72 35 37 37 109 61 48 9 2 2 9 2 8 108 108 45 47 7 8 3 3 0 14 1 4 8 9 1 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	66 28 38 38 118 66 52 40 138 16 122 64 58 70 39 31 11 13 14 27 77 77 77 71 124 366	70 34 36 36 36 131 75 56 5 4 4 4 31 104 18 8 8 9 9 19 12 12 12 12 13 15 16 16 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	86 388 488 481 322 73 59 88 42 1522 21 131 87 79 9 8 10 42 23 33 99 99 153 33 34	83 37 46 46 137 74 63 4 10 9 9 40 144 16 128 70 58 86 9 47 22 10 11 11 14 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	877 411 466 466 466 466 466 466 464 460 460 460	85 37 448 488 123 73 500 4 43 3 3 40 118 100 46 54 47 7 7 7 7 7 7 7 7 7 7 7 7 13 40 14 15 16 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	89 366 53 53 53 119 63 66 43 107 10 97 48 49 70 30 13 55 12 34 16 16 16 16 16 43 10 10 10 10 10 10 10 10 10 10	90 44 46 46 50 116 5 40 102 16 86 45 41 87 63 24 47 29 18 18 147 33	588 277 311 311 1155 72 433 89 477 422 855 588 277 111 6100 488 299 1496 355	58 311 27 27 27 104 44 3 5 100 26 106 13 93 53 3 40 66 20 3 3 7 10 10 10 10 10 10 10 10 10 10 10 10 10	77 44 33 33 13 66 66 41 10 11 99 44 55 66 44 11
Rural Urban. Galt, c. Kitchener, c. Elmira, t. Hespeler, t. Preston, t. Waterloo, t. Welland Rural Urban. Niagara Falls, c. Welland, c. Bridgeburg, t. Port Colborne, t. Thorold, t. Wellington Rural Urban. Guelph, c. Harriston, t.	453 1314 266 751 33 35 113 116 1642 1040 445 279 65 137 114 1098 647 451 362 14	31 116 25 59 99 1 3 17 11 139 43 96 34 6 14 87 54 33 31 11		35 125 23 68 4 4 17 170 63 107 38 55 14 15 91 48 43 33 33 33		45 113 266 566 1 140 132 45 87 42 22 4 111 97 57 40 33 33 2	40 100 19 63 1 2 9 6 119 50 69 24 20 8 8 9 9 55 42 33 33 32	43 107 234 44 55 47 7139 566 833 366 19 41 12 114 722 288	46 115 27 65 3 3 6 6 11 164 66 98 45 23 7 13 100 101 57 44 355	33 114 19 72 3 3 3 6 6 11 142 52 90 36 25 7 14 42 36 27 27	35 111 177 65 6 2 10 11 120 41 79 47 13 4 6 9 88 55 33 26 6	36 112 25 65 2 1 7 12 131 46 85 43 19 6 7 10 74 48 26 23	3 9 1 1 1 1 2 3 3 3 2 2 1
Mount Forest, t Palmerston, t Wenworth Rural Urban Hamilton, c Dundas, t York Rural Urban Toronto, c Aurora, t Mimico, t Newmarket, t New Toronto, t Weston, t	42 33 3436 367 3079 3007 62 15635 2856 12779 12342 29 109 103 65	1 304 25 279 270 9 1240 219 1021 983 3 9 8	31 261 255 6 1179 203 976 943 1 11 8	1093 1 15 8	5 270 28 242 240 2 1211 231 980 943 3 8 6 13	6 1387 257 1130 1090 2 8	33 265 260 5 1353 240 1113 1072 2 17	30 260 257 3 1365 254 1111 1076 1 11 10 9	36 269 265 4 1333 249 1084 1049 6 8 7	230 222 8 1315 244 1071 1031 3 9 15	5 1 2788 366 242 237 5 1280 2477 1033 1992 3 16 111 6 5	1 1 261 29 232 227 5 1248 226 1022 985 1 8 10 14 4	26 23 23 132 21 11: 108

Table 4—Total Births (exclusive of Still-births) and Births in Public Institutions, Showing the Number of Mothers Non-Resident in the Province of Ontario, 1928.

	ALL F	BIRTHS	IN PUBLIC 1	NSTITUTIONS
	Total	Births to mothers non-resident in province	Total	Births to mothers non-resident in province
Total in Province	68,510	698	20,768	467

Table 5—Births (exclusive of Still-births) to Resident and Non-Resident Mothers, and Births in Public Institutions, in the Cities and Towns of Ontario of 5,000 Population and over, 1928.

		ALL	Births		Birt		UBLIC IN	STITU-			EWHERE INSTITU	
Cities and towns	Total	To resi- dent	or tow birth of who	ers non- in city n where ccurred, were	Total	To resi- dent	resident or town birth of who	in city in city where curred, were	Total	To resi- dent	resident or town birth oc who	
		moth- ers	Resident in province	Non- resi- dent in prov- ince		moth- ers	Resident in province	Non- resi- dent in prov- ince		moth- ers	Resi- dent in prov- ince	Non- resi- dent in prov- ince
Cities: Belleville. Brantford. Chatham Fort William Galt. Guelph. Hamilton Kingston. Kitchener London. Niagara Falls. North Bay Oshawa Ottawa. Owen Sound. Peterborough Port Arthur St. Catharines St. Thomas Sarnia. Sault Ste. Marie. Stratford Toronto Welland. Windsor. Woodstock Towns: Barrie. Brockville Cobourg. Collingwood.	576 7511 1438 445 435 703 3003 3688 558 570 341 426 627 401 12342 279 1681 225 1699 217 121 95	662 1227 399 380 628 2471 268 437 429 496 277 360 561 11562 238 1479 160	103 95 191 179 52 247 1479 195 35 54 71 347 70 61 55 60 75 690 39 167 62 62 62 62 62 62 62 62 62 62 62 62 62	66 991 11 12 177 166 161 111 14 185 12 2 4 3 3 111 6 5 90 90 2 2 35 3 3	2222 4122 30p 280 131 174 1488 373 3897 1200 1737 209 428 3300 226 165 2100 6522 766 662 2100 6522 766 662 2100 6522 766 662 2100 652 2100 652 2100 652 762 763 764 775 775 775 775 775 775 775 775 775 77	118 318 318 318 318 3216 80 1166 1258 211 1203 704 81 73 238 1244 118 1307 2222 1699 123 138 5826 39 476 69 41 114 32 21 165 165 165 165 165 165 165 165 165 16	1000 877 1811 644 511 588 2199 1500 788 1799 324 299 324 1066 555 588 500 377 688 623 366 153 599 599 259 259 259 259 259 259 259 259	1100 1111222 1447 133169 22117 7311333 22117 73312 144733 16992 1722 1733 1734	149 299 185 384 135 1888 1519 203 468 541 325 332 403 1266 159 130 228 344 145 220 462 203 1019 95 73 403 403 468 217	144 289 174 368 132 184 1485 190 459 523 318 307 390 1227 140 207 140 211 1438 183 5736 190 91	3 8 8 100 115 11 44 288 25 122 33 25 122 33 5 23 3 7 7 7 7 7 7 7 7 7 7 7 7 2 1 1 1 1 1 1 1	2 2 1 1 2 2
												1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Table 6—Births (exclusive of Still-births) Classified as Legitimate or Illegitimate and as Single or Plural by Sex, for Cities and Towns of 5,000 and over, 1928—Ontario

	Total	7	
Triplets	F.	15	
	M.	9	
hs	Total	722	21. 21. 21. 22.22.20.24.20.00.20.20.20.20.20.20.20.20.20.20.20.
Twin Births	F.	716	11.00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
T	M.	728	464 464 464 464 464 464 464 464 464 464
ths	Total	67,045	2,2083 1,654-1 1,65
Single Births	н.	32,480	1,383 1,
Sin	M.	34,565	2.5.2. 2.5.4. 2.5.4. 2.5.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5. 2.5.
te	Total	2,170	821-7-2-4-17-2-4-17-17-17-17-17-17-17-17-17-17-17-17-17-
Illegitimate	Ţ,	1,061	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
H	Ä.	1,109	86.842 86.842 86.840 86
9	Total	32,150 66,340	11.2 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5
Legitimate	正.		1.3.53.3 1.3.18.3 1.3
7	M.	34,190	2014.1 10.5.0 80.80 80 80.80 80 80 80 80 80 80 80 80 80 80 80 80 8
ths	Total	68,510	2.042 3.003 1.633 1.633 7.11 7.11 7.11 7.11 7.11 7.11 7.11 7.
Total Births	F.	33,211	1.4.2.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.
To	M.	35,299	4.84.94.94.94.94.94.94.94.94.94.94.94.94.94
Province, Cities and Towns		Ontario	Cities and towns of 5,000 and over— Toronto. Toronto. I Hamilton I Hamilton I London Windsor Kingston Sault Ste. Marie Petrobrough F. Catharines Catharines Sault Ste. Marie Petrobrough Sault Ste. Marie Petrobrough St. Titoma Over Soluti Belleville Owen Solut Worlth Bay North Bay N

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831	97	30	09	87	93	23	03	33	48	426	53
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831	54	19	26	94	46	28	20	61	7.5	196	23
101	47	74	36	06	44	63	49	74	89	224	30
851	0.10	35	62	80	93	29	0.5	37	8	132	53
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101	4	74	36	76	4	9	25	1/2	9	230	3(
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Table 7—Births (exclusive of Still-births)

Age of Father	Total																AGI	E OI
rige of Tather	Total	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	2
nder 16 years																		
5	1 10	• •			1	3	3		1 2									
3	107				4	7	15 47	35 86	13 89	17	6 25		1 5	1 2	5	1		
9	335 658				3 8	16 22	57	115	132	121	75					4	1	
1	1212			1	5	27	71	162	217	231	207		73	47		14	13	
3	1653 2140	٠.		1	3	15 18	68 70	145 126	264 250	258 314	277 350	238	170 291	175		28 51	16 36	
1	2663				2	14	55	107	225	314	345	394	348	388	173	106	86	2
5	2885 3086			i	5	7 11	40 23	103	158 152	242 229	302	389 329	439 348	356 422		192 356	113	8
5	3321				1	9	26	83	89	164	248	315	367	373	388	365	346	22
3	3719					5 6	25 21	57 30	88 71	128 99	203 163	273	314 248	435 286		413 356	405 369	
9	3403 3492	: :			1 3	3	13	33	44	104	116	145	207	291	300	322	328	
	3184					2	8	21	33	50	95	113	153	182		285	284	
2	3225 3083	٠ - ,	٠.		1	1	10 5	21 14	30 22	49 41	59 58	126 77	118 122	163 132	205 135	195 172	232 212	31 27
1	2899					1	5	3	24	30	40	61	78	161	126	140	171	23
5	2752					1	3	9	8 7	33 19	33 28	42 37	66 59	59 77	137	110	141 119	17
5	2627 2374				i		3		8	14	15	33	36	44	58	81	112	12
8	2585					1		6	4	7	19	33	38	60	46	61	76	13
0	2167 2071	٠.	٠.			2	1 3	2	5 5	7 7	11 6	25 17	35 18	24 33	51 40	46 57	45 54	9:
1	1503						1	2		7	6	11	13	15	17	20	42	4
2	1572					1		2	3	5 5	6 7	6 10	14 6	22 8	18 13	28 12	37	30
3	1287 1014								2	4	5	4	4	7	10	12	22 17	1
5	939							1	1	1	3	3	7	11	7	8	15	2.
5	737 588		٠.						2	1 2	4	1 2	6	3	12	4	8 5	1
3	585						1	1		1		4	4	2	4	4	5	1
2	452 372	٠.						···i	1		1	2	4	3 2	3 6	6	1 9	
)	225				1					1	1		2		3	1	2	
2	212										1			3 2	2	1 2	1	
3	149 139	٠.					1	···i		· · · · i				1	1	1	3	
5	113													1	;		2	
5	86 71								1	1	1		• • • •	1 2	2	1	1	
7	50															1	2	
9	35									1								İ
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2	14]								1	1	
3	17 10								1			1	1					
4 5 and over	63								1			1	i			1	4	
ot stated	403							1	2	3	3	6	4	2	5	2	2	_ '
hildren born to married		-	_	-														
mothers	66,340			3	47	174	576	1239	1956	2551	2992	3390	3629	3901	3704	3604	3513	3880
hildren born to unmarried	2,170		4	16	56	119	197	233	233	216	173	157	136	86	73	57	47	61
hildren born to all mothers	68,510			19	103	293		1472										

Classified According to Ages of Parents, 1928—Ontario

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29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50 and over	Not stat- ed
2 4 4 1 1 5 2 6 6 7 7 7 1 2 6 6 7 7 7 1 2 6 6 7 7 7 1 2 6 7 7 1 2 6 7 7 7 1 2 6 7 7 7 1 2 6 7 7 7 1 2 6 7 7 7 1 2 6 7 7 7 1 2	1 1 2 2 3 3 3 8 8 2 9 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10	29 63 61 112 177 323	7	5 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9	5	2 2 4 8 7 7 8 8 9 7 7 194 1725 1422 1188 97 62 600 666 39 31 32 166 13 31 12	233 5577 7559 60211 22639 600 1833 1900 1922 1455 1200 1200 1044 588 566 422 644 300 25	2 11 5 2 14 10 18 22 27 52 67 95	3 4 3 5	5	22 33 22 44 11 11 55 200 28 86 99 72 27 55 73 33 35 00 21 33 31 00 01 00 88 44 42 22 33 35 00 21 31 20 21 21 21 21 21 21 21 21 21 21 21 21 21	3 1 3 4 3	22 27 77 144 99 1880 37 32 22 11 177 63 3 2 2 2 2 1 177 63 3 3 2 2 2 2 1 177 63 3 3 2 2 2 2 1 177 64 3 3 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	11 33 29 77 5 5 99 66 33 22 44 41 11 11 11 11 11 11 11 11 11 11 11	22 33 11 11 14 41 11 11 14 22 22 33 31 11 11 44 31 12 12 13 14 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	11 11 11 13 31 17 77 77 44 11 33 44 33 	11 11 12 11 13 32 21 11 11 12 11 11 11 11 11 11 11 11 11	1 4 4 3	1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	i	
3205 3 32	417	29 4 5	3009 22	2663 18	2559 18	2239 18	2041	1694 12	19Q5 17	1335	1190	791	661	499	274	164	61	35	21	8	2	463 63

Table 8-Births (exclusive of Still-births) Classified According to Racial Origin of Parents, 1928-Ontario

		Racial Origin of Father	English Irish Soctoh Welsh Welsh Welsh Welsh Welsh Armenjan Austrian Bulgarian Bulgarian Czech and Slovak Danish Finutch Finut	Children born to married mothersM
			ovak aat	married M
		Total	25229 109688 310 8520 1922 202 405 405 83 7757 787 179 89 179 89 179 89 170 89 170 89 170 89 170 170 89 170 170 89 170 170 170 170 170 170 170 170 170 170	66340 34190 32150
		Haglish	28534 28614 2871 131 111 11 12 2 2 2 2 2 2 1 1 1 1 1 1	25912 13398 12514
		Irish	2233	10342 5322 5020
		Scotch	272.5 273.6 273.6 273.6 273.6 273.6 274.7 275.6 276.6 27	2 9719 2 5058 0 4661
		Welsh.	8,000,000,000,000,000,000,000,000,000,0	276 138 138
		Етепсһ	648 667 319 319 77 77 77 77 77 77 77 77 77 77 77 77 77	8923 4579 4344
		Armenian		45 26 19
		Austrian Belgian	88	201 102 199
		Bulgarian	8 - 2 - 8 - 2 8	196 2 107 89 1
		Chinese		22 25 7 12 15 13
		Czech and Slovak	<u> </u>	5 139 2 72 3 67
		Danish	000 : :- 0 : : :	61 31 30
	RA	Dutch	1103 1103 1103 1103 1103 1103 1103 1103	683 361 322
	RACIAL ORIGIN OF	dsinnia	100 8 8 8 8 100 100 100 100 100 100 100	464 3 242 1. 222 1.
	L 01	Сеттап	23.73.73.73.73.73.73.73.73.73.73.73.73.73	3052 1 1555 1497
	RIGI	Greek	<u> </u>	106 55 51
	0	nbniH nsirisgnuH		 810 80 80 80
		Icelandic	00 · · · · · · · · · · · · · · · · · ·	189 104 85
	MOTHER	nsibnl	20 10 10 10 10 10 10 10 10 10 10 10 10 10	8 525 3 263 5 262
	IER	nsilstl	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1336 704 632
		Japanese	Ω + 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	12 20 50
		Jewish	88.5	876 445 431
		Negro		127 68 59
		Norwegian Polish	31.1 3.1 3.2 3.2 3.1 1.1 2.1 1.	83 791 37 366 46 425
		Kumanian	101	11 125 10 70 15 55
		Russian	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 204 0 103 5 101
		Serb and Croat	1	1115 3 59 1 56
		Swedish	2 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	195 92 103
		ssiw2	0.0100000000000000000000000000000000000	64 39
		Syrian	73:	33 2 33 2 43 3 3
1		"ukranian"	20	591 290 301
		Other Not specified	8 3 3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	71 793 32 428 39 365
- 1		1	44.022222222222222222222222222222222222	20.00

4 103 1 53 3 50 75 896 33 481 42 415
2 8 4 4
4-6 25 2
11 11 8 8 8 8 8 901 301 309
77 61
390 : 22
004 44 004 44
18 13 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
125 205 70 104 55 101
15 11 4 377 70 429 55
2 15 2 11 3 11 39 377 46 429
111 0 0 5 2 74 64 64 64 64 64 64
2 2 2 3 4 4 4 7 2 4 4 3 3 4 4 4 7 2 4 4 3 3 4 4 4 7 2 4 4 3 3 4 4 7 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
88 . 42 . 46 . 46 . 305 3 305 5 308
7 3 3 108 88 88
2008 1112
010
103 47 56 3155 1602 1553
20 10 10 10 252 232
14 9 5 5 5 370 327
330
1 1 1 1 1 1 1 3 6 8
12 13
22 25 7 112 15 13
1107
45 203 26 104 19 99
302 163 139 4742 26 4483 19
7007 7502
338 180 158 6057 5238 4819
324 167 157 10666 5489 5177
100
781 380 401 401 5693 5778
222
2170 1100 106 106 106 106 106 106 106 106 1
1336 1336
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born to unothers
ied mothers
Children born to un- married mothers

Including "Galician" and "Bukovinian."

Table 9-Births (exclusive of Still-births) Classified

Parist Origin of Mathem	Total							1						,	AGI	E OF
Racial Origin of Mother	lotai	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
English Irish Irish Scotch Welsh French Armenian Austrian Belgian Bulgarian Chinese Czech and Slovak Danish Dutch Finnish German Greek Hindu Hungarian Icelandie Indian Italian Japanese Jewish Norwegian Polish Rumanian Russian Serb and Croat Swedish Swiss Syrian Ukrainian Uselandie Other Other	25,912 10,342 9,719 276 8,923 45 201 1196 22 25 5 1,336 61 683 464 3,052 1.06 189 8 876 1,336 1,25 1,336 1,25 1,25 1,25 1,25 1,25 1,25 1,25 1,25	1	23 4 2 2 111 111 111 111 111 111 111 111 1	72 188 122 13 39 13 14 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	218 800 54 3 3 999	508 166 61 344 12 15 11 145 15 11 11 45 15 11 11 45 11 11 11 11 11 11 11 11 11 11 11 11 11	8577 2227 2211 5 308 7 2 2 27 144 822 28 1 1 177 3 3 4 4 6 6 11 3 3 1 1 2 2 3 1 1 2 4 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1083 322 318 100 355 2 111 1 1 4 4 5 23 24 111 1 3 3 2 4 7 11 1 3 3 3 5 7 7 2 2 1 1 3 3 3 5 5 7 7 2 2 3 3 3 5 5 7 7 2 2 3 3 3 5 5 7 7 2 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 5 7 7 2 3 3 3 3 5 7 7 2 3 3 3 3 5 7 7 7 2 3 3 3 3 5 7 7 7 2 3 3 3 3 5 7 7 7 2 3 3 3 3 5 7 7 7 2 3 3 3 3 5 7 7 7 2 3 3 3 3 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3 12 8 1 2 5 4 34 24 128 8	3 4 31 25 152 8 14	14499 4822 4999 5488 2 155 7 311 40 409 1700 6 6 9 9 1299 6 37 7 8 42 7 7 18 48 42 7 7 18 18 18 18 18 18 18 18 18 18 18 18 18	10 17 2 12 2 49 36	38 36 176 5 7	455 3 4 11 2 17 4 32 32 173 9 16 1 15	567 496 122 463 2 100 122 3 111 313 344 120 3	615 605 21 474 1 16 13 3 13 8 8 36 22 177 9 10
Total	66,340	3	47	174	576	1239	1956	2551	2992	3390	3629	3901	3704	3604	3513	3880

^{*}Including "Galician" and "Bukovinian."

According to Age and Racial Origin of Married Mothers, 1928-Ontario

MOTHER

MO1				[[1	1			-		50	Not
29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	and over	stat- ed-
1258 541 509	1369 598 518	1207 497 471	1162 511 499	990 450 425	979 453 416	853 404	750 370		693 319 301	460 239	407 229 178	288 142	250 118	173 83	90 49		24	12	7 3	3		43 22
15 382	15 395 3	11 332 1	16 382 3	11 380	13 323	356 9 262 3	13 257	247 11 239	8 243 2	226 7 181	178 3 167	118 5 124	92 6 89	81 5 74	43 1 56	30	11 1 6	6	6	2		22 1 45
13	9 15 3	6 11 1	12 2	8 7 1	10 2	3 3 1	8	6 5 2	11	1 1	5 4	2	2 3	1 3	1 4	2					1 	2
6	1 6 1	3	7 2 33	1 5 2	5	6 5 2 28	1	1 2 1	3	· · · · · · · · · · · · · · · · · · ·	5	1 i	1 1	2								1
6 29 26 141	34 18 141	31 12 128	15 143	25 10 142	19 8 111	20 95	17 8 120	14 6 86	24 13 93	14 6 87	13 7 60	12 3 40	10 1 36	7 1 25	4 3 11	2 17	 1 4	· · · · · i	2	····i		5
8	8	13	9	10	3	7	3	2	6	3	<u>1</u>	<u>i</u>	1			1						5
21 67	24 66	15 65	15 45	10 44	1 17 51	12 58	11 48	11 31	15 40	6 31	28 1	13	 5 9	3	1 2	1 4	2	1 2	<u>í</u>		····i	60 15
42 6 5 34	51 10 4	26 5 1	35 6 3	32	28 4 1	24	15	15 3 2	25 4	13	10 2	1 4	5	2	1	1 1	2	1				11 2
34 6 8	39 4 8	22 5 6	30 8 6	31 9	33 7 8	21 2 6	23 12 3	10 1 5	26 5 12	14 5 6	16	5 1 2	6 1 1	7	2	1	1	2	1			16
5 15 3	4 7 6	1 11 2	6 4 2	12 2 2 5	12 1	4 6 2	1 3 2	6 6 2	3	2 3 1	1 4		₂	1		i	1					1
6 8 5 15 3 8 8	18 6	1 19 1	20 2	1 16 3	3 14 3	2 2 15 4	20 1	11 11	18 2	3 15 1	9	1 6 1	1 8 1	2	i	····i		i				2 3
	21 3417	26 2945	26 3009	20 2663	25 2559	20 2239	22 20-41	22 1694	1905	1335	1190	791	661	10 499	274	164	61	35	21	8	2	193

Table 10—Births (exclusive of Still-births),

													I	BIRT	HPL.	ACI
						Ca	anada	1					Brit	ish Is	les	
Birthplace of Father	Total	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Province not specified	England	Ireland	Scotland	Wales	Other
Prince Edward Island. Prince Edward Island. Nova Scotia. New Brunswick. Ouebec. Ontario. Manitoba Saskatchewan. Alberta. British Columbia. Province not specified. Bitish Isles. England. Ireland. Scotland. Wales. Other. British Possessions. Newfoundland. Other. Durope. Anstria. Belgium. Denmark. Finland. France. Germany. Holland. Hungary. Italy. Norway. Poland. Rumania† Russia; Sweden. Other. Asia. China. Japan. Other. Jaropo. Japan. Other. Asia. Japan. Other. Jaropo. Japan. Other. Jaropo. Japan. Other. Jaropo. Japan. Other. Japan. Jotspecified.	44785 67 353 373 3192 39615 59616 13076 8552 1346 2920 227 31 390 201 189 5865 290 196 63 33 144 133 189 1393 141 1778 8 141 1794 277	29 10 4 3 1 1 10 1 1 4 4 4 4 2 2 2 2	2188 6 95 8 8 95 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 14 88 14	27264 4 1166 27 14644 11197 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	34290 24 146 24 1385 32351 136 36 20 27 3819 2721 348 675 64 41 11 13 29 52 20 65 21 41 177 16 64 21 66 28 50 21 16 61 11 1041 88 88	2555 3 4 4 2 2 1 100 1833 446 3 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	105 1 4 94 4 2 2 8 1 2 2 1 1 6 2 2 3 7 5 5	43 4 36 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 2 602 290	5070	3	8822 4 7 7 4 4 2 3 3 1 1 5 2 2 2 2 2 2 1 6 1 1 1 4 8 6 6 6 7 9 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	511 500 1333 588 77 1188 500 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Children born to married mothers	66340	43	303	243	3087	39903	399	149	59	60	1019	3638	1172	3212	190	3
Children born to unma-ried mothers	2170 68510	1	14 317	6	127 3214	1345 41248	16 415	9 158	2	2	88	217	49	124 3336	5 195	3

^{*}Including Galicia. †Including Bukovina. ;Including the Ukraine.

Classified According to Birthplace of Parents, 1928—Ontario

OF MOTHER

Br Po	itish sses- ions							E	urope	2								Asia				
Newfoundland	Other	Austria	Belgium	Denmark	Finland	France	Germany	Holland	Hungary	Italy	Norway	Poland*	Rumaniat	Russia‡	Sweden	Other	China	Japan	Other	United States	Various	Not specified
511 444 433 339 1100 1100 1100 1100 1100 1100 110	1 1 1 30 36 1 1 1 1 1 30 4 4 4 5 5 1 1 1 1 1 1 2 2 2 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 4 2 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1711 1622 1100 11 11 11 11 11 11 11 11 11 11 11 1	33 33 33 33 33 33 33 33 33 33 33 33 33	233 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 111 1 1	555 20 500 20 11 30 77 31 11 31 35 56 	87 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4	180 2 2 3 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1104	35 2 27 3 4 4 4 4 8	1 255 44 1 1	1	11 188 2 2 3 3 9 9 5 1 1 3 3	744 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11 3900 22 11 3655 22 11 416	22 22 22 25	55 56	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			69 1 7 7 1 1 8 8 7 1 1 2 2 2 8 1 1 1 1 1 4 4 160 251
210	7 149	283	188	39	14 410	1 41	148	115	189	1110	49 49	16 1054	193	728 728	103	9 425	25	6	107	38 2099	25	43 294

Table 11-Births (exclusive of Still-births) Classified

																AGE	OF
Birthplace of Mother	Total	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Canada. Prince Edward Island. Nova Scotia. New Brunswick. Quebec. Ontario. Manitoba. Saskatchewan. Alberta. British Columbia. Province not specified. British less England. Ireland. Scotland. Wales. Other	45265 43 303 243 3087 39903 399 149 59 60 1019 13246 8638 1172 3212 1900 34	3	46 2 43 	165 15 144 2 1	472 1 2 26 421 6 6 2 1 7 7 44 32 10 2	1 69 870 13 8 3 7 33 113 80 7 24 1	7 4 67 1349 25 11 4 3 264 172 166 71 4	1 9 8 110 1689 33 166 7 5 372 242 242 34 91 5	2 19 15 114 1934 28 19 4 47 472 322 322 115 3	2084 42 13 1 2 64 614 411 51 144 6	2 19 14 168 2223 28 10 4 2 52 689 432 69 181	2 18 15 152 2344 30 6 8 5 75 7465 73 202 13 4	5 17 12 173 2185 17 10 4 7 63 754 4 453 67 218 14	2 17 15 162 2133 222 5 3 751 458 203 10 2	1 28 17 155 2045 12 6 6 4 43 768 518 63 180 7	14	20 14 147 1885 8 2 4 1 35 701 461 54 171 15
Other British Possessions. Newfoundland Other Europe. Austria Belgium Denmark Finland France. Germany Holland Hungary Italy Norway Poland* Rumania† Russia† Sweden Other Asia China Japan Other United States Various Not specified	349 207 1422 5006 281 187 39 396 43 142 114 183 1104 48 1038 1038 1137 20 1137 20 102 2061 2061 255 25			3	1 39 2 2 1 1 133 1 8 2 2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 1 2 2 6 3 3 4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1	100 33 77 1055 77 22 11 111 22 1 1 300 4 4 119 4 1 1 1 4 1 1 1 4 1 1 1 1 1 1	64 4227 1777 111 8 22 155 	9772221661771002216667766399225244299112337722	20 13 7 275 14 5 2	144 9 556 2866 166 7 7 3 3 311 2 6 6 3 3 9 5 6 4 4 5 5 14 4 4 5 9 2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 7 8 7 8	20 166 4 343 13 13 166 2 2 266 4 4 13 8 8 4 4 6 1 4 8 4 5 5 3 3 1 7 7 7 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	19 14 5 292216 8 8 3 3 5 5 5 9 9 5 3 4 7 7 1 8 4 7 7 5 2 8 1 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	188 100 888 2888 66 100 33 299 1 166 77 177 661 5 433 100 466 8 8 366 7 7 11 1 1 1 1 1 1	9 274 12	14 8 6	244 133 111 2444 9 111 5 255 8 7 7 4 4 133 9 9 28 7 7 158 8 7 7 158 8 7 7 158 8 7 7 158 158 158 158 158 158 158 158 158 158
Total	66340	3	47	174	576	1239	1956	2551	2992	3390	3629	3901	3704	3604	3513	3880	3205

^{*}Including Galicia. †Including Bukovina. ‡Including the Ufkraine.

According to Age and Birthplace of Married Mothers, 1928—Ontarlo

MO:	THE	R																			
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50 and over	Not stat- ed
2272 62 115 155 2021 166 21 43 745 67 67 158 12 14 256 14 256 11 18 22 4 4 7,7 8 8 3 3 6 9 9 9 9 12 11 11 11 11 11 11 11 11 11 11 11 11	1 1 1 3 1 4 4 1 1 2 6 6 6 1 7 7 7 7 6 6 1 1 1 9 4 1 6 6 3 1 1 1 9 4 1 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2038 33 268 8 1433 1805 9 2 2 1 1 1	1747 64 1448 1511 133 41 615 52 159 111 22 159 111 22 133 3196 100 6 22 9 9 11 13 38 22 15 11 13 13 13 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	13 8 119 1513 9	11 5 10,3 1284 11 5	24 45 1033 12000 10 22 388 1077 88 1188 88 1077 161 161 161 161 161 161 161 161 161 1	111 107 1015 1015 1015 1015 1015 1015 10	8 5 5 1109 100 2 1 1 300 402 2 2 1 1 1 1 1 3 3 8 8 8 8 8 8 8 1 8 5 1 1 1 1 1 1 3 3 8 8 8 8 9 7 7 7 9 9 7 7 1 6 6 4 6 4 6 4 6 2 2 2 2 2 2 2 2 2 2 2 2	1 2 2 2 2 2 9 0 1 7 8 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 4 4 8 1 5 3 3 4 8 1 1 1 7 7 2 2 5 5 1 1 3 1 1 1 7 7 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1	3	1 22	1988 111266 1655 2 2 3 533 411 3 8 1 1 2 2 2 155 2 4 4 3 3 2 2 2 2 5 3			1	1 1 3 3 2 1 1	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 1	191 141 160 11 12 499 30 7 12 251 41 11 14 12 10 15 15 153
3417	2945	3009	2663	2559	2239	2041	1694	1905	1335	1190	791	661	499	274	164	61	35	21	8	2	463

Table 12-Marriages in Ontario by Months, 1928

							MON	ITHS					
		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total for Province	25,728	1,397	1,448	1,286	1,928	1,577	3,673	2,092	2,116	3,443	2,491	2,214	2,063

Table 13-Marriages-Conjugal Condition of Contracting Parties, Ontario, 1928

			N	IARI	RIAGE	S BI	ETW:	EEN				cent			cent Bride	
	Total mar-	Bachelors and				Widowers and			ivorce en an			io we			10 W	
	riages	Spinsters	Widows	Divorced	Spinsters	Widows	Divorced	Spinsters	Widows	Divorced	Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced
Total for Province	25,728	22,750	615	106	1,230	802	32	152	29	12	91.2	8.0	0 8	93.8	5.6	0.6

Table 14—Marriages reported in Rural and Urban parts of Counties, Ontario, 1928

COUNTIES	Total	Rural	Urban	COUNTIES	Total	Rural	Urban
Ontario . Addington . Algoma . Brant . Bruce . Carleton . Cochrane . Dufferin . Dundas . Durham . Elgin . Essex . Frontenac . Glengarry . Grenville . Grey . Haldimand . Haliburton . Hastings . Huron . Kenora . Kent . Lambton . Lanark . Leeds . Lennox . Lincoln .		5,960 41 92 67 1688 119 1666 61 84 655 116 157 96 61 60 207 102 227 100 108 128 138 148 159 100 100 100 100 100 100 100 100 100 10	19,768	Manitoulin Middlesex Muskoka Nipissing Norfolk Northumberland Ontario Oxford Parry Sound Peel Perth Peterborough Prescott Prince Edward Rainy River Renfrew Russell Simcoe Stormont Sudbury Thunder Bay Timiskaming Victoria Waterloo Welland Wellington Wentworth	577 899 128 299 174 201 1446 295 142 162 327 330 180 97 73 33 335 107 476 256 293 513	577 1566 433 866 1166 122 1355 1111 1077 115 933 1233 111 1644 833 1922 566 71 100 141 144 132	743 85 213 311 184 51 55 212 237 57 36 66 2171 24 284 200 199 495 100 75 613 55 100 73 613 72 73 73 74 75 75 75 75 75 75 75 75 75 75 75 75 75

Table 15-Marriages-Ages of Bridegrooms and Brides, 1928-Ontario

1	Not stat- ed	2 7 7 7 7 7 7 7 7 7
-	and s	27-12 - 21
-	07 47	
	100	500000000000000000000000000000000000000
1-	9 3	88 : 2 252327. 2
	55	
-	54	
	49	
-	484	
1-	474	
-	1464	
-	45	
-	444	** ** ** ** ** ** ** **
-	434	
-	424	11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
1-		
_	4	25 1 1 1 1 1 1 2 2 2 2 1 2 2 2 2 2 2 2 2
	40	
1	39	
	38	
		104000 00 10 10 440 0 0 0 0 0 1 1 1 1 1
	37	
1	36	: : : : : : : : : : : : : : : : : :
].		1 : 1 : 1 : 1 : 1 : 2 : 2 : 2 : 2 : 2 :
E	35	
BRIDE	34	
	33	
OF	32	::1011 : \$2.1221020202011 :
<u>ы</u>		
AGE	31	
	30	2221-44-8004182348204048821100448204110044821100410041041104104104104104104104104104
	29	0005
		88 35 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	28	= = = = = = = = = = = = = = = = = =
	27	0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
	26	11.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
	25	1454 1454
	- 7	
	24	100 110 110 110 110 110 110 110 110 110
	23	10.2
		11. 12. 23. 13. 14. 24. 24. 26. 26. 26. 26. 26. 26. 26. 26. 26. 26
	22	27-11-12-22-22-22-22-22-22-22-22-22-22-22-
		11.149 11.149 11.179 10.00 10.
	2	
	20	22 22 22 22 22 22 22 22 22 22 22 22 22
	19	0.83.78.88.88.89.80.00.00.00.00.00.00.00.00.00.00.00.00.
		22 22 22 22 22 22 22 22 22 22 22 22 22
	7 18	88 123 123 123 123 123 123 123 123 123 123
	6 17	00180044888001 0018004488001 444001101800000000000000000000000000000
	1-10 1 16	111 19 0 0 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Un- der 16	
	Total grooms	240 600 600 600 600 1054 11054
	Togro	
		Und'ris 198 198 198 220 220 220 221 224 224 224 224 225 226 227 228 229 230 231 231 232 332 335 336 44 44 44 44 45 46 47 48 48 48 48 48 48 48 48 48 48
	Age of Bride- groom	D1
	< 30 m	8

Table 16-Marriages-Denominations of Contracting Parties, 1928-Ontario

Not stated	200
Other sects	8 11: 6: 5: 7: 3: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1:
No religion	4 : 4
Oriental religions	
United Church	310 310 310 55 55 57 57 57 57 57 57 57 57 57 57 57
United Brethren	
Unitarians	7
Salvation Army	
Roman Catholics	3000 53 63 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Protestants	3002
Presbyterians	0100 122 147 111 111 122 147 148 148 155 1188 1188 1188 1188 1188 11
Pentecostal	
Mormons	
Mennonites	22
Lutherans	
	200
	33.
	101
	104
	36 10 10 10 10 10 10 10 1
	52 2 3 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3
Brethren	
Baptists	23 644 645 71 117 1176
sneoilgnA	231 231 33293 34 35293 35 36 36 37 37 37 37 37 37 37 37 37 37 37 37 37
Adventists	
Total	5,542 1,404 1,404 5,542 3,52 2,23 1,51 1,51 1,51 1,81 1,81 1,91 1,91 1,91 1,91 1,91 1,9
DENOMINATION OF GROOM.	Adventists Anglicans Baptists Baptists Baptists Christian Science Church of Christ Congregationalists Disciples Evangelicals Friends Greek Catholics Friends F
	Adventists Anglicans Anglicans Baptists Christian Science Christian Science Church of Christ Congregationalists Disciples Evangelicals Disciples Creek Catholics Greek Catholics Holiness Movement Jews Alonnonites Mormons Pentecostal Perek Orthodox Jown United Brethren United Brethren United Brethren United Brethren United Brethren United Brethren

Table 17-Marriages-Birthplace of Bridegrooms and Brides, 1928-Ontario

-1		1	Not specified	2 :::== ::::::::::::::::::::::::::::::
			Various	2 2
			United States	23.3.3.7.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2
			Other	7
		Asia	Japan	F:::-:::::::::::::::::::::::::::::::::
		Ø,	China	- : :- : : : : : : : : : : : : : : : :
			Оґћег	n −w − 44 · · · · 4−− · · · 0 − 0 · · 0 w 4 · ∞
			Sweden	м
			‡sissu Я	207 207 32 32 33 35 35 36 37 37 37 37 37
			Rumania†	1
			Poland	486 88 88 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
			Norway	0
			Italy	4
-		Europe	Hungary	88
		Eu	Holland	4
			Сегтапу	7 : : : : : : : : : : : : : : : : : : :
	ы		Fтапсе	о о мене
	BRIDE		Finland	22 23 4 11 22 23 34 11 25 25 34 11 12 14 14 14 14 14 14 14 14 14 14 14 14 14
	BF		Denmark	4
	0F		Belgium .	© : : : : : : : : : : : : : : : : : : :
	4CE		Austria	7
	HPL,	sh es-	Other	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	BIRTHPLACE	British Posses- sions	Newfoundland	23 23 141 23 23 25 25 23 23 23 24 24 24 24 24 24 24 24 24 24 24 24 24
	щ		Other	
		les	Wales	468 200 200 200 200 200 200 200 20
		British Isles	Scotland	ਜੇ ::::::::::::::::::::::::::::::::::::
		Briti	Ireland	8. 4. 4881
			England	1,271 1,111 1,159 1,150
ĺ			Province not specified	1410 1420 1420 1421 1421 1421 1421 1421
			British Columbia	25
			Saskatchewan Alberta	84
		ત્ર	Manitoba	2 . 2 . 2 . 2
		Canada	Ontario	2,600 8,800 500 500 1,881 1,881 1,881 1,000
1				
			New Brunswick	25
			Nova Scotia	2
			P. E. Island	Na : : : = : : : : : : : : : : : : : : :
			Total	16,529 144,817 14,617 134,817 134,817 134,817 134,817 14,617 16,48 1,648
			Ĕ	1 1
			Birthplace of	Canada. Prince Edw'd Island Nova Scotia Nowa Scotia New Brunswick. Quebec. Ontario. Maitioba Saskatchewan. Alberta. British. Columbia. Prov. not specified British Isles pecified England Scotland Scotland Colland Colubr. British Possessions Newfoundland Other Bustria. Belgium Denupe. Belgium Denu

Table 17-Marriages-Birthplace of Bridegrooms and Brides, 1928-Ontario-Continued

_						_
	1	1	behiseqs toV		15	
			Various		12	
			United States	10 to 124 00 1 1	865	
			Total Stores	0 0	22 86	
		6	Japan		2	
		Asia	China		4	
			Tedac		Ē	
			гочно		22 191	
			Aussiat		1	
			Rumaniat		72 237	
			Poland*		1 1	
			Norway		21 514	
			Italy		1	
		Europe	Hungary		86 145	
		Euı	Holland		20 8	
			Cermany		83 2	
	E		France		14 8	
	BIRTHPLACE OF BRIDE		Finland	17		
	F B		Denmark		34 313	
	0		Belgium		44 3	
	ACI		Austria			
	HPL	-	1	21 .14	61 122	
	RTI	British Posses- sions	Other			
	BI	Bri Pos Si	Newfoundland		99	
			Other			aine,
		les	Wales	2 1 1 4 4 0 4 4	8 81	Ukr
		h Is	Scotland	7	1,59	the
		British Isles	Ireland	100 : :	200	ing
		m	England	4 3 1 106	080	#Including the Ukraine.
1			Province notspecified	24	770 145 64 43 34 601 3,080 509 1,598 81	†In
			British Columbia	3 1 1 24 1 1 24	4 60	
			Alberta	::::=::	43 3	
			Saskatchewan	::::=::	9 64	a,
		ada	Manitoba	131951	114	Bukovina.
		Canada	Ontario	118 12 12 5 649 3	5.77(Buk
				0 1	-	
			New Brunswick	4 29	9 66	†Including
			Nova Scotia	5 4 29	2015	‡1n
			P. E. Island	62 26 34 138 5	3.1	
-			ra l	62 26 23 34 ,118	25,728 3 120 59 663	
l			Total		25,	_;
-] :	alicia
			of Is.		: (g
			lace	ates.	ides	ndin
			Birthplace of Bridegrooms.	China Japan Other nited Stat	al br	Including Galicia.
			Bri	Asia	Total brides	
1			l	As Ur		

Including the Ukraine. †Including Bukovina.

Table 18—Marriages—Literacy of Bridegrooms and Brides in Ontario, Classified by Birthplace, 1928

	В	ridegroom	15		Brides	
Birthplace	Total	Illiter- ate	Per cent. Illiter- ate	Total	Illiter- ate	Per cent. Illiter- ate
Total Canada Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia Province not specified British Isles	25,728 16,529 13 144 94 817 14,673 134 38 32 16 568	190 143 2 22 117 1	0.7 0.9 2.1 2.7 0.8 0.7 0.2	25,728 17,502 3 120 59 663 15,770 145 64 43 34 601	92 42 	2.0 2.9 0.2
England Ireland. Scotland Wales. Other. British Possessions. Newfoundland Other	3,478 648 1,364 88 2 • 129 65 64	3	0.1	3,080 509 1,598 81 127 66 61	1	8
Europe Austria Belgium Denmark Finland France Germany Holland Hungary Italy Norway Poland* Rumania† Russia‡ Sweden Other	2,303 118 49 54 272 15 87 37 91 257 32 532 113 321 73 252	39 6 4 2 1 10 6 7	1.7 5.1 	1,918 122 44 34 313 14 83 20 86 145 21 514 72 237 22 191	48 6 2 1 1 1 13 4 10	2.5 4.9 1.3 2.4 1.2 0.7 2.5 5.6 4.2
Asia. China. Japan. Other. United States. Various. Not specified.	62 26 2 34 1,118 2 5	5	0.4	28 4 2 22 865 5 15	1 1	3.6 25.0

^{*}Including Galicia.
†Including Bokovina.
‡Including the Ukraine.
§Less than one-tenth of one per cent.

Table 19—Deaths of Children under One Year (exclusive of Still-births) in Ontario, by Months, Classified as Rural and Urban by Counties, 1928

						М	ONTH	IS					
Province and Counties	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Ontario. Rural. Urban.	4,880 1,711 3,169	407 129 278	363 155 208	466 186 280	387 163 224	430 157 273	387 128 259	331 109 222	348 103 245	456 133 323	455 137 318	387 138 249	463 173 290
Addington Rural Algoma Rural	10 10 74 20	1 1 6	3 6 1	1 1	1 1 7 3	 6 4	10	5 1	10	1 1 7	⁷	5	4 4 4 2
Urban Sault Ste. Marie, c Blind River, t Thessalon, t.	54 38 13	6 3 3	5 2 3		4 2 1	2	8 6 2	4 	8 6 1 1	6 5 1	4 3 1	5 4	1 1
BrantRuralUrban	59 11 48	5	7	5 2 3	2	4	6	1 i	6 4 2	3 2 1	11 1 10	3	6 2 4
Brantford, c. Paris, t. Bruce. Rural	45 3 43 27	5 4 4	4 3	3 3 1	7 4	3	5 1 4 2	1 3	2 2 1	5 3	3 2	3 4 4	4 3
UrbanChesley, tKincardine, tSouthampton, t	16 8 3		1	2	3 1 1		2 1	3	1	2 1	1 i		1
Walkerton, t	3 2 393 40	30	 1 22 1	1 41 9	26 6	28	27 3	 26 2	53 4	46 1	33	25 4	36
Urban Ottawa, c Eastview, t Cochrane	353 320 33 193	25 23 2 20	21 20 1 12	32 31 1	20 17 3 16	25 25 12	24 23 1	24 19 5 12	49 43 6 20	45 39 6 31	33 30 3 11	21 21 25	34 29 5 14
Rural Urban Cochrane, t	115 78 17	10 10 2	5 7 1	7	10 6 3	7 5 1	5 7	6	10 10 3	19 12 3	5 6 2	22 3 1	5
Iroquois Falls, t. Timmins, t. Dufferin. Rural	57 14 8	8 3 1	4 2 2	1 1	3	4	7 1 1	5 1 1	7 2 2	9 2	4	î	4 1 1
Urban. Orangeville, t. Dundas. Rural.	6 6 18 18	2	2 2	1 1 2 2	1	3 3			1 1	2 1 1	3	2 2	4
Durham Rural Urban Bowmanville, t	37 23 14 8	6 3 3 2	4	2 2 1	1	7 5 2 1	3 1 2 2	2 1 1	4 3 1 1	1 1 1	1 1	3 2 1	2 2
Port Hope, t Elgin Rural Urban	32 20 12	1 1 1	2 1 1	1 5 3 2	1 1	1 4 2 2	3 2 1	2 2	2 1 1	3 1 2	1 3 2 1	1 3 2 1	3 2 1
St. Thomas, c. Aylmer, t. Essex Rural	12 257 62	23	21 6	24 7	17	25 7	22 4	18 7	13 3	18 1	25 8	15 4	36 4
Urban Windsor, c Amherstburg, t Essex, t	195 108 3 3	16 9	15 10 1	17 10 1	8	18 10 1	18 10	11	5	9	17 10 1	11 2	32 21
Ford City, t. Kingsville, t. Leamington, t. Riverside, t.	25 3 3 4	4	1	5	2	2 i	4 1	1 i	3	1 1 1	1	1	2 1
Sandwich, t. Walkerville, t. Frontenac. Rural	21 25 64 20	 6 2	 5 2	 8 2	2 1 3 1	3 1 4 2	1 1 6 3	1 4 7	1 4 1	1 4 4	2 3 4 1	2 5 6 3	3 5 7 3
Urban. Kingston, c. Glengarry Rural	44 44 34 21	4 4 1 1	3 3 3	6 6 6 4	2 2 6 3	2 2 4 3	3 3 1 1	7 7	3 1 1	4 4 3 2	3 3 2 1	3 3 2	4 4 5 2
Urban Alexandria, t Grenville. Rural	13 13 13 10			2 2 1 1	3 1 1	1 1 1	3 2	2 2		1	1 1 1 1	2 2 2 1	5 2 3 3 2 2
Urban. Prescott, t. Grey. Rural	3 70 39	· · · · · · · · · · · · · · · · · · ·	5 3	6 5	4 3	1 1 9 4	1 1 3 1	5 4	5 2	4 3	10	1 1 4	 8 6
Urban Owen Sound, c Durham, t Hanover, t	31 18 2 8 3	3 2	2 2	1	1	5 3	2 2	í	3 2 1	1	6 2	4 2 1	6 2 1 1
Meaford, t	3	i						i				1	

Table 19—Deaths of Children under One Year (exclusive of Still-births) in Ontario, by Months, Classified as Rural and Urban by Counties, 1928—Continued

							MON	THS					
Province and Counties	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	D
aldimand	29		3		5			ļ	1				
RuralUrban	19 10		2	1	4				1	1	1	3	
Dunnville, t	10		î		1	3	2					3	
aliburton	12 12		1		2 2	2 2			1 1	3 3	2 2	1	
Ruralalton	30	5	2	5	4	2	4		1	2	2		
Rural	20	4	2	3	2	1	3		;	2	2	;	
Urban Burlington, t	10	1		2	2	1	1		1			1	
Georgetown, t	3			2		1							
Milton, tOakville, t	2				2				1				
astings	97	11	10	10	8	11	10	i			8	6	
Rural	55 42	4 7	5 5	5	7	5 6	3 7		6 3		5 3	6	
UrbanBelleville, c	29	2		5	1	4		1			2		
Deseronto, t	3	1	2										
Trenton, turon.	10 35	4	3	3	3	2 4	8	3	1	1	1 1	3	
Rural	30	î	3	3	2	4	5	3			ī	3	
Urban	5				1		3			1			
Goderich, t	1				1								
Seaforth, t										;			
Wingham, t	28		2	7	2	2	3	3		2	3	3	
Rural	6			2			1	1			1		
Urban Dryden, t	22		2	5	2	2	2	2		2	2	3	
Keewatin, t													1::
Kenora, t	13		1	4	2	1	2	2		i	2	1	
ent	93	7	1	10	12	10		7	6	4	12	7	
Rural	37	1	1	4	7	5	4	1	2		3	4	
Urban Chatham. c	56 40	6		6	5	5 3	5 4	6	4 3		7	3 2	
Blenheim, t	2									1	1		
Dresden, t	3				1	1							
Tilbury, t	2				1							1	
Wallaceburg, t	7 67	2			4	1 3	1 5	5	1 5		1 10	9	
Rural	31	4	2	6	2	2	3	2	2		5	3	
Urban	36	3	5	3	2	1	2	3	3		5 5	6	
Sarnia, c Forést, t	30	3	4	2			2					5	
Forést, t	5		1	1	1			1	1				
nark Rural	44 19	5	2	8	3	1	5 2	3	2	5	3	1	
Urban	25	1	î	7	3	1	3	:	î	5	2		
Almonte, t. Carleton Place, t.	2 5		· · · · i	1	• • • • •		1		· · · · · i	····i	1		
Perth, t	7			1	2	1				2	1		
Smith's Falls, teds	11 45	1 3	3	4 2	1 8	4	2 4		5	2	3	4	
Rural	21	1	1	1	6	1	3	1	1		1	2	
Urban	24 17	2	2	1	2	3 2	1	• • • • •	4	3	2	2	
Brockville, t	1 7	i	1			1	1		1	1		1	ļ
nnox	10		2	2		2	1	1		1			
Rural Urban	3		2	2		2	· · · · i	· · · · i		1		: : : : :	ł
Napanee, t	3						1	1		1			
ncolnRural	12	7	1	3	1	3	5	4	5	3	6	1	
Urban	53	7	2	5	5	4	5	4	4	3	6	6	
St. Catharines, c	50 2	7	2	5	5	4	4	2 2	4	3	6	6	
Merritton, t]	
Niagara, t	1 14						1 1		···· _i	· · · · i	····i	2	٠.
anitoulinRural	14		2 2	1	1	1	1		1	1	1	2	
ddlesex	113	9	11	7	2	15	9	10	6	5	17	9	
Rural Urban	34 79	3	3	4 3	1	10	4 5	2 8	6	1 4	11	2 7	
London, c	76	5	8	3		10	5	8	6	$\hat{4}$	10	7	
Parkhill, t	3	· · · · ¡			· · · · i		• • • • • •				· · · · i		
uskoka	28	2	2		1	3	2	5 3 2	2	7	2	2	
Rural	18		2		1	2	1	3	1	5	1	2	

Table 19—Deaths of Children under One Year (exclusive of Still-births) in Ontario, by Months, Classified as Rural and Urban by Counties, 1928—Continued

							MON	THS					
Province and Counties	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	De
uskoka—Coniinued													-
Bracebridge, t	3	;						1		2			
Gravenhurst, t	2 5	1				1	1	· · · · · i	1		1		
Huntsville, t	105	7	10	14	9	7	8	5	6	15	10	7	
Rural	51	2	7	8			3	2	2	6	5	3	
Urban	54	5	3	6			5	3	4 1	9	5	4	
North Bay, C	29	3	2	2	3	3	4	1	1	3	2	2	
Mattawa, t Sturgeon Falls, t	20	2	1	4		1	1	1	2	2	3	2	
orfolk	32	3	3	2		3	5	3	2	2	2	4	
Rural	21	2	2	1	1	2	3	3	1	1	1	2	
Urban	11 11	1	1 1	1		1 1	2 2		1	1 1	1	2	
Simcoe, torthumberland	36		7	4	2	4	1	3	5	4	5	1	
Rural	26		5	3	2		1	3	2	3	3	1	
Urban	10		2	1		1			3	1	2		
Campbellford, t	3		2			1			3	1	2		
Cobourg, t	87	7	6	5	8		5	7	5	8	9	8	
Rural	36	4	4	3	4	1	3	1	2	3	4	3	
Urban	51	3	2	2		11	2	6	3	5 5	5	5 5	
Oshawa, c	48	2.	2	2	4	2	2	6	3	٥	3	3	1
Uxbridge, t	1	1											1::
ford	53	4	5	6	7	4	6	2	3	4	5	3	
Rural	21	1	4	1	5		2	2	2	;		2	
Urban	32	3	1	5 2		2 2	4 2		1	3	5	1	
Woodstock, c	14	1		2	1	2	2		1	1	2	1	
Tillsonburg, t	9	2	1	3	1						2		
rry Sound	35	3	4	3	6	6	2		1	3	2	2	
Rural	30	2	4	3	4	5	1	• • • • •	1	3	2	2	
Urban Parry Sound, t	5 5	1			2 2	1 1	1						
eel	28	4	5	1	2	4	5	2			3	1	
Rural	20	3	3	1	2	4	2	2			2		
Urban	8	1	2				3				1	1	
Brampton, t	8 35	1	2		6	2	3 5	2	2	3	5	1	
Rural	12		2	2	2	1	2		1	1	1		
Urban	23	1	2		4		3	2	1	2	4	1	
Stratford, c	19	1	2		4	1	3	1	1	2	2		1
Listowel, t								1					
Mitchell, t	3										2	1	
terborough	47	6	5	4		6	2	7	5	4	3	5	
Rural	17	4	1	1			2	4	3	1		1 1	
Urban	30 30	2 2	4	3		6		3	2 2	3	3	1	
escott	97	5	7	9	9	7	6	7	6	11	10		
Rural	70	1	7	8		6		4	4	8	5		3
Urban Hawkesbury, t	27	4		1	3	1	1	3	2 2	3 3	5	1 1	
Hawkesbury, t	22 5	3		1	3	1	1	1	2	3))	1	
Vankleek Hill, tince Edward	12	2		1	2	2		ı î		1	1		
Rural	9	2		1	2			1			1		
Urban	3					1 1				1 1			
Picton, t	3 26			3	1	1 1	2	3	1	1	5	1	
niny River	13	2	2	2	î	i	ĩ	1			2		
Urban	13	3		1			1	2		1	3		
Fort Frances, t	12	3		1			1	2	1	1	3		
Rainy River, t	100	8	11	10	7	7	5	6	11	11	11	4	
Rural	55	3	6		4	6	3	1	6	6	6	2 2	
Urban	45	5	5	4	. 3		2	5	5	5	5		2
Arnprior, t	3	5	1		2	1		4	4	3	1 3		
Pembroke, t	28 14		2 2	2 2	1		1 1	1	1 1	2	1		
Renfrew, t	57	3	4	1 6	5		4	6	3		3	4	1
Rural	46	2	2 2	6		6	3	5	2	5	2	4	1
Urban	11	1	2			1	1	1		3	1	1	1.
Rockland, t	11	13	13		9	11	1 8	1 6		3 7	1 8		
mcoeRural	103 49	15	5		7	6		1	2		3	4	1
Urban	54	8	8			5	6	5		4			
Alliston, t	2		1			1	2						
Barrie, t	10	2	2		1	1	2	3			2		
Collingwood, t	5 23 7 7	$\begin{vmatrix} 2\\4 \end{vmatrix}$	4	1	· · · · i	i		· · · · i	1	4		i i	
widiand, t	23	1	4	1		3		1	1	1	1		

Table 19—Deaths of Children under One Year (exclusive of Still-births) in Ontario, by Months, Classified as Rural and Urban by Counties, 1928—Continued

							MON	THS					
Province and Counties	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Stormont	102		8		7	8	4	5 3	8		9		9
Rural	45	5	3 5	3	3	4	2 2				4 5	2 2	3
Urban	57 57	8 8	5	3	4	4	2	2 2 9	5		5	2	6
Sudbury	149	10	8		8	13	17				16	4	19
Rural	81 68	7 3	3	10	5	9	10	5	5 11		10		11
Urban	7	2	2		1	1		*	1	1 1		1	
Chelmsford, t	3		1										1
Copper Cliff, t	5 53	1	2	1 3	2	3		4	2		6	1	1
Sudbury, t	98	7	10	5	11	8	3				12	7	1
Rural	11	1	2		1			2 7		2 7			
UrbanFort William, c	87 52	6 4	8 2	5	10	8 7	3	4			12	7 6	8
Port Arthur, c.	35	2	6	2	3	1	2	3	3	4	5	1	
Timiscaming	66 34	6 2	2	5	6	6	2	5 2			4	10 8	
RuralUrban	32	4	1	3	2	5	1	3	2		2	2	
Cobalt, t	13			1		2	1	2				. 2	3
Haileybury, t New Liskeard, t	11 8	3		2	2	1 2		1	1	1	2		
Victoria	26	2	4	2	3	5	2	2		2	1	1	1 2
Rural	16	2	2	1	1	3	2			2	1		1
UrbanLindsay, t	10 10		2 2	1	2:	2 2		2 2				1	
Waterloo	84	10	2	8	8	10	6	10	5	4	5	10	
Rural	18	2	1	1 7	2	1	1	1	2		2	2	2
Urban	66 18	8 2	1		6	9	5 3	9		3	3	8	4
Kitchener, c	35	6		5	2	4	1	5	3	1		5	3
Elmira, t	1									1 1			
Hespeler, t Preston, t	8			1	2	1	1	1				1	
Waterloo, t	3			1		1						1	
Welland	132 47	12	12 4	19 10	5	11	14	13		13	1	7 5	1.
Urban	85	9	8	9	3	9	10	7	5	8	6	2	9
Niagara Falls c	34	2 5	6	8	2	5 1	3		1 4		2	2	1
Welland, c Bridgeburg, t	26 4	3	1	1			4	2 2	4	1		2	
Port Colborne, t	13	1	1			1	1	2		2	1		
Thorold, t	61	1 4	7	4	1	2	2	1 8			1 7	3	
Rural	32	1	3	1	2	4	6	5	3		4	2	1
Urban	29	3	4	3	1	4	3	3	1		3	1	3
Guelph, c	27	3	4	3	1	4	3	1	1		3	1	3
Mount Forest, t	1							1					
Palmerston, t	1			31	. 17	10	'	1 14	13	28	21	19	
Wentworth	217 24	15	19	6	1/	10	6:	2	13	20	1	2	2-
Urban	193	15	16	25	16	9	4	12	12	26	20	17	2:
Hamilton, c Dundas, t	190	15	15	25	16	9	4	12	12	25	19 1	17	21
York	1,071	87	53	107	91	88	88	69	65	103	105	109	100
Rural	148	12	15	21	17	70	7	11	5	10 93	13 92	10 99	18
Urban Toronto, c	923 895	75 70	38 37	86 84	74 73	79 77	81 76	58 55	60 58		92 88	98	88
Aurora, t	1	1											
Mimico, t	6	1		1			1			1	1	1	
Newmarket, t	9		1	1	1	1	1	2	2		1		
Weston, t	9	3					2	1			2		1
	1											-	

Table 20—Total Deaths (exclusive of Still-births) and Deaths in Public Institutions of Children under One Year of Age, Showing the Number Non-Resident in the Province of Ontario, 1928

	All deaths under one year						In Public Institutions							
	Total				n-reside provin			Total		Non-resident in province				
	Total	М.	F.	Total	М.	F.	Total	м.	F.	Total	М.	F.		
Total in Province	4,880	2,735	2,145	27	15	12	1,551	872	679	23	14	9		

Table 21—Total Deaths (exclusive of Still-births) and Deaths in Public Institutions and Towns of 5,000

				ALL	DEA	THS U	NDER	ONE	YEAR	:				D	EATHS	
							Non-resident in City or Town where death occurred									
Cities and Towns		Total			Residents			Resident in province			Non-resident in province			Total		
	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F	
Cities: Belleville Brantford Chatham Fort William Galt Guelph Hamilton Kingston Kitchener London Niagara Falls North Bay Oshawa Owen Sound Peterborough Port Arthur St. Catharines St. Thomas Sarnia Sault Ste. Marie Stratford Toronto Welland Windsor Woodstock Towns: Barrie Barrie Brockville Cobourg Collingwood Cornwall Eastview Ford City Hawkesbury Ingersoll Kenora Lindsay Midland Orillia Pembroke Preston Smith's Falls Sudbury Trenton Walkerville Waterloo Brampton Dundas Fort Frances Leamington Mimico New Toronto New Toronto Port Colborne Renfrew Timmins Whitby	299 455 40 522 188 277 194 355 76 334 320 488 300 12 30 388 199 895 57 57 33 25 52 22 29 13 30 23 7 7 28 8 8 11 53 30 6 9 13 8 57 7 1	133 255 213 333 144 88 112 22 22 249 99 188 186 62 10 5 11 15 5 3 3 8 8 18 6 6 2 10 11 11 18 18 18 18 18 18 18 18 18 18 18	166 200 199 199 788 222 133 221 134 144 44 177 22 23 3 11 44 45 55 58 84 44 55 55 84 44 55 55 84 44 55 55 84 44 55 55 84 44 55 55 84 44 55 55 84 54 55 55 84 54 55 55 84 54 55 55 86 84 54 55 55 86 84 55 55 86 84 55 55 86 86 56 56 56 56 56 56 56 56 56 56 56 56 56	255 411 322 441 17 23 3175 322 322 41 42 27 284 41 42 27 288 838 11 22 888 83 32 51 21 88 9 9 9 18 86 61 10 10 10 10 10 10 10 10 10 10 10 10 10	100 244 133 166 200 422 177 174 462 234 113 155 332 577 100 135 25 177 100 135 21 199 112 233 88 111 113 135 155 155 177 100 155 155 155 177 100 155 155 155 155 155 155 155 155 155	155 177 166 166 122 155 177 1188 6 100 9 9 166 3 20 20 13 111 37 117 7 37 4 4 114 12 2 2 2 2 155 177 178 188 189 189 189 189 189 189 189 189 18	4 4 4 8 8 7 7 1 4 15 12 2 2 2 2 2 3 3 18 8 3 3 5 4 4 1 1 7 7 1 1 5 5 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	33115555555555555555555555555555555555	i	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	77	4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	133 355 244 224 220 98 288 188 195 197 187 77 177 173 33 310 33 144 571 9 57 187 22 23 33 88 22 99 17 77 17 17 17 21 21 21 21 21 21 21 21 21 21 21 21 21	66 177 111 177 9 753 155 1229 4 4 22 133 111 111 114 22 3 3 15 6 3 15 6 3 15 15 11 11 11 11 11 11 11 11 11 11 11	7 18 13 7 7 18 13 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	

of Children under One Year of Age, Classified According to Residence in Cities Population and Over, Ontario, 1928

N PUBLIC INSTITUTIONS								DEA	THS I	Elsewi	HERE	THAN	IN PU	JBLIC	Inst	ITUTIO	NS			
Non-resident in City or Town where death occurred										Non-resident in City or Town where death occurred										
Residents		ts	Resident in province			Non-resident in province			Total			Residents			Resident in province			Non-resident in province		
Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F
9,311 166 200 111 1683 320 1534 47 75 188 1522 3313 153 37 55 111 133 155 11 133 15 134 11 15 20 11 134 11 15 20 11 11 134 11 15 15 11 11 11 11 11 11 11 11 11 11	5 24 4 1 6 1 2 9 1 	6 15 10 1 10 1 10 1 10 1 10 1 10 1 10 1	3 9 9 1 1 1 1 5 5 5 3 1 8 4 4 1 1 1 7 7	333 11 100 33 11 14	11 3 3 3 2 2 3 3 1 1 1 2 2 2 2 8 3 3 1 1 1 2 2 2 3 3 1 1 1 3 3 3 3 3 3 3	1 3 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 1 1		77	99 2 6 6 122 6 6 132 6 6 132 6 6 132 6 6 132 6 6 132 6 6 132 6 13 6 13	25 24 29 132 11 13 14 17 9 19 35 320 17 51 6	7 7 8 100 133 5 1 1 1 5 9 9 6 6 10 0 14 4 11 22 18 11 10 0 6 7 7 7 11 11 10 0 6 7 11 1 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1	99266111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1		

Table 22—Deaths of Children Under One Year (exclusive of Still-births) by Age at Death, 1928—Ontario

Ages		Total
All infants	M	4,880 2,735
Under 1 day	 М	2,145 1,118 634
1 day	F	484 313 182
2 days	F	131 250
3 days	F.	151 99 176
4 days	M F	98 78 105
	$_{\mathrm{F}}^{\mathrm{M}}$	53 52
5 days	$_{\mathrm{F}}^{\mathrm{M}}$	60 26 34
6 days	Н	59 30 29
Under 1 week.	M F	2,081 1,174
1 week and under 2 weeks	M	907 251 137
2 weeks and under 3 weeks	F	114 186 95
3 weeks and under 1 month	F M	91 187 106
Under 1 month	F	81 2,705
1 month and under 2 months	M F	1,512 1,193 375
2 months and under 3 months	M F	219 156 322
	M F	192 130
3 months and under 4 months	M F	256 139 117
4 months and under 5 months	M	226 127 99
5 months and under 6 months	M	197 107
6 months and under 7 months	· M	90 195 111
7 months and under 8 months	F	84 151 79
8 months and under 9 months	F	72 145 77
9 months and under 10 months	F	68 112
10 months and under 11 months.	M F	65 47 107
11 months and under 12 months.	M F	60 47 89
	M F	47 42

Table 23—Deaths of Children under One Year of Age (exclusive of Still-births) Classified According to Racial Origin of Decedents, 1928—Ontario

Racial Origin	[otal
	4.880
	1.699
Irish	716
Scotch	558
Welsh.	13
French	974
German	146
Armenian	3
Austrian	2.4
Belgian	20
Bulgarian.	5
Chinese	5
Czech and Slovak	9
Danish	3
Dutch.	39
Finnish.	29
Greek	7
Hindu	
Hungarian	30
Icelandic	
Indian	69
Italian	123
Japanese	125
Japanese	19
Negro.	29
Norwegian	9
Polish	82
Rumanian	17
Russian	32
Serb and Croat.	4
Swedish	10
Swiss	2
	3
Syrian	44
Ukranian*	15
Other	133
Not specified.	133

[&]quot;Including "Galician."

Table 24—Deaths of Children under One Year of Age (exclusive of Still-births) Classified According to Birthplace of Parents, 1928—Ontario

	1	Not specified	© : : : ¬ w : : : : : : : : : : : : : : :
		suoitsV	4 . w . w 201 - 1 . w 20 . w
		United States	
	Asia	Japan Other	
	< <	Сһіпа	
		Огрег	- : : : : : : : : : : : : : : : : : : :
		nəbəw2	
		Russia‡	
		Rumaniat	
		Poland*	
		YSWION	
	e	Italy	2
	Europe	Hungary	3.0
	鱼	Holland	= : : : = : : : : : : : : : : : : : : :
IRS.		Сеттапу	∞ : : : αν : : : : : : : : : : : : : : :
MOTHERS		France	
101		Finland	2 : : : : : : : : : : : : : : : : : : :
OF N		Депшатк	
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
BIRTHPLACE		Belgium	70, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
PL,	.c. \ 1	Austria	21 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -
TH	British Posses- sions	Other	ω ω
BIR	P. P	Newfoundland	
	British Isles	Other	
		Wales	9 : 1 : 9 : 1 : 0 0 0 : 4 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1
		Scotland	22
		Ireland	42.1.1.101.1.111.1.1.1.1.1.1.1.1.1.1.1.1.
			23.1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
		England	001 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		Province not specified	<u></u>
		British Columbia	
		Alberta	
	_	Saskatchewan	
	Canada	Manitoba	Q : : : : : : : : : : : : : : : : : : :
	Сал	Ontario	2.3 2.3 2.1 2.1 2.1 2.1 2.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3
		Suebec	28 1799 1799 1799 1799 1799 1799 1799 179
		New Brunswick	4 ==0ππ :
		Nova Scotia	2-1- :8 : : : : : : : : : : : : : : : : : :
		Prince Edward Island	
		IsioT	3,145 2,350 2,350 1,22 1,22 1,23 1,23 1,31 1,31 1,45 1,4
		BIRTHPLACE OF FATHERS	Canada

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1 80 150 856	
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2	-
12 6 136 200 2 2 2 280 4,880 3 26 16 333	-
12 6 136 260 260 4.880 3 26 16	
Silvan 12 6 6 6 6 6 6 6 6 6	
inta. pan. her. ed Sous. spec.	
China Japan Japan Other United States Various. Not specified. Total	

flncluding Bukovina.

·Including Galicia.

"Including the Ukraine.

Table 25-Deaths of Children (exclusive of Still-births) from Certain Specified Causes in First Year of Life by Months, 1928-Ontario

1		(±,	12 1. 10 - 4 1. 11 1. 12 1.
	Dec.	M	20
		(±,	200
	Nov.		2
			40 2 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
	Oct.		20
		N	861
	Sept.		220 230 240 250 250 250 250 250 250 250 250 250 25
		M	2
	Aug.		
IH		N	
DEATH	July	<u></u>	T : : : : : : : : : : : : : : : : : :
OF I	J	M	
	June	124	T
MONTH	Ju	M	712
	ay	Œ	000000000000000000000000000000000000000
	May	M	000 000
	ii.	(II	1
	April	M	0 : : : : : : : : : : : : : : : : : : :
	ch	Ţ	200 S S S S S S S S S S S S S S S S S S
	March	M	272 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		(14	24
	Feb.	M	812 4 .9
		li,	27 1 7 . 8 1 1 2 2 2 2 2 2 2 3 5 1 6 8 1 7 8 1 6 8 1 6 8 1
	Jan.	M	\$\frac{2}{3} \cdot \frac{1}{4} \cdot \frac{1}{4} \cdot \frac{1}{1} \cdot \frac{1}{2}
-	<u></u>	ĮI,	2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3
nud	1 year	M	25.7.7.4.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8
Total under	1,	T't'l	4880 114 144 144 144 144 144 13 23 35 35 35 35 35 35 35 35 36 36 37 37 37 37 37 37 37 37 37 37
-		\vdash	
	CAUSES OF DEATH		All Causes. 7. Measles 8. Scarlet fever 9. Whooping-cough. 10. Diphtherra 11. Influenza. 12. Acute anterior poliomyclitis. 22. Acute anterior poliomyclitis. 23. Tubercallosis of the respiratory system. 24. Tetanus. 25. Tetanus. 26. Tetanus. 27. Tubercallosis of the respiratory system. 28. Siphilis. 29. Tetanus. 31. Tubercallosis of the respiratory system. 31. Tubercallosis of the respiratory system. 32. Tubercallosis of the respiratory system. 33. Tubercallosis of the respiratory system. 35. Fighilis. 36. Rickets. 37. Tubercallosis of the respiratory system. 38. Siphilis. 38. Siphilis. 38. Concapabilis. 38. Convulsions 38. Diseases of the ear and of the mastoid process of the eart and of the mastoid process of the eart and of the mastoid process of the eart and of the mastoid process of the standard obstruction. 38. Diseases of the standard obstruction. 39. Bronchitis. 39. Maiformations of the leart. 39. Congenital hydrocephalus. 39. Congenital debility icterus and selecting. 310. Premature birth.

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15	==	: 10:10	
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5	00 00	:- 4-	_
13	44	. 22:	:
8	00	. 5	:
6	00		:
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7	00	: m = x	:
7	11		-
18	11	12	_
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96	109	27	N.
177	121	47 91	6
273	230	0 0 0 0	14
161B. Injury at birth	162A. Specified diseases.	175-203. External causes under 3 months. Other specified causes.	204-205. Unspecified or ill-defined causes

Table 26—Deaths of Children (exclusive of Still-births) from

Causes of Death.		UNI	TAL DER EAR	Un	der 1	and ı	lay inder eek	and t	eek inder eeks	and i	eeks inder eeks
	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Causes	4,880	2,735	2,145	634	484	540	423	137	114	95	91
7. Measles. 8. Scarlet fever. 9. Whooping-cough. 10. Diphtheria. 11. Influenza. 16. Dysentery. 21. Erysipelas. 22. Acute anterior poliomyelitis. 24. Meningococcus meningitis. 29. Tetanus. 31. Tub-rculosis of the respiratory system. 32. Tub-rculosis of the meninges and central nervous system 33-37. Tuberculosis, other forms. 38. Syphilis. 41. Purulent infection, septicaemia. 56. Rickets. 62. Diseases of the thymus. 70. Encephalitis. 71A. Simple meningitis. 71B. Non-epidemic, cerebrospinal meningitis. 80. Convulsions. 86. Diseases of the ear and of the mastoid process. 87-90. Diseases of the heart. 99. Bronchitis. 100. Broncho-pneumonia. 110-112. Diseases of the stomach. 113. Diarrhoea and enteritis. 118. Hernia, intestinal obstruction. 128. Nephritis. 159. Malformations. 1594. Congenital hydrocephalus.	12 4 114 144 12 244 33 7 7 13 23 21 35 55 6 6 35 36 29 324 215 54 57 54 57 54 57 58 59 59 59 59 59 59 59 59 59 59	14 53 24 14 189 125 31 321 14 9 5	11 11 2 3 3 4 4 7 7 5 8 8 12 16 20 2 2 18 36 12 13 5 90 2 35 90 90 90 90 90 90 90 90 90 90 90 90 90	2		1 2 2 1 1 2 2 1 1	1	1 3 1 1 4 4 3 2	2 2 2	2 2 2 1 1 2 2 3 3 1 1 2 2 1 1 4	5 1 2 14
159B. Congenital malformations of the heart. 159C. Others under this title. 160C. Congenital debility, icterus and sclerema. 161A. Premature birth. 161B. Injury at birth. 162. Other diseases peculiar to early infancy. 162A. Specified diseases. 162B. Unspecified causes under 3 months. 175-203. External causes. Other specified causes. 204-205. Unspecified or ill-defined causes.	205 202 341 1,477 273 230 221 9 69 166	115 97 198 811 177 121 117 42 91	90 105 143 666 96 109 104 5 27 75	29 13 24 439 53 51 50 1 15	21 22 20 323 36 45 42 3 5	222 96 53 51 2 2	26 28 204 51 39 39	13 15 47 12 8 8	10 10 13 43 7 8 7 1 1 4	12	5 9 11 25 8 8

Certain Specified Causes in First Year of Life, by Ages, 1928—Ontario

		A	GE A	AT E	EAT	Ή																	
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Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
106	81	219	156	192	130	139	117	127	99	107	90	111	84	79	72	77	68	65	47	60	47	47	42
2 2	3 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 1 1 1 1 4 4 2 9 1 1 4 1 7 9 9 4 1 7 9	11 13 33 33 22 31 17 11 22 32 42 11 36 69 92 22 	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 3 1 4 4 1 3 3 1 4 4 8 5 6 6	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1 1 2 1 1 3 1 1 1 2 2 5 3 3 3	10 9 2 26	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	31 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	166 64 16 11 11 12 2 11 11 11 11 11 11 11 11 11 1	1 1 2 2	3 2 19 11 11 11 12 11 11 11 11 11 11 11 11 11	10 10 2 17 1 1 2 2 2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1	110000000000000000000000000000000000000	2 2 1 1 1 1 1 2 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1 1 1

Table 27—Total Deaths (exclusive of Still-births) and Deaths in Public Towns of 5,000

					Αι	l De	ATHS							DE	ATHS
Cities and Towns	7	Cotal		Re	siden	ts	Res		deat			ent	Т	`otal	
	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F
Cities: Belleville Brantford. Chatham. Fort William Galt. Guelph Hamilton Kingston Kitchener London. Niagara Falls North Bay Oshawa. Ottawa Owen Sound Peterborough Port Arthur St. Catharines St. Thomas Sarnia. Sault Ste. Marie Stratford Toronto. Welland Windsor Woodstock Towns: Barrie. Brockville Cobourg Collingwood Cornwall Eastview Ford City Hawkesbury Ingersoll Kenora Lindsay Midland Orillia. Pembroke Preston. Smith's Falls Sudbury Trenton Walkerville Waterloo Brampton Dundas. Fort Frances Leamington Mimico New Toronto Renfrew Timmins Whitby.	135 182 109 200 73 146 48 80 62 67 54 66 27 79	36 79 27 41 28 48 31 27 13 26 33 114	63344 8776344 6342566 3556344 544662 546137 6776	51 93 91 106 1177 43 86 135 72 105 53 50 61 23 50 61 165	758 2788 733 411 588 399 344 141 333 404 299 255 2488 549 288 433 635 544 266 377 277 244 111 244 243 103 103	441 287 766 411 588 600 277 866 344 344 352 266 327 377 511 266 376 266 376 376 376 376 376 376 376 376 376 3	422 644 620 646 620 6468 636 6468 6468 6468 6468 6468 6468	166 71 13 16 266 77 8 8 37 3 11 4 4 9 9 18 23 3 3 11 16 26 29 9 12 29 9 11 1	133 311 17 222 133 113 133 113 133 113 10 205 17 433 111 222 25 8 38 38 38 38 11 15 66 11 11 10 25 66 11 11 22 22 20 22 20 20 99 20	9 5 5 100 5 5 1 100 5 5 1 100	1	2 4	123 203 169 113 181 115 699 272 2138 80 377 744 755 788 0 22 1066 49 28 145 145 15 35 622 988 22 477 114 1	57 911 107 766 466 577 373 3136 722 321 499 222 500 4688 288 500 411 388 45 500 57 57 54 48 55 51 51 51 51 51 51 51 51 51 51 51 51	17 21 26 49 1 21 29 8 5 7 8 5 7 17 5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Institutions, Classified According to Residence of Decedents in Cities and Population and Over, Ontario, 1928

IN PU	BLIC	Inst	ITUTIO	NS						DEA	тнѕ I	Elsewi	HERE	THAN	N IN P	UBLIC	INST	TUTIO	NS	
Re	siden	ts	Res		deat			ent	Т	`otal		Resi	dents	3	Res		in			ent
Total	М	F	Γotal	М	F	Total	М	F	Γotal	М	F	Γotal	M	F	Total	М	F	Total	M	F
666 1611 888 911 577 644 5722 1388 921 420 639 355 84 611 555 64 673 29022 40 2188 333 388 688 101 166 1188 333 388 688 11 12 92 66 65	233 1200 322 144 288 355 	444 877 34429 2886 2699 7335 1883 322 4335 1353 1379 986 267 7729 294 111 1166 1199 1144 1155 1186 1197 1198 1198 1198 1198 1198 1198 1198	19 13 17 429 31 101 22 31 43 100 15 72 	344 177 51 14 177 667 677 622 104 10 9 128 88 177 366 13 13 21 16 68 88 37 77 77 18 18 69 24 66 19 21 11 11 11 11 11 11 11 11 11 11 11 11	222448 77199 55563324 77111 1100 288 183 177377 375 35	5 5	1	1 4 4 3 2 3 2 3 3 2 3 3 3 3 3 3 3 3 3 3 3	116 2000 1377 98 1000 126 7722 1733 155 519 140 128 160 109 178 81 1300 1077 35922 93 93 1277 67 60 65 40 65 40 40 40 41 41 41 41 41 41 41 41 41 41 41 41 41	555 977 666 499 544 655 3922 788 677 638 544 1680 707 411 334 343 343 343 343 343 343	611 1033 711 499 466 611 3800 955 811 2911 644 488 811 466 970 533 1912 277 1955 52 388 308 323 335 77 344 326 441 217 333 364 411 217 217 217 217 318 318 318 318 318 318 318 318 318 318	1133 1955 1344 984 984 1244 7588 1599 1400 1366 1277 755 1122 1333 1466 1044 35537 799 3477 661 1599 611 488 1222 757 670 663 333 799 422 577 822 846 846 846 846 846 846 846 846 846 846	555 93 644 653 388 700 666 223 737 667 376 677 375 532 1588 41 27 300 255 226 694 11 333 400 277 400 277 288 522 266 273 274 274 275 275 275 275 275 275 275 275 275 275	588 1022 700 488 455 600 3700 899 455 475 740 3666 648 51 8822 25 33 44 34 32 66 39 177 322 336 339 12 32 32 32 32 32 32 32 32 32 32 32 32 32	122 4 8 133 8 22 7 7 3 3 3 3 9 2 2 13 2 7 5 5	77 55 53 44 60 11 55 88 6	2 1 1 1 1 8 6 6 12 1 1 6 6 3 3 3 5 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 1 2 2 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1	1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Table 28—Deaths (exclusive of Still-births) by Single Years of Age and by Age Groups—Ontario, 1928

4.070	70 . 1	21-1-	17 1-	ACEC	T-+-1	31.1.	P 1.
AGES	Total	Male	Female	AGES	Total	Male	Female
All ages	37,128 4,880 587 319	2,735 311 165	17,671 2,145 276 154	50 years. 51 " 52 " 53 " 54 "	336 290 411 333 362	195 158 199 179 204	141 132 212 154 158
3 "	237 164	126 98	111 66	Total, 50-54 years	1,732	935	797
Total, under 5 years. 5 years	6,187 154 136 131 129 90	3,435 80 77 77 77 77 57	2,752 74 59 54 52 33	55 years. 56 " 57 " 58 " 59 " Total, 55-59 years	411 397 384 452 433 2,077	233 193 201 246 247 1,120	178 204 183 206 186
Total, 5-9 years	640	368	272	60 years	491	256	235
10 years	109 84 78 111	65 43 34 60	44 41 44 51	61 "	439 539 512 622	234 295 278 339	205 244 234 283
Total, 10-14 years	488	252	236	Total, 60-64 years	2,6 0 3	1,402 399	310
15 years	129 152 165 120	75 84 85 71	54 68 80 49	66 "	603 624 700 679	324 328 376 388	279 296 324 291
19	158	88	70	Total, 65-69 years	3,315	1,815	1,500
Total, 15-19 years 20 years 21 " 22 " 23 "	724 191 195 177 179	403 101 98 98 91	321 90 97 79 88	70 years. 71 "	741 666 746 724 715	380 346 411 371 365	361 320 335 353 350
24 "	179	92	87	Total, 70-74 years	3,592	1,873	1,719
Total, 20-24 years	921 162 193 195 191	480 88 93 99 95	74 100 96 96	75 years. 76 "	753 743 719 768 630	383 357 350 427 331	370 386 369 341 299
29 "	195	107	88	Total, 75-79 years	3,613	1,848 308	1,765
Total, 25-29 years	936 193 177 199 203	482 89 76 89 98	454 104 101 110 105	80 years. 81 "	524 597 498 529	269 279 229 268	255 318 269 261
34 "	973	95	106 526	Total, 80-84 years	2,795	1,353	1,442
35 years	220 208 208 208 226 213	104 106 95 121 103	116 102 113 105 110	85 years. 86 " 87 " 88 " 88 " Total, 85-89 years.	389 370 297 216	190 181 136 89 802	199 189 161 127
Total, 35-39 years	1,075	529	546	90 years	224 139	99 54	125
40 years	275 218 308 258	149 118 155 141	126 100 153 117	91 " 92 " 93 " 94 "	137 114 92	70 44 40	85 67 70 52
44 "	1,305	683	622	Total, 90-94 years	706 58	307	399 30
45 years	304 277 278	184 153 139	120 124 139	95 years. 96 " 97 " 98 " 99 "	34 36 22 12	10 16 8 8	24 20 14 4
48 "	306 311 1,476	151 162 789	155 149 687	Total, 95-99 years 100 years and over Not stated	162 28 63	70 16 48	92 12 15

Table 29—Deaths (exclusive of Still-births) Classified by Racial Origin of Decedents in Ontario, 1928

RACIAL ORIGIN	Total	Male	Female	RACIAL ORIGIN	Total	Male	Female
All origins	37,128	19,457	17,671	Hungarian	79	57	22
English	13,404	6,960	6,444	Icelandic	4		4
Irish	8,449	4,243	4,206	Indian	441	210	231
Scotch	6,133	3,120	3,013	Italian	336	201	135
Welsh	149	95	54	Japanese			
French	3,296	1,774	1,522	Jewish	204	109	95
German	1,660	884	776	Negro	150	80	70
Armenian	13	8	5	Norwegian	51	31	20
Austrian	88	61	27	Polish	316	186	130
Belgian	52	26	26	Rumanian	60	43	17
Bulgarian	13	8	5	Russian	166	103	63
Chinese	57	50	7	Serb and Croat	29	21	8
Czech and Slovak	36	28	8	Swedish	88	52	36
Danish	25	16	9	Swiss	36	18	18
Dutch	580	324	256	Syrian	26	18	8
Finnish	192	127	65	Ukranian*	128	83	45
Greek	42	31	11	Other	34	16	18
Hindu				Not specified	791	474	317

^{*}Including Galician.

Table 30—Total Deaths (exclusive of Still-births) and Deaths in Public Institutions, Showing the Number Non-Resident in the Province, Ontario, 1928

			All D	eaths				In l	Public I	nstitut	ions	
		Total			-resider orovince			Total			ı-resider province	
	Total	М.	F.	Total	М.	F.	Total	М.	F.	Total	М.	F.
Total in Province	37,128	19,457	17,671	415	256	159	11,189	6,141	5,048	262	164	98

Table 31—Deaths (exclusive of Still-births) Classified According to Birthplace of Decedents for the Province of Ontario and for Cities and Towns of 10,000 Population and Over, 1928

			Not specified	2	347		1 =	56	1	800	19	12	15	0000	16	1::	1:	1
		-	Various	4.8	7	0 3 2		120	2 2	1 44 60	:	1.:-	1 00	1 2 10	-	1 :: :		1
			United States	493	955	230		102	202	24 23	47	21	38	25	31	111	34	
		i.e	Other	15	1 22	1112		12	1 60	1 : .	1:	- :		2	2	: :	-	<u> </u>
		Asia	China	48	49 1	37 1	38	20 1	21	4	14	m :	<u> </u>	: :	+:	2 :	2	-
			Other	67 4	95 4	40 3	593	101	242	w :	100	2	7	 - :	1-	100	lv.	÷
			Sweden	31	46	13	16	7 :	2	2 :	2	:-	+-	2 :	7	: :	1:	十
			Russiat	129	212	93	164	53	95	4-	I'V	100	∞	23	l rv	0.00	17	十
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				134	215	80	144	41 38	79	10	17	·	1-	.	14	40	1	<u> </u>
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			Norway	85 1	J	55	94	26	44	0 4	12	24	1 :	1	m	4 :	4	<u> </u>
		Europe	Italy		3 137	<u> </u>	1	3 2 1	3 4	1	-		-	2 .	1 2 1	177	100	_
		Enr	Hungary	34	5 43	6 11 3	9 14	1	4	:		: :	:	:	_		2	
			Holland	12	16					- :	-	; ;	:	- :	-		1	_
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			Belgium	13	25	40	1-	1	3	i i		: :	1	:	-		2	
	OF		Austria	49	71	37	20	19	28	: 5	2	::	:	: :	:		2	_
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	BIRTHPLACE	British Posses- sions	Newfoundland	37	7.1	25	20	19	33	1	3	::	:	: 7	2	:=	-	_
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	B	Isles	Scotland	748 695	1,443	432 403	835	210	421	43	108	18	39	25	52	19	31	
		British Isles	Ireland	655	1,341	335	737	195	427	37	59	30	48	20	36	00	18	
			England	2,119	4,007	1,285	2,488	659	1,286	150	308	39	91	95	207	32	09	_
			Province not specified	69	138	58	104	31	80	3.55	∞	(c) (c)	9	::	:		:	_
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		Canada	Ontario	13,047	25,359	5,158	10,263	1,882	3,838	392	808	526 475	1,001	364	721	226	457	
			Sedeu	781	1,455	324	629	54	104	118	19	166	340	10	16	14	20	_
			New Brunswick	382	70	10	32	15 4	17	:-	-	400	7	:-	-	::	: 1	_
			Nova Scotia	67	109	30			25	1 2	3	94	10	<u>- : </u>	-	::		
			P. E. Island	17	25	010	=	:		1		- : 1	-	:		: :	:	
			Total deaths by sex	,457	,128	8,604	847	3,497	6,962	765	1,471	853	1,645	549	1,122	355	689	
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See footnotes next page.

Table 31—Deaths (exclusive of Still-births) Classified According to Birthplace of Decedents for the Province of Ontario and for Cities and Towns of 10,000 Population and Over, 1928—Continued

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*Including Galicia. fIncluding Bukovina. fIncluding the Ukraine.

Table 32-Deaths (exclusive of Still-births) Classified According to Birthplace of Parents of Decedents for Ontario, 1928

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TABLE 33—CAUSES OF DEATH BY SEX AND AGES—ONTARIO, 1928

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TABLE 33-CAUSES OF DEATH BY SEX AND AGES-ONTARIO, 1928-Continued

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TABLE 33-CAUSES OF DEATH BY SEX AND AGES-ONTARIO, 1928-Continued

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CLASS III.—DISEASES OF THE NER- VOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE. Total		70. Encephalitis	72. Tabes dorsalis (Jacomotor ataxia). 73. Other diseases of the spinal cord 74. Cerebral haemorrhace. anon-	74a. Apoplexy	75. Paralysis without specified	75A. Hemiplegia	77. Other forms of mental alicnation. Table Epilepsy	

TABLE 33-CAUSES OF DEATH BY SEX AND AGES-ONTARIO, 1928-Continued

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TABLE 33-CAUSES OF DEATH BY SEX AND AGES-ONTARIO, 1928-Continued

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108. Diseases of the mouth and annexa	pseases of the pharynx and tonsils (including adenoid vegetations)	109a, Adenoid vegetations	110. Diseases of the oesophagus.	111. Ulcer of the stomach and duodenum	111a. Ulcer of the stomach	112. Other diseases of the stomach (cancer excepted)	113. Diarrhoea and enteritis (under 2 years of age)	viarrhoea and enteritis years or over)	Diseases due to other intes-	116c, Nematodes (other than ankylostoma). 117. Appendicitis and typhlitis	118. Hernia, intestinal obstruction		118b. Intestinal obstruction 119. Other diseases of the intestines	120. Acute yellow atrophy of liver	122, Cirrhosis of the liver.	122A. Specified as alcoholic	122B. Not specified as alcoholic	123. Bilary calculi		125. Diseases of the pancreas
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TABLE 33—CAUSES OF DEATH BY SEX AND AGES—ONTARIO, 1928—Continued

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	CAUSES OF DEATH	126. Peritonitis without specified	CLASS VII.—NON-VENEREAL DISEASES OF THE GENITO- URINARY SYSTEM AND ANNEXA.	Total		128. Acute nephritis (including unspecified, under 10 years of agc)	129. Chronic nephritis (Bright's disease)	131. Other diseases of the kidneys and annexa	132. Calculi of the urinary passages	133. Diseases of the bladder	134. Diseases of the urethra, urinary ary abscess, etc	134a. Stricture of the urethra	135. Diseases of the prostate	male genital organs		140. Non-puerperal uterine hac- morrhage		breast (cancer excepted)

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CLASS VIII.—THE PUERPERAL STATE. Total	143. Accidents of pregnancy 143a. Abortion 143b. Ectopic gestation 145c. Others under this title 143b. Abortion, self-induced 144. Purperal haemorrhage 145. Other accidents of labour 145a. Caesarean section.	1455. Difficult labour. 1456. Other surgical operations and instrumental delivery. 1450. Uncontrollable vomiting 146. Purpret scpticaenia	14.1. retpetal pureginasa and dolens, puerperal embolism, sudden death in puerperium 148. Puerperal albuminuria and commisions	149. Following childbirth (not otherwise defined)	CLASS IX.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE. TOTAL	10tal	151. Gangrene	annexa	Total	155. Diseases of the bones (mastoid and tuberculosis excepted)

TABLE 33—CAUSES OF DEATH BY SEX AND AGES—ONTARIO, 1928—Continued

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162. Other diseases peculiar to early infancy	174. Other suicides

TABLE 33—CAUSES OF DEATH BY SEX AND AGES—ONTARIO, 1928—Continued

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188c. Automobile accidents	188b. Aeropiane and balloon acci- dents. Injuries by other vehicles 188F. Other crushing	189. Injuries by animals (poisoning excepted)	food or water)	194. Excessive heat	195. Lightning	196. Other accidental electric shocks	197-199, Homicides	197. Homicide by firearms	198. Homicide by cutting or piercing ing instruments	199. Homicide by other means	201. Fracture (cause not specified).	specified)	o)	CL			204. Sudden death.	205. Ca	205a. III-defined	205B. Not specified or unknown	205c. Heart failure
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TABLE 34—CAUSES OF DEATH BY SEX AND AGE—TORONTO, 1928

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TABLE 34-CAUSES OF DEATH BY SEX AND AGE-TORONTO, 1928-Continued

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TABLE 34-CAUSES OF DEATH BY SEX AND AGE-TORONTO, 1928-Continued

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75a. Hemiplegia75a. Others under this title	76. General paralysis of the insane	77. Other forms of mental alienation	80. Infantile convulsions (under 5 years of age)	81. Chorea	83. Softening of the brain 84. Other diseases of the nervous system	85. Diseases of the eye and annexa 86. Diseases of the ear and of the	86A. Diseases of the ear	86b. Diseases of the mastoid process	CLASS IV.—DISEASES OF THE CIR- CULATORY SYSTEM.	Total	87-90. Diseases of the heart	87. Pericarditis88. Endocarditis	(acute)88A. Acute endocarditis	88B. Acute myocarditis	89. Angina pectoris90. Other diseases of the heart	90a. Valvular disease

TABLE 34—CAUSES OF DEATH BY SEX AND AGE—TORONTO, 1928—Continued

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	ot hae ung lum	106. Pulmonary emphysema 107. Other diseases of the respira- tory system (tuberculosis excepted)	CLASS VI.—DISEASES OF THE DIGESTIVE SYSTEM. Total	e n ph ding onsi
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TABLE 34—CAUSES OF DEATH BY SEX AND AGE—TORONTO, 1928—Continued

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	CAUSES OF DEATH	111b. Ulcer of the duodenum 112. Other diseases of the stomach (cancer excepted) 113. Diarrhoca and enteritis (under 2 years of age). 114. Diarrhoca and enteritis (2 years or over). 117. Appendicitis and typhilitis 118. Hernia, instestinal obstruction 118. Hernia, instestinal obstruction 119. Other diseases of the intestines 120. Acute yellow atrophy of the liver. 121. Cirrhosis of the liver. 122a. Cirrhosis of the liver, not specified as alcoholic 123. Bilary calculi. 124. Other diseases of the liver. 125. Diseases of the pancreas 126. Peritonitis without specified cause
		111B. 112. 113. 114. 117. 118. 1188. 1188. 1190. 120. 1221. 1224. 125.

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CLASS VII.—NON-VENEREAL DIS- EASES OF THE GENITO-URINARY SYSTEM AND ANNEXA. TOTAL			129. Chronic nephritis (Bright's Disease)	131. Other diseases of the kidneys and annexa		134. Diseases of the urethra, urinary abscess, etc	134a. Stricture of the urethra	135. Diseases of the prostate	137. Cysts and other benign tumours of the overv	140. Non-puerperal uterine hae- morrhage		CLASS VIII.—THE PUERPERAL STATE,	Total	143. Accidents of pregnancy. 43a. Abortion. 43b. Ectopic gestation. 43c. Chacts under this title. 44b. Abortion, self-induced. 44 Purpura haemorthage. 45 Other sacidents of labour. 45 A. Caesarean section. 45 D. Officult labour. 45 D. Officult labour. 45 D. Officult labour. 45 D. Officult labour. 45 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour. 46 D. Officult labour.
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TABLE 34—CAUSES OF DEATH BY SEX AND AGE—TORONTO, 1928—Continued

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	CAUSES OF DEATH	147. Puerperal phlegmasia alba dolens, puerperal embolism, sudden death in perperium	convulsions	otherwise defined)	CLASS IX.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.	Total		151. Gangrene	152. Furuncle	153. Acute abscess	154. Other diseases of the skin and annexa		CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCO- MOTION,	Total		155. Diseases of the bones (mastoid and tuberculosis excepted)	156. Diseases of the joints (tuber- culosis and rheumatism ex- cepted)

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158. Other diseases of the organs of locomotion	CLASS XI.—MALFORMATIONS. Total		159. Congenital malformations (still-births not included) 159A. Congenital hydrocephalus 159B. Congenital malformations of the heart	CLASS XII.—DISEASES OF EARLY INFANCY. Total		160. Congenital debility, icterus and sclerema	161. Premature birth, injury at birth	102. Other diseases peculiar to early infancy	CLASS XIII.—OLD AGE. Total		164. Senility

TABLE 34-CAUSES OF DEATH BY SEX AND AGE-TORONTO, 1928-Continued

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	CAUSES OF DEATH	SS XIV,—EXTERNAL CAUSES. Total		165-174. Suicides		Suicide by corrosive sub-	Suicide by poisonous gas	Suicide by hanging or strangulation	Suicide by drowning	Suicide by firearms	Suicide by jumping from high	Poisoning by food	177. Other acute accidental poisonings (gas excepted)	Conflagration	Accidental burns and scalds (conflagration excepted)	180. Accidental mechanical suffo-	1804. Overlaying	Accidental absorption of Irrespirable or poisonous gas
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182. Accidental drowning	183. Accidental traumatism by firearms. 184. Accidental traumatism by	cutting or piercing instru- ments	187. Accidental traumatism by	188. Accidental traumatism by other crushing (vehicles, railways, landslides, etc.)	188A. Railroad accidents	188c. Automobile accidents	188p. Aeroplane and balloon accidents 188p. Injuries by other vehicles	189. Injuries by animals (poisoning excepted) 195. Lightning	96. Other accidental electric shocks	197-199, Homicides	197. Homicide by firearms	198. Homicide by cutting or piercing inginstruments	199. Homicide by other means	201. Fracture (cause not specified).	shedired)	CLASS XV.—1LL-DEFINED DISEASES.	Total		205. Cause of death not specified or ill-defined

TABLE 35—CAUSES OF DEATH BY SEX AND AGE—HAMILTON, 1928

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TABLE 35-CAUSES OF DEATH BY SEX AND AGE-HAMILTON, 1928-Continued

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	CAUSES OF DEATH	s. Cancer of the circulatory system.	Cancer of the respiratory system	Cancer of the digestive system	c. Cancer of the genito-urinary organs		496. Cancer of other specified organs. 49H. Generalized cancer. 49. Cancer, unspecified	not returned as malignant (tumours of female genital organs excepted)	51, Acute rheumatic fever	52. Chronic rheumatism, osteo- arthritis, gout	56. Rickets	58. Anaemia, chlorosis	58A. Pernicious anaemia	60. Diseases of the thyroid gland.	608. Exophthalmic goiter608. Other diseases of the thyroid		63. Diseases of the adrenals (Addison's disease)
	CAUSES OI	49B. Cancer of the	49c. Cancer of th	49b. Cancer of tem	49E. Cancer of t	49F. Cancer of joints	49G. Cancer of organs49H. Generalized 49L. Cancer, uns 50. Benign tumo	not return (tumours organs exce	51, Acute rheum	52. Chronic rho arthritis, g	56. Rickets 57. Diabetes mel	58. Anaemia, ch	58A. Pernicious	60. Diseases of t	60A. Exophthali 60B. Other disea	gland	gland

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654. Leukaemia. 658. Lymphadenoma (Hodgkin's disease). 66. Alcoholism. 668. Acute alcoholism. 667. Chronic alcoholism. 677. Chronic poisoning by mineral substances. 68. Chronic lead poisoning. 68. Other general diseases. 69. Other general diseases. 69. Aleamophilia. 699. Purpura haemorthagica.	THE SE.		: :	70B. Encephalitis	72. Tabes dorsalis (locomotor ataxia)	74. Cerebral haemorrhage, apoplexy	74a. Apoplexy74a. Apoplexy74b. Cerebral haemorrhage	74c. Cerebral thrombosis and em- bolism		pun)
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65a. Leukaemia. 65b. Lymphadenoma (Hodgi disease). 66. Alcoholism 66b. Acute alcoholism 67c. Chronic poisoning by mir substances. 67. Chronic lead poisoning. 68. Chronic organic poisoning. 68. Chronic organic poisoning. 69. Other general diseases. 69. Other general diseases. 69. Haemophilia.	ASS III—DISEASES OF TI Nervous System and of the Organs of Special Sense. Total		70, Encephalitis	70B. Encephalitis71. Meningitis71A. Simple meningitis	rabe ata Other	Seret	74a. Apoplexy74a. Cerebral haemorrhage	Cere boli Paral caus	75A. Hemiplegia	s ye
654. 666. 4 666. 666. 674. 674. 686. 699. 699.	CLASS III — DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE. Total.		70, J	70B. 71. 1	72.	74. (74A.	74c. 6	75A.	80. Infantile convulsions (under 5 years of age)

TABLE 35-CAUSES OF DEATH BY SEX AND AGE-HAMILTON, 1928-Continued

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	CAUSES OF DEATH	81. Chorea. 82. Neuralgia and neuritis. 84. Other diseases of the nervous system. 85. Diseases of the eye and annexa 86. Diseases of the eye and of the mastoid process. 86. Diseases of the ear.	CLASS IV —DISEASES OF THE CIR- CULATORY SYSTEM. Total		87-90. Diseases of the heart	83. Endocarditis and myocarditis (acute)
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TABLE 35-CAUSES OF DEATH BY SEX AND AGE-HAMILTON, 1928-Continued

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109. Diseases of the pharynx and tonsils (including adenoid vegetations).	Z	:		:	:		:	:	:	:	:	:-	- :	:		:		:	:		:		:	:	:	:
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111B. Ulcer of the duodenum	ıΣμ	. ·	: :	: :	: :							7	: :	. 7	: : :	: ;	: :	: :		: :						: :
112. Other diseases of the stomach (cancer excepted)	Z Z	· 	: :										: :	: :				: :	:	::	: :	: :	: :	::	: :	112
113. Diarrhoea and enteritis (under 2 years of age)	, M	19	61		:		:	:	:	:	:		::	: :	: :	: :	: :	: :	: :		: :	: :	: :	::	: :	113
114. Diarrhoea and enteritis (2 years or over)	4 25	i	:	: :						-		-	:	:	:	:	:	:			:		: :		: :	: :
117. Appendicitis and typhlitis	τΣΞ	: :	: :	: :	: :		-	: :-	-			: :-	: :-	: :	-	-		: : :								
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119. Other diseases of the intestines	·Σ		1 :-		:				:	:	-	:	: :	: :		: :		: :	:	: :		: :	: :	:-	: :	: :
122. Cirrhosis of the liver	Z	; ;	1 :		: :					:-				: :-	-		-	-	:	: :	: :	: :	: :	: :	: :	: :
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CLASS VII —NON-VENEREAL DIS- BASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.	Total		128. Acute nephritis (including unspecified, under 10 years of age)	129. Chronic nephritis (Bright's Disease)	131. Other diseases of the kidneys and annexa	132. Calculi of the urinary passages 133. Diseases of the bladder 135. Diseases of the prostate	139. Benign tumouts of the uterus.	genital organs	CLASS VIII —TIDE PUERPERAL STATE. Total	143. Accidents of pregnancy				

TABLE 35—CAUSES OF DEATH BY SEX AND AGE—HAMILTON, 1928—Continued

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	CAUSES OF DEATH	CLASS IX,—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.	Total		153. Acute abscess	154. Other diseases of the skin and annexa	CLASS X.—DISEASES OF THE BONES AND OF THE URGANS OF LOCOMOTION	Total.		155, Diseases of the bones (mastoid and tuberculosis excepted)	CLASS XI.—MALFORMATIONS. Total		159. Congenital malformations (stillbirths not included)	159A. Congenital hydrocephalus	1598. Congenital malformations of the heart

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CLASS XII.—DISEASES OF EARLY INFANCY, Total		debility, icter na birth, injury	161A. Premature birth	162. Other diseases peculiar to early infancy	CLASS XIII —OLD AGE.		164. Senility	CLASS XIV.—EXTERNAL CAUSES. Total		165-174. Suicides	165. Suicide by solid or liquid poisons (corrosive substances excepted)	166. Suicide by corrosive sub- stances	168. Suicide by hanging or strangulation.

TABLE 35-CAUSES OF DEATH BY SEX AND AGE-HAMILTON, 1928-Continued

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	CAUSES OF DEATH	172. Suicide by jumping from high places	ings (gas excepted) 79. Accidental burns and scalds	(conflagration excepted)	spirable or poisonous gas	Accidental traumatism by arms.	cutting or piercing instru- ments	traumatism quarries	187. Accidental traumatism by machines	other crushing (vehicles, railways, landslides, etc.)	188A. Railroad accidents	188c, Automobile accidents	188p. Acroptane and balloon acci- dents. 188p. Injuries by other vehicles. 188p. Other crushing.	shocks	199. Homicide by other means	201, Fracture (cause not specified).	Specified)specified)

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TABLE 36—CAUSES OF DEATH BY SEX AND AGE—OTTAWA, 1928

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24. Meningococcus meningitis 25. Other epidemic and endemic diseases 25A. Chicken-pox 29. Tetanus 31-37. Tuberculosis. Total			35. Tu 36, Tu	36b. Tuberculosis of the genito- urinary system	37a. Disseminated tuberculosis, acute	41. Purulent infection, septica- emia	CLASS 11,—GENERAL NOT INCLUDED IN C Total		43-49. Cancer.	43. Ca	44. Ca	45. Cancer of the peritoneum, in- testines and rectum
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TABLE 36-CAUSES OF DEATH BY SEX AND AGE-OTTAWA, 1928-Continued

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62. Diseases of the thymus 64. Diseases of the spleen 65. Leukaemia, lymphadenoma 65a. Leukaemia 65a. Leukaemia 65b. Lymphadenoma (Hodgkin's 65b. Alcubolism 66b. Alcubolism 66b. Acute alcoholism 67a. Chronic poisoning by mineral 80b. Other general diseases 69c. Purpura haemorrhagica 69c. Others under this title CLASS III.—DISEASES OF THE NERVOUS SYSTEM AND OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE TOTAL	70. Encephalitis. 70. Encephalitis. 71. Asimple meningitis. 73. Other diseases of the spinal cord. 74. Cerebral haemorrhage, apoplexy. 74a. Apoplexy. 74b. Cerebral thrombosis and embolism. 75. Paralysis without specified 75a. Hemiplegia. 75b. Others under this title. 77. Other forms of mental alienation.

TABLE 36—CAUSES OF DEATH BY SEX AND AGE—OTTAWA, 1928—Continued

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	CAUSES OF DEATH	80. Infantile convulsions (under 5 years of age)	cess	CLASS IV.—DISEASES OF THE CIR- CULATORY SYSTEM, Total		87-90. Diseases of the heart	88. Endocarditis and myocarditis (acute). 88A. Acute endocarditis 88B. Acute myocarditis. 89. Angina pectoris. 90. Other diseases of the heart. 90a. Valvular disease. 90b. Chronic endocarditis.

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90. Others under this title 91. Diseases of the arteries 91A. Aneurysm 91B. Arteriosclerosis 91C, Other diseases of the arteries 93. Diseases of the veins (varices, haemorrhoids, phlebitis etc.) 94. Diseases of the lymphatic system (lymphangitis, etc.) 95. Haemorrhiage without specified causes of the system of the sys	тнЕ,		98. Diseases of the larynx	fined, 5 years or over troncho-pneumonia (includ- ing capillary bronchitis)			101s, Pneumonia, not otherwise de- fined		100. Congestion and naemortragic infarct of the lung	tory system (tuberculosis excepted)
909. Others under this title 91. Diseases of the arteries 91A. Aneurysm 91B. Arteriosclerosis 91C, Other diseases of the veins (varice, Diseases of the veins (varice, Diseases of the lymphatics etc.). 94. Diseases of the lymphatic sytem (lymphangitis, etc.). 95. Haemorrhage without spec	CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM, Total.		rrynx e	r over nia onchi	100A, Broncho-pneumonia	100B. Capillary bronchitis 101. Pneumonia 101A. Pneumonia, lobar	other		105. Congestion and naemo infarct of the lung 104. Gangrene of the lung 105. Askhma	berch is titl
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909. Others under 191. Diseases of the 91A. Aneurysm 91B. Arteriosclerosi 91C, Other diseases 93. Diseases of the haemorrhoids, Phaemorrhoids 195. Diseases of the tem (Hymphan 195. Heamorrhiage find cause of the find cause 196. Heamorrhiage 196. Heamorrhiage	RESPI To		Sronc Sronc Sronc	fined, ronch ing ca	Bronc	neum Pneur	Pneumonia, fined	102. Pleurisy	angre sthm	tory cepte Other
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TABLE 36-CAUSES OF DEATH BY SEX AND AGE-OTTAWA, 1928-Continued

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years or over) 117. Appendicitis and typhilitis 118. Hernia, intestinal obstruction 118. Intestinal obstruction 119. Other diseases of the intestines 1122. Cirrhosis of the liver
years or over) ppendicitis and typhiltis. fernia, intestinal obstruct Intestinal obstruction ther diseases of the int times. irrhosis of the liver

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122B. Cirrhosis of the liver, not specified as alcoholic 123. Biliary calculi	CLASS VII —NON-VENEREAL DIS- EASES OF THE GENITO-URINARY SYSTEM AND ANNEXA. Total	unspecified, under 10 years of age)	Other diseases of the kidneys and annexa Calculi of the urinary passages Diseases of the bladder Diseases of the prostate		morthage	CLASS VIII—THE PUERPERAL STATE, Total Tot	146. Pherperal septicaemia
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TABLE 36—CAUSES OF DEATH BY SEX AND AGE—OTTAWA, 1928—Continued

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	CAUSES OF DEATH	147. Puerperal phlegmasia alba dolens, puerperal embolism, sudden death in puerperium 148. Puerperal albuminuria and convulsions, childbirth (not otherwise defined).	CLASS IX.—DISEASES OF THE SKIN AND OF THE CELLCLAR TISSUE. Total		Gangrene Furuncle	154. Other diseases of the skin and annexa	CLASS X — DISEASES OF THE BONES AND OF THE ORGANS OF LOCO- MOTION. Total			cepted)

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CLASS XI.—MALFORMATIONS,			159, Congenital malformations (still-births not included) 159A, Congenital hydrocephalus	the heart	CLASS XII.—DISEASES OF EARLY INFANCY, Total		debility, icter	101, Fremature birth, injury at birth	161B. Injury at birth	162, Other diseases peculiar to early infancy	CLASS XIII —OLD AGE, Total		164. Senility
CLASS XI	101		159, Conge (still 1594, Cong 1598, Cong	the 159c. Othe	CLASS E		160. Cong and	101, Fremature birth 161A. Premature	161B. Inju	162, Other infa: 162a. Spec	CLAS		164. Senili

TABLE 36-CAUSES OF DEATH BY SEX AND AGE-OTTAWA, 1928-Continued

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TABLE 37—CAUSES OF DEATH BY SEX AND AGE—LONDON, 1928

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TABLE 37—CAUSES OF DEATH BY SEX AND AGE—LONDON, 1928—Continued

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	CAUSES OF DEATH	49E. Cancer of genito-urinary organs	49r. Cancer of the bones and joints	49n. Generalized cancer50. Benign tumours and tumours	(tumours of female genital organs excepted)	51. Acute rheumatic fever	52. Chronic rheumatism, osteo- arthritis, gout	57. Diabetes mellitus	58. Anaemia, chlorosis	58A. Pernicious anaemia	60. Discases of the thyroid gland	60A. Exophthalmic goiter	60B. Other diseases of the thyroid gland. 62. Diseases of the thymus	dison's disease)	65A. Leukaemia	66. Alcoholism	66c. Chronic alcoholism	69b. Others under this title

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ASS 111.—DISEASES OF THE ORGANS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE Total.			71. Meningitis	cord		74B. Cerebral haemorrhage	74c. Cerebral thrombosis and embolism		75B. Others under this title	of the in-	77. Other forms of mental alienation	Convulsions (non-puerperal, 5 years or over)	Infantile convulsions (under 5 years of age) Neuralgia and neuritis	system.	Diseases of the ear and of the mastoid process	86B. Diseases of the mastoid process
AND CALL SI			itis	or ti		orrha	bosis		his ti	sis of	ment	non-p	dsion		ss	mas
SPECI		istis	ening	ases		aem	hrom	ia.	der t	eneral paralysis	s of	IS (I	onvu f age and n	ases c	the proces	of the
UII.—Di DUS SYST ANS OF S Total		haliti	igitis	cord	Apoplexy	bral l	bral t	cause	rs un	al pa	form	ulsion	tile cars of	em.,	ses of toid r	Diseases c
SS 111.—DISEASES OF THE ORGANS OF SPECIAL SENSE TOTAL SENSE TOTAL SENSE TOTAL		70. Encephalitis	Menir	cord	14A. Apoplexy	Cere	Cerel bolis	cause75A. Hemiplegia	Othe	General paralysis sane	Other tion	Convi	Infani 5 ye. Veura	syst	Disea. mas Dise	Dise
CLASS 111,—DISEASES NERVOUS SYSTEM AND ORGANS OF SPECIAL S Total		70. E	71. A	74. 0	74A.	74B.	74c.	75A.	75B.	76. 0	77. C		80. I		86. I	86в.
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TABLE 37-CAUSES OF DEATH BY SEX AND AGE-LONDON, 1928-Continued

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	CAUSES OF DEATH		CLASS IV.—DISEASES OF THE CIRCULATORY SYSTEM.	Total		87-90. Diseases of the heart	88. Endocarditis and myocarditis (acute)	88B. Acute myocarditis	89. Angina pectoris	90. Other diseases of the heart	90A. Valvular disease	90b. Chronic endocarditis	90E. Chronic myocarditis	90r. Others under this title	91. Diseases of the arteries	91A. Aneurysm	92. Embolism and thrombosis (not cerebral)	93. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM.	Total	

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98. Diseases of the larynx 98c. Croup 99. Bronchitis. 99A. Bronchitis, acute 100. Broncho-pneumonia (including capillary bronchitis). 100A. Broncho-pneumonia. 101. Pneumonia.	101s. Pacumonia, not otherwise defined	105. Asthma	CLASS VI.—DISEASES OF THE DIGESTIVE SYSTEM. TOTAL		109. Diseases of the mouth and annexa. 109. Diseases of the pharynx and tonsils (including adenoid	109B. Pharynx and tonsils	111A. Ulcer of the stomach	(cancer excepted)	113. Diarrhoea and enteritis (under 2 years of age)

TABLE 37—CAUSES OF DEATH BY SEX AND AGE—LONDON, 1928—Continued

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	CAU 3ES OF DEATH	114. Diarrhoea and enteritis (2 years or over)	137. Calculi of the urinary passages 132. Calculi of the urinary passages 133. Diseases of the bladder 135. Diseases of the broatate

137		143 143A 144	147			151	154			155			159
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Cysts and other benignl tumours of the ovary Salpingitis and pelvic abscess. Other diseases of the female genital organs	VIHI.—THE PUERPERAL STATE.	Accidents of pregnancy Abortion Puerperal haemorrhage	dolens, puerperal embolism, sudden death in puerperium ollowing childbirth (not otherwise defined)	LULAR TISSUE.			es of the skin and	SES OF THE BONES GANS OF LOCO-		viseases of the bones (mastoid and tuberculosis excepted)	ALFORMATIONS,		ongenital malformations (still-births not included)
137. Cysts and other benignly tumours of the ovary 138. Salpingitis and pelvic abscess. 141. Other diseases of the female genital organs	CLASS VIII.—THE PUERPERAL STATE. Total	143. Accidents of pregnancy 143. Abortion	14.9. Following childbirth (not otherwise defined)	CLASS IX.—DISBASES OF THE SKIN AND OF THE CELLULAR TISSUE. Total		151. Gangrene	154. Other diseases of the skin and annexa.	CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCO- MOTION. Total		155. Diseases of the bones (mastoid and tuberculosis excepted)	CLASS XI.—MALFORMATIONS. Total		159. Congenital malformations (still-births not included).

TABLE 37—CAUSES OF DEATH BY SEX AND AGE—LONDON, 1928—Continued

			159B 159C			160	161A 161B	162 162a			164
		Not stat- ed							:		
		and over		:	: :	: :			:	::	
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	v.	55 to 59		<u>:</u>							
	AGES-YEARS	50 to 54	• : : : -	<u> </u>							
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		CAUSES OF DEATH	1598. Congenital malformations of the heart	CLASS XII.—DISEASES OF EARLY INFANCY. Total		160. Congenital debility, icterus and sclerema	161a. Premature birth 161a. Injury at birth	162, Other diseases peculiar to early infancy	CLASS XIII.—Old Age. Total		164. Senility

CLASS XIV.—EXTERNAL CAUSES.	_	-		_				_																	11
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166. Suicide by corrosive substances. 167. Suicide by poisonous gas 168. Suicide by banding or strange.	HZ.				: :		::				: -			::	- :									::	166
	ZZ	2	::		::		::	1:	::	::	: :	: :	:-	: :	::	: :	; ; ;	::	- :		- <u></u>			::	168
instruments	ITI	<u>: :</u>	::		::	: :	::	: :	: :		: :		::	: :	::	::	::	::	: :			::	::	::	171
(conflagration excepted) 181. Accidental absorption of irre-	M	:	:	:	:	:	:	-	:	:	:	:	:	:	:	:	:	-	:		:	:	:	:	179
spirable gas	ZZZ¤	-01-	: : :	: : :			:::	:::	: <u> </u>	: : :	: : :	: : :	2::2	::-	::::	: : :	:::	::	::==		 : : : :	- : : : - : :	: : :	:::	181 182 185
187, Accidental traumatism by machines	- Z	: :						:	: -	: :	: :	: :		: :	: - :	: :	<u>:</u>		7		· · ·	: :	: :	: :	. 187
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188A. Railroad accidents	ZZZ	10-0							: : : := : :		- : :		7: 5:	: : : -	::-	: : : - : :-	: :	- : : :	:::-					: : : :	188A 188B 188C
188E. Injuries by other vehicles 201. Fracture (cause not specified).	TZZŒ	::::					::::					::::		: : : :	1 1 1 1	<u>: ::</u>	- : : : - : : :				5:	:::	: : : :	: : : :	188E
CLASS XV.—III-DEFINED							1																		1
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205. Cause of death not specified or ill-defined.	M	88		<u>::</u>	: :	::	::	-::	::	::	: :	::	::	::	::	::	::	.:	: :						205 205c
														١						I					

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CAUSES OF DEATH	Sex	Total	Un- der 15	1			65	Age				65	Age	Wid- owed	Not stat-
			15	15-24	25-44	45-64	and over	not stat- ed	15-24	25-44	45-64	and over	not stat- ed		ed
DEATHS-ALL CAUSES. Total		37,128	7,315	1,337	1,158	1,295	1,869	51	305	_	5,501	6,340	7	8,973	
	M F	19,457 17,671	4,055 3,260	825 512	750 408	763 532		40 11		1,330 1,647	3,076 2,425	4,248 2,092	5 2		
Class I.—Epidemic, Endemic and Infectious Diseases.															
Total		4,738	1,185	461	354	151	133	7	102	709	604	415		617	
	M F	2,351 2,387	601 584	227 234	214 140	89 62	47 86	2 5	17 85	307 402	364 240	260 155		223 394	
Typhoid and paratyphoid fever	М	54	3	13	9	1			1	11	10	5		1	
1A. Typhoid fever	F M F	24 52 24	3	11	3 9 3	· · · · i			1 1	11 8	10	5		3 1 2	
1B. Paratyphoid fever 4. Undulant fever 5. Malaria	M M M	2 1 3		2		1						1			
6. Small-pox	F M	1												1	
7. Measles	M F	36 26	32 24	2							1		• • • • •	· · · · i	
8. Scarlet fever	M F	23 44	21 32	2 2					5						
9. Whooping-cough	M F	78 97	78 96					· · · · i							
10. Diphtheria	M F	116 97	110 86	2 4					1	2	1 2			· · · · · i	
11. Influenza	M F	801 910	179 131	29 32	27 22	24 21	24 66		4 11	80 109	112 99	173 118		149 301	
11A. Influenza, sole cause	M F	84: 127	20 37	2 4	1	1 3	4 11			5 4	3 5	21 13		27 50	
11B. Influenza, with phthisis	M F	10		1	1					2 3	2			1	
11c. Influenza, with bronchitis	M F	31 33	7			1	5			4 2	2 3	6		16	
11D. Influenza, with pneumonia	M F	436 435	113 57	20 19	20 12	11 12	8 32		2 6	46 58	71 58	79 44		66 137	
11E. Influenza, with other respiratory diseases	M F	17 15	3	1	1 2		2 2			1	2 2	4 2		3 2	
11F. Influenza, with diseases and accidents of preg-	F	21	į	1					1	15				1	
nancy and parturition 11G. Influenza, with other causes	M	223	35	5	2	10	7		2	22	32	62	• • • • • •	46	
12. Miliary fever	F	272	32	7	7	6	16		ī	26	30	53		94	
13. Mumps	M F	8 9	4 5	2						2	2				
16. Dysentery	M F	21 10	11							1	2	4		3	
21. Erysipelas	M F	51 48	14 14		1	2	1 6			4	8 6	11		10	
22. Acuteanterior poliomyelitis	M F	16 18	11 14	4	· · · · i		1			1	1				
23. Lethargic encephalitis	M F	32 18	5 4	6 2	3	1			· · · · i	2	10	1		3	
24. Meningococcus meningitis.	M F	31 15	19 11	1						4	2 2				
25. Other epidemic and endemic diseases	M F	4	4 7												
25A. Chicken-pox	M F	2 5	2												
25B. German measles 25c. Others under this title	F M	1 2	1 2												
29. Tetanus	F M	1 9	5	· · · · · i							2	i			
30. Mycoses	F M F	8 2 3	6								2			1	
31-37. Tuberculosis. Total	M	888	74	149	163	47	14	2	11	181	164	38		45	
	F	944	111	182	103	47 38	12	3	63	244	100	0.71		62	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928

	NAT	IVITY	Z							MON	rHS						
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ada	ish	USA	Other	ed													
27,280	7,014	955	1,532	347	3,138	3,093			3,352	3,038	2,763	2,656			2,867		
14,078 13,202	3,651 3,363	493 462	986 546	249 98	1,606 1,532	1,664 1,429	1,725 1,618	1,716 1,433	1,748 1,604	1,569 1,469	1,455 1,308	1,432 1,224	1,452 1,292	1,615 1,401	1,502 1,365	1,973 1,996	
3,530	828	97	250	33	359	176	174	223		201	157	136	131	159	146	942	
1,824	413	45		12	187	152		188	266	202	138	132	130	145	123	505	
444 177 42 177 2 1 1 366 25, 233 424 75, 75, 97, 100 91, 57, 643, 101 22, 23, 31, 22, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31	2 1 166 3 215 19 2 2 4 113	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 1 1 2	2	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 2 1 2 1 2 2 1 2 2 1 2 2 2 2 2 2 2 2	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 1 3 3 3 3 4 3 6 6 12 7 1 1 1 1 3 3 9 9 4 3 3 1 1	3773311 3311 3311 3311 3311 3311 3311 3	353333333333333333333333333333333333333	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	166 11 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1	100 11 14 4 15 12 17 17 17 17 17 17 17 17 17 17 17 17 17	8 9 10 11 11A 11B 11C 11D
1 3 3 1 1 2 2 1 2 1	8 45 	77 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 1 2 2	22	1 1 1	7 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 1 2 2 1 1 1 1 4 3 3 1 1 4 4 3 3 1 1 1 1 1 1 1	7 2 2 2 1 1 1 7 6 6 2 1 1 1 1 2 2	0 1 3 4 4 1 1 1 1 1 1 1 1 4 2 2 6 6 1 1	7 1 2 2	3 1 1 1 7 4 4 1 1 1 2 2 1 2 2 3 3 1 .	6600	2111112223311	9 1 1 4 4 5 5 1 4 4 2 2 1 5 5 1 1	0 1 1	5 75 2 85 1 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	12 13 16 5 21 22 22 22 3 223 4 24 25 25A 25C 3 29
59 71	5 15		21 9	2 1		37 3	71 7		78 1	08 7	79 7	3 7	32 3	72 7	79 5	2 7	4 31-31

TABLE 30—0									AL CO						
CAUCES OF DEATH	C	T. t. 1				Single					Marrie	d			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24		45-64	65	Age not stat- ed	Wid- owed	Not stat- ed
31. Tuberculosis of the respiratory system	M F	753 776	25 52	125 152	152 89	41 28	10	2 3	10		144 77	36 24		41 57	
32. Tuberculosis of the men- inges and central ner- yous system	М	36	26	5	1	1	11			2		24			
33. Tuberculosis of the intestines and peritoneum	M F	47 24	35	5	2	2	3			5	4			1	
34. Tuberculosis of the vertebral column	M F	22 10	5 2	11	3 1				2	7 4 1	6	1			
35. Tuberculosis of the joints.36. Tuberculosis of other organs	M F M	10 6 17	2 1 2	2 2 4	1	2		• • • • •		2	1 2 2		• • • • •		
36A. Tuberculosis of the skin and sub-cutaneous cel-	F	24	2	5	3	1	1			6	5	î			
36B. Tuberculosis of the bones (vertebral column ex-	F	2					1			1					
36c. Tuberculosis of the lymphatic system (mesen-	M F	3 2		2							1	1			
teric, and retroperi- toneal glands excepted)	M F	3 5	2	i	<u>i</u>						_i			1	
36D. Tuberculosis of the genito- urinary system	M F	11 13	i	2 3	2 2					3 4	1 3	1		2	• • • • •
36E. Tuberculosis of organs other than above 37. Disseminated tuberculosis.	F M F	2 26 34	8 11	1 5 7	2 5	1 1			1	2 2			• • • • •		
37A. Disseminated tuberculosis, acute	M F	16 19	6 7	2 5	1 2	1			_i	1	5 4				
37B. Disseminatedtuberculosis, chronic or unstated	M F	10 15	2	3 2	1 3				1	1 2	2 2			2	
38. Syphilis40. Gonococcus infection	M F M	83 38 3 5	17 9	3	5 3 1	1	4		1	9 11 1	30		• • • • •	5	
41. Purulent infection, sep- ticaemia	M F	90 63	13 23	10	3 5	4	3		3	10 6	22	19 4		6 9	
CLASS II.—GENERAL DISEASES NOT INCLUDED IN CLASS I.	١,	7 00 (247		0.7	0.77	2.50							1.024	
Total	M M F	2,315 2,779	267 146 121	96 57 39	97 49 48	131 146	258 114 144	2	15 3 12	136 257	1,405 627 778	650 397	1 i	1,236 400 836	
43-49. Cancer	M F	1,571 1,870	7 20	13	24 28	91 106	90	1	1	73 141	459 555	499 276	i	313	
43. Cancer of the buccal cavity	M	108	1		1	8	11			4	29	27		27	
44. Cancer of the stomach and liver	M F	24 644 561	1 3		9 3	42 22	43	1		20 30	186 139	200			
45. Cancer of the peritoneum, intestines and rectum	M F	284 321	1	1 2	2 6	14 21	13 22			23 17	88 89	97		46	
46. Cancer of the female genital organs	F	337 2		1	8	21	8			46	126	32	1	94	
48. Cancer of the skin	F M F	342 43 29	1	1	2	29 2	20 5 2			30 1 2	123 6 6	43 19 4		92 10 12	
49. Cancer of other or unspeci- fied organs	M F	490 256	5 15	12	12	25 13	18 16		1	25 16	148 68	156		88 82	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.—Continued

	NAT	'IVIT'	Y							М	ONT	IS					
Can- ada	Brit- ish	Fore	eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
482 575	154 135	18 17	86 42	13 7	65 69	57 48	66 79	68 64	85 92	55 62	70 61	65 69	47 63	63 59	44 47	68 63	31
30 39	5 2	<u>i</u>	1 4	· · · · i	4 3	4 5		9	4 8	4 5	i	2	2 2	6 4	2	1 3	32
21 37	2 7	1	3		1 5	2	2 6	3 3	2 4	4 6	1 5	3 6	2 1	2 3	1 8	1	33
16 7	3	2		1		4	3 4	6	1	2		2		2	· · · · i	1	34
10 5 14	·····i	i	2		1 1 3	1	1	2	1	1 1 3		1	1 2	1 1 1	1 1	2	35 36
21	2	• • • •	1		4	1	2	2	2	1		3	3	3	1	2	
1	1						1					• • • • •	1				36A
3 2										· · · · i				i			36в
3 5					1	1				2		1			1	1	36c
8	1		2		3 2		1	2	1 1	1		1 2	1 3	1 2	1		36D
2 21	2		2		1 3			2	1 5	2	1		3	4			36E
3i 14	3		1		5 2	1 2	4	3	6	4	3	1	1 2	3	1	2	27.
16	3		2		1	1	2	3	5	3	2		1	3	1	1	37в
15 47 22	20			3	4 7 4	7 2	9 2	16	5	1 3 2		5		6	7	1 5 1	
2 4	1			1				· · · · i	1	· · · · i			1 1				40
65	18		5		3 5	11	12	5 4		12					8 7	5	41
3,571	1,150	138	209	26	448	413	438	415	451	431	426	407	393	451	391	430	
1,589 1,982						191 222				195 236						208 222	
1,018 1,284	426 457				137 165	122 145		132 141	127 154	130 161			121 155	154 161			43-49
7.5 1.5	26		5		11	8			10	13		7		15		4 2	43
424 385	165	17	3.5	3	58	50	49	54	53	48	42	59	51	70	47	63 44	44
189 226	73	5	16	1	23	26	27	25	17	23	22	29		20			45
219					29				1			1		1			46 47
240 29 17	84 11 10		. 3		30 5 3	3	9	3	6	2	. 2	1	2	1	3	29	48
299 182		13	3 24	3	40 20	35	42 21	41	41 20							39	49

						OK E		NJUG.	AL CO	_				DITI	
						Single		, , , ,			farried	1			_
CAUSES OF DEATH	Sex	Total	Un- der	_		l	65	Age				65	Age	Wid- owed	Not stat-
				15-24	25-44	45-64		not stat- ed	15-24	25-44	45-64	and over	not stat- ed		ed
49A. Cancer of eye and ear	M F	1 9			_i					2	i	1		5	:::::
49B. Cancer of circulatory system	M F	3 9	1 3	2	2	1 2	3 4		1	6	9	8 5		6 8	
49c. Cancer of respiratory system	M	71		2	1	8	1			5	34	14		6	
49D. Cancer of digestive system	F M	45 58	1	1	2	3	4			3	22	18		9	
49E. Cancer of genito-urinary organs	F M	59 239		1	5	3	10			6				50	
49f. Cancer of bones and joints	F	44 24	8 3	2	1 1	1 2	3			1 2	8 2	5 5		17	
49G. Cancer of other specified organs	F M	20 50	1	4	1		3			3	14			8	
49H. Generalized cancer	F M F	26 4 11	1	2	11	1	1			2	7 1 5	4		6	
491. Cancer unspecified	M F	4									1 3	1		2 3	
50. Benign tumours and tu- mours not returned as malignant (tumours of female genital organs excepted)	M	23				1				2	5	7 2		6	
51. Acute rheumatic fever	M F	23 56 67	1 18 19	9		4	1		1		8	3		. 5	
52. Chronic rheumatism, osteoarthritis, gout	M	13		1		. 1					3	4		. 4	
53, Scurvy 54. Pellagra	F M M F	4 1 2	4	1										13	
56. Rickets	M	31 20	31												
57. Diabetes mellitus	M F	180 259	14	11						19	48				
58. Anaemia, chlorosis	M F	164 177	3	4	1 1	10	11				47	32		. 45	
58A. Pernicious anaemia	M F	150			3	12				20					
58B. Other anaemias and chlor- osis	MF				2					1					
59. Diseases of the pituitary gland	M F	2													
60. Diseases of the thyroid gland	M		2			3	3			1 3	19				
60A. Exophthalmic goiter	M F	26	i		2	1 2	2	5		3 43	1 11		H	. 2	2
60B. Other diseases of the thy- roid gland	M	23	3 2	2	2	2 5				1 18	1 8	3	3	. 3	
61. Diseases of the parathyroid glands	M														
62. Diseases of the thymus	M F	3	3	7		:::::									
63. Diseases of the adrenals Addison's disease	M											5			
64. Diseases of the spleen	M	9			i		i				2 1	2			
65. Leukaemia,lymphadenoma	M F	5	8 .	2	8		1					3	1		
65A. Leukaemia	M	1 3.	3		4		2				8 8	3 4	1	. 4	1
65B. Lymphadenoma Hodgin- kin's disease)	M	2	5	1	4		1				6 10		3	. 1	
66. Alcoholism	M F	6				9 1	2	2		. 1			1	. (
66A. Delirium tremens	M	1	5				2	i				2		i	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.-Continued

27 4 1 1 1 2 1 5 4 3 5 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2	
ada ish USA Other ed	
7	
27 4 1 1 1 2 1 5 4 3 5 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 3 3 2 3 3 2 3	49A
29 10 4 2 4 4 4 5 5 5 4 4 1 3 2 2 7 37 18 2 1 7 3 4 9 8 3 3 6 1 5 3 6	49в
	49c
	49D
	49E- 49F
35 9 1 5 5 2 7 3 2 4 3 5 5 2 7 5 1 6 9 1 1 2 2 2 3 3 2 4 3 3 1 2 3 3 1	49G 49н
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	491
14 8 1 1 2 4 2 1 4 1 1 1 3 3 1	50 51
16 5 1 2 2 2 2 5 1 3 4	52 53
	54 56
20 2 1 1 2 1 2 1 2 2 1 2 3	
1331 351 81 11 201 221 161 171 241 111 141 101 3	58 58a
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	58в
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	59
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	60 60a
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	60в
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5 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	63
1 1 1 1 3 2 1 4 2 1	64 65
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	65A
	65в 66
	66A

							CON	JUG.	AL CC	NDIT	ION				
CAUGES OF DEATH	Cam	Total				Single				N	Iarrie	1			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
66B. Acute alcoholism 66C. Chronic alcoholism 67. Chronic poisoning by mineral substances 67A. Chronic lead poisoning. 67B. Others under this title 68. Chronic organic poisoning. 68A. Chronic morphinism 68C. Other organic poisoning 69. Other general diseases 69A. Diabetes insipidus 69B. Haemophilia 69C. Purpura haemorrhagica 69D, Others under this title CLASS III.—DISEASES OF THE NERVOUS SYSTEM AND OF THE	M F M F M F M F M F M F M F M F M F M F	49 5 12 4 3 1 1 2 5 5 1 1 3 3 3 0 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	144 111 88 55 44 33 22 3	1 1	1	1	1 1		2	12 1 2 3 3 4 2 1 1 1 1 2	11 2 5 5 2 2 2 2 2	4		5 2 2 1 1 1 1 1 2 3 3 2 2 1	
Organs of Special Sense. Total	M F	2,844 1,421 1,423	184	41	97 55 42	68	178 96 82	1		146 68 78	213	389		306 535	
70. Encephalitis	M F M F M F M F M F M F M F M F M F M F		39 40 1 3 4 5 1	3 1 1 5 3 5 3 5 5 3	1 3 3 7 7 7 2 2 2	2 1 3 5 21 26 8 8	5 5 5 5 62 831 266 28 29	1	2	3 8 1 2 2 2 6 6 2 2 4 4 2 2 4 4	11 1 25 12 87 114 36 46 41	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2 4 4 1 1 4 4 1 1 4 4 1 1 4 4 1 1 1 3 6 4 1 1 1 3 6 4 1 1 1 1 8 4 9 6 1 5 9 9 6 1 5 9	
 74c. Cerebral thrombosis and embolism. 75. Paralysis without specified cause. 75a. Hemiplegia. 75b. Other's under this title. 76. General paralysis of the insane. 77. Other forms of mental alienation. 78. Epilepsy. 79. Convulsions (non-puerperal—5 years or over). 	M F M F M F M F	47 46 101 139 63 88 38 51 44 12 29 53 82 81	1 10 9	1 1 1 1 1 1 3 8 15	1 1 3 1 1 1 2 1 6 6 6 21 1 18	2 3 3 3 7 1 6 6 2 1 1 5 2 2 * 7 7 6 9 9	3 3 4 6 6 3 6 1 1 2	1		15 14 4 2 1 1 2 8 1 1 5 2 1 1 1 1	10 7 15 13 9 10 6 3 16 1 15 16 7	144 77 444 33 288 200 166 13 6 2		144 21 300 744 21 44 9 30 6 3	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.—Continued

	NAT	TIVIT	Y						1	MONT	HS						
		For	eign	Not													
Can- ada	Brit- ish	USA	Other	stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
31	13 2 3		5		9			1	4	5	6	3 1		5	6	2	66в
1	3 1	1		1	2	1	1						3	1	1	1	66C
2	i						1		1					1		1	67а 67в 68
3 1 2					1 1		1		i						1		68A
1 1 27 19	2	2	1		2 2	1	5	6	5	1 3	1	3 2	1	2	1 3	1	68c 69
1 1 1 10								5	1 2						2	1	69a
8 7 5	1					1	2	3	1	2	1	2		1	· · · · · i	1 1	69в 69с
5	i		1		1 1	1	2	2 2	1		i	1	1	1		2	69D
2,143	512	57	111	21	224	272	267	252	239	234	219	216	180	215	251	275	
1,059	254 258	27 30	70	11	113	139	136	129 123	130 109	112 122	97	106 110	94	101	126 125	138	
26	9		2		3	3	4	4	2	3	2	4	4	4	3		70
22 6 5	6 3 1	1	i		2 1 1	2	2 1 1	3 2 1	2		5 1 2	1	1	1 2	3	4	70a
20 17 53	6 5 3	i	3		2 1 7	2 2 4	3 1 9	2 2 5	2 2 6	3 3 5 7	1 3 3	4 1 3	3 1 4	2 1 3	3 3 4	3 6	70в 71
50 51 50	5 3 5	<u>1</u>	3		1 6 1	6 4 6	4 9 4	2 5 2	8 6 8	7 4 7	7 3 7	8 3 8	3 4 3	3 3	2 4 2	5 6 5	71A
2					1	• • • • •				1							71B
20 2 78	31			1	2			2 1 7	2	4	5	1		3 2		13	72
67 468	130	19	3 4 35	6	11 8 45	12 4 75	14 4 56	5	8 7 59	5 8 57	9 46	10 14 51	11 9 44	11 5 37	57	6	74
538 223 260 210 247	155 56 66 67 75	17 9 7 8	24 10 11 22 13	3 3 2 3	50 23 23 19 25	82 33 35 35 37	74 34 34 20 38	65 25 30 38 31	53 31 24 25 27	59 24 26 26 32	62 20 31 22 25	50 17 26 27 23	47 17 22 24 22	54 16 25 20 27	65 31 30 23 29	76 30 40	74A 74B
35 31	7 14	2	3		3 2	7 10	2 2	3	3 2	7	4 6	7 1	3	1 2	3 6		74c
	20 27	2 6	4				5 10	8	9 12	6		8 10	6	4 8			75
75 102 44 64 31 38	20 27 15 19 5	3	2 2 2 2		20 19 11 10 9	8 11 5 7 3 4	4 4 1 6	14 5 9 3 5	6 11 3	4 8 2 5	5 14 3 9 2 5	6 7 2 3	11 3 8 3 3	2 4 2 4	7 12 4 7 3 5	41	75A 75B
27 10	8		6	1	3	4	2 1	2	5		2	3		10	5	- 1	76
21 32 67 65	5 15 10 10	1 3 2	2 2 3 3	3	1 3 6 6	3 9 5 5	2 3 9 7	2 3 8 6	6 4 8 6	4 4 6 11	1 2 9 5	 8 4 6	6 4	4 7 7	3 5 9 5	8 5 13	77 78
21	'	11	• • • • • •			1	11	'	11	'	l			1	1		79

							(0)	VIUG	AL CO	NDIT	CION				
				1		61 .									
CAUSES OF DEATH	Sex	Total	Un-		1	Single				ı ı	Aarrie	d		Wid-	Not
			der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45–64	65 and over	Age not stat- ed	owed	
 80. Infantile convulsions (under 5 years of age). 81. Chorea	M F M F M F M F M F M F M F	600 444 33 88 55 100 177 155 1144 99 88 3 50 37 28 26 222	60 444 1 4 9 18 2 42 28 27 19 9	5 5 5 5 2	7 5	14 3	7 2 4 2'		3 2	18 9 1	29 21 5	1 2 3 5 1 1 18 17 2		2 3 5 10 10 19 2 1 2 6 2 2 2	
CLASS IV.—DISEASES OF THE CIRCULATORY SYSTEM. Total	M	8,880	74	95		296	721	6	3	140	1,377	1,645		3,463	
\$7-90. Diseases of the heart	M F	2,884 2,725	33 35 31	55 36	64 44	115 127 82	205 213	3	3 13	116 116 142	582 525 392	765 957 478		794 1,294	
87. Pericarditis	M F M F M F M F M F M F M F M F M F M F	77 66 97 82 53 36 44 46 499 236 2,281 2,401 432 458	21 14 5 11 4 3 1 1 21 24 3 5	10 98 66 22 33 44 27 14 8	5 6 2 4 3 4 2 50 37	4 2 2 1 1 155 100 108 70 21	180		11	27 27 27 9 13 8 14 20 4 77 111 28 38	3 1 20 111 12 5 8 6 1333 49 369 331 79	12 43 3 9 4 1933 566 751 418 1422 71		8 17 2 3 6 14 110 99 676 1,176 87 208	
90B. Fatty degeneration of the heart	MFMFMFMFMFMF MF MF MF	13 13 2 1 298 364 1,181 1,218 355 347 1,649 1,462 1,462 1,438 1,595 1,438	77 99 77 77 44 33 11	7 2	16	35 20 8	93 105	2	1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 211 344 200 222 86 144 12 2	3 4 	11 2 648		27 71 136 420 650 102 5512 834 11 8 8508 823	
93. Diseases of the veins (varices, haemorrhoids phlebitis, etc.)	M F M F	14 25	2	2	1	1	2		1	2 2	7 8	7		11 2 9	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.-Continued

	NAT	'IVIT'	Y							N	IONTI	IS					
Can- ada	Brit- ish	USA	eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
60 43 2 5 5 8 11	1 3 2 4 2		1	i	5 4	4 1	8 3 2 1 2 3	577111112	8 3	5 5	6 3	4 2 2 1 1 1 1 2	1 2 1 1	5 6 1 2 1 2	3 6 1 2 2 3	6 2 1	80 81 82 83
86 79 6 3 52 45 30 26	21 13 2 7 5 4 4 2		32	1 1	7 6 3 5 3 2	8 7 2 1 1 6 4 1 4 5 5	10 9 8 5 2 4	8 5 4 4 1	1	3		9 7 7 1	11 7 7 4 1 3 1 1	11 19 4 1 1 1 1 3	16 10 3 7 5 5 5 4 2 2 1	5 6 4 2	85 86 86A
6,177 3,180 2,997		127	174	53		764 425 339	828 431 397	80.8 44.6 362	412	362	326		328	375	380	420	
1,991 1,913	659	78 93	3 119 86	37	235 258	266 220	268 242	240		230	20/0	180	205	204	218	274	87–90
68 54 36 27 32 27 358 172 1,561 1,684 307	3 14 20 5 1 7 1 8 10 9 4 1 54 1 55.	0 8 8 6 6 6 6 4 4 1 5 5 0 5 7 5 3 7 5 3	3 11 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	1 1 1 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	5 3 2 4 3 49 18 179 234 30	3 1 1 3 49 23 213 193 44	11 5 3 8 53 21 205 210 43	12 3 61 21 183 214 33	15 15 16 17 18 18 19 19 19 19 19 19 19 19 19 19	36 44 36 14 177 207 30 30	5 4 6 2 5 5 6 31 1 14 7 162 7 177 28	28 18 16 15 4	3 10 5 10 6 4 7 3 8 38 17 8 162 178 2 31	1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	7 36 20 20 20 196 0 42	2 2 3 3 3 3 3 3 3 7 2 2 3 3 3 3 3 3 3 3	88A 88B 89 90
13 10 20 27 793	6 6 6 7 8 9	5 1 3	6 11 4 4.	1 2	32	34 23 91	22 34 110	22 28	3 42 4 10.5	30 2 35 98	24 5 30 8 79	11 12 22 76	3 17 3 28 5 95	29	1 1 1 20 2 19 3 114	28 36 4 110	90d 90d
812 244 263 1,124 1,039 2,14 1,099	8 6 8 6 4 4 1 3 3 3 3 1 4 3 3 3 3 3 4 3 9	6 7 7 1 1 4 4 2 8	5 1 8 1 5 4 4 3 2 4 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	35 160 131 6 15 15	144 117 117 117 117 117 117	29 42 157 152 7 149	24 28 17 110 110	31 31 32 37 12 35 13 41 22 12 12	1 19 8 31 7 138 2 13 2 13	29 1 13 8 124 7 112 5 2 1 123	2 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	19 19 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	33 9 13 1 134 9 126 1 129	3 29 7 27 4 120 6 118 3 1	7 3. 0 15. 8 12. 1	2 90°F 3 91 2 91 A
1,020	32 8 5 	9 4 5 1	1 3	2 2	128	2 2 2 1 1 5 7	1 1		1	7	4	9	4 98	1 2	2	2	91c 92
1 1		1		3			1 1				1						2 93

TABLE 38—		3005	01			OK I		- 50	Х В1					NDIT	
							CO	NJUG.	AL CO	ONDI	LION				
CAUSES OF DEATH	Sex	Total				Single				1	Marrie	d			
CAUSES OF BEATTI	Jea	10141	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
94. Diseases of the lymphatic system (lymphangitis, etc.)	M F	7 5	3			2					2 2				
95. Haemorrhage without specified cause	M	2	1		1										
96. Other diseases of the circulatory system	F M F	3 1									2 1	1	• • • • •		
CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM. Total		3,330		89	103			3	18		402	453	1	754	
	F F	1,776 1,554	536 449	54 35	72 31	76 52	64 81	2	10	138	262 140	284 169	1	281 473	
97. Diseases of the nasal fossae and their annexa 98. Diseases of the larynx 98a. Laryngismus stridulus 98b. Laryngitis 98c. Croup 98b. Other diseases of the larynx 99 Bronchitis 99a. Bronchitis, acute	M F M F M F M F M F M F	8 12 14 15 1 10 5 5 2 2 64 8 5 5 3 2 3 5 2 2 2 3 3 5 2 2 2 3 3 5	3 11 10 16 5 5 2 2 19 23 17 19	2 2 1 1 1 1	3	1 1 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 11 1 2 1 1 8			2	1 1	11 5 2		11 2 2 2 2 37 4 11 9 17	
99c. Bronchitis, not otherwise defined, under 5 years of age	M F M F	1 3 9 14	1 3		1		1			1		2		5	
cluding capillary bronchitis)	M F M F M F M F M F M F M F M F M F M F	515 487 508 481 7, 66 946 788 519 384 427 404 82 50	284 211 280 208 4 3 196 181 62 58 134 123 16 11	88 7 88 7 34 200 20 9 14 11 6 3	111 8 111 8 466 155 377 8 9 77 55 6	9 12 9 12 53 31 36 17 17 17 14 6 2	20 26 20 26 36 37 22 15 14 22	2	1 1 1 1 1 1 5 8 8 5 7	19 20 18 20 1 1 93 70 66 51 27 19 12 7	37 30 37 30 172 86 115 54 57 32 16 8	80 52 77 49 12 4	1	66 131 64 129 2 2 154 237 76 112 78 125 8	
104. Gangrene of the lung 105. Asthma 106. Pulmonary emphysema 107. Other diseases of the respiratory system (tuberculosis excepted) 107A. Chronic interstitial pneumonia occupational diseases of the lungs.	F M F M F M F	666 3 1 52 22 22 3 1 45 27	4 1 1 1 7 5	1 1	3 1	2 1 1 1	3		1 1	2 2 1 3 1	1 20 4	14 3 2		8 10	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.-Continued

	NAT	TIVIT	Y							M	ONT	HS		•			
Can- ada	Brit- ish	Fore	eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
5 4 1 3 3	1	1	2		2	3			1 1 1 1 1	1	1	1	1	2	1		94 95 96
2,469	643															482	
1,297 1,172	343 300							184			74 59	37	81	128 108	115 114	246	
6 9 13 13 1 1 8 8 5 2	2 3 1 1 1	i			2 4 1 1 2 2 2	3	3 2 1			1	1 1 2 2 1	1	1 1 1 1 1 1 1 1 1 1 1	1	1 2 1 2 1	2	97 98 98A 98B 98C
2 48 66 28 30 13 25	11 15 2 3 7 7	2	1 1 1 2	1	2	3 2	5 8 2 4 2	3	10	3 3	1 2	2 2 2 2 2		7 2 4	4	17 2 5	99B
1 3					· · · · i										1	1 1	99C
6 8	2 5	1	1		1 3				1					1	1 2	3 6	99D
412 376 406 371 6	72 87 71 86	12 11 12	17 8	4 3	42 37	61 47	49 68	48	55 58 54	33	20 16	1	27 27 20	3333331	40 36 40 1	77 77 77	100A
5 676 593 347 277 329 316 52 38	1 193 155 123 85 70 70 21	23 17 15 11 8 6	22 25 10 17 12 7	1 1 3	79 54 42 54 37	89 66 44 37 45	96 72 44 45 52	79 63 39 41 40	94 89 89 43 41 51	50 34 21 44 29	18 12 16 16 16 3	21 20 8	28 0 16 8 16 22 8 12	5 2 45 31 25 21 7	54 57 34 33 20	126 54 53 63 73 12	101A 101B 102
26 43 1 33 15 1	16 19 1 16 5 1	1 3	1 1 1 1 2		2 2	2 9	10	5 3	3 3	3 4	3 3	3	3 3 3	5 5 1	1 2	13	104
29 19	9 7		6		3 3	5 2		3 4		3	5		3			3	107 107A

			CONJUGAL CONDITION											-	
CAUCES OF DEATH	Com	Total				Single				2	Marrie	d			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat-	15-24	25-44	45-64	65 and over	Age not stat-	Wid- owed	Not stat- ed
107B. Diseases of the media- stinum	M M F	1 40 27	1 6 5	1 1	2	1	2	ed	1 1	4 6	13		ed	3 6	
Class VI.—Diseases of the Digestive System. Total		2,660	1,042	119	101	96	69		16	256	375	252		334	
	M F	1,443 1,217	587 455	77 42	58 43	61	34 35		5 11	140 116	204 171	163 89		114 220	
108. Diseases of the mouth and annexa	М	33	3	2	4	4	2		1	2	8	3		4	
109. Diseases of the pharynx and tonsils (including adenoid vegetations)	F M F	20 59 68	36 29	4 6	3	1	4		1	8 7	2	2 3		2 3	
109A. Adenoid vegetations 109B. Pharynx and tonsils	M F M F	1 1 58 67	36 29	4 6	3 6	1	4		1 1	 8 7	 2 9	1 2 2		1 3	
110. Diseases of the oesophagus111, Ulcer of the stomach and duodenum	M F M F	161 40	1	7 3	13	16	4 3			32	44 7	27 8		1 1 17 10	
111A. Ulcer of the stomach 111B. Ulcer of the duodenum.	M F M F	84 26 77 14	i	3 1 4 2	7	5 7 3 9 2	2 1 2 2			14 3 18 1	24 7 20	16 3 11		12 8 5 2	
112. Other diseases of the stomach (cancer excepted)	M F	108 92	37 29	1	3	4 3	2 4			7 5	18 10	20 9		17 31	
113. Diarrhoea and enteritis (under 2 years of age)114. Diarrhoea and enteritis	M F	359 284	359 284												
(2 years or over) 116. Diseases due to other intestinal parasites	M F M	71 88	37 35 1	2	7	3 2	2 7			5 7	5 4	8 4		22	
116c. Nematodes (other than ankylostoma) 117. Appendicitis and typhlitis	M M F	1 255 178	1 64 47	51 29	12	 5 5	 1 3		1 5	56 29	38 26	17		10	
118. Hernia, intestinal obstruction	M F M F M F	170 143 63 45 107 98	29 12 5 24 12	5 1 1	11 6	10 4 6 1 4	14 7 3 5 11 2		1	12 21 4 5 8 16	31 30 13 13 18	34 20 12 7 22		24 41 14 14 10 27	
testines	M F	35 31	4		1 1	2 5	2		1 1	4	8 5			3 9	
the liver	M F M F M F M F M F M F	4 11 588 46 3 1 555 45 155 53 64 117 12 15	1	1 1	1 2 1 1 2 2 5 3 3 1 1 1	8 3 3 1 5 5 5 1 1	1 5 1 1 1 1 4 4		1	4 66 44 11 5 4 11 44 33 122	1 2 144 155 2 15 6 166 199 333 3 5 5	6 11 6 5 4 19 22		12 14 12 14 2 25 9 366 3 2	
fied cause	M F	35 30			1 2	2 2			1 1	5	6 5	1		3 7	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.-Continued

	NAT	TIVIT	Υ .							N:	ONT	HS					
Can- ada	Brit- ish	For USA	Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1 26 19	8 7		5 1	1	3 3	5 2	 2 2	1 3 1	7 3	4 3	5 2	1 2	1 3	2	2 2	5 3	107в 107с
2,110	389	56	91	14	182	185	203	196	205	182	220	295	340	266	20 8	178	
1,134 976	204 185	30 26		11 3	91 91	97 88	107 96	110 86	114 91	97 85	117 103	156 139	198 142	140 126	111 97	105 73	
24 15	7 3	1 2	1		1 3	2	3 1	5 4	1		3	3	1 1	7 3	1 2	5	10,8
49 57 1 1 48 56 3 1	8 8 8 8 8 55 5	1 1 1 1	1 2 	2		7 6 1 7 5 13 5	1	3 4 1 1 14	10 7 10 7 1	5 6 5 6 10 4	7 4 7 4 18 4	2 5 2 5 5	6 3	5 5 1	4 7 7 4 7 1 19 2 2	5 4	109 109а 109в 110
42 21 48 13	32 4 23 1	1 1	4	1	3 7 2 8 1	8 3 5 2	5 1	7 1 7	8 4 8 1	6 4 4	12 3 6 1	2 5 3 1	9 2	4 3 7 1	11 8 2	7 1 7 2	
86 77 351	15 14	5	1	3	1 12	8 8 13	11	16 13	9 8 8	10 6 11	12 14 19	14 5 58	9	8 6 60	9 10 23	8	112
281 54 75	9 10		5		9 9 7	9 2 7	5 2	10 5 6	11 5 4	12 1 -8	12 8 9	58 9 10	80	47	25 8 4	2	114
1 197 136 123 888 41 25 82 63 29 20 3 8 40 - 32 1	1 1 7 11 1	33 33 34 4	88 22 44 11 44 11 22 22	3 1 2 2	8 3 3 2 4 4	111 100 44 47 77 66 33 1 33 44 1	244 155 7 3 17 12 2 3 2 2 2 4 4 8	2 1 5 5	12 1 1 1 8 4	4 2 77 9 3 1 1 4 3	122 144 33 69 88 22 55	14 16 15 4 4 12 11 4 4 4 2 6 5	11 19 5 10 1 1 9 4 1 	13 3 6 7 7 7 4 4 4 1 8 5 1	10 14 6 2 4 12 4 3	166 100 166 155 5 8 111 7 2 2	118 118A 118B 119 120 122 122A
3 8 400 - 322 2 1 1 388 311 8 466 388 711 9 9 226	6 11 5 3 16 39 3 5 5		4 8 4	1 1	4 4 1 5 4 9 1 3 4	3			8	1 3 4	2 4 1 6 1 9	5 5 2 4 3 6 2	3 1 2 3 3 7 1	7 5 3 4 9 1 3	6 1 3 6 11 1 1	5 3 3 5 4 12 1	122B 123 124 125 126

TABLE 38—C	1 1	SES													
				1				NJ UG2	AL CO					1	
CAUSES OF DEATH	Sex	Total	Un-			Single				N	1 arried			Wid-	Not
			der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25 -4 4	45-64	65 and over	Age not stat- ed	owed	stat- ed
CLASS VII.—Non-Venereal Diseases of the Genito- Urinary System and Annexa.															
Total		2,624	75	41	50		159	3		228	511			757	
	M F	1,517 1,107	40 35	19 22	26 24	54 42	100 59	3	9	79 149	281	524 169		389 368	
128. Acute nephritis (including unspecified, under 10 years of age)	M F	80 66		8			_i		2 2	12 15	10 11	12		4 12	
129. Chronic nephritis (Bright's disease)	М	946	9		11	39		3		56		311		222	
131. Other diseases of the kidneys and annexa	F M F	797 73 81	9 8 15	1	2	33	53 4 3		5	69 8 11		21		305 13 19	
132. Calculi of the urinary passages	M	22	1			2				2 3		6		7 2	
133, Diseases of the bladder	F M F	56 11			i	1	7			1	5			24	
134. Diseases of the urethra, urinary abscess, etc	M F	10				2	1				5	1		1	
134A. Stricture of the urethra. 134B. Other diseases of the urethra	M	6 4				1	1				3	1		i	
135. Diseases of the prostate	F M	324			2	4	28			· · · · i	18	153		118	
136. Non-venereal diseases of the male genital organs.137. Cysts and other benign	М	i					1			,		2			
tumours of the ovary 138. Salpingitis and pelvic abs-	F			2	1	1	1			12				5	
139. Benign tumours of the uterus	F				4	1	1			11			Į	10	
140. Non-puerperal uterine haemorrhage 141. Other diseases of the	F	5		1	1	1					2				
female genital organs 142. Non-puerperal diseases of the breast (cancer ex-	F			1					1	15				3	
cepted)	F	1	• • • • •						• • • • •		1				
CLASS VIII.—THE PUERPERAL STATE.															
Total		396		16	9				85	276	6			4	
143. Accidents of pregnancy 143a. Abortion 143B. Ectopic gestation 143c. Others under this title 143D. Abortion, self-induced	F F F F	10 15 9		1	1				8 4 1 3	13	1				
144. Puerperal haemorrhage. 145. Other accidents of labour 145A. Caesarean section. 145B. Difficult labour. 145C. Other surgical operations and instrumental deli-	F F F	45 51 19			1				5 5 1	43				1	
145b. Uncontrollable vomiting 146. Puerperal septicaemia 147. Puerperal phlegmasia alba dolens, puerperal em- bolism, sudden death in	F	15		. 1					1 3 30	9 11 75				2	
puerperium	F	1							6					1	
and convulsions 149. Following childbirth (not			1	4	4				29						
otherwise defined)	F	13			1	1	1			11	• • • • •	• • • • •			

NATIVITY, AND MONTH OF DEATH—ONTARIO, 1928.—Continued

	NAT	IVIT	Y					••		М	ONTH	IS					
Can- ada	Brit- ish		eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1,824	580	84	105	31	255	205	241	233	215	221	185	179	226	196	223	245	
1, 04 6 778	341 239	44 40	65	21 10	149 106	117 88	141 100	142 91	125 90	132 89	112 73	109 70	121 105	109 87	124 99	136 109	
54 48 674	15 16 199	2 1 27	7 1 33	13	。 7 6 94	7 7 73	10 4 88	7 8 85	7 4 81	4 9 77	9 4 66	6 1 72	6 3 69	5 5 70	8 8 84	4 7 87	128
556 50	171	30	30 5	10	80 4	68 5	67 8	62 7	67	64 9	54 7	52	73	61 4	67	82	131
60 13 8 35 6	17 6 16 4	3 1 1	2	1 1	6 3	5	7 3 10 2 1	6 2 1 7 	4 1 1 5	5	8 2 1	977	10 1 1 4 2	8 2 1 4 2	8 1 2 6 1	5 1 2 2	132 133
1 2 2 1 210	2 2 87	i 11	15	i i	35	24	19	2	27	38	25	19	31	1 1 21	1 1 24		134A 134B 135
6 21	5	2	2		3	1	2	1	4	1	2	2	1.	3	3		136 137
15 31	3	1	2		2	3	4	2	1	2	2	2	5	3	3		138 139
4	1				1	• • • • •		1				1	1	1		ı	140
27	14	1	4		2	4	6	8	4	3	3	2	4	2	6		141
261	83	17	34	1	32	40	51	42	24	41	36	29	25	27	18	31	142
19 6 8 5 31 31 12 2	8 2 2 3 1 9 12 5	1	9 2 5 1 1 5 6 1	1	 8 4 1 1	 4 6 2 1	4 3 1 7 7 3 1	4 1 3 2 5 2	3 1 1 3 2 1	7 1 3 3 3 5 5 5 3	3 1 1 7 3 1	3 2 1 5 6 2 1	2 1 1 1 3 4 2 2	2 2 1	2 3	1 1 4 3 1	143 143A 143B 143C 143D 144 145 145A
7 10 79	2 3 27	6	2 2 8	1 	1 1 8	2 1 15	2 1 17	1 2 14	1 9	11	1 2 11	1 2 5	2 6	i 11	2 1 4	1 9	145 145 146
21 71 9	8 18 1	4 5 1	3 2	• • • • •	2 9 1	5 9 1	3 11 2	2 12 3	3 4	4 8 1	1 11 1	5 4	1 8 1	1 9	4	8	147 148 149

TABLE 38—C	AU	SES	OF L	EAI			AGII	. SE2							
							CON	JUGA	L CO	NDITI	ON				
CAUSES OF DEATH	Sex	Total	T.T.m.			Single				N	larrie	i			Mat
			Un- der 15	15-24	25–44	45-65	65 and over	Age not stat- ed	15-24	25-44	45–64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CLASS IX.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.															
Total	м	211 119	16	$\frac{6}{4}$	1	7			1	9	14			31	
	F	92	14	2	1	3	7		1	6					
151. Gangrene	M F M F M	58 44 11 7 27 17	3 8 4	1 2 1		3 2 1	6 5 2		· · · · · · · · · · · · · · · · · · ·	2 3 4	3 2 5 6 3	6 2		29	
154. Other diseases of the skin and annexa	M F	23 24	8 7	1 1	1	1	1 2				2	9 2		8	
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.															
Total		88		8	4				l					1	
	M F	48	14 13	7	3	1	3		1	3 2	7 2	4		12	
155. Diseases of the bones (mastoid and tuber-culosis excepted) 156. Diseases of the joints	M F	35 30	13 10	4 1	1 1	1	2 3		· · · · i	1 1	4	6 3		3 9	
(tuberculosis and rheu- matism excepted)	М	11	1	2	2					2		1			
158. Other diseases of the organs of locomotion	M F	2 2		1		1				1	1	1		2 i	
Class XI.—Malformations.					1										
Total		485	468	10	3			1			3				
	M F	249 236	241 227	5 5	2			· · · · i			1 2				
159. Congenital malformations (stillbirths not included)	M F	249 236		5 5	2			1			1 2				
159A. Congenital hydroceph- alus	F M	16 17 129	16	1											
159c. Others under this title	F M F	97 104 122	94 102	1	1 1			1			1				
CLASS XII.—DISEASES OF EARLY INFANCY.															
Total															
	F M	1,309													
160. Congenital debility, icterus and sclerema	M F	198 143													
161. Premature birth, injury at birth	M F M F	988 762 811	988 762 811												

NATIVITY, AND MONTH OF DEATH.-ONTARIO, 1928-Continued

	NAT	TIVIT	Y							1	MONT	HS					
Can- ada	Brit- ish		Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
151	45	8	6	1	11	22	23	16	14		21	10	4.3	10		10	
85	24 21	6	4		7 4	11	13	10	11	10	8	13	13	11	11	19	
66		2				9				4	13	6	9	7	10	9	
40 30 9	15 11 1	2	1 1 1	1	3 2	5	6 3 1 1	2	5 1 1	7 3 1	8	6 4 1	5	4 2 4 1	5 5 3	1	151 152
19	7	3	1		1	4	3 2	5	1		6 2	1	1		2 1	2	153
22	2	1	1		3	1 2	3 4		1	1	1	5	3	2 4	1 4	2	154
70	13	3	1	1	4	5	2	7	15	6	9	8	13	10	5	4	
38	6	1 2		1	3	1 4	· · · · · · · · · · · · · · · · · · ·	6	10	2	5 4	4	6	5 5	3 2	2:	
31 23	3 5	1 2			i	1 1	2	4 1	6 4	3	3	3 4	6 5	5 4	2	2 2	155
6 8	4		1		2	1		2	4	1	2		1		1		156
1	i			1		2						1					158
400		4	,			2.0		2.5									
245	3	* 1 1			21	18	26	20	20	21	21	36 17	14	30	28	13	
235	1				2.0			17	19	23	16	19	14	21	20	21	
245 235 16 17	3 1	1			21 20 2 1	18 20 1 4	26 26 4	20 17 4	20 19 1	21 23 2	21 16 3 1	17 19	14 14 1	30 21 2 2	4	13 21	159 159a
127 97 102 121	2 1 1	i			12 10 7 9	10 8 7 8	16 11 10 11	9 7 7 9	13 7 6 11	11 10 10 11	8 8 10 7	11 7 6 12	6 5 7 9	13 8 15 11	11 5 15 14	11	159в 159с
2,312	4		1	6	212	188	227	189	220	185	180	151	177	200	185	209	
1,304	3		1	2 4	121	119	135	10.6	122	103	107	71	102	123	98	102	
			1		91	69	92	83	98	82	73	80	75	77	87	107	1.60
196 142	1			1	16	17	24 10	12 20	10	13	13	15	13	15	13	17	
985 757 808 661	2 1 2 1		i	1 3 1 3	95 73 74 63	88 52 69 42	99 69 81 59	78 50 62 42	87. 77 69 70	84 67 77 59	85 60 76 57	60 57 47 52	73 59 63 50	88 50 73 40	74 69 64 58	77 79 56 74	161 161 A

TABLE 35—C	1 1	SES				OK I		. 55.				ONO			——
							CON	JUGA	L CO	VDITI	ION				
CAUSES OF DEATH	Sex	Total	Un-			Sing	gle				Marrie	ed			NTak
			der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
161B. Injury at birth 162. Other diseases peculiar to early infancy 162A. Specified diseases 162B. Unspecified causes under 3 months	M F M F M F M	1777 96 121 1009 1177 104 4 5 2	1777 96 121 109 117 104 4 5 2				63				3	146		424	
164. Senility	M F M F	269 367 269 367					22 41 22 41				2 1 2 1	108 38 108 38		137 287 137 287	
CAUSES. Total	M	2,638	474 329	313	217 194	105	106	23	33	399	355	216	5	392	
165-174. Suicides	F	727	145	38	23	15	45		14	85	63	64		235	
103-174. Suicides	F	207 78	1	15	28	19	8	3	5	34 30	59 10	11 2		26 12	
165. Suicide by solid or liquid poisons (corrosive substances excepted)166. Suicide by corrosive substances	M F M F	13 15 13 20	1	2	5 1 1 3	1			1 2 1 2	3 5 3 9	1 2 6 2	1 1		1 1 2 2	
167. Suicide by poisonous gas168. Suicide by hanging or strangulation169. Suicide by drowning	M F M F M	15 10 67 11 24		5	1 1 11 1 1	6 1 4 1	2	2	1	10 3 2 4	18 3 7	5 1 3		3 3 9 2 2 2	
 170. Suicide by firearms 171. Suicide by cutting or piercing instruments 172. Suicide by jumping from high places 	M F M F	52 3 18 4		7 1	1	4	1			2 1	8 2	1		1 1	
173. Suicide by crushing 174. Other suicides 175. Poisoning by food	F M F M F	2 5 1 1 2 7	4 2	1 1		1	i			1	1			1 1 1 1	
176. Poisoning by venomous animals	F M F M	1 16 14 32	10 4 16	1 1	 1 2	1	2		·····i	1 2 4 2	1 6			1 2	
179. Accidental burns and scalds (conflagration excepted)	F M F	62 81	35 46	4 4	7	2	3			6 8	2 8	3 7		1	
180, Accidental mechanical suffocation	M F	13	9	2	1		1								

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.—Continued

	NAT	TIVIT	Y							М	ONTH	is					
Can-	Brit-	Fore		Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
		USA	Other					1		1							_
177 96					21 10	19 10			18 7	7 8	9	13 5	10 9	15 10	10 11	21 5	161в
121 109 117 104					10 7 9 6	13 5 12 5	13 12	13	11 11	6 10 6 10	9	4 8 4 8	9 3 9 3	11 12 11 11	11 8 11 8	8 10 8 9	162 162a
4 5 2					1 1	1 i	2		i					1		i 1	162в 163
378	200	20	26	12	55	56	51	48	49	57	46	43	51	52	48	80	
150 228	90 110	10 10	13 13	6 6	21 34	27 29	21 30	27 21	17 32	22 35	16 30	19 24	28 23	22 30	18 30	31 49	
150 228	90 110	10 10	13 13	6	21 34	27 29	21 30	27 21	17 32	22 35	16 30	19 24	28 23	22 30	18 30	31 49	164
1,681	468	128	266	95	179	208	161	154	209	215	294	296	226	260	230	206	
1,180 501	321 147	95 33	232 34	83 12	123 56	157 51	113 48	111 43	156 53	154 61	220 74	233 63	159 67	191 69	165 65	129 77	
115 40	47 23	10.	25 8	10	18 5	10	16	15 5	17 9	23 7	15	20 14	15 5	28 4	16 11		165- 174
8 9	3 5	1	<u>i</u>	1	1	1 2		2		2 2	i	2 3	2		1 4	1 1	165
7 9 7 6	4 4 4 4	2 1	2 4 1	1 2	2 1 1	1 5	1 1	1 2	5 1 3	3 1 3 1	1 1 1 1	3 1 1	2	1 1 2 1	2 1 i	1	166 167
34 4 12 5 35	15 2 5 3 7	2 2 2	14 3 2	3 1 2	6	5 1 1	1 3	2 1 1 6	4 1 3	8 1 2 1 2 1	6 1 3	8 1 3 4 2	3 1 1 2 4	10 1 5	3 2 4 1		168 169 170
9 2	7	1	2		2		1	1	2	2	1 1	4 2			3	1	171
1 3 1 2 7	1 2 1			, , , , ,	1	1	1	1	1	1 2		2	2	1 1	1 1	1	172 173 174 175
1										• • • •	1						176
12 11 27 10	2 2 2 2 1	1	1 1 3 1		2 1 3 1	1 4 2	1 1	1 1 3	2 2	2	1 1	4 2 4 2	2 6 4	3	2 4 5		177 178
51 71	4 3	1 4	3 3	3	4 11	5 4	6	8 3	4 8	5	3 6	6	5 4	8 13	4 5	4 10	179
11 14	1 1		1				2		2	3			_i	2 2	$ \cdots _{i}$	4 2	180

TABLE 30—C		525					AGN	SE ₂	Z D I		NJU			~~11	
							CON	JUGA	L CO	NDIT	ION				
CAUSES OF DEATH	Sex	Total	Un-			Single				I	Iarrie	1			27
			der 15	15-24	25–44	45–64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
180a. Overlaying	M M F	4 9 15	4 5 13	2	i		1							2	
181. Accidental absorption of irrespirable or poisonous gas	M F	27 14		2 2		1 1	2		1	4 2	9 2	2		6 5	
182. Accidental drowning	M F	329 44	106 19	101	37	11	4 2	8	2	32 5	15	5		8 5	
183. Accidental traumatism by firearms	M F	39	6	15	6			1	. 2	4	3			2	
184. Accidental traumatism by cutting or piercing instruments	MF	6	1.	2						1	1	2			
185. Accidental traumatism by fall	M F	187 138	17	17 1	15	12	12 14		1 1	24	26	34 18		29 83	
186. Accidental traumatism in mines and quarries	M F	68		6	13			2		37	8	1	1		
186A. Coal mines	M M F	67 1		1 5	13			2		37	8	1	1		
187. Accidental traumatism by machines	М	51	3	5	5	2				16		2		3	
railways,landslides,etc.) 188A. Railroad accidents	M F M F	623 152 145 23	85 38 8 6	85 12 22 2	67 8 20 1	34 4 10	15 6 3	5	7 5 1 1		112 27 25 7	53 10 5 1	3 i	42 26 3 3	
188B. Street car accidents	M F	14 5		2			2			1	4	5		2 2	
188c. Automobile accidents	M F	318 119	65 31	43	29 7	11 4	6		6 4			34	1	27 20	
1880. Aeroplane and balloon accidents	M M F	6 50 4	9 1	2 3 1	3 2	3	3			1	16	7		7	
188F. Other crushing	M F	90 1	3	15	13	10		1		27	15	2	1	3	
189. Injuries by animals (poisoning excepted)192. Starvation (deprivation of food or water)	M F	15	1	1	2		2			1	4	3		1	
193. Excessive cold	M F	10		2		1	1	1		1	2	2		2	
194. Excessive heat	M F	3 7 1		1						1	1	1		3	
195. Lightning	M F	14	1 1	1	1			1		2	2	2		1	
196. Other accidental electric shocks	M F	26 2	2	5	5					8 2	5			1	
197-199. Homicides	M F	40 21	18 10		,.1	2	1	1	2	9 7	3	1		2	
197. Homicide by firearms	M F	8		1						3	2	1		1	
198. Homicide by cutting or piercing instruments	MF	3	1			1				1 1					
199. Homicide by other means	M F	29 17	17 10		1	1	1	1	2	5			1	1	
201. Fracture (cause not specified)	MF	60					10			2		22 25		24 87	
202. Other external violence (cause specified)	M F			6	4			1	2	11		1		6 2	
203. External violence (cause not specified)	М	2								1				1	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.—Continued

Can-ada Brit-ish USA Other Not stated USA Other Stated Sta	v. Dec.	
ada ish ed d		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 3 1 2	180E
13 12 1 1 4 2 3 3 3 4 1 4 4 4 2 3 3 3 4 1 4 4 4 2 3 3 3 4 5 7 8 68 15 16 3 7 5 2 2 2 3 3 3 4 3 7 7 8 68 15 16 3 3 7 5 2 2 2 2 3 3 3 4 3 7 7 8 68 15 16 4 1	1 2	181
37 5 2 2 3 3 1 19 8 4 1 28 6 1 3 1 1 3 2 3 6 4 1 1 4 1 1 1		183
3 2 1 1 1 1 1 2	1	184
114 49 6 12 6 15 14 17 8 17 13 16 19 20 23 9 3 14 10 7 10 13	12 13 12 16	185
21 9 36 2 1 41 2 5 4 3 2 2 2 4	1	186
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1	186a 186i
32 9 10 4 3 5 6 2 1 2 3 4 14	6	187
388 107 26 79 23 37 46 32 37 45 48 66 74 59 61 103 29 10 10 9 4 6 . 7 12 12 12 14 12 20 21 76 26 12 22 9 11 12 7 13 13 8 17 14 10 14 18 2 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	16 19 16 10 2 1 1	188 ₂ 188 ₁ 188 ₁
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2	1 188 188 1 7 188
12 2 1 3 2 1 2 1 2 2	2	189
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	i	2 193
8 4 1 1 1 1 1 2 6 4 1		194
1 2		196
12 8 4 2 4 2 1 3 6 1 7 18 6 4 12 1 5 6 2 7 2 6 4 3	3	1 197-
10 3 3 5 1 3 4 1 1 2 2 2 2		1 199
2 1		198
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 2	199
46 8 2 2 2 9 6 5 4 5 2 6 3 4 5 84 39 5 2 1 7 15 10 8 7 13 13 8 13 7	6	5 201
42 10 4 13 1 10 7 5 2 5 5 6 6 12 8 9 1 2 3 1	3	1 202
1 1		203

								CONJ	UGAL	CON	DITIO	ON				
C	AUSES OF DEATH	Sex	Total			s	ingle				М	arried				
				Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CL	ASS XV.—ILL-DEFINED DISEASES.															
	Total		181	21	5	3	11	15	4	1	.5	19	35		62	
		M F	106 75	11 10	1 4		8 3	7 8	3	· · · · i	2 3	14 5	28 7		29 33	
	Sudden death	M F	5	3			1	· · · · · i							1	
205A	Cause of death not specified or ill-defined	M F M F	74 3	8 10 1 2		3	7 3	7 7	3	1	3	14 5 1	28 7		28 33 1 1	
205c	Not specified or un- known	M F M F F	14 74 55	7 7 	3	1	3 4 3	6 7	3	1	1 2 2	3 1 10 4			2 1 25 31	

NATIVITY, AND MONTH OF DEATH-ONTARIO, 1928.—Continued.

	NAT	IVIT	Y				,			MON	THS						
Can- ada	Brit- ish		eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
123 655 588 4 1 1 61 57 2 2 3 3 17 13 442 40 1	34 23 11 1 22 11 1 1 1 1	3 1 3 1 3 1 3 3 1 3 3 1 3 3 1 3 3 3 1 3 3 3 1 3 3 3 1 3	8 2 2 2 2	7 3	10 7 3 1 1 6 3 2 2 2 4 1	19 12 7 1 11 7 4	15 8 7 	5 8 1 1 4 8 1	6 5 5 1 1 1 5 4	18 10 8 10 8 2 10 6	11 8 11 8 		20 16 4 1 15 4 6 1 9 3	10 5	9 10	6 7 1 5	204 205 205A 205B 205C 205D

							CON	JUGA	L COI	VD1TI	ON				
CAUSES OF DEATH	Com	Total				Single			-	N	Marrie	d			
CAUSES OF BEATR	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	No sta ec
DEATHS—ALL CAUSES. Total.		6,962	1,361	207	254	300	293	3	58	715	1,214	937		1,620	
	M F	3,497 3,465	752 609	123 84	144 110	153 147	127 166	2	11 47	331 384	685 529	613 324		556 1,064	
CLASS I.—EPIDEMIC, ENDEMIC														-,0,01	
AND INFECTIOUS DISEASES. Total		765	217	60	49	25	18	1	9	115	120	54		97	
× 0 tm,	М	388	123	35	26	17	8	1	1	50	63	33		31	
	F	377	94	25	23	8	10	• • • • •	8	65	57	21		66	• • •
Typhoid and paratyphoid fever	M	4		2	1					1					
1a. Typhoid fever	F M F	1 4 1		2	1					1 1 1				: : : : :	
5. Malaria	M F	1										1			
7. Measles	M F	14	14		1										•
8. Scarlet fever	M F	3	3						· · · · i						
9. Whooping-cough	M F	10 19	10 19												
10. Diphtheria	M F	23 27	23 25								1			· · · · · i	: : :
11. Influenza	M F	122 159	26 14	4 6	3 7	5 5	3 8		1 3	13 22	28 27	19 16		20 51	
11A. Influenza, sole cause	M F	8 14	5		1					2	2	1		3 8	
11B. Influenza, with phthisis.	M F	2 2		· · · · i						1	1			· · · · · i	
11c. Influenza, with bronchitis	M F	6 5	2				1			1	· · · · i	1 2		1 1	
11D.1nfluenza, with pneumonia	M F	70 97	19	3 5	3 4	3 3	6		2	7	16 20			28	
11F. Influenza, with diseases and accidents of preg- nancy and parturition. 11G. Influenza with other causes	F M	2	5	1		2	2			2 2	9	7			
13. Mumps	F M	39 2 4	3 1 2		3	2	1		1	4	6			13	
21. Erysipelas	F M	20	7			2	· · · · i			1	3			2	
22. Aucte anterior poliomye-	F	12	4		1		2				2	3			• • •
litis	M M F	6 7	5 2	1	i						1	1		í	
24. Meningococcus meningitis	M F	3 5 3	3							i	1				
 Other epidemic and endemic diseases 	MF		2												
25A. Chicken-pox 25C. Others under this title	F M	2 2 1 2	2 1 2												
29. Tetanus	F M F	1 1 3	1 1 2								· · · · · · · i				
31-37. Tuberculosis. Total	MF	125 106	13		18	6 3	2		2	32	20	2		8 7	
31. Tuberculosis of the respiratory system		102	2	17	15	6				30	19	2		8 7	
32. Tuberculosis of the men- inges and central ner- vous system		80	5			1			1	30	12	1			
33. Tuberculosis of the intestines and peritoneum	F M	10	8		1					1	1				
34. Tuberculosis of the verte-	F	6			1	2		• • • • •	1		1				
bral column	M M F	5 2 2	<u>2</u>	1					l:::::	1	1				

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.

		VIII,	22112			1 01			_10	KON	10,	1928.						
		NAT	TIVIT	Y							M	ONTE	21					
	Can-	Brit-	For	eign	Not stat-	Jan.	Feb.	Mar.	Apr.	May	Tune	Iuly	Aug.	Sept.	Oct	Nov	Dec.	
	ada	ish	USA	Other	ed						June	3 2.3	1146	Joep t.	Oct.		Dec.	
_	4,089	2,227	202		76	577	538	605	618	626	614	475	467	545	560	543	794	
	1,995 2, 0 94	1,119 1,108	102 100	225 143	56 20	284 293	271 267	290 315	337 281	319 307	299 315	229 246	247 220		292 268	297 246	364 430	
_																		
	481	213	17	47	7	49	55	55	64	76	76	33	33	56	54	45	169	
	243 238	104 109	7 10	29 18	5 2	22 27	32 23	19 36	36 28	37 39	37 39	21 12	15 18			26 19	76 93	
-	3	1					2						1					1
	1 3	····i					2						1		1			1 1 A
	1					· · · · · i									1			5
٠	14		1			· · · · · i	· · · · · i		· · · · ¡		2			1 1			6	7
	3							2		1								8
	10	1							1		1			3			2	9
	19				1	1		1 3	3	2 3	2 3	2 3	1	2	1		4	
	22 25 73	39		8	1	5 7	2 2 10	2 5	1	8	1	2	3		1 2	2 4	4	10
	85	59	6	8 3	i	5	12	13	5 10		11 18	4 3	3 3	2	6	7	47 67	11
	4 9	1 4			1		1	2 4		1	2	1		1		1 2	3 3	11A
		2								1		1						11в
	3 2	3				1	1		1 2		2						3	11c
	44 54	21 33	1 5	3 5	1	3 4	7 7	6	2 5	5 7	6 8		1 2	1 1	4	4 3	36 50	11p
	2								1								1	11F
	22	13		1		3	2	3	1	2	5	2	2	4	2	5		11G
	18 2 3	17		3		1		3 1	2	4	6		1	,	1	2	12	13
	1											1		2	1			16
	13	5 2	2	1		1 3	1	4 3	5 1	3 2	2				1	1	2	21
	6							1				1		2	1	1	•	12
	4 2	1		2			1		2	1 2	1			1	i		1	22 23
	4	1 2				1			1	1			1			1	1	24
	2									,	1	1		-				2.5
	2						1				1							25
	2										1	1						25A 25C
	1 2										1							29
-	58		4	1.0			1.4					2	1					
_	65	30	3	18	2 1	9 8 ———	14	11	9	10 15	13 11	10 2			15	5	11 12	31-37
	42 47	39 26	3 2	16 5	2	8			7 7	7 11	10 6		8 9	13 10			10 11	31
	6	2		2	1	· · · · i		3		2 2					4			32
	1 4	2						2	· · · · · i		i		1		1			33
	3 2 1	1	1 1			_i	1 1 1								1		1	34 35

							CON	JUGA	L CO	NDIT	ION				
CAUSES OF DEATH	Sex	Total				Single	:				Marrie	d			
energies or bearing		Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
36. Tuberculosis of other organs	M F	3			2					1					
phatic system (mesen- teric and retroperitoneal glands excepted)	M F	1 1	1							1					
36b. Tuberculosis of the genito-urinary system37. Disseminated tuberculosis	M M F	2 4	3 2	1 2	2										
37A. Disseminated tuber- culosis, acute	M F	2	2	· · · · i	1						1				
culosis, chronis or un- stated	M F M	2 3- 26	1 1 6	1 1 2			2				 1 8				
38. Syphilis	F	18 2	3		1				1	6 2	4			3	
41. Purulent infection, septicaemia	M F	15 12	6 2	2 2	1 2						2	2		3	
Class II.—General Diseases Not included in Class I.															
Total		1,092	57	15	27	70	42		6	112	342			256	
	M F	464 628	30 27	6	14	24 46	18 24		5	47 65	158 184	93 72		70 186	
43-49. Cancer	M F	329 432	6	3 2	6 7	16 31	17 22	• • • • •		27 33	123 132	78 55		57 144	
43. Cancer of the buccal cavity	M F	29 4	1			1	3 1				14	4 1		6 2	
44. Cancer of the stomach and liver	M F	100 108			3	6 4	5 7			6 5	36 31			23 43	
45. Cancer of the peritoneum, intestines and rectum	M F	71 87		1	1	3 8	3 6			9 2	28 25	15 17		12 28	
46. Cancer of the female genital organs 47. Cancer of the breast 48. Cancer of the skin	F M F	84 85 6		• • • • •	4	6 11	2 4 1			11	28 30 2	5 9 3		28 23 3	
49. Cancer of other or unspecified organs 49a. Cancer of the eye and ear	M F F	123 59 1	5	2 2	3	6 2	5 2		1	12	43 18	35 5		16 17	
49B. Cancer of the circulatory system	M F	10 4	· · · · · · i		1					1	3	2		2	
49c. Cancer of the respiratory system	M F	23 18	· · · · i		1 1	4	<u>i</u>			3 4	8 6			-1	
49p. Cancer of the digestive system	M F	13 10			1	1				1 1	6 6	3			
49E. Cancer of genito-urinary system	M F	53 7	· · · · i				4 1			4	15	19 1		10 4	
49F. Cancer of bones and joints	M F	8 6	i	1 1			1			1	1				
49G. Cancer of other specified organs	M F M	14 10	· · · · i	1 1		· · · · i				2 1	8 3 1	1		2	
491. Unspecified	F M	3	• • • • •			1				1	···· _i				

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.-Continued

	NA?	rivit	Y							М	ONTI	IS					
		For	eign	Not													
Can- ada	Brit- ish	USA	Other	stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1 1			1		1			1		1			1				36
1 1						1											36c
3 6	1 1		1		1	1		2	2	2	1		1				36D 37
2 3	i							1	1	2	1		1				37A
1 3 15 11	9 6 1		1	1	1 2 2	2 2 2	1 2 1	8 1	1	· · · · · i	1		4 1	1 3	3	 2 1	38
11 7	4 4		1		1	1	1 2	2 2	5	1 2			2	1	1	2	41
568	425	34	60	5	99	95	90	95	92	101	81	98	70	94	81	96	
230 338	184 241	15 19	31 29	4	50 49	43 52	38 52	43 52	40 52	41 60	33 48	34 64	23 47	47 47	30 51	42 54	
144 217	153 183	9 14	22	1 1	38 40	31 34	25 38	30 37	26 34	26 38	23	27	15	36	19 39		43-49
16	10		2		2	5	3 2	2	2	4	1	3		4	2 2	1	43
43 53	46 48	3	8 4		11 12	8 10	6 10	9	6	10 11	3 10	8	37	15 7	7 10	14 12	14
36 52	30 31	2 1	3		8 8	10 12	6	10 9	4 7	8 6	6	6	2 4	3	2 6	6	45
35 45 3 1	42 34 3 4	3	4 2	• • • • •	1 0 1	4	9 5 1	7 11	9 8 1	9 6	6 5 2 1	9 8 1 1	9 7 1	4 8	6 9	4	46 47 48
46 29 1	63 22	3 4	9	1	16 5	8	10	9 5	14	4 6	11 8	9 5 1	9 4	14	8 6	11 8	49 49a
4 2	3	· · · · · i	3		i	_i								3		2	49в
4 9	16 5	1 2	1 2	1	3 2	2 2	1 2	1 2	2	2	2	3	3	2	3	1 4	49c
7 6	6 2		2		3 1		· · · · i		2		1 3	1 1	· · · · i		3		49D
21 5	29 2				3		7	1 1	8	4		3	5	8	3 2	3 1	49E
4 2	3 3	1				1		1	1	i	2					1 2	49F
6 2	5 8 1 1		3		3 1 1	1	1 1	2 1	1 1	1	1 1 1	2	1 1	1	1	1	49G 49н 491

							CO	NJUG.	AL CO	ONDI	LION				
CAUSES OF DEATH	Sov	Total				Single	;				Marr	ied			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
50. Benign tumours and tu- mours not returned as malignant (tumours of female gerital organs excepted)	М					1				1					
51. Acute rheumatic fever .	F M F	10	6			1			3	2 6				2	
53. Scurvy 54. Pellagra 56. Rickets	M F M	1 1 5	₅							1					
57. Diabetes mellitus	F M F				3 2	1 4	1 1				10 15	4		8	
58. Anaemia, chlorosis	M F			1 2		2 3				2 3	7	6 7		20 1 6	
58A. Pernicious anaemia	M F	16	• • • • •	· · · · · i		2 3				1 3	7	5 7		1 6	
58B. Other anaemias and chlorosis	M	3		1						1		1			
59. Diseases of the pituitary gland 60. Diseases of the thyroid gland 60A. Exophthalmic goiter	F M	60 60 2		1	1 1 3		1		1	16	2	2		11	
60в. Other diseases of the thyroid glands	F M	33 4			1	3	1		1	6	13	1		8	
61. Diseases of the parathyroid gland	F M M	27 2 8	2 8	1	3					10	7	1		3	
63. Diseases of the adrenals (Addison's disease)	F M	7	7								1	1			
64. Diseases of the spleen	F M	1 3		· · · · i				• • • • •		2					• • • • •
65. Leukaemia, lymphadenoma	M F	18 7	1 1 2	1						7 2	5	2		2	
65A. Leukaemia	M F	8 5	1 2	1		1			1	3	1 1	1		1	
65B. Lymphadenoma (Hodg- kin's disease	M F	10								4 2:	4	1		1	
66. Alcoholism	M F	18			3	3				5	4 2	2		1	
66A. Delirium tremens 66B. Acute alcholism	M M	13			3	1				4	1 2	2		····i	
66c. Chronic alcoholism 67. Chronic poisoning by mineral substances 67B. Others under this title 68. Chronic organic poisoning 68A. Chronic morphinism 68c. Other organic poisoning.	M M F F M	3 1 1 2 1 1 6	3			1				1 1 1	1 1 1 1			1 1 1	
69в. Haemophilia	F M F	2	2									• • • • •			
69c. Purpura haemorrhagica	M F	1 1 1	1	• • • • •							i				
69D. Others under this title	M F	3 2	1 2							1	1				
CLASS 11I.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE,															
Total		539	75	16	25	34	25			42	96	76		150	
	M F	268 271	42 33	8 8	19 6	18 16	9 16			24 18	52 44			51 99	
70. Encephalitis	M F	9	3 4	1	2	1				1 3	1			····i	

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.—Continued

-	NA	rivit	Y			MONTHS													
Can- ada	Brit- ish	_	eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.			
2 2 2 7 7 7 1 1 1 5 5 2 18 26 6 12 1 1 5 5 2 1 1 5 5 4 5 5 4 5 5	8 19 7 10 6		1 1 1 8	1	1	6 4 4 5 4 5 5	1 2 1 1 3 5 5 1 2 2 1 3 3 3 5 1 3 3 3 3	1 1 2 1 1 1 4 3 2 2 2 2 2 2 2	1 2 2 1 1 1 1 1 1 1 1 5 5 2 2 3 3 1 3 3 1 1	3 5 1 2 2 1 2	1 2 4 4 4 2 3 3 2 2 3 3	1 1 2 2 1 8 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 4 3 3	1 2 2 1 4 4 2 2 2 2 2 1 1 6 6	1 1 1 4 1 2 1 2	1 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6	551 553 554 556 557 558 558A		
2 2 2 3 3 2 2 2 8 8 7 7 1 1	6 1 1 5 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 2 2	1	1 1 1 1 3 1	1 1 1	2 1 1 2 2 1 1	1 1 4	1 1 2 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2	1 4 7 1 2 1 1	1 2 1 1 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 4 4 3 3 3 3	2 6 2 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6	560A 560B 551 552 553 554 555A		
2 1 1 1 1 1 1 2 2 1 1 1 1 2 2 2	4 2 1 1 1 1		1	1	3 1	i	1 1 1	1 2	2 1	1	1 1	1 1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 6 6 6 6 6 6 6 6 6 6 6 6 6 6	66A 66B 66B 67 67 67 67 88 68A 68C 69 69B		
326 158 168 6 4	78 89	9 6 3	35 25 10	2 1 1	20 27 1	43 16 27 1	39 23 16 1	51 23 28 1	51 25 26	47 20 27	38 16 22 1	37 19 18.	37 20 17	43 26 17	51 28 23 1	55 32 23 70	0		

TABLE 39-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	JUGA	L CO	NDIT	ION				
CAUSES OF DEATH	Sov	Total				Single					Marrie	d			Not
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	stat- ed
70a. Abscess of brain	MENTENNE ME MEMEME ME MEMEME MEEME ME MEME ME M	3 3 6 13 4 4 13 3 5 19 13 89 135 7 33 5 4 20 14 23 3 18 10 7 11 11 13 29 27 27 28 28 29 10 11 11 11 11 11 11 11 11 11 11 11 11	1 2 2 2 2 3 3 9 9 3 3 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 3 3 2 2 1 5 1 1	2 1 1 1 1 6 6 7 7 2 1 1 3 3 4 4 1 2 2 1 1 3 3 1 1 3 3 1 1 3 3 1 1 3 3 1 1 3 1 1 3 1	3 1 4 122 2 2 1 1 8 8 1 2 2			1 1 1 2 2 2 3 3 1 1 3 3 3 3 4 3 3 4 3 4 4 2 2 3 3 1 1 3 3 3 4 3 3 4 3 4 3 4 3 4 3 4 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	24 55 50 17 1 2 4 2 4 2 2 4 2 1		3 3 10 27, 59 10 17, 14 4 33 3 3 9 5 13, 3 3 10 2 2 3 3 10 11 3 3 2 2 1 11 3 5 6 6 11 11 11	
CLASS IV.—DISEASES OF THE CIRCULATORY SCHOOL Total		1,617							6						·····
87-90. Diseases of the heart	M F M F	808 809 483 475	77777	12 12 11 11 12	21 14 19 14	20	26		2 4 2 4	51 39 45 34	158 109 97 66	121		404 119	
87. Pericarditis	М	1		12	• • • • •						,				
88. Endocarditis and myo- carditis (acute) 88A. Acute endocarditis	M F M F	20 23 13 15	1 2		2 4		1		1	9 7 6 5	1 1 1	í		2	

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.—Continued

	NAT	TIVIT	Y							MON	NTHS						
Can- ada	Brit- ish		eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
						1	1				1			L	1	1	<u> </u>
3 2 3 2 11	1 2 3		1 1		1 1 2	1	1 1 2	1	1 1 1		1 1	1 1	1	i	1 1 2	1 2 1	70a 70в 71
11	·····i		· · · · i		2	2	2	1	· · · · i	1 1	1	· · · · i	2	· · · · i		····i	71A
12	3		1		2		2	2	2	2	2			2		2	72
1 14	18		2	1	1 2	3	3	3	1	2	2	3	5	2 4	2	5	73
14 40	37	4	1 8		3	7	4	1 9	9	3	2 8	8	1 4	6	3	1 15	74
80 18 20 18 48	47 7 12 27 27	2 2 2 2 2	1 7 5		10 1 1 2 8	17 3 4 3 6	10 2 4 2 5	18 1 7 7 10	16 5 2 4 14	12 2 3 5 8	8 4 2 3 5	8 5 4 1 4 4	10 1 3 9	6 2 6 3	3 4	13 2 2	
4 12	3 8		1		i	1,	i	1		1	1		1	i		3 5	74c
6 12 4 10 2	6 9 4 7 2 2	i i	2 1 1 1		4 3 2 2 2 2		1 1	1 2 1 1	1 1 1 1	4	1 3 1 3	1 5 1 4	1 1 1 1		1 4 2 1 2	3	75 75A 75B
4 2	2	1	3		1		1	1		1			1	3	1	1 2	76
5 4 6 4	1 7 1 5	1	1 1			1 2	1 1	1	1 1 2	1 1 2	1 1 1 1	1 1	2	1 3	3 1	1 2	77 78
7 1 1 1	1				1		1	1	2	1 1	i	1		1 i		• • • • •	80 81 82
21	5		3		3		2	1	3	2	1	2	4	5	5	1	83 84
19	6		1	1	2	3		3	3	2 2	2	2 2	3	5	1	1	85
23 20 15	2 3 1 1		3		1 5 1 2	3 2 1 2	5 4 5	3 3	2 1 1	3 1 1	2	2	2	i i	4 3 4 2	3 1 2 1	86 86a
8	1 2				3	2	3	3	1 1	2		1			i	1	86в
828	640	58	73	18	149	138	144	152	147	144	127	104	120	114	123	155	
389 439	340 300	29 29	39 34	1 1 7	67 82	78 60	64 80	81 71	75 72	74 70	56 71	56 48	58 62	57 57	72 51	70 85	
230 262	204 175	20 14	23 19	6 5	45 52	50 36	37 44	35 43	49 49	40 37	29 37	33 25	36 33	36 33	46 29	47 57	87–90
	1 1	· · · · i			1					1		1					87
12 13 8 9	4 6 2 3		2 3		2 2 1	1 1 1	1 3 1 2	3	5			1 2 1 1	3 4 3 2	2	2	2 1	88 88a

TABLE 39-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

	_						COI	NJUG.	AL C	ONDI	ΓΙΟΝ				
CANODO ON DEAGN		T . 1				Single				1	Marrie	d			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44		65 and over	Age not stat- ed	15-24	25–44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
88B. Acute myocarditis 89. Angina pectoris 90. Other diseases of the heart 90A. Valvular disease 90B. Fatty degeneration of	M F M F M F M	7 8 84 46 378 404 68 78	1 6 5 2	1 8 8 8 4 2	3	1 2 19 14 2 4	3 4 23 25 4 4		2 3 1	3 2 6 1 30 26 13	7 72 57 15	13 104		1 3 17 18 100 198 8 35	
the heart	F M F M F M F M F M F	3 45 78 231 204 34 41 312 321 7 5 301 314			3 3 8 5	3 3 13 7 1 1 14 13 2 1 1 12 12	1 3 17 14 1 4 20 40		1 1 1	77 77 88 99 22 55 44	24 9 6 57	62 32 14 7 119 46 1		3 5 29 80 108 108 7 23 95 179	
92. Embolism and thrombosis (not cerebral) 93. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	M F M F	4 2 9 7			1	1	1			1 1	2 1	4 2		3	
94. Diseases of the lymphatic system (lymphangitis, etc.)	M F	1 1									1 1	2			
CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM. Total		768	188	22	41	42	29		6	73	108	84		175	
	M F	405 363	100		27 14	20 22	11 18		2 4	45 28	73 35	53 31		60 115	
97. Diseases of the nasal fossae and their annexa 98. Diseases of the larynx 98A. Laryngismus stridulus 98B. Laryngitis 99. Bronchitis 99A. Bronchitis, acute 99B. Broncluitis, chronic 99D. Bron hitis, not otherwise defined, 5 years or over	M F M F M F M F M F M F M F M F M F M F	2 4 4 4 1 1 4 3 3 6 6 1 2 2 1	1 2 3 3 1 2 2 3 3 5 5 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1	1				1 1	1 2		1 1 2 3 3 1 2 1 1	
cluding capillary bronchitis)	M F M F M F M F	150 143 150 142 1 196 174 141 100 55 74 19	51 68 51 18 27 9 13	2 2 2 2 7 4 6 2 1 2 2	15 6 13 2 2 4	3 4 3 4	1 5		1 1 1 1 1 1 1 1 3 3 1 3 3 1 3	8 13 8 13 	11 15	19 7 19 7 20 21 19 21 12		20 42 20 41 1 33 59 21 31 12 28 1	

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.-Continued

	NAT	'IVIT'	Y							M	ONT	HS					
Can- ada	Brit- ish	Fore	eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
4 4 43 27 175 222 35 48	153	7 2 13 9	16 5	1 6 4		1 7 2 42 33 9 7	26 33	2 21 41 6	2 5 7 44 37 9	1 4 2 33 31 4	1 23 36 5	27 27 21 5	5 5 28 24 3	8 2 26 29 3	8 4 36 25 10	7 9 38 47	88B 89 90 90A
2 16 47 110 104 14 21 152 170 2 1	26 102 87 19 17 132 121 5 2 125	9 4 1 9 14 2	2 14 14	1 5 2	31 5 3 22 29 	1 8 3 20 19 5 3 26 23	9 19 9 2 5 27 36 1 1 1 25	6 15 18 44 44 27 1	24 13 4 8 26 22 1	16 1 3 33 32 2 1 30	14 21 1 1 27 33 1 27	10 20 4 2 3 22 23 2	21 11 22 20 28	15 19 6 1 21 21 1	19 16 4 2 24 22 	10 5 18 27 4 6 20 25 1	90B 90D 90E 90F 91 91A
167 2 5	119 2 4 2		2		1		1 1	26 1 2 1	11	31		1	28	21	22	25	91c 92
	2	1	1 1		1	ii				1			1	· · · · · i		2	93 94
451 228 223	247 129 118	21 12 9	39 27 12	9	71 38 33	76 34 42	84 44 40	83 47 36	70 40 30	68 41 27	29 17 12	21 18 3	33 15 18	22 18	55 28 27	138 61 77	
1 3 3 3 1 3 2 2 3 6 3 3 5	1 1 1 1 1 1 2 5 5 1 1 2 2 1		1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	2 2 1 1 1 1 1 1 1 1	1 2 1 1	1 1 1 1 1	1 1	1	1	2	1	1 1 1 1 1	2 2	97 98 98A 98B 99 99A
98 89 98 89 104 113 74 63	40 48 40 47 1 65 50 46 30	2 4 2 7 6 5	7 3 7 3 13 5 9	7	11 8 11 8 24 22 14	9 22 9 22 19 16 15	13 13 13 13 13 25 19 22 8	15 14 15 14 15 27 20 21	18 12 18 11 17 15 12	11 18 13 13	4 2 4 2 10 6 7		7 6 7 6 6	8 7 8 7	8 11 8 11 15 13 10	37 37 37 37 37 21 32 11	99D 100 100A 100B 101
30 50 10 5	19 20 8	2	4 2 1		10 6 2	4 6 3 1	3 11 2	6 8	5 8	5 2 5	3 3 3	1 2	3 2 1 1	3 1 1	9 5 4 2	13 10 19 1	101в 102

TABLE 39—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	JUGA	L CO	NDIT	ION				
0.11000 00 00101			_			Single				М	arried				
CAUSES OF DEATH	Sex	Total	Un- der				65	Age				65	Age	Wid- owed	Not stat-
			15	15-24	25-44	45-64	and over	not stat- ed	15-24	25-44	45-64	and over	not stat- ed	owed	ed
103. Congestion and haemorr- hagic infarct of the lung	М	1			 									1	
104. Gangrene of the lung	F M	8				1				· · · · · i		2		5	
105. Asthma	F M F	10		· · · · i	i						3	3		1	
106. Pulmonary emphysema 107. Other diseases of the respiratory system (tuber-	M	4 2 14							• • • • •	2		2	• • • • •	2	
culosis excepted) 107A. Chronic interstitial pneumonia including occupa-	F	3	4	1	1					• • • • •	1	1			
tional diseases of the lungs	M M F	12 12	4	1	1					2	1 3 1	1 1 1		i	
CLASS VI.—DISEASES OF THE DIGESTIVE SYSTEM.															
Total		566	199	19	31	23	10		2	70	98	43		71	
	F	300 266	105 94	12	13	13 10	5 5		1 1	41 29	60	28 15		22 49	
108. Diseases of the mouth and annexa	M F	1 5	2		1		1			i					
109. Diseases of the pharynx and tonsils (including adenoid vegetations)	M	19	17							1	,			1	
109B. Pharynx and tonsils	F M	20 19	17 17							1 1				· · · · i	
111. Ulcer of the stomach and duodenum	F M	20 53	17	2	2 2					13	24	3		5	
111A. Ulcer of the stomach	F	8 26		· · · · · i		2 2				1 6	2			2	
111B. Ulcer of the duodenum.	F M	4 27		1	· · · · i	1 2					13	· · · · i		1 2	
112. Other diseases of the stomach (cancer excepted)	F M	8	2			1				2	1	1		1	
113. Diarrhoea and enteritis (under 2 years of age)	F M	8 61	1 61			'				2	1			4	
114. Diarrhoea and enteritis	F	59	59												
(2 years or over) 117. Appendicitis and typhlitis	F M	9 16 64	2 6 14	· · · · · · · · · · · · · · · · · · ·	1 3 3	· · · · · · · i	2		1	3 1 16	1 1 12			3 3	
118. Hernia, intestinal ob-	F M	45 27	3 5	6		2			1	1	11	1		7	
struction	F M	41 10	3	1	3 2		1			6	4 6 2			6 13 3	
118B. Intestinal obstruction	F M	13 17	4	1	· · · · i	····i	1 1			3	2 2	3		6	
119. Other diseases of the intines	F M	28	3	1	3	2				3	2	5		7	
120. Acute yellow atrophy of	F	11	i			1				3	3			3	
the liver 122. Cirrhosis of the liver	M F M	1 1 18			 1 1	3	2			2	5	4			
122. Cirrnosis of the liver	F	7 2			1					1	2	*		4	
122B. Not specified as alcoholic	F	16			1	3	2				4	4		· · · · i	
123. Biliary calculi	F	6					1				2 2			4	
124. Other diseases of the liver	F M	5 15			1 1					2	1 6	1 4		2 2	
	F	34	1		1 2	3	1			3	8	6	• • • • • • •	10	

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.—Continued

	NAT	TIVIT	Y							N	MONT	HS					
Can- ada	Brit- ish		eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1 2 4 2	5 1 1	1	1 1 1 1 3	1	1	1 2	2	3	1 1	3 2		1	1 1	1 1	1	1	103 104 105 106
1 3	1 5 2		3 1	1		2			2	3	1		1			2	107A 107C
360 187 173	154 82 72	6	23	3 2 1	35 18 17	31 13 18	23	37 22 15	51 29 22	46 22 42	22	32	46	27		50 30 20	
3	2		1		· · · · i		1	2				1	ii				108
17 19 17 19	2 1 2 1				4 2 4 2	1 1 1 1	2 2	1 1 1 1	3 2 3 2	3 3 3 3	2 2 2 2 2	1	1	2		2 2 2 2	109 109в
18 5 6 2 12 3	1	1 1 1			4 1 1 1 3	2	3	3	4 1 3 1	3 1 1 1 1 2	1 2 1	1 1 1	1 4	2	2	1 2	111 111A 111B
4 4 61	3 4					1 1	3	1 4	1		2	7	22		4	7	112 113
58 4 10 37 23	2 4 22 16	1 1 3	1 4 3		1 2 3 4	5 6	4 4	1 6 1	4	3 7 6	1 2 5 5	103	1 5 7 4	2 2 2 2 2		2 1 3 2	
17 18 6 2 11 16	4 9 3 11	2	2		2 3 1 1 1 2	2	3	1 1 1	7 1 2 2 5 5	2	2	1 1 4	2 3	1		5 4 2 1	
8 7	1		1		1 1		2				1	2		2		1	119
7661111665513355133	3 1 3 1 6		5 1 3 2 2	2	1 1	1	1	1 1 1 1 1	1 2	1 1 1	1 1 1 1 1	1	2	2 1	3	3	122 122A 122B 123

TABLE 39-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	JUG.	L CO	NDIT	NON				
CAUSES OF DEATH	Sor	Total				Single				1	Marrie	i			
CAUSES OF DEATH	SCA	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
125. Diseases of the pancreas.126. Peritonitis without specified cause	M F M F	8 1	3 1	2	1	1				1	1			1	• • • • •
CLASS VII.—Non-Venereal DISEASES OF THE GENITO- URINARY SYSTEM AND ANNEXA. Total	M F	461 262 199	16 8 8	8 6 2		24 13 11	18		2	61 24 37	119 72 47	67		116 57 59	
128. Acute nephritis (including unspecified, under 10 years of age) 129. Chronic nephritis (Bright's disease) 131. Other diseases of the kidneys and annexa 132. Calculi of the urinary passages 133. Diseases of the bladder 134. Diseases of the urethra, urinary abscess, etc 134a. Stricture of the urethra. 134B. Other diseases of the urethra 135. Diseases of the prostate 137. Cysts and other benign tumours of the ovary 138. Salpingitis and pelvic abscess 139. Benign tumours of the uterns 140. Non-puerperal uterine haemorrhage	M F M F M F M F M F F F F F F F F	14 10 151 127 16 222 5 4 4 9 3 3 5 1 62 5 4	5 1 1 1 1 6 6 1 1	3 2 2 2 1 1	1 1 3 3 2 1 1 3	1 4 77 3 3 1 1 2 1 1 1 3 1 1 1 1	1 1 1		1	3 2 20 17 3 3 1 3 3 3 3 3 3 3	1 59 34 2 1 1 1 3 2 1 1 1 1 1 1 1 1 1	12 3 2 1 2 1 27		3 4 4 1 1 3 2 2	
CLASS VIII.—THE PUERPERAL STATE. Total	THEFT FEFF	1111 111 33 55 22 11 133 177 66 11 44 44 66 199 1		1 1 3 3	1				21 1 1 2 1 1 1 1 1 1 1 1	6 1 1 4 1 1 1 1 1 1 4 6 1 1 2 5 26	3 2 1 1			1	

NATIVITY, AND MONTH OF DEATH—TORONTO, 1928.—Continued

	NAT	TIVIT	Y							Л	IONT	HS					
Can-	Brit-	Fore	eign	Not stat-	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
ada 	ish	USA	Other	ed									300			Dec.	
2 3	1 1	····i			2				1 1			1		· · · · i			125
6	2						· · · · i	1	1					1		4	126
·																	
238	172	16	30	5	32	33	38	55	45	33	31	30	45	42	37	40	
126 112	102 70	9 7	20 10	5	22 10	22	19 19	40 15	25 20	17 16	15	19	21 24	21 21	21	20 20	
									20							20	
9 7	3		2		2 2		2 1		1	1				2 2	1	2	128
71 68	58 45	6			13 7	10 11	12 7	18 12	18 14	10 15	8 10	10 8	11 14	11 9	16 8	14 12	129
6 15	6 7		3				3	3			2	3 2	2	5	3	1 3	131
3 3 2	2	i				2	1	2					· · · · i	1 1 1	 1 1	1	132 133
	3							1						Î	i	1	
1	i	· · · · i		1									1	1	1		134 134 _A
1	2							1							i		134в
35	23		3		6	7	2 1	13	5 1	3	5 1	6	6	5	3		135
4							1						2	1			138
7	3						4	1	1		2	1	1				139 140
4	6		2				2	2	3		1		1	1	1		140
55	44	3	9		10	9	14	10	9	15	8	7	9	6	4	10	
4 1 3	4		3 1 2				1	i		2 1 1	2					3 1 1	143 143A
	2 1 5		3				2		 1 1		î						143 _B 143 _C 143 _D
5 10 3 1	5 3		2		2 2 1	3	1	1		2 2 1	1	2 4 1	3				144 145 145A
						1			• • • • •								145в
2 4 22	1 1 19	2	2		1 3	1 1 4	1 8	4	6	5	2	1 2 1	2 2	3	2		145c 145d 146
4	1	1			2			1	1	1.	1				_		147
4 9	10	• • • • •			2	1	2	2		3	2		2	2	1	2	147 148
						: .							1				149

TABLE 39-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CO	VJUG.	AL CO	ONDI	TION				
						Single			1		Marrie	ď			
CAUSES OF DEATH	Sex	Total	Un- der				65	Age				65	Age	Wid- owed	Not stat-
			15	15-24	25-44	45-64	and over	not stat- ed	15-24	25-44	45-64	and over	not stat- ed	0 4 6 4	ed
CLASS IX.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.															
Total	3.5	33	7	2			2	• · · · ·		5		4		9	
	M F	17 16	4	2			1		• • • • •	1 4	3			6	
151. Gangrene	F M	4 5 5					1				1 2			3	
153. Acute abscess	F M	3	1 2	1						2	1	2			
154. Other diseases of the skin and annexa	F M	1	1							2					
	F	4	1											3	
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.															
Total		24	10	5	1		1			2	2	1		2	
	M F	15 9	5 5	4	1					1	2			1	
155. Diseases of the bones (mastoid and tuberculosis excepted)	M F	10	5 3	1 1	1		1			1	1	1		1	
156. Diseases of the joints (tuberculosis and rheumatism excepted)	M	4		2						1	1				
158. Other diseases of the	F	2:	2												
organs of locomotion	M F	1	• • • • •					• • • • •						1	
CLASS X1.—MALFORMATIONS															
Total		93	88	2	1			1			1				
	M F	47 46	45 43	1 1	1			1	:		1				
159. Congenital malformations (still-births not included)	М	47	45	1	1										
159A.Congenital hydrocephalus	F M F	46 3 5	43 2 4	1 1 1				1							
159B. Congenital malformations of the heart	м	20	20												
159c. Others under this title	F M F	18 24 23	17 23 22		1			1							
CLESS XII.—DISEASES OF EARLY INFANCY.															
Total		410	410												
	M F	229 181	229 181												
160. Congenital debility, icterus and sclerema	M	28	28												
161. Premature birth, injury at birth	F M	14	181												
161A. Premature birth	F M F	145 152 127	152												

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.—Continued

	NAT	TIVIT	Y							λ	IONT	HS					
Can-	Brit-	For	eign	Not stat-	Ian.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
ada	ish	USA	Other	ed													
		1															
19	10	1	3			2	4	4	5	1	3	4		3	4	3	
10	6		2 1			1 1	3	2 2	3 2	· · · · i	1 2	2 2		2	2 2	1 2	
2 2 3 2	2 3 1		· · · · · i			1 1	1		<u>1</u>	i	i	1 1		2			151 152
2 4 2	1 1 1	1	1 1				1	1 2 1	1 1		1	1 1		1	1	1	153
1 3	i						1		i						1	1	154
18	5	1			1	1	1	1	4	3	1	2	3	2 1	2	1	
						1	1		• • • • •	2	1	<u>î</u>	2	i			
8 5	1	,.1					i	1		<u>.</u> 1	i	1 1	3	1	1	1	155
2	2								2	1)	156
1	·····i				1	1											158
92	1				11	7	8	5	5	10	4	6	5	11	14	7	
46 46					6 5	3 4	3 5	3 2	2 3	7 3	2 2	4 2	1 4	6	8 6	2 5	
46 46	1				6	3 4	3 5	3 2	2 3	7 3	2 2	4 2	1 4	6	8	2 5	159
3 5						1	i	1	1					· · · · i			
20 18 23					2 3 4	1 2 1	1 2 2	1	· · · · · · · · · · · · · · · · · · ·	3 1 4	1 2	2 2 2	1 2 2	1 2	3 2 5	5	159в 159с
23			* * * * *		2	1	2			2	1		2	3	4		
406				1	32	15	39	33	38	34	39	25	31	39	53	32	
179				1	18 14	11	20 19	19 14	23 15	19 15	21 18	13	15 16	21 18	34 19	15 17	
27 13	1				2		4 2	3	3 2	3	3	i	1	3	5	1	160
180 144 151 126	1 1 1 1				15 11 13 10	6 4 5 4	12 15 12 13	15 10 15 8	18 9 16 8	16 11 14 11	17 17 15 16	12 8 7 7	12 14 10 11	16 13 13	27 18 24 16	15 15 8 14	161 161 a

TABLE 39-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							COI	NJUG.	AL CC	NDII	TION				_
	~	T-4-1				Single				N	Marrie	1			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25–44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
1618. Injury at birth 162. Other diseases peculiar to early infancy 162A. Specified diseases	M F M F M	29 18 20 22 20 22	29 18 20 22 20 22												
CLASS XIII.—OLD AGE. Total	M F M F	58 20 38 20 38					7 2 5 2 5					3 1 3 1		15 32 15 32	
CLASS XIV.—EXTERNAL CAUSES. Total	M F	417 270 147	80 55 25	20		12	23 12 11	1		70 47 23	53 43 10	26		72 30 42	
165-174. Suicides	M F	39 29		2			2		2	8 13	15			4 5	
165. Suicide by solid or liquid poisons (corrosive substances excepted)	M F	4 2				1			1 1		1	1			
stances	M F M F	12			1 1		2			2 7 3 2	5			1 1 1 3	
strangulation	M F M F M M	3 2 1 8 1		1	2				1	1 3	1 1			1	
175. Poisoning by food177. Other acute accidental poisonings (gas excepted)178. Conflagration	M F M F M	1 2 2 4 3 4 3 3			1	1				1 2 1 1 1	1			1	
179. Accidental burns and scalds (conflagration excepted) 180. Accidental mechanical suffocation	M F	10	10				1		1	1 2	1 2				
180a. Overlaying. 180b. Asphyxia 181. Accidental absorption of irrespirable or poisonous gas	F M F	1 15				. 1			. 1	4	6			2	
182. Accidental drowning 83. Accidental traumatism by firearms	M	1 17		52		3	1 1			1	1	1		. 1	

NATIVITY, AND MONTH OF DEATH—TORONTO, 1928.—Continued

	NAT	IVIT	Y							МО	NTHS						
Can- ada	Brit- ish	Fore	Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
29 18 20					2 1	1	2	2	2 1 2	2	1	5 1	2 3	3 4 2	3 2	1	161в
20 22 20 22					3 1 3	4	4 2 4 2	1 1	4 2 4	3	1 1 1 1	1 3 1 3	2 1 2 1	2 2 2	1 2 1	1 1	162 162A
26	27	3	1	1	8	5	2	4	2	3		4	6	6		12	
18	11 16	1 2	· · · · i	1	3 5	3 2	1	2 2	1	1 2		1 3	2 4	1 5		10	
8	11 16	1 2		1	3 5	3 2	1 1	2 2	1 1	1 2	1	1 3	2 4	1 5		10	164
217	118	19	39	24	33	28	43	23	30	32	34	43	43	48	36	24	
131	78 40							18		18		32	28 15	29		12	
12	13	4		5		1	6		2		3	4	6	4	2		165- 174
1 2 2 6 4 4 4 4 1 1 1 1 4 4 1 1 3 3 1 1 1 1 1 1	1 2 4 3 3 1 1	1	1 2 1 2 2 2	1 1 1	1 1 1 1	1	1 1 2 1 1	1	3 1 3 3	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1	1 1 2 2 1	1	1 1	166 167 168
3 2 2 2 1 1 2 1 2 2	3 2 1	1	1 1		3	1	2	1		2	2 2	3 2	1	1 4	1	1	178
5 3 6 2 3	2		1 1 3	1			3 1	1	1	1			· · · · i	1	2		181 182 183

TABLE 39-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							co:	NJUG.	AL CO	DNDII	NOI				
						Single			1	M	arried				
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24		45-64	65 and over	Age not stat- ed	15-24	25-44		65 and over	A ge not stat- ed	Wid- owed	Not stat- ed
185. Accidental traumatism by fall	M F	51 54	3	5	4 2	4	2 8			7	2	11 10		13 29	
187. Accidental traumatism by machines	M M	94		5	1	2			1	17	12	2		10	
railways, landslides,etc.) 188a. Railroad accidents 188B. Street car accidents	F M M F	24 8	25 8 1	3		2	1			3		2		4	
188c. Automobile accidents 188b. Aeroplane and balloon accidents	M F M		18 8			1 2	5		1	11 2	4 2	6 2		8	
188E. Injuries by other vehicles 188F. Other crushing	M M F	7	3		i	1				3	2	1		1 1	
soning excepted) 195. Lightning 196. Other accidental electric shocks	M M	2 1 2	1	1							1				
197-199. Homicides	M F	14	8 3		1	1		1	1	2 3	1				
197. Homicide by firearms198. Homicide by cutting or piercing instruments	M F M	2 3	1			1				1 2					
199. Homicide by other means 201. Fracture (cause not speci-	F M F	1 10 5	· · · · · · · · · · · · · · · · · · ·	1	1			1	1		1				
fied)	F M F	1 4 1	3							1	1				
CLESS XV.—ILL-DEFINED DISEASES.															
Total	M F	8 4 4				1	1				1			5 1 4	
205. Cause of death not specified or ill-defined	M F M F	4 4 4 4				1	1				1			1 4 1 4	

NATIVITY, AND MONTH OF DEATH-TORONTO, 1928.—Concluded

	NAT	'IVIT'	Y							MON	THS						
Can- ada	Brit- ish		eign	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
21 27	19	5 4	Other	2	5 3		9 3		3 3	2 8	2 6		8 4	8 5	2 3	5	185
3 54 16 4	23	2	10	5	8 2				5 3		7 1	111	6 5 1	9	11 2		187 188 188
4 5 2 36 14	11 5	2	1 7	5	1 4 2	6			3 3		1	7 1	1 5 4		8	5	188 188
5 4			1 2		1 2	1 1	1		1	1	1	3		1			188 188 189 195
1 8 3	2	1	1	4 2	1				1		1 1 1	1 2		1			196 197 199
1 1 6	2		· · · · · · · · · · · · · · · · · · ·		1	1	1 3		1		1	1			3	1	197 198
1 3 1	1		1		1		1	1		1			1	1	2	1	201
1				* * * * *	• • • • •												
1 3	1	·	-					1		1	-	1	-	1	1		-
1 3 1 3	1		1					1		. 1		1		1		2	203

TABLE 40-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

								CON	JUGA	L CO	NDITI	ON			
						Single				N	Jarrie	1			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44		65	Age not stat- ed	Wid- owed	Not stat- ed
DEATHS—ALL CAUSES, Total.		1,471	272	47	34	47	57	1	12	150	284	232		335	
	M F	765 706	157 115	24 23	20 14		24 33	1	10	66 84	176 108			118 217	
CLASS I.—EPIDEMIC, ENDEMIC AND INFECTIOUS DISEASES.			2.4			2	2		2	20	2.4	1.0			
Total	м	75	18	15	7	3	3		3	16	18	12		14	
	F	72	16	13	4	1	3		3	12	6			11	
Typhoid and paratyphoid fever	M F	2 3			1						1				
1a. Typhoid fever	M F	2		i	1						1				
7. Measles	F M	1 1 5	5		• • • • •					i 1					• • • • •
10. Diphtheria	F M F	5	4								1				
11. Influenza	M F	25 22	3	1		1	3			8 4	4	5 3		3	
11A. Influenza, sole cause	M F	1								1					
11C. Influenza, with bronchitis	M F	3					1								
11D. Influenza. with pneu- monia	м F	13 16	3	1	1	1				4 3		3		1 6	
11E. Influenza, with other respiratory diseases	М	1									1				
11G. Influenza, with other causes	M F	7 4	2				i			3	2	1		1	
16. Dysentery	F M	1 2	1 1							1		1			
22. Acute anterior poliomye-	F	4 2)									•	• • • •	-	
23. Lethargic encephalitis 24. Meningococcus meningitis	F	1 2	· · · · · i		· · · · · i						1				
25. Other epidemic and en- demic diseases	М	1	1												
25A. Chicken-pox	M M F	1 1										1			
30. Mycoses	71	î	i												
31-37. Tuberculosis	M F	20 29	1 3	11	5	1			3	4 5	8 4			1	
31. Tuberculosis of the respiratory system	M	15		1 7	3				2	4	7 2			_i	
32. Tuberculosis of the men- inges and central ner- yous system	М	2	1		1										
33. Tuberculosis of the intes-	F	4	2	2											
tines and peritoneum 34. Tuberculosis of the verte- bral column	F M	3			1						1	1			
36. Tuberculosis of the joints. 36. Tuberculosis of the gen-	F	1 1									1				
ito-urinary system 37. Disseminated tuberculosis. 37A. Disseminated tuberculosis,	F	1 4		2					i		1				
acute	F M	4 5	1			· · · · · i				1	1 2				
41. Purulent infection, septica-	F	2			1					3	2	1			
emia	M F	6 3	2											1	

NATIVITY, AND MONTH OF DEATH—HAMILTON, 1928.

	NAT	TIVIT	Y			_				M	ONTI	HS					
Can-	Brit-	For	eign	Not stat-	Jan.	Feb.	Mar.	Apr.	May	June	Tuly	Aug.	Sept.	Oct.	Nov.	Dec.	
ada	ish	USA	Other	ed	Jan					, , ,	3 413						
845	489	47	84	6	110	121	150	130	115	109	116	120	103	119	126	152	
435 410	248 241	24 23	55 29	3 3	61 49	61	77 73	77 53	61 54	53 56	65 51	58 62	60	58 61	64 62	70 82	
90	42	1	14		8	13	15	18	14	12	10	9	6	9		25	
44 46	20 22	1	10		6 2	7 6	6 9	10	5 9	6			3 3	4 5		12	
															-		
2 2 2 2 1	1							1 1 1 1				1 1 1	1			1	1 1 A 7
5	1					1		1	i				2	1			8
1 4 1 12 13	10		3		1 1 3	1 1 4	3 3	2	3		1	1		1	2	7	10 11
	1					1										1	11 _A
1	3				1							1				1	110
6 8	5 8		2		1	3	2 2	2	1	2				1		8	110
1											1						11g
5 3 1	1 1		1		1		1 1		2		:		1	1		1	11 _G
2 3	1				1		1	1	2	1							21
2 1 1	1								1	1	1					2	22 23 24
1											1						25 25A
1									1							1	29
i											1						30
10	5 9					4 2		4		3		1 3		4	2 4		
6 11	5 6		3			3		2	1 1	1 2		3		2	2 3		31
1 2	1					1	1	1		1						1	32
1			1	1	1	1											33
3															1		34 35 36
2	2		1				1	2						1		1	36p 37
2 3 1	2 1 1		. 1		1		1	2 2			2						37A 38
2	2		2				1	1	2	2	1			1			41
2								1	1				11				1_

TABLE 40-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	NJUGA	AL CO	NDIT	JON				
CAUSES OF DEATH	Sov	Total			5	Single				1	larried	1			
CAUSES OF DEATH	SCA	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
Class II.—General Diseases not Included in Class I.															
Total		238	9	5	6	17	12			21	71	42		55	
	M F	119 119	7 2	3	4 2	8 9	5 7			8 13	36 35	30 12		19 36	
43-49. Cancer	M F	86 91	2	2 2	2	7 8	4 6			5 9	26 27	25 10		13 28	
43. Cancer of the buccal cavity 44. Cancer of the stomach and liver	М	6. 28	1		1	3	1			3	1 9			3	
45. Cancer of the peritoneum, intestines and rectum	F M F	23 9 22		2		1 2	1 1 3			1 2	6 2 7	2 4			
46. Cancer of the female genital organs	F F M	16 16 2				1	1			5	7 4 1	1		1	
49. Cancer of other or unspecified organs49a. Cancer of the eye and ear	M F F	41 14 1	1	2	1	3 2	2			1 1 1	13	12 5		6 2	
49B. Cancer of the circulatory system	M F	3 4		1		2				1	1	1		i	
49c. Cancer of the respiratory system	M F	10 1				2					6			1	
49D. Cancer of the digestive system	M F	5		1		1					2			1	
49E. Cancer of the genito- urinary organs	MF	21					1				4	10		5	
49F. Cancer of the bones and joints		1 2	1									· · · · · · · · · · · · · · · · · · ·			
49G. Cancer of other specified organs	M F F	1 2 3									1 1	1			
excepted)	F	1 2												. 1	
52. Chronic rheumatism, osteo- arthritis, gout		1												1	
56. Rickets	M M F	10					. 1			1		1			
58. Anaemia, chlorosis	M F	4				1						1			
58A. Pernicious anaemia60. Diseases of the thyroid	F											1 1			
gland	I F	7					1			1					
60B. Other diseases of the thyroid gland	M F	4										3			
62. Diseases of the thymus63. Diseases of the adrenals	F		1								1 -				
(Addison's disease) 65. Leukaemia.lymphadenoma 65a. Leukaemia 65B. Lymphadenoma (Hodg	M M	1 1									1				ii
kin's disease) 66. Alcoholism		1 5				2								1 1	

NATIVITY, AND MONTH OF DEATH-HAMILTON, 1928.-Continued

	NI A T	- IVIT			1						(ONT	uc					
	NAI	TIVIT	x				1			, A	IONT	ns	1		1		
0	. D 'A	For	eign	Not													
Can- ada	Brit- ish	USA	Other	stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
110	104	11	13		14	25	21	17	18	13	28	33	15	16	21	17	
48 62	57 47	6 5	8		9 5		14	8 9	8	6 7		15		8		9 8	
27	48	4	7		5	8	8	6	7	4	8	15	6	8	6	5	43-49
47	36	4	4		3	8			8	3			6	5	11	5	
10	13	2	3		2	3	5	2 2	3	1	1 4			1		1	43
10	11		2			3	2	2	3		5	3	2	1	2		
5 14	3 7	1 1	,		1	3	1	1	1 2	1	4	3	2	2	1 4		45
7 8 1	7 7 1	2	· · · · · i		····i	1 1	2	1 2	1 1	2	3	3		1 1	1 3	1 2	46 47 48
10	26	1	4		2	3	2	2	2	2				5		4	
8	1					1	1	1	1 1		1	3		1	1	2	49A
1 4							1				1	2					49в
1	8	· · · · · i	1			,.1				1		2	3	1		2	49C
3	2				1							2		2			49D
4	14	1	2			2	1	1	2	1	3	3	1	2	3		49E
2							1	1					1				49F
1	1		1			1								1	1		
	1 1		1		· · · · · · · · · · · · · · · · · · ·			i				1					49G 49н 491
1	;															1	50
1 1	1						1				1						51
	1															1	52
2 5	3	1	1		2	2	1 2						1 2			2	56 57
5 3	5 1				· · · · i	1	· · · · · i	1 1			2	2		2			58
3	1 1				i	1 1	1	1									58A
2 4	2					1			1	1 2	1			1			60
1	2				í				i	1							60A
2 3 2			i i			1	1			1	i			1		1	6 0 в 62
2							1									1	
1	2 1				1	1 1			1								63 65 65a
1	1				1				1								65в
4	1								1		2				2		66

TABLE 40-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CO	NJUG	AL C	ONDI	NOI				
CANCER OF BEATH	C	T-4-1				Single				7	larrie	d			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24		45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
66b. Acute alcoholism 66c. Chronic alcoholism 67. Chronic poisoning by mineral substances. 67a. Chronic lead poisoning. 68. Chronic organic poisoning. 68c. Other organic poisoning. 69. Other general diseases 69b. Haemophilia 69c. Purpura haemorrhagica	M M M F F F F	4 1 1 1 1 1 1 2 1 1	1 1		2					1 1 1 1 1	1 1 1			1 1 1	
CLASS III.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE. Total	M F	121 69 52	12 8 4	3 1	3 1 2	6	3 3	1	1 1	9 5 4	21 9 12	21	-	34 21 13	
70. Encephalitis	MENTER MET MET METER MET METER MET METER M	23 32 11 22 33 33 33 33 33 33 16 14 28 28 19 4 11 11 12 2 11 11 11 11 11 11	1 2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	2 2 2 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 3 1	1	1	3		5 3 6 4		18 11 8 6 6 9 5 5 1 1 1 1	
CIRCULATORY SYSTEM. Total	M M F	326 169 157 102 114	1 3	3	1 1	1	l			10 2 8 2 7	79 51 28 32 18	51 24 28		127 45 82 27 59	

NATIVITY, AND MONTH OF DEATH-HAMILTON, 1928.—Continued

	NAT	TIVIT	Y							1	MONT	HS					
Can-	Brit-	For	eign	Not stat-	Ion	Fob	Mar	Apr	May	Lune	July	Ang	6.54	Ont	Non	Doo	
ada	ish	USA	Other	ed	Jan.	reb.	War.	Apr.	May	June	July	Aug.	Зерс.	Joet.	Nov.	Dec.	
3 1 1	1								1	1					1		1
		1 1 1 1				1									1 1		67 67A 68 68C
1 1	1				1 i	1											69 69B 69C
72	34					9	14	11	8		-			-		11	-
40 32	18 16			2	4 4	6 3	5 9	10	5 3		3 5			8		5	
1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 1 2	1			1	1		1		1 1 1		1 1	1	1		1 1 1 1	71A 72
2 27 19 12 10 11	1 11 12 2 4 9 8	2	2 2	1	4 1 2 1 2	3 3 1 1 2 2	3 7 2 2 2 1 5	6 1 2	1 4 1 4 1	5 1 1 4 1	3	1 6	6 1	4 6 1 2 3 4	3	3 1 1	74 74A
1 1 1 1 1 2					1	1		1			1						75 75A 78
2 1	1 4			1	• • • • •		1	1	1		1		• • • • •	1	2		80 81 82 84
5 1 1 1								1	• • • • •				• • • • •	2			85 86 86A
					-			-									
162	141	14	8	1	27	18	32	25	29	31	28	25	18	25	29	39	
83	72 69	5	5,3	1	14	10	16 16	15 10	14 15	15 16	16 12	14 11	9	11	19 10	18 21	
53 55	41 53	4 3	4 2	1	9 10	5 6	11 11	10 6	11 14	7 12	7 8	7 8	7 7	7 8	13 9	8 15	87-90

TABLE 40-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

	<u> </u>]				CO	NJUG	AL CO	ONDI	LION				
				1		Singl			l		Marrie	d		1	
CAUSES OF DEATH	Sex	Total	Un- der 15	15 24	25 44	45-64	65	Age	15 24	1	45-64	65	Age	Wid- owed	Not stat- ed
				13-24	23-44	43-04	over	stat- ed	13-24	23-44	45-04	over	stat- ed		
87. Pericarditis	F M	3	1							,	2				
88A. Acute endocarditis	M	6 2									2 2			4	
88B. Acute myocarditis	F M F	1	1												
89. Angina pectoris	M F	8									3	4		1 2	
90. Other diseases of the heart	M F	91 104		3	1	1	7			2 7	27 16	24 15		26 53	, .
90a. Valvular disease	M F	11	• • • • •	2			3			3	4 2	2		6	
90D. Chronic endocarditis	M F	6	2	1						1 2	2	1		1	
90E. Chronic myocarditis	M F	63 71			i	1	3 5			1 2	19 12	16		22 42	
90s. Others under this title	M F	11 11					1 2				2 2	5		3	
91. Diseases of the arteries	M F	65 42				3	4				17 9	23 8		18 23	
91A. Aneurysm	M F	5 1				2					2	1		1	
91B. Arteriosclerosis	M F	60 41				1	4				15 9	22 8		18 22	
92. Embolism and thrombosis (not cerebral) 93. Diseases of the veins (var-	м	2					• • • • •				2				
ices. haemorrhoids, phle- bitis, etc.)	F	1									1				
CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM.															
Total		162	52	2		4	2		1	12	21	30		38	
	M F	87 75	34 18	2		3	2		1	5	15 6	14		27	· · · · · ·
98. Diseases of the larynx 98B. Laryngitis 99. Bronchitis	M M M	1 1 2	1												
99a. Bronchitis, acute	F	1	• • • • •											1	
98B. Bronchitis, chronic 100. Broncho-pneumonia (in- cluding capillary bron-	M	2	• • • • •			1				. ,		1			
chitis)	M F	26 24	23 12				· · · · _i			· · · · i	1	4		2 6	
100a. Broncho-pneumonia	M F	26 24	23 12							· · · · i	1	4		2 6	
101. Pneumonia	M F	44 41	8 4	2		2	1			5 1	11 6	9 11		17	
101A. Pneumonia, lobar	M F	28 27	4 2			1	· · · · i			3	9 6	5 6		5 10	
101B. Pneumonia, not otherwise defined	M F	16 14	4 2	1		1				2	2	4 5		2 7	
102. Pleurisy	M F	6	1						1	1 2	2	1		· · · · i	
 Congestion and haemorr- hagic infarct of the lung 	м	4	1									1		2	
105. Asthma	F M	3		• • • • •			• • • • •				1	2			
107. Other diseases of the respiratory system (tuber-culosis excepted)	F M	1								1					
107c. Others under this title	F M F	2 1 2	1 1							1		1			
												[

NATIVITY, AND MONTH OF DEATH—HAMILTON, 1928.—Continued

	NAT	TIVIT	Y							N	IONT	HS					
Can-	Brit-	For	reign	Not stat-	Jan.	Feb.	Mar.	Apr.	May	June	Inly	Aug	Sept.	Oct.	Nov.	Dec.	
ada	ish	USA	Other	ed	Jan.	100.		Tipit	May	June	Jany	liug.	осри.	000.			
1														1			87
3	5					i			1			1			1 1		88
2 1	i						1					1					88a 88b
1 7	1					1	1	2	1		1	1 2			1 1		89
43 53	3 40 45		4 2		1 9 9	5 5	10	1 8 5	1 9 12	7	6 8		7 7	7 7	11	8	
5 8 4 7					1	2	1 4	1 1	1 4		1 3	1	1		2		90a
4 7 28	2 27	4	4		1 8	3		6	2 1 5	1 5	1 5	2	6	1 6	15	2 2 5	1
33	33	2		1	7	4	5 2	3	6	7	4	6	7	4		·11	
6 5 30 24	5 30 15	1 4 2			4 3	3	1 5 5	1 5 4	1 3 1	3 8 4	9	1	2	1 3 6	6	6	91
2	3				2			1		7	: : : : :	1		1			91A
28 23	27 15	2			3	3	5 5	5 3	3	4	9	6 3	2 2	6	6	6	91 _B -
	1	1			1									1	• • • •		92
	1					1											93
95	45	8	14		15	22	28	16	8	9	4	10	11	9	14	16	
54 41	19 26	3 5			11 4	15	15 13	10	5	4 5	2 2	5 5	6 5	5 4	9 5	8	
1														1			98 98в
i	2				1						1						99
1	2				1				• • • • •		· · · · · i						99a 99b
21	1	2	2		2	3	6	2	1	1			1	2	5	3	100
15 21 15	6 1 6	2 2 2 2	1 2 1		2 2	3	6	2 2 2	· · · · i	3	1	1	1	· · · · · · · · · · · · · · · · · · ·	2 5 2	3.	10QA
26 23	11	1 1	6		2 7 2	4 7	8 7	6 3	3	3 2 1		1 2 4	1 4 3	2 3	4 3	2 5	101
13 13			3		2 2	4 3	4 7	4 1	3			1 3	4 2	2	3	1	101A
13 10					5	4	4	2	1	i		1		1	2	4	101в
3		1	2		1		1	2	i	1		î					102
2	2						1		1	1		1	1				103
1				1							1	1	1			2	105
			1					1		1					-		107
1			1 i					1		1					[107c
1	1							1					1				

TABLE 40—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	NJUG	AL CO	NDII	TION				
CAUCES OF DEATH	Com	Total				Singl	e				Marri	ed			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CLASS VI.—DISEASES OF THE DIGESTIVE SYSTEM.															
Total		108	46	3	3	3	1			14	20	7		11	
	M F	51 57	25 21	2	1 2	1 2	· · · · · i			7	10 10	2 5		3 8	
108. Diseases of the mouth and annexa	F M F	1 1 3			i					1 1				1	
109B. Pharynx and tonsils	M F	1 3	· · · · i		· · · · i					1 1					
110. Diseases of the oesophagus 111. Ulcer of the stomach and duodenum	M M F	1 11 6			1	1				4	3 3			2	
111A. Ulcer of the stomach	M F	5			1						2 3	· · · · i		2	
111B. Ulcer of the duodenum.	M F	6				1				4	1	· · · · i			
112. Other diseases of the stomach (cancer excepted)	M F	1	1												
113, Diarrhoea and enteritis (under 2 years of age)	M F	19 15	19												
114. Diarrhoea and enteritis (2 years or over)	M F	3	1	1						1				1	
117. Appendicitis and typhlitis	M F	5 5	2	1	1		1			1	2				
118. Hernia, intestinal obstruction	M F	5 7	2 2									1 1		2	
118A. Hernia	M F	1 2									1			1	
118B. Intestinal obstruction 119. Other diseases of the in-	M F	5	2								1	1		1	
testines	M F	1 3								1				2	
122. Cirrhosis of the liver	M F	5		i		1				1	1 1			1	
123. Bilary calculi	M F F	5		i		1				1				1	
124. Other diseases of the liver	M F	2 3									2			1	
125. Diseases of the pancreas. 126. Peritonitis without specified cause	F M F	1 2								1		1			
Class VII.—Non-Venereal Diseases of the Genito- Urinary System and Annexa.	r	2													
Total		125		-	-				1	-				-	• • • • •
	M F	70 55			1 1		5 4			8		26		16	
128. Acute nephritis (including unspecified, under 10 years of age)	M	2	1												
129. Chronic nephritis (Bright's disease)	F M F	43 40			1 1		3			5 2		14	1	4	
131. Other diseases of the kidneys and annexa		5	2			ļ <u>,</u>						2			

NATIVITY, AND MONTH OF DEATH-HAMILTON, 1928.—Continued

	NAT	TIVIT	Y							M	ONT	IS					
Can- ada	Brit- ish	For	eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
80	24		3	1	9	6	3	13	12	4	10	7	19	10	10	5	
39	10		2		4	5	3	8	6	1	3	2	9	4	4	2	
41	14		1	1	5	1		5	6	3		5	10	6	6	3	
1									1				,				108
2 2 1	1				• • • • • • • • • • • • • • • • • • • •	• • • • •					1		1	1			109 109 _B 110
4 .5 2 4 2 1	6 1 3 1 3		1 i	• • • • • • • • • • • • • • • • • • • •	1	1		2 1 1 1 1	1 2 1			1			1		111 111A 111B
19			1			1	1			1			7	3			
15 2 1 4 4					1						2	1	7	1	1		
3 4 1 3 3	2 3 1 1 1 1 2				2 1	1		1	2	1		1				1	118 118A 118B
1 1 1 3	1 2			1	1 1	1		1							1		122
3 2 2 2 1	2				1	1		1			1		1	1	1 7	1	123 124 125
1 2								1 1			1						126
66	48	5	5	1	11	10	11	7	8	10	11	11	14	13	12	7	
38	26	1	4	1		6	5	3	5	6	7	6	9	9	7	2	
1 1	1						1				2					1	128
23 21	16 16		3		2 5	3	3 5		3 3	3 4	5 2	4	- 7			4	129
4 2	1 2						1		1	1	_i		1	1 2			131

TABLE 40-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							cox	NJUG <i>A</i>	AL CO	NDIT	ION				
OLVIORO OF DEATH	Com	Total				Single				-	Marrie	d			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64		Age not stat- ed	Wid- owed	Not stat- ed
132. Calculi of the urinary passages	M M M F F	1 2 17 2 1					2		1	2 1 3	3	1 1 8		1 4	
CLASS VIII.—THE PUERPERAL STATE.		20		2	2				4	21					
Total	F			2	2		• • • • •		- 4				• • • • •		
143. Accidents of pregnancy 143a. Abortion 143b. Ectopic gestation 143b. Abortion, self-induced 144. Puerperal haemorrhage 145. Other accidents of labour 145a. Caesarean section 145c. Other surgical opera-	7 7 7 7 7	4 1 2 1 2 5		1			• • • • • •		1	3 2 1 2 4 2					• • • • • •
tions and instrumental delivery. 146. Puerperal septicaemia 147. Puerperal phlegmasia alba dolens, puerperal embolism, sudden death in puerperium	F F	3 7		1 1					2	3					
148. Puerperal albuminuria and convulsions 149. Following childbirth (not otherwise defined)	F F	2							1	3					· · · · · · · · · · · · · · · · · · ·
CLASS IX.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.															
Total		7	3							2	1			1	
	M F	5 2								1				1	
153. Acute abscess	M F	4 1	2							1 1					• • • • •
and annexa	M F	1	1											1	
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.															
Total		2	1								1				
	М	2	1								1				
155. Diseases of the bones (mastoid and tuber-culosis excepted)	М	2	1								1				
CLASS X1.—MALFORMATIONS.															
Total		13	13												
	M F	67	6 7												
159. Congenital malformations (stillbirths not included)	M F	6	6 7											: : : :	

NATIVITY, AND MONTH OF DEATH-HAMILTON, 1928.-Continued

	NAT	IVIT	Y							М	ONT	HS					
Can- ada	Brit- ish	Fore	eign Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
		1)	ı					1				1				_
9	2 6		i		3	3	i	 1	 i	2		<u>1</u> 1	· · · · · · · · · · · · · · · · · · ·	2	2		132 133 135
1	1							1		,	1						137
1								1		i							1
2	2				1	1									2		141
14	8	2	5.		1	5	6	3	1	3	1	2	1	2	3	1	
1	1		2.	-		<u> </u>	2	1		ļ				1	-	1	143
			1.				1	1						1			143A 143F
	2		1				1				1						143E
2 1	1		2.1				2 2			1							145 145A
1 4	1	2	1 1		1	2			1	1 2		1			1 1		1450 146
3						}		1			1				1		147
2		1						1	1								
		-		-				-		-			-		-		149
						}											
3	3	1					1	2		. 1		2	1				
3	1 2						1	2							1		
2							1	2	1								153
	1																154
	1									1							. 134
2										1							
2			-	-							-1				-	·	1
										-							-
2	2									. 1							1 155
4.4															4		
	5			-		-		2 :	-			2	- 1	-	2		-
	7		1	<u>: : : : </u>			i ::::::::::::::::::::::::::::::::::::	2	i	1		2			2		
	5	. 1	1							1		2	. 1	:	2		159
	71	. ' '					i	2	1						$\frac{2}{2}[\dots]$	i'	1,3

TABLE 40-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CO	NJUG.	AL CO)ND[7	NOI				
CAUSES OF DEATH	Sor	Total				Single				1	1arrie	d			
CAUSES OF DEATH	Sex	Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
159A.Congenital hydrocephalus	M F	2	2			·=) ·			- (1						
159B. Congenital malformations of the heart 159C. Others under this title	F M F	3 4 3	3 4 3												
Class XII.—Diseases of Early Infancy.															
Total		77	77												
	M F	43 34	43 34												
160. Congenital debility, icterus and sclerema	M F	7 10	7 10												
161. Premature birth, injury at birth	M F	31 21	31 21												
161A. Premature birth	M F	23 17	23 17												
161B. Injury at birth	M F	8 4	8 4												
162. Other diseases peculiar to early infancy	М	5	5 3												
161a. Specified diseases	F M F	5 3	5 3				• • • • •								
CLASS XIII.—OLD AGE.															
Total		14								• • • • •	1	3		10	
	M F	12	• • • • •						*****		1	1 2		10	
164. Senility	M F	12									1	1 2		10	
Class XIV.—External Causes.															
Total		97	15	11	5	2	3		2	17	16				
	M F	64	8 7	10	5	1	3		1	13	14	5		7 13	
165-174, Suicides	M F	6 2							1	2		1		1	
165. Suicide by solid or liquid poisons (corrosive substances excepted)	M	1												1	
166. Suicide by corrosive substances	F:	1							1						
168. Suicide by hanging or	F	î								1					
strangulation	M	1										1			
high places	M	1 1	i							1					
poisonings (gas excepted)	M	1								1					
cepted)	M F M	1 2 2		1						1	1			1	
9	F	2.			l		l	1	1	1				1	

NATIVITY, AND MONTH OF DEATH-HAMILTON, 1928.—Continued

	NAT	TIVIT	Y							λ	10NT	HS					
	- I	For	eign	Not													
Can- ada	Brit- ish	USA	Other	ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
2							_i				1			1			159A
3 3 3		i					1		i		i		i	1 1 1			159в 159с
43					9	5	8	ļ	5	3	5		3	5	4	14	
7					5	1	1		1	2		5	1	1	4	10	160
10 31 21					3	3		3	3	1	4		1	2	1 2	3	161
23 17 8					3 1	3		2	1 1 1 2	1 2	3	2 2 2	1 1	2 1 1 1	2	6 2 6 1	161A 161B
5 3						1	i	1	1		1	1			1 1 2		
5 3							i	1	1		1				2	• • • • •	162A
2	9	1	- 2		1	1	3	1	1	5			1			1	
1 1	1 8	i	2		····i	i	1 2	····i	· · · · · i	5			1			i	
1	1 8	····i	2		· · · · i	····i	1 2	1	····i	5			1			· · · · i	164
33	30		10		7	6	5	12	9	9	7	6	3	12		15	
23	$\frac{7}{2}$		2	1	3			5	1	1		1		1	4	6	165-
1	1					1	-	=-	=						1		
1	1					1									i		165
1	1		2			î î		1						1			168 169
····i	1				i			1									172 175
			1													1	177
1 2								1 1								i	179
1	1 1		l	_i		ļ				1						1 1	181

TABLE 40-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

	1		_	-											
							CON	NJUGA	L CO	NDIT	ION				
CAUSES OF DEATH	Sex	Total	Un-			Single				1	Marrie	d			N
			der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
182. Accidental drowning 183. Accidental traumatism by firearms 184. Accidental traumatism by cutting or piercing instruments 185. Accidental traumatism by	M M F	6 1 1	1	1			• • • • •			• • • • •		• • • • •			• • • • •
fall	M F M	8 7	1	1	2	• • • • • •		• • • • •				1	• • • • • •	1 5	• • • • •
186A. Coal mines	M M	3								1	2		• • • • •		
railways, landslides, etc.) 188A. Railroad accidents	M F M F	24 14 2	4 5	5 1	1	1	2			4 1 2 1	6	2		5	
188c. Automobile accidents	M F	16 13	4 5	4	1		2			1	3	2		1 5	
188b. Aeroplane and balloon accidents	M M M	1 2 3		1		1				1	2 1				
197-199. Homicides	M F	3 1								3					
197. Homicide by firearms 199. Homicide by other means	M M F	1 2 .								1 2					
201. Fracture (cause not specified)	M F	3 .				1	1				i.	1		2	
202. Other external violence (cause specified)	М	2 .		1										1.	
CLASS XV.—ILL-DEFINED DISEASES.															
Total	_	5	1							2	1	1.			
205. Cause of death not speci-	M F	3 .	<u>i</u> .							1.	1	1 .			
fied or ill-defined	M F F M F	3 2 1 3 1.	1							1 1 1 1	1 i	1			

NATIVITY, AND MONTH OF DEATH-HAMILTON, 1928.—Concluded

	NA'	TIVIT	Y							7	IONT	HS					
Can-	Brit-	For	eign	Not													
ada	ish	USA	Other	stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
4							1		1	1	1	1		1			182
1	1																184
3 5	5		· · · · i		2	1 1			2		1	1		· · · · · · 1	2		185
			1							1 1						ŀ	186 186A
2			2		2	4				3	3		1	1			187
13 11 11 12 10	2		3 1 2 1	• • • • • •	i i	1	1 1 1 1	3 2 1 2	5 1 1 2 3 1	3	2	3	i	1 1 1 2	1	2	188A 188C
i	1 1 3							1 1	· · · · · · i		1			• • • • •	1		188E 188F
2	2		1		1		2	·····i			1						196 197– 199
1 1	1		1				1 1	1								· · · · · · · · · · · · · · · · · · ·	197 199
1 3	2					1		i			1			1 2		i	201
2													1	1		• • • • •	202
4	1						1		1				2		1		
2 2	1						1		i				2		i		
2 2 1 2	1 i						1 1		1 1				2		1 1		205 205A 205C

TABLE 41—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

TABLE 41—C		1													
									AL CO					1	
CAUSES OF DEATH	Sex	Total	Un-		1	Single	1			1	Marrie	d 1		137° 4	Not
			der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	stat- ed
DEATHS—ALL CAUSES, Total.		1,645	450	74	64	65	77		10	129	223	230	• • • • •	323	
	M F	853 792	256 194	45 29	28 36		30 47		9	55 74	131 92	158 72		109 214	
CLASS I.—EPIDEMIC, ENDEMIC AND INFECTIOUS DISEASES.															
Total		236	87	25	25	9	6		3	26	18	15		22	
	M F	109 127	42 45	8 17	9 16	6 3	1 5		3	10 16	12	11 4		10 12	
Typhoid and paratyphoid fever Typhoid fever Undulant fever Scarlet fever	M M M M F	2 2 1 4 3	4	2	1 1					1 1 1					
9. Whooping-cough	M F	3 14	3 14												
10. Diphtheria	M F	8 15	8 14							1					• • • • •
11. Influenza 11A. Influenza, sole cause	M F F	29 35	13	1	3		5 1			6	2	8	• • • • •	8	
11B. Influenza, with phthisis	M F	1	1												
11c. Influenza, with bronchitis	M F	1 2					2								
11p. Influenza, with pneumonia	M F	15 12	8							2	1 2	4 1		2:	
11E. Influenza, with other respiratory diseases 11F. Influenza, with diseases	М	1		1											
and accidents of preg- nancy and parturition 11G. Influenza, with other	F M	1	4							1		4		2	
causes	F M M	16 1 5	3		3		2			2	· · · · · · · · · · · · · · · · · · ·	2		4 3	
22. Acute anterior poliomyelitis	F M	1) 2) 2	2	• • • • • • • • • • • • • • • • • • • •									• • • • •		• • • • •
23. Lethargic encephalitis24. Meningococcus meningitis.	F M	1 2	1 2												
25. Other epidemic and endemic diseases	М	1	1												
25A. Chicken-pox	M M	1		i											
31-37. Tuberculosis	M F	40 52	6 4	6	8	4 3	1		3	6 9	7 3	1 1		1 3	
31. Tuberculosis of the respiratory system	M F	31 43	2 2	4	8	3			2	5 9	7 3	1 1		1 2	
32. Tuberculosis of the men- inges and central ner- vous system	м	2	2												
33. Tuberculosis of the intestines and peritoneum	F M	3	1	1			1								
34. Tuberculosis of the vertebral column	F M F	1		1						1					
35. Tuberculosis of the joints.	M F	i 1		i		1									
36. Tuberculosis of other organs	M F	1 1		1	i										
.36p. Tuberculosis of the gen- ito-urinary system	M F	1 1		1											

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.

	NIA 7	TIVIT	v							7	ONT	HS					
	NA I	1		1			1			1	1						
Can-	Brit-	For	eign	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
		USA	Other														
1,369	182	38	41	15	129	126	154	145	143	137	144	123	124	124	118	178	
708 661	90 92	21 17	22 19	12	63 66	67 59	73 81	80 65	68 75	74 63	76 68	69 54	73 51	58 66	71 47	81 97	
203	21	5	6	1	17	11	18	25 14	10	12 7	22	14	12	15	12	- <u>51</u> 19	
91 112	10 11	3 2	2	•	8	4	12	11	. 17	5	13	6	7	9	3	32	
2						•									2 2		1 1 A
1 4													1	1	1	1	4
3							1	2			1						9
14 7					1	2	2		1		1:	1	1	3			10
14 25	2	1 2				1	1	1 2	4 2	4	1 2		1	2	1	15 22	11
32	3			• • • • •	2			3	5							22	11 11
1	1						• • • • •									1	11
1 2									1							î	1
14		1						2	2 2	3	1			1		6	11
12			• • • • •		1			1		1							11
• • • • • •		1	• • • • •	• • • • •						1							
1																	11
9 14	2					1	1		2						1	8 9	
1 2	3							1	2		2						13
ĩ						1											
2		'	1								1				1 1		22 23
1 2					· · · · i			· · · · i	1								24
1					1												2.5
1.					1					1							25
									-	-	-	-	-		4		31
35	3 8	1	1 2		3 3	3 2	8	3	5		3 7	7					
26 33	3	1	1		2 2	3	3	2	4	3	3					3 5	31
3.3	7	1	2		2	2	6	4	3	3	5	6	4	3		,	
2					1								1		1		32
3								1		1							33
3	1						1				2						
1							· · · · i				:::::	1					
1													1		1		
1												1					1
1									1								
1		1	1				i: : : : :	1:	····	1		1		1:::::	1:		. 3€

TABLE 41—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							COI	NJUG.	AL CO	NDIT	NOI				
CAUSES OF DEATH	Sex	Total			-	Single				M	larried				
Choose or Bearing		Total	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
 37. Disseminated tuberculosis. 37. Disseminated tuberculosis, acute	M F M F M M	1 1 1 6 1 3 4	1 1 1 3 3	1		1 1			• • • • • • • • • • • • • • • • • • • •	1		1		1	
(LASS II.—GENERAL DISEASES NOT INCLUDED IN CLASS I. Total		207	9	7	6	11	12		• • • • •	15	60	43		44	
	M F	98 109	4 5	5 2	5	3 8	4 8			11	32 28	32 11		13 31	
43-49. Cancer	M F	64 77	2	1	3	6	3 6			3 8	22 21	24		23	
43. Cancer of the buccal cavity 44. Cancer of the stomach and	M F	4 1					1							3	: : : : :
liver	M F M	30 21 8	• • • • •			1	2 2	• • • • •	• • • • •	1 1 2	9 6 4	11 5 3		5 7	
46. Cancer of the female genital organs	F F M	9 17 14 1 21	• • • • • •		1	1	1 2	• • • • •	• • • • •	1 4	6 3	1 1 1	6	4 1	
fied organs	F F M F	15 2 3	2	1	2	2				1	4 1	1		3 1	
49c, Cancer of respiratory system	M F	2				 1					2				
tem	M F M	3 2 12			• • • • •	1					5	2		 1 1	
49F. Cancer of bones and joints 49G. Cancer of other specified organs	F F M F	3 2 1 2 1	2	1	1 1				• • • • •	i	1 1		• • • • •	i	• • • • • •
mours not returned as malignant (tumours of female organs excepted) 51. Acute rheumatic fever	M F M F	3 1 2 3	1 1	1	1	i 1			• • • • •		1 1	1		1	
52. Chronic rheumatism,osteo- arthritis, gout	F M F M	1 1 8 12 6	1 	1 1	1	1	1			2	5 1	2		6	• • • • • • • • • • • • • • • • • • • •
58A. Pernicious anaemia 58B Other anaemias and chlor-	F M F	6 5 5				i	i				2	1 3 1		2 1 1	
osis	M F M F M	1 1 3 5 2				i				1	1 2			1	

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.—Continued

	NAT	TIVIT	Y							N	IONT	HS					
Can-	Brit-	Fore	eign	Not	T	E.L	24	^	35	Tuno	July	Aug	Sant	Oct	Nov.	Dec	
ada	ish	USA	Other	stat- ed	Jan.	reb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	1407.	Dec.	
1 1					i								1				37
1 1 4	i		1	· · · · · · · · · · · · · · · · · · ·	 1 2 1	: i		2					1	i			37A 38 40
3										1 1			1				41
158	31	8		1	13	17	16	18	12	29				·			
74 84	16 15	3 5	5		6 7	11		9			9	10	9	11	9	7	
47 56	13 14	2 4	3		6	3 6		8 7	4					9	7	5	
3	1		:::::							2				1		1	
19 12	10 6				2	2	1 -			5 3	3 2	1	2	4	2	2	
6 8	1	····i	1		2			1		· · · · i	1		2				45
11 11 1	5 2	1		4		2	2	1	1					1		1	46 47 48
18 13	1		1 1		1		1	3		8			1 5				
3							1	1							1		49а 49в
2 2 1													1			1	49c
3 1	ii						1					1		1			49D
9	1				1	1	1	1		6	1		2		1		1
1		1	1							١.			1				49F 49G
1							1	1		ii							49н
2	1				1		1									1	50
3						1	1			i i		i		1			51
i			1 i		 2 1	1 1				1				1 1		· · · · · i	52 56 57
9 4 6	1				1	1 1		1	2			1 2	2 2 1	1	ii	1	58
3 5	1 1		1			1				1	1						58A
1					:::::									1	1		58в
3 5 2 2							i	i			2			1		1	60 60a
2	1	l	1	I	I	1	lii	l	l:	l	l	1	1	l	1,	l i	1

TABLE 41—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

1112473 11						J. ()								ווועו	
				1			CO	NJUG.	AL CO	ONDI	TION			1	<u> </u>
CAUSES OF DEATH	Sex	Total	Un-			Single				1	Marrie	d			Not
			der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	stat- ed
60B. Other diseases of the thyroid gland	M F M F M F M F M M M M M M M M M M M M	1 3 3 1 1 1 1 5 5 5 5 1 1 3 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1 1	1	1			1	2 2 1 1 1	3 1 3 1		1 1 1	
CLASS III.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE. Total		108	23	2	3	3	6		1	7	13	20		30	
	M F	49 59	13 10	1	2	1 2	1 5			2 5	4	13		12 18	
70. Encephalitis	M M F M F	3 3 1 5 1 5	1 1 1 4 1 4	1 1	1					1					
spinal cord	M F M F M F	16 27 4 8		• • • • • • •			3			i 1	1 8	4 1 7 3 2		1 1 8 12 2 6	
74B. Cerebral haemorrhage74C. Cerebral thrombosis and embolism75. Paralysis without specified	M F M F	9 16 3 3					2			1	1 7	- 3 2 2		1 2	
75A. Hemiplegia	M F M F M F	5 8 4 5 1 3				1	1 1 1 1				2	1 2 1 2		1 5 1 4	
78. Epilepsy	F M F M F M	1 2 3 2 2 1 1	2 1 2 2 2 1	1	1					1					
 83. Softening of the brain 84. Other diseases of the nervous system 86. Diseases of the ear and of the mastoid process 86a. Diseases of the ear 	M F M F M F	1 4 5 7 3 4 1	 2 6 1 3		1	2			í			1 1		1	
86B. Diseases of the mastoid process	M F	3 2	3							····i					

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.—Continued

-		NAT	TIVIT	Y							N	IONT	HS					
			For	eign	Not													
Ca	an- da	Brit- ish	USA	Other	stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
	1														1			60в
	3						1		i									62
	1						î											64
	4		i											1	2	1		65
	4		i										1	1	2	1		65A
	1					;		1										65в
	1											1						66 66a
	2					1				• · · · ·		1						66в
					1												1	
	1								1		1							69
	1										1							69c 69d
																		_
	97	5	5	1		6	12	10	10	11	9	10	8	3	6	13	10	
	45 52	4	5			3 3	5 7	6 4		4 7	2 7	8			1 5	9 4	6 4	
	3							1			1			1				70
	3 1							1 1			1			1				70в 71
	5							····i	1	1		2					1	71A
	5								1	1		2					1	
	5						1	1		1	····i		_i			1	1	73
	14	2				2	1		3	1		1	2	1		4	1	74
	21		5	1		2	3	1	3	2	4	5				2	3	
	5		2	i			2		1 1		4					2	1	
	14		2			2 2	1 1	i i	1 2	1 2		3	2			2	1	745
	2	1	,						1					1		1		74c
	2		1		• • • • •							2					1	
	5	·····i					3	1 2	• • • • • •	• • • • •		1			2	2		75
	4	· · · · · · i					· · · · i	1				· · · · i			2	2	1	75A
	1 3						2										1	75B
	1	1					1	1										77
	1									i								78
	3								i		i				i			
	2						1	1										80
	1												i					81
	1											: : : : :				····i		82 83
	3	1				1			1	1								84
	5		• • • • •					1		2					2			
	7		• • • •				1		1	1			i		1			
	4								1	Î		i				1		86A
	3														1			86=
	2									1			· · · · i		• • • •			JUB
														-				

TABLE 41—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	JUGA	AL CC	NDIT	TION				
CAUSES OF DEATH	Sex	Total				Single	:]	Marrie	d			
Cheese of Shiri		2000	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45–64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CLASS IV.—DISEASES OF THE CIRCULATORY SYSTEM.															
Tota1		349	2	- 8	11	14	30		1	13	59			126	
	M F	173 176	2	6 2	5 6	11 3	15 15		· · · · · i	8 5	40 19	56 29		30 96	
87 90. Diseases of the heart	M F	123 123	2	6 2	5 6	6 3	11 10		· · · · i	7 4	30 17	36 19		20 61	
87. Pericarditis 88. Endocarditis and myo- carditis (acute)	M M	10		1	1	1				1		1		1	
88a. Acute endocarditis 88b. Acute myocarditis	F M M	2 8 2		1	1 1	· · · · · i				1	1 4	1		î	
89. Angina pectoris	F M	2 25			1	····i	1			· · · · i	8	11		2	
90. Other diseases of the heart	F M F	11 87 110	2	5 2	3	1 4 2	10			4	18	241	• • • • •	17	
90A. Valvular disease	M F	10		2	5	1	8				15 2 1	3		56	
90D. Chronic endocarditis	M F	16 16	1	2	2	2				1 2	2 2	4]		2	
90E. Chronic myocarditis	M F	47 70		i	_i	i	5		• • • • •	2	11	15		12 40	
90s. Others under this title	M F	14 13	1		3	1	3]		1	3			3	
91. Diseases of the arteries	M F	49 50				5	4]		i	9	20		10 34	
91A. Aneurysm	M F	4 2]			1	i				1			2	
91B. Arteriosclerosis	M F	4.5 4.7				4	3			1 1	8	19		10 32	
90c. Other diseases of the arteries	F	1					1				1				
94. Diseases of the lymphatic system (lymphangitis,	F	1	• • • • •		• • • • •		1		• • • •			• • • • •		• • • • • • • • • • • • • • • • • • • •	
95. Haemorrhage without specified cause	F F	1									1				• • • • • •
CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM.															
Total	_	128	50			6			1	18	14			16	
	M F	74 54	33	- 01		5	3 4		····i	9	11			11	
98. Diseases of the larynx 98c. Croup 99. Bronchitis	F F M	1 1 1	1 1 1												
99A. Bronchitis, acute	F M	1	1											: : : : :	
99D. Bron hitis, not otherwise defined, 5 years or over. 100. Broncho-pneumonia (in- cluding capillary bron-	F	1										1.	• • • •		
chitis)	M F	25 16	19			1 1	1 .				3	1 .		3.	
100A. Broncho-pneumonia	M F	24 16	19 .			1	1				3	1 :		3.	
100B. Capillary bronchitis	M	35	10	2		3	3.			6	5	3.			
101A. Pneumonia, lobar	F M F	26 22 15	8 4 6 .	- 01		3	2 :		1	5 4 4 .	1 4	2.		21	
101B. Pneumonia, not other- wise defined	M	13	6				1 .		1	2	1				
102. Pleurisy	F M F	11 7	2 3 .				2			1 2 1	1 2 .	21.		2	

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.—Continued

-		NA	rivit	Y							λ	IONT	HS	-				
	Can-	Brit- ish		reign	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
_			USA	Other)		1			1	1	1	1			
_	138	62	6		2	43 21	19	38	33	30	20	28 15	15	16	10	13	33	
_	134	35	3	4		22	15	22	16	19	11	13	5	7	17	8	21	
_	93 93	22 26	3 2	3 2	2	14	12	9 16	11	12	16	13	8 3	5	11	11 5	17	87–90
• •		2.	1	1	1		1	1	4	1		1	1		1			87 88
	6 1 4	1 2	· · · · · i		1		· · · · i	· · · · · i	3	1		1	1	1			1	88A
	2 1 20	1 5				3	3	1	2	2	4	2		1.2	1	3		88B 89
	8 67 84	15. 23!	2 2	1 2 1	1	1 11 14	1 8 9	3 7 13	2 5 1 2	4 12	12 6	10	1 6 2	5 4	1 4 10	 8 5	2 7 14	90
	8 9	1 2 3	;	1		2 2	4	1	1	2	1 2	3	1	i	2 1	2 1 1		90a 90d
	11 16 36	10	1			3		2 5 9	1 5 1	1 3	6	1 2 7	4	2 3	1 3	4	1 6	90E
	47 12 12	21 1	1 1		1	6 2 3	8 1 1	1	5 2 1	7	5 4	3			6 1	3 1 1	2	90F
	44 38	5 9	· · · · · i	2		6 6	7 5 1	7 6	6 2 1	4 7 1	4 5	2 4	2	2 2	4 6	2 1 1	3 4	91 91 A
	40	5				1 6	6		5 2	3 7	4	2	2 2	2	1 4	· · · · i		91B
	35	9	1	2			1	6			5			2				91c
	1					1												73
	î]													1		
	1							• • • • •								1	- 1	94
	1					1	• • • • •)5
	198	14	1	3	2	9	12	14	8	1.5	14	2	1	5	21	7	20	
	60 48	10		2	1	5 4	5 7	8	5	12	8			4	11 10	3 4	10 10	
	1 1					1 1											[98 98c
	1 .		• • • • •														1	99 99a
	1																	99D
	21	2	1		1	2		3	2	3	3			3	6	2		100
	13 21 13	2 1 2	1		1 1 1	2 2 2	2	3 2	i	2 3 2	3 .			3	3 6 3	1 2 1	2	A001
	28 24	1 5 1		2		2	3 3	4 4	1 2 3	4	4	ż	i	1	4 5	2		100в 101
	19	2		1 1		i i	ĭ	3 2	1 2	2	3	t	1	1		1		101A
	9 10	3		1		1	2 3	1 2	1 1		1 1	1			1		2	101в
	5	2				1				2	1				····;			102

TABLE 41—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	IJUG <i>A</i>	AL CO	NDIT	ION				
CAUSES OF DEATH	Sex	Total				Single				1	Marrie	d			
CAUSES OF DEATH	Sea	10141	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
 103. Congestion and haemorrhagic infarct of the lung 104. Gangrene of the lung 105. Asthma 107. Other diseases of the respiratory system (tuberculosis excepted) 	M F M F	1 5 1 3 1				1	1			1 1	1. 1.	1		1 3	
107c. Others under this title CLASS VI.—DISEASES OF THE DIGESTIVE SYSTEM.	M F	1 3				• • • •	1			1		1		1	
Total		216	114	10	7	7	6		1	18	24			17	
	M F	123 93	67 47	10	3 4	2 5	3		1	12 6	10 14	8		7 10	
108. Diseases of the mouth and annexa	М	4	1		1						1			1	
109. Diseases of the pharynx and tonsils (including adenoid vegetations)	F M	2	1											1	
109A. Adenoid vegetations	F M F	1												i	
109в. Pharynx and tonsils	M F	1 2	1												
111. Uleer of the stomach and duodenum	м	9		1		1				3	2	1		1	
111A. Ulcer of the stomach	F M	8		· · · · i	: : : : :	1				2	2	····i		····i	
111B. Ulcer of the duodenum. 112. Other diseases of the stomach (caneer ex- cepted)	F M	11	2				1			1 2	1	4		1	
113. Diarrhoea and enteritis (under 2 years of age).	F M	52	52			1		• • • • •			1			1	
114. Diarrhoea and enteritis (2 years or over)	F	38	38												
117. Appendicitis and typhlitis	F M	2 5 23	5	9	1	1	1			2 5	1 2				
118. Hernia, intestinal obstruction	F M	9	5 .		1		1			1	2	2		1	
118A. Hernia	F M	9	1		2		1			1	1	1		4	
118B. Intestinal obstruction	F M	3 .	2		1		1					i		2	
119. Other diseases of the intestines	F M	3.3			2	1	1			1		1		2	
122B. Not specified as alcoholic	F M	3				1	1				4	1		2	
123. Biliary calculi	F M	1 .								i .	4				
124. Other diseases of the liver	F M F	3									$\frac{2}{2}$.	1 .		:	
125. Diseases of the pancreas.	M F	1 .	.								1.				
126. Peritonitis without specified cause	M F	2 4	1 1		1 .						2				

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.-Continued

	NAT	TIVIT	Y							N	IONT	HS					
Can-	Brit-	For	eign	Not	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
ada	ish	USA	Other	stat- ed	Jun					3 4 10							
1 4	1								1					_i	_i	_i	103
3 1	1						1	i	1	i				1			104 105
1 3						1				2							107 107c
3						1		• • • • • •		2							
188	8	3	2	$\frac{3}{2}$	13	13	15	12	9		11	25	23	5	12	5	_
80			2	1	7	7	7	8	4	4	11	19	12	7	4	3	
2	2				i												108
2 2	·····i				2	_i	1										109 109A
1 1 1						i											109А
1	1				2			1			1		1		2		111
6	2 1 2				2	1	1 1	1			1		1		1		111A
i						1									i		111в
10 4		1			1			3 2	1		3	1		1	1 1	i	112
49 37		1		2	1 1	2 1	1		1 1		3 3	20 15	17 11		2 3	2	113
2 4						<u>i</u>	1	····i	1		1 1	2	2	1	5		114
20 8					i	3 2	3	2 2	3	i	1 1	2				1	
8 7			1				2 2	1	1		1 1	1 1	3	2		1	118 118A
4 2 4	1		1				1 2 1	2	1		1		2	i		, .	118в
5	1							1	1		1	1		1		1	119
2 3 4 3			1			1 1	2	1	i	1	1 1	2					122
3 4	3				2	1	2		1		1	2					122B
3 2			1					1 1	i					i	1		123 124
2 4 1					i		i	1			i	1					125
1											1						
2 4										2	1		i		1	1	126

TABLE 41—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CON	JUG.	AL CO	NDIT	ION		-		
CAUSES OF DEATH	Sex	Total				Sing	le			ı	Marrie	đ			
			Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CLASS VII.—Non-Venereal Diseases of the Genito- Urinary System and Annexa.															
Total		129	3		6		6.		1	15	19		• • • • •	39	• • • • •
	M F	74 55	1	2 1	2	10	1.5.		1	3 12	10 9		• • • • •	22 17	• • • • •
128. Acute nephritis (including unspecified, under 10 years of age) 129. Chronicaephritis (Bright's	M F M F	6 43 35	1		3 1	1 9 1	1.			3 3 3		11		13	
Disease	M	2 2					4.					1	• • • • •	1.5	
132. Calculi of the urinary passages	F M	3									1			2	
 135. Diseases of the prostate 136. Non-venereal diseases of the male genital organs. 	M M	17	1		1		1.				2	8		5	
137. Cysts and other benign tumours of the ovary 138. Salpingitis and pelvic	F	3					• • • • •			3					• • • • •
abscess	F	3								2				1	
140. Non-puerperal uterine	F	1		1								1			
141. Other diseases of the female genital organs	F	1			1										
CLASS VIII.—THE PUERPERAL STATE.															•
Total	F	13		3					2	8					
145. Other accidents of labour 145c. Other surgical opera- tions and instrumental	F	1				• • • • • •				1		• • • •			
delivery	F	1 4		2						1 2					
bolism, sudden death in puerperium	F				• • • • •				• • • • •						
and convulsions 149. Following childbirth (not otherwise defined)	F								2						
CLASS IX.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.															
Total		7									1				
	F.	3 4												2 .	
151. Gangrene	F M F	1 1 1 2] .					1 .	
154. Other diseases of the skin and annexa	M	2	2												···

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.-Continued

_	NAT	'IVIT'	Y				•			М	ONT	HS					
Can-	Brit-	For	eign	Not	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
ada	ish	USA	Other	stat- ed													
98	21	3	4	3	12	10	16	11	11	11	12	3	16	5	14	8	
57 41	10 11	2	3	2	8 4	7 3	7 9	6 5	6 5	5	8	2	10		6 8		
.5	1			1	1		1				2		1		1	1	128
5 36 24	1 3 9		2	1 1	1 4 2	1 5 1	5 7	4 4		. 3	3		4	2	2 4 6	4	129
1 1	i		1			····i		1					i			1	131
3	<u>1</u> 5	· · · · · · · · · · · · · · · · · · ·			3	1		1	1		3		1 4		1		132 133 135
1 2							1			2							136 137
4					1		1			1				1			138
3							1	1					2				139
1													. 1				141
11	2					2	1	4				1				. 1	
1																	145
1 3							1	1				1					145c 146
1															. 1		147
6						. 2		. 2				1	1			. 1	1,40
******	1							1									
6		1						1 2	2							1 1	
3									2						1		
1	1							11									151 152 153
									i								
		-	-	-		-	-	-	-	-	-	-	-	-	-	-	1

TABLE 41—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

	CONJUGAL CONDITION Single Married														
CAUSES OF DEATH	Sex	Total				Single				1	Marrie	đ			
CACGES OF BEITH		10141	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25–44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION,															
Total		7	2	1		1	1			1	1				• • • • • •
	M F	3	2	1		i	1			1	i				
155. Diseases of the bones (mastoid and tuber-culosis excepted)	M F	3.		1			1			1					
156. Diseases of the joints (tuberculosis and rheumatism excepted)	F	3	1			1					1				
CLASS XI.—MALFORMATIONS.									1						
Total		21	21												• • • • •
	M F	11 10	11 10												
159. Congenital malformations (stillbirths not included)	M F	11 10	11 10												
159A. Congenital hydrocephalus 159B. Congenital malforma- tions of the heart	F M	1	1	• • • • •	• • • • •		• • • • •								
159c. Others under this title	F M F	3 5 6	3 5 6												
Class XII.—Diseases of Early Infancy.															
Total		118	118												• • • • •
	M F	68 50	68 50						• • • • •						
160. Congenital debility, icterus and sclerema	M F	14	14												
161. Premature birth, injury at birth	M F	50 40	50 40												
161A. Premature birth	M F	40 37	40 37												
161B. Injury at birth	M F	10	10												
early infancy	M F M	4 4	4 4 4										• • • • •		
CLASS XIII.—OLD AGE.	F	4	4	• • • • •	• • • • •	• • • • •					• • • • •	• • • • •			
Total		13										6		7	
	M F	6 7										4 2		2 5	
164. Senility	M F	6 7					• • • • •					4 2		2 5	
Class XIV.—External Causes															
Total		82	17	10	6	3	2			8	13				• • • • • • • • • • • • • • • • • • • •
	M F	56 26	11 6	9 1	4 2	2	1		: : : :	6 2	11	6 2		6 9	
165-174. Suicides	М	3			• • • • • •						3		. 11		

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.—Continued

	NAT	TIVIT	Y							N	10NT	HS					
Can-	Brit-	For	eign	Not stat-	Ton	Fob	Mar	Apr	Mov	Tuno	Tulu	Δυσ	Sont	Oat	Nov.	Dec	
ada	ish	USA	Other	ed	Jan.	1.60.	Wi ai.	Apr.	Iviay	June	July	Aug.	Sept.	Oct.	1400.	Dec.	
7					1	1		2				1	1	1			
3 4				: : : : :	····i							····i	1	····i			
3								2				· · · · i	1				155
3					1	1								1			156
21					2	1	2	2	4	1	2		1	1	3	2	
11 10					2		1	2	2 2	· · · · i	1 1		1	1	2	1	
11 10					2	1	1 1	2	2 2	<u>1</u>	1 1		i		1	1 1	159
6	.,				·····i		1	1	1					1			159a 159b
3 5 6					· · · · · i	i		i	1 2		1 1		· · · · · i			1	159c
117				1	7	8	14	3	11	16	8	13	6	7	9	16	
67				1	1 6	6	9 5	3	6	8	5	6	1	5	8	10	
50						2		• • • • •	5	8	3	7	5		-	6	
14 6					1					1	1	2 2	1 1	2		3	160
49 40 39				1 i	1 5	4 2 3	8 5 5	3	6 4 4	7 6 7	4 2 4	4 5 4	4	3 2 2		5.	161 161 _A
37 10					5	1	5		4 2	6	2	5	2	2 1		5	161B
3						1	1						2		1	1	162
4						· · · · i	· · · · i		1	1					1 1		162A
4	•••••	• • • • •	• • • • •					• • • • •	1	1	1			• • • • •	1		
10	1	1	1				2	3	1	1		3			1	2	
4 6	1	1	· · · · i				2	. 1	· · · · i	· · · · i		3			_i	1 1	
4 6	1	1	····i				2	2	····i	· · · · i		3			····i	1 1	164
_			-														
63	6	5	6	2	6	- 5	7	2	6	7	15	7	7	6	4	10	
41 22	2	5	2	2	4 2	5	6	2	5	3	13	6 1	5 2	5	2 2	7	
2	1				1					1					1		165- 174

TABLE 41-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

								COI	NJUG	AL CO	ONDIT	rion				
							Single					Marrie	d			
CAUSES OF DEATH		Sex	Total	Un- der		Ī	l l	1					T		Wid-	Not stat-
			'	15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	4564	65 and over	Age not stat- ed	owed	ed
166. Suicide by corrosive s	ub-	М														
stances	or	M	1									i				
piercing instruments		M	1									1				
scalds (conflagration cepted)	ex-	M F	4	3		1					1					
180. Accidental mechanica suffocation	1	F	1	3											1	
180B. Asphyxia	of	F	1												1	
irrespirable or poison gas	I	M M	1 7		4			1			_i					
183. Accidental traumatism	ł	F	í									1				
firearms	by	M	2			1				• • • • •		1				
fall	- }	M F	12 3	3	2						1	2	1		2 2	
machines	by les,	М	1			• • • • •	1							• • • • •		
railways, landslides, e	etc.	M F	17 9	2 2		1 1		· · · · i			3	1		• • • • •	3	
188A. Railroad accidents 188B. Street car accidents.		M M F	2 1							:::::			1			
188c. Automobile accidents		M F	10	2	2	1 1	1	1			1	1	1		1 3	
188E. Injuries by other vehic	eles	M F	3.	i								2		• • • • •		
188F. Other crushing 192, Starvation (deprivat of food or water)	ion	M F	1			• • • • •	1				1			• • • • •	'	
194. Excessive heat		M M	1												1	
197-199 Homicides		M	2	1		1									1	
199. Homicide by other mea 201. Fracture (cause not spe	eci-	M	1	1			• • • • •	• • • • •				• • • • •	1	• • • • •		• • • • •
fied)	- 1	F	4										1		3	• • • • •
(cause specified)		M F	4	····i		1						1	1			
CLASS XV.—ILL-DEFINEI DISEASES.																
Total			11	1	1			1				1	3		4	
		M F	6 5	1	1			····i				1	2 1		1 3	
204. Sudden death 205. Cause of death not spe		М	1	1												
fied or ill-defined	• • •	M F	5 5		1			_i				1	2 1		1 3	
205B, Not specified or the known	un-	м	1		1			• • • • •				;			;	
205c. Heart failure	• • •	M F	4 5					i					1		3	

NATIVITY, AND MONTH OF DEATH-OTTAWA, 1928.—Continued

	NAT	TIVIT	Y							λ	10NT	HS					
Can-	Brit-	For	reign	Not stat-	Jan.	Feb.	Mar	Apr.	May	June	Iuly	Aug.	Sept.	Oct.	Nov.	Dec.	
ada	ish	USA	Other	ed													
	1									1					_i		166 169
1																	171
3 5			1	1			1		1		1			1	i	1 2	
	1									1							180 180B
1 4 1	1	2		• • • • •				1			5	2					181 182
1			1							2							183
9 3	2						2		1		1	2	2	2 1		2	185
15	1	1	1 1		2	3	1			1	5	2	3	1	1	3	188
1 1			1 1		i	1	i i				1						188 _A 188 _B
9 6 3 1	i	1			i i	1				1	3	1 1 1	3	1 1	1	2	188c 188E
1											1		1				188 _F
1		1			1		• • • • •	1						• • • • • •			194
				1			1										197- 199
1 4				1	1			• • • • •	2							1	199 201
2			2		1	1	1		1								202
10	1			• • • • • •				2	2	1			1		2	3	***************************************
6 4	1							1	1	1			1		1	2	
5 4	1							1 i	1 1	1			1		1 1	- 1	204 205
1 4 4	1							1	1 1	1			1		1		205в 205с

TABLE 42—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

	1	1	1									J.11			
							CO	NJUG	AL CO	ONDI	LION				
CAUSES OF DEATH	Sex	Total	Un-			Single					Marrie	đ			Nine
			der 15	15-24	25-44	45 -6 4	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
DEATHS—ALL CAUSES. Total		1,122	127	32	29	58	89		10	78	178	189		332	
	M F	549 573	75 52	23	21 8	28 30	35 54	• • • • •	1 9	34 44	88 90	127 62		117 215	
CLASS I.—EPIDEMIC, ENDEMIC															
AND INFECTIOUS DISEASES. Total		148	25	10	7	9	10		5	22	18	13		29	
	M F	74 74	12 13	7 3	6	3 6	3		5	10 12	11 7	10		12 17	
7. Measles	м	2	2												
8. Scarlet fever	F M	1 1 4	1 1 4												
10. Diphtheria	F M	1 2	1 2										• • • • •		
11. Influenza	F M F	33 39	2 3	2	i	4	3		_i	5 7	6	8		9	• • • • •
11A. Influenza, sole cause	M F	3	····i									1		1 2	
11B. Influenza, with phthisis 11D. Influenza, with pneu- monia	M M	20	2	1	1				• • • • •	3	3	4	• • • • •	6	• • • • •
11E, Influenza, with other	F	28	2	î		3	3		1	5	4			7	• • • • •
respiratory diseases 11F. Influenza, with diseases and accidents of preg-	M	1		• • • • •			• • • • •							1	• • • • •
nancy and parturition 11G. Influenza, with other causes	F M	1 8		• • • • •			• • • • • •			1	3	3	• • • • • •		• • • • •
21. Erysipelas	F M	7 2	i	1		1				i 		1		3	• • • • •
22. Acute anterior poliomye-	F	2	• • • • •			• • • • •		• • • • •						2	• • • • •
litis	M F	1 4 2	1 1		1		i				i	i			
24. Meningococcus meningitis 25. Other epidemic and en-	M	1		1											
demic diseases 25A. Chicken-pox	F	1 1	1												
31-37. Tuberculosis	M F	23 22	2	4	4	3 2	1 4		4	5 5	4	1		1 2	
31. Tuberculosis of the respiratory system	M F	20		3	3	3 2	1		3	5,	4	1			
32. Tuberculosis of the men- inges and central ner-	1	17		1	1	4	4		3	*	1	,		1	
33. Tuberculosis of the intestines and peritoneum.	F M	1	1										. ,	1	
34. Tuberculosis of the vertebral column	F M	2		1					1	1					
35. Tuberculosis of the joints. 37. Disseminated tuberculosis. 37A. Disseminated tubercul-	F M F	1 1 1	· · · · · i		i									1	
osis, acute	F M	1 2	1				i				_i				
41. Purulent infection, septicaemia	F M	1	• • • • •				• • • • •				• • • • •		• • • • •	1	
	F	2	2												
(- 1	-	- 1	1	- 1	ı	l		- 1	ı	1	l	-	1	

NATIVITY, AND MONTH OF DEATH-LONDON, 1928

	NAT	IVIT	Y							MON	THS						
Can-	Brit-	Fore	eign	Not	Jan.	Fab	Mar	Ann	May	Tuna	Tuly	Aug.	Sent	Oct	Nov	Dec	
ada	ish	USA	Other	stat- ed	Jan.	reb.	stat.	Apr.	May	June	July	Aug.	Sept.	001.		Dec.	
744	303	31	28	16	67	84	103	106	113	100	84	70	80	92	97	126	
374 370	141 162	6 25		8 8	30 37	43 41	54 49			47 53				51 41	47 50	55 71	
102	38	3	3	2	8	4	15	15	21	14	9	9	9	7	8	29	
52 50	17 21	1 2		1 1	4 4	2 2	7 8							4 3	6 2	13 16	
2							1										7
1 1 4								1		1		1			1	1	8 9
1 1	i					1	1 1	1									10
1 22 26	9		2		1		3 3	3	8	5	5 3	2	2	1	2	13	
1 2 1	1 1		1				2		1	1			i			1	11A 11B
13	6		1	1	1		2			2	1						11p
18	10						1	1	6	3	3 2		1		1	12	11E
,										1							11F
6	2						1		1			1			2	3	116
5 1 2	2 1							1	2	1			1	1		1 1	21
1																1	22
1	1					i		1	1				2	1	· · · · · i		23
1								,								1	2.5
1																	25A
16 13	5 6	2	1	1 1	3		4			1		2	1	3 2	1	1	31-3
13 10	5 4	2	1	1 1	3 3		2 3				1	i	2	2	1 1	2	31
1									1								32
1	· · · · · · · i									1		i					33
1														1			34
·····i	i									1							35
1 1												1		1	· · · · i		37A- 38
	1					1					1						41
2	1											2				• • • • •	

TABLE 42—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CO	NJUG	AL C	ONDI	TION				
CAUSES OF DEATH	Ser	Total				Single				2	Marrice	1			
CAUSES OF BEATH	JCX.	z otai	Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CLASS II.—GENERAL DISEASES NOT INCLUDED IN CLASS I.															
Total		191	6	2	3	17	9			12	57	38		47	
	M F	88 103	2 4	1 1	2	10	3 6			5 7	24 33	27 11		14	
43-49, Cancer	M F	62 74		1	1 1	6	3 6			5 3	17 23	18		11 26	
43. Cancer of the buccal cavity	M	5					1				1	1		2	
44. Cancer of the stomach and liver	F M F	18 24				3	1 3			1 2	4 4	6		3	
45. Cancer of the peritoneum, intestines and rectum.	M F	13 14				2				2	3	6		2	
46. Cancer of the female genital organs	FFF	11 14 1	• • • • • •			1 2	1				4 6 1	3 2		3 3	
fied organs	M F F M	26 9 1	• • • • • •		1 1	3	1		• • • • •	1	9 2			3	
system	M F M	3 3	• • • • •	• • • • •						1	1 1 2			1 1	
49E. Cancer of genito-urinary	F	3				2	i				6			2	
organs	F M F				1					i					
49H. Generalized cancer 50. Benign tumours and tumours not returned as malignant (tumours of female genital organs excepted)	M	1				1					• • • • •	1			
51. Acute rheumatic fever	F	1 3	· · · · i								2		• • • • •		
52. Chronicrheumatism, osteo- arthritis, gout	F M	1									1	1			
57. Diabetes mellitus	F M F	2 9									1 3	6		2	
58. Anaemia, chlorosis	M F	4				2					1	1		i	
58A. Pernicious anaemia	M F	4 5				2				2	1	1		· · · · i	
60. Diseases of the thyroid gland	M F	2 6			1	i				i	2			1 2	
60A. Exophthalmic goiter	M F	2								· · · · i	2			1	
60B. Other diseases of the thyroid gland	F M M	2 1 1 1 2	1			1					1 1			1	
65A Leukaemia	F M F	1 2	2								1				
66. Alcoholism	M M M F	1 2 1 2 2	1			2 1 1					1 1 1				

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	NAI	IVIT	Y							λ	10NT	HS					
		Fore	eign														
Can- ada	Brit- ish	USA	Other	Not stat- ed	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
118	60	9	2	2	13	14	19	15	21	17	12	12	16	17	20	15	
53 65	30 30	3 6		2	3 10	8 6	9	7 8	13	8 9	3 9	7 5	7 9	9 8	9	5 10	
36 43	21 23	3 6			3 8	8 4	5 6	5 6	7 5	6 7	2 6	4 3	6 7	4 7	8 9	4 6	43-49
4	i	1			i				3			1		1			4.3
9 14	8	1 1	· · · · i		2 2	2 2	4 2	2	2 2	3	2		3 2		2 2	2 2	44
7 6	6	3			1 1	3		2		2 2	1 2	i	1 1	2	3 3	1	45
- 7 10	2 4	1	1		2 2	_i	1 2	2 1	 2 1	····i	····i	1 1	2	· · · · i	2	1	47 48
1 16 5	7 3	1 1		2		3	1 1	3	2	4	1 1	3	2	2	3	2 2	49
1		1		1			1			1		1					49а 49в
i	3 1	<u>i</u>						1 1		1			· · · · · i		i	1	49c
2 3								2			····i				1	2	49p
12	2 1 1					2	1		1 i	2	1	1	2	2	2		49E 49F
i	i									1		1					49H
1	1				i				1								50
1 2	2						i		1			· · · · · i				1	51
1 1 5	. 1							1	<u>1</u>	_i	i	2		1 3	· · · · · · · · · · · · · · · · · · ·		52 57
7 2 3 2 3	2 2 2					i	3 1 1	1	2	1	1 1	1	_i	i			58
	2 2					1	1	1	2		1		i	1			58A
2 5 2 4	i			• • • • •	1 i			• • • • •	1 1 1	1 			i	1 i			60A
1 1	1								1				1		1		60в 62
1 1							1					i					63 65
2 1 2				• • • • •				<u>1</u>			1 i	i				• • • • • •	65A
2 1	1		• • • • • •	• • • • • •		• • • • • •			• • • • •				1				66 66в 66с 69
2 2						• • • • • •										2	69b

TABLE 42-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CO	NJUG	AL C	ONDI	rion				_
CAUSES OF DEATH	Sex	Total				Single				1	Marrie	d			
			Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45–64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
Class III.—Diseases of the Nervous System and of the Organs of Special Sense.															
Total		85	7	3	2		10		• • • • •	7	9	13		30	
	M F	44 41	7	3	1	2 2	2 8			3 4	6 3	9		11 19	
70. Encephalitis	M	1										1			
70в. Encephalitis	F M F	1 2										i	,		
71. Meningitis	M M	1 1	1		:::::		1							• • • • •	
74. Cerebral haemorrhage, apoplexy	F M	15		1		1				1	2	6		6	
74A. Apoplexy	F M F	15 6 8									i	2		3	
74B. Cerebral haemorrhage	M F	8 7		1			3				1	4		2	
 74c. Cerebral thrombosis and embolism 75. Paralysis without specified cause 	M M	1									1			1 2	
75A. Hemiplegia	F M	5										1		4	
75B. Others under this title	F M	3 1										1		2	
76. General paralysis of the insane	F M F	8				1				2	3	1		1	• • • • •
77. Other forms of mental alienation	М	2				1	1							1	
78. Epilepsy	F M	1 4		· · · · · i			· · · · i					1		1 1	
79. Convulsions (non-puerperal 5 years or over) 80. Infantile convulsions (un-	F M	1	1												
der 5 years of age) 82. Neuralgia and neuritis 84. Other diseases of the nervous system	M F M	2	2		4									i	
86. Diseases of the ear and of the mastoid process	F M	3 2 3	2	1							2				
86A. Diseases of the ear 86B. Diseases of the mastoid	F F M	3 1 3.	2							1			• • • • •		
process	F	2	• • • • •	1						i				i	
Class IV.—Diseases of the Circulatory System.															
Total		268	1	1	2	13	25			5	34	70		117	
	M F	120 148	1	1	2	8 5	13 12			3 2	17 17	40 30		35 82	
87-90. Diseases of the heart	M F	77 89	1	1	1	4 5	7 7			1 2	14	31 23		17	
88. Endocarditis and myo- carditis (acute)	M	1			1							,			
88B. Acute myocarditis	F M F	1 2			i						1				
89. Angina pectoris	M F	15 13				· · · · · i				i	2 2	9		3	
90. Other diseases of the heart 90a. Valvular disease	M F M F	61 73 4	1 1	i 		4	7 6			2	12	22 16 2		14 36	

NATIVITY, AND MONTH OF DEATH-LONDON, 1928.—Continued

	MONTHS	
Can- Brit- Not stat Jan. Feb. Mar. Apr. May June	July Aug. Sept. Oct. Nov. Dec.	
ada ish USA Other ed Jam 100 Mar May Jam	July Mug. Sept. Oct. Nov. Bee.	
61 19 3 2 2 5 9 12 8 8		
32 10 1 4 4 6 6 5 3 29 9 3 1 1 5 6 2 3	5 1 1 3 2 3 8 3 4 3 5 2 2 7	
1	1	0
1 1 1 1 1	177	70в 71
1	1 7	1A
5 1	1 7	73
9 6 1 3 2 3 10 3 2 1 2 3 2 3 2 4 1 1 2	2 3 2 2 1 1	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
4 1 2 1 1	2 2 1	
1 2 1 1 1 1	1 7	'4C
4 1 1 1 1 1 1 1	1	5A
2 1 1 1 1 1	1	5в
5 1 2 1 1 1 1	2 2 70	6
2		7
1 1 1 1	1 77	
1 1 1	1	9
2 1 1		
3	1	
3	2	_
3 1	1 1 86	
3 1 1	1	6в
159 86 11 7 5 20 25 25 28 19 24 71 40 1 5 3 12 12 18 9 8 4	21 18 24 15 23 26 11 10 10 4 11 11	
88 46 10 2 2 8 13 7 19 11 20	10 8 14 11 12 15	
45 26 4 2 4 8 13 5 7 3 55 25 6 1 2 2 8 6 13 8 12	5 5 10 2 8 7 87 4 2 10 6 6 12	7-9
1	1 88	8
	1 88	8 _B
11 3 1 2 1 3 2 1	1 1 1 2 1 89	
10 3 3 2 2 7 10 3 7 2 2 4 4 13 7 11 2 2 4 4 13 7 11 2 5 2 2 4 4 13 7 11 3 3 7 11 3 3 7 11 3 3 3 3 3 3 3	4 4 9 2 6 5 90 2 8 5 5 10 90 90	

TABLE 42-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

						CO	NJUG	AL C	ONDI	rion					_
CAUSES OF DEATH	Sex	Total				Single				1	Marrie	d			NT-4
			Un- der 15	15-24	25-44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
90D. Chronic endocarditis 90E. Chronic myocarditis 90F. Others under this title 91. Diseases of the arteries 91A. Aneurysm 91B. Arteriosclerosis 92. Embolism and thrombosis (not cerebral) 93. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	M F M F M F M F M F M F F M F F M F F M F F M F	4 12 36 40 17 14 40 56 1 40 55 3 2		1	1	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1 4 4 3 6 5 5			2 2 2	1 37 33 22 25 5 1 1	3 2 12 8 5 5 9 6		5 10 22 4 5 18 40 	
CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM. Total		96	15	1	8	4	6			7	13	10		32	
Total	M F	44	7 8	;	5	2 2	6			3	7	8		12	
98. Diseases of the larynx 98c. Croup 99. Bronchitis 99A. Bronchitis, acute 100. Broncho-pneumonia (including capillary bronchitis) 100A. Broncho-pneumonia 101. Pneumonia 101A. Pneumonia, lobar 101B. Pneumonia, not otherwise defined 102. Pleurisy 103. Congestion and haemorrhagic infarct of the lung 105. Asthma 107. Other diseases of the respiratory system (tuberculosis excepted).	F FFMFMF MFMF MFMF MFMF	52 11 11 11 11 11 11 11 11 12 20 32 23 13 14 10 10 22 22 21 11 11 11 11 11 11 11	8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1	3 2 2 3 2 2 1	2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			1 1 2 2 3 3 1 2 2 1 1 1 1 1 1 1 1 1 1 1	2 2 6 6 3 3 4 4 3 3 2 2	3 3 1 3 5 5 1 1 2 2		11111111111111111111111111111111111111	
CLASS VI.—DISEASES OF THE DIGESTIVE SYSTEM.															
Total		75	16	8	1	4	8			6	10	8		14	
	M F	40 35	9 7	5 3	1	2 2	3 5			3	5 5	6 2		6 8	
108. Diseases of the mouth and annexa 109. Diseases of the pharynx and tonsils (including adenoid vegetations) 109B. Pharynx and tonsils 111. Ulcer of the stomach and dondenum	M M M	1 2 2	2 2	2		1									
duodenum	M F M M	4 3 2 4 1		2 2 1 2 1			1 1					1 1 1 1			

NATIVITY, AND MONTH OF DEATH-LONDON, 1928.—Continued

	NAT	IVIT	Y						У	IONT	HS						
Can- ada	Brit-	For	reign	Not stat-	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
	.5.2	USA	Other	ed													
2 7 18	2 1 15	3	1	2		1 2	6	1 1	2 5	2	1		1	2	1 1 4	2	90p 90e
21 11 11	15 15 4 3	2	2	2		2	2 2		4	. 5			5	3		4	
24 33 1	14 19	3	·1 1	1	6	5		6	1 3	1 7	5 6	6		5	3 5	3	91 91A
24 32	14 19	3	1 1	1	6		1	5		1 7	5	6	3	5		3	ı
2	2	1					1				1	1	1				92
• • • • • • • • • • • • • • • • • • • •		1													1		93
						.*											
62	28	1	4	1	5	-	l	8	11			-			·		 -
28 34	11	1	4	1	4	7	5	3				1	3	3	3 4		
1 1 1					1							1					98 98C 99
1 1 1										1		i					99A
6	10		1		1 1	1 3		1 1		1	1 2		2 3		3		100
6 9 6 9	10	· · · · i	1 3		1 1	1	1 3	1	2	· · · · i	1 2		. 2			· · · · · i	100. 101
18 17 10 10	6 6 3		2		1		1 2	2		3	4 2 4	2		1	1		101
8 7	4 3		1	1	_i	2		4	4	3				. 1	1	1 1	
2 2										1				1			102
1 2	ii				i i		1 1							1 1			105
1												1 1					107
1												1 1					1070
35	7				5			5						 			
30			1		4		2			1	3	4		5	5	5	-
1								1									108
2 2						1 1										1	109 1091
4 3 2					i		1		1		1 1				2	1 1	111a
4		1::::			·····i	1:::::	1	1:::::	1		1:::::		1:::::		2	l:::::	1111

TABLE 42—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION

							CO	NJUG.	AL C	ONDI	LION				
CAUSES OF DEATH	Sex	Total				Single				2	1arrie	1			
Choose of Berry	SCA	rotar	Un- der 15	15-24	25–44	45-64	65 and over	Age not stat- ed	15-24	25-44	45-64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
112. Other diseases of the stomach (cancer excepted)	M	3				1					1			1	
113. Diarrhoea and enteritis (under 2 years of age)	F M	5	5												
114. Diarrhoea and enteritis (2 years or over)	F M F	6	- 1				1 3					2		2	
117. Appendicitis and typhlitis	M F	4 8 7	1	3 1			1			2 2	2 2				
118. Hernia, intestinal ob- struction	M F	7			1					1	1	1		3	
118A. Hernia	M F	3			1		····i							2	
118B. Intestinal obstruction119. Other diseases of the in-	M F	1												1	
testines	F	3	1			2					1				• • • • •
the liver. 122. Cirrhosis of the liver. 1228. Not specified as alcoholic 123. Biliary calculi.	M M M	1 1 1					1					1			
124. Other diseases of the liver	F M F	1 2									1	1			
126. Peritonitis without specified cause	F	3								1				2	
CLASS VII.—NON-VENEREAL DISEASES OF THE GENITO- URINARY SYSTEM AND ANNEXA.															
Total		120	1	3	2	5	11		1	10	28			36	
	M F	57 63	1	2 1	2	5	5		1	8	12 16	15		19 17	
128. Acute nephritis (including unspecified, under 10 years of age)	M F	3		1					1					1	
129. Chronic nephritis (Bright's disease)	M F	42 52	1	1		5	2 5			2.4	10 15	11		15 16	
131. Other diseases of the kidneys and annexa	M F	1					1								
132. Calculi of the urinary passages	М	1												1	
133. Diseases of the bladder135. Diseases of the prostate137. Cysts and other benign	M	9					1				2	4		2	
tumours of the ovary 138. Salpingitis and pelvic abscess	F	1		1			1			1					
141. Other diseases of the female genital organs	F	5			2					3					
CLASS VIII.—THE PUERPERAL STATE.															
Total		6							3	3	• • • • •				
 143. Accidents of pregnancy. 143A. Abortion. 144. Puerperal haemorrhage. 147. Puerperal phlegmasia alba dolens, puerperal embolism, sudden death in 	F F	2 2 1							2	1					
pourperium	F F	2 1							1	1					

NATIVITY, AND MONTH OF DEATH-LONDON, 1928.—Continued

	NAT	IVIT	Y							М	ONT	HS					
Can-	Brit-	For	eign	Not stat-	Jan.	Feb	Mar.	Apr.	May	Tune	Iuly	Aug.	Sept.	Oct.	Nov.	Dec.	
ađa	ish	USA	Other	ed	Jan.	res.				3 4	3,						
2	1							1	1					1			112
2 3 5					1								1	ا دا ع	1		
4							2				1			2	3		114
4 7 5			i		i		2	1	2	1	1				1 2		117
5 2 2 1		1 i					1		2		1	1		i			118 118.
1 3 1						1	1		1		i i						118
3					1	1						1			. 1		119 120
1 1 1														i	i		122 122 123
1 1 2			ii				1	i							i	1	124
2	1							1					2		-		126
75	37	2	2 2	2 4		14	. 8	13	13	12		7	5	5 1	1 10		-
39 36			2 2	2 4	3			5 5	3	8				1 4	6 5	7 8	
1			.					. 1		. 1							128
30 28	12		1			2	5	2	5 4							2	129
1												1					131
	1															1	
	2	1								2		1	1		1		137
	3	2					1	1			1	1				1	
	5	1					1			1	1	1		1		1	
	2									1						1	143
	1													1			144
	1	1					1				1	1					1
											1	- 1					

TABLE 42-CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

CAUSES OF DEATH Sex Total Under 15 15-24 25-44 45-64 65 Age and over stated 15-24 25-44 45-64 65 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 45-64 Age not stated 15-24 25-44 Age not stated 15-24 25-44 Age not stated 15-24 25-44 Age not stated 15-24 25-44 Age not stated 15-24 25-44 Age not stated 15-24 25-44 Age not stated 15-	. 3	
Class IX.—Diseases of the Skin and of the Cellular Tissue. 8	. 3	stated
Skin and of the Cellular Tissue.	. 1	
M	. 1	
F 4 1 1		
153. Acute abscess	1 1	
154. Other diseases of the skin and annexa. M I	1	
and annexa M 1		
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.		
Total	. 1	
155. Diseases of the bones	1	
(mastoid and tuber-culosis excepted) F 2 1	1	
Class XI.—Malformations.		
Total		
F 6 5 1 1		
159. Congenital malformations (stillbirths not included) M 9 9		
159B. Congenital malformations of the heart. M 4 4		
159c. Others under this title $\begin{bmatrix} F \\ M \\ 5 \end{bmatrix} \begin{bmatrix} 1 \\ 5 \\ 4 \end{bmatrix}$		
CLASS XII.—DISEASES OF EARLY INFANCY.		
Total		
M 24 24		
160. Congenital debility, icterus and sclerema M 1 1		
161A. Premature birth F 11 11 11 11 11 11		
161B. Injury at birth M 3 3		
162. Other diseases peculiar to early infancy		
162A. Specified diseases		
CLASS XIII.—OLD AGE.		
Total 8	7	
M 3 1	3 4	
164. Senility. M 3	3 4	

NATIVITY, AND MONTH OF DEATH-LONDON, 1928.-Continued

		NA	TIVI	TY		<u> </u>					1	MONT	HS					
-			Fo	reign	T					I		I	T					
Ca ad		Brit- ish	-	1	Not stat-		Feb.	Mar.	Apr	. Ma	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
			USA	Othe	r]		1			1			1			
	4				1								1		1		2	
	2 2	2		,								. 1	1	1	1		1 1	
	1 1 1	i										1		1 1	1			151 153
		1															1	154
	1												1					
	-			<u>- </u>					-	-	1	-						
								• • • • •		-	1	1						
	2							• • • • •			1	1						155
	14	1				1	2	1			1 1	2	1	1	1	3	1	
	9 .	i				1	2	1			1	2	1	1	1	1 2		
	9.	i	• • • •			1	2	₁		1	1	2	_i	1	1	1 2	1 1	159
	4.1.		• • • • •					_i		1		1				1		
	5 .	i	• • • • •				2				1	1	····i	1	1	2		159C
			• • • • •			2	3		• • • • •	6		4	3	1	5	2	6	
	24		• • • • •			i		4 1	• • • • •	2		3	1	i	3 2	1	3	
	1					1	3	1	• • • • •	3	3	3	1		3	1	3 1	
1	9						2	1		3 2	3	1 3 1	1 1	i	1 3 1	1	3	61 A
	3						1										111	61в
	1 1									<u>1</u>					11.		1	
	2														1 .			
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	2			1		1.		i						::::	21:		10	54

TABLE 42—CAUSES OF DEATH FOR EACH SEX BY CONJUGAL CONDITION,

							CO:	NJUG.	AL CO	ONDI	NOI				
CAUSES OF DEATH	Sex	Total	77			Single				1	Marrie	i			
			Un- der 15	15-24	25-44	4564	65 and over	Age not stat- ed	15-24	25-44	45–64	65 and over	Age not stat- ed	Wid- owed	Not stat- ed
CLASS XIV.—EXTERNAL CAUSES.															
Total		60	3	4	4	1	8		1	6	- 8	11		14	• • • • • •
	M F	39 21	3	4	4	1	5 3		· · · · · i	5 1	6 2	9		12	
165-174. Suicides	M F	4 3								2	1			1 2	
166. Suicide by corrosive substances	F	1												1	
167. Suicide by poisonous gas. 168. Suicide by hanging or strangulation	M M	1					• • • • •			1					• • • • •
170. Suicide by firearms 171. Suicide by cutting or	М	2								1	i				• • • • •
piercing instruments 173. Suicide by crushing 179. Accidental burns and	F F	1								1				1	• • • •
scalds (conflagration excepted)	М	2	1									1			• • • • •
irrespirable or poisonous gas 182. Accidental drowning	M M	1 2	i	1								1			
185. Accidental traumatism by	M F	7 4		1		1	1			2	i	2			
187. Accidental traumatism by machines	М	2		1										1	
other crushing (vehicles, railways, landslides,etc.)	М	16	1	1	4		1			1	5	3			
188A. Railroad accidents 188B. Street car accidents	F M M	4 5 1		i	2		i		1	1	1	1		2	
188c. Automobile accidents 188E. Injuries by other vehicles	M F M	9 4 1	1		2				i		4 1 1	2		2	
201. Fracture (cause not specified)	MF	5 10					3 2					2		6	
CLASS XV.—ILL-DEFINED DISEASES.															
Total	,	3													
205. Cause of death not speci-	М	3										1		2	
fied or ill-defined 205c. Heart failure	M	3										1		- 1	

NATIVITY, AND MONTH OF DEATH-LONDON, 1928.-Concluded

	NAT	CIVITY								MON	THS						
Can-	Brit-	For	reign	Not stat-	Jan.	Feb.	Mar.	Apr.	May	Lune	July	Ang	Sent	Oct	Nov	Dec	
ada	ish	USA	Other	ed	Juni				1.20	June	,	- tugi	Бери.	000		Dec.	
																	Π
33	20	1	4	2	1	1	7	9	3	8	4	7	3	7	6	4	
25 8	10 10	1	3	1		1	4 3		2	6 2	2 2	6	2	6	3	2	
3 2	1 1						2	1			1			2	1		165 174
1 1				• • • • • •				1						1			166 167
2							1 1							_i			168 170
i		• • • • •									1				1		171 173
1	1							1		1							179
2							· · · · i						• · · · ·	i	1		181 182
7 3	····i						· · · · · i	2			1	3					185
2				•••()				•						2			187
7 2 1 1 5	3	1	3 1 1	1 1				3 1	1 1	1 3	1 1 1	2	2		1 1 1	1	188 188 188 188
2	i							i									188.
3	2 8	• • • • •		1		1	2	1	i	2		1	· · · · i	1	1	1	201
2				• • • • • •													
2	1								1		1			1			
2 2	1 1								1		1			1			205 205

TABLE 43—CAUSES OF DEATH BY COUNTIES (EXCLUSIVE OF

				_													_					_
CAUSES OF DEATH	Total	Addington	Algoma	Brant	Bruce	Carleton	Cochrane	Dufferin	Dundas	Durham	Elgin	Essex	Frontenac	Glengarry	Grenville	Grey	Haldimand	Haliburton	Halton	Hastings	Huron	Kenora
Total including cities and towns of 5,000 and over	37,128	80	430	652	532	1,999	523	187	191	309	537	1,470	999	224	187	099	283	99	247	758	592	203
Total excluding cities and towns of 5,000 and over	17,028	80	202	249	532	279	345	187	191	309	323	514	221	224	187	488	283	99	247	446	592	131
CLASS I.—EPIDEMIC, ENDEMIC AND INFECTIOUS DISEASES.				20		2.	4.7	1.5						20	24							
Total	2,304		22	32	61	36	-	17	25	33	24	69	40	39	21	61	26	6	22	54	65	31
1. Typhoid and paratyphoid fever 1a. Paratyphoid fever. 1b. Paratyphoid fever. 4. Undulant fever. 5. Malaria. 6. Small-pox.	40 38 2 2 2			1	1	1	5			1		1 1	1		1					1	1	
7. Measles 8, Scarlet fever 9. Whooping-cough 10. Diphtheria 11. Influenza 11A. Influenza, sole cause	30 36 73 69 828 129	7	1 5		29 2	3 1 11	1	103	1 14 5	1 2 20 3	1 9 2	4 2		2 1 5 16 4	1 8 1	2 2 2 30 3	1 1 1 11 2	1 3	1 4 1 8		1 1 2 1 43	1 4 4
11B. Influenza, with phthisis. 11C. Influenza, with bronchitis. 11D. Influenza, with pneumonia. 11E. Influenza, with other respiratory diseases.	8 34 395 19	1 4	1 2		16	6 2		4	5	1 8	4	15	6	5	1 3	13		3	4	10	3 20	
11r. Influenza, with diseases and accidents of pregnancy and parturition. 11g. Influenza, with other causes	235 1 9			4		3			4		2	3		6	2	12			1		111	
21. Erysipelas. 22. Acute anterior poliomyelitis 23. Lethargic encephalitis 24. Meningococcus meningitis 25. Other epidemic and endemic diseases 25. Chicken-pox.	29 15 16 16 3 3		1	2	1		1		1			1 1	1		1	1	-		1		i	1
25B. German measles 25c. Others under this title 29. Tetanus 30. Mycoses	4 2		1/	111	23	1.4	24	3			11	27	20	14	9	21			4	23	12	20
31. Tuberculosis	894		12	-}-	-	-	-	-		·ļ	l-	-	-	12	-	-	-	- -	4	-	7	-
tral nervous system	32								1		1					1				2	1	
34. Tuberculosis of the vertebral column 35. Tuberculosis of the joints 36. Tuberculosis of other organs 36A. Tuberculosis of the skin and subcutaneous cellular tissue	13 8 20	5			1			1		1.		1 1		1						i	1	
36B. Tuberculosis of the bones (vertebral column excepted)	3	3											١.			1	1				1	
36p. Tuberculosis of the genito-urinary system	10											1		1			1.					
37. Disseminated tuberculosis37A. Disseminated tuberculosis, acute37B. Disseminated tuberculosis, chronic or	23 12	2		. 1		1							1		1	1		1		1	1	
unstated. 38. Syphilis. 40. Gonococcus infection. 41. Purulent infection, septicaemia.	1 .	1 -		. 2			. 2		١.,	1.		2	1		i	3						

CITIES AND TOWNS OF 5,000 AND OVER)—ONTARIO, 1928.

Kent	Lampton	Lanark	Leeds	Lennox	Lincoln	Manitoulin	Middlesex	Muskoka	Nipissing	Norfolk	Northumberland	Ontario	Oxford	Dorrer Sound	Pool	Porth	P. C. L.	Fererborougn	Frescott	Prince Edward	Rainy River	Renfrew	Russell	Simcoe	Stormont	Sudbury	Thunder Bay	Timiskaming	Victoria	Waterloo	Welland	Wellington	Wentworth	Vork	Grand total, including cities and towns
746	809	399	523	129	919	112	1,690	264	346	368	412	929	605	230	269	534	402	21.4	\$1c	231	155	586	209	1,054	524	513	527	283	303	860	830	741	1,914	8,269	
440	392	290	352	129	285	112	568	264	217	368	299	318	343	230	189	335	187	327	107	187	88	325	209	611	252	313	94	283	188	285	403	200	381	1,214	37,128
To Readon																																			
61	55		42	8	32	25		77	25	23		23	31	27	31	3:	1 1 8	- -	-1-	5 1	- -		-		-1-	19 2	4 3	7 1	1 3	- -	10	62	96		4,738
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17	8	13	19		10	18	79	62	12	6	9	4	8	5	9	2	10	9	12	2 6	5 10	0 1:	2 2	25 1	7 1	5 1.	5	8	3 2	2 1 0	6	15	81	191	1,832
13	6	12	18		8	18		61	7	6	9	4	4	2	9	2	6	8	12	2 5	5 8	8 8	8 1	8 1		9 1.	5	5	2 2			11	74	186	1,529
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TABLE 43—CAUSES OF DEATH BY COUNTIES (EXCLUSIVE OF

				_													_				-	_
CAUSES OF DEATH	Total	Addington	Algoma	Brant	Bruce	Carleton	Cochrane	Dufferin	Dundas	Durham	Elgin	Essex	Frontenac	Glengarry	Grenville	Grey	Haldimand	Haliburton	Halton	Hastings	Huron	Kenora
CLASS II.—GENERAL DISEASES NOT INCLUDED IN CLASS 1.																						
Total	2,131	14	21	36	84	27	19	27	26	32	55	59	23	29	29	92	32	5	24	53	97	7
43-49, Cancer	1,417	8	13	24	53	17	8	-	20	19	44	35	9	18	22	62	22	2	18	39	63	1
43. Cancer of the buccal cavity. 44. Cancer of the stomach and liver. 45. Cancer of the peritoneum, intestines and rectum. 46. Cancer of the female genital organs. 47. Cancer of the breast. 48. Cancer of the skin. 49. Cancer of the skin. 49. Cancer of other or unspecified organs. 49a. Cancer of eye and ear. 49b. Cancer of circulation system. 49c. Cancer of respiratory system. 49c. Cancer of respiratory system. 49c. Cancer of genito-urinary organs. 49d. Cancer of other specified organs. 49d. Cancer of other specified organs. 49d. Cancer of bones and joints. 49d. Cancer of other specified organs. 49d. Generalized cancer. 49d. Unspecified. 50. Benign tumours and tumours not returned as malignant (tumours of female genital organs excepted.) 51. Acute rheumatic fever. 52. Chronic rheumatism, osteo-arthritis, gout. 53. Scurvy. 54. Pellagra. 56. Rickets. 57. Diabetes mellitus. 58a. Pernicious anaemia 58b. Other anaemias and chlorosis. 59. Diseases of the pituitary gland. 60. Diseases of the thyroid gland. 61. Diseases of the thyroid gland. 62. Diseases of the thyroid gland. 63. Diseases of the thyroid gland. 64. Diseases of the thyroid glands. 65. Leukaemia. lymphadenoma. 65b. Leukaemia. 65b. Leukaemia. 65c. Chronic alcoholism. 66c. Chronic alcoholism. 66c. Chronic alcoholism.	544 565 219 113 143 38 285 47 39 45 106 20 20 31 67 7 7 7 77 77 77 77 77 77 77 77 77 77	1 1 1 4 4 4 4 1 1 1	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 2 3 3 3 3	11 10 10	1 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2	2 2 2	3 2 1 1 1	1 2 3 4 4 2 1 1 1 2 1 1 1	4 7 1 1 2 1 1 1 1 2 5 5 5	1 2 10 1 1 1 	33 11 11 11 11 11 11 11 11 11 11 11 11 1	2 1 6 6 6	4222155	9 5 6 6 1 1 2 2 6 6 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 4 4 1 8 1 1 4 1 1 1 1 1 1 2 1 2	1 5 3	3 3 1 1 1 1
67. Chronic poisoning by mineral substances	4 2 2 23 1 11 5 6		1	1 1	1			1				1	1	1						1	1	
System and of the Organs of Special Sense. Total	1,368	5	8	25	41	18	14	12	16	24	34	46	19	14	22	38	16	4	27	38	68	6
70. Encephalitis. 70a. Abscess of brain. 70a. Encephalitis. 71. Meningitis. 71a. Simple meningitis. 71b. Non-epidemic, cerebrospinal meningitis	26 5 21 51 49	1		1 1	1 1 1 1	2 2					1 3 3	2 1 1 2 2 2			1	2 1 1			3 3	2	3 1 1	- - - - - 1 1

CITIES AND TOWNS OF 5,000 AND OVER)-ONTARIO, 1928.-Continued

				_					_															_										
Kent	Lampton	Lanark	Leeds	Lennox	Lincoln	Manitoulin	Middlesex	Muskoka	Nipissing	Norfolk	Northumberland	Ontario	Oxford	Parry Sound	Peel	Perth	Peterborough	Prescott	Prince Edward	Rainy River	Remrew	Russell	Simcoe	Stormont	Sudbury	Thunder Bay	Timiskaming	Victoria	Waterloo	Welland	Wellington	Wentworth	Vork	Grand total, including cities and towns
54 32 1 14	54 36 17	29 23	42 27 1		41 26 10	11 8 - 1 2	74 56 3 30	22 16 1 6	20 10 -	49 35 1 18	33 22 2 9	23 2 10	34 1 13		30 20 -	55 33 1 14	28 15 2 5	31 22 1 10	21	9 6 -	37 24 1 12	21 15 1 4	79 49 1 25	27 21 —	23 12 	8 -4 - 1	32 21 8	21	35 21 2 9	39 27 2 6	92 63 4 20	35 ¹ 28 1 12	139 	5.094 3,441 132 1,205
2 6 1 8	4 4 4 1 6	5 1 4 5 1 2 2	4 1 1 2 8 1 1 3 1 1 1 1	4 3 1 5 1 2 1	6 3 4	1 1 2 2	8 2 2 11 3 3 1 3	1	4	3 2 3 8 1 1 5	1 4 2 2 4 1 1 1 1 1	4 1 2 4 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	4 5 4 1 6 	3 1 1 5 5 2 1 1 1	7 5 1 4	4 1 4 1 8 1 3 1 1 2	5	3	2 3 3 1 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2	4 2 1 1 3 3	1 4 1 4	1 2 7 1 12 1 1 2 1 6	3 2 4 1 1 1	3 3 1 1 1		3 1 3 1 1	4 3 3 1	1 1 5	5 7 2 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	14 3 3 1 18 1 3 4 5 2		17 12 12 1 14 1 1 5 4	605 337 344 72 746 10 72 116 117 283 44 76 15
1 2 7 6 6 5 3 2	4 9 9	1 1 1 1 1 3 3 3 3	1 3 3 4 4 4 3 1 1 2 1 1	i i i i i i i i i i i i i i i i i i i	1 1 5 3 2 1 1 4 3 1 1	1	5 7 7 7 2 1	4 2 1 1	2 1 4 1 3 3 3 3	2 77 2 2 2	633	1 1 7 4 4 3 1 1 3 3 3	2 1 2 4 4 4 1 1	2 2	1 2 4 4 1 1	1 1 1 7 6 6 6 3 2 1 1	3 3 3 2	3 1 1	1 5 5 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 1 1 1	7 12 11 11 11 11 11	2 1 1 1	1 2 1 1 2 1	1	2 1 4 3 1 1 1 1	5 5 5	245541	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 7 7 7	3 3 3	1 5 2 1 7 12 11 1 1 8 4 4 4 4 5 1	46 123 35 4 3 51 439 341 307 34 307 31 280 171 109 13
		1		i 1			2 2	-			1		1 1	1 1		1 1	1	1 1			2 2	-	2 2	i	2 1 1	-	1		1 1	2 1 1 1	3 2 1 1		3 1 2 2	15 93 58 35 73 7 54 12
	i									i		i				i			2		1 1		2 1 1				1				1 3 2 1		1 2	4 3 1 7 3 4 52 2 20 14 16
29 3 1 2 		1			28		1 1 2	1	4		2		2	2 1 1		32 2 1 1 1 1		1		-	33	14 1 1 1				- : : :	19 1 1 1 1 1	- - - - 1	25 1 1		38	57	1 1 4 4	2,844 66 16 50 115 113

TABLE 43-CAUSES OF DEATH BY COUNTIES (EXCLUSIVE OF

													_		_							_
CAUSES OF DEATH		uc					٥						ac	S.	9		pur	no				
	al	Addington	Algoma	nt	ce	Carleton	Cochrane	Dufferin	Dundas	Durham	а	Xa	Frontenac	Glengarry	Grenville	>	Haldimand	Haliburton	ton	Hastings	по	lora
	Total	Add	Algo	Brant	Bruce	Car	Co	Duf	Dur	Dur	Elgin	Essex	Fro	Gle	Gre	Grey	Hal	Hal	Halton	Has	Huron	Kenora
72. Tabes dorsalis (locomotor ataxia).	7				2	1	1	.,	1				1		4	3	1	1	2	,		1
73. Other diseases of the spinal cord	80 723 393	4 3	5 3	15 9	25 18		4 3	4 4	13	9 7	17	19 10	10	10		20 8	9	3	12	23 12	46 25	2
74a. Apoplexy	297 33	1	2	6	7	3	1		4	7 2	10	8	2	5	4 2	10	5	2	6	11	20	î
75. Paralysis without specified cause 75A. Hemiplegia.	129 69		1		3	1	3	3	1	7 2	4	7 5		1		4	2		4	1	3 2	1
75B. Others under this title	60 24			٠.,		1	2	2		5	3	2 1				3	1		2	· · · · 1	1 2	1
77. Other forms of mental alienation 79. Epilepsy	29 95		-	2	1 4	1		i		1	1	1 2	7	1	 1	1	2	;	1 2	1 2	· · · i	
79. Convulsions (non-puerperal, 5 years or over.)	1											1										
80. Infantile convulsions (under 5 years of age)	65			1	2	1	4			1		3		1	1	2	1	.	2	2		1
81. Chorea	5			2																• • •	1	
83. Softening of the brain	17 89				i	1		1	1	-1	3	4		1		4	1		1	4	5	
85. Diseases of the eye and annexa86. Diseases of the ear and of the mas-	17			1	1						• •	2				1		•		1		
toid process	13											2			. 1	1						
Son. Diseases of the mastoid process				-		-	-	_	-	-	-		-	-	-		-	-	-			-
CLASS IV.—DISEASES OF THE CIR- CULATORY SYSTEM.																						
Total	4,451	25	41	84	164	92	23	68	55	97	102	102	60	54	65	129	92	8	66	132	145	28
87-90. Diseases of the heart	2,808	13	35	49	103	 47	19	31	34	62	70	66		37	35	77	5 2	6	45	77	99	15
87. Pericarditis	73		1	1	2	2				1	2				2	1 3		2	3			
88a. Acute endocarditis	27 46		1		2						1	i			2	2		1			,	
89. Angina pectoris	374 2,357	2	31	6	92	2 7 38	18			52	21 47	13 52	23		4	4	50	- 1	37	13 64	16 82	3
90a. Valvular disease	484 18	4	4		17	1	4	4		18	11	8		12		19	8	1	4	15	16 1	3
90c. Aortic insufficiency	333	1	3	3	14	5	5	3	. 2	12	2	iò	3	5	3	2	. 2		6	12	<u>.</u>	i
90E. Chronic myocarditis	1,119 401		20	6	15	24 8	6	4	16	9	26 7	26 8	5	10	6	36 12	34	1	18	29 7	33 23	2
91. Diseases of the arteries	19	12	4		59 2	44	1		21	1	31	1		1	30	51	39		19	54	1	
91B. Arteriosclorosis	1,542 6		4	34	57	44	3	36	21	34	29	33	28	14	30	51	39	2	19	54	39	11
92. Embolism and thrombosis (not cerebral)	50		1	1	2							2	4			1	1		1	1	5	1
93. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	14							1			1			1							1	
94. Diseases of the lymphatic system lymphangitis, etc.)	6		1			1								- : 1					1			·i
96. Other diseases of the circulatory system	2																					
3,300 11		-	-	-	-	-	-	_	_	-	-		-	-	-			-	-		-	-
CLASS V.—DISEASES OF THE RESPIRATORY SYSTEM,																						
Total	1,429	5	19	15	39		40			32	24	60	16	23	16	41	29	10	23	35	38	7
97. Diseases of the nasal fossae and their	5	_			1		_		• •					_		1	-					NAMES OF THE PERSON NAMES OF THE PERSON NAMES OF THE PERSON NAMES OF THE PERSON NAMES OF THE PERSON NAMES OF T
98. Diseases of the larynx 98A. Laryngismus stridulus	13				1	::	• •	1						1				[
98B. Laryngitis	7 4						• •	1						1								
98c. Croup 98b. Other diseases of the larynx 99. Bronchitis	2 87			1	4	٠.	i		3	2	2		i		· · i	3	3			3	4	
99a. Bronchitis, acute	39		1	1	1 3	1	1		1	1	1	1	1	1	1	3	2			1 2	1 2	
99c. Bronchitis, not otherwise defined, under 5 years of age	2																					

CITIES AND TOWNS OF 5,000 AND OVER)—ONTARIO, 1928.—Continued

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Kent	Lampton	Lanark	Leeds	Lennox	Lincoln	Manitoulin	Middlesex	Muskoka	Nipissing	Norfolk	Northumberland	Ontario	Oxford	Parry Sound	Peel	Perth	Peterborough	Prescott	Prince Edward	Rainy River	Renfrew	Russell	Simcoe	Stormont	Sudbury	Thunder Bay	Timiskaming	Victoria	Waterloo	Welland	Wellington	Wentworth	Vork	Grand total, including cities and towns
1 16 12 2 2 3 3 2 2 1 1 1 2 2 1 2	4 26 18 7 1 2	111 47 3 3 3 1	2 12 8 3 1 1 1 1 3 4 9	2 8 6 2	1 1 20 1 5 3 2 2 4 3 3 1	1 1 2	2 32 13 16 3 4 1 1 3 2 4	3 1 2	2 2 2 1 1	2 13 3 9 1 1 1 1 1 2	1 22 9 13 2 1	1 188 8 10 1 1 2	2 111 7 4 4 5 2 2 2 2	2 2	111922	1 21 11 10 4 2 2 2 2	2 5 4 1 3 3 3 1 2	77 22 55 42 22 2	1	1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 1 1 2 2 2		3	2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 4 1	1 1 1	3 14 10 3 1 3 1 2 2	1 15 6 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 27 12 14 1 1 1 1	1 4 166 99 77 22 22 99 111 4 4 5 1 1 1	17 21 6 9 7	29 196 1,395 647 655 93 240 151 89 566 82 163 3 104 11 15 32 213 11
1100 	1110 70 10 60 14 7 31 8 35 5	101 50 1 544 8 1 28 3 51 1 50 	114 60 3 1 2 7 50 5 5 7 22 11 52 1	21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	555 500 5	19 1 1 1 17 9	92 3 1 2 14 75 11	41 2 2 4	32 	123 63 	71 1 16 54 12 3 29 10 18	95 59 11 9 49 8 8 11 11 13 35 	1116 800 11 14 655 15 15 16 34 9 34 11 11 11 11 11 11 11 11 1	37 -37 -33 12 133 6 6 18 3 16	27 1 1 2 24 6 5 8 5 15	755 1 8 666 100 1 1 7 38 100 411 1	333 	1 6 7 4 15	86 -69 -3 1 2 14 52 13 -7 26 66 16 -16 -16 -16 -16 -16 -16	1 7 3 1 3 1	56 1 4 51 16 7 17 111 19	47 32 5 1 4 3 24 2 7 11 14 11 13 	3 2 1 8 104 24 3 16 46 15 46	- 31 - 6 25 3 5 11 6 17	35 21 1 1 3 17 2 6 6 3 14 	12 1 1 1 1 1 1 1 1 2 2	1 1 1 5 28 2 2 5 12 5 18	27 	80 44 - 4 22 25 35 36 36 	99 67 1 2 1 4 60 19 5 28 8 8 31 1	123 84 1 11 72 17 7 34 4 37 1 36 1	844 577 650 111 77 29 23 2 1 1	22	8,880 5,609 13 179 89 90 735 4.682 890 26 3 662 2.399 702 3,111 3,033 22 99 12 6 4
37 1 1 2 2	1						39 1 5 2 3		18	···i		2	24		-			1 1 1 1 1 1			1		42 1 1 1 1		1 3 2				31	1 1		33	106 1 2 1 1 1 7 2 3	3,330 20 29 1 19 7 2 149 67 55

TABLE 43-CAUSES OF DEATH FOR COUNTIES (EXCLUSIVE OF

		_					_		_				_						_			_
CAUSES OF DEATH	Total	Addington	Algòma	Brant	Bruce	Carleton	Cochrane	Dufferin	Dundas	Durham	Elgin	Essex	Frontenac	Glengarry	Grenville	Grey	Haldimand	Haliburton	Halton	Hastings	Huron	Kenora
99p. Bronchitis, not otherwise defined, 5 years or over. 100. Broncho-pueumonia (including capillary bronchitis). 100a. Broncho-pneumonia. 101b. Pacumonia. 101 Pneumonia, lobar. 101a. Pneumonia, lobar. 101b. Pneumonia, not otherwise defined. 102. Pleurisy. 103. Congestion and haemorrhagic infact of the lung. 104. Gangrene of the lung. 105. Asthma. 106. Pulmonary emphysema. 107. Other diseases of the respiratory system (tuberculosis excepted). 107a. Chronic interstitial pneumonia including occupational diseases of the lungs. 107b. Diseases of the mediastinum. 107c. Others under this title. CLASS VI.—DISEASES OF THE DIGESTIVE	15 395 388 765 333 432 45 59 1 33 1 25	2 2 1 1 1	14 7 7 7	1	1 22 7 15 1 2	10 6 4	14 14 23 7 16 1	5 6	1 1 7 2 5 1	9 8 1 15 10 5 2 1	18 5 13	13 40 14 26 1 2	2 2 6 4 2 1 6 6	3 3 15 4 11 1	4 4 7 2 5 1 1	111 111 200 9 111 2 2	15 6 9 2 1 1 1 1	3 3 7 6 1	9 12 6 6 6 1	2	3 4 1 1 1 1	3 3 1 2
Total. 108. Diseases of the mouth and annexa. 109. Diseases of the pharynx and tonsils (including adenoid vegetations). 109a. Adenoid vegetations. 109b. Pharynx and tonsils. 110. Diseases of the oesophagus. 111. Ulcer of the stomach and duodenum 111a. Ulcer of the stomach and duodenum 111b. Ulcer of the stomach (cancer excepted). 113. Diarrhoea and enteritis (under 2 years of age) 114. Diarrhoea and enteritis (under 2 years of age) 116c. Nematodes (other than ankylostomach (cancer excepted). 117. Appendicitis and typhlitis. 118. Hernia. intestinal obstruction. 118a. Hernia intestinal obstruction. 119. Other diseases of the intestines. 120. Acute yellow atrophy of the liver. 122a. Specified as alcoholic. 122b. Not specified as alcoholic. 123. Biliary calculi. 124. Other diseases of the liver. 125. Diseases of the pancreas. 126. Peritonitis without specified cause.	890 26 36 1: 52 31 123 209 68 103 98 30 68 40 139 99 58 40 139 58 40 68 68	3	1 3 2 1 7 3 3 3 3 1 1 1 	1 1	2 3 1 2 4 2 1 1 5 5	5 2 3 1 2 1	3 31 4 6 2 4	2 1 1 1 2 2	1 1 1 1 2 2	2 1 3 1 2 2 2 1 1 1 1 1 1 1 1 1	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4 5 1	2 1 3 3 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 2 2 2	1 2	33 2	1 4 1 3	1 1 1 1 1 1 4 2	3
CLASS VII.—Non-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA. Total 128. Acute nephritis (including unspecified, under 10 years of age). 129. Chronic nephritis (Bright's disease). 131. Other diseases of the kidneys and annexa. 132. Calculi of the urinary passages. 133. Diseases of the bladder. 134. Diseases of the urethra, urinary abscess, etc	55 856 59 8 32		10 2	1	3	15 4 6 1	8 2 4 1	1	110	1	22	33 1 23 3	1	3	8	31 18 1 3	1		2	32 1 22	1 39 4	6 5 1

CITIES AND TOWNS OF 5,000 AND OVER)-ONTARIO, 1928.-Continued

Kent	Lampton	Lanark	Leeds	Lennox	Lincoln	Manitoulin	Middlesex	Muskoka	Nipissing	Norfolk	Northumberland	Ontario	Oxford	Parry Sound	Peel	Perth	Peterborough	Prescott	Prince Edward	Rainy River	Renfrew	Russell	Simcoe	Stormont	Sudbury	Thunder Bay	Timiskaming	Victoria	Waterloo	Welland	Wellington	Wentworth	York	Grand total, including cities and towns
10 10 10 22 9 13 	4	15699	3	1	12 12 12 8 7 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	233 10 13 1 1 2 	8 12 7 5 2	1 1	55 55 111 	l l	66 66 19 61 13 2 3	77 77 144 3 3 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1		100 7 3 1	9 1 8 1	3 3 12 5 7	1 2		1 1 4 2 2	1	10 10 10 8 2 1	2 11 11 20 10 10 10 1 4 	1 4 4 4	1 13 13 13 2 16 2 2 2 	9	8 8 8 14 110 4 3 3 1	2 2 7 7 1 3	999	21 21 21 13 8 1 2 2	9881 126633 23322 	15 11 4	1 48 23 25 2 3	1,002 989 13 1,734 903 831 132 110 4 74
188	1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 i i i i i i i i i i i i i i i i i i i		1 1	1 1 1 2	17	114	6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25 1 1 13 4 	200 2 1 2 2 1 4 2 2 1 4	2 2 3	20 1 1 1 2 5 4 2 2 2	1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	3 1	1 3 2	1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 2 3 1 2 2 2	3 111 5 1 1 2	5 1 1 1 1 1 1 1	1 1 1 1 1 1 1 2	1 6 3 1 2 2 	4 13 1	37 1 4 3 1 3 7 4 4 2 6 2 4 2 2 2	2 114	11	1	27 1 3 3 3 1 1 1 5 3 3 3	2 2 3 3 3 1 2 2 1	1 3 3 4 2	19 1 2 2	41 1 2 2 3 1 2 1 1 2	12 1 2 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1	488 2 4 3 1 2 8 12 1 3 3 1 5 1 1 1 1	2,660 53 125 2 125 4 201 110 91 200 643 159 1 433 313 108 205 66 15 104 4 100 68 181 125 181 181 181 181 181 181 181 18
43 3 32 2	31 1 23 2		19	12	118	9	44	11 8	7 2 3	34 2 27 2	24	28	28	18	9	32	14 1	13 3	30	3 1 1 2 1	6 1 i 1	8 -14	51 1	5 1 2 .	2 i	2 11	7 1:	2 2 2	1 2 2 .	3 5	14	2	2	2,624 146 1,743 154 31 67 11

TABLE 43—CAUSES OF DEATH FOR COUNTIES (EXCLUSIVE OF

		_	_				_	,	_							`						_
CAUSES OF DEATH	Total	Addington	Algoma	Brant	Bruce	Carleton	Cochrane	Dufferin	Dundas	Durham	Elgin	Essex	Frontenac	Glengarry	Grenville	Grey	Haldimand	Haliburton	Halton	Hastings	Huron	Kenora
134A. Stricture of the urethra	1 1 134	 		1 1								4									12	
136. Non-venereal diseases of the male genital organs	1 1				1																13	
the ovary	5 1 11 3																1			i	1 1	
organs	6																					
CLASS VIII.—THE PUERPERAL STATE.																						
Total	107	1	2	1	5	1	-	-	2	3	• • •	1	1			1			1	2	• • •	5
143. Accidents of pregnancy 143A. Abortion 143B. Ectopic gestation 143C. Others under this title 143D. Abortion, self-induced	10 3 4 3						2															1 1
144. Puerperal haemorrhage 145. Other accidents of labour 145A. Caesarean section. 145B. Difficult labour.	13 8 1 2		1 1		1 1																	i
145c. Other surgical operations and instru- mental delivery	3 2 31				1											1						1
147. Puerperal phlegmasia alba dolens, puerperal embolism, sudden death in puerperium	14																					
sions 149. Following childbirth (not otherwise defined)	28 3	1	1	1	1	1	2						 									1
CLASS IX.—DISEASES OF THE SKIN AND OF																						
THE CELLULAR TISSUE.	0.5													١.								
Total	97		1	1—		1		-	—		1	I	-	<u> </u> —	-	-	-	-	-		2	-
151. Gangrene	56 4 14				1		1	3		3 1									1	1 1 1	2	
154. Other diseases of the skin and annexa	23				1	1														2		
		-	-	-	-	_		_			_		_	-	-		-	_	_			
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.																						
Total	29			· ·			2		1			3	<u></u>		<u> </u>	2	<u></u>	<u></u>		1	1	
155. Diseases of the bones (mastoid and tuberculosis excepted)	23						2		1			3				2					1	
and rheumatism excepted) 158. Other diseases of the organs of loco-	4 2	٠																				• •
motion			-	-		-				-				-	-		-	-	-			-
CLASS XI.—MALFORMATIONS.																						
Total	235	1		2	8	9	7	3	5	3	4	7	3	3	3	2	3	2	2	10	6	1
159. Congenital malformations (stillbirths not included)	235 15	1		2	8	9 2	7	3	5	3	4	7	3	3	3 2	2	3	2	2	10	6	1

CITIES AND TOWNS OF 5,000 AND OVER)-ONTARIO, 1928.-Continued

									_									_				,																
Kent	Lambton	Lanark	Leeds	Lennox	Lincoln	Manitoulin	Middlesex	Muskoka	Nipissing	Norfolk	Northumberland	Ontario	Oxford	Parry Sound	Peel	Perth	Peterborough	Prescott	Prince Edward	Rainy River	Renfrew	Russell	Simcoe	Stormont	Sudbury	Thunder Bay	Timiskaming	Victoria	Waterloo	Welland	Wellington	Wentworth	York	Grand total, including cities and towns				
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TABLE 43—CAUSES OF DEATH FOR COUNTIES (EXCLUSIVE OF

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CAUSES OF DEATH	Total	Addington	Algoma	Brant	Bruce	Carleton	Cochrane	Dufferin	Dundas	Durham	Elgin	Essex	Frontenac	Glengarry	Grenville	Grey	Haldimand	Haliburton	Halton	Hastings	Huron	Kenora
159B. Congenital malformations of the heart	113 107	1		2	5	3 4	3	1 1	3 2		1 3	2 5	2	1 2	1	2	1 2	2	2	7	3	i
CLASS XII.—DISEASES OF EARLY INFANCY Total	1,019	7	18	7	21	17	68	5	6	24	11	40	10	13	_2	29	17	7	13	31	20	7
160. Congenital debility, icterus and sclerema	165 747 628 119 106 97 9	1 6 3 3	4 10 7 3 4 4 4		1 20 17 3	3	42 39 3 7 5 2	1 3 2 1 1 1		2	3 3	32 27 5	9 7 2	1 11 9 2 1 1	2	23	12 12	1	3	7 21 16 5 3 3	3	3
CLASS X11I.—OLD AGE. Total	380 380	-1	6 6	7 7	5	3 -3	5	—i	-1	13	14	5 5	3 -3	6	-	11	<u> </u>	3	 	7	11	7 7
CLASS XIV.—EXTERNAL CAUSES. Total	1,289	4	25	14	26	25	51	11	18	14	20	61	15	8	12	22	14	7	22	23	45	15
164-174. Suicides	146 15 3 5 52 23 31 14 		2 1		3	7	1 1 1 8 6	1	3 2 1	3	1 1 2 2	3 2 2 2 5 1 1 17 1	1 1	1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1
crushing (vehicles, railways, land- slides, etc.)	362 111 162 4 31 54		12	5 1 4	2		11 6	3	1	5	6 2 3	2	8		1 1	2		١	5	5 4 	7 2 4 	

CITIES AND TOWNS OF 5,000 AND OVER)—ONTARIO, 1928.—Continued

Kent	Lambton	Lanark	Leeds	Lennox	Lincoln	Manitoulin	Middlesex	Muskoka	Nipissing	Norfolk	Northumberland	Ontario	Oxford	Parry Sound	Peel	Perth	Peterboronoh	Prescott	Prince Edward	Rainy River	Renfrew	Russell	Simcoe	Stormont	Sudbury	Thunder Bay	Timiskaming	Victoria	Waterloo	Welland	Wellington	Wentworth	Vork	Grand total, including cities and towns
4 3	1	1 3	3				6	4 3	1 1	1 1		2 7	1 1	3	2	2 2	1 1	4 3		1 1	1	1 4	4 3	4 4	5	1	3 4	3	1	2	4	3	13	226 226
26	23	19	15	4	7	4		12		22		18		13	-6			41	6	5	37	25		17			29	9	7	18	19	14	66	2,323
6 19 18 1	3 19 15 4 1	1 15 15 	2 11 9 2 2	3 3	7 4 3	4 3 1	1 19 16 3	1 10 10 10	6 28 25 3 6 6	3 18 12 6	3 18 14 4	1 16 13 3	2 13 10 3	1 10 6 4 2 2	1 5 3 2	2 5 5 1	1 2 1 1 1	3	3 2 1	3 3 2 1 1	5 24 23 1 7 6	8 14 12 2 3 3	7 21 14 7	3 11 9 2 3 3	12 21 19 2 9 6	2 2	3 25 23 2 1	1 6 5 1 2 2	1 6 5 1	3 12 9 3 3	5 12 9 3 2 2	13 11 2	8 50 41 9	341 1,750 1,477 273 230 221 9
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12 2 8	8	3	2 1 1	1:1			18 2 11 3 2	7 1 1 1 1 3	3 1 1	16 8	1 1	5	3	3	5	5 1 4	3 1 2	1 2	1 1	8 4	2	1 1	12 5	3 1 2 2	8 4	6 5		5	3	5	10 2 6	3 2 1	18 5 12	775 168 19 437 6 54 91

TABLE 43—CAUSES OF DEATH BY COUNTIES (EXCLUSIVE OF

CAUSES OF DEATH	Total	Addington	Algoma	Brant	Bruce	Carleton	Cochrane	Dufferin	Dundas	Durham	Elgin	Essex	Frontenac	Glengarry	Grenville	Grey	Haldimand	Haliburton	Halton	Hastings	Huron	Kenora
189. Injuries by animals (poisoning excepted). 192. Starvation (deprivation of food or water). 193. Excessive cold. 194. Excessive heat. 195. Lightning. 196. Other accidental electric shocks. 197-199. Homicides. 197. Homicide by firearms. 198. Homicide by cutting or piecing instruments. 199. Homicide by other means. 201. Fracture (cause not specified).	11 10 4 14 10 20 4				1 1	1	1 1	1	1 1			1 1 2		1	1 1	1		· · · · · · · · · · · · · · · · · · ·	2	1	• • • • • • • • • • • • • • • • • • • •	
202. Other external violence (cause specified)	2		1	- 1	1														- 1	1	2	
Total	125		2	1	4	2	6			3	3			2		6			1	7	4	1
204. Sudden death. 205. Cause of death not specified or illdefined. 205a. Ill-defined. 205B. Not specified or unknown. 205C. Heart failure. 205D. Syncope.				1	4 4	2	6			3	2			2 1 1		···i				7 7	4 4	 1 1

CITIES AND TOWNS OF 5,000 AND OVER)-ONTARIO, 1928-Concluded

	oton	rk	100	OX	oln	Manitoulin	Middlesex	Muskoka	Nipissing	olk	Northumberland	rio	rd	y Sound		1	Peterborough	ott	Prince Edward	y River	rew	ell	90	Stormont	- 1	Thunder Bay	Fimiskaming	oria	Waterloo	and	Wellington	Wentworth		Grand total, including cities and towns
Kent	Lampton	Lanark	Leeds	Lennox	Lincoln	Man	Mide	Mus	Nipis	Norfolk	Nort	Ontario	Oxford	Parry	Peel	Perth	Pete	Prescott	Prin	Rainy	Renfrew	Russell	Simcoe	Stor	Sudbury	Thu	Timi	Victoria	Wat	Welland	Well	Wen	York	Gran
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CAUSES OF DEATH	Total	Toronto	Hamilton	Ottawa	London	Windsor	Brantford	Kitchener	Kingston	Sault Ste. Marie	Peterborough
DEATHS—ALL CAUSES. Total	16,999	6,962	1,471	1,645	1,122	689	403	293	445	228	305
Class I.—Epidemic, Endemic and Infectious Diseases.											
Total	2,006	765	147	236	148	81	4.5	41	69	16	32
1. Typhoid and paratyphoid fever. 1A. Typhoid fever. 4. Undulant fever. 5. Malaria. 7. Measles 8. Scarlet fever. 9. Whooping-cough. 10. Diphtheria. 11. Influenza, sole cause. 111. Influenza, sole cause. 1118. Influenza, with phthisis. 11c. Influenza, with phronchitis. 11c. Influenza, with pronchitis. 11f. Influenza, with other respiratory diseases. 11f. Influenza, with other respiratory diseases. 11f. Influenza, with other respiratory diseases. 11f. Influenza, with other causes. 13. Mumps. 16. Dysentery. 21. Erysipelas. 22. Acute anterior poliomyelitis. 23. Lethargic encephalitis. 24. Meningococcus meningitis. 25. Other epidemic and endemic diseases. 25c. Others under this title. 25. Tetanus. 30. Mycoses.	22 22 22 1 27 25 83 121 7355 57 8 24 409 9 9 8 8 2200 64 131 233 84 4 11 13 13 13 13 13 13 13 13 13 13 13 13	55 55 177 67 6 299 500 2811 1167 22 755 22 55 322 66 100 88 44 11 	6		3 1 5	34	2 3 5 17 2 2 3 5	1 1 1 1 1 6	2 1 1 24 4 4	33333	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
31. Tuberculosis of the respiratory											
system. 32. Tuberculosis of the meninges and central nervous system 33. Tuberculosis of the intestines and peritoneum. 34. Tuberculosis of the vertebral column 35. Tuberculosis of the joints 36. Tuberculosis of other organs	507 48 29 18 8 15	182 18 7 5 4 4	33 6 1 3 1	74 3 7 2 2 2	37 1 3 2 1	17 4 1	10	1 1 2	33 1 1	1	7 1
36c. Lymphatic system (mesenteric, and retroperitoneal glands excepted). 36d. Tuberculosis of the genito-urinary system	12 12 1 28	2 2	1	2			2				1
37a. Disseminated tuberculosis, acute 37b. Disseminated tuberculosis, chronic or unstated. 38. Syphilis. 40. Gonococcus infection. 41. Purulent infection, septicaemia	18 10 82 6 78	5 44 2 27	7	6 1 7	3	1 3	1	14	1 1 1 4	1 1	1 1
CLASS II.—GENERAL DISEASES NOT INCLUDED IN CLASS I. Total	2,614	1,0 ₉₂	238	207	191	10/8	57	43	77 52	51	49
43. Cancer of the buccal cavity 44. Cancer of the stomach and liver	70 549	33 208	6 51	5 51	6 42	2 21	12	12	3 15	14	2 13
45. Cancer of the peritoneum, intestines and rectum, 46. Cancer of the female genital organs.	340 192	158 84	31 16	17 17	27 11	15	7 8	5	12	4	6 3

ONTARIO, 1928.

Fort William	St. Catharines	Guelph	Stratford	St. Thomas	Port Arthur	Sarnia	Niagara Falls	Chatham	Galt	Belleville	Owen Sound	Oshawa	North Bay	Woodstock	Welland	
211	331	241	199	214	222	216	220	306	181	239	172	227	129	173	155	
42	47	20	26	29	32	33	22	34	9	35	21	36	11	12	17	
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CAUSES OF DEATH	Total	Toronto	Hamilton	Ottawa	London	Windsor	Brantford	Kitchener	Kingston	Sault Ste. Marie	Peterborough
47. Cancer of the breast. 48. Cancer of the skin. 49. Cancer of other or unspecified organs 49. Cancer of circulatory system. 49b. Cancer of circulatory system. 49c. Cancer of respiratory system. 49c. Cancer of digestive system. 49c. Cancer of fepsiratory system. 49c. Cancer of genito-urinary organs. 49c. Cancer of bones and joints. 49c. Cancer of other specified organs. 49d. Cancer of other specified organs. 49d. Cancer of other specified organs. 49d. Ceneralized cancer. 49d. Unspecified. 50. Benign tumours and tumours not returned as malignant (tumours of female genital organs excepted). 51. Acute rheumatic fever. 52. Chronic rheumatism, osteo-arthritis, gout. 53. Scurvy. 54. Pellagra. 55. Rickets. 57. Diabetes mellitus. 58a. Pernicious anaemia. 58b. Other anaemias and chlorosis. 59. Diseases of the pituitary gland. 60. Diseases of the thyroid gland. 60. Diseases of the thyroid gland. 61. Diseases of the barrahyroid glands. 62. Diseases of the barrahyroid glands. 63. Diseases of the adrenals (Addison's disease). 64. Diseases of the spleen. 65. Leukaemia. 66a. Alcoholism. 66b. Alcoholism. 66c. Chronic alcoholism. 66c. Chronic alcoholism. 67c. Chronic lead poisoning. 67c. Chronic poisoning by mineral substances. 67d. Chronic poisoning by mineral substances. 67d. Chronic organic poisoning. 68d. Chronic organic poisoning. 69d. Others under this title. 68d. Chronic organic poisoning. 69d. Others under this title.	178 31 429 6 43 71 69 164 23 39 9 5 5 64 10 2 2 22 22 129 112 2 17 7 7 10 5 4 4 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	85 11 1822 12 14 44 12 3 600 14 24 44 1 1 11 27 83 84 84 44 44 2 2 66 63 55 33 11 2 2 15 15 16 2 16 2 16 2 16 2 16 16 16 16 16 16 16 16 16 16 16 16 16	16 2 2 5 5 5 1 1 7 7 1 1 6 2 3 3 3 3 1 1 2 2 2 0 0 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 36 2 5 3	14 1 355 1 2 6 6 6 16 6 3 3 1 1 2 5 5 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	4 3 3 16 6 1 3 3 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 1 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 3 4 4 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 8 8 8 6 6 2 2		6 4 1 2 4 1 1 2 1 1 2 1 1
CLASS III.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.											
Total	1,245	539	121	108	85	36	27	18	33	17	28
70. Encephalitis 70A. Abscess of brain. 70B. Encephalitis. 71. Meningitis. 71A. Simple meningitis. 71A. The season of the spinal cord. 73. Other diseases of the spinal cord. 74. Cerebral haemorrhage, apoplexy. 74A. Apoplexy. 74B. Cerebral thrombosis and embolism. 75. Paralysis without specified cause. 75A. Hemiplegia. 75B. Others under this title. 76G. General paralysis of the insane. 77. Other forms of mental allenation. 78. Epilepsy. 79. Convulsions (non-puerperal, 5 years or over).	36 111 25 51 21 102 575 209 312 54 83 59 24 26 32 59	17 6 6 11 17 17 19 54 224 224 23 37 27 10 12 17	5 3 2 6 6 6 1 1 5 81 30 47 4 2 2	3 3 6 6 6 9 43 12 25 6 6 13 9 4	3 1 1 1 7 30 14 15 1 1 8 5 3 3 10 0 3 14 15 1 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 1 7 7 7 12 9 2 1 4 3 1 1 1 1 1	1 1 1 2 18 5 13	1 1 1 1 13 9 4	1 1 1 1 1 1 1 9 8 2 2 2 1 1 1	1 3 3 3 2 7 4 4 3 2 1 1	3 3 1 1 19 11 6 2 1 1

ONTARIO, 1928.—Continued

Fort William	St. Catharines	Guelph	Stratford	St. Thomas	Port Arthur	Sarnia	Niagara Falls	Chatham	Galt	Belleville	Owen Sound	Oshawa	North Bay	Woodstock	Welland	
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1	1 1	1	1		2	2	i	1				1	1		i	66в 66с
																67 67а 67в
																67в 68
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						1		1	1							69C
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1	3 11	4	9	5 1	1 6	3	3	3 8	3 4		2	2 2 2 1	1 4	2	1	74A 74B
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	2 2	1	1	1 2				1				î		2		75A 75B 76 77
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CAUSES OF DEATH	Total	Toronto	Hamilton	Ottawa	London	Windsor	Brantford	Kitchener	Kingston	Sault Ste. Marie	Peterborough
80. Infantile convulsions (under 5 years of age)	31 4 9 8 112 6 89 48 41	8 1 2 3 56 2 51 30 21	3 1 1 1 12 1 1 1	10 5 5	5	1 3 2 1	4	3	3	1	3
CLASS IV.—DISEASES OF THE CIRCULATORY SYSTEM											
Total	3,827	1,617	326	349	268	126	93	82	107	37	74
87-90. Diseases of the heart	2,392	958	216	246	166	69	64	47	63	32	48
87. Pericarditis 88. Endocarditis and myocarditis (acute) 88. Acute endocarditis 88. Acute endocarditis 89. Angina pectoris 90. Other diseases of the heart 90. Valvular disease 90. Fatty degeneration of the heart 90. Chronic endocarditis 90. Chronic endocarditis 90. Chronic endocarditis 90. Chronic endocarditis 90. Others under this title 91. Diseases of the arteries 91. Aneurysm 91. Aneurysm 91. Other diseases of the arteries 92. Embolism and thrombosis (not cerebral) 52. Diseases of the veins (varices, haemorhoids, phlebitis, etc.) 94. Diseases of the lymphatic system (lymphangitis, etc.) 95. Haemorrhage without specified cause 96. Other diseases of the circulatory system CLASS V.—DISEASES OF THE RESPIRATORY	8 89 50 39 318 1,977 335 6 1 266 1,113 2,56 1,312 16 42 20 6 2	3 433 288 151 130 7822 1466 3 123 4355 633 122 615 615 66 616 8	3 6 111 195 26 133 134 222 1077 6 101	1 12 8 4 36 36 1977 21 32 1177 277 999 6 92 1 2	134 134 111 16 76 31 95 1 95	59 12 1 11 28 7	7 40 5	1 23 3 31	2 1 1 1 1 1 1 1 1 5 0 0 1 2 2 3 2 2 4 4 4 0 0 3 9 9 1 1 1 3 3	2 1 1 1 6 6 24 4 5 5 5 5	1 4 43 15 4 19 5 5 25 1 24 1
Total	1,619	768	162	128	96	67	32	21	34	17	19
97. Diseases of the nasal fossae and their annexa 98. Diseases of the larynx. 98.A. Laryngismus stridulus. 98.B. Laryngitis. 98.C. Croup. 99 Bronchitis. 99A. Bronchitis, acute. 99B. Bronchitis, chronic. 99C. Bronchitis, not otherwise defined. under 5 years of age. 99D. Bronchitis, not otherwise defined. 5 years or over	12 15 1 12 2 49 23 19	66 88 17 77 18 12 3	1 1 3 1 2	1 2 1	1 2 2 2	i 1	2			1	i 1
5 years or over. 100. Broncho-pneumonla (including capillary bronchitis). 100a. Broncho-pneumonla 100bs. Capillary bronchitis. 101. Pneumonla 101a. Penimonla, lobar 101b. Pneumonla, not otherwise defined. 102. Pleurisy 103. Congestion and haemorrhagic infarct of the lung 104. Gangrene of the lung 105. Asthma 106. Pulmonary emphysema.	528 525 3 817 502 315 80 40 3 35 2	3 293 292 1 370 241 129 29 29 2 14	5.5	1 41 40 1 61 37 24 8	55 31 24 4	177 177 377 211 16 9	6 6 18 14 4 3 1	6 6 12 10 2 1	10 10 15 7 8 2	11 4 7	6 6

ONTARIO, 1928.—Continued

Fort William	St. Catharines	Guelph	Stratford	St. Thomas	Port Arthur	Sarnia	Niagara Falls	Chatham	Galt	Belleville	Owen Sound	Oshawa	North Bay	Woodstock	Welland	
2 2 2	2 1 1	2	2 3 1 2	1 1 2 1 1	i	1 2 2	1 2 1 1	2	1 1 1 1	2	2	1 i	1 1 1	1		80 82 83 84 85 86 86A 86B
21	58	63	32	51	38	51	47 29	68	59	44 26	55	42	28	49	32	87-90
1 1 1 1 11 4	1 41 7	10 25 12	3 2 1 1 28 2 1	10 31 5	11		2 1 1 6 21 7	37	1 1 10 31 6	3	1 28 3	5 19 2	1 1 1 18 18	1 3 25 3	8	90 90a 90b
2 4 1 8 8	20 7 13	3 9 1 27 26 1	3 17 5 10	10	1 12 5 5 5	8 14 2 19 2 17	2 9 3 16 	19 18 1	14 7 16	1	13 12 24 1 23	18	3 13 1 7 7	1		90C 90D 90E 90F 91 91A 91B 91C
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18	37	19	21	13	18	18	22	25	14	15	6	16	6	14	13	
2 i	1	2	1	1 2		1		1 1 1 2		1 1 2 1 1	1	1	2 1		1	97 98 98A 98B 98C 99 99A 99B
3 3 3 8		14	15 5 10	5 2 3	2	4	10 10 12 11	6	2	2 2 2 8 1 7	3 3	5 5 2 3 3	3 3	4 4 4 8 4 4	10 7	99D 100 100A 100B 101 101A 101B
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CAUSES OF DEATH	Total	Toronto	Hamilton	Ottawa	London	Windsor	Brantford	Kitchener	Kingston	Sault Ste. Marie	Peterborough
107. Other diseases of the respiratory system (tuberculosis excepted) 107A. Chronic interstitial pneumonia (including occupational diseases of the lungs	38 2 36	17 2 15	3	4	2	2	1	1	1		1
CLASS VI.—DISEASES OF THE DIGESTIVE SYSTEM Total	1,449	566	108	216	75	60	38	23	33	21	17
108. Diseases of the mouth and annexa. 109. Diseases of the pharynx and tonsils (including adenoid vegetations). 109A. Adenoid vegetations. 109B. Pharynx and tonsils. 110. Diseases of the oesophagus. 111. Ulcer of the stomach and duodenum 111A. Ulcer of the stomach. 11B. Ulcer of the duodenum. 112. Other diseases of the stomach (cancer excepted) 113. Diarrhoea and enteritis (under 2 years of age). 114. Diarrhoea and enteritis (2 years or over). 116. Diseases due to other intestinal para- sites 117. Appendicitis and typhlitis. 118. Hernia, intestinal obstruction. 118A. Hernia. 118B. Intestinal obstruction. 119. Other doseases of the intestines. 120. Acute yellow atrophy of the liver. 121. Cirrhosis of the liver. 1222. Specified as alcoholic. 123. Biliary calculi. 124. Other diseases of the liver. 125. Diseases of the pancreas. 126. Peritonitis without specified cause.	24 74 22 72 3 132 69 63 57 335 67 1 1 270 183 6117 400 7 55 38 107 203	6 39 39 61 300 31 16 120 25 109 68 23 345 20 22 5 3 3 22 9 9	7 2 34 4 100 122 3 3 9 9 4 4 6 6 2 2	1 16 90 7 32 199 8 8 111 13 100 10 4 7 7	10 15 9 4 5 3 1 1	14 9 3 6 1	33.33.33.33.33.31	4 4 4 1 1 1 1 1 3 3 3 2 2 1 1 1 1 2 2 2 2 2 2	2 2 2 3 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		3 5 5
Class VII.—Non-Venereal Diseases of the Genito-Urinary System and Annexa Total	1,260	461	125	129	120	57	39	16	27	20	26
128. Acute nephritis (including unspecified, under 10 years of age) 129. Chronic nephritis (Bright's disease) 131. Other diseases of the kidneys and annexa. 132. Calculi of the urinary passages. 133. Diseases of the bladder 134. Diseases of the urethra, urinary abscess, etc. 134a. Stricture of the urethra. 135b. Diseases of the urethra. 135. Diseases of the prostate 136. Non-wenereal diseases of the male genital organs 137. Cysts and other benign tumours of the ovary. 138. Salpingitis and pelvic abscess. 139. Benign tumours of the uterus 140. Non-puerperal uterine haemorrhage defined genital defined genital effents genital defined genital defined genital defined genital defined genital defined genital defined genital defined genital defined genital	811 7699 822 220 277 88 44 44 1644 4 222 199 277 2	24 278 38 9 12 6 3 3 62 5 4 100 1	1 2		4 94 2 1 1 1 1 9		4 288 3 1	1 7 7 1 4 4 1 1 1	3 13 2 2	3 11 1	6

ONTARIO, 1928.—Continued

Fort William	St. Catharines	Guelph	Stratford	St. Thomas	Port Arthur	Sarnia	Niagara Falls	Chatham	Galt	Belleville		Owen Sound	Oshawa	North Bay	Woodstock	Welland	
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	2 2					2 1 1	1			: : : :		i	*		· · · · i	2	119 120
		1	1				1 i				1 1				<u>1</u>		122 122A 122B
3 1	3	3	1 1	2	1 2	2 2	1 1 1	1 2 1		3	1	1	1	1		2	116c 117 118 118A 118B 119 120 122 122A 122B 123 124 125 126
2	1							1			i			1	• • • • •	i	126
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	4 1	1	ii		i	1		2	1	1		1 1 2	2 .		i	[1	131 132 133
																[1	34A
6	3	2	3	5	3			3		4		i	i	1	1	- 1	34B 35
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CAUSES OF DEATH	Total	Toronto	Hamilton	Ottawa	London	Windsor	Brantford	Kitchener	Kingston	Sault Ste. Marie	Peterborough
CLASS VIII.—THE PUERPERAL STATE											
Total	260	111	29	13	6	12	9	6	8	3	6
143. Accidents of pregnancy. 143A. Abortion 143B. Ectopic gestation. 143C. Others under this title. 143D. Abortion, self-induced. 144. Puerperal haemorrhage. 145. Other accidents of labour. 145A. Caesarean section. 145B. Difficult labour. 145C. Other surgical operations and in-	24 7 10 5 2 29 40 17 2	11 3 5 2 1 13 17 6	4 1 2 1 2 5 2	1	2 2 1	2 2	1 	1	4 1 1		1 1 2
strumental delivery 145b. Uncontrollable vomiting. 146. Puerperal septicaemia 147. Puerperal phlegmasia alba dolens, puerperal embolism, sudden	9 12 79	3 7 44	7	4		1 1 5	4	1	1	1	<u>2</u>
death in puerperium	19	6	3	1	2	2			• • • • •	• • • • •	
sions	8	19	2	1	1			1			2
CLASS 1X.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE											
Total	88	33	7	7	8	6		2	3		2
151. Gangrene	32 13 25 18	9 8 11 5	5.2	1 1 3 2	2 2	3 1 1 1		1 i	3		1 i
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.											
Total	49	24	2	7	2	2				1	• • • •
 155. Diseases of the bones (mastoid and tuberculosis excepted) 156. Diseases of the joints (tuberculosis and rheumatism excepted) 158. Other diseases of the organs of locomotion 	34 13 2	16 6 2	2	3	2	2			• • • • •		
Court VI M											
Class XI.—Malformations. Total	217	93	13	21	15	9	7	5	2	6	3
159. Congenital malformations (still-births not included)	217	93	13	21	15		7 1	5	2	6	3
159B. Congenital malformations of the heart	93 107	38 47		9			2 4		1 1	4 2	3
Class XII.—Diseases of Early Infancy											
Total	1,045	410	77	118	37	57	19	12	28	18	19
160. Congenital debility, icterus and sclerema sclerema 161. Premature birth injury at birth 161a. Premature birth 161b. Injury at birth 162. Other diseases peculiar to early infancy	141 802 673 129	42 326 279 47	52 40 12	20 90 77 13	33 29 4	39 11	13 1	6 2 2	5 4	5 12 11 1	2 13 11 2
infancy. 162A. Specified diseases. 163. Lack of care.	101	42		8	3	4	î 	2	4	1	4

ONTARIO, 1928.—Continued

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Fort William	St. Catharines	Guelph	Stratford	St. Thomas	Port Arthur	Sarnia	Niagara Falls	Chatham	Galt	Belleville	Owen Sound	Oshawa	North Bay	Woodstock	Welland	
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	7	3	3	5	1	1	1	3		6		9	3		1	143
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i																145B 145C 145D 146
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	2		1					1		1						147
1	1	2		2		2		1		2		3	1	2		148 149
2	1	3	2	1		3	3	1				1	1	1	1	
		1	1	· · · · · i		1	2	1				1	1	1	1	151 152 153 154
1		1	1			2	i									153
*****		1		2	3			1				2	1	1		
• • • • • •		1		1	1			1				2		1		155 156
					2											158
4	5	2	4	1	2			3				5	3		1	
					2		2		4	5	2			-		
		1		1	2		2	3	4	5	2		1			159 159 _A
3	2 3	1	3	1	1		1	2	2 2	3	2	3	1		i	159B 159C
21	21	15	12	6	24	17	19	19	4	10	13	29	14	10	16	
2	1	8	3	1	7	,	2	2				-	2	1	2	160
2 17 14 3	18 16	6	5	4 3	16 12	12	13	17	4	8	6 5 4	26 21	11 8 3	5	13 11	160 161 161a 161B
2 2	1		4	1	1	3	3	2		1	1 2	1		2	1	162
2		1	4	1	1	3	3			1	2	1	i	2	1	162A 163

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CAUSES OF DEATH	Total	Toronto	Hamilton	Ottawa	London	Windsor	Brantford	Kitchener	Kingston	Sault Ste. Marie	Peterborough
CLASS XIII.—OLD AGE											
Total	187	58	14	13	8	4	15	1	3	5	10
164. Senility	187	58	14	13	8	4	15	1	3	5	10
CLASS XIV.—EXTERNAL CAUSES	i										
Total	1,089	417	97	82	60	64	20	22	20	15	19
165-174. Suicides	127	68	8	3	7	4		3	2	1	1
165. Suicide by solid or liquid poisons (corrosive substances excepted). 166. Suicide by corrosive substances 167. Suicide by poisonous gas 168. Suicide by hanging or strangulation. 169. Suicide by drowning 170. Suicide by frearms	13 28 20 21 8 23	15 19	2	1 1	1 1 1 1	2 1		 1 1 1	2	1	::::: ::::: 1
 171. Suicide by cutting or piercing instruments. 172. Suicide by jumping from high places 173. Suicide by crushing. 175. Poisoning by food 176. Poisoning by venomous animals. 177. Other acute accidental poisonings 	6 7 1 6	1 6 1 3	1	1	1	1 i					
(gas excepted). 178. Conflagration. 179. Accidental burns and scalds (conflagration excepted). 180. Accidental mechanical suffocation. 180a. Overlaying.	15 8 75 9 1	25 3 1 2	3	10	2	9	3	2	*2 1	3 1	
 180B. Asphyxia. 181. Accidental absorption of irrespirable or poisonous gas. 182. Accidental drowning. 183. Accidental traumatism by firearms. 184. Accidental traumatism by cutting or piercing instruments. 	31 81 13	21 19 3	4 6 1	1 8 2	1 2		3	1	2	3	1 3 1
185. Accidental traumatism by fall 186. Accidental traumatism in mines and quarries	188	10.2	15	15	11						
186A. Coal mines. 187. Accidental traumatism by machines. 188. Accidental traumatism by other crushing (vehicles, railways, land-	1 26	8	3	1	2					1	
slides, etc.). 188a. Railroad accidents. 188b. Street car accidents. 188c. Automobile accidents. 188b. Aeroplane and balloon accidents. 188b. Injuries by other vehicles. 188c. Other crushing.	345 45 19 229 2 22 28	118 8 12 81 1 7	38 3 29 1 2	26 2 2 17	20 5 1 13	28 5 22	6	6	3	3 2	1 1
189. Injuries by animals (poisoning excepted)	3	2							1		
water)	1 4 1 13	i	2	1 1 2		1	1				2
197-199. Homicides	39	22	4	1		2			1 .		3
197. Homicide by firearms	7	3	1								3
199. Homicide by other means	28 68 31	15 1 5	3 7 2	5	15	4 .	3	5	1	1	i 2
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ONTARIO, 1928.—Continued

UNTA	ikio,	1920.		tinued												
Fort William	St. Catharines	Guelph	Stratford	St. Thomas	Port Arthur	Sarnia	Niagara Falls	Chatham	Galt	Belleville	Owen Sound	Oshawa	North Bay	Woodstock	Welland	
	6	6	4	4	3	1	1	7	3			1	5	3	2	
•••••	6	6	4	4	3	1	1	7	3	8	2	1	5	3	2	164
20	30	18	9	16	35	16	16	28	16	14	10	11	8	5	21	
3	4	2	1	4	7	2	2	1	1			2			1	165-174
 1 2	1	2	1	2 1	1 3 2	1		1	1						1	165 166 167 168 169 170
	1	1 1					1			1						171 172 173 175 176
i		1			1	1										177 178
2 1 1	3			1	1	2		1 1	1	1				1	3	179 180 180а 180в
3	2 2	4		1	1 9 2	1	1	4	1	2	1	1	2		2	181 182 183
3	3	1		3	3	3	2	2	4	4		1		2	3	184 185
• • • • • •	2			1		1	2			1	ii					186 186A 187
7 5 1	14 2 1 9		1	5	1	4	2	1	1		2	2	2		5 4	188 188A 188B 188C 188D 188E 188F
• • • • • •																189
		1			2			1				1				192 194 195 196
					1		1				1	1			2	197–199
		2	1	1	1	1		2	1	1			1	2	2	197 198 199 201
			2		1			1		1		2	1			202

CAUSES OF DEATH	Total	Toronto	Hamilton	Ottawa	London	Windsor	Brantford	Kitchener	Kingston	Sault Ste. Marie	Peterborough
CLASS XV.—ILL-DEFINED DISEASES Total	44	8	5	11	3		2	1	1	1	1
204. Sudden death 205. Cause of death not specified or ill- defined. 205A. Ill-defined. 205B. Not specified or unknown. 205C. Heart failure.	1 43 4 6 33	8	5 1	10	3		2	1	1	1 1	1 1

ONTARIO, 1928.—Concluded

Fort William	St. Catharines	Guelph	Stratford	St. Thomas	Port Arthur	Sarnia	Niagara Falls	Chatham	Galt	Belleville	Owen Sound	Oshawa	North Bay	Woodstock	Welland	
	1	1 1 1			1 1		1		1 1 1	2		2	1			204 205 205A 205B 205C

TABLE 44A—CAUSES OF DEATH FOR TOWNS

TABI	LE 44.	A(JAU	5E5	OF	DE	AII	1 F	JK	101	VIND
CAUSES OF DEATH	Total	Brockville	Orillia	Sudbury	Pembroke	Lindsay	Cornwall	Walkerville	Midland	Barrie	Smith's Falls
DEATHS—ALL CAUSES. Total	3,101	171	135	200	182	115	272	146	111	120	109
Class I.—Epidemic, Endemic and Infectious Diseases	420	10	. 8	42	1.6	8	54	36	5	12	19
Total	428	19		42	16	2			1		19
1. Typhoid and paratyphoid fever. 1. A. Typhoid fever. 7. Measles. 8. Scarlet fever. 9. Whooping-cough. 10. Diphtheria. 11. Influenza, sole cause. 111. Influenza, with phthisis 112. Influenza, with pronchitis. 113. Influenza, with promonia. 114. Influenza, with bronchitis. 115. Influenza, with other respiratory diseases. 115. Influenza, with diseases and accidents of pregnancy and parturition. 116. Influenza, with other causes. 13. Mumps. 14. Dysentery. 15. Erysipelas. 16. Dysentery. 17. Erysipelas. 17. Tuberculosis of the respiratory system. 18. Mumingococcus meningitis. 19. Tetanus. 11. Tuberculosis of the meninges and central nervous system. 19. Tuberculosis of the intestines and peritoneum. 11. Tuberculosis of the intestines and peritoneum. 11. Tuberculosis of the intestines and peritoneum. 12. Tuberculosis of the vertebral column. 13. Tuberculosis of the purphatic system (mesenteric and retroperitoneal glands excepted). 13. Tuberculosis of the lymphatic system (mesenteric and retroperitoneal glands excepted). 13. Tuberculosis of the genito-urinary system. 13. Disseminated tuberculosis, acute. 13. Disseminated tuberculosis, chronic or unstated. 13. Disseminated tuberculosis, chronic or unstated. 13. Syphilis. 14. Purulent infection, septicaemia.	166 199 23 1488 255 11 66 67 4 4 50 41 88 60 53 77 22	3310.100		3 2 11 5 2 5 1 15 7 7 2 2 1 1 2 1 1	2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1 1 4 4	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 1 1 3 3 2 2 1 1 1	1 2 2	1 1 6 2 2 1 1	2 9 1 5 1 1 5 5 5
Class II.—General Diseases not Included in Class I.				12			20	10	1.4	10	22
Total	235	18	23 15	13	19		29 19	12	-14 -7	18	13
43-49. Cancer of the buccal cavity. 44. Cancer of the stomach and liver. 45. Cancer of the peritoneum, intestines and rectum. 46. Cancer of the female genital organs. 47. Cancer of the breast. 48. Cancer of the skin. 49. Cancer of other or unspecified organs. 49B. Cancer of circulatory system. 49C. Cancer of respiratory system. 49D. Cancer of genito-urinary organs. 49F. Cancer of genito-urinary organs. 49F. Cancer of bones and joints. 49G. Cancer of other specified organs. 49I. Cancer unspecified. 50. Benign tumours and tumours not returned as	8 91 466 322 23 3 3 32 2 6 3 13 11 6	11 1 5 1 1 1 1 1 2	5 5 1 1 2	3	1 10 2 2 2 1 1 2	3 2 1 2 1 1	1 7 8 2 1	3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	3 1	1 6 2 1 3 1 2
malignant (tumours of female genital organs excepted). 51. Acute rheumatic fever. 52. Chronic rheumatism, osteo-arthritis, gout.	5 11 2	2 1	i		1	1			1		2

OF 5,000 POPULATION AND OVER—ONTARIO, 1928

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Trenton	Waterloo	Collingwood	Ford City	Hawkesbury	Preston	Kenora	Cobourg	Eastview	Ingersoll	Brampton	Dundas	Fort Frances	Leamington	Mimico	New Toronto	Port Colborne	Renfrew	Timmins	Whitby	
73	48	77	67	77	53	72	113	75	89	80	62	67	54	66	27	52	79	178	131	
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																				11B 11C
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				1			1													11E
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1															1					36D 37
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8	8	11	6	7	9	11	7	6	14	10	13	8	6	7	1	7	10	7	3	
6	6	9	4	4	7	8	7	3	8	7	11	5	4	5	1	4	9	3	2	43-49
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3	3 2	2 3	3	3	4	3	2 2 2	1	1	1 2	3	3	1	1	1	3	2	1	1 . 1	1-1 1-5
		3			1	1		i	4		4			1		i		1		46
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TABLE 44A—CAUSES OF DEATH FOR TOWNS

TABL	E 447		AU)ES	Or	DE.	AII	FU	, K		149
CAUSES OF DEATH	Total	Brockville	Orillia	Sudbury	Pembroke	Lindsay	Cornwall	Walkerville	Midland	Barrie	Smith's Falls
56. Rickets 57. Diabetes mellitus 58. Anaemia, chlorosis. 58a. Pernicious anaemia. 58B. Other anaemias and chlorosis. 59. Diseases of the pituitary gland 60. Diseases of the thyroid gland 60a. Exophthalmic goiter 60B. Other diseases of the thyroid gland 62. Diseases of the thymus 64. Diseases of the thymus 65. Leukaemia, lymphadenoma 65a. Leukaemia, lymphadenoma 65b. Lymphadenoma (Hodgkin's disease) 66. Alcoholism 66c. Chronic alcoholism 66c. Chronic alcoholism 69. Other general diseases 69a. Diabetes insipidus 69c. Purpura haemorrhagica	2 30 15 14 1 1 19 19 19 4 5 5 5 5 7 7 4 4 3 8 8 1 1 6 1 1 2 7 7	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 2 2 2 2	4 2 1 1 1	1 1 1	3 3 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 3 3	2	1 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Class III.—Diseases of the Nervous System and of Organs of Special Sense.	231	14	13	11	8	9	12	9	12	7	6
70. Encephalitis. 70. Encephalitis. 71. Meningitis. 71.A. Simple meningitis. 72. Tabes dorsalis (locomotor ataxia). 73. Other diseases of the spinal cord. 74. Cerebral haemorrhage, apoplexy. 74A. Apoplexy.	4 4 13 13 1 14 97 45	1 1 5	3 3	3 3 4 2	2 4 2	3 2	2 2	1 1 1 1 2 2	1 9 4	1 1	1 3 2
74B. Cerebral haemorrhage. 74c. Cerebral thrombosis and embolism. 75. Paralysis without specified cause. 75A. Hemiplegia. 75B. Others under this title. 76. General paralysis of the insane. 77. Other forms of mental alienation.	46 6 28 23 5 6 21	5 5	2 2	1 1 1	2	5 4 1	5	1 2	2 1 1	1 1 1	1 1
78. Epilepsy. 79. Convulsions (non-puerperal, 5 years or over). 80. Infantile convulsions (under 5 years of age). 81. Chorea. 83. Softening of the brain. 84. Other diseases of the nervous system. 85. Diseases of the eye and annexa.	9 1 8 2 7 12	1 1	1 1 2	1	1		i	1			
86. Diseases of the ear and of the mastoid process 86A. Diseases of the ear	602	47	27	24	34	28	36	26	27	23	18
Total	409	34	16			16		18	16	18	
87. Pericarditis. 88. Endocarditis and myocarditis (acute). 88. Acute endocarditis. 88. Acute myocarditis. 89. Angina pectoris. 90. Other diseases of the heart. 90A. Valvular disease. 90B. Fatty degeneration of the heart. 90b. Chronic endocarditis. 90E. Chronic myocarditis. 90F. Others under this title. 91. Diseases of the arteries.	1 17 12 5 43 348 71 2 63 167 45 181	32 13 2 16	3 8 1	7 4	6 15 1	5 9	3 1 3 11	2 2 3 13 4 2 6 1 7	1 3 12 3 5 3 1 11	1 2 15 2 15 2 10 2 5	12 5 4 2 1 6
91A. Aneurysm 91B. Arteriosclerosis. 92. Embolism and thrombosis (not cerebral) 93. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.).	179	13	2		4		11	6 1	11		6

OF 5,000 POPULATION AND OVER-ONTARIO, 1928.—Continued

			,		,															
Trenton	Waterloo	Collingwood	Ford City	Hawkesbury	Preston	Kenora	Cobourg	Eastview	Ingersoll	Brampton	Dundas	Fort Frances	Leamington	Mimico	New Toronto	Port Colborne	Renfrew	Timmins	Whitby	
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1	2 2 2		1 1 1 1	1 1 1	2 2 2			1 1 1 1 1	1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	56 57 58 58 58 58 59 60 60 62 64 65 65 65 66 66 66 66 66 66 66 69 69 69 69 69 69
99 	22 22	2 2 2 2 1 1 1 1	1	33333	8 1 1 1 1 4 2 2 2 2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	88 22 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 2 2	4 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	122		1	11 11 11 11 12 24 4		1 1	99 	3 2 1 1		70 70 _B 71 71 _A 72 73
21 14 2 12 4 4 7 	16 11 2 2 1 8 2 6 5	8	9 7 7 11 15 5 4 12 2	9 4	7 6 1 2	122 9 4 5 1 3 1 3 3 3	6 7 7	4	7	14 8 1 7 4 2 1	10 8 2 6 3 3 2 2	9 3 3 1 2 5	16 9 	14 7 	1 2 2	6 3 1 2 1 1 3 	19 15 2 13 5 2 5 1 3	8 7 1 6 2 4	3 3 1 20 2 1 17	90a 90b 90d 90e 90f

TABLE 44A—CAUSES OF DEATH FOR TOWNS

TABI	E 44	A(CAU	SES	OF	DE	ATI	I FO	OR '	FOV	VNS
CAUSES OF DEATH	Total	Brockville	Orillia	Sudbury	Pembroke	Lindsay	Cornwall	Walkerville	Midland	Barrie	Smith's Falls
Class V.—Diseases of the Respiratory System.											
Total	282	7		11	13	16	32	17	12	7	
97. Diseases of the nasal fossae and their annexa	3 1 1 13 5 5			1 	i i	1 2 1 1	1 1 2 2		i 1	1	i
of age. 99D. Bronchitis, not otherwise defined, 5 years or over. 100. Broncho-pneumonia (including capillary bronchitis) 100a. Broncho-pneumonia. 100B. Capillary bronchitis. 101. Pneumonia. 101A. Pneumonia. 101B. Pneumonia, lobar. 101B. Pneumonia, not otherwise defined. 102. Pleurisy.	79 76 3 152 68 84	1 1 5 1 4	5 5 5 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 5 5 5	2 2 2 10 4 6	13 12 1 10 8 2	5 5 7 3	1 1 8 3 5	6 2 4	2 2 2 4 2 2 2
 102. Pleurisy 103. Congestion and haemorrhagic infarct of the lung 105. Asthma 106. Pulmonary emphysema 107. Other diseases of the respiratory system (tuberculosis excepted 107A. Chronic interstitial pneumonia including occupational diseases of the lungs 107C. Others under this title 			1	1	2				1		1
Class VI.—Diseases of the Digestive System. Total	321	11	19					14			11
108. Diseases of the mouth and annexa. 109. Diseases of the pharynx and tonsils (including adenoid vegetations). 109B. Pharynx and tonsils. 111. Ulcer of the stomach and duodenum. 111A. Ulcer of the duodenum. 112. Other diseases of the stomach (cancer excepted). 113. Diarrhoea and enteritis (under 2 years of age). 114. Diarrhoea and enteritis (2 years or over). 117. Appendicitis and typhlitis. 118. Hernia, intestinal obstruction. 118A. Hernia. 118B. Intestinal obstruction. 119. Other diseases of the intestines. 122. Cirrhosis of the liver. 122B. Not specified as alcoholic. 123. Biliary calculi. 124. Other diseases of the liver. 125. Diseases of the pancreas. 126. Peritonitis without specified cause.	17 17 17 10	2 5 1 1	2 3 2 1 1 1 3 4 3 1 2 1	2 2 1 1 1 22 3 3 1 1 1 1	3 3 1 1 1	3 1 2 4 3 1 2 1	1 1 22 3 9 5 2 3 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 2 2 2 2	3 1 2 1 2 2 3 3 	3
CLASS VII.—Non-Venereal Diseases of the Genito- Urinary System and Annexa.											-
Total. 128. Acute nephritis (including unspecified, under 10 years of age). 129. Chronic nephritis (Bright's disease). 131. Other diseases of the kidneys and annexa. 132. Calculi of the urinary passages. 133. Diseases of the bladder. 134. Diseases of the bladder. 134. Stricture of the urethra, urinary abscess, etc. 135. Diseases of the prostate. 136. Non-venereal diseases of the male genital organs. 137. Cysts and other benign tumours of the ovary. 138. Salpingitis and pelvic abscess. 139. Benign tumours of the uterus. 141. Other diseases of the female genital organs.	190 1199 133 3 1 1 266 1 3 3 1 1 5		11 6 1 1 1 1 1 		13	17 11 11 1 2	14 8 1 1 1 1 	3 2	1 2	10 2	5 - 4 1

OF 5,000 POPULATION AND OVER-ONTARIO, 1928.—Continued

Trenton	Waterloo	Collingwood	Ford City	Hawkesbury	Preston	Kenora	Cobourg	Eastview	Ingersoll	Brampton	Dundas	Fort Frances	Leamington	Mimico	New Toronto	Port Colborne	Renfrew	Timmins	Whitby	
2	4	5	12	10	5	7	12	8	7	8	8		1	6	1	9	3	11	16	97 98
							1 1							2 2					1	98с 99 99а 99в 99с
2	1 1 1 2 1 1 1	2	1	4	31 1 2 2	7	666	2 1 1 6 2 4	2 2 2 4 2 2 1	8 2 6	1 1 1 7 6 1	5 4	1 1	3	1	3 3 3 5 1 4	1 1 2 2	3 1 2 2	1 1	99D 100 100A 100B 101 101A 101B 102 103 105 106
• • • • •					1							1						1		107 107A 107C
7	3	4	4	15	4	7	7	17	6	3	3	6	2		3	2	6	19		
1 1 1 2 2	1 1 1	1 2	1 1 2	1 5 1 2 2 3 2 1 1	2 2 2	1 1 1 2 2 1 1	1 3 2 2 2	1 15 1	2 2 2 1 1 1	1 1 1	1 1		1		1 2	1 1	3 1 1 1	13 2 2		108 109 109 B 111 111 A 1111A 1111B 112 113 114 117 118 A 118 B 119 122 122 B 123 124 125 126
- 1		4	3	1	1		1				2			1	1		3		2	132 133 134 134 135 136

TABLE 44A—CAUSES OF DEATH FOR TOWNS

TABL	E 44/	1—(AU	SES	OF	DE	ATE	I FC)R '	rov	VNS
CAUSES OF DEATH	Total	Brockville	Orillia	Sudbury	Pembroke	Lindsay	Cornwall	Walkerville	Midland	Barrie	Smith's Falls
Class VIII.—The Puerperal State.											
Total	29	2	3	5	5		1	1		1	2
143. Accidents of pregnancy 143B. Ectopic gestation 143C. Others under this title 144. Puerperal haemorrhage 145. Other accidents of labour 145A. Caesarean section 145B. Difficult labour 145D. Uncontrollable vomiting 146. Puerperal septicaemia 147. Puerperal phlegmasia alba dolens, puerperal embolism, sudden death in puerperium 148. Puerperal albuminuria and convulsions 149. Following childbirth (not otherwise defined).	2 1 1 3 3 3 1 1 10	i i		1	 1 1		1	1		i	2
(not observe denical)			_		-	_					
Class 1X.—Diseases of the Skin and of the Cellular Tissue.	26	5		2	2	1	1				2
Total		-				<u> </u>					
151. Gangrene. 152. Furuncle. 153. Acute abscess	14 1 5 6	1 1 2 1		2			1				2
CLASS X.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.											
Total	10	1		2	1		1	1		1	
 155. Diseases of the bones (mastoid and tuberculosis excepted). 156. Diseases of the joints (tuberculosis and rheumatism excepted). 	8			1			i	1		1	
CLASS XI.—MALFORMATIONS. Total	33		1	1	1		3	3	4	2	2
		-		-	-		-	-		-	
159. Congenital malformations (stillbirths not included). 159a. Congenital hydrocephalus	1			· · · · i				· · · · i	3	2	1
Class XII.—Diseases of Early Infancy. Total	259	13	4	21	17	6	25	13	14	6	5
						-		_			
160. Congenital debility, icterus and sclerema. 161. Premature birth, injury at birth. 161A. Premature birth 161B. Injury at birth. 162. Other diseases peculiar to early infancy. 162A. Specified diseases.	201 176 25	13 10 3	4	13	13 12 1	5	19 16 3	12 11 1	9	3	
CLASS XIII.—OLD AGE. Total	69	-	4	-	-	-	-	-		5	
164. Senility	69	1	-	1 1	. 1	-	4			-	1

OF 5,000 AND POPULATION AND OVER-ONTARIO, 1928,-Continued

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Trenton	Waterloo	Collingwood	Ford City	Hawkesbury	Preston	Kenora	Cobourg	Eastview	Ingersoll	Brampton	Dundas	Fort Frances	Leamingtan	Mimico	New Toronto	Port Colborne	Renfrew	Timmins	Whitby	
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	_	-		-	-		-	-		-	-	-		-						
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_	2	2	8						4	2	3	2	1	4	2	1			. 18	164

TABLE 44A—CAUSES OF DEATH FOR TOWNS

IMD	1717 44				, OI	DE	AII	(1 F	OK	101	VIND
CAUSES OF DEATH	Total	Brockville	Orillia	Sudbury	Pembroke	Lindsay	Cornwall	Walkerville	Midland	Barrie	Smith's Falls
CLASS XIV.—EXTERNAL CAUSES.											
Total	260	20	5	23	14	3	11	8	10	8	6
165-174. Suicides	12	2		3							
166. Suicide by corrosive substances 168. Suicide by hanging or strangulation 169. Suicide by drowning 170. Suicide by firearms 171. Suicide by cutting or piercing instruments 175. Poisoning by food 177. Other acute accidental poisonings (gas excepted) 178. Conflagration 179. Accidental burns and scalds (conflagration excepted) 181. Accidental absorption of irrespirable or poisonous gas 182. Accidental drowning 183. Accidental traumatism by firearms 184. Accidental traumatism by cutting or piercing instruments 185. Accidental traumatism by fall 186. Accidental traumatism by fall 186. Accidental traumatism by machines 187. Accidental traumatism by machines 188. Accidental traumatism by other crushing (vehicles, railways, landslides, etc.) 188A. Railroad accidents 188C. Automobile accidents 188E. Injuries by other vehicles 188F. Other crushing 189. Injuries by animals (poisoning excepted) 193. Excessive cold 195. Lightning 196. Other accidental electric shocks	2 5 5 2 2 2 3 3 1 1 3 3 3 3 3 3 4 4 6 4 6 6 4 6 6 1 1 3 1 1 3 1 1 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 3 3 6	2	1 11 6 1 1 1 3 3	1 1 3 3 3 3	2	2 3 3 4 4	2 4 4	1 5 1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
197-199, Homicides	2										
199. Homicide by other means 201. Fracture (cause not specified) 202. Other external violence (cause specified)	2 22 9					i	1	1 1	i	1	i
CLASS XV.—ILL-DEFINED DISEASES.											
Total			2							1 .	
204. Sudden death. 205. Cause of death not specified or ill-defined. 205B. Not specified or unknown. 205C. Heart failure.	1 11 2 9							.		1 .	

OF 5,000 POPULATION AND OVER-ONTARIO, 1928.—Concluded

Trenton	Waterloo	Collingwood	Ford City	Hawkesbury	Preston	Kenora	Cobourg	Eastview	Ingersoll	Brampton	Dundas	Fort Frances	Leamington	Mimico	New Toronto	Port Colborne	Renfrew	Timmins	Whitby	
2	2	3	3	7	3	14	5	1	6	6	3	9	4	4	3	8	8	53	8	
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	i	i					i				i		i	i	1	2	1 1 3	1 46 46		183 184 185 186 186B 187
1				2	1	6 2 2 2	2			2		2	i	1	1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1	188 188A 188C 188E 188F 189 193 195
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										1		1					1	3		
										1		1 1					1 1			204 205 205в 205с



TABLE 45-DEATHS FROM CERTAIN CAUSES IN TOWNS OF 1,000 POPULATION AND UNDER 5,000-ONTARIO, 1928

	CAUSES OF DEATH	Total Bind River Bind River The sasion The sasion The sasion The sasion The sasion The sasion The sasion The sasion Walterine Walterine Walterine Walterine The sasion Walterine Walterine The sasion Walterine Walterine Bornmanville Port those Ambres burg Esera Ambres burg Esera Ambres burg Riagesville Riverside Ringsville Riverside Ambres burg Ringsville Riverside Ambres burg Beerine Ambres burg Ringsville Riverside Ambres burg Bertolia Alterion Majon Oakloide Carleton Place Pertolia Richell Struthron Majon Oakloide Canpobelitord Uxbridge Carleton Falls Struthron Majon Mattawa Struthron Mattawa Struthron Niagara Mattawa Struthron Mattawa Struthron Niagara Mattawa Struthron Mattawa Struthron Mattawa Struthron Mattawa Struthron Mattawa Canpobelitord Uxbridge Canpobelitord Uxbridge Canpobelitord Uxbridge Canpobelitord Uxbridge Canpobelitord Canpobelitord Canpobelitord Canpobelitord Cohalt Harridon Marke blakeand Harridon Marke blakeand Harridon Mewhinket Wewinnaket	nt. ist vo.
11. 13. 22. 23. 24. 25A.	Typhoid and paratyphoid fever Small-pox Measles Scarlet fever Whooping-cough Diphtheria Minippe Minippe Minippe Acute anterior poliomyeltiis Lethargic encephaltiis Meningococcus meningitis Chicken-pox German measles Tetanus Tetanus	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	A B
102.	Tuberculosis Syphilia. Syphilia. Goscoccus infection. Goscoccus infection. Diseases of the thyroid gland. Bronchitis Pheumonia. Pleurisy. Puerperal septicaemia.	267 4 1 1 1 1 2 3 4 1 1 1 2 2 1 1 1 3 1 2 3 4 1 1 1 2 2 1 1 1 3 1 2 3 4 1 1 1 2 2 1 1 1 3 1 2 3 4 1 1 1 2 2 1 1 1 3 1 2 3 4 1 1 1 2 1 1 1 3 1 2 3 4 1 1 1 2 1 1 1 3 1 2 3 4 1 1 1 2 1 1 1 3 1 2 3 4 1 1 1 1 2 1 1 1 3 1 2 3 3 4 1 1 3 1 2 4 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	0-101 2



DEPARTMENT OF HEALTH

Fourth Annual Report

OF THE

Department of Health

Ontario, Canada

FOR THE YEAR

1928

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER, No. 14, 1929



TORONTO:

Printed and Published by the Printer to the King's Most Excellent Majesty
1929

WITHOUT OF TAXABLE PARTY.

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distribution of the



To His Honour William Donald Ross, Esq.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I herewith beg to present for your consideration the Fourth Annual Report of the Department of Health for the year 1928.

Respectfully submitted,

FORBES GODFREY,

Minister of Health and Labour.

Toronto, February 12th, 1929.

To The Honourable Forbes Godfrey, M.D.,

Minister of Health and Labour.

SIR,—I have the honour to submit for your approval the Fourth Annual Report of the Department of Health, made in conformity with and under the provisions of The Public Health Act for the year 1928.

I have the honour to be, Sir,

Your obedient servant,

W. J. Bell,
Deputy Minister of Health.

Toronto, February 12th, 1929.

DEPARTMENT OF HEALTH

Minister

HONOURABLE FORBES GODFREY, M.D.

Deputy Minister
W. J. BELL, M.B.

John W. S. McCullough, M.D., C.M., D.P.H. Chief Inspecto	or of Health
John W. S. McCanough, M. D., C.M., D. 11.	Education
Adam H. Wright, B.A., M.D., M.R.C.S., Eng Associate in Public Health	n Education

District Officers of Health

District:	No. 1. Thos. J. McNally, M.D., C.M., D.P.H	. London
	Vo. 2. I. I. Fraser, M.D., D.S.O	Guelph
	No. 3. Daniel A. McClenahan, M.D., C.M., D.P.H	Hamilton
	No. 4. N. H. Sutton, M.B., D.P.HPete	rborough
	No. 5. Paul J. Moloney, M.D., C.M	.Ottawa
	No. 6. W. Egerton George, M.D., D.P.H	orth Bay
	Vo. 7. G. L. Sparks, M.DFort	William
	No. 8. Hugh W. Johnston, M.DSault St	te. Marie

Sanitary Engineering Branch

A. E. Berry, M.A.Sc., C.E., Ph.D
A. V. Delaporte, B.A.Sc., Chem. E., F.C.I.C., Chemist in Charge of Experimental Station
O. V. Ball, B.A.Sc
G. A. H. Burn, B.A.Sc
F. W. Johnston, B. A. Sc. Assistant Sanitary Engineer
A. T. Byram, B.A.Sc

Preventable Disease Branch

R. R. McClenahan, B.A., M.B., D.P.H.	Director
I. W. Hunt, M.B., L.R.C.P., M.R.C.S	Clinical Specialist
A. L. McKay, B.A., M.B.	Epidemiologist
G. C. Brink, M.B.	Clinical Specialist
D. G. Wilson, M.B	Clinical Specialist
W. M. McNeely, M.D., C.M.	Clinical Specialist
Agnes Haygarth, Reg. N	Social Service Nurse

Child Hygiene Branch

John T. Phair, M.B.	D.P.H. Director	ť
Bervl Knox, Reg. N.		ď
Ella I Jamieson Re	g. N	
Bild J. Jamieson, Ite	5	

Laboratories Branch

C. M. Anderson, M.B., C.P.H.	Director
Andrew MacNabb, B.V.Sc	eriologist
Vera Crossley, B.A	eriologist
A. H. Bonham, B.A.Sc., F.C.I.C	. Chemist

Branch Laboratories

A. J. Slack, Ph.C., M.D., D.P.H
Industrial Hygiene Branch
J. G. Cunningham, B.A., M.B., D.P.H. Director R. M. Hutton, B.A. (Oxon.) Literary Research A. R. Riddell, B.A., M.B., D.P.H. Clinical Specialist F. M. R. Bulmer, M.B., B.A.Sc., Med. Special Research H. E. Rothwell, B.A.Sc., F.C.I.C. Chemist Alex. R. White Chief Sanitary Inspector
Sanitary Inspectors
D. McKee. Sudbury J. Richardson North Bay W. C. Millar. Fort William R. B. McCauley Sault Ste. Marie Hugh McIntyre Cochrane
Dental Services Branch
F. J. Conboy, D.D.S
Vital Statistics Branch S. J. Manchester
Nurse Registration Branch
A. M. Munn, Reg. N
Public Health Education Branch
Mary Power, B.A
Exhibits and Films
E. H. Jones. In charge
Honourary Consultants
Public Health AdministrationJ. G. Fitzgerald, M.D., F.R.S.C.PediatricsAlan Brown, B.A., M.B.ObstetricsWm. B. Hendry, M.D., D.S.O.Oral HygieneHarold Keith Box, D.D.S., Ph.D., F.A.A.T., F.A.C.D.

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ANNUAL REPORT

OF THE

Department of Health

of the Province of Ontario

For the Year Ending December 31st, 1928

A RESUME OF THE WORK OF THE DEPARTMENT DURING THE YEAR

Legislation passed at the 1928 Session of the Legislature is contained in *The Public Health Act, 1928*:

Section 55 of *The Public Health Act* is amended by adding Rev. Stat., thereto the following subsection:

(3) The provisions of subsection 1 shall apply to any person Reporting registered and practising as a drugless practitioner under able disease the authority of *The Drugless Practitioners Act*.

Rev. Stat., c. 200.

Section 95 of *The Public Health Act* is amended by adding Rev. Stat., thereto the following subsections:

(17) Where the corporations of the urban municipality and disposal the township do not agree, as provided in subsection 16, plant in as to the right of the township and the inhabitants to make municipality. Use of such sewage disposal plant or as to the terms of such user, the Ontario Railway and Municipal Board upon the application of the corporation of the township may make an order conferring the right to make use of such sewage disposal system upon the township and upon the inhabitants thereof whose properties are adjacent thereto, and the terms and conditions as to such usage.

(a) The corporation of the township may assess and collect as taxes whatever amount may be agreed upon with the urban municipality for every sewer connection to the sewage disposal plant or any connection therewith under this subsection in the same manner and to the same extent as if the same constituted a public utility owned by the township.

Right to connect with plant. (18) Where the township does not apply to the Board as provided in subsection 17, the owner of any residence or dwelling in the township in proximity to the sewage disposal plant or to any connection therewith, may apply to the Ontario Railway and Municipal Board for an order declaring that such owner shall have the right to connect his property with such sewage disposal plant or any connection therewith.

Rev. Stat., c. 262, amended.

The Public Health Act is amended by adding thereto the following section:

Issuing debentures to defray expenses of investigation as to sewage disposal.

97a.—(1) The municipal council of a city having a population of not less than 100,000 may with the approval of the Ontario Railway and Municipal Board provide by by-law for the issue of debentures for the purpose of raising money to procure investigations and reports as to the method of sewage treatment and disposal best suited to meet the needs of the municipality.

Assent of electors not required.

(2) It shall not be necessary to procure the assent of the electors to any by-law passed pursuant to subsection 1.

Payment out of debentures issued for work. (3) Instead of making a separate issue of debentures to defray the expenses of such investigation and report, the council may provide that such expenses shall be included in the cost of the work and be paid out of the proceeds of any debentures issued therefor.

Rev. Stat., c. 262, Sched. "B," par. 33, repealed.

The paragraph numbered 33 in the by-law in schedule "B" to *The Public Health Act* is repealed and the following substituted therefor:

Placarding communicable disease and contacts. 33. The medical officer of health within six hours after he has received notice of the existence in any house of any communicable disease or the presence of any communicable disease contacts in respect of which it is his duty to do so, shall affix or cause to be affixed near the entrance of such house, in plain view of the public, a card at least twelve inches wide and nine inches long, stating that such premises are under quarantine on account of such disease and the penalty for removal of such card without the permission of the medical officer of health, and no person shall remove such card without his permission.

REGULATIONS

Copy of an Order-in-Council Approved by The Honourable the Lieutenant-Governor, Dated the 31st day of August, A.D. 1928

Upon the recommendation of the Honourable the Minister of Health, the Committee of Council advise that the Superintendents of the Ontario Hospitals and the Medical Superintendents of Tuberculosis Sanatoria in the Province of Ontario, be appointed Sub-registrars, for the purpose of registering deaths that occur in said institutions, and issuing the burial permits with respect to same.

Certified,

C. F. Bulmer.

Clerk, Executive Council.

During the year the Department had the misfortune to lose by death two very highly valued members of the staff in the persons of Dr. Charles M. Anderson, Director of Laboratories for the Province of Ontario, and Dr. Joseph W. Hunt, Acting Director of the Division of Preventable Diseases for the Province.

Each of these officers of the Department in his respective field had rendered very valuable service in the promotion and advancement of the public health work in this Province. Their loss is very severely felt, both personally and professionally, in the Department.

Dr. A. L. McNabb has been appointed Director of Laboratories, and Dr. A. L. McKay, Epidemiologist of the Department, has taken on the work of Acting Director of the Division of Preventable Diseases, in addition to his work as Epidemiologist.

Dr. E. C. Beck has been appointed Bacteriologist in the main laboratory, and Dr. G. L. Sparks has been given leave of absence for the year, in order that he may take the D.P.H. course at the University of Toronto.

After a thorough investigation of the situation, it was decided that the Branch Laboratory located at Owen Sound was not giving sufficient service to warrant its continuance, and as a consequence, this Branch Laboratory was closed.

Dr. W. A. R. Michell, Director of the Owen Sound Branch, was transferred to the North Bay Branch to replace Dr. John Douglas, who was selected by the Federal Government to go overseas in connection with the medical examination of intending emigrants to Canada.

At the beginning of the year a thorough review of Provincial Laboratory Service was undertaken, with the result that a new basis of operation was effected for the carrying on of the Provincial Branch Laboratory at Sault Ste. Marie, and also of the Branch Laboratory at Peterborough, whereby the municipality in each case agreed to assume part of the financial responsibility involved in the maintenance of the laboratory and staff connected with it.

A very important activity undertaken by the Sanitary Engineering Branch was the inspection of the pasteurization equipment in use in various dairies throughout the Province. There is no question as to the value of pasteurization

in the production of safe milk, but it is essential that pasteurization be done efficiently, both as to equipment and technique. In some of the plants the inspectors found defects in installation which rendered the pasteurization of little effect. The correction of these defects has very materially improved the product.

The inspection of Tourist Camps and Highway Refreshment Booths, as carried on for the three previous years, was conducted again in 1928. Practically no improvement was found over the preceding year.

A considerable improvement was noted in municipal installations for waterworks and sewerage. Each year is showing a very decided increase in such installations. Each year municipalities appear to more fully appreciate the benefits that may be derived, both in health and comfort, from municipal expenditures along these lines. Approximately \$11,000,000.00 were spent by municipalities in this way during the year 1928.

The control of communicable diseases over the Province generally is still a major activity. Immunization against diphtheria, smallpox and scarlet fever is going ahead satisfactorily, and a greater amount of interest in these activities amongst the Medical Profession generally is being evidenced now than has been the case heretofore.

The Travelling Tuberculosis Clinic examined approximately 1,700 cases during the year. One of the outstanding results of the work of this clinic is that chest infections are being discovered earlier, and are receiving earlier treatment. The education and instruction that this clinic promotes is leading to better care and control of contacts, a shorter period of disability for the infected, a lowering of the expense for treatment of the individual case and a better chance to the individual case for ultimate complete recovery.

The Epidemiologist of the Department went to Winnipeg in November to study the progress and methods of control of the epidemic of poliomyelitis, which Manitoba had the misfortune to have during the autumn of 1928. Dr. McKay brought back with him a full report of the whole situation, which has been made use of in the Department for the development of a programme for dealing with any outbreak of infantile paralysis that may occur in this Province.

During December we experienced the epidemic of influenza that was wide-spread throughout Canada. The outbreak was not of long duration, nor was it of the same virulence as the outbreak that occurred ten years ago. At the same time, a considerable number of persons succumbed to the infection and its complications.

From the current year's reports of the Registrar-General, one might note that the number of certificates issued for the purpose of immigration are not so large as they have been in previous years. This may probably be accounted for by the fact that the activity relative to natural resources of this Province is holding our people at home.

An investigation into the subject of ventilation has occupied the major portion of the attention of the Industrial Hygiene Division. During the past year several interim reports have been made, but the investigation is still far from complete.

A very satisfactory contact with industry has been made by this Division, to the extent that industry is now inviting this Department of the Government to assist them in solving the many and varied problems that arise in connection with the health of the worker, as it may be influenced by his occupation.

Exhibit work and public health education is being vigorously promoted. The exhibit at Toronto Exhibition—August-September, 1928—was most favourably commented upon by visitors from all parts of the world, and since the exhibition numerous requests have been received by the Department for information on the various activities illustrated in the exhibit. A feature was made of portable exhibits for school fairs and small rural fairs, and it is proposed this coming year to extend this feature very considerably, as it is felt that this is a valuable and popular method of public instruction in matters of health.

The Department distributed during the year biological products and insulin at a net cost of \$149,592.50. If the old method of each individual supplying for himself out of his own pocket the funds for the products so distributed were still in use, this figure could very reasonably be multiplied by five, in which case it would exceed the total budget of the Department of Health for the carrying on of the whole health work of the Province.

A detailed statement of the work of the Department submitted by the heads of the various branches follows.

DIVISION OF PREVENTABLE DISEASES

R. R. McClenahan, B.A., M.B., D.P.H., Director A. L. McKay, B.A., M.B., D.P.H., Acting Director

I have the honour to submit the following report of the activities of the Division of Preventable Diseases for the year ending December 31st, 1928.

I. Communicable Disease Control

Typhoid Fever.—The incidence of typhoid fever in the year 1928 has been nearly 20 per cent. lower than for 1927 and below the average for the cases reported for the six previous years. Two outbreaks were investigated, one in the town of Dundas, consisting of thirteen cases, which was milk-borne in origin, and another of fourteen cases in the Frankford area, which was considered to be water-borne. The months of August, September and October were the peak months of the year, as previously. In collaboration with the laboratories a survey for typhoid carrier incidence amongst recovered cases of typhoid fever was carried out at Kingsville and Chatham. Valuable information was obtained as to the percentage of recovered cases remaining as carriers, and it gave also an opportunity of comparing different methods of collection of specimens by the laboratory, and the adoption of the most successful method for routine use.

Undulant (Malta) Fever.—The recognition of this infection in man was first reported in Ontario early in this year. The adoption by the laboratories of the blood agglutination and blood culture for this infection on July 1 has brought to light fourteen of these cases. Each of these cases was investigated by this Division with the co-operation of the attending physicians for possible sources of infection. In ten of these cases it was found that the infection was received from the ingestion of raw infected milk.

Smallpox.—During the first three months of the year the incidence of smallpox was double that of the average for the previous six years. This was the termination of a marked increase in cases reported that commenced in May, 1927. Since April, 1928, the incidence has been below the average for the previous six years. This previous outbreak resulted in many submitting to vaccination or revaccination and should materially decrease the prevalence of the disease in those districts where vaccination has been generally carried out.

Diphtheria.—Diphtheria incidence has run parallel with the average incidence of the previous six years, except for the last three months of the year when there was a slight decrease in the number of cases reported. Continued interest has been maintained in the administration of the toxoid preventive treatment with greater emphasis on the importance of immunizing the pre-school child. Toxoid is now distributed with three doses constituting one treatment. It has been found that this procedure results in a much higher percentage of those rendered immune.

Scarlet Fever.—Scarlet fever has been slightly below the average incidence throughout the year. Scarlet fever antitoxin for treatment and temporary prophylaxis continues to be used with excellent results. The scarlet fever toxin for active immunization is used particularly in groups where the results may be frequently checked by use of the Dick Test.

Whooping Cough.—Whooping cough remains one of the major problems of communicable disease control. The incidence throughout the whole year has been above the average for the previous six years with a particular increase during August and September.

Poliomyelitis.—An increase of cases reported for the year over the previous year was recorded, but there was no evidence of the disease assuming epidemic proportions. There was an increase of cases in the area west of the Great Lakes. This was probably due to the disease assuming epidemic proportions in the adjacent Province. An epidemiological investigation of these cases was carried out and also a member of the Division staff visited Winnipeg in October to study the methods used by the Provincial and City Health Departments in the control of the disease.

Rabies.—Rabies has been prevalent in several areas within the Province. The eastern counties, Kingston area and the Western Peninsula, all reported a marked increase in this disease amongst animals. One death occurred—in the Windsor area; the child had been bitten by a rabid cat but did not receive antirabic treatment. There were distributed 450 treatments for those bitten by rabid or suspected rabid animals.

COMMUNICABLE DISEASES REPORTED FOR THE PROVINCE BY LOCAL BOARDS OF HEALTH FOR THE YEAR 1928

COMPARATIVE TABLE 1927 1928 Deaths Cases Deaths Diseases Cases 25 39 Cerebro Spinal Meningitis..... 42 31 0 22 0 36 Chancroid..... 2 0 8,618 8,401 0 Conjunctivitis Acute Inf..... 21 0 2,918 205 Diphtheria..... 148 3,346 Dysentry..... 15 5 22 5 24 18 12 16 Encephalitis..... 2.062 () 1,758 0 Gonorrhoea 179 156 255 4,730 Influenza.... 0 German measles.... 242 0 4,214 0 0 Malignant oedema..... 0 0 Malta fever (undulant)..... 14 0 13,405 14 19 5,035 0 160 1,488 312 1,716 Pneumonia 51 15 85 Poliomyelitis..... 5 8 0 Peurperal septicaemia....... 1 1 Rabies.... 6,289 4,508 Scarlet fever..... 35 32 1 Septic sore throat..... 109 4 2 1.523 Smallpox.... 864 1 6 Syphilis..... 1,440 3 2 0 Tetanus..... 0 0 0 Trachoma.... 732 1,534 1.551 708 Tuberculosis..... 35 867 44 Typhoid..... 3,526 29 48 Whooping cough..... 4,150 3 13 Goitre

II. VENEREAL DISEASE CONTROL

(1) Distribution of V.D. Subblises	· ·		
(1) Distribution of V.D. Supplies:			
(a) Diarsenol— Size	No. of Ampoules	Cost	
0.2		\$112	
0.3	0.00	186	
0.4	4 4 2 5	356	75
0.6	1 000	594	00
2.0	. 3,247	2,357	84
		\$3,608	03
(b) Mercury Salicylate—	N: 6 A 1	C	
Size	No. of Ampoules	Cost \$429	
1 gr		207	
3 g1	. 1,555	207	
		\$636	92
(c) Bismuth Hydrate—			
Size	No. of Ampoules	Cost	
2 gr	. 9,669	\$460	00
10 gr	. 1,622	249	75
		2700	
(1) (1)		\$709	15
(d) Silver Nitrate—	29 211	\$1.106	20
No. of Ampoules	. 38,214	\$1,106	20
(e) Sodium Hydroxide—			
No. of ounces	. 2,526	2.5	26
110. of ounces,	. 2,020		
(f) Distilled Water—			
No. of ounces	. 28,806	244	84
(g) Intravenous Outfits	. 20	120	00
Total		\$6,449	00
TOtal		90,442	00
(2) Clinics:			
Number of clinics, 18.			
Situated at Toronto (6), Hamilton, Brantford, Lond	on, Windsor, Owen Sou	nd, Ottav	wa,
Fort William, Kitchener, St. Catharines, Kingsto	on, Peterborough, Sault	Ste. Ma	rie.
1. Number of cases treated		6,8	820
2. Number of new cases treated			164
3. Number of treatments		102,4	
4. Number of contacts and alleged sources of infection5. Average number of patients under treatment per mo	exammed		179 143
6. Number of visits made by the nurses			147
o. Ivaliber of visits made by the nurses		0,.	
4 C 1		6 1	0.20
1. Cases treated		0,6	820
0. 1111	Male Female		
Syphilis			
Gonorrhoea			
Double infection	130 100		
2. 27		2	
2. New cases			164
C 122	212070 2 07-100-0		
Syphilis			
Gonorrhoea			
Double infection			
Chancion,			
AT 1.11 1 1.6 4		4 0	10.1
New cases syphilis classified		1,2	201
n.:	Male Female		
Primary	117 39		
156 Secondary	157 165		
322	107		
Tertiary	425 298		
723			

New cases gonorrhoea classified			1,863
1. 1,049		Femal 228 116	e
3. 456		213	
New cases			3,464 2,588
Social histories taken	pitals, 280; De 80; contacts, 2	partment 29; police,	2,300
3. Number of treatments			102,413
of training of treatments,		Female	102,410
Syphilis			
Gonorrhoea		11,772	
4. Number of contacts and sources examined Positive for syphilis			1,179
Positive for gonorrhoea		. 258	
Negative		669	
Children treated			495
Old			347
New Treatments.			
	Male	Female	
Syphilis		1,506 1,532	
		,	
(3) Number of patients treated in hospitals where clin			
Syphilis	Male 503	Female 390	
Gonorrhoea	271	275	
Double infection			21,037
		Female	·
Syphilis		5,494 5,320	
Discharged from clinics			2,951
Apparently Cured— Syphilis		330	
Gonorrhoea			
Transferred— Syphilis		. 353	
Gonorrhoea			
Lost		1,295	
(4) V.D. Clinics in Penal Institutions—			
Number of institutions			5 654
1. Ivalider of cases freated in institution		Female	031
Syphilis		107	
Gonorrhoea	138	111	
2. Number of treatments given in institution			23,354
Syphilis	Male 3,343	Female 2,119	
Gonorrhoea	13,900	3,992	
(5) Comparative Table			
		w Cases	Treatments
1924 1925	5,163 6,573	2,285 2,889	75,784 98,845
1926	8,395	2,824	85,682
1927 1928	7,872 6,820	2,862 3,464	88,605 102,360

III. Tuberculosis

(1) The Travelling Diagnostic Clinic for disease of the lungs visited the following places: Smith's Falls, Brockville, Carleton Place, Napanee, Arnprior, Sault Ste. Marie, Oshawa, Kemptville, Prescott, Winchester, Chesterville, Alexandria, Port Arthur, Fort William, Massey, Blind River, Thessalon, Manitoulin, Gore Bay, Mindemoya, Little Current, Wiarton, Clinton, North Bay, Renfrew, Pembroke, Stratford, Owen Sound. In all, 1,632 cases were examined.

(2) Maintenance of patients in sanatoria from unorganized territory—	
Cost	64

IV. COST OF V.D. CONTROL

V.D. supplies distributed Treatments in clinics. Salaries to clinic staff Department clinics	58,617 50 20,500 00
Total cost Federal grant	\$85,866 50 32,425 93
Cost to Ontario	\$53,440 57

V. Cost of Biological Products and Insulin

Smallpox vaccine	Amount 180,122	Cost \$8,105 49
Diphtheria antitoxin	272,804 M units	
" syringes	7,397	1,479 40
" toxoid (for 1)	7,202	1,440 40
" (6 persons)	2,932	2,345 60
" (12 persons)	5,136	5.136 00
Schick test	2,277	455 40
Anti-meningococcic serum.	1,805	1,805 00
" (spinal outfits)	219	98 55
Tetanus antitoxin		10,753 55
" syringes	1,249	245 80
" spinal outfits	185	83 25
Scarlet fever antitoxin (2 cc)	7,787	3.114 80
" " " (15 cc)	7,147	16,580 75
" (syringes)	130	318 50
" (toxin)	3,393	1,017 90
" (toxin) (6)	1,505	1,505 00
Dick test outfits	3.289	657 80
Anti-rabic treatments		
Anti-rabic treatments	448	4,704 00
" syringes	42	525 00
Typhoid vaccine.	0,1200 00,	
Pertussis vaccine	80,200 cc.	
		\$93,820 35
Insulin, 12,579,300 units		51,317 20
Total	\$	145,137 55

VI. SOCIAL SERVICE

Outside places visited.	52
Chine visits	48
Lectures with films	57
Tittelidance	5,312
Meetings (no film)	12

COMMUNICABLE DISEASES REPORTED BY LOCAL BOARDS OF HEALTH FOR VEAR 1928

					0		0	0	_		_		_					_
	Throat	Deaths	4	55	2.3	2 0			0 0	2 1	0	0 0	1 0	10 1	00 4	32 1	181	
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		Deaths	}			707					169				1	!	<u> </u>	
	sdmulk	Cases	3,596	4.244	5,467	2,57	1,195	1,063	295	171	16	196	329	507	9,802	5,035	1.784	
		Deaths		-	_	-	0	-	-	-0	-0	-	0	-	0 19	10	10	
	Measles	Cases	33	-14	42	32	22	70	4	0	3	00	10	27	242	214	223	
	Сегиап	sase	.,	•	4		.,						-		2	4,21	3.2	
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	nod novioleto	Cases	1,141	939	1,026	541	547	1,043	398	14	12	411	810	1,492	8,618	8,401	7.787	
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	Chancroid	Cases	2	_	0	0	0	2	_	0	-	0	2	13	22	36	Ē	ı
		Deaths	0	0 2	0	0	9	0	0	0	0	0	0	0	10	10	18	
	Сопотгілоєв	Cases	142	107	331	115	113	166	129	152	269	185	96	257	,062	,758	539	
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	Syphilis		124	74	243	84	72	31	72	- 68	- 61	86	92	49	477	,440	256	
		Cases	-		2.	=		-			Ŧ	••		Ť	1,4	1,4	1,2	
	Рпециопіа	Deaths	88	192	244	183	58	991	89	24	75	69	92	257	716	488	169	
	Primary	34,000													-	-	2	
	Acute	Cases	25	38	47	14	20	22	Ŋ	15	9	10	18	92	312	160	0	
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	Influenza	Саяся	15	15	37	9	47	61	rV.	3	0	12		,528	,730	79	0	
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	Cerebro Spinal	Cases	2 3	2 3	2	2 2	7 5	6 4	24	2 1	3 0	2 2	5 0	4	2 31	9 25	7 23	
		Deaths	-0	0	-	0	-		0		7	-	0	-0	7 42	15 39	6 37	
	Poliomyelitis	Cases	7	0	2	3			3	3	27	23	16	4	85	511	12	
		Deaths	58	50	72	99	89	81	41	73	55	44	56	44	208	132	821	
	${\it sisoluoisdu} T$	cocpo	0.1	22	57	119	63	64	23	123	127	102	82	165	551	534	999,	
		Cases								1	-			-	1,5	1,5		
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	Whooping	Cases	342	333	422	268	292	310	218	430	490	250	335	460	,147	,526	629	
		Deaths]				0	7	3	0			0	0	4	24 4	19 3,	42 3.	
	Measles		,149	,599	299	21	2,003	403	903	265	87	85	200	565	88	405	420	
		Cases	1,1	1,5	2,2	2,021	2,0	2,4	9	2			7	2,5	10,1	13,4	18.4	
		Deaths	14	14	17	00	11	15	00	00	10	14	10	19	48	205	179	
	Diphtheria		25	7.1	35	102	80	16	55	57	38	87	10	60	1 00	46 2	8	
		Cases	32	2	23	3(2(21	15	1.5	23	28	21	40	2,91	3,34	2,81	
		Deaths	3	2	-	2	7	2	-	0	3		9	1	35	42	38	
	Scarlet Fever	Саѕеѕ	533	685	299	437	375	378	148	67	164	194	316	544	4,508	6,289	3 5,640 38 2,8	
-						0	0	0	0	-0					4,		15,	
-	Smallpox	Deaths		0	0 0		41 (7	18	2	1 0	23 0	16 0	16 0	4	3 2		
	-113	Cases	288	204	130	51	4	44	1		31	2	1	1	864	1,523	706	
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DIVISION OF INDUSTRIAL HYGIENE

I. G. CUNNINGHAM, M.B., Director

Medical services rendered to the industrial population from the standpoint of the peculiar needs of industry are increasing. Such services are not developing without conscious effort on the part of the employers, wage-earners and physicians to come together frequently and before medical emergencies arise.

While the problems of accidents and general sickness are first in importance. the attention of industry is frequently focussed on the need for organized medical service for prevention by some experience with the effects on workmen of one or other of the specific poisons incident to a process.

These facts emerge in the course of the attempt of the Division to further the application of knowledge now available for the prevention of disease and disability among this section of the population.

The number of enquiries from employers, employees, physicians and nurses regarding industrial hazards to health is constantly increasing. The number of plants, both small and large, instituting some measure of medical supervision, varying in scope from the provision of adequate first aid to the supervision of health generally, including attention to minor complaints of ill-health and initial and periodical physical examination, is also increasing.

Literature dealing with different aspects of the subject, both technical and non-technical, has been published this year.

- Development of Industrial Hygiene in Canada. R. M. Hutton, Journal of Industrial Hygiene.
 Scattered Findings from Recent Studies of Industrial and Community Sickness. R. M.
- Hutton.
- (3) Some Queries About Respiratory Diseases in Industry. R. M. Hutton, Journal of Industrial
- (4) Work on Ventilation in Ontario. R. M. Hutton.
 (5) Health Promotion in Conjunction with Safety. Dr. J. G. Cunningham.
 (6) Infection of Industrial Accidents is Costly. R. M. Hutton.
 (7) Health Hazards in the Electro-Plating Shop. Dr. J. G. Cunningham.

- (8) Clothes and Colds. R. M. Hutton.
 (9) Silicosis and Other Compensable Diseases. Dr. J. G. Cunningham.
 (10) Some Clinical and Pathological Observations on Silicosis in Ontario. Dr. A. R. Riddell.
- (11) A Study of Atmospheric Conditions in Two Ontario Public Schools. Dr. F. M. R. Bulmer and Mr. H. E. Rothwell.

School Children Entering Industry

A study was made of the physical and mental disabilities recorded on the school cards of three thousand children who left the public schools in Toronto in 1926 and 1927

There was provided by the school medical officer of Windsor, Ontario, a summary covering the same information among a group of 1,300 children of 14 and 16 years of age in the public and high schools and another group of 900 children leaving the technical school there.

A report has been published by the Toronto Health Department, summarizing the results of about 7,500 complete physical examinations of school children in the fourth grade (that is, about to leave public school), conducted in the first ten months of 1927.

The findings in these reports are not comparable in all details either among themselves or with similar reports from other countries.

However, in Great Britain, where for many years examinations of children entering industry up to 16 years of age have been conducted, about 1.7 per cent. are unconditionally rejected and another 2.7 per cent. are employed conditional upon the correction of certain defects. In so far as the meagre Ontario records are comparable, the more serious defects such as those of the circulatory system, pulmonary system and eyes are more prevalent among this group here than in Great Britain. This 5 per cent. of yearly recruits to industry no doubt have a considerable bearing on the numbers of accidents and illnesses occurring among young adult workers.

Some provision should be made for the physical examination of children leaving school to enter industry, conducted, in the light of suitability for the work for which the child has been chosen, by physicians familiar with industrial processes. These examinations should be paid for by the employer of this type of labour and the details should be worked out in close association with the

final school examination.

(a) Silicosis

A number of small groups of workers have been examined where exposure to silica dust was known to exist. To date, in no instance has silicosis in the ante-primary stage or later stage been found to exist except where there was exposure to silica as silicondioxide.

Among 34 brick and tile workers, 8 cotton carders, 26 workers in cement working, 69 grain-elevator men, all exposed to high dust content in the air (some of them for many years), there were present no cases of silicosis.

Among 100 miners, 97 granite cutters and a few grinders with natural abrasive wheels, there were a number of cases of silicosis.

Next to mining, the granite-cutting trade, as is appreciated by employer and employee alike, requires additional measures for the control of this condition. Among 97 granite cutters, all with 15 years' experience, there were 34 cases of silicosis in the ante-primary or later stage of the disease. As a result, there has been suggested compulsory initial and periodic physical examination of workers. At the same time, measures for the control of the dust have been improved.

(b) Lead Poisoning

Among those exposed to lead there have been a number of workmen examined from a great variety of processes, with small groups from among those spraying paint and those recovering the metal from scrap. As might be expected, the latter group presented evidences of lead absorption. Among 15 spray painters using a paint without lead content, the most constant abnormality found was the presence of an eosinophilia.

The medical arrangements for supervision of workers in storage battery industries are still in operation. The conditions of work in some of these plants are not such as to make it possible to prevent lead poisoning entirely. Experience elsewhere is that specific regulations regarding lead poisoning have been necessary to control the hazard. They may yet be necessary here.

(c) Arsenic

In the course of supervision by the plant physician of a group of workers exposed to arsenic trioxide, 125 examinations have been conducted by the Division. Improved conditions, with initial and periodic physical examinations, have been supplemented by the study by the plant chemists of the arsenic excretions in these workmen.

Employment under conditions of increased exposure to arsenic has been accompanied by an increased arsenic excretion in urine and increased manifestations of poisoning. Removal from exposure has been followed by marked reduction in the arsenic excretion in urine with signs of poisoning subsiding. Skin manifestations of poisoning have been the first to appear and the first to subside, except in the most severe cases where certain skin manifestations have persisted. Improvement has been accompanied by considerable gain in weight.

In attempting to control the hazard, the rise in arsenic excretion in urine has preceded the development of symptoms and signs so closely as to warrant removal from exposure when the "as" excretion rises to 1 mg. per litre of urine.

(d) CHROMIUM

The increasing use of chromium compounds in electro-plating has resulted in the fairly frequent occurrence of chrome ulcers which are persistent and painful. Recommendations for prevention have been made.

(e) SUGAR DERMATITIS

A number of cases of dermatitis have been investigated among women workers handling icing sugar in the manufacture of biscuits. Dr. A. R. Riddell has isolated an organism from lesions produced by this type of work which has not yet been definitely proved to be the determining factor.

MASKS

Some months ago Dr. F. M. R. Bulmer of the Division proposed the use of a positive pressure mask for protection of workmen against fumes and dust. Samples made here have proven to be effective, comfortable and inexpensive. A group of workers has used this mask under exposure to lead and silica dust with quite satisfactory results. It is, of course, practicable only where compressed air is available and if the few now in use are satisfactory after further trial, larger numbers will be made available for use, particularly where mechanical means of control of dust and fumes are impracticable or only partially effective.

VENTILATION

In January, 1928, was published "A Study of Atmospheric Conditions in Two Ontario Schools." This work has been continued in London, Ontario, where the co-operation of all officials has been most gratifying.

There have been some interesting observations made on the ventilation conditions produced with the type of ventilation equipment commonly in use in city schools in Ontairo. One important point is, that with equipment based on the supply of 30 cubic feet of air per pupil, per minute, the variations in the amount of air delivered from room to room are great, and when the supply delivered by the system is on the basis of 15 feet (cubic) per pupil, per minute, the variations here are also well marked, but variations in velocity of air, recorded with the Kata thermometer in different parts of both groups of rooms, are small.

FACTORY INSPECTION

A number of problems have been submitted by the Factory Inspection Branch of the Labour Department and the Industrial Accident Prevention Associations, mainly involving the chemical analysis, by Mr. H. E. Rothwell, Chemist of the Division, of substances considered to be hazardous to health, and the inspection of factory premises with the district factory inspector.

Analyses of this type, supplemented by clinical laboratory analyses, have also been necessary in the routine work of the Division. Among these have been 31 urine examinations for the presence of lead, the collections, estimations and analyses of many samples of fumes and dusts to which workmen are exposed, together with the microscopic examinations of upward of 500 blood smears.

Close co-operation has existed between this Division and the Tuberculosis Section of the Preventable Diseases Division in chest examinations arranged by the Industrial Division for the examination of industrial workers exposed to dusts and by the Tuberculosis Section for the examination of tuberculosis contacts.

CHIEF SANITARY INSPECTOR Alex. R. White

I have the honour to submit for your consideration the Twelfth Annual Report, showing work performed by your group of inspectors during the year 1928.

The year just closed has been one of steady progress. There have been no serious epidemics of communicable disease, although sporadic outbreaks of smallpox, scarlet fever and mumps occurred in the districts of Sudbury, Cochrane and at Hearst. No special trouble was occasioned, however, in bringing these matters under control for as stated in last year's report the combination of your inspectors, assisted by the industrial physician, with the excellent co-operation of the industries affected, generally succeeds in quickly controlling the situation.

There were no new reforms introduced during the year although special efforts were made to further develop supervision by the physician from the standpoint of disability reduction. We have been specially anxious in this regard since our popularity with industry would seem to, in large measure, depend on our success. Indeed on numerous occasions it has been necessary to address meetings at the invitation of company management in an effort to properly focus the contributory causes of waste arising out of lost time due to sickness and accident.

The widespread epidemic of influenza so prevalent in populated centres did not, for some unexplained reason, invade our northern industrial regions. Indeed the disease was most conspicuous by its absence. Each of our inspectors made a point of this and attribute as one of the reasons the good ventilation provided. Our Western Inspector states that in a group of lumber camps situated near International Falls, Minnesota, hundreds of men were down with the disease and that some twelve deaths resulted, while on the Ontario side with only the District of Rainy River between, practically no cases resulted among the fifteen hundred men employed at the same work. This is extremely difficult to understand. A canvass of the physicians took place, however, and they cited as their opinion the small turnover of men, excellent hygienic surroundings, the single-width bed which reduces contact, and the rapid change of air by good ventilation. The employer remembers the previous visitation of this disease among his camps and the terrific cost occasioned thereby with the resultant high mortality.

and he has been most helpful to the Department by his many suggestions and assistance given and believes that the new type of sanitary camp introduced has contributed in no small measure to the present happy situation.

There has been a slight falling off in the number of camps in operation and also in men employed in the woods this year. This is largely due to the un-

settled condition of the pulp and paper market.

The mills in connection with this industry have been running on half production and in addition have been making large purchases of wood from settlers which has reduced the camp total very considerably.

The number of companies operating was 105; total camps used 425, employ-

ing 17,047 men, which is somewhat short of our last year's total of 24,516.

In addition, of course, we have the mining industry which is growing by leaps and bounds and has increased almost one-third over last year.

There are now in the unorganized territories:

152	Mining camps	employing	8,430	men
117	Construction and road camps	"	8,110	66
56	Saw mills and paper mills	"	5,340	
9	Fishing stations	66	775	66
2	Stone quarries	"	250	66

and also, of course, the very numerous railway extra gang camps which are scattered all over the north. We have, therefore, a responsibility for approxi-

mately 40,000 men employed in the 761 camps in our industrial north.

All of this work is, of course, covered by contract between the employer and a physician, and in connection therewith the physicians have forwarded to the Department 753 monthly reports and submitted 209 sketches of new camps. Added to this are the inspections made by your staff of sanitary inspectors which inspections number 740, which make a grand total for the year of 1,493 inspections made.

In addition to the above we have also rendered such service as was necessary to the host of small towns throughout the North, very often at the request of the local board of health or its officials.

Communicable Diseases

Our case record from communicable disease is slightly less than that of last year when 44 cases and 4 deaths were reported. This year we have:

Typhoid fever Smallpox Scarlet fever Diphtheria Mumps. Chickenpox	5 cases 26 " 1 case 2 cases 5 " 1 case	0 deaths 0 " 0 " 0 " 0 "
Total	40 cases	0 deaths

As previously mentioned the outbreaks were of a sporadic nature and occasioned us no particular difficulty in bringing them under control.

The placing of an inspector in the Renfrew area has done much to solve many of our troubles along the railway from Ottawa to Parry Sound, and for the first time within my knowledge has provided a service with which to deal with the many complaints which so frequently arise from men employed in camps in this territory, although organized. It appears to me at times that perhaps all camps, whether in organized or unorganized territories, should immediately come under our regulations, at least for the sake of uniformity. There is a vast difference between camps in these two areas, and while ordinarily

one might expect that camps in settled districts would be much above the average this is not generally the case and is due in large measure to lack of attention by the officials of the local board of health who object to the great distances to be travelled to reach the work, and in addition the lack of a standard from which to build. Again the operator in settled territory has been given an advantage, in cost of construction, over the employer in the unorganized districts, since in the one case any kind of housing may suffice, while in the other a most exacting standard must be conformed to. I believe, therefore, for these reasons a real service to the men employed in camps would accrue by placing all camps wherever situated under the arrangements provided by our regulations.

As in other years we have also paid a great deal of attention to the sanitation of summer resorts and we are in a position to recommend the many scattered

throughout the north as safe places to spend a holiday.

Our Mr. Smith has assisted the district officer, for the first time, to complete a survey of the Rideau Lakes District, and while the time spent in this work could ill be spared, yet it has assisted in making the situation at these summer camps known, and provision made to deal with the many nuisances discovered, some of which could easily have become serious had not prompt action been taken.

It is also my belief that if the mining industry continues to expand, particularly in the Red Lake and Woman Lake Districts, a new appointment may require to be made. The district mentioned is 150 miles from the railroad and means the absence of six weeks from office if served by our Fort William inspector who already has too much work to attend to, particularly since he is also acting as District Officer in the absence of Dr. Sparks, which additional service I consider a great compliment to our group of inspectors, and demonstrates what may be accomplished by inspectors in the Province, generally speaking, if proper opportunity and instruction are provided.

There have been several Police Court actions during the year. These, however, were undertaken after all other means had failed. I am glad, however, to say that such cases are becoming rare and may eventually become unnecessary.

Opportunities to address public meetings on health subjects have been embraced whenever possible and many articles have been written for publication which I believe tends to further the ideals of our work and broaden our sphere of usefulness as well as assisting the public to better understand the value of our efforts.

I also wish at this time to pay tribute to our staff of inspectors and to the Division of Industrial Hygiene generally as well as to the Department as a whole who have assisted in making this report possible, and for the friendly and co-operative feeling shown us during the year.

DIVISION OF CHILD HYGIENE AND PUBLIC HEALTH NURSING

JOHN T. PHAIR, M.B., D.P.H., Director

The activities of the Division are as diversified as its name implies, extending all the way from an interest in the satisfactory establishment of pre-natal care for the expectant mother to the initiation of home-nursing classes in rural communities. The apparent close association that exists between health work through the earlier age groups and public health nursing in all its phases link these two essential public health activities in a more or less indissoluble bond; this is the reason for the unity of administration.

The major responsibilities of the Division have received the consideration their importance warrants during 1928. There has been noted a rather material lessening in the demand for diagnostic clinics for younger children; this, however, is to be expected, in view of the greater interest now given by the general practitioner to the subject of infant and child hygiene. School health supervision continues to take up much of the time of the medical staff. The plan whereby a special course of lectures was given by the staff to the students in the Normal Training Schools in the Province was this year put into effect; nine lectures in all being given, dealing with the control of communicable disease, physical defects commonly found among children and oral hygiene; Dr. Conboy, Director of Dental Hygiene, giving the last-mentioned lectures. The lectures given were of apparent present interest to the students, and both Dr. Conboy and myself received every consideration and help from the teaching staff in the various centres.

There has been a continued interest in many of the smaller centres in the question of the permanent local establishment of school health service. Difficulties of finance and transportation make the rapid extension of this desirable type of health work difficult. Our inability to supply nurses with the necessary special academic qualifications is equally disturbing. While the last-mentioned difficulty may be possible of early solution, the others may necessitate some material readjustment of our present preconceived ideas of this service. With the hope in mind that it would be possible to learn something at first hand of the difficulties associated with the permanent operation of a rural programme, seven demonstration units were established throughout Southern Ontario early in the fall and will be operated during the winter months by members of the nursing and medical staff of the Division. It is hoped that the results of this study will be available towards the end of the coming year.

The co-ordination of the school health service with the other public health activities carried on by the local Board of Health occupies the serious attention of the health and educational authorities in many of the larger urban centres. As the result of our present experience, it would seem that such co-ordination is highly desirable in such centres as are operating a worthwhile community health programme. The active co-operation of the entire local educational machinery is so essential, however, to the conduct of a satisfactory service, that unless this is assured, the transfer is of doubtful value.

We note with regret the loss of several valued members of the nursing staff; this, however, is inevitable, and the choice of these individuals by other organizations for positions of importance and trust is a compliment to the staff of this Division.

The nursing staff have completed in many parts of Northern and North-western Ontario their experimental period of service, and it is hoped that following their withdrawal the districts previously served will be so seized with the value of the work of which they are now deprived that they will of their own volition inaugurate a local service.

Much of the work done by the staff is difficult of computation; the following

figures, however, give some conception of the activities of the Division:

The staff operating in the more sparsely settled portions of the Province made routine physical inspections of some 37,859 children; made 32,034 home visits—2,821 of these visits were for the purpose of discussing infant care with interested mothers; 4,862 re pre-school age children; 9,766 dealt with matters pertaining to the health of the school age group, while the balance were associated with other age groups.

DIVISION OF SANITARY ENGINEERING

A. E. BERRY, M.A. Sc., C.E., Ph.D., Director

I have the honour to submit herewith a resume of the work of the Sanitary

Engineering Division for the year 1928.

The past year has been a particularly active one in the field of waterworks and sewerage. The Division has assisted in the development of such projects wherever conditions were felt to warrant action. The works undertaken during the year, as well as those planned for the immediate future, comprise new systems and extensions to existing works. Much interest has been shown in the smaller centres, and it is felt that these facilities will be more rapidly extended to the rural areas than in the past. The attached article on waterworks and sewerage developments contains the details of the various projects.

OPERATION OF WATERWORKS AND SEWERAGE PLANTS

Engineers of the Division have continued to make periodic examinations of water treatment plants throughout the Province. This work is of great assistance to the operators of these plants, and to the protection of the health of the water consumers. A very considerable number of difficulties or faults in operation are found by the inspections. The Department has continued to supply, free of charge, ortho-tolidin solution and colour standards for use in the adjustment of chlorination dosages. This has simplified water chlorination tremendously, and the large number of machines now in operation in the Province, most of which are not in duplicate, calls for the use of every means which will facilitate safe operation.

The operation of some waterworks plants seems to indicate carelessness on the part of the men in charge. It has been very difficult, in some places, to have operators realize the importance of careful and continuous water treatment. In other cases lack of adequate training has been a decided handicap. To overcome these conditions two measures seem necessary: (1) Provision of facilities whereby operators of such plants will have an opportunity to improve their knowledge of the fundamental principles and methods necessary for successful operation. (2) Introduction of some licensing system whereby every operator will be required to have an uncancelled license to operate the plant; such licenses to be subject to cancellation for carelessness or lack of the requisite knowledge.

Efficient operation of both waterworks and sewerage systems are necessary not only as a public health protection but to ensure that the plants will produce adequate results in respect to cost, service and safety of product. Waterworks and sewerage systems entail very heavy capital expenditures and maintenance charges. Such expenditures should justify the best operation and the employment of skilled personnel.

WATER CHLORINATION INSTALLATIONS

New chlorination plants continue to be installed, and the number of water supplies not fully protected to decrease. Primary installations were made last year at Arnprior, Burwash, Keewatin, Picton, Swastika and Thistletown. Replacements or additions were made at Belleville, Brockville, Fisherville

Experimental Farm, Gananoque, Hanover, Kenora, London, Niagara Falls, Peterborough, Port Colborne, Prescott, Rockland, Scarborough Bluffs, Toronto, Walkerville, Weston and Windsor. Over 75 per cent. of all water used for domestic purposes is now chlorinated.

FIRE SUPPLIES

A number of waterworks systems in the Province have for years been regarded for fire purposes only and not for domestic use. Nevertheless in some cases these distribution systems supply private homes and public buildings, such as restaurants, hotels, etc. Unless the water is exceedingly unpalatable there is a tendency for general use to be made of it even in the private homes. It is also very frequently available in hotels and public buildings where transients are not familiar with its qualities. This is a very dangerous practice, and calls for the elimination of these polluted sources of supply as speedily as possible. In some cases the difficulties of such a programme are very great and some delay will be inevitable. During the last year three of these supplies have been improved, viz., Picton, Campbellford and Strathroy. The remaining fire supplies are Blyth, Bothwell, Caledonia, Campbellford, Chesterville, Clarksburg, Dresden, Exeter, Lucknow, Paisley, Streetsville, Teeswater, Thamesville, Tilbury, Uxbridge, Victoria Harbour.

SANITARY SURVEYS

During the year sanitary surveys were made in the following municipalities:

Ailsa Craig	Both well	Huttonville	Pt. Edward	Watford
Alvinston	Courtright	Lucan	Springfield	Westboro
Arkona	Dresden	Oil Springs	Thedford	Wyoming
Aylmer	Fisherville	Parkhill	Tillsonburg	
Bolton	Hearst	Petrolia	Vankleek Hill	

This information has proven to be very useful in pointing out the dangers of inadequate sanitation in municipalities and has been a very great inducement to the installation of waterworks and sewerage systems. The total number of municipalities surveyed to date is 225.

RECREATIONAL SANITATION

Tourist camps and refreshment booths received the usual attention during the tourist season. The policy of the Department was continued whereby inspections were made of all camps and refreshment booths. No licensing was attempted, but where the services offered met the standards of the Department certificates of approval with conspicuous banners were awarded. These have materially aided the business of the approved camps, and have created for the travelling public at least some safe services. Unfortunately only a small portion of the total number of these booths and camps have been approved. Unless competition plays a part the tendency is for the operator to proceed according to his own methods. During the year approvals were issued to 93 camps, out of a total of 478 examined. Approvals were also issued to 138 refreshment booths, out of 1,025 examined. Lists of approved camps and booths are attached.

Typhoid Fever

No serious typhoid fever outbreaks were experienced in the Province during the year. Small epidemics were recorded at Dundas and Frankford. The former comprised some 16 cases, and was attributed to a milk supply, the control of which is not directly within the jurisdiction of this Department. At Frankford 15 cases were reported following a community banquet: All of the cases had been present on this occasion. Under such conditions the specific source of the infection is difficult to determine. Water from a nearby private well was regarded as a likely cause of the outbreak. A number of cases without any apparent single focus of infection developed in Timmins during the autumn. These were so scattered that their origin might possibly be attributed to the spread of carriers from the Cochrane epidemic. Such sporadic cases are almost certain to result until more control can be exercised over the "carrier." The number of deaths reported from typhoid fever during the year was 78. This is 31 less than the previous year, and represents a death rate of 2.4 per 100,000 population.

MILK CONTROL

Examination of milk pasteurizing plants was continued from the previous year, and the work completed except for a few isolated plants. In all, 112 plants were examined, and detailed information secured concerning the equipment and the methods of operation. The results showed conclusively that there is a very urgent demand for some central supervision over these plants, in order that the milk which is labelled "pasteurized" shall stand for what health officials expect it to signify, and be entirely safe for human consumption without any material change in food value or taste. The great majority of the plants studied required alteration to bring them up to a satisfactory standard. The defects which have appeared in these plants are not, in general, due to the owners or operators, but due to the sale of improper machinery, and a lack of knowledge as to what is the best practice.

WATER AND SEWERAGE CERTIFICATES ISSUED

Certificates for waterworks and sewerage installations and extensions issued during the year represent an expenditure of \$10,971,830.14.

WATERWORKS AND SEWERAGE INSTALLATIONS

The initiation of waterworks and sewerage programmes may be said to be dependent in general upon two factors: (1) The financial condition of the times, (2) the demand of the public for modern utilities. When financial conditions are unfavourable, as during the post-war period, municipal construction programmes are inclined to be curtailed to the utmost, and only the most urgent work is undertaken. The return of more prosperous times invariably creates, on the part of the public, a more incessant demand for higher standards of living and better services for the home.

The past year has witnessed tremendous building activities—considerably greater than in any previous year. Waterworks and sewerage programmes have kept pace with other construction. More activity has been shown in this field during the past year than in any other year since before the war. That this

increase will at least be maintained this year is indicated by the large number of works already planned. It is apparent that these installations have been influenced by favourable financial conditions, but it is also encouraging to note the increasing demand for such facilities in the smaller centres. Waterworks and sewers are now viewed favourably in municipalities where the population is actually decreasing and where such expenditures in the past would have been strongly opposed. Improved methods of transportation with greater mingling of population should tend to increase the demand for modern conveniences in the smaller centres. In this programme engineers and health officials will have an opportunity to be of signal service to the public, and to materially improve the sanitary conditions of environment and to protect the health of communities.

Waterworks Undertaken in 1928

In the waterworks field a number of new projects were undertaken last year. Complete new systems were installed at Glencoe, Blind River and Swastika. The latter involved filtration and chlorination of a surface supply. In addition to these, the town of Picton undertook an expenditure of \$50,000 for a new intake, pumping station, filtration and chlorination. Strathroy developed an additional source of supply from deep wells, and made the system available for the first time for all domestic purposes.

WATER EXTENSIONS, 1928

Considerable sums were spent during the past year for waterworks extensions in several municipalities: Hamilton proceeded on an expenditure of \$182,000 to extend mains to the Barton Township area recently annexed by the city. The city also undertook a number of extensions to their distribution system involving expenditures of considerable amounts. Main extensions were also made at Toronto and adjoining townships, London, Windsor and Essex Border Municipalities, Kitchener, Oshawa, Port Arthur, Fort William, Welland, and others.

DEEP WELL WATER SUPPLIES

A marked increase has been noted recently in the use of deep wells as sources of water supply. This might be attributed either to an appreciation of the knowledge that such sources are feasible and particularly when a guarantee can be secured for the required quantity of water; or to the installation of supplies for inland municipalities where the choice of sources is limited. Successful installations were made last year at Brampton to replace an objectionable lake supply containing an abnormal quantity of algae; at Palmerston, Glencoe, Blind River, Strathroy, and Blenheim. Consideration will be given this year for similar supplies in Wheatley, Weston, Vankleek Hill, Capreol, Dresden, Lucknow, Exeter, Courtright, Harrow, Petrolia, Ayr, Alexandria, Alvinston, and others.

WATER TREATMENT, 1928

No outstanding water filtration installations were made last year although some extensions and smaller systems were constructed. Scarboro Township increased the filtering capacity and clear-water storage of the existing plant, and the Town of Arnprior added increased filtering capacity as well as a new intake, pump well, and pumping equipment. A small filter plant was built at Swastika for domestic supply only and Picton included filters in the treatment of a new source of supply. A filtration plant has also been completed in the Township of Thorold. All these, except Scarboro, are pressure mechanical filters. The latter is a gravity plant.

In water chlorination the number of installations continues to increase. During the past year new machines were purchased for 25 municipalities and institutions, six of which were primary installations. All of these were liquid

chlorination units.

PROPOSED WATER INSTALLATIONS

Several new waterworks systems and extensions to existing works have already been planned for construction during the present year. The Village of Vankleek Hill is preparing to install a new system at an expenditure in excess of 875,000. The Village of Wheatley has voted favourably for a municipal system, and has been engaged up to the present in endeavouring to locate a suitable underground water supply. Capreol has also voted in favour of a waterworks system. The Police Village of Westboro and adjoining townsites in the vicinity of Ottawa have under consideration the installation of waterworks in certain defined areas of the township. Waterworks systems are also contemplated in the following municipalities: Alvinston, Harrow, Caledonia, Ayr, Cooksville, Hearst and Tweed.

Waterworks extensions involving large expenditures have been endorsed by the electors at North Bay and Sarnia. The former plans to spend approximately \$300,000 for a new intake, pump house, and equipment, feeder mains and improvements to the reservoir. The City of Sarnia has a programme involving \$175,000 for supply mains. Hamilton electors voted for an expenditure of nearly \$400,000 towards improvements to their supply works. The Town of Campbellford is faced with the problem of extensive alterations in respect to the source of supply hitherto regarded for fire purposes only. Studies have been made in respect to a new source of supply for the townsite of Kirkland Lake.

PROPOSED WATER TREATMENT WORKS

The present year should see much progress in water treatment projects. Approval of the electors has been secured for gravity mechanical filtration plants at Ottawa and Niagara Falls involving an expenditure in excess of one and three-quarters millions. Consideration has also been given to the construction of a filtration plant at Belleville. Work on this should proceed at an early date. The City of Brantford is preparing to vote on a similar project in the near future. Construction on the duplicate waterworks system for the City of Toronto, including a filtration plant, is due to proceed this year. The Town of Ingersoll has also under consideration the advisability of proceeding with certain changes in the supply work. The construction of these various plants point to an outstanding year in water treatment installations.

EXISTING WATERWORKS SYSTEMS IN ONTARIO

The waterworks systems of the Province at the end of 1928 comprised a total of 271 of which 52 were deep-well supplies; 70 river supplies; 53 lake supplies, and 38 springs. The number of filtration plants totalled 48, of which 6

were slow sand; 26 pressure mechanical; 16 gravity mechanical. Chlorination is now almost universal practice with mechanical filters and surface supplies. The total number of supplies so treated is 114. This number comprises over 75 per cent. of the total water supplied for domestic purposes.

SEWERAGE INSTALLATIONS

Sewerage programmes, during the past year, have shown even more rapid progress than waterworks installations. This may be attributed to an undue postponement of such projects in the past, even more so than waterworks. The advent of the present satisfactory building conditions tends to create enlarged activities in this field. This activity may also result from the exertion of pressure upon offending municipalities with the object of protecting the streams and waterways of the Province. In conjunction with this is a desire for modern conveniences in the home, more pronounced than at any previous period.

A considerable number of sewerage installations were undertaken last year in the Province. New and complete systems were begun at Orangeville, Blind River, Port Colborne, Scarboro Township, North York Township (Armour Heights) and Swastika. Large extensions were also carried out at Toronto, York Township, Forest Hill, Oshawa, Hamilton, Windsor, and Essex Border Municipalities, London, Guelph, Kitchener, St. Catharines, Kirkland Lake, and others.

SEWAGE TREATMENT IN 1928

Extensive activity in sewage treatment has appeared during the past year both in the number of projects begun and the number planned for an early start. Construction on the North Toronto plant has continued throughout the year, and this will no doubt be put into service in the near future. A new one million gallon plant of the activated sludge type has been undertaken at Scarboro. Smaller plants of similar type have been started at Orangeville, Palmerston, and two at Port Colborne. Small units have also been built at Armour Heights (North York) and the Sick Children's Hospital at Thistletown. All the above works except Scarboro Township are to serve small populations—an encouraging indication of the interest manifest in the smaller centres.

SEWERAGE PROPOSALS FOR 1929

A number of new sewerage systems have been under consideration during the past year, and work on these will no doubt proceed at an early date. Swansea has voted in favour of a system involving an expenditure of \$125,000. Vankleek Hill has considered the construction of sewers in conjunction with their waterworks programme. Capreol has voted favourably on a sewerage system involving an expenditure, with the waterworks, of \$150,000. A new system has been planned for the Town of Hanover, but as yet authorization to proceed has not been given. The Township of Scarboro is in the midst of a large sewerage programme, and the Township of Etobicoke is planning to construct sewers in parts of the township. The Town of Weston proposes to proceed at an early date with the construction of trunk and relief sewers at a cost of \$100,000. Alterations to the present system at North Bay will be required in the near future. New sewerage schemes have also been given some thought at Aurora, Alliston, Milton, Essex, Westboro, St. Marys, Port Stanley, Paris, Hearst, and the Grand Marais district adjoining Windsor.

SEWAGE TREATMENT PROPOSALS

The past year has been productive of much study and consideration of new disposal plants and extensions which will be undertaken in the near future. An activated sludge plant will be installed at Swansea. The installation of sewers in Etobicoke Township will also require a disposal plant of the same type. Both Oshawa and Kitchener have secured information relative to the construction of new disposal works. London is faced with the construction of additional works in the immediate future. Studies of the Grand Marais drainage situation would seem to point to the development of new disposal plants in that area in the near future. The City of Hamilton has already started on a large sewage treatment project. New plants may also be anticipated for Newmarket, Mount Forest, Milton, Vankleek Hill, North Bay.

Extensions or alterations to existing sewage disposal plants are being considered for the following: Timmins, York Township, Mimico, Peterborough, Stratford, Guelph, and East York.

ONTARIO SEWERAGE SYSTEMS

The existing sewerage systems of the Province include both separate and combined sewers. It is apparent that local conditions have played an important part in the choice of type. Where storm water can be conveniently discharged and where treatment works are required, the separate system has been generally favoured. In the treatment of sewage, the activated sludge system of disposal continues to be employed in the Province. There are now twenty-three plants either completed or under construction. This is more than twice the number of all other complete treatment plants now in operation. These activated sludge plants vary in capacity from 250,000 to 5,000,000 gallons per day, and produce highly satisfactory effluents.

CERTIFICATES ISSUED RE WATERMAIN EXTENSIONS, PURIFICATION, ETC., FOR THE YEAR 1928

Municipality	No. of Certificates Issued	Extensions	Purification	New
Arnprior Aurora Blenheim Blind River Bowmanville Brampton Bridgeburg Crowland Township Crystal Beach East York Township Elmvale Etobicoke Township Fonthill Ford City Forest Hill Fort Erie Fort Frances Fort William Glencoe Hamilton Hanover Kirkland Lake	1 1	2,938 60 40,000 00 5,622 48 1,368 00 7,938 00 34,192 81 3,800 00 17,290 00 1,937 00 13,932 24 54,721 26 6,780 00 22,747 00 2,032 61 	\$45,000 00	\$130,326 66 \$5,000 00

CERTIFICATES ISSUED RE WATERMAIN EXTENSIONS, PURIFICATION, ETC., FOR THE YEAR 1928—Continued

Municipality	No. of Certificates Issued	Extensions	Purification	New
Kitchener LaSalle Leamington London Maidstone Township Mount Forest Midland Niagara Falls North York Township Oshawa Palmerston Pembroke Peterborough Picton Port Colborne Riverside St. Catharines Sandwich Sandwich East Sandwich West Scarboro Township Sarnia Strathroy Sudbury Swastika Tecumseh Thorold Township Timmins Toronto Vankleek Hill Waterloo Welland Westminster Township Weston Windsor York Township	3 2 1 4 1 1 2 2 5 3 1 1 1 1 3 1 4 2 8 3 1 1 6 1 2 1 1 6 1 1 1 1 1 1 1 1 1 1 1 1	\$14,553 20 14,330 32 9,900 00 12,558 00 6,090 00 4,503 69 22,500 00 7,686 95 51,536 50 45,460 40 15,000 00 3,429 60 5,682 29 225,000 00 5,040 00 8,155 00 23,274 02 17,320 00 63,633 26 100,154 00 175,000 00 40,624 04 25,322 43 41,933 25 9,462 32 3,047 80 151,890 76	\$450,000 00	\$76,600 00 6,918 00
Totals	157	\$2,383,417 49	\$556,910 25	\$298,844 66

CERTIFICATES ISSUED RE SEWER EXTENSION FOR THE YEAR 1928

Municipality	No. of Certificates Issued	Extensions	Disposal	New
Amherstburg	3	\$25,483 00		
Barrie	i	393 00		
Blind River	1			\$65,832 06
Bowmanville	1	1,280 00		
Bracebridge	1	3,864 00		
Brampton	1	7,600 00		
Brantford	1	19,598 84		
Bridgeburg	1	12,321 80		
Brockville	9	24,931 75 30,155 00		
Campbellford	1	15,000 00		
Chatham	1	3,660 00		
Crowland Township	5	43,314 00		
Crystal Beach	1	13,000 00		
Dundas East York	9	28,575 45		
Elmira	1	2,531 30		
Erin	1	6,345 95		
Etobicoke Township	2	20,400 00		
Ford City	1	38,324 35	0150 000 00	
Forest Hill Village	5	175,464 75	\$150,000 00	
Fort Erie	3	8,916 00		
Fort Frances	1	7,956 62 4,996 30		
Fort William	2	12,500 00		
Gravenhurst	1 3	43,213 44		
Guelph	1	2,825 00		
Haileybury	7	118,378 45	195,000 00	
Hamilton	i	3,746 00		
KenoraKingston	3	13,799 33		
Lindsay	1	2,200 00		
London	12	38,791 86		
Millbrook	1			9,520 00
Mimico	3	25,637 62		
New Toronto	2	28,225 00		
Niagara Falls		5,420 57 25,892 98		
North Bay	1 -	23,092 90		
North York Township (Armoun			26,084 50	11,611 14
Heights)	4	166,222 00		
Orangeville	î	84,023 00		
Oshawa	11	196,386 31		
Ottawa	8	26,563 55		
Owen Sound	. 4	15,918 52	02.205.00	
Palmerston	. 1	7.050.60	23,385 00	
Parry Sound	. 4	7,050 69		
Pembroke	. 1	2,727 58		60,000 00
Port Colborne	. 1	1,350 00		
Port Elgin	$\begin{vmatrix} 1 \\ 1 \end{vmatrix}$	745 00		
Port Hope	· 1 2	12,735 00	1	
Riverside	1	26,525 00		
SwanseaSudbury		107,577 17		
Stratford	$\bar{3}$	6,270 29		
Stamford Township	. 4	31,107 40	1,312 80	
Smith's Falls	. 1	3,005 00	477. 200. 00	071 074 00
Scarboro Township	. 5	47 220 60	. 176,300 00	871,274 00
Sault Ste. Marie	. 4	47,338 60		
Sarnia	. 2	5,689 00		
Sandwich	. 12	81,744 78 220,688 51		
Sandwich West	7 5	81,569 95		
St. Catharines		318 84		
St. Thomas		42,718 56		
Timmins	* 1		. 26,000 00	
Toronto	70	3,671,526 00		.
	•			

CERTIFICATES ISSUED RE SEWER EXTENSIONS FOR THE YEAR 1928 -Continued

Municipality	No. of Certificates Issued	Extensions	Disposal	New
Walkerville Waterloo Weston Whitby Woodstock York Township	3 3 4 1	\$57,656 50 21,802 40 12,516 00 3,494 16 1,957 25 315,218 82	\$30,000 00	
Totals	284	\$6,067,188 24	\$656,752 30	\$1,008,717 20

SUMMARY

	Applications	Estimated Cost
Re Waterworks: Extensions to existing system. Purification of water supplies. New systems.	147 4 6	\$2,383,417 49 556,910 25 298,844 66
Total	157	\$3,239,172 40
Re Sewerage: Extensions to existing systems. Treatment works. New sewerage systems.	270 9 5	\$6,067,188 24 656,752 30 1,008,717 20
Total	284	\$7,732,657 74

The total number of applications favourably reported upon re waterworks and sewerage for the year was 441, and involves an estimated expenditure of \$10,971,830.14.

VITAL STATISTICS BRANCH

S. J. Manchester, Director

During the past year this Branch issued 41,048 official certificates which gives an average of 3,420 per month. About two-thirds of these were issued for emigration into the U.S.A., which means that there is still an emigration into that country of somewhat over a thousand persons per month.

Approximately 50,000 searches were made during the year which included applications for official certificates, the balance of the searches being made for the purpose of proving Canadian birth for the Mothers' Allowances Commission, Federal Immigration Department, Department of Pensions and National Health, Soldiers' Aid Commission, Royal Canadian Mounted Police, Adoption of Children, etc.

During the year this Branch registered through the channels provided by The Vital Statistics Act, that is the Division Registrars, 137,123 births, marriages and deaths. These were all received, checked, indexed and filed for reference. Besides these registrations there were approximately 6,000 births registered by declaration.

The cash receipts of the Department during the year were \$65,640.67.

The annual Statistical Report of Births, Marriages and Deaths issued by this Branch may be had on receipt of application.

DIVISION OF DENTAL SERVICES

F. J. Conboy, D.D.S., Director

The work of the Dental Division for the year 1928 consisted in the main of an aggressive effort to educate the people of the Province to the danger of allowing dental infection to remain in the mouth, and the presentation of a programme for the prevention of dental disease.

Our aim was, first, to induce parents to care for the dental health of their children to the end that the mouths of the new generation might be kept in a condition of health and masticating efficiency, and secondly, that the adult population might be led to accept such dental care as would render them free from dental focal infection. True, some new services were established, and considerable work was done in New Ontario, but our chief objective for the year was to carry on an aggressive mouth health educational campaign.

Dental surveys of school children were conducted in Wooler, Hornepayne, Aylmer, Dundas, Beeton, Chapleau, Waterloo, Longlac, Weston, Sharbot Lake, Goderich, Mimico, New Toronto, Sandwich, Port Hope, Frankford, Owen Sound and other communities. In each case the local dentist, or dentists, gave his services gratuitously, and the Department supplied the necessary forms. Cards were sent to the parents notifying them of the defects found in the mouths of the children, and in numerous cases the necessary treatment was provided.

These surveys led to the desire on the part of the different municipalities to have some permanent form of dental service, but it was felt by the majority of the Boards that they could not undertake to meet the expense unless they had some form of Government assistance.

The Director of Dental Services visited a large number of places during the year and gave illustrated talks to the school children and their parents. He also addressed service clubs and other organizations interested in the dental health welfare of the people. On the majority of these trips he was accompanied by Mr. E. H. Jones, who presented a programme of motion pictures emphasizing the necessity for mouth health, and showing how it might be maintained.

A course of lectures on dentistry was given to the student teachers in each of the Normal Schools. It is well known that it will be impossible to establish dental health services in many parts of the Province, and the only assistance which the children can receive must be provided by the school teacher. The purpose of the course of lectures was to qualify the teacher to teach mouth health, and to advise parents in regard to the treatment which they should endeavour to secure for their children.

The clinic at the Canadian National Exhibition was an outstanding success. It took the form of a public dental health demonstration clinic, and a service which provided free dental examination and advice, including X-ray pictures, for all who made application. About 800 patients presented for examination, and as far as we are able to tell the service provided was in every way satisfactory. The clinic itself was a co-operative effort in which the Faculty of Dentistry of the University of Toronto, the Royal College of Dental Surgeons and the Ontario Dental Association joined with the Ontario Department of Health in an endeavour to improve dental health.

During the summer months a dentist from the Department visited a number of places in the vicinity of Sudbury, Sault Ste. Marie, Port Arthur and Rainy River. He carried a portable equipment, and the children and some adults were given treatment. The majority of these patients lived in places so far remote from a resident dentist that it was practically impossible for them to secure dental services.

Similar work was done through an arrangement made with a dentist who travels through the eastern part of the Province. The dentist operating in Eastern Ontario visited Lavant, Mountain Grove, Kaladar, Calabogie, Barry's Bay, Rickingham, Wilno, Schutts, Rosenthal, Flower, Combermere, Boulter, New Carlow, Palmer Rapids, Whitney and other communities. The work in both Eastern and Northern Ontario was well received, and conditions in these districts warrant the Department carrying on these activities in a larger way next year.

Educational work done by this Division during the past few years has created a public opinion in favour of some form of clinic that will provide treatment for the indigent, and for those living far distant from a centre where there is a resident dentist. Requests are coming in continuously for the organization of school dental clinics, but the majority of the municipalities feel that they cannot meet the expense without some form of Government grant. If a reasonable grant could be made available, many municipalities in Ontario would establish dental services for those who cannot secure treatment in the ordinary way. Following is a report of the work done by the dentist of the Department in Northern Ontario:

otal number of patients examined853
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DIVISION OF LABORATORIES

A. L. McNabb, B.V.Sc., Director

I have the honour to submit the following report and tabulated statements of the work of the Public Health Laboratories for the year 1928.

It will be noticed during the past year that the number of specimens examined at the central laboratory, East Block, Parliament Buildings, and at several of the branch laboratories have shown an appreciable increase.

From examination of Table II the following will be noted:

The total number of specimens examined in the Public Health Laboratories during the year 1928 was 181,214 which is an increase of 14,686 specimens over the previous year; 10,130 of this increase was made by the central laboratory.

TABLE III

The total number of diagnostic outfits prepared by the staff of the central laboratory as shown in Table III was 95,245, an increase of 18,727 over the year 1927.

Bacteriology

During the past year the central laboratory manufactured 67,460 cc's. of typhoid and paratyphoid vaccine; also 80,200 cc's. of whooping-cough vaccine which is an increase of 9,080 cc's. of whooping-cough vaccine over last year. This is shown in Table III.

TABLES LAND II

(a) Diphtheria

As shown in Table I the laboratories examined 24,514 diphtheria cultures. Of this number 10,022 were examined at the central laboratory which is an increase of 991 cultures at the central laboratory over 1927.

The routine at the central laboratory with regard to diphtheria is:

A virulence test is done on all positive contacts and all positive releases where a patient has been in quarantine for one month and on all swabs from suspected carriers. It will be noted that 608 virulence tests were made during the past year which shows an increase of 271 over the previous year.

During 1928 an earnest endeavour has been made to have diphtheria results in the office by 10 o'clock in the morning so that the physicians may obtain their reports without delay. Swabs upon which we have obtained a positive diagnosis are either wired or telephoned. We have not had one complaint during the past year regarding diphtheria reports.

(b) Tuberculosis

Three thousand nine hundred and twenty-five (3,925) specimens of sputum have been examined, an increase of 1,039 over 1927 in the central laboratory. Two hundred and thirty (230) guinea pig inoculations have also been carried out for the presence or absence of tubercle bacilli. You will note that there is a decrease in the number of guinea pig inoculations. This is accounted for by the fact that up to this year we did this work for Christie Street Hospital but as they have opened their own laboratory now they are doing this work.

(c) Typhoid

One thousand two hundred and forty (1,240) specimens of dried blood were examined for typhoid which again shows an increase of 176 specimens made in the central laboratory. Two hundred and ninety-six (296) specimens of whole blood were also examined in this laboratory for typhoid and paratyphoid which shows an increase of 201 specimens over 1927. The work has increased sufficiently during 1928 to warrant placing one worker in charge of typhoid work, and a microscopic and macroscopic examination is made on each specimen of whole blood received. In all cases where results of these two examinations do not check, the tests are repeated. It will thus be seen that this involved considerable work but it was a step in the right direction, as results obtained from whole blood specimens are much more reliable than those obtained from dried blood. We are able to make more accurate dilutions. It is to be hoped that in the future physicians will submit whole blood specimens instead of dried blood specimens for examination for typhoid.

During the past year we have cultured the clot from all whole blood specimens and have been able in many instances to isolate B. Typhosus on culture in specimens taken in the early stage of the disease before agglutinins were present.

Two hundred and thirty-nine (239) specimens of feces and urine were also examined at the central laboratory during 1928 of which 8.33 per cent. were found to be positive.

A report of all positive feces examinations and blood cultures is sent to our Epidemiologist. This undoubtedly assists in the control of this disease.

Since July, 1928, 23 cases of undulant fever have been diagnosed. This is a disease caused by Brucella abortus infection in man and no cases were diagnosed in this Province up to the spring of 1928. The central laboratory placed this examination on its routine and this examination will be included in the routine of our branch laboratories. This service has been greatly appreciated by physicians in as much as it has offered them a diagnosis that hitherto has not been made. The symptoms of this disease are somewhat similar to those of typhoid and all bloods received for Widal examination are agglutinated with typhoid, paratyphoid and Brucella abortus organisms.

(d) Gonorrhoea

Five thousand and eighty-seven (5,087) smears were examined for the presence of gonococci at the central laboratory which is an increase of 1,094 over the previous year.

(e) Rabies

During the past year 76 heads were examined at the central laboratory of which 22 showed the presence of rabies infection, which is 28.94 per cent. One human brain was received and showed the presence of rabies infection both by microscopic examination and animal injection.

The routine at the central laboratory in this work is the microscopic examination of all specimens received and animal injection on all specimens which prove negative microscopically; the animals being observed for two months after injection. In cases where we obtain a positive diagnosis a telegram is sent at once to the sender of the head, and if the sender happens to be a layman the local Medical Officer of Health is notified. The District Officer of Health and the Epidemiologist of the Department are both notified and also the District Veter-

inary Inspector for the Federal Department of Agriculture is advised so that he may take steps to prevent the spread of the disease in the district from which the specimen was received.

(f) Milk

The increase in milk samples examined at the central laboratory was 269 over last year. We are very pleased to see this increase and trust that in the near future it will be much greater.

(g) Water

The water samples examined at the central laboratory during 1928 showed an increase of 1.100.

All the Public Health Laboratories follow the standard methods approved by the American Public Health Association in both water and milk analyses.

(h) Miscellaneous

Six hundred and twenty-one (621) miscellaneous specimens were examined at the central laboratory which shows an increase of 228 specimens. Bacteriological miscellaneous specimens include: specimens of pus for organisms, swabs for culture, pleural fluids for organisms, microscopic examination of urine, pneumococcus typing on specimens of sputum and specimens of food or meat for organisms.

Every effort is being made to give prompt and accurate service with these specimens and that physicians are appreciating this service is readily seen by

the yearly increase.

SEROLOGY

During the past year 25,946 specimens were examined in the serological section of the central laboratory. Both the Kahn precipitation test and the Wassermann reaction were done on each specimen of blood serum. This has been found a very satisfactory procedure as these tests check in most cases; in any case which does not check the tests are repeated before a report is sent out.

A Wassermann test is made as well as a colloidal gold reaction on each spinal

fluid submitted.

The above tests are done five days a week, thus giving prompt service to physicians.

CHEMISTRY

The accompanying table is a summary of the routine work accomplished in the Chemical Section of the Division of Laboratories during the past two years.

1. Number of samples analyzed:	1928
Milk (butter fat, solids, preservatives, etc.)	1,005
Blood sugar determinations	2,344
Liquor:	
(a) For alcohol	1,213
(b) For medicinal ingredients	71
Chemical waters	74
Coal	479
Miscellaneous 232	374
2. Public health products manufactured:	
Mercury salicylate suspension:	
(a) Number of ampoules	9,835
(b) Weight in grains	15,155
Bismuth hydrate suspension:	10,100
(a) Number of ampoules	11,241
	35,458
(b) Weight in grains	38,214
Silver nitrate ampoules	30,214
For administration service:	30,050
(a) Ounces of sterile distilled water	
(b) Ounces of normal solution of sodium hydroxide	2,787

In addition to the foregoing, this Section prepared all the distilled water both ordinary and ammonia free, colloidal gold solution, buffer saline, etc., used by the Bacteriological and Serological Sections.

The analyses of the 211 samples of native wine commenced during 1927 were completed. Also a study was made of the native wine industry which necessitated a visit to the majority of the wineries of the Province. A lengthy report was prepared in connection with both the analyses and the survey. The amount of work devoted during the year to the native wine industry was considerable and much more than offset the diminution in the number of liquor samples submitted for the determination of alcohol.

BRANCH LABORATORIES

London

The number of specimens examined this year at the London Branch Laboratory is practically the same as last year and the work done has been most efficient throughout the year.

Ottawa

The work in the Ottawa Branch Laboratory shows an increase of 4,702 specimens over last year. The work has been most satisfactory and that the physicians in the district are appreciating it is shown by the increase in the number of specimens.

Kingston

Kingston Branch Laboratory shows an increase in specimens received during this year. Two cases of undulant fever were diagnosed this year in Kingston Laboratory and during the spring of 1928 an outbreak of rabies occurred in the district; thirteen heads of cattle, sheep and dogs being examined for the presence of Negri bodies.

Fort William, Peterborough, North Bay, Sault Ste. Marie

The above Branch Laboratories have all also rendered valuable and efficient service during the past year.

All of which is respectfully submitted.

A. L. McNabb, Director of Laboratories.

TABLE I

SPECIMENS EXAMINED BY THE PUBLIC HEALTH LABORATORIES OF THE PROVINCIAL DEPARTMENT OF HEALTH OF ONTARIO DURING THE YEAR 1928

NUMBER OF EXAMINATIONS

Type of Specimen	Toronto	London	Ottawa	Kingston	Fort	Peterboro	North Bay	Sault Ste. Marie	Total
. (a) BACTERIOLOGY									
Diphtheria: Direct examinations	2,376	684	1,696	200	86 852	384 739	14	8 1,567	5,448 24,514
Cultures Virulence tests	10,022 608	4,048	6,307 10	630	11	8	1		648
Tuberculosis: Sputums	3,925 230	1,690 60	1,285	1,056	403	315	421	150	9,245 315
Typhoid: Micro agglutination	1,240	646	288	59	124	70	194		2,621
Macro agglutination Blood culture	296 212	4 9	12	174 13	4	18		24 12	530 255
Faeces and urine	239 5,087	155 1,667	14 2,380	16	6 769	578	6 478	503	440 12,118
Rabies: Heads examined	76	10	1	13					100
Milk: Local municipal supply Outside supplies	983	2,088 595	1,406 49	119 55	9 64	347 275	142 521	368 102	4,489 2,644
Water: Local municipal supply		376	2,389	314	2	597	758		6,602
Outside supplies	4,776 621	983 888	1,376 92	447 456		780 172	24	609 437	10,713 2,823
(b) Serology									
Syphilis: Dark field			5	4	38	1			48
Wassermann test	25,246 24,202	8,292 7,881	5,498 5,214	2,496 2,496	1,106				42,638 39,793
Colloidal gold test	700	373	118		18				1,209
(c) CHEMISTRY		4.2	70	101	26	39	12	85	2,723
Blood sugars			70		20				2,967
Local municipal supply Outside supplies		573 445	1,449 49		66				2,553
Local municipal supply Outside supplies		12 85						6	20 178
Coal samples: Calorific value	479								479
Ash	565								479 565 41
Volatile matterLiquors:									1,213
Medicinal ingredients Miscellaneous	. 71		1,194		491	361	14	239	71 2,742
Total examinations		31,686			-	5,373	3,522	6,950	181,214

TABLE II

TABLE SHOWING THE TOTAL SPECIMENS EXAMINED AT ALL LABORATORIES DURING THE YEARS 1911, 1925, 1926, 1927, 1928

Laboratory at	. 1911	1925	1926	1927	1928
Toronto London Ottawa. Kingston Fort William Peterborough North Bay. Sault Ste. Marie		7,651 5,499 4,201	61,312 27,405 21,818 7,353 6,165 4,185 3,674 7,529	77,357 31,876 26,227 9,078 6,427 5,788 4,212 5,563	87,487 31,686 30,929 9,314 5,953 5,373 3,522 6,950
Total		137,319	139,441	166,528	181,214

TABLE III

TABLE SHOWING OUTFITS, VACCINES AND CHEMICAL PRODUCTS PREPARED AND DISTRIBUTED FROM THE MAIN LABORATORY DURING THE YEARS 1925, 1926, 1927, 1928

Outfits sent out	1925	1926	1927	1928
Bacterial—water	3,578	2,518	4,430	5,290
Diphtheria	15,611	9,691	14,204	17,440
Typhoid	2,197	2,551	3,723	4,015
Tuberculosis	6,216	6,230	8,688	9,879
Wassermann	41,455 4,142	31,770 7,125	32,368 8,513	41,721 11,041
Blood sugar	1,429	2,090	3,823	4,414
Taeces	212	376	513	833
Miscellaneous			256	612
Total	78,840	62,351	76,518	95,245
VACCINES AND CHEMICAL PRODUCTS				
Typhoid monovalent vaccine, cc	17,750	21,700	32,450	23,710
Typhoid paratyphoid vaccine, cc	12.940	23,120	42,910	43,750
Whooping-cough vaccine, cc	61,890	65,370	71,120	80,200
Silver nitrate for prevention of ophthalmia,		20.425	27.244	20.044
ampoules	29,470	29,135	35,314	38,214
Bismuth hydrate	6,556 12,892	22,858 11,217	22,922 10,721	35,458 15,155
Mercury salicylate	12,892	2.414	2,492	2,787
Distilled water in the treatment of V.D.S		20,677	21,812	30,050

DIVISION OF PUBLIC HEALTH EDUCATION M. Power, B.A., Director

HEALTH PAMPHLETS

During the year health pamphlets were issued and distributed as follows:

Food and Nutrition(reprint)	5,000	copies
Rabies	5,000	46
Resuscitation	5,000	46
Country Home and Summer Cottage	5,000	46
Health Almanac	20,000	"
Baby Books	10,000	66
Communicable Disease Pamphlets	14,000	44
Dental Pamphlet ("The Mouth")	10,000	66

Bulletin No. 9, on rural and semi-urban sanitation, is being revised, as the old edition was exhausted.

ONTARIO HEALTH OFFICERS' ASSOCIATION

The Fourteenth Annual Meeting of the Ontario Health Officers' Association was held at the University of Toronto, June 12th, 13th and 14th, with a total attendance of 278. The programme was so arranged that more time was available for discussion, and the morning of the third day was reserved for a Round Table Conference on questions relative to public health administration. The programme was as follows:

PROGRAMME

ONTARIO HEALTH OFFICERS' ASSOCIATION

Toronto, June 12th, 13th and 14th, 1928

Tuesday, June 12th

Room 43, Physics Building

10.00 a.m.—Registration.

11.00 a.m.—"The Public Health Act"—W. J. Bell, M.B., Deputy Minister of Health.

2.00 p.m.—Address—Honourable Forbes Godfrey, M.D., Minister of Health.

2.20 p.m.—President's Address—W. J. Cook, M.B., M.O.H., Sudbury.

3.00 p.m.—Address—W. H. Frost, M.D., Professor of Epidemiology, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md.

Wednesday, June 13th—Forenoon

Room 43, Physics Building

- 9.30 a.m.—"Comparative Cost of Public Health Services in Municipalities of 10,000 to 35,000"—T. W. G. McKay, M.D., M.O.H., Oshawa.
- 10.15 a.m.—"Unnecessary Morbidity in Adults"—J. G. Cunningham, M.B., Director Division of Industrial Hygiene, Provincial Department of Health.
- 11.00 a.m.—"Focal Infection, with special reference to Dental Infection and Mouth Sepsis"—Dr. W. L. Holman, Department of Pathology and Bacteriology, University of Toronto.
- 11.00 a.m.—'The Contribution of the Dental Profession to the Medical Officer's Programme'—Arthur W. Ellis, D.D.S.

WEDNESDAY, JUNE 13TH—AFTERNOON

Room 43, Physics Building

- 2.00 p.m.—"Safeguarding the Milk Supply"—A. E. Berry, M.A. Sc., C.E, Ph.D., Director, Division of Sanitary Engineering, Provincial Department of Health
- 3.00 p.m.—"The Newer Biological Products, Their Preparation and Uses"—
 R. D. Defries, M.D., D.P.H., Associate Director School of Hygiene and Connaught Laboratories.

THURSDAY, JUNE 14TH

Room 22, Mining Building

Thursday morning beginning at 10 o'clock will be devoted to a Round Table on questions and answers relative to public health administration.

East Block, Parliament Buildings

On Thursday afternoon the staff of the Department of Health will be available in the new offices, East Block, Parliament Buildings (5th floor) for interviews with the members of the Ontario Health Officers' Association.

A communication from the Canadian Public Health Association was read, extending the privilege of full membership to every member in good standing of the O.H.O.A. The same was accepted, and the Secretary instructed to notify the C.P.H.A. of this action.

The Standing Committee on "The Medical Care of Indigents in Unorganized Territory," under the chairmanship of Dr. A. S. Thompson, M.O.H., Havelock, appointed at the 1927 meeting, brought in the following report, which was accepted as read:

Mr. President and Gentlemen:

Your Committee, appointed last year to bring in a report on the Medical Care of Indigents in Unorganized Territory, begs leave to present the following:

While this question is not entirely new, of recent years its importance has been greatly increased through the activities of the Provincial Government in stimulating the settlement of Northern Ontario. One important fact bearing on this question must be borne in mind, viz., that these settlers flocking into Northern Ontario are for the most part very poor, and must make their living by their labour, out of the land and the forest from the first. Late in the fall many of these indigent settlers recognizing their lack of protection against starvation and sickness, move into the organized towns and villages and promptly become a burden on these municipalities for food, fuel, clothing, and medical attention. Those who do not move into town, when in distress from lack of food, clothing, etc., or become sick or in need of medical care, make a large demand on the charity of the neighbouring organized municipalities. These municipalities are strongly protesting against this imposition, and demand that the Provincial Government provide a solution of this problem.

In Northern Ontario there are hundreds of townships being opened up for settlement, containing splendid fertile soil; but the settler must go through from six to ten years of hardships and privation before he becomes self-sustaining. In the meanwhile should any need of medical care arise, long distances over bad roads, and poverty of the settler lend themselves to procrastination or utter neglect. This lack of medical attention is the cause of high mortality rates among these poor people and bears with especial severity on the women and little children.

Another matter closely associated with the above is that of indigent tramps or transients who have to be looked after; the municipality in which they may happen to be is saddled with the care of this class, over whom they have no control.

It is of the utmost importance that the Provincial Government should assume the same responsibility for the indigent settler (whom their officials induced to take these lands) as the organized municipality now bear for the indigents within their boundaries.

When it is pointed out that there are some twenty-five Crown Land Agents in Northern Ontario whose duty it is to find settlers for the lands of unorganized townships, the suggestion of government responsibility for indigents in them on the same basis as now exists in organized municipalities requires no argument to endorse it as being the only just and correct solution of this problem.

A. S. Thomson,

Chairman.

The following officers were elected for the ensuing year:

President, Dr. W. E. George, District Officer of Health, North Bay.
1st Vice-President: Dr. W. L. Hutton, Medical Officer of Health, Brantford2nd Vice-President: Dr. Gustave Lacasse, Medical Officer of Health,
Tecumseh.

HEALTH EXHIBITS

Small exhibits were shown in the following centres, viz.:

Guelph, Ontario Agricultural College, Macdonald Institute. Hamilton, Produced-in-Canada Exhibit.
Brantford, Produced-in-Canada Exhibit.
Brockville, Fall Fair.
Brockville, Fall Fair.
Goderich, Fall Fair.
Ingersoll, Fall Fair.
Cooksville, Fall Fair.
Picton, Fall Fair.
Peterborough, Kiwanis Club Fair.
Picton, Kiwanis Club Fair.
Orillia, Fall Fair.
Belleville, Women's Institute.



The Ontario Government Building—Canadian National Exhibition, Toronto, is of Queenston limestone and reinforced concrete; it is triangular in shape (420 ft. to a side); the angle towers and central dome give a note of striking architectural beauty.

CANADIAN NATIONAL EXHIBITION, TORONTO

While 1928 saw the Canadian National Exhibition celebrate its Golden Jubilee, it also marked the eighteenth anniversary of our Public Health Exhibit, the first efforts along the line of health education of the public in that setting having been staged in 1911. From that year until 1925 the Provincial Board of Health, afterwards called the Department of Health, was given space in the various sections allocated to Government purposes. The importance of the Health Exhibit increased with the years, and upon completion of the Ontario Government Building in 1926, designed to house the exhibits of the various Provincial Departments, we were assigned the western half of the main wing, a total length of 250 feet, divided by a centre aisle 14 feet in width.

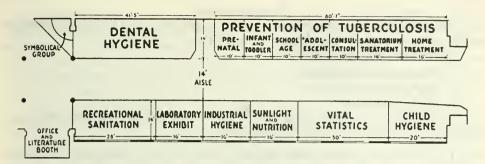


Diagram Showing Lay-out of the Public Health Exhibit.

It has been the policy during recent years to give special emphasis to one phase of health activity each year in the exhibit at the Canadian National Exhibition, and 1928 was chosen for a special showing on tuberculosis. Whereas public health authorities are interested in the treatment of the disease and the provision of facilities for same, prevention is their special field and the tuberculosis contact is the health worker's special responsibility.



Section on Childhood Infection—The centre drawing in the section on childhood infection shows a ship symbolic of childhood passing through the channel of child life; the channel is marked by buoys carrying flags emblematic of health hazards to be avoided.

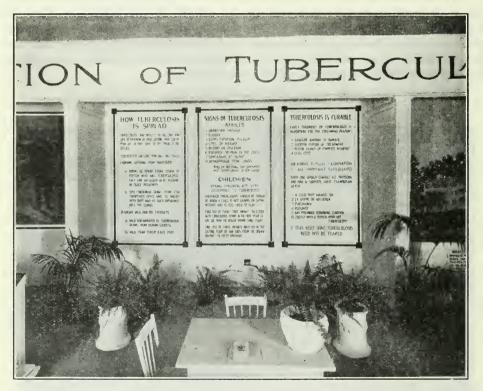
Tuberculosis

The scope of the exhibit extended from the prevention of childhood infection to the treatment of advanced cases in sanatoria.

Particular emphasis was laid on:

- 1. Prevention of infection.
- 2. Early diagnosis.
- 3. Early treatment.
- 4. Avoidance of such irregularity as would lead to lowered physique, owered resistance and increased susceptibility.

The section on tuberculosis (80 feet) consisted of a background of panels 9 feet in height, capped by a frieze along the entire length reading "Prevention of Tuberculosis," flanked at either end by the Provincial crest and double red cross, while in the foreground a series of photographs showed the practical application of the teaching outlined on the panels.

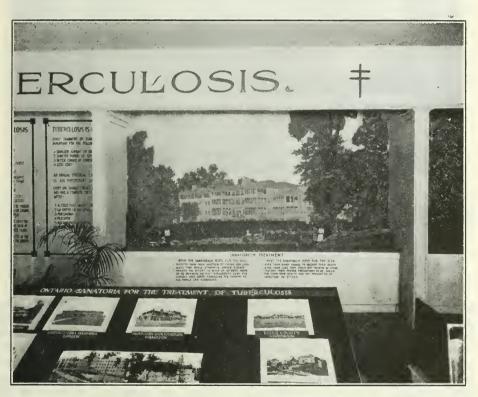


Consultation Desk—Tuberculosis Exhibit—where a clinician or a nurse was in constant attendance every day from 10 a.m. to 10 p.m. The panels behind the table briefly outline the salient points in the control of tuberculosis. These were explained as opportunity offered.

The subsection on childhood tuberculosis created a great deal of interest. The oil panels in Walker Drayton's vigorous style and the photographs of the children's activities in various Ontario preventoria were most attractive, while the lesson that tuberculosis in childhood is caused only by (1) exposure to open cases or (2) infected milk, was vividly driven home. Clear-cut photographic enlargements illustrative of glandular and bone tuberculosis showed the results of such infection.

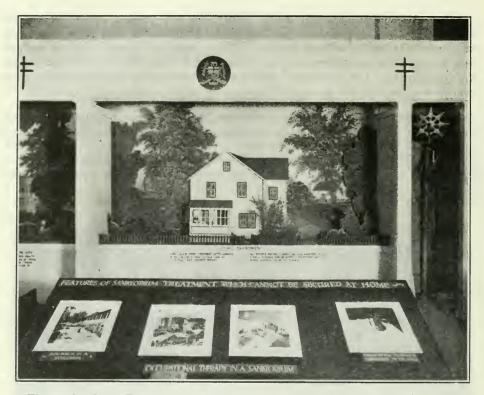
Because adolescence and early adult life are periods requiring special attention to health by way of building a firm foundation, they were given due emphasis. A display fixture showed X-ray negatives illustrating: a normal lung, a lung showing tuberculous infection, and a lung showing a healed lesion. A physician from the staff or a nurse was present during the day and evening to answer questions and give out literature on tuberculosis.

The treatment of tuberculosis was shown by two panels in large proportions portraying: (a) sanatorium care, in front of which were displayed enlarged photographs of the various Ontario institutions; (b) home care, by a miniature typical home in a town or country district with sleeping-porch and cut-out furniture to demonstrate how simple a matter it is to secure for a patient proper accommodation at small expense.



Sanatorium Treatment—what it does for the well and what it does for the sick—is outlined on the panel background. Photographic enlargements of Ontario sanatoria are shown on a table covered with green baize. The table is tilted, the back edges being 10" higher than the front.

Comments received from visiting physicians, health workers and others were very favourable, and already a number of requests have been received for the exhibit to be shown in Ontario centres. It is designed for easy transportation, and the various sections are complete in themselves. The artistic handling of the background has received very favourable criticism, and we are glad to give due credit to the designer, Mr. R. G. Collins, artist decorator, of Toronto.



The panel on Home Treatment was designed to demonstrate the low cost of a simple arrargement for proper accommodation for a patient taking treatment at home. Pictures illustrative of occupational therapy and administration of thorocoplasty treatment were shown to emphasize that home care does not permit of certain features of sanatorium treatment.

CHILD HYGIENE

School health service was the activity chosen by the Division of Child Hygiene as their subject, and they handled it in a very dignified way. Life-size photographic cut-outs in sepia were used to contrast the old way of neglect in the care of the individual child and the careless manner of managing sanitary matters in the school environment, with the new order under which every effort is made to give the child the maximum of health by means of periodic examination, frequent follow-up, correction of defects, and perfect sanitation of the school plant. "A worth-while School Health Service is the logical protective measure at the disposal of the community" was one of the slogans, and a map of the Province in colours was prepared to show the extent of school health service of various types throughout the Province.

MOUTH HEALTH

The display of the Division of Dental Services took the form of a dental health educational exhibit and clinic for examination and advice. The clinic was organized on a plan whereby the Ontario Dental Association, Royal College

of Dental Surgeons and Faculty of Dentistry of the University of Toronto co-operated with the Department. Free mouth examination (including X-ray pictures when indicated), advice and instruction were given to all who requested same. In all, 800 patients visited the clinic, and radiographs were taken for about 700.

The educational section of the exhibit set forth the programme for the maintenance of mouth health. A large model emphasized the necessity for



The Mouth Health Exhibit—Educational Section—This illustration shows the Educational section of the Mouth Health Exhibit. The clinic was located in the space to the right with partitions painted white and glass windows; a waiting room was designed to accommodate ten patients; the necessary facilities for photographing and developing X-rays were included in the equipment.

periodic examination; the motion picture film showed how to brush the teeth; the film slide stressed the value of proper mastication; and the book told the story of proper nutrition and a balanced diet.

NUTRITION

Child health has been the subject of much discussion during the last decade, and one hour spent in the exhibit would be sufficient to convince any health worker that the lesson has gone over. The tragic figure of death slaying the innocents was necessary ten years ago to stir public opinion to action to "save the babies." Mothers, to-day, are applying the teaching they have learned in infant care campaigns and are bringing their babies through the critical first

year; they are also seeking instruction which will ensure a maximum of health for the child throughout its toddler, pre-school and school age periods.

To present some of the essentials, the Division made an attempt to demonstrate important points brought out by recent research into the effect of sunlight and proper diet on development. The Laboratory supplied three groups of white rats: (1) fed on a proper diet and exposed to sufficient amount of direct sunlight; (2) fed on a proper diet but given very little exposure to direct sunlight; (3) fed on rachitic diet but exposed to sufficient direct sunlight. The fact that No. (3) group made a greater gain in weight than (2) made the parents ask "Why?" and kept the nurse very busy answering questions.



Section of Exhibit on Nutrition.

A small play-yard with sand pile was inhabited by wee tots in sun-suits, while the nurse demonstrated on the doll baby in the pram close-by the correct way to give an infant his daily sun bath.

"Food and Nutrition" and "Suggestions for Feeding School-age Children"

were given upon request to those interested.

VITAL STATISTICS

Technically, statistics are regarded as the keystone in public health, but to present them for popular interpretation causes the statistician much concern. The Director of the Division of Vital Statistics struck upon the happy plan of using the "Vision of Mirza" as the theme of this year's presentation. The "Bridge of Life" was made up of spans representing the various age groups; trapdoors were labelled with names of the chief causes of death; barriers and miniature traffic signals carried slogans urging prevention and specific control measures.

Immediately in front of each arch a bar diagram showed graphically the death rates for the diseases causing the highest number of deaths within the respective

groups.

The reception accorded "The Bridge" was beyond expectation. The general public gave it their intelligent consideration, while physicians invariably made notes for future reference. Health workers from other provinces and the United States made sketches on the spot, and we have had many requests from governmental and volunteer agencies for notes and specifications of the model



"The Bridge of Life" told the story of Ontario's death rates by causes and age, while the diagrams listed the chief diseases for the respective groups.

The Division removed the birth registration cards for certain years to the exhibit and made searches upon application, while a display fixture in the form of an automatic book told the story of how the Department handles the seven million records of births, marriages and deaths on file since 1869.

LABORATORIES

The Division of Laboratories singled out rabies for special emphasis, and prepared a map of the Province showing the distribution of animal cases from which specimens had been sent in for examination; this was surmounted by a large photograph of a collie dog. A new edition of the Rabies pamphlet was prepared and distributed.

A glass show case contained a display of biological products supplied free by the Department for the prevention and control of communicable diseases, while diagnostic outfits, apparatus for milk and water examination, etc., were set up.

SANITARY ENGINEERING

Recreational sanitation is much to the fore in Ontario at the present time, and the Division of Sanitary Engineering prepared a miniature swimming-pool to illustrate the cardinal points of a healthy holiday. An attractive poster on resuscitation occupied a prominent place, and several thousand copies of the leaflet were distributed from the booth.

The home pasteurization of milk, when it is not possible to secure the commercial article, was shown in a house representing a country home or summer cottage.



Safety is the first consideration for a holiday—safe water, safe milk, safe bathing. This was the theme of the exhibit of the Division of Sanitary Engineering.

Samples of the Department's chlorine outfit for home treatment of water were displayed, and information given in regard to this item of service which consists of the Department supplying at cost (60c.) two bottles containing sufficient material for (a) detection of pollution, and (b) correction of same to take care of the drinking water supply of an ordinary family for the summer camping season. This is of invaluable assistance to the directors of fresh air camps, recreational groups, as also to the householder who is doubtful of his drinking water, whether in town or country.

INDUSTRIAL HYGIENE

Economic loss in industry due to neglect or improper care of minor wounds is so enormous and so unnecessary that the Division of Industrial Hygiene attempted to graphically illustrate the simplicity and low cost involved in the proper handling of the minor accident.

Photographic studies were made in actual plants, and an exhibit prepared in a series of contrasts. One illustrates the careful employee reporting to the first-aid office and receiving proper first-aid treatment—result: little or no time lost, full pay envelope and no permanent disability nor fatal termination; the other portrays a similar accident treated with contempt—result: loss of time, unsuccessful attempt to save a limb, finally death with resultant anxiety and reduced circumstances for the worker's dependants.

Conclusion

While it would give us considerable satisfaction to definitely report the total number of persons viewing the exhibit during the fourteen days of the Exhibition, this is not possible, but the total attendance was well over two million, and we are correct in stating that a very large percentage visited our booths. Even to the most casual observer, it was evident that health rivalled the more blatantly advertised attractions of the "Big Fair." We can only say that the Health Exhibit has become a fixture, and people visit and revisit us from year to year seeking new ideas in health. If requesting literature is a criterion, the 1928 exhibit was a huge success; approximately fifty thousand pamphlets were given to visitors or mailed to their friends, the distribution including every province in Canada, the British West Indies, and twenty States of the Union.

HEALTH FILMS

The moving pictures of the Division have been shown in twenty-four centres, of which a list is given below, showing the auspices and total attendance in each place.

Date	Place	Auspices	Attend- ance, Adults	Children
1927 Nov. 17 " 21, 23	Thorndale Windsor-Walkerville	Department of Health	150	300 700
1928 Feb. 1 " 2 " 6 " 15 Mch. 20 " 21 " 22 April 21 " 27 May 8 " 10 " 16 June 2 July 4,5,6	East York	Canadian Legion. Department of Health. "" Laennec Society. Department of Health. Mrs. Parsons. Department of Health. "" "" "" "" "" "" ""	150 100 75 100 50	200 200 300 250 400
Sept. 15	King George School George Syme School Humbercrest School Lambton Park School Humber School Humberst School Stratford	" " " " " " Or, E. Guest		250 250 300 150 100 200 1,200 800

DIVISION OF NURSE REGISTRATION

A. M. Munn, REG. N., Director

The work of this Division was organized primarily to set a standard of registration for nurses graduating from the various hospitals of the Province, and to improve living and teaching conditions generally.

The Nurse Registration Branch was transferred from the Department of the Provincial Secretary to the Department of Health in 1924, when a Council of Nurse Education was appointed as provided for in the regulations arising out of the Act of 1922. This Council is composed of seven members, three of such members being nurses recommended by the Registered Nurses' Association of Ontario, two physicians, the Inspector of Hospitals and the Inspector of Training Schools.

Regulations for the Conduct of Training Schools and a Minimum Curriculum were printed and issued to the Training Schools in 1925 for the guidance of those engaged in teaching and lecturing to nurses in training. Standard Training School record forms were also drafted and issued to the Training Schools so that there would be uniformity in record-keeping.

Since 1926 Provincial examinations have been held twice yearly at various points throughout the Province and where distances are great an effort has been made to place these centres as conveniently as possible.

An Examining Board composed of the Chairman and seven members, all of whom are actively engaged in the teaching of nurses, has been selected by the Council and approved by the Honourable the Minister of Health, to prepare questions for the examination papers. This Board is also responsible for the marking of all written papers following the examination and when the work is finished all failure papers are referred to the Council of Nurse Education when a final decision is made regarding the eligility of the student for registration after all failure papers have been re-read.

In addition to the details of the Provincial examinations the office of the Inspector of Training Schools deals with all applications for registration from other provinces and States, and also arranges affiliated courses for such hospitals as require general or special experience for their students so that they may qualify for Provincial standing.

During 1928 visits of inspection were made to fifty Training Schools. There is a decided improvement in living and teaching conditions for nurses since the initial survey of 1923. Thirty hospitals have improved their residence accommodation and plans are being made by additional hospitals for better accommodation this year. With the building of new homes, better facilities for class and demonstration room space have been provided.

If a nurse in training is to teach health to her patient, and later to the community, she must bring to her work a sound body and a well-trained mind. Giving as she does three years of her youth and energy to the hospital, she has a right to demand in return good teaching, a cheerful, home-like atmosphere, and living conditions under which the principles of personal hygiene can be taught and applied. In spite of arguments to the contrary, the call to service is

still heard by the young women of to-day, and a desire to help those who cannot help themselves is still alive, but there are many fields open and each has its various attractions. It is only right that the student therefore should demand that her three years in training will truly prepare her to meet her obligations as a health educator whether this be in private duty, in industrial work, a teacher or executive in a training school, or any other field of nursing activity.

The lack of properly trained nurse instructors will now be met, as under the Extension Department of the University of Toronto a course is available, and the initial enrolment of twenty-one students should provide some of the hospitals of the Province with qualified teachers.

In retrospect one feels that there is reason to feel gratified with the progress which has been made in Ontario during the last five years in spite of the fact that ours was the last Province of the Dominion to adopt registration regulations, or any definite standard for the training of nurses.

STATEMENT OF REGISTRANTS AND REVENUE, 1928

Total	number	registered i	n the	Province	(since	1923)	 	 	11,569
"	"	<i>"</i>	66	"	durin	g 1928	 	 	1,060
"	66	taking Prov	rincial	examina	ation,	1928	 	 	1,024
Re-reg	istratio	n fees, 1928					 	 \$	6,199 00
Total	revenue	, 1928					 	 1	7,043 69

STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN

NOVEMBER 1ST, 1927, TO OCTOBER 31ST, 1928

		NOVEMBER 1ST	INOVEMBER 1SI, 1921, TO OCTOBER 31ST, 1928	OBER SIST, I	87/			
	əuic				Diphtheria Antitoxin	Antitoxin		
Month	Smallpox Vaco	teoO	bns M-1 stinU M-3	teoO	M-01, 20-M and 4-0-M	Cost	Syringes	120)
November	66,001	\$2,970 04	5,139-M	\$719 46	38,490-M	\$4,618 80	1,340	\$268 00
December	75,843	3,412 93	5,107-M	714 98	29,800-M	3,576 00	1,163	232 60
January	49,611	2,232 49	5,389-M	754 46	34,270-M	4,112 40	1,341	268 20
February	19,059	857 65	2,106-M	294 84	22,240-M	2,668 80	909	121 20
March	14,526	653 67	2,418-M	338 52	17,160-M	2,059 20	479	95 80
April	9,613	432 58	1,164-M	162 96	11,700-M	1,404 00	230	46 00
May	10,481	471 65	2,727-M	381 78	17,450-M	2,094 00	837	167 40
June	8,867	399 01	2,107-M	294 98	18,200-M	2,184 00	674	134 80
July	8,267	372 01	2,113-M	295 82	7,200-M	864 00	148	29 60
August	096'6	448 20	1,562-M	218 68	13,160-M	1,579 20	492	98 40
September	12,769	574 60	4,506-M	630 84	17,310-M	2,077 20	272	54 40
October	19,709	886 90	4,095-M	573 30	23,240-M	2,788 80	717	143 40
Totals.	304,706	\$13,711 73	38,433-M	\$5,380 62	250,220-M	\$30,026 40	8,299	\$1,659 80

STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN—Continued

NOVEMBER 1ST, 1927, TO OCTOBER 31ST, 1928

			1101	one in the common of the control of	orten orte	1, 1/20				
	statu				Dipht	Diphtheria Toxoid			sth	
Month	Schick Test O	teoO	laubivibal laiV	tso O	laubivibul 0 slaiV	tsoO	laubivibul 21 slaiV	tsoO	Dick Test Out	Cost
November	474	\$94 80	1,433	\$286 60	462	\$369 60	1,199	\$1,199 00	398	09 64\$
December	152	30 40	1,097	219 40	238	190 40	276	276 00	429	85 80
January	198	39 60	1,224	244 80	466	372 80	948	948 00	439	87 80
February	158	31 60	872	174 40	375	300 00	153	153 00	363	72 60
March	207	41 40	200	140 00	282	225 60	613	613 00	327	65 40
April	201	40 20	499	08 66	250	200 00	611	611 00	250	20 00
May	151	30 20	610	122 00	424	339 20	235	235 00	260	52 00
June	113	22 60	331	66 20	158	126 40	203	203 00	193	38 60
July	46	9 20	200	40 00	45	36 00	87	87 00	211	42 20
August	127	25 40	330	00 99	148	118 40	40	40 00	195	39 00
September	451	90 20	587	116 40	242	193 60	375	375 00	251	50 20
October	180	36 00	567	113 40	206	164 80	870	870 00	199	39 80
Totals,	2,458	\$491 60	8,445	\$1,689 00	3,296	\$2,636 80	5,610	\$5,610 00	3,515	\$703 00

STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN—Continued

NOVEMBER 1ST, 1927, TO OCTOBER 31ST, 1928

		Scarlet Fever Antitoxin	ver Antito	xin			Scarle	Scarlet Fever Toxin		
Month	2 cc. Vials	120J	15 cc. Vials	tsoO	Syringes	1so)	laubivibul slaiV	tsoD	For 6 Persons	tsoO
November	1,123	\$449 20	983	\$2,211 75	N	\$1 00	725	\$217 50	356	\$356 00
December	1,030	412 00	890	2,002 50	12	2 40	463	138 90	154	154 00
January	662	319 06	738	1,660 50	N	1 00	493	147 90	176	176 00
February	765	306 00	841	1,892 25	20	4 00	389	116 70	229	229 00
March	879	351 60	862	1,939 50	:		384	115 20	105	105 00
April	636	254 40	832	1,872 00	18	3 60	150	45 00	61	61 00
May	587	234 80	827	1,860 75	23	4 60	298	89 40	44	44 00
June	463	185 20	386	868 50	:		203	06 09	95	95 00
July	231	92 40	157	353 25	30	00 9	148	44 40	47	47 00
August	447	178 80	279	627 75	9	1 20	116	34 80	34	34 00
September	474	189 60	390	877 50	:		206	61 80	130	130 00
October	612	244 80	538	1,210 50	14	2 80	354	106 20	171	171 00
Totals,	8,046	\$3,218 40	7,723	\$17,376 75	133	\$26 60	3,929	\$1,178 70	1,602	\$1,602 00

STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN Continued NOVEMBER 1ST, 1927, TO OCTOBER 31ST, 1928

		Meningitis Serum	erum			Tetanı	Tetanus Antitoxin	xin		
Month	20 cc. Vials	ţsoj)	lsniqs-stral stdtu()	1×0′)	estin')	180()	səgair.(2	tso.)	siyin()	1so() (
Vovember.	00	\$60 00	9	\$2.70	2,752,500	\$825 75	165	\$33 00	16	\$7 20
December.	06	00 00	10	4 50	1,817,000	545 10	~	40	-11	1 80
January	123	123 00	17	7 65	1,897,500	569-25	06	18 00	1.2	5 40
February	+	74 00	17	7 05	1,224,000	367 20	50	10 00	9	2 70
March.	130	130 00	1.2	5 40	2,128,000	638 40	110	22 00	6	4 05
April	110	119 00	17	7 65	1,096,000	328 80	117	23 40		
May	221	221 00	.31	13 95	3,140,500	942 15	112	22 40	22	06 6
June	183	183 00	33	14 85	3,665,000	1,099 50	112	22 40	16	7 20
July	117	117 00	01	4.50	4,593,000	1,377 90	1.2	2 :10	7.8	12 00
August	1117	117 00	13	5 85	4,574,000	1,372 20	105	21 00	9	2 70
September	190	190 00	00	3 60	4,287,000	1,286 10	131	26 20	18	8 10
October	122	122 00	18	8.10	3,650,000	1,095 00	139	27 80	20	00 6
Totals	1,546	1,546 00	192	\$86.40	34,824,500	\$10,447.35	1,145	\$229 00	157	\$70 65
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STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN-Continued November 1st, 1927, to October 31st, 1928

		Cost		\$100,503 90	1,928 20	\$102,432 10	1,783 20	\$100,648 90	48,943 60	\$149,592 50						
		· Summary		Biological products	Syringe containers		Revenue from containers		Insulin	Net cost						
	Insulin		tsoO	\$3,152 00	4,876 00	3,085 20	4,368 20	3,760 00	4,502 00	3,830 80	4,264 40	4,755 60	4,210 40	4,929 60	3,209 20	\$48,943 60
	Ins		stin'J	788,000	1,219,000	771,300	1,092,100	000'016	1,125,500	957,700	1,066,100	1,188,900	1,052,600	1,232,400	802,300	12,235,900
		Total Cost		\$14,914 80	12,226 61	12,272 60	7,799 09	8,068 74	6,737 89	7,714 18	6,246 39	4,349 78	5,618 58	7,292 34	9,191 10	\$102,432 10
			Cost	84 80		:	:	*.	:	:	4 00	2 00	2 00			\$12 80
	cine	sə	SniryS	77	:	:	:	:		:	70	10	10	:	:	10
	Rabies Vaccine		tso2	\$140 00	136 50	183 75	115 50	525 00	976 50	378 00	236 25	514 50	588 00	357 00	577 50	\$4,728 50
-		31u9u	Treatr	11	13	171	11	50	93	36	221,	49	56	34	55	448
And the second s	,	Month		November	December	January	February	March	April	May	June	July:	August	September	October	Totals

DISTRICT OFFICERS OF HEALTH

DISTRICT No. 1

T. J. McNally, D.O.H.

I have the honour to submit the sixteenth annual report for this district which comprises all the municipalities in the six southwestern counties of the Province of Ontario, having an estimated population of about half a million.

Health and sanitary conditions are governed locally by 122 Boards of Health, having 104 Medical Officers of Health as executive officers and of these two are

full time.

These officers have all been visited officially except Pelee Island executive and most of them on several occasions during the year, as well as 119 special calls to deal with nuisances, communicable diseases, supervision of nursing demonstrations, addressing public meetings, etc.

In addition to this work about three weeks was spent on inspection of motor camps and highway booths in conjunction with Mr. Johnston of the engineering staff, necessitating altogether over 22,000 miles of travel by motor car in the supervision of public health work in the district.

Office work consisted of answering correspondence, making weekly and special reports, filling out financial statements, with car logs and filing copies of all the above. This gives in brief outline a summary of the year's work of

vour district officer.

I regret very much that because so much of my time has been occupied with details that could be quite as well handled by an engineer and stenographer attached to this office, much important public health work has necessarily been left undone.

PUBLIC HEALTH NURSING

Six municipalities in the district now employ Public Health Nurses and in six others, School Nurses are utilized by the Boards of Education for supervision

of the health of the pupils.

During the year one of your Public Health Nurses (Miss Pennock) was employed in the Town of Tecumseh and the Township of East Sandwich, introducing public health nursing and initiating a nurse employed by these municipalities. The uniting of these municipalities for this purpose was entirely due to the efforts of Senator Lacasse as Medical Officer of Health.

Mrs. Bagshaw gave a very effective demonstration of public health nursing in the Town of Aylmer, and during the latter part of the year has been engaged in a similar work in the Township of South Dorchester, and Miss Pennock has been occupied in a like capacity in North Gosfield, while Miss Howey has been recently assigned to the Township of Biddulph for a demonstration.

MILK

My comments in former reports on this food continue to apply to its supervision for domestic use because, while essentially necessary, it is potentially dangerous to health.

RURAL SCHOOLS

The local Medical Officer's annual inspection of these institutions continues to improve their sanitary condition but in too many instances his advice is not acted upon by the school boards.

COMMUNICABLE DISEASES

Lack of uniformity by local officers in the quarantine of mumps, German measles, whooping cough and chickenpox is a serious handicap in public health administration.

Either the regulations should be changed or all local officers should be required to conform to the law.

Another difficulty, glaringly demonstrated during the present epidemic of influenza, is the failure of medical practitioners to report communicable diseases, other than those subject to quarantine. This remissness in such an epidemic makes it impossible for health officials or workers to know where assistance is required.

This failure to report is, with four or five exceptions in this district, just as glaring on the part of our part-time Medical Officers of Health who are practising their profession.

How can a district officer guard the public health against tuberculosis, venereal diseases, etc., when they are not reported?

DIPHTHERIA

The use of toxoid as a protection against this disease is gradually, though all too slowly, being utilized by the public; credit is due to those practitioners who are urging their clientele to accept this protection, as well as to those medical officers who have arranged with their local Boards to have it administered free to all who will accept this treatment. The incidence of the disease in the district this year has not in any case assumed the proportions of an epidemic. I would suggest that each medical society be urged, through the Ontario Medical Association, by the Department to enlist the active co-operation of each of its members in making a united effort to have all children especially under ten years of age protected against this disease. There are two very good reasons why this should be done, first because it is this group which is especially susceptible to the disease and where most of the fatalities occur, and second because at this age there is no reaction from the treatment.

VENEREAL DISEASES

The social diseases continue to make serious inroads on the public health of the community, to a large extent, because they are not reported, either as being treated or as having abandoned treatment, thus making it impossible for health authorities to exercise the necessary supervision for their control. It is but fair that note should be made of the large benefit being obtained through treatment by the Free Clinics established at different advantageous points. The care of those in penal institutions has also accomplished much good and is appreciated by most of those treated.

TYPHOID FEVER

It is a pleasure to report that the incidence of this disease in the district has been rare during the year and has appeared only in isolated cases. The potentially dangerous points outside of the unsolved milk supervision is from the water supplies of Courtright, Port Stanley, Tilbury, Petrolia, Aylmer and Woodstock.

RABIES

This disease has been gradually spreading from the first known case, at Harrow, which apparently was introduced from across the Border, until this year it has spread over the counties of Essex, Lambton and Kent, causing the loss of many valuable domestic animals and the life of one child. I have made every effort to use the measures of control now provided by law for its control, and have in most instances had the support of the local authorities, but of no avail; so that it is urgent that the Provincial law be so amended as to be effective for control and that quarantine should be established against further importations into the country.

WATER SUPPLY

Courtright supply is a serious menace, so that I advise the Department to take such action as may be required to safeguard the travelling public and tourist as well as the citizens of the village.

I am pleased to report that Glencoe has followed the advice of the Department, and has now in operation an abundant municipal supply of pure deep well water

During the year I have frequently been urging upon the Mayor of Tilbury the necessity for a pure municipal water, and now have received his assurance that they will have one installed during 1929.

MOTOR CAMPS AND HIGHWAY BOOTHS

All motor camps in the district, seventy-three, were examined by Mr. Johnson, a Department Engineer, and your district officer, who gave approval certificates to twenty-four, as complying with the minimum regulations required by the Department.

We also made a survey of all the highway booths, 138, giving approval certificates to forty-six as complying with your standard requirements.

The better type of operators of these camps and booths are making some effort to reach your requirements, but there is not much improvement by the others, who, unfortunately, are in the majority. The conditions of these latter camps and booths must give a very poor impression of our people and country to the tourists as they call or pass along.

It is quite time that all should be required to attain the minimum standard set for the welfare of the tourists and in justice to those who are complying with the requirements as well as to those who are engaged in catering to the public

all the year round in Standard Hotels.

During this survey ninety-six samples of water were collected from booths and camps; these samples were examined at the Institute of Public Health, London, and were classified as follows: twenty were "good"; nine, "fair"; six, "doubtful," and sixty-one "unsatisfactory." Most of these "unsatisfactory"

samples show "colon" in 1/10 or 1 c.c., so that they are potentially quite dangerous. This surely is sufficient reason for the Department to safeguard public health by requiring persons operating these businesses to have a license based on their minimum requirements.

SUMMER RESORTS

Supervision of these resorts is a rather difficult problem, except where the municipality can be induced to appoint a full-time sanitary inspector for the holiday season.

It seems evident that if proper supervision is going to be exercised over the sanitary conditions of these communities, it will be necessary to have those operating them to register and allow only those to do so who provide reasonable sanitary accommodation for their patrons, and these conveniences under constant supervision. In conclusion permit me to express my appreciation of the cordial co-operation and assistance rendered by the Deputy Minister and Divisional heads and headquarters staff on all occasions when consulted regarding problems in the District.

DISTRICT No. 2

J. J. Fraser, D.O.H.

From year to year the activities of the Department have expanded and broadened, and every new work taken on has resulted in benefit to the people of the Province. In the way of constructive work for the future I beg to suggest the following: (1) The production and handling of milk be put under the Department of Health, not under the Department of Agriculture; milk is linked up with health in so many ways, infant hygiene, child welfare, communicable diseases, etc. (2) Motor camps be placed with the Department of Health and licensed, not under the Department of Highways. (3) Hospitals be placed under the care of Health instead of under the Provincial Secretary.

The Province of Quebec to the east, Manitoba on the west, and the State of New York on the south all have full-time health units. It is hoped the Province of Ontario will inaugurate this important step and by next year we can report

a start having been made.

COMMUNICABLE DISEASES

It is a disappointment to find there has been no change in the regulations for minor communicable diseases. I have a great deal of sympathy for Medical Officers of Health who have worked hard for years, and with a good deal of success, to get their public to appreciate the value of quarantine. Then when an epidemic of mumps comes along they are asked to treat it just as seriously as an epidemic of diphtheria. Even more so, for while all contacts of a diphtheria case are to be quarantined for seven days, all contacts of a mumps case must be quarantined eighteen days.

Again, if a person gets German measles he is quarantined fourteen days, but if he just comes in contact with a case he is tied up for twenty-one days.

The argument is advanced that if the quarantine period for German measles is materially shortened all cases of measles will be called German measles. I do not believe that. Where one doctor would do so, ten would be honest in their diagnosis, and why penalize the ten honest men for one dishonest? Besides. the health officer knows the doctor in his municipality who will do this sort of thing and I think he would very soon check up on him.

Towards the end of the year a wide-spread epidemic of influenza occurred throughout the whole Province. The Department adopted prompt measures to combat it which had very beneficial results. Although the infection was not as severe as the last one, the fatalities were fewer from the experience then gained. The public has learned well the lesson, to go to bed at the first appearance of symptoms, and to stay there until all danger is past. If this lesson were as well remembered in every winter cold, undoubtedly many deaths from penumonia would be avoided.

NEW DISEASES

There are two diseases that have come to the fore recently, undulant fever and tularemia. As man makes a slight gain in one direction against disease and death it seems as though some other danger must loom up and become an obstacle to worry him. Undulant fever is caused by the Brucella abortus in cattle. It is transmitted to man by drinking raw milk, and by direct contact with infected animals. Hence it is more to be looked for in rural communities and small towns.

To avoid it would seem simple, drink only pasteurized milk. But people will not do this so the condition must be attacked at its source. One of the first steps is to inform dairymen of the human health problem involved, both for themselves and for the ultimate milk consumer. They are already well enough aware of the economic problem that bovine infectious abortion involves, a powerful incentive to carry out the proper precautions for protecting their herds.

Tularemia has not yet been recognized in Ontario, but has occurred in the northern States along the Border, so it is just a matter of time when we will have it here. The source of infection is largely the wild rabbit, from which man contracts the disease either in skinning it or preparing it for the table. If one must eat wild rabbit he should wear rubber gloves while dressing it. It should be advised that the rabbit, which has been killed with a stick or been caught by a dog, be allowed to remain where it lay, as in all probability it is a diseased animal.

While on the matter of new problems there is one which would seem to demand attention. One can scarcely sit in with a company of middle-aged men without someone bringing up the subject of diseases of the stomach, and at least two of them seem to have had an operation or are going to have one. The other day I listened to two men discussing the advantages and disadvantages of a gastro-enterostomy as compared with a pylorectomy.

It seems to me the way to attack this problem is to catch them young, but how I do not know. If the time spent in schools on music and art were devoted to a study of food values and the evils of abusing the alimentary canal it would be much more profitable. And who can enjoy music and art if they are thinking of their stomachs all the time.

FOOD SUPPLIES

A branch of Good Food Products of London was to be opened at Seaforth. The company was requested to submit a plan of their waste disposal for approval. A large factory for the making of cereals at Ayr is a model of care and cleanliness. From the time the grain comes off the cars until it is loaded in finished packages, the product is not touched by human hands. All food products seem to be carefully handled with the exception of meat supplies. County abattoirs would be one solution.

Milk continues to be a problem of prime importance. One can arouse interest in any community by a reference to the milk supply. Milk is a universal food, at the same time it is one of the best culture media for bacteria. How can a municipality set about to get a clean supply? First and foremost it should have a milk by-law passed by the council, this gives control of the supply. Then there should be inspection, especially at the producing end, right through to the consumers. This will include stables, cows, utensils, milkers, chilling, etc. Given proper control and adequate inspection a great deal can be done to ensure a clean, safe supply.

WATER SUPPLIES AND SEWERAGE SYSTEMS

The village of Exeter is preparing plans to instal a municipal water supply. A sanitary survey by the Engineering Division showed most of the wells were polluted. The plan recommended is to use deep artesian wells.

Southampton water has shown intermittent contamination for a long time and in spite of warnings from the local health officer and the Department the council refuses to do anything. I would recommend to the Department to enforce the town to install a chlorination plant.

The village of Longford, which is owned and operated by the Standard Chemical Company, was flooded in the spring, the wells, all except three, being under water. Samples taken from these wells showed pollution. A small chlorinating plant was supplied to each house, the school and the chemical plant with instructions to the Superintendent and teacher to see that all drinking water was chlorinated. The company showed the most willing co-operation.

Orangeville and Palmerston have installed a complete system of sewerage with disposal plant. This may stimulate other towns of similar size to do likewise.

Motor Camps and Refreshment Booths

There was an improvement in these as shown by the fact that there were twice as many approved as last year. At the time of inspection there was not one approved motor camp on the Blue Water Highway, an important link between Detroit and the north. Before the season was over two had qualified for approval, Goderich and Wiarton.

While the inspection of refreshment booths remained rigid, eight were approved as compared with two last year.

During the course of inspection of motor camps, the first-aid kits issued by the St. John Ambulance were checked over. Enough use had been made of them to justify the issue, and it is believed they will be used more as their value becomes appreciated. The cases they were used for were mostly cuts, burns and bruises.

The better camps show an increased attendance, due partly to increased motor traffic, partly also to improved conditions. There should be some way of learning when a new camp or booth is opened. We only know by hearsay when a new one opens for business.

SUMMER RESORTS

The question as to whether the water at large summer hotels should be treated or not is becoming more acute each year. This year an emergency call was answered from one of the largest, where samples taken showed the presence of *B. Coli*. A temporary plant was introduced which served the purpose, but risk of these measures failing is very great.

Some criticism was advanced against the disposal of sewage on the boats. This was checked up again this year, and all passenger boats are equipped for treatment with live steam. Whether the privately owned and small freight

boats are so equipped or not is doubtful.

Numerous camps for boys and girls were inspected and found satisfactory.

HEALTH OFFICER

There is one type of service that the public does not use to the extent it might, i.e., intelligently. I mean the Medical Officer of Health. He is ready and eager always to give his support to the welfare of the community. Starting with the child before it is born, he appreciates the value of maternal and prenatal care. Through infancy and childhood he stresses the use of immunization against such diseases as smallpox and diphtheria. If a town wants to put on a campaign for clean milk they should look to the health officer who will give them a lead. He can tell why the family on the tenth has one or more cases of typhoid each year and having located the cause will remove it. There are many ways in which he can serve the community, asking not money, but only the support of the public. Of course there is the occasional one who is the arch humbug of Christendom, but he is rare.

HEALTH EDUCATION

Public health efforts have received an impetus by the establishment of additional clinics in the district—chest, venereal and dental. Acknowledgment is made for the assistance given by the Women's Institutes, Victorian Order of Nurses and service clubs. These clinics establish valuable contacts, for example the chest clinic at Wiarton which took in the Indians of the Reserve at Cape Croker. Addresses and weekly articles have reached out farther than before.

DISTRICT No. 3

D. A. McClenahan, D.O.H.

I have the honour to submit the following annual report for the above mentioned district comprising nine counties with a population of 1,200,000.

CHILD WELFARE

An intensive demonstration of child welfare work has been begun under the direction of Dr. J. T. Phair in Port Dover Village and Woodhouse Township, and also in Richmond Hill and Markham Village and Township. This will no doubt be of great educational value to the public and will also furnish the Department with useful information. Quite a number of community nurses are

employed in my district, but these are mostly in cities and towns. The rural sections are still very largely without public health nurses, but a number of them have school nurses, and these are doing satisfactory work with the exception of pre-school and pre-natal work. We thus find that a large part of my area is covered with some form of nursing service, and valuable educational work is being carried on, particularly in the schools.

COMMUNICABLE DISEASES

I have received a list of these diseases in my district furnished through the kindness of Dr. McKay of the Provincial Department.

An analysis of these figures is interesting, regarding the purely preventable diseases. I mean diseases for which we have a known preventative, viz.: diphtheria. scarlet fever, smallpox and typhoid. There were in my district in 1927, 1,824 cases of diphtheria and 162 deaths and in 1928 there were 1,199 cases and 75 deaths. That is to say if the same incidence and mortality rates had obtained in 1928 as in 1927, 87 more children would have died than did actually die from this disease, and there would have been 625 more cases of sickness from diphtheria. This diminution of cases and deaths from diphtheria is due largely, I feel sure, to the campaign carried on for the inoculation of all children with toxoid. Converted into terms of dollars and cents the saving of life alone was worth economically about \$750,000, besides the fact that there were 625 fewer cases, and the consequent worry and expense in connection with these would bring the total value of the public health work in connection with this disease in my district due to local Medical Officers of Health and Boards of Health to almost a million dollars. In making this estimate I have followed closely the figures as given by Dr. Dublin of the Metropolitan Life Insurance Company of New York City.

With regard to scarlet fever there were 3,233 cases in 1927 and thirteen deaths and in 1928, 1,683 cases and nine deaths, a saving of four lives and 1,550 cases of the disease. This means also a considerable economic gain.

As to smallpox, there were two deaths in 1928 and none in 1927, but there were 296 fewer cases in 1928 than in 1927.

As to typhoid fever there were in 1927, 121 cases and five deaths and in 1928, 113 cases and twelve deaths. There were eight fewer cases in 1928 but seven more deaths. The cities and large towns are now practically free of typhoid and the disease is becoming more and more a rural disease. Hence, I think it is necessary for us to do more rural public health work. The saving of lives and prevention of sickness should not be contingent upon residence in cities or large towns.

MILK

Only pasteurized milk is exposed for sale in Toronto, Oakville, Aurora, Richmond Hill, Georgetown, Welland and Weston. Most of the towns and villages now have milk by-laws, and more or less efficient supervision of the milk sold. The public is being rapidly educated as to the importance of careful inspection of the sources and handling of the milk supply.

Tourists' Camps

I am satisfied we shall not have satisfactory conditions in all tourists' camps and refreshment booths until the regulations become obligatory and infractions of them be made punishable. Some improvement is noticeable but not so much as we would like to see.

Scope of Public Health Work

We have continued in 1928 the campaign for the prevention of diphtheria by inoculation of children, school and pre-school, with toxoid. We have also attempted to induce municipalities to engage community nurses where possible, either singly or in combination with another municipality. This with supervision of communicable diseases, the attending of meetings of councils and health boards and the education of the public by addresses, moving pictures, etc., have constituted the important part of our work for 1928.

In respectfully submitting this report to the Honourable the Minister of Health, I desire to thank all connected with the Provincial Department of Health, all boards of council, health or education, as well as local Medical Officers of Health, women's institutes and officials of the Department of Agriculture, for uniform kindness and co-operation.

DISTRICT No. 4

N. H. SUTTON, D.O.H.

My last year's report ended with a note of hopefulness that the City of Peterborough was in a fair way to adopt a full-time health service and take its proper place in the ranks of progress. A combination of local circumstances have, however, prevented the immediate adoption of this inevitable advance, and Peterborough still lags behind. As the year ends, a brisk epidemic of measles is present in the city. Cases are quarantined when reported, but little or no effort has been made to trace sources or control any but family contacts. When the schools again open and the school medical service is again in action, some improvement in the situation may result.

In Oshawa steady progress continues to be evidenced. There are now five Public Health Nurses on the staff there, and the service of the Health Department is about the best of any city of similar size in the Province; it is a full-time organization in all respects, excepting the M.O.H., who is in receipt of a part-time salary of \$500.00. The value of his service to the city is quite ten times that much. The people of Oshawa, under the educational leadership of the Health Department staff, are developing a health consciousness and conscience and co-operating with the Health Department more and more. One way in which this is evidenced is in statistics. More communicable diseases are reported from Oshawa than from any other equal number of people in the district, not because there are more cases but because the people and the physicians have been shown the value of this in tracing down disease, and preventing its spread. Those who are careless or refractory are usually caught by some of the staff and have learned that they might better have reported in the first place.

In Belleville there is a gain in public health thought and action, which at times appears all too slow, but may be the more sure for that, so that a foundation may be consolidated on which to erect more rapidly, the remainder of the necessary structure.

COMMUNICABLE DISEASES

With one exception these have not been specially prevalent. Influenza is the exception, and beginning with early December it has been universally present through the district, reaching its peak between Christmas and New Years.

The disease was mild in character and of three types: respiratory, gastrointestinal, and nervous (meningeal). The percentage of deaths to cases has been small and most of these due to pneumonic complications in the aged. A much smaller list was due to bronchial or meningeal complications in very young children.

Smallpox was present at the beginning of the year in Haliburton County, but the energetic work of the three really splendid young medical men in that area soon rooted it out. A few cases occurred in the summer in Emily Township, the source being a young man who returned there from lumbering operations near Huntsville, where, he stated, his case had been diagnosed chickenpox. Isolation and vaccination were effectively employed. Two cases occurred separately in Oshawa during the year among the floating population. As the year ends, a few cases are under quarantine in and about Tudor Township, in the Hastings lumbering area. The disease has been in mild form.

Rabies appeared in three places during the year, coming in each case from the direction of Kingston. In March, a dog reached Cobourg from the east and attacked six persons, biting three of them before being shot. The head on examination was found positive for rabies and those exposed were treated successfully. In April, rabies appeared among the dogs in the sourth part of Tyendinaga Township, including the Indian Reserve, and in June in the area about Consecon. All persons bitten or closely exposed were treated and no human cases developed.

Diphtheria has not been specially prevalent, the usual increase among children being again noted after the schools reopened in September. The only place where it has not been successfully handled is Cobourg, where the health officials have not awakened to the necessity of scrapping antedeluvian methods. In six months there have been almost as many cases there, as in the remainder of the district in the entire year. In many places campaigns have been successfully carried on for immunizing the child population by use of toxoid. Many physicians have been successfully urging this among their clientele and the parents in ever-increasing numbers are requesting this protection for their children.

Scarlet fever has not been greatly in evidence and the type has been quite mild—some cases so mild as never to be brought for diagnosis and so not reported, thus adding to the difficulties of control. One fulminant case died in Peterborough a few hours after removal to the Isolation Hospital. This was the child of a milk dealer who, until it came to my notice, was allowed to go on bottling and retailing raw milk from a room in his house to which the remainder of his household had access. Providence was kind, however, and no spread of the disease occurred.

Typhoid fever has occurred all too frequently. In most places the cases were single and the source could not be traced. Three cases arising at a summer resort on Scugog Lake showed evidence pointing to contamination of the milk supply by a carrier, but the carrier has not yet been proved. Late in October a banquet was held in Frankford and two and three weeks later several cases of typhoid and para-typhoid occurred in the area among people whose only exposure in common had been at that banquet. Investigation by myself and again by Dr. A. L. McKay and Mr. Johnston of the Sanitary Engineering Division, of all the evidence, focused the blame on the water used on that occasion. This was from an old well at the banqueting hall which has been allowed to get into some disrepair, and is apparently subject to periodic pollution.

Undulant fever has been diagosed in several places in the district and has caused tedious disability, but no deaths among the cases. I have endeavoured to

spread, as rapidly as possible, among the medical population, the knowledge we have gained of this disease and the facilities which our laboratories have to offer in assistance in diagnosis. Several physicians of ripe experience recall cases which puzzled them much in past years and which they now recognize as having presented symptoms pointing to this disease. It is also plainly seen that we have brought into the open another raw-milk hazard.

VENEREAL DISEASES

It is not more than four years since these really began to be reported and it cannot be contended yet that the cases reported bear anything like a close relation to the number of cases occurring, yet during the year, in Ontario, V.D.G. stood eighth and V.D.S. tenth among the forty-two reportable diseases. When the serious nature of these diseases, and especially the disabling quality of their later effects upon the individual and on the race is considered, and when it is known that the number of cases reported is a small fraction of the cases occurring, the situation revealed is a most disquieting one. It merits the best thought and work of all our health authorities.

MILK SUPPLIES

The year saw the completion of my instructional survey of the retail milk trade in the district. This was done in company with the local officials who were charged with the duty of inspection of these supplies. That it has been effectual is evidenced by the increasing number of municipalities using our laboratory facilities for periodic testing of the local supplies and by the frequency with which I am consulted as to steps to be taken to improve them. I realize, however, that the pressure must be kept up to maintain the rate of improvement. I would say that most places are ready, or nearly ready, to welcome Province-wide pasteurization of retail milk supplies.

MOTOR TOURIST CAMPS, ETC.

Inspection of motor tourist camps, highway refreshment booths and fresh air camps was made in company with one of our engineers. The fresh air camps are all in pretty fair shape and the managements are most willing to have our aid in making improvements. There has been no increase in the numbers of motor tourist camps, nor much improvement in those operating. Improvement is not likely until they are licensed and must meet the minimum requirements. The same applies to the refreshment booths, some of which should be suppressed.

During the summer I also inspected the summer resort areas throughout the district. With rare exceptions the hotels and boarding houses on the lakes and rivers are fairly well conducted. Groups of cottages are somewhat different and are often too closely built and unwilling to meet the resulting problems in anitation.

I again sampled the waters of the Stoney Lake area and found that the lake water was pure, except in a few localities, as about Government wharves.

I also sampled the water of the Trent Canal system from Peterborough to Trenton, while inspecting the summer colonies along the shores. The pollution of the river by the City of Peterborough is considerable and the tests above the

sewage disposal plant were as bad as below it. It took the twenty miles of slow-flowing river to Rice Lake before the samples showed pure. All Rice Lake samples were pure, but each village upon the river below added some pollution to the water as shown by the tests for varying distances. The pollution from the Town of Campbellford showed for twenty miles below it, in spite of several rapids and falls and over twelve miles of slow water. I was surprised to find that several of the lockmasters' houses erected by the Trent Canal authorities and rented to the lockmasters were not provided with wells and that these employees were expected to drink river water, which tests showed to be impure. This is being taken up with the Superintendent.

Public Health Nurses

Miss Shantz, the nurse last year appointed to start this service in Lindsay, did a remarkably fine work and quickly established it as indispensable there. Unfortunately her fine spirit and devotion to duty drove her to work beyond the limit of human endurance and she broke down under the strain. The local authorities waited for months before accepting her resignation in the hope that she would so recover as to be able to come back to them. They had at last to regretfully accept her resignation and are at the end of the year looking for her successor and there is none at the time available.

During the autumn a demonstration of the nursing service has been made in Picton, Bloomfield and Wellington, with such general approval that the authorities in those municipalities have all expressed themselves in favour of securing a nurse for the three. Action was deferred to the councils incoming with the New Year.

In other municipalities where nursing services are established, increasing popularity and usefulness has been the rule.

PUBLIC HEALTH EDUCATION

This work is being done to an encouraging degree by several M.O.H.'s within the District—as many rural as urban, but in most places this work is not done by these part-time officers. They maintain that they have not time for it, do not know just how to go about it and are not paid enough, nor would be paid enough to allow them to do it. Almost 90 per cent. of them would welcome a full-time service for counties or areas which would relieve them of duties which they know are impossible to properly discharge under the part-time system.

The authoritative articles appearing in the press and addresses over radio are having a cumulative effect upon the public, and in some respects I am forced to believe that they are readier for advance than the general medical profession are ready to lead.

During the year I have addressed several groups of people: Service clubs, Women's Institutes, Municipal Councils, Boards of Education, Boy Scouts, Junior Farmers and Junior Institutes. The Women's Institutes especially are an effective organization and I hope to have a wider touch with them in the coming year. Their efforts to get things done are usually very direct and to the point. I have found a sort of round-table conference at these meetings is much the most effective feature of them.

DISTRICT No. 5

PAUL J. MOLONEY, D.O.H.

Owing to amendments to The Health Act in 1927, District No. 5 now consists of the counties of Dundas, Stormont and Glengarry, Leeds and Grenville, Frontenac, Lennox and Addington, Lanark, Renfrew, Carleton, Prescott and Russell, and the cities of Ottawa and Kingston, the total acreage being 5,570,763 and the population approximately 500,000.

The central office, which for many years has been located in the city of Ottawa, continues to be utilized as a source of information and a public health centre to an increasing extent each year through personal interviews by letter and telephone. The latter means of communication is particularly noticeable by its increase, scarcely a day passing without many long distance calls from health officers, Boards of Health, municipal councils, and others connected with public health matters. Written communications now received by letter exceed 3,000 annually.

All the public institutions, thirty-four in number, have been inspected regarding their sanitary condition and reports sent to the Provincial Department of Health, and, where indicated, to the governing bodies. A request for the elimination of unsanitary conditions or for the installing of needed improvements has generally been promptly met by those in charge of the management. Request for the investigation of special conditions existing in different localities in the district have been promptly responded to when at all possible, and, if justified, vigorous action has been taken in regard to the sanitary conditions.

I desire to record the hearty co-operation and valuable assistance received from the various divisions under the control of the Provincial Department of Health and also from the Inspectors of the Ontario Department of Labour, the Provincial Public Health Nurses, the Mothers' Allowance Board and Inspectors, the Federal Veterinary-General's Department, and the Canadian Tuberculosis Association.

Besides the reports which cover the work each month which are sent to the Department, special reports dealing with and giving information in detail concerning important conditions which have arisen have been sent to the Department during the year.

COMMUNICABLE DISEASES

Except for a rather severe outbreak of smallpox in the beginning of the year there were no very serious epidemics of communicable disease.

SMALLPOX

This disease was very prevalent during the closing months of 1927. In January and February of 1928 it continued in certain sections during January and part of February. Cornwall Town and suburbs gave the most difficulty. Extensive campaigns for vaccination were undertaken and free clinics for this purpose established. In Cornwall they reverted to the old system of establishing an Isolation Hospital with very good results.

CHICKENPON

Chickenpox was prevalent in and around Ottawa during the spring, and owing to the severity of many of the cases I was frequently called upon to make a diagnosis between it and smallpox. While this disease was well under control by midsummer the occasional case cropped up here and there during the balance of the year.

TYPHOID FEVER

This disease has been pretty well eliminated in this end of the Province in recent years owing to sanitary precautions. However, during the year we had more cases than usual. Besides the sporadic cases a severe outbreak occurred in a road gang on the Pembroke-Ottawa Highway, due to a contaminated water supply that the men were using for drinking purposes. Seven cases occurred in the road gang and three deaths. A new source of water supply and the innoculation of all the workmen seemed to control this outbreak. A noteworthy feature was that with one exception the disease did not appear among the foreigners who constituted over 75 per cent, of the workmen. It is possible that they were immune owing to their habitual use of contaminated water supplies. As this outbreak was only one of many which has occurred in recent years in the road construction gangs, I have asked the Department to promulgate regulations regarding the water supply in those cases, and making it compulsory on the contractor to supply drinking water from approved sources only.

At Iroquois there was a small epidemic apparently due to the practise of the summer residents at Iroquois Point of throwing their garbage and other wastes into the St. Lawrence, a short distance above the town's water intake pipe.

In Rockland we had the usual recurrent cases whenever the chlorination plant went out of order. In the latter town, in the fall of the year, they installed a new chlorination machine.

Tourist Resorts, Wayside Inns, Etc.

This end of the Province is bountifully supplied with localities suitable for tourist resorts and campers. The Thousand Islands and the other resorts in that river, together with its shore line, afforded location for the greatest number. The Rideau Lakes have always been very popular owing to the purity of their waters, the charming scenery and excellent fishing. As many as 500 summer homes are located on one of these lakes alone. The county of Frontenac has over 400 charted lakes. Other favourite resorts in this locality are Christie, Otty and Sharbot Lakes. The Ottawa River is not used to the same extent as a tourist resort as some of the other waters, although on its upper reaches it is becoming more popular every year.

On the highways, as in the other parts of the Province, wayside inns and restaurants have been established in great numbers. In connection with these the regulations drafted by the Department, which entitle those that came up to a certain standard to display a banner or placard reciting that they were approved by the Department, has had a very good effect. More than twice as many, especially restaurants, qualified for this approval than in the previous year.

Before the season opened all health officers were advised by this office as to their duty with regard to inspecting the tourist resorts, summer camps, way-side inns and so forth, and that a check-up on their work would be done by

Departmental officials later on in the season. This had a very good effect, and when I made my usual summer inspections I found considerable improvement over former years in sanitary surroundings.

In this work I received valuable assistance from Mr. Burn, sanitary engineer

of Dr. Berry's staff, and Mr. Smith of the Sanitary Inspector's staff.

Under this heading I would like to refer to the excellent summer camps conducted by the Y.M.C.A. at Shirley Bay and Golden Lake. Also the Ottawa Boys' Camp at Mink Lake, the boys' camp at Christie Lake, and a very select camp for girls at Camp Oconto.

CHEST CLINICS

During the year a series of excellent chest clinics was conducted in different centres by Dr. Brink and his assistants. These clinics were well patronized—as a rule many more presenting themselves for examination than could be examined during the days allotted to the particular locality.

Public meetings were frequently held where the subject of the prevention and cure of tuberculosis was ably discussed by Dr. Brink and others. The practise of giving yearly clinics in certain localities has been established. Clinics were held at Arnprior, Renfrew, Pembroke, Kemptville, Prescott, Winchester, Chesterville, Alexandria, Brockville, Cornwall, Napanee and Carleton Place.

It was found as a result of the clinics that a sanatorium in Eastern Ontario was urgently needed. This matter was taken up by the Canadian Tuberculosis Association and a campaign was inaugurated for the establishment of such an institution in a central locality which would serve the needs of the six eastern counties and the separated towns of Brockville, Smith's Falls, Gananoque and Prescott. In the scheme it was provided that a committee representing the six counties and the separated towns would have the control of the institution. The cost of the building and its equipment was expected to be materially aided by a government grant. This movement received the active co-operation of the Department and addresses were given to the various county councils in its support. Dr. Bell, Deputy Minister, among other officers of the Department, gave his assistance. All the counties and separated towns, with one exception, have expressed their concurrence in the scheme. It is hoped that the one remain-It is planned to have an up-toing county will fall in line at the next meeting. date institution both as to buildings and equipment; that it be placed in such a locality as would make it convenient of access to all patients in the district. No public health movement so badly needed or gives such promise of usefulness has been before inaugurated in the district.

Public Health Nurses

During the year the Division of Child Hygiene gave several demonstrations of public health nursing. Demonstrations were, as usual in this district, welcomed by the people generally and received their enthusiastic support. The employment of a permanent Public Health Nurse following the demonstrations, however, was unsatisfactory. The only additional Public Health Nurse engaged during the year was at Cornwall. Arnprior and Prescott have the matter under consideration with fair prospects of a nurse of their own being employed.

Misses Campbell, Squires, Mickleborough and Lunn were in charge at

different centres.

A very successful demonstration was given at Arnprior with Miss Squires in charge. Local organizations took charge of a movement for supplying a milk ration in the schools daily for under-weight children, and as the movement is still under way it is likely to become a permanent feature.

A very successful Child Health Clinic was given by Drs. Phair and Kiteley,

which was followed later by many physical corr ctions.

During the demonstration the Public Health Nurse rendered valuable aid in abating a wide-spread outbreak of diphtheria by her active co-operation with the local health authorities.

Both Braeside, which was included in the demonstration, and Arnprior, through their Boards of Health, were unanimous in favour of the employment of a permanent Public Health Nurse.

Miss Mickleborough rendered very valuable assistance in putting energy and system into the work of the local health authorities in supressing the small-pox outbreaks which occurred in the beginning of the year, especially in Cornwall.

In Prescott and the township of Edwardsburg, and in Perth with the township of Drummond, demonstrations are in progress under Misses Lunn and Squires.

Other notable public health events connected with the district were:

FILTRATION OF THE OTTAWA WATER SUPPLY

For many years the Department through this office has been pressing the city of Ottawa to take steps to improve their water supply. Many years ago the source of the city's water supply was a matter of serious contention among the citizens. Large sums of money were spent in exploring the feasibility of a supply from different locations in the Gatineau region. The question became involved in local politics and the ratepayers seemed hopelessly divided as to which of the different schemes should be adopted. Eventually an overland pipe was constructed from the waterworks intake at Lemieux Island to the city mains. Chlorination was the only further precaution depended upon to protect the water supply. The water supplied the citizens is markedly brownish in colour and the dosage of chlorine very high. Contaminating material, of course, has not been removed and is much in evidence at certain seasons of the year, and during stormy weather when the waters of Lake Deschenes are stirred up.

Of late years, owing to the industrialization of the Gatineau River and the lakes in connection with it, this source of supply has been eliminated.

After considerable negotiation all former factions, including the local press, tactily agreed to support a filtration plant in connection with the Ottawa River supply.

The Deputy Minister, Dr. Bell, and Dr. Berry, chief sanitary engineer, were very important factors in bringing about this unanimity of action.

A vote of the ratepayers was taken at the municipal elections in the fall

and the project was endorsed by a very large majority.

Sometime will elapse before Ottawa will enjoy the benefits of the improved water supply as certain experiments have to be carried on to determine the proper method of treating the water to get the best results. This will involve considerable delay. Much of this delay might have been prevented had the city authorities been willing to accept the offer of the Department to carry on these experiments practically free of charge, as far as staff was concerned, during the summer months.

SEWAGE AND WATER SUPPLY FOR OTTAWA SUBURBAN AREAS

West of Ottawa City and stretching along the Ottawa River is a suburban area which in the summertime has from twelve to fifteen thousand inhabitants, with probably seven thousand of them resident during the whole year. No part of this district is supplied by municipal waterworks or sewers. A great number of individual plants have been constructed and after being used for several years the wells became contaminated. On an intensive survey it was found that 50 per cent. of the wells were grossly contaminated and only a small proportion of the rest were fully acceptable.

This district was anxious for annexation to the City of Ottawa but the city refused, not caring to burden themselves with the expense liable to be involved.

A very active committee of the suburban residents had the sanitary problem under consideration for many years but were unable to arrive at a solution which would be acceptable. The chief obstacle was the expense involved in any proposed water and sewer system. The committee asked for the good offices of the Department in helping them to solve their difficulties. Dr. Berry and the Deputy Minister, after careful gathering of the facts connected with the situation, met the committee in the fall of the present year and advised that legislation be sought by the Township of Nepean authorizing the Township Council to set apart a certain district as a waterworks and sewer area. This advice was accepted unanimously by the committee and was later endorsed at public meetings held in the police villages and other sections of the area involved.

Acting on the petitions presented, the Township Council have applied to their solicitor for legislation enabling them to set this area apart for the purpose above mentioned.

RABIES

Rabies has been very prevalent in the district during the year and a great number of people have been bitten by rabid animals. These have all been treated with the Pasteur serum supplied free by the Department. The control of this disease in the District is, in my opinion, far from satisfactory, and I respectfully submit that a more definite understanding as to their respective obligations and duties should be arrived at between the Dominion and Provincial authorities.

DISTRICT No. 6

W. EGERTON GEORGE, D.O.H.

I have the honour to submit my Sixteenth Annual Report for the area comprising the Districts of Cochrane, Temiskaming, Nipissing, Parry Sound, and part of Sudbury.

PERSONNEL

Public health efforts of Health District No. 6 are directed by the following staff:

I. District Officer . . . W. Egerton George, M.B., D.P.H.

II. Public Health Nurses . . . Miss Rose Hally
Miss H. E. Smith
Miss M. H. Lunn
Miss Margaret Nealon

Miss Bertha E. Johnson

III. Sanitary Inspectors . . . John Richardson

David McKee Hugh McIntyre

A. Smith

IV. Laboratory:

Director . . . W. R. Michell, M.B., D.P.H.

Assistant . . . John Lawson

Stenographer . . . Miss Roma Langlois

Miss Rose Hally confined her attention to general public health nursing demonstrations in the organized Townships of Tisdale and Whitney, as well as along the T. & N.O. line from Porquois Junction to Timmins including the unorganized area about the latter town.

Miss H. E. Smith served in the area from New Liskeard to Kirkland Lake, including the Elk Lake Branch and fifteen organized and unorganized townships in the vicinity.

Miss M. H. Lunn came to Parry Sound about the middle of the year and served in the town and surrounding country as far east as the Townships of Hagerman, McKellar, Christie and Humphrey.

Miss Margaret Nealon began to work last September in the area from New Liskeard south, including Townships of Buck, Coleman, South Lorraine, and Gillies Limit, and continued until the end of the year.

Miss Bertha E. Johnson lives at Sudbury and serves on the border between between Health Districts No. 6 and No. 8, including eight townships in District No. 6.

Sanitary Inspectors John Richardson and Hugh McIntyre give their whole attention to Health District No. 6. David McKee is stationed at Sudbury and divides his time between District No. 6 and District No. 8. A. Smith gives but a small part of his time to that section along the C.N.R. line from Scotia Junction to Ottawa in this district. The most of his time is given to District No. 5, but both District No. 4 and District No. 3 receive a share of his attention.

LABORATORY

Our laboratory, which had been closed in November, 1927, because of the resignation of the Director, Dr. John S. Douglas, was opened early in the year (January 20th) under the able direction of W. R. Michell, M.B., D.P.H. Since that time the laboratory has slowly increased its usefulness as indicated by the steadily increasing number of specimens. Miss Roma Langlois took charge of the office about the middle of January.

COMMUNICABLE DISEASES

	1928	1927	1926
\ .1	0	1	0
Anthrax	0 5-4	1	0
Cerebro spinal meningitis	5-4	2-2	1-1
Chancroid	127	0	06
Chickenpox	125	83	96
Conjunctivitis, acute infectious	3	0	1
Diphtheria	53-2	50-3	40-2
Encephalitis lethargica	1-1	0	0
Gonorrhoea	127	60	17
Influenza epidemic	119-1	37-1	10
German measles	1	25	4
Measles	155-1	547	387
Mumps	258	131	47
Paratyphoid fever	9	0	0
Pneumonia:			
(a) Acute lobar	26-6	26-8	11-2
(b) Bronchial	11-7	13-8	12-5
Poliomyelitis, acute anterior	4-3	0	0
Puerperal septicaemia	0	2-2	0
Scarlet fever	90-2	89-1	137-1
Septic sore throat	62	9	4
Smallpox	43	42	83
Syphilis.	56	21	9
Tuberculosis	12-4	38-1	7
Typhoid fever	23-2	32-1	14
Whooping cough.		41	89-1
Goitre	1	0	0
	*		

Deaths reported from all other causes, 356.

Returns

It was thought that it might be interesting to check the weekly reports of certain communicable diseases against laboratory reports for the same diseases.

Diphtheria

The weekly reports gave only fifty-three cases and two deaths while laboratory returns for the same year gave positive swabs from 106 different patients.

Tuberculosis

The weekly reports gave a total of twelve cases and four deaths while the laboratory returns show positive sputums from fifty-nine different individuals.

Typhoid

The weekly reports indicated twenty-three cases of typhoid and two deaths while laboratory returns show ninety-two positive Widals.

There may have been some positive diphtheria swabs obtained from carriers; or positive tubeculosis sputums from patients reported in the previous year; or positive Widals from carriers, but I am sure the discrepancy between weekly reports and laboratory returns cannot be reasonably explained in this manner. Indeed, if the laboratory returns for diphtheria, tuberculosis and typhoid are any criterion of the correctness of weekly returns as a whole, it would appear that they are of restricted value. However, it is well known to this office that the weekly returns are very complete from a good number of local Boards of Health and it is quite safe to use the statistics of such.

DIPHTHERIA

The returns for this disease compare favourably with previous years. Parry Sound reported sixteen cases which was the largest number reported from any municipality, yet there was nothing simulating an epidemic. The highest number reported in any one month was three and this number was reported in both August and October.

A small outbreak occurred in South River in September and October. The patients were extremely ill, so that it was quite impossible to mistake the diagnosis. The prompt administration of large doses of antitoxin, followed by active immunization of a large number of children who were exposed, prevented the mortality which threatened.

Турноір

Timmins reported twenty-six cases of typhoid throughout the year, the most of which occurred in two small outbreaks. The first was in April and May and the last in September and October. In the April outbreak a carrier was found in one of the dairies, but in that of September the milk supply seemed to be free from suspicion. Every case was carefully investigated, especially in regard to water supplies, milk supplies, inside toilets or outside privies, previous cases in the families and sources of butter and cheese. Although each case was carefully examined by both the district officers and the Director of Sanitary Engineers, it seemed impossible to place the responsibility on a single source, and your officials were forced to fall back on that "easy escape," flies and carriers. In spite of the continued good bacteriological reports obtained on this water, the district officer feels that a very careful examination of the water supply by our Engineering Division must be undertaken in order to place the water beyond suspicion. The chlorine empties into the pump well opposite the mouth of the water inlet from the river. Three pump intakes are located in each side of the inlet (six pumps). Possibly the operation of more pumps on one side than on the other would result in inadequate mixing of the chlorine in the water. Sampling of water by taking eight ounces once a week for laboratory examination may easily miss possible pollution for many months; particularly is this the case when the sample is taken at approximately the same hour of the day, a few minutes before shipping time when conditions in the pump house are approximately the same.

In the month of October an outbreak of typhoid began in a restricted area of Sturgeon Falls which finally totalled twelve cases. The fact that the outbreak was not general throughout the town gave the health officer information that it was unlikely that the water supply was at fault. Careful investigation made him suspect a certain small dairy where the man's wife had been sick for two or three weeks in the spring or early summer. A Widal test from this woman gave a positive reaction. The dairy was closed pending examination of bowel and bladder discharges. As the people decided to close their dairy, only one urine and faecal examination was made and this proved negative.

MUMPS

In January an epidemic of mumps began along the Canadian National Railroad in the District of Parry Sound between Powassan and Scotia Junction.

The centre of the epidemic seemed to be at Burks Falls. Only a small proportion of the total number of cases were reported. The disease was of exceptionally mild type; consequently, exceptionally few of the complications that make mumps a dreaded disease were in evidence.

TUBERCULOSIS

Out of a total of fifty-nine persons who showed positive sputums in this health district, nineteen were reported from Sudbury. This is one-third of the total and was more than twice as many as that reported from any other town in the district. It was thought that the large foreign (Finnish particularly) population was the most important cause of the high incidence of tuberculosis. An examination of the laboratory returns of positive sputums indicates that while this is an important contributing cause, the municipality, entirely without these, is credited with an excessive amount of tuberculosis.

MEASLES

An extensive epidemic of measles broke out at Kirkland Lake in October and continued through November and first half of December. There was only one fatal case in the Township of Teck. The epidemic extended to the neighbouring unorganized townships along the Nipissing Central Railway as far east as Larder Lake. Only a small proportion of the total number of cases was reported.

INFLUENZA

In December influenza became epidemic over most of Northern Ontario. Cobalt was the first place to be seriously affected in this district about December 1st. Schools were closed when six teachers were compelled to take to bed and 250 to 300 children were absent. By Christmas, Sudbury, New Liskeard and Kirkland Lake had in the neighbourhood of one-third absent from the schools. Cobalt by this time was over the worst. North Bay, Parry Sound, Haileybury, Cochrane and Timmins were not so seriously affected, as only about 15 per cent. were absent from school at one time. Altogether the epidemic of flu became characterized by a spotty nature in so far as the disease became very prevalent in certain sections, less prevalent in others, while some places seemed to be missed entirely. This characteristic was noted throughout Ontario. Many of the municipalities kept their schools closed for a few extra days, so that instead of opening on January 3rd they opened on the 7th. Reports from this district in the week following the 7th of January indicated that the epidemic had spent itself before the end of the year, and school attendance was back to normal. Extremely few fatal cases were reported; in fact, I have the history of only one and that in a man seventy-five years of age. The increased severity which was noted in many places in southern Ontario toward the termination of the epidemic was not seen here. Indeed, the outbreak was very mild although it followed the distinctive explosive nature noted in 1918 and 1919.

IMMUNIZATION

Vaccination for Smallpox

In North Bay the medical officer carried on a campaign for vaccination in the schools with the result that between 600 and 700 school children were vaccinated.

In Sturgeon Falls between three and four hundred were vaccinated. This work has been carried on for many years with the result that Sturgeon Falls has a school population immune to smallpox. Although the disease has become prevalent in the neighbouring townships many times during the past four years and particularly during 1928, yet the town has remained free.

In April there were a number of cases of smallpox in South River which promptly came under control as soon as the children were vaccinated. The medical officer, Dr. Dawson, carried on a house to house vaccination of both

adults and children.

Diphtheria

In Englehart, Charlton and Earlton all school children were actively immunized to diphtheria by the toxoid method approved by the Department.

In Sudbury no school campaign was carried on for the administration of toxoid, but physicians in their private practice recommended it to their families with the result that a large number of children were immunized against diphtheria.

In the Township of Tisdale the children in the primary grades were given toxoid at South Porcupine and Dome.

PUBLIC HEALTH NURSING

Under personnel it was shown that five Departmental Public Health Nurses operated in District No. 6 during a large part of the year 1928. The problems of transportation in winter has decided the Department to centre the activities of the nurses to urban centres during the cold weather and to give rural areas more concentrated attention during summer months. To this number must be added the splendid body of nurses in the public health field and maintained by the Red Cross. These are located at North Bay, Bonfield, Whitney, Loring. Haileybury, New Liskeard, Kirkland Lake, Englehart. Outpost hospitals are maintained at all these places with the exception of North Bay.

A careful survey was made in forty townships by the Provincial Nurses. This included physical examination of all school children and the visitation of all homes. The examination of the children in the homes was included in these visits. The opportunity in the home was taken advantage of to spread information on public health, particularly with regard to personal hygiene and sanitation.

Regarding oral hygiene, Schumacher deserves a prize in this area for providing the largest percentage of children who are using a tooth brush. Two hundred and sixty-four out of 347 were using a tooth brush daily, that is 76 per cent. It is to be regretted that the same municipality which has done itself so much honour in oral hygiene should also achieve the unsavory distinction of having an infant mortality rate, 310 per 1,000 live births. With such distressing conditions it is hard to understand why Schumacher should voice the chief opposition of the Township of Tisdale to the appointment of a Public Health Nurse, since such an appointment would undoubtedly have meant to them a great saving of life

An outstanding success in this district by our Public Health Nurses has been the rediscovery of the fact that an unusually high percentage of eye defects are corrected after the holding of eye clinics by a competent specialist. No better illustration could be given than the success of Dr. Hill's school clinic at South Porcupine when out of thirty-eight attending the clinic thirty-four required glasses. The others required operation or hospital treatment. Practically 100 per cent. followed Dr. Hill's advice.

The educational value of the public health work was never so pronounced as during the past year. The opposition to the Public Health Nurse which resulted in certain places in open obstruction has been followed this year in Parry Sound and Cochrane by progressive and increasing co-operation.

The remedial work which has been carried on by Miss Roper, Red Cross Public Health Nurse in this area, among indigent children is deserving of special mention. Five dental clinics were held with a total of eighty-seven fillings. 561 extractions and 256 children in attendance. Five tonsil clinics were held at which tonsils were removed from eighty-eight children. The efforts put forward by parents in rural areas to get their children to the tonsil clinics, often requiring driving or walking many miles, indicate that an important obstacle to the correction of this defect is finance; while the large attendance of children at the dental clinics at Feronia, Bonfield, Rutherglen, Callander and Chiswick indicates that the distance as well as finance is an important obstacle to the correction of dental defects.

UNORGANIZED AREAS

The problem of communicable disease control in unorganized territory continues to demand a larger proportion of time than can well be spared by this office. The difficulty is aggravated by the absence of local medical officers to whom reports can be made, and by the absence of municipal clerks whose duty it is to forward the reported cases to the Department. The mildness of most communicable diseases is the most important reason why they are not reported. In fact, great care is taken in order to prevent knowledge of new cases becoming known until the patient has recovered from the symptoms. In other words, the patient is secluded until clinical recovery. After this time smallpox and scarlet fever are particularly dangerous to others, and as the patient then mixes with the public, the disease spreads rapidly. When schools become invaded, reports are soon sent to the district officer when it is frequently necessary for him to travel hundreds of miles by train and then drive many more in order to discover, placard and quarantine all cases or immunize contacts. It is most imperative that the improved basis of co-operation between the Provincial Sanitary Inspectors and district officers be extended by amendment to the Health Act or to the regulations so as the Sanitary Inspectors may be used to put up or remove placards in territory without municipal organization. Although it is necessary to register deaths before a body is buried, yet these registrars for unorganized areas have no legal responsibility or forms by which these returns may reach the district officers. They could be of great assistance to him and would help frequently to direct his attention to more serious matters.

At the last session of the Legislature the long looked for medical relief of indigent settlers and others in unorganized townships was placed in the hands of the Northern Ontario Relief Commission under the able Chairmanship of W. H. Alderson, together with many other duties including relief of other kinds. The consistent co-operation which has been extended by this Commission to this office has alleviated one of the difficult problems with which I have had to deal. If one could be excused for offering a little constructive criticism, it would be that the Commission is completely dependent on the personnel of other departments or on private individuals for its sources of information. Undoubtedly, large numbers of poor settlers are suffering and deserving of relief, but nothing is heard of them because Public Health Nurses or other Government

officials have not visited the area. There is no doubt, however, that a great step forward has been made, and that the responsible authorities are able and efficient. Suggestions are not required from this office, but the pointing out of such obvious weaknesses will support their call for legislation to support their hands.

MILK SUPPLIES

Following the programme set out last year, it was decided to confine my attention to the dairies at two or three points. The places selected were North Bay, Sturgeon Falls, Cochrane and Parry Sound. However, it was found necessary to drop Parry Sound as I was spending too much time with dairies.

The North Bay Council put through a by-law compelling all milk to be pasteurized. This was not such a difficult piece of legislation as is usual because of the fact that the industry itself had gradually increased the quantity of milk pasteurized until somewhere in the neighbourhood of 70 to 80 per cent. was being treated. The medical officer and local Board of Health decided to ask the council for a by-law compelling the balance to provide similar treatment. The city fathers deserve the commendation of this office for the thoroughness and dispatch with which the matter of milk by-law was investigated and carried. While North Bay is second to Sudbury in demanding this requirement, yet North Bay had no such propelling force demanding solution of a difficult problem by this method. It is from a public health viewpoint an outstanding by-law; and its influence, combined with the influence of the Sudbury by-law, will assist many local Boards of Health in the district in securing similar protection for the citizens of their respective municipalities.

Sturgeon Falls

An inspection was made of all their milk producers by this office, and two were found in such unsanitary condition that recommendation was made to the local Board of Health that they be closed. This suggestion was accepted, but the recommended improvements in the next grade were not so carefully enforced. When, however (later in the year), suspicion fell on one of the dairies as the source of several cases of typhoid as described above, the Council gave the medical officer the necessary authority to take what action was necessary to protect the citizens against careless producers.

Cochrane

A similar inspection of all dairy barns and equipment was made for Cochrane's milk supply. Two were found unfit for the production of milk and were accordingly brought to the attention of the local Board of Health. Two others were in such poor condition that recommendations were sent in, giving three months to correct the major unsanitary conditions. One of these has since been closed. The closing of the dirty producer has given encouragement to the clean dairymen who are trying to give service, while it has made it plain that the town will not permit its milk supply to be exposed to any hazard from carelessness or lack of essential equipment.

Timmins

It is a matter of regret that Eplett milk, which is pasteurized and imported from New Liskeard, was allowed to become so high in bacterial count, mostly from careless supervision of producers, that the local Board of Health had to withdraw their support to this product. Apparently the public support also disappeared as the company discontinued sale.

SUMMER TOURIST CAMPS

During the past year summer tourist camps increased rapidly in numbers in District No. 6. In fact it was quite impossible to keep an accurate list. Previous to last year, with the exception of the camps along the Ferguson Highway, there were not more than ten. There were, however, some twenty-seven camps along the highway between Cobalt and North Bay. Of these two received the certificate of approval of the Provincial Department of Health. Two others only received this distinction. They were located at Sudbury and North Bay.

Many municipal camps opened up at Cobalt, Haileybury and New Liskeard and other towns farther north, while a number of private camps offered accommodation along the highway.

Other private camps were opened along the Toronto Highway between

Parry Sound and Rosseau.

Repeated sampling of wells and water supplies at all camps opened by the Forestry Branch on the Ferguson Highway were made. About ten are supplied with wells and pumps. Of those, any that gave unsatisfactory samples were chlorinated and pumped out. If grade A samples were not obtained, the pump was taken out and a sign placed on the well. I am glad to say that this was necessary in only one case.

The large camp at Tilden Lake was given a safe well supply by drilling into the rock, while at Martin River and Wilson Lake electric light plants were

installed.

Garbage tins with tight tops and incinerators were supplied at the larger camps. Privies of the fly-tight pit type were provided. Pavilions, kitchens, bath houses and tent stands are part of the standard equipment in these camps. Caretakers were in charge at Tilden Lake, Martin River, Wilson Lake and Duncan Lake; with the result that splendid records were kept. The site was kept clean, wood was provided, garbage removed daily and privies were kept clean.

WATER SUPPLIES

With the exception of Englehart, New Liskeard, Verner and Burks Falls, all municipal water supplies in this district are chlorinated to meet the requirements of an inspector from the Sanitary Engineering Division.

Englehart and New Liskeard have protected ground water supplies and therefore do not require chlorine.

Verner has a filtration plant, but the municipal authorities should have impressed upon them the increased protection which chlorination would provide.

Burks Falls own the lake and watershed from which their supply is obtained by gravity. The water is free from pollution of dangerous bacteria, but it has a high colour, an objectionable odour and bad taste. The difficulties mentioned have prevented its general use. The present system was installed with the approval of the late Provincial Board of Health and for that reason considerable assistance was offered and given toward the removal of their objections. Our Engineering Division is of the opinion that the difficulties could be removed, but the corporation is apparently opposed to spending any more of their own money.

A new municipal water supply was approved and installed at Swastika in the Township of Teck. As the water is filtered and chlorinated, Swastika now has a safe drinking water supply to take the place of that from a comparatively small

number of wells, some of which were dangerously polluted. The water is taken from Amikougami River. The river, although not very large, is not exposed to any great pollution since there are few living along its banks.

SEWERS AND SEWAGE

Timmins

The activated sludge treatment plant owned by the Town of Timmins has become inefficient because the growth of the town has overtaxed its capacity. The plant has also been embarrassed because of faulty construction in the sedimentation tank into which the sewage enters after aeration. The hopper bottom was not sufficiently steep to allow the sludge to slip down where it could be pumped out. The sludge having become lodged on the hopper bottom, the contents of the tank rapidly became septic. As a result the usual nuisance of the sludge beds have been greatly augmented, while the effluent has not that clarity for which the system is famous.

Kirkland Lake

A problem of sewage disposal has been rapidly forcing itself on the town as the town disposes of the sewage by septic tank treatment, then empties its outfall into Kirkland Lake. This lake receives tailings from the mills of the Wright Hargreaves, Lake Shore and Teck Hughes Mines. The outfall sewer enters the lake in a bay which is in danger of becoming cut off by the tailings of the Wright Hargreaves Mine. The method of solution was not definitely decided upon when the year closed.

Parry Sound

The installation of a sewerage system in Parry Sound has always presented serious difficulties, and since it was built up in sections it really became, because of the topography, a collection of systems of more or less dimensions. Many of these systems have a separate outlet. The problem is further involved because the town occupies both banks of the mouth of the Seguin River. Most of the sewer outlets empty into the Seguin between the power dam and the mouth of the river. This arrangement, although not satisfactory, was free from nuisance because of the enormous dilution. However, a small dam at the mouth of the river was built and owned by the Conger Lumber Company. This dam raised the water as far up stream as the power dam to a depth of four feet and provided the reservoir for the dilution of the sewage. The outfall sewers from these various small systems mentioned above were placed in the river under these conditions. Two or three years ago the Conger dam burned out during dry weather with the result that the bed of the river dwindled to a small stream, leaving the several sewers exposed on dry ground. The nuisance, which resulted during the heat of the summer in 1926 and 1927, gained some unpleasant notoriety for the town. The solution was the more perplexing since the municipality did not own the site of this small dam and the original owners refused to part with it to the corporation. However, it was sold to a second party who after a year or two sold the site to the town at a favourable price. The municipality immediately built the dam and prevented the recurrence of the nuisance during the past summer.

The steady improvement in the administration, especially that characterized by the co-operation of the personnel, is a matter that has been noted by all Divisions of the Department. This office wishes to express to the Minister and Deputy Minister its appreciation of the order which has already been brought

to a rather heterogeneous Department, and to express the hope that still other successes in this direction will crown your future efforts. During the year it was recommended to the Department that the camp regulations be altered so that the responsibility for the sanitation of camps would be placed upon the Inspectors of the Department. At the present time the contracting physician is responsible for camp sanitation. If he is efficient in these duties, he is in danger of being reprimanded by the company officials. In other words, his duty and his personal interests are in opposition to each other. As a consequence the unsanitary conditions requiring correction are now largely left to the Departmental officials, while the contracting physician continues to collect fees for a service which he is unable to perform.

DISTRICT No. 7 G. L. Sparks, D.O.H.

The following report for 1928 covers the period from January 1st to September 25th and is written from memory, as I am at present on leave of absence and unable to refer to the office correspondence containing the detailed record of the work carried on during the above period.

COMMUNICABLE DISEASES

There were no serious outbreaks of communicable disease. One case of smallpox occurred during the winter at Dinorwic, in territory without municipal organization, in the District of Kenora. The patient and contacts were quarantined and vaccination and other preventive measures instituted in the community. Fortunately there were no secondary cases.

During the summer an employee on a passenger steamboat docking at Fort William developed typhoid fever. An investigation of the circumstances was followed by an inspection of the water supply system on the boat, and by the systematic taking of blood specimens for Widal from the members of the kitchen and dining-room staff. Reports of the positive and doubtful Widals were telegraphed to the Department by whom the necessary final action was taken; and no further outbreak of typhoid fever was reported on this boat.

In two or three instances it became necessary to make arrangements for the removal to sanatoria of indigent tuberculosis patients resident in territory without municipal organization.

In the late summer a visit was made to Ignace at the request of the local M.O.H. to see a case of suspected infantile paralysis. The patient died before I arrived in the municipality, so there was nothing to do but advise the local M.O.H. to take the measures required under the regulations.

No visits were made into territory without municipal organization in con-

nection with scarlet fever or diphtheria.

Motor Tourist Camps and Refreshment Booths

During July and August I accompanied Mr. C. P. Robins (from the Sanitary Engineering Division) on the annual summer inspections of motor tourist camps and refreshment booths in the district. Motor tourist camps were inspected at

Nipigon, Port Arthur, Fort William and vicinity and at Fort Frances. Refreshment booths were visited along the main roads radiating from Fort William and Port Arthur and along the main road from Fort Frances to Rainy River. No certificates of approval were issued either to motor tourist camps or to refreshment booths. Considerable improvement was noted in the motor tourist camp at Chippewa Park (adjoining Fort William) and at the Port Arthur (Current River) camp.

SURVEY FORT WILLIAM AND PORT ARTHUR MILK SUPPLIES

The milk pasteurization plants in Fort William, Port Arthur and Kenora were inspected during July and August by Mr. C. P. Robins (from the Sanitary Engineering Division). I accompanied Mr. Robins on as many of the inspections as time would permit. The efficiency of operation at each plant was checked as closely as possible and temperature readings of the raw milk were taken as the producers' shipments were received at the plants. Visits were made to as many producers' farms as possible, and at the conclusion of the survey we met the local Boards of Health at separate meetings. I endeavoured to point out the vital importance of a clean and safe milk supply in its relation to the public health, and I stressed the desirability of the appointment of a qualified full-time dairies inspector. The Medical Officers of Health of the two cities gave us every assistance during the course of the survey and their courtesies were greatly appreciated.

WATER SUPPLIES

The reports received from the Sanitary Engineering Division following their engineer's inspections of the water chlorination plants have kept me in touch with the general efficiency of each municipal water purification plant in the district. I would recommend that similar reports be forwarded to the District Officers of Health following the routine inspections of milk-pasteurization plants.

The annual inspection of the water supply of the Village of Nipigon was made in the month of August with Mr. C. P. Robins (from the Sanitary Engineering Division). Conditions were found much the same as during previous years, except that the gradual clearing of the forest growth from the watershed will eventually compel the local authorities to obtain the village water supply from some other source as the present source is fortunately drying up.

ROUTINE FOLLOWING RECEIPT OF LABORATORY REPORTS

The work in connection with investigations following the receipt of laboratory reports was carried on as usual throughout the year. This work would have been impossible without the services of an efficient office stenographer. It included the notifying of Great Lakes steamship companies regarding the results of analyses of all water samples indicating pollution of the water supplies on the boats from which the samples were received at the laboratory. Consultations with practising physicians from whom blood specimens for Widal test were received at the laboratory, and notifications sent to local Medical Officers of Health completed this feature of the general office routine.

The problem of public health supervision in District No. 7 is complicated by the extent and physical conditions of the district, also by the distribution of population which determines the number of local municipalities with local health machinery. From 20 to 25 per cent. of the population in the district is resident in territory without municipal organization and not under the jurisdiction of local health machinery. The sanitary supervision of these unorganized areas is a responsibility of the Provincial Sanitary Inspectors; and additional Inspectors should be assigned to the unorganized areas, particularly during the summer season when summer resorts and camps are at the height of their popularity. The summer resort area at the northern end of the Lake of the Woods is only one of the potential public health risks created by the growing appreciation of the district as an ideal summer playground.

The entire lack of sanatorium accommodation in the district for indigent and advanced cases of tuberculosis is a cause of hardship to those unfortunates who are compelled to travel many hundreds of miles from their homes in order to obtain admittance to the nearest sanatorium in the Province of Ontario. So far as I am aware there is no sanatorium between Gravenhurst and the

Manitoba boundary.

The district public health nursing service is an important branch of public health endeayour, particularly in the outlying areas. It is difficult to see how there can be any serious attempt at public health education without the assistance of the Public Health Nurse; and in pioneer communities the nurse meets a need that may not be adequately appreciated in the older and wealthier sections. In the distribution of the public health nursing service throughout the Province the unorganized districts would appear to be entitled to prior consideration. The provision of local health machinery in rural municipalities (local Board of Health and local M.O.H.) and the absence of similar machinery in adjoining unorganized agricultural townships that have been thrown open for settlement results in a lack of uniform local public health supervision and control throughout the district. From twenty to twenty-five thousand people are resident in territory without municipal organization in the Districts of Kenora, Rainy River and Thunder Bay. As it takes more than eighteen hours for the C.P.R. Imperial Limited to travel through District No. 7 from east to west, it is needless to comment further regarding the difficulties attending the local health supervision of the population resident in the unorganized areas.

During the year I have received every co-operation and courtesy from the Director of the Branch Laboratory in Fort William, from the District Provincial Sanitary Inspector and the District Public Health Nurses, also from the office

and laboratory staff.

DISTRICT No. 8

H. W. Johnston, D.O.H.

I have the honour to submit the following summary of the work of the Department as carried on in District No. 8 during the year 1928.

COMMUNICABLE DISEASE CONTROL

In reviewing public health work in District No. 8 for the year 1928 it must again be admitted that too great a proportion of time and effort have had to be given to supervision of communicable disease. There is some satisfaction, however, in being able to report that with the exception of the large number of

cases of influenza occuring at the end of the year, there was no wide-spread epidemic which at any time threatened to develop to serious proportions.

Typhoid fever has been more prevalent than usual in the northern sections of the district. Reports have been received in forty-seven cases distributed through communities as follows: Hearst, 15; Gogama, 10; Cockburn Island, 7; Massey, 5; Thessalon, 4; Sault Ste. Marie, 4; Foleyet, 1; Silverwater, 1. In the area surrounding Hearst it has not been possible to determine a common source of infection. Cases are evidently due to unknown carriers and the water supply through the flat country and along the line of the railways is generally of a poor quality. The Town of Hearst is very urgently in need of an adequate municipal water supply and system of drainage and sewage disposal.

The cases of typhoid at Gogama and Massey were apparently from a common source of infection in Gogama from where occasional cases have been reported for some eight years. The group reported from Thessalon, Sault Ste. Marie and Cockburn Island also indicated a common source of infection.

Smallpox has not been a serious problem during 1928. Three Indian families, one lumber camp employee and an employee of the Provincial Forestry Branch at Peterbell constituted the largest group of cases. Isolated cases were also investigated at Hearst, Whitefish and Dalton Mills.

In December, Sault Ste. Marie developed an outbreak of diphtheria which for a while caused the local authorities some anxiety. A number of mild cases were discovered in schools during routine inspections by School Nurses. Laboratory reports on swabs were positive, and following a general examination of throats in the section of the city involved, eighty-four carriers and clinical cases came under observation. It might be of interest to note that investigation revealed an early case where a slip in routine had allowed a family to return to school without release swabs after a clinical case had been treated in the home.

District No. 8 has appreciated the assistance received from the Department's Chest Clinic during 1928. One full week was given to Sault Ste. Marie during the winter and two weeks to the rural sections immediately after the Toronto Exhibition. Owing to insufficient preparation in publicity and organization the first week in the smaller centres did not reach as many cases as might be desired, and it was not until the area had been covered that the local physicians and the public realized the value and necessity of the service offered. During the second week, which was devoted to Manitoulin Island, the time available to the clinic staff was fully occupied. The chest clinic rendered valuable service in arousing interest in tuberculosis control, in assisting the physicians in diagnosis and in stressing the value of early scientific treatment.

During the year eight cases of tuberculosis from unorganized territory in District No. 8 were certified for sanitorium treatment at the expense of the Department.

The following list indicates the number of cases of communicable disease tabulated from weekly reports of municipalities:

Cerebro spinal meningitis	1	Anterior poliomyelitis 1
Chickenpox	39	Scarlet fever
Diphtheria		Smallpox2
Gonorrhoea		Syphilis
Influenza	23	Rabies 1
Measles	1	Tuberculosis 6
Mumps	215	Typhoid fever
Pneumonia		Whooping cough

The above tabulated report compiled from the weekly reports of the Secretaries of the local Boards of Health does not accurately indicate the incidence of communicable disease. It would probably be possible to correct the discrepancy to a considerable extent if responsibility for tabulation of weekly reports were placed in the office of the District Officer of Health. This would necessitate a change in the regulations to provide that weekly reports be sent by municipalities to the District Officer of Health. Being in more direct contact with the municipalities he would be in a position to compare routine reports with the information available through other sources. Direct reporting to the district officer would also be valuable in making it possible to take more prompt action in case of any threatened epidemic.

The provision which has been made by the Government for a commission for emergency relief in Northern Ontario will meet an urgent need among pioneer settlers. Many communities, some under municipal organization, have had serious setbacks owing to the cessation of active mining or lumbering activities. The result has been that no public local assistance has been available for indigent relief or necessary medical attention. The commission may now

be in a position to offer relief in cases of unusual distress.

Owing to three new municipalities having been organized in District No. 8, and an equal number of Boards of Health having been created, co-operation has been given in outlining the duties and responsibilities of these organizations. The new municipalities are Hornepayne, Baldwin, and Killarney.

PUBLIC HEALTH EDUCATION

The public health nursing service continues to be an outstanding feature of Departmental activity throughout the district. Miss Johnson with head-quarters at Sudbury, in charge of the work in the eastern section of the district, and Miss Grenville in the western section have been in charge of the combined demonstration and general public health nursing service. Miss Squires and Miss Hopper supplemented the work on Manitoulin during the summer and autumn. Miss Nealon assisted in general work throughout the district, and Miss Vrooman conducted a most comprehensive demonstration and service programme in the Town of Chapleau during the winter months.

A permanent municipal nursing service would be established in Chapleau except for a present tax rate of some sixty-six mills which causes the local authori-

ties to hesitate to add additional expense.

SANITARY SUPERVISION

Assistance was given the Village of Hilton Beach in arranging for satisfactory disposal of garbage in the municipality of the Township of Hilton.

Difficulty has also arisen between the City of Sault Ste. Marie and the residents of Korah Township. The difficulty was due to a garbage contractor operating an incinerator which was inadequate to take care of the quantity of garbage that was being collected in the early spring.

In the Town of Hornepayne nuisances were caused from septic tanks and cesspools which were not capable of handling the amount of sewage to be disposed of. The condition was aggravated by the boggy nature of the soil in certain areas of the townsite and a main water course through the centre of the better settled portion of the town.

Considerable time has been given in an endeavour to have sanitary conditions improved in the Town of Hearst. The level, flat country in which the town is situated, and the heavy clay subsoil, make natural drainage difficult and wells mostly used for water supply are particularly liable to contamination. Sewers from properties owned by the Provincial Government and the National Railway empty into the river at the upper side of the town and are an added source of danger from pollution of the stream. A sanitary survey made recently recommended that an adequate system of water supply and sewage disposal be installed.

During the year the Town of Blind River has arranged for the installation of a modern water supply and sewerage system. Water is being secured from deep wells. The services are now in course of installation and some properties

are receiving the new water supply.

It is found that Public School Boards in rural communities are slow in complying with recommendations of Medical Officers of Health and School Inspectors in regard to improved sanitary conveniences and safe water supplies in schools. It has been suggested that the Department of Health take some steps to co-operate with the local health officers in urging the School Boards to comply with the requirements as outlined in annual reports forwarded to the Department of Health.

Attention has again been given to the problem of securing satisfactory milk

supplies in the main centres of population.

The City of Sault Ste. Marie has had the matter of a pasteurization by-law in hand for several years. On different occasions the local Board of Health has asked the City Council to introduce a by-law to provide for a satisfactory milk supply. The proposition was opposed by the local Women's Council and a section of the milk producers. As a result no action has been taken to comply with the recommendations of the local Board of Health.

Co-operation has also been given the Towns of Chapleau, Hearst, Hornepayne, Blind River, and Espanola in securing improved methods of handling milk.

Complaints were received regarding the unsatisfactory condition of empty ice cream cans being returned to the ice cream manufacturing centres from the dealers at a distance. A notice sent to ice cream dealers and restaurants resulted in a decided improvement.

DENTAL SERVICE

During the summer the district received the benefit of the newly inaugurated system of dental service provided by the Dental Hygiene Division. This service as it develops will provide greatly appreciated relief for outlying sections of New Ontario where dental treatment has not been available. Owing to the amount of territory calling for this attention treatments given were probably not as thorough as might be desired. Once the ground has been covered and information secured regarding the value of the service, it will be possible to give more detailed attention to individual cases.

Press notices indicating that voluntary health organizations were preparing for a programme of public health education stressing the need for organized health units throughout the Dominion appears to forecast the next advance in public health.

An estimate of public opinion would indicate that Government action to further such a programme would be generally approved as providing possibilities for marked progress in the promotion of public health.





SIXTY-FIRST ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

Hospitals for the Insane Feeble-minded and Epileptic

OF THE

PROVINCE OF ONTARIO

Being for the Year ended 31st October

1928

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INTRODUCTION

It is felt that a brief word as to the various Mental Institutions operated by the Province might be of general interest, and accordingly the individual Institutions will be dealt with herein very briefly and in a general way. Various improvements have been made over a period of a few years past and certain

items are mentioned herein which may prove of interest.

The Ontario Hospital at Brockville is an Institution constructed on the Cottage Plan, beautifully located on the banks of the St. Lawrence and commanding an excellent view of the river and the American shore. The population at date of this report amounted to 875 persons. There are several Cottages including the Central Administrative Unit and the building known as Elm Grove Cottage, the latter being a comparatively new piece of construction embodying many modern architectural features and serving as a Reception Unit. It might be mentioned that in recent years a Pathological Laboratory has been installed, a paint shop and work shop have been constructed and much remodelling has been done with respect to patients' lavatories. An important piece of construction consists of a new laundry building which is illustrated herein. This building is of one storey construction and is equipped with laundry machinery of the most modern type and embodying all possible safety devices. The building was designed by officials of the Public Works Department after consultation with the staff of the Provincial Secretary's Department and the installation was completed under the direction of the Public Works Department.

The Superintendent of the Ontario Hospital at Brockville is Dr. W. M. English, for many years Superintendent of the Ontario Hospital, Hamilton.

The Ontario Hospital located at Cobourg has a population of 415, the patients at this point all being females. This Institution during the war period was loaned to the military authorities who extended the buildings by the construction of two wings of frame and stucco construction. A new boiler house has been erected and equipped by the Public Works Department. Having regard to the fact that the original buildings were old when taken over for the purposes of a Mental Hospital and having regard to the fact that the buildings erected by the military authorities were of rather fragile construction, rather numerous repairs have been necessary. Amongst other items might be mentioned the overhauling of patients' lavatories, the installation of a new cold storage plant with artificial refrigeration, the remodelling of the patients' dining room and the remodelling of the existing laundry. A garbage incinerator has been installed making for a quick and sanitary method of disposing of waste, and the Superintendent's residence has been connected by a steam line to the central heating system.

The Superintendent of the Cobourg Hospital is Dr. W. C. Herriman, for

many years Medical Director of the Ontario Hospital, Orillia.

The Ontario Hospital, Hamilton, has a population of 1,216 male and female patients. This Institution is located on the summit of the mountain commanding a beautiful view of the City of Hamilton and of the surrounding district. Among improvements which have been made in recent years at this Institution

might be particularly mentioned a new dental office and a new X-ray division. Many patients' lavatories of an obsolete type have been thoroughly modernized. A small transformer house has been erected to house certain electrical equipment, this piece of work being taken care of entirely by the Institution staff, which staff has also erected a new porte-cochere at the main entrance of the Institution, replacing the old wooden structure which had reached an advanced stage of decay. The main kitchen has been entirely overhauled and partly re-equipped. A number of exit stairs have been fire-proofed and generally modernized. Additional continuous baths have been installed, thus affording additional facilities for hydro therapy treatment. The main entrance gates have been rebuilt and the Institution fencing and ground lighting has been greatly improved. A new pasteurizing outfit has been installed. The general appearance of the Institution has been considerably improved by reason of a vigorous painting programme carried on by members of the Institution staff.

An Infirmary Unit is under construction by the Department of Public Works. This unit is designed to house fifty patients and will give the opportunity of largely consolidating the special treatment rooms of the Institution. The Dental Office and the X-ray Department will be transferred to this building when completed and the building will embody the most modern hospital features.

The Superintendent of the Ontario Hospital, Hamilton, is Dr. J. J. Williams,

for many years in charge of the Hospital for Epileptics at Woodstock.

The Ontario Hospital at London cares for a population of 1,398. Institution is located on a beautiful property lying in the easterly part of the city. The hospital buildings consist of the main building, a separate reception building and a large building for acute cases. Amongst recent improvements in equipment might be noted the installation of a modern X-ray outfit and a modern automatic telephone system. To assist in preserving the tremendous quantity of fruit and vegetables produced at the Institution farm, a canning and evaporating plant has been built. The laundry has been completely modernized and fitted throughout with new machinery. New dental equipment has been purchased and installed. The accommodation has been somewhat increased by the erection of sun rooms affording additional accommodation of a particularly desirable type. Difficulties incident to water suply have largely been overcome through the erection of a large elevated water tank. A fire stair has been installed in the main building and some architectural features are being added to the entrance greatly improving the appearance of the main building and giving additional staff quarters and additional office accommodation.

The Superintendent of this hospital is Dr. W. J. Robinson.

The Ontario Hospital at Kingston has a population of 698. One of the larger buildings for the housing of patients, known as South Cottage, has been completely renovated and modernized. The laundry has been entirely remodelled and obsolete and worn-out machinery has been replaced. The main building has been entirely re-roofed with copper. Extensive general repairs too numerous to mention have been made throughout this hospital.

The lands and buildings of the Mowat Sanatorium, lying about one-half mile north of the main hospital, have been purchased and have been almost entirely remodelled. This unit when completed will give modern accommodation amongst the most pleasant surroundings for some 300 additional patients;

accommodation which is very badly needed.

The Superintendent of the Ontario Hospital, Kingston, is Dr. Edward Ryan.

The Ontario Hospital at Penetang has a population of 388. This hospital is well located on the shores of the Georgian Bay adjacent to the town of Pene-

tang. The buildings are of stone construction and while old, are in good condition and are quite suitable for the purpose for which they are now used. The interior of what is known as Cottage B, housing sixty patients, has been completely overhauled and modernized. The cold storage plant has been rebuilt, a new ice house erected and the patients' dining-room has been thoroughly renovated. A new Dental Clinic has been installed and is operating satisfactorily. Again in the case of this Institution very many general repairs have been made and no effort has been spared to modernize the existing plant.

The Superintendent is Dr. W. K. Ross.

The Ontario Hospital at Whitby is constructed on what is known as the Cottage Plan. The Institution includes sixteen cottages, each capable of housing sixty patients, two acute buildings, two infirmaries, three large central Kitchens and a large administration and reception unit. It might also be mentioned that the Nurses' Homes and the numerous houses around the Institution for members of the staff are of the most modern construction. The site comprises some 640 acres located to the southwest of the town of Whitby on the shores of Lake Ontario. The building site alone occupies approximately seventy acres. The most important item of alteration in connection with this Institution lies in the remodelling of the heating system. The buildings are all heated from a central power house, and owing to various difficulties which developed it was found advisable to connect the various units by means of tunnels. The excavation was taken care of by inmates of the Ontario Reformatory, Guelph, who were temporarily transferred to Whitby for this work. The placing of all pipe lines in these tunnels makes same readily accessible for repairs and already a substantial saving is being effected in heating costs. By using prison labour in this connection the cost was kept at a minimum.

New mechanical refrigeration equipment has been installed in kitchens Nos. 1 and 2, replacing the former system which was worn out. A substantial amount of under draining has been done in connection with the farm which should greatly increase production. Other items of repair too numerous to mention in detail have been taken care of. The Institution which is regarded as being one of the finest in North America is under the superintendency of Dr. G. H. Stevenson, formerly Assistant Superintendent of the Ontario Hospital, London.

The Ontario Hospital, Mimico, is located on the shores of Lake Ontario, the population being 655. The hospital is constructed on the Cottage Plan, the buildings all being connected by tunnels. Amongst items of repair which have been taken care of at this Institution might be mentioned the installation of a new pasteurizing machine, the remodelling of the milk room, the remodelling of the main kitchen, the installation of a new cold storage plant in the stores building, and numerous other items which need not be mentioned in detail. An arrangement was entered into whereby sewage from the Institution is being taken care of by one of the adjoining municipalities, thus eliminating the old sewage plant formerly operated on the Institution grounds. The water supply is also now taken from an adjoining municipality instead of being provided through the hospital pumping station as formerly.

A programme of complete repair and modernization in the cottages is well under way and the work of rehabilitation is being pressed as rapidly as possible.

The Superintendent of the Ontario Hospital at Mimico is Dr. F. S. Vrooman, formerly Superintendent of the Ontario Hospital, Toronto.

The Ontario Hospital, Toronto, caring for a population of 829, has during recent years been completely remodelled. While this Institution is old, its features now compare very favourably with those observed in institutions constructed in recent years.

The Superintendent is Dr. H. A. McKay, formerly Assistant Superintendent at the Ontario Hospital, Hamilton.

The Ontario Hospital at Orillia, at date of this report, has a population of 1,385. This Institution cares for the mentally defective. The hospital is located on the shores of Lake Simcoe a short distance from the town of Orillia. In this Institution every attempt has been made to provide education and occupation for the patients. The patients at the Institution are given a public school education, where it is possible for them to benefit from teaching. Many of the patients are engaged in agricultural work about the farm; others are employed in the shoe-making department and in the tailor shop; others are engaged in assisting the various artisans around the Institution. The industrial unit recently erected has made for a consolidation of the industrial operations and affords the patients in large numbers the opportunity of following pleasant and profitable lines of work under excellent working conditions.

Special mention might be made of the recent addition to the Institution which addition is used largely as an Infirmary. This addition is of very modern hospital construction and fills a need which was felt for many years.

It is found that a certain number of the patients at this Institution may be trained to a degree which enables them to take their places in domestic service, on farms and in industry.

The Superintendent of the Orillia Hospital is Dr. B. T. McGhie.

The Ontario Hospital, Woodstock, is built on the Cottage Plan and houses 189 epileptic patients. Mention might be made of the recent installation of new laundry equipment, the installation of a new dental outfit, and the installation of a new cold storage room with artificial refrigeration. A vigorous programme of painting and repair has been carried out and the hospital presents a very creditable appearance.

The Superintendent is Dr. T. D. Cumberland.

Special mention might be made of the fact that a thorough survey was made as to dental equipment, etc., at all the hospitals. As a result of this survey in a number of cases the Dental Clinic has been moved to new quarters and new equipment has been installed as required. Each hospital now has a thoroughly equipped dental office in charge of a competent part-time dentist. In this connection appreciation should be expressed with respect to the kindly assistance and advice rendered by the Department of Health and more particularly by Dr. F. J. Conboy, Director of Dental Services for the Province.

Improvements have been made in the Institution Laboratories; in some cases new quarters having been provided and in all cases considerable additions to the equipment having been made.

In the Occupational Therapy Department some advances have been made. For a number of years occupational therapists have been employed in our hospitals. In recent years to assist in this field the University of Toronto has inaugurated a two-year course in Occupational Therapy and graduates in considerable numbers have been employed from this source in the Provincial Hospitals. While for many years patients have been given pleasant and useful employment around the Institutions whether in the farm, garden or around the

buildings, yet the employment of trained aides has proven to be of great assistance as a therapeutic measure and has been of very real assistance to the medical staffs in effecting cures.

The medical staffs have been strengthened and in all the hospitals it is

considered that these staffs are now at a proper strength.

The Bursars in the Institutions are giving efficient and loyal service and are more and more relieving the Superintendents of matters relating to business detail, thus giving the Superintendents greater opportunity to devote their labours more intensively to the medical side of the Institutions.

The adoption of the recent general classification of the public service has been of very material assistance. This classification provides for a graduated scale of salaries with respect to each office in the service. The result is that the official who carries on his duties in a satisfactory manner is recognized and to a large measure the discontent and uneasiness prevailing at times amongst the Institution staffs as to their financial future has in very great measure been removed.

To return again for a moment to alterations and repairs to the various buildings, two or three special features are deserving of mention. In connection with the rehabilitation of laundries, every effort has been made to provide for an abundance of natural light and fresh air. The machinery which has been installed is of modern construction and is almost entirely direct motor driven. Unsightly belts and pulleys and long runs of shafting are eliminated, adding immeasurably to safety. The machines installed embody all possible safety devices.

The installation of artificial refrigeration plants has proven to be of great comfort and convenience at a number of the Institutions. At certain of the Institutions the supply of natural ice was uncertain and in addition the labour of harvesting was considerable and the cost of storage rather high. Further, the use of the artificial refrigeration eliminates much dirt and generally it is felt that the policy which has been adopted is a decided step in the right direction.

It might be mentioned that the Fire Marshal has been kind enough to conduct a survey of the Institutions with a view to having the fire hazard reduced to a minimum. His advice has been of very material assistance to the branch of the Maintenance Architect. One feature which might be particularly mentioned is that of the construction of numerous fire stairs throughout the Institutions. The old type of open stairway is being gradually eliminated. It is replaced by a fireproof well running from the basement to the top of the building, entered by fireproof doors. This well contains a fireproof stair which serves all the purposes of an ordinary stair for every-day use and which makes an ideal emergency exit in case of fire.

Credit should be given to the Institution staffs representing the various trades for their co-operation with the branch of the Maintenance Architect. The Institution carpenters, plumbers, engineers, painters, tinsmiths and representatives, in fact, of all the allied trades, have given splendid co-operation and service. Most of the members of these staffs are men of long Institution experience and their familiarity with hospital conditions enables them to work to the best advantage with the patients. The patients in turn not only do a great amount of useful work in assisting the various trades, but their efforts in this connection are of real healing value to themselves.

The work which is carried on on the Institution farms is under the general supervision of Mr. Robert Beatty, Farm Director. The Farm Director is continually in touch with the various Institution farmers. He renders valuable

assistance in planning the general conduct of operations. There is a free interchange of products as between the various farms and also between the Hospitals, the Reformatory, and the Industrial Farm organizations. Where there is a surplus of, say, apples or potatoes, at one point such surplus is transferred to some other Institution where there may be a shortage in this particular article.

Valuable assistance is rendered to the hospitals through industrial operations at the reformatories. Particular mention might be made of the clothing manufactured at the Andrew Mercer Reformatory and generally used throughout the hospitals for the benefit of patients who must be clothed at the public expense.

The appointment of two Placement Officers might be mentioned. It is the duty of these officials to secure positions for patients ready for discharge who need such assistance; to investigate with respect to cases for which admission is required, and also to assist in connection with the collection of revenue.

With regard to the collection of maintenance it might be mentioned that the system has been thoroughly overhauled resulting in a very considerable increase of revenue accruing to the Department.

On October 31st, 1928, the population of the Ontario Hospitals was 10,084.

H. M. Robbins,
Deputy Provincial Secretary.

A. L. McPherson,

Inspector of Prisons and Public Charities.

THE ONTARIO HOSPITAL, COBOURG

November 21st, 1928.

Mr. H. M. Robbins,

Deputy Provincial Secretary,

Parliament Buildings, Toronto, Ont.

SIR:

I have the honour to transmit herewith the annual report of the Ontario

Hospital, Cobourg, for the year ending 31st October, 1928.

In addition to the statistical report, I may say that we have had a fairly active year in general repairs and additions. The walls of the west portion of the entrance to the assembly hall, which had become quite defective, were rebuilt. The laundry was enlarged by appropriating that part of the building formerly used as a garage, and additional washers, an extractor and mangle have been installed. A new metal garage has been erected. A small brick building was put up as a paint shop and storage for all such inflammable material as had been kept in the basement under the wards. A covered brick and cement approach to the kitchen was built and affords temporary sanitary storage for all garbage. The incinerator erected adjacent to the boiler room is serving a very useful purpose in consuming a great variety of rubbish which had a tendency to accumulate about the place. The class room has been completely done over, a comfortable and much appreciated change. Our electric light plant has been completed so that we are now not likely to be caught short on those occasions when the Hydro line fails us. A new hot water system was added to the boiler room equipment which now gives us an ample supply for the continuous baths and all domestic purposes. The bath rooms and lavatories have been renewed and the floors in these rooms which had become defective have been replaced by mastic flooring. A considerable amount of fencing has been done and work has been commenced on improvement of the grounds.

I wish to express my thanks for the many kind considerations extended to

us on all occasions of difficulty and perplexity.

I have the honour to be,

Sir.

Your obedient servant.

W. C. HERRIMAN,

Superintendent.

ONTARIO HOSPITAL, WOODSTOCK

November 20th, 1928.

Mr. H. M. Robbins,

Deputy Provincial Secretary,

Toronto, Ontario.

SIR:

I beg to present the annual return of the Ontario Hospital, Woodstock, for the year ending October 31st, 1928.

I have the honour to be,

Sir.

Your obedient servant,

T. D. CUMBERLAND,

Superintendent.

ONTARIO HOSPITAL, ORILLIA

November 20th, 1928.

Mr. H. M. Robbins,

Deputy Provincial Secretary,

Parliament Buildings, Toronto, Ont.

SIR:

I beg herewith to submit the annual report of the Ontario Hospital, Orillia, for the year ending October 31, 1928.

Among the various activities of the hospital during the year two things stand out as materially affecting the standard of efficiency of the institution both as a medical centre and as a school for the training of subnormal children. I refer especially to the organization of a training school for nurses and the reorganization of our academic and trade schools.

Under the direction of Miss Phyllis Stubley, Superintendent of Nurses, the first class of seventeen pupil nurses has already completed half of the first year's studies and the value of the services of these nurses in caring for our sick and helpless patients is already quite apparent.

Through the co-operation of the Department of Psychology, University of Toronto, a psychological survey of our patient population was undertaken during the year and 453, approximately one-third of our patient strength, were properly graded as to intelligence quotient and are now receiving instruction in our school. The programme of the school was changed in order to bring knowledge more closely into contact with life and make it socially effective. Judged by the fact that twenty-eight pupils who were placed on probation from the school during the year are satisfactorily adjusted in the community and earning their own living, the new school plan is likely to be a success.

The addition to our staff of two medical officers, supervising nurses, physical instructor, manual training instructor, psychometrist and a dietitian, has greatly increased the efficiency of the institution and permits of more individual care, scientific study and intensive treatment of our patients with a resulting improvement in their health and general outlook on life.

Provision was made during the year for members of our staff to improve their knowledge in particular subjects affecting this institution. Dr. W. C. Hamilton was the recipient of a Rockefeller fellowship and spent six months studying the methods followed in various American centres in the care and training of subnormal children. Dr. S. O. Morris also spent a period at the Mountain Sanitarium, Hamilton, studying tuberculosis in children with a view to segregating any suspected cases in our hospital population here. Miss Dorothy Hale, our school principal, while spending her summer holidays in the British Isles, visited many of the institutions there, bringing back many helpful suggestions for the improvement of our school.

Throughout the year we have received the hearty co-operation and support of the health authorities, children's aid societies, social agencies and others interested in the under-privileged child, this notwithstanding the fact that our accommodation has been entirely inadequate to cope with the ever increasing demand for institutional care and training of these cases.

Much has been done, under your direction, during the year to improve the hospital property, and I wish to thank you for your kindly advice and assistance in connection with the many details of administration.

I have the honour to be,

Sir,

Your obedient servant,

DR. B. T. McGHIE,

Superintendent.

THE ONTARIO HOSPITAL, LONDON

Re Annual Report.

November 29th, 1928.

H. M. Robbins, Esq.,

Deputy Provincial Secretary,

Parliament Buildings, Toronto 5, Ont.

DEAR SIR:

I am enclosing herewith our annual statistical report for the year ending October 31st, 1928.

Yours very truly,

W. J. ROBINSON,
Superintendent.

THE ONTARIO HOSPITAL, GUELPH

November 30th, 1928

H. M. Robbins, Esq.,

Deputy Provincial Secretary,

Parliament Buildings, Toronto, Ont.

DEAR MR. ROBBINS:

Enclosed please find our annual report for year ending October 31, 1928. We hope that you will find it correct in every detail.

Yours very truly,

N. C. WALLACE,

Medical Officer.

THE ONTARIO HOSPITAL, MIMICO

December 17th, 1928.

Re Annual Report.

The Deputy Provincial Secretary, Parliament Buildings, Toronto, Ontario.

SIR:

I herewith beg to enclose our annual report for year ending October 31st, 1928.

I have the honor to be,

Sir.

Your obedient servant.

ALEXANDER M. MUFRAY,

Bursar.

THE ONTARIO HOSPITAL, TORONTO

December 27th, 1928,

H. M. Robbins, Esq.,

Deputy Provincial Secretary,

Parliament Buildings, Toronto.

DEAR SIR:

Enclosed herewith please find annual report of this hospital for the year ending October 31, 1928.

Yours truly,

H. A. McKay, Superintendent.

THE ONTARIO HOSPITAL, HAMILTON

November 19th, 1928.

Re Annual Report.

H. M. Robbins, Esq.,

Deputy Provincial Secretary,

Parliament Buildings, Toronto, Ont.

SIR:

I have the honour to submit to you the fifty-third annual report for the Ontario Hospital, Hamilton, for the year ending October 31st, 1928.

I have the honour to remain, Sir

Your obedient servant.

J. J. WHLIAMS,
Superintendent.

THE ONTARIO HOSPITAL, WHITBY

October 31st, 1928.

Mr. H. M. Robbins,

Deputy Provincial Secretary,

Parliament Buildings, Toronto, Ont.

DEAR SIR:

I have the honour to make the ninth annual report of the Ontario Hospital, Whitby, for the year ending October 31st, 1928, with statistical tables attached.

TREATMENT

Our treatment facilities have been used to the utmost during the year. In addition to such general measures for improving the health by removal of focal infection, attention to the teeth, diet, occupation, good nursing and personal contact, we have also sought to utilize newer means of treatment in special groups. We have continued the use of tryparsamide in general paresis with very successful results. In the epilepsies, in addition to general measures, we have used luminal in sufficient dosage to materially reduce the number of seizures, and in selected cases have placed such patients on a ketogenic diet, which we feel has been helpful. Towards the latter part of the year we treated a few advanced cases of dementia praecox by what is known as the Aseptic Meningitis Treatment and plan to extend this treatment during the coming year.

Full advantage has been taken of the recreation hall by opening an occupational therapy workshop on the lower floor for the treatment of more recent admissions who need intensive personal attention. This workshop was opened in this building, so it could be in close contact with the recreational features, and we feel it is serving a very valuable purpose. A library and reading room were opened next to the workshop and in the ten months during which it has been operating, 6,959 books have been issued; of this number 4,329 were issued to patients and 2,630 to members of the staff. Daily papers and magazines are also available.

The bowling alleys were re-conditioned; a billiard table was installed and another has been ordered; a badminton court and a volley ball court have been laid out on the floor of the auditorium; a canteen has been opened as a convenience to patients and staff, where soft drinks, tobacco and candy can be purchased. The profits from the canteen have been used for the upkeep of these recreational facilities and to purchase attractive pictures for some of the patients' sitting rooms. Physical training classes have also been started. Weekly dances, moving picture shows and religious services are also held in the auditorium. This building is also open every night until 10 o'clock for the use of staff and serves a very useful purpose as club rooms and for recreation, and makes for much more contented and loyal employees.

REPAIRS AND ALTERATIONS, ETC.

Considerable painting has been done during the year; the new heating mains have been completed; further improvements have been made to the grounds, and two of the old frame buildings used during construction days have been demolished. The two temporary buildings known as Dormitories

Nos. 1 and 2, erected by the Military during the war, have been utilized for special work. No. 1 Dormitory is now used entirely for housing of staff—the lower floor being occupied by junior nurses and the upper floor by the domestic staff. Dormitory No. 2 is now being devoted entirely to occupational therapy, with the exception of one large room, which we have taken as a nurses' class room. The occupations in this building will be for convalescent cases and patients who have special aptitudes for the type of work that can be done in this building.

STAFF CHANGES

On October 31st, 1927, Dr. J. M. Forster, superintendent of this hospital since its inception, resigned on account of ill health. He was succeeded in the superintendency by Dr. G. H. Stevenson, formerly assistant superintendent at the Ontario Hospital, London.

Dr. Wade was transferred to the Industrial Farm at Burwash and Dr. O'G. Lynch was transferred to the Ontario Hospital at Brockville as assistant superintendent on November 1, 1927. Dr. Frederick LeDrew was appointed to our staff on October 4, 1927, and was transferred to the Ontario Hospital at Cobourg on December 31, 1927. Dr. S. R. P. Montgomery was appointed to the medical staff on February 22, 1928, and Dr. J. E. Tilden was appointed on August 2, 1928.

On October 1, 1928, an exchange of stewards took place between this hospital and the Brockville Hospital, Mr. J. M. Short going to Brockville and Mr. J. Kiernan coming here.

In conclusion I should like to express my appreciation of the co-operation I have received from the entire staff, all of whom have real pride in our hospital and the work we are attempting to perform.

I have the honour to be, Sir,

Your obedient servant,

G. H. Stevenson,
Superintendent.

ONTARIO HOSPITAL, BROCKVILLE

November 16th, 1928.

Re Annual Report.

H. M. Robbins, Esq.,

Deputy Provincial Secretary,

Parliament Buildings, Toronto 5, Ontario.

DEAR SIR:

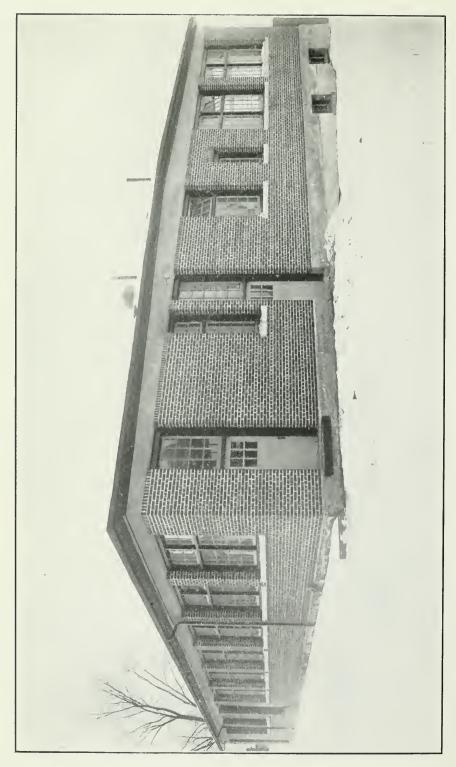
Under separate cover I am forwarding to you the annual statistical report of this hospital for the year November 1, 1927, to October 31, 1928.

Your obedient servant,

W. M. English,
Superintendent.



Elmgrove Cottage, Ontario Hospital, Brockville Note sun-rooms with Southern exposure



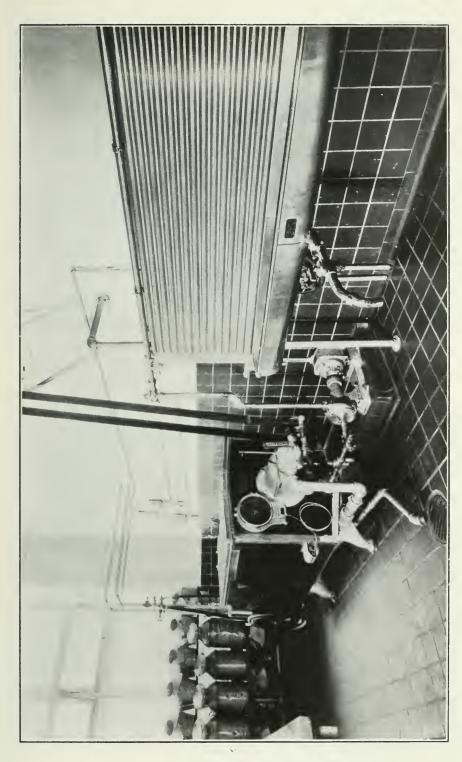
Exterior view of the new laundry building erected 1928, Ontario Hospital, Brockville, illustrating the substantial but economical type of one-storey building, adopted by the Government for carrying on the laundry work of the institutions under its care.



Interior view of the new laundry building, Ontario Hospital, Brockville. This building, with its tile floors and tile dados, its abundance of light and ventilation and its modern machinery is typical of the healthful and sanitary working conditions being provided by the Government for sterlitzing and washing and finishing all soiled linen and washable clothing at each of the institutions. This laundry work is done by patients under the careful supervision of a small but capable staff.



Interior view of the patients' sitting room at South Cottage, Ontario Hospital, Kingston. This room, with its sanitary red tile base around the plaster walls, its waxed floor of broad batefully linear and its abundant natural and artificial light and homelike furnishings, illustrate the care taken in providing pleasant and restind living conditions satisfied the recovery of mental patients.



Interior view of the milk pasteurizing and cooling room, Ontario Hospital, London. The tile floor and dado, the painted plaster walls and abundant natural light and ventilation and the up-to-date mechanical equipment of this installation, are typical of the sanitary surroundings provided for safeguarding the handling of the milk supply at the various institutions.



Interior view of a typical patients' dining room, Ontario Hospital, Whitby. This is one of eight similar rooms forming a dining centre for a group of eight cottages. This accommodation is provided for each sex and attention is called to the sanitary and homelike surroundings. The furniture shown is made at the Ontario Reformatory, Guelph.



Interior of a typical kitchen, Ontatio Hospital, Whitby, for each dining centre. The red tile floor and dado and painted plaster walls and ceiling, the abundant light and ventilation and the modern mechanical equipment illustrate the care taken to safeguard the preparation of food for both patients and staff.



Interior view of Occupational Therapy Room, Ontario Hospital, Whitby. In these pleasant surroundings patients are encouraged to do a large variety of hand work under capable instruction and supervision. The furniture shown is made at the Ontario Reformatory, Guelph.



Interior view of a typical Infirmary Ward, Ontario Hospital, Whithy. The bright and pleasant and sanitary surroundings here illustrated are conducive to quick recovery of sick patients. The beds and other furniture shown are made at the Ontario Reformatory, Guelph.



Interior view of the Recreation Hall, Ontario Hospital, 999 Queen Street West, Toronto. This is typical of the accommodation furnished at the various institutions for the patients' recreative needs. Here are held the various concerts, dances, motion pictures, and vaudeville entertainments given periodically to all the patients.



Interior view of the dental operating room, Ontario Hospital, 999 Queen Street West, Toronto. This is typical of the sanitary surroundings and modern mechanical equipment installed for the care of patients' dental requirements at the various institutions.

TABLE No. 1

Contains information in regard to the date of opening of the Hospitals, the acreage, and the real estate value of the property, not including the value of the buildings.

Date of	Acr	Acreage	Acres in	Acres in	Acres in	Acres in	Value of
Opening	Owned	Rented	Fruit and Vegetables	Grain	Buildings and Grounds	Bush or not Cultivated	Real Estate
1894	569		40	369	35	125	\$64,860
1920	11.58		4.28		7.30	•	16,500
1876	525		87	364	74		20,000
1854	257.53		13	154.53	06		08,600
1870	505	14	105	306	70	38	180,000
1890	82		34		48	•	243,500
1876	200	30	7.1	175	30	254	48,000
1904	383		20	86	2	260	000'9
1846	20		Ŋ		15		300,000
1920	640		125	365	150		128,000
1906	324		13	224	27	09	24,300
1921	- 1						
	3,817.11	44	517.28	2,055.53	551.30	737	\$1,129,760

*Property comprises East Wing of the Ontario Reformatory. The Hospital owns no property.

TABLE No. 2

Furnishes a summary of the entire staffs at each Institution, together with the kind of work at which they are employed. The Superintendents of the various Hospitals are thereby enabled to make a comparative study of this phase of their operations.

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ar Male		2	4	7	3	_	30	2	N)	2	8	2	:	36
neersand Other echanical Staff		18	4	17	12	26	11	12	ις	1.	18	7	:	141
ners, Gardeners id Assistants	gu	-6		Ξ	I/C	4	15	- 00	+	-	15	7	:	80
Help	F.		3	10	4	100	7	9	+	W,	12	-	:	75
Laundry and Other Domestic	M.	- 10	:	2	_	2		-2	-	-		:	<u>:</u> :	101
	F	9	3	11	~	17	1	15	7.0	0	5.		:	94
Kitchen and Dining Room Help		2		2	8	2		2		2	9	- 62	:	22
Kitchen and Orkers	Z		:	∞	2	23	8	12	<u>:</u>	~	2		:	
Isnoitsqu			:						:			:	:	34
среть	Tea	<u>:</u>	<u>:</u>	:	:	:	:	10	:	:	:	:	:	10
al Workers	Soci	. :	:	:	:	:		:	:	:	:		:	
e Attendants	Mal	29	:	82	62	73	\$	48	14	54	8.5	15	15	260
er Female urses		58	26	47	51	70	36	43	16	64	79	2	:	503
duate Zurses		13	3	16	2	10	9	9	_	4	1	:	:	72
sneitii	Diet	-	:	:	:	-		-	:	:		:	:	4
sistants	Y		-		:	-	<u> </u>	- Union		·	:		<u>:</u>	∞
phers, etc.	₹.	<i>ي</i>	2	33	**	_	2	~	2	~	€.	~1	:	28
Other Clerks, Stenog-		- 5	:	33	:	2	2	8			2		:	16
	2		:	_	-:	_	-		·		- 5	:	:	6
rekeeper			:		<u> </u>			-	:		2	-:	:	12
sar or Steward	Bur	2		IV)	33	~		8		2	4		:	
hysicians	Assi					.,					4.		2	28
stant uperintendent			:	-	1	-	1	1	:	-	-	:		00
tnebnetnire	dnS	-			_	_	-	-	_	1	1		-	12
		:	:	:	:	:	:	:	:	:	:	:	:	
				:	:	:	:	:	:	:	:			
		:							:				:	
Hospital		:	:		:			:	:			:		
190		:	:	:	:	:		:	ene		:	:		
=						:	:	:	iish	:	:			
		ille	èc	on.	on.	:		:	ngu	0	:	toc		
		Brockville.	moo.	nilt	gst	dor	nic	lia.	eta	ont	Whitby.	Woodstock.	lph	
		Bro	Cobourg	Hamilton.	Kingston.	London.	Mimico.	Orillia.	Penctanguishene.	Toronto.	Wh	Wo	Guelph	
					. ,			_		•			_	4

TABLE No. 3

The interest in this table lies in the variation of Is the first table dealing with patients and furnishes the Psychoses and Industrial classification. employment as shown at the different Hospitals.

		ŢŢ.	435	412	582	298	169	326	29	2	1	,			
	Total	М.	440		581	400	651	329	902	169	366	er sh	own ∽	as re	ecovere
	llar	[]	213	134	340	123	256	142	232	173	333	423	46	:	415 4
ION	No Regular Work	M.	172	:	179	80	226	141	209	99	70	274	31	. 69	111 1526 2415 462
FICAT	ral nal	(프	65	:	:	:	:	:	:	:	:	46	:	:	1111
ASSI	General Externa Work	M.	38	:	55	94	100	30	14	:	150	140	15	:	636
I. C.	ral nal	T.	82	224	173	77	265	130	500	27	100	230	6†	:	
INDUSTRIAL CLASSIFICATION	General Internal Work	M.	137	:	193	135	140	70	170	23	100	210	35	13	1226 1566
INDC	d den len	T.	:	:	:	:	:	:	:	:	:	:	:	:	
	Farm and Garden Work	M.	52	:	83	30	110	75	98	51	30	00	13.	20	. 199
	- 등	江.	75	54	69	86	170	54	238	18	30	63	:	:	698
	Indus- trial Work	M.	4	:	7.1	43	75	13	215	29	16	65	:	12	580
	ler ler les	(<u>T</u> ,	_		:		:	:	:	:	:	:	:	:	-
	All Other Types	M.		:	:	:	:	:	:	:	:	:	:	=	-
	uro- nili- s	퍈.	:	:	:	:	:	:	:	:	:	:	:	:	
	Number of Neuro- Syphili- tics	M.		:	:	:	:	:	_	:	:	:	:	:	-
FION		ſĽ,			:	:		:	:		:		:	:	2
FICAT	Number of Drug Addicts	M.		:	:	:	-	:	:	:	:	~	:	:	7 .
LASSI		(T,		:	:	:	:	:	:	:	:	:	:	:	
J OI	Number of Alco- holics	M.		:	:	:	~	:	:	:	:	4	:	:	7
PSYCHIATRIC CLASSIFICATION	ber ntal tal lives	규.		26	2		2	:	209	3		_	:	:	641
Psyci	Number of Menta Mental Defectives	M.	:	:	rv.	:	10	:	639	B	:	:	:	2	629
	nber of ents eptic	ī.		:	:	:	:	:	09	:	:	:	99	:	126
	Number of Patients Epileptic	M.	:	:	:	:	:	:	61	:	:	:	73	:	134
	Number Number Number of Mental atients Patients Defectives	자.	440 434	386	580	298	889	326	12	214	463	772 761	29	:	4191
	Number of Patients Insane	M.	440	:	576	400	637	329	rv.	166	366	772	21	111	3823 4191
	Hospital		Brockville	Cobourg	Hamilton	Kingston	London	Mimico	Orillia	Penetanguishene	Toronto	Whitby	Woodstock	Guelph	

TABLE

sec verment of the population of the Hospitals. It gives the classification of and improved in each Hospital, as

]	Brockvill	е		Cobourg	
	Male	Female	Total	Male	Female	Total
Patients in hospital beginning of year Patients on probation beginning of year	405 32	395 25	1		388 6	388 6
Total beginning of year	437	420	857		394	394
First admissions during the year	87 26	82 19	169 55		44	44
Total admissions during the year	113	101	214		48	48
Total on books during the year	550	521	1,071		442	442
Classifications of admissions: By physicians' certificates By inspector's warrant By Lieutenant-Governor's warrant By voluntary application	103	95 2	198 6 10		44	44
Totals	113	101	214		48	48
Discharged during the year. Died during the year. Transferred to other hospitals. Eloped during the year.	69 41	52 34			6 16 5	6 16 5
Total	110	86	196		27	27
Classification of discharges: As recovered. As improved. As unimproved. As without psychosis.	18 48 3	13 36 1 2	31 84 4 2		1 4 1	1 4 1
	69	52	121		6	6
Patients in hospital end of year Patients on probation or absent end of year	429 11	410 25			412	412
Total number admitted since opening	2,891	2,825	5,716		686	686
Total number discharged since opening Total number died since opening	1,486 965	1,564 826	3,050 1,791		112 159	112 159
Balance on hospital books end of year as above	440	435	875		415	415

No. 4 the admissions and discharges, and furnishes a study in regard to the number shown as recovered compared with the total population.

I	Hamilton		I	Kingston			London			Mimico	
Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
605 41	659 21	1,264 62	324 11	234	558 18	679 6	724 9	1,403 15	305 24	311 16	616 40
646	680	1,326	335	241	576	685	733	1,418	329	327	656
108 32 1		213 62 3	44 31 60	38 25 56	82 56 116	129 51 1	117 43 3	246 94 4	61	38 7 1	99 13 1
141	137	278	135	- 119	254	181	163	344	67	46	113
787	817	1,604	470	360	830	866	896	1,762	396	373	769
80	16		43	29	168 72	103 55	15	241 70	18 46	21 25	39 71
7	-	12			14	23	·	33	3		3
141	137	278	135	119	254	181	163	344	67	46	113
106 59 12	52	111	23	20	85 43 2 2	62			50 17		81 33
177	7 211	408	70	62	132	183	181	364	67	47	114
83	1 76	157	13	20	33	56	51	107	30	14	32 44 5
100	6 96	222	43	42	85	120	113	233	50	31	81
58: 29			396		689						
5,363	3 5,225	10,588	3,889	3,217	7,106	5,868	5,570	11,438	2,734	2,437	5,171
2,90 1,85	1 2,972 2 1,647	5,873 3,499	2,313 1,176	1,957 962	4,270	3,206 1,979	3,048 1,807		1,554 851		
610	606	1,216	400	298	698	683	715	1,398	329	326	655

TABLE

Deals entirely with the movement of the population of the hospitals. It gives the classification of and improved in each hospital, as

	1					
		Orillia		Pen	etanguis	hene
	Male	Female	Total	Male	Female	Total
Patients in hospital beginning of year Patients on probation beginning of year	670 18	656 18	1,326 36	163	217	380
Total beginning of year	688	674	1,362	163	217	380
First admissions during the year	75	58 4	133 12	13	1	2 22
Total admissions during the year	83	62	145	14	10	24
Total on books during the year	771	736	1,507	177	227	404
Classifications of admissions: By physicians' certificates By inspector's warrant By Lieutenant-Governor's warrant By voluntary application	77 6	51 10 1	128 16 1	3 11	6 3	9 14
Total	83	62	145	14	10	24
Discharged during the year. Died during the year. Transferred to other hospitals. Eloped during the year.	41 23 1	30 24 3	71 47 4	2 6	1 8	3 14
Total	65	57	122	8	9	17
Classification of discharges: As recovered. As improved. As unimproved. As without psychosis.	30 11	27	57 14	2	1	1 2
	41	30	71	2	1	3
Patients in hospital end of year Patients on probation or absent end of year	688 18	663	1,351	169	218	387
Total number admitted since opening	2,426	1,961	4,387	415	522	937
Total number discharged since opening Total number died since opening	534 1,186	256 1,026	790 2,212	71 175	65 239	136 414
Balance on hospital books end of year as above	706	679	1,385	169	218	387

No. 4-Continued

the admissions and discharges, and furnishes a study in regard to the number shown as recovered compared with the total population.

	Toronto			Whitby			Woodstock	ζ
Male	Female	Total	Male	Female	Total	Male	Female	Total
396 14	425 24	821 38	741 40	731 55	1,472 95			189
410	449	859	781	786	1,567	93	100	193
151 56 1	147 40 2	298 96 3	30	184 31	330 61 5	. 2	7 5	18 7
208	189	397	181	215	396	13	12	25
618	638	1,256	962	1,001	1,963	106	112	218
89 93	135 40	224 133	98 42	171 26	269 68		11	23
26	14	40	41	18	59	1	1	2
208	189	397	181	215	396	13	12	25
132 53 67	105 59 11	237 112 78	99 46 2	120 47 36	219 93 38		9 8	17 12
252	175	427	147	203	. 350	12	17	29
34 81 13 4	50 44 8 3	84 115 21 7	50 41 8	52 55 13	102 96 21	5 3	1 3 5	1 8 8
132	105	237	99	120	219	8	9	17
354 12	451 12	805 24	779 36	762 36	1,541 72	93	95	188
9,519	9,124	18,643	1,717	1,674	3,394	499	395	894
6,572 2,581	6,601 2,060	13,173 4,641	589 313	614 262	1,203 575	226 179	158 142	384 321
366	463	829	815	798	1,613	94	95	189

TABLE No. 4-Concluded

Deals entirely with the movement of the population of the hospitals. It gives the classification of the admissions and discharges, and furnishes a study in regard to the number shown as recovered and improved in each hospital, as compared with the total population.

		Guelph		G	rand Tot	al
	Male	Female	Total	Male	Female	Total
Patients in hospital beginning of year Patients on probation beginning of year			111	4,491 195	4,837 184	9,328 379
Total beginning of year	119		119	4,686	5,021	9,707
First admissions during the year. Readmissions during the year. Transfers during the year.	8		8	821 242 86	781 204 117	1,602 446 203
Total admissions during the year	13		13	1,149	1,102	2,251
Total on books during the year	132		132	5,835	6,123	11,958
Classifications of admissions: By physicians' certificates. By inspector's warrant. By Lieutenant-Governor's warrant By voluntary application. Total.	5 6				1,102	
Discharged during the year Died during the year Transferred to other hospitals Eloped during the year	4		13 4 1		352	
Total	18		18	1,109	1,075	2,184
Classification of discharges: As recovered. As improved. As unimproved. As without psychosis.	10 3		3		605	
Patients in hospitals end of year Patients on probation or absent end of year						
Total number admitted since opening	181		181	35,502	33,636	69,138
Total number discharged since opening Total number died since opening			44 23			
Balance on hospital books end of year as above			114	4,726	5,048	9,774



TABLE

Provides an opportunity for the study of the parentage of patients admitted during the year.

The table is divided between

									N	ATIV	E-B	ORN						
	Αe	greg	ate								Р	aren	tage	2				
Age Groups		00		,	Гоtа	.1	N	ativ	e	Fo	oreig	gn	λ	lixe	d		nasc aine	
	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.
Under 15 years		29 42 53	81 109 115	54	31	76 85 80	29	10 17 21	35 46 49	5 7 3	8 2 2	13 9 5	9 9 5	6 6 7	15 15 12	9	4 6 5	13 15 14
25-29 years. 30-34 years. 35-39 years.	85 80 71	73 68 62	158 148 133	54	48 48 43	105 102 76	29		61	5 2 2	4 4			7 9 5	18 17 11	17 14 5		32 17 12
40–44 years	73 58 55	80	142 138 135	34		86 84 106	15	26 26 19	39 41 31	2 5 12	10 6 14	11	8 6 10	12 5 13	20 11 23	10 9 9	5 13 12	15 22 21
55–59 years	48 42 51			36	47	61 83 66	10 10 5	9 17 6	19 27 11	11 7 11	8 11 16	19 18 27	12 6	6 10 6	10 22 12	10 7 13	4 9 5	14 16 18
70 years and over Unascertained	73 4	77 4	150 8	53 1	40	93 3	14		23	10	16 2	26 2	17		22	12 1	10	22 1
Total	821	781	1602	561	545	1106	234	243	477	82	107	189	111	97	208	134	98	232

No. 4A

To further this study they are shown under age groups, from fifteen years to seventy and over. Native and Foreign born.

								For	EIGN-	-Вог	RN									
						Ti	me i	n Ca	nada	befo	ore A	dmiss	ion						tivi:	
	Γota	1		Jnde yea			5–9 ears	6		0-14			yea d ov			asce			ine	
М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.
4 13 17	1 11 18	5 24 35	1 4 6	1 1 5	2 5 11	1 2 3	 2 2	1 4 5	1 1 3	2	1 3 3	3 3	2 7	 5 10	1 3 2	2 4	1 5 6		2	2
28 26 38	25 20 19	53 46 57	3 7 6	5 5 2	8 12 8	10, 7, 1	2 4 2	12 11 3	2 7	2 1 1	4 1 8	5 8 18	8 4 7	13 12 25	7 4 6	8 5 7	15 9 13	1	1	1 1
39 24 11	17 30 18	56 54 29	5 2		6 2	4 1	2 1 3	6 2 3	3 2	2 1 1	5 3 1	16 13 8		29	8 6 3	12 4	11 18 7	2	1 ,	3
13 6 18	13	23 19 33	 1 5	2	1 1 7		1 1 2	1 1 2	2	1	1 2	10 4 8	2 6 5	12 10 13	3 1 3	4 5 6	7 6 9		1 1	1 1
20 3	37 2	57 5	1		· · · · i		,			2	2	9	25	34	11	8	19 2	····i	2	2 2
260	236	496	41	23	64	29	22	51	21	13	34	105	101	206	60	68	128	4	9	13

TABLE No. 5

Permits of a very interesting study of the nativity of patients. This table should be of especial interest to all those interested in the immigration problem.

	Firs	st Admis	sions	F	Readmiss	ions
	Male	Female	Total	Male	Female	Total
Canada	558	543	1,101	171	143	314
Africa						
Australia						
Bulgaria						
Austria	5	2	7		3	3
Belgium					1	1
Central America						
China	3		3			
Czecho-Slovakia	4		4	3		3
Denmark England	85	108	193	38	31	69
Finland.	15	8	23	30	1	1
France	2	2	4			
Germany	1	3	4			
Greece						
Holland	3		3			
Hungary	2		2			
India		1.4	37			
Ireland	23	14 8	15	2	3	2 4
Japan	′	0	13	1	J	4
Jugo-Slavia	3	1	4			
Norway						
Newfoundland	1	6	7	1	1	2
Poland	11	8	19	3	3	6
Roumania	10	5	15	1	1	2
Russia	11	12 32	23	2 4	7	11
ScotlandSouth America	34	32	66	4	1	11
Spain						,
Sweden	2		2	1		1
Switzerland						
Turkey						
United States	19	13	32	9	5	14
West Indies	1	1	2		3	3
Other British Possessions. Other Countries.	6	3 3	9 12	2 2		2 2
Unascertained	6	9	15	2	2	4
O hascertamed		9	13	4		
Total	821	781	1,602	242	204	446
			,			

TABLE No. 5A

Covers the citizenship of the first admissions.

1														
	Total	169	4	213	82	246	66	133	2	298	18	330	∞	1602
Total	Female	82	7	105	38	117	38	58	<u> </u>	147	7	184		781
	Male	87		108	44	129	61	75	1	151	11	146	00	821
ritish Sanada	Total	1 +1	-	16	6	41	20	∞	:	106	2	:	1	218
Citizens of British Birth Outside Canada	Female	9	-	9	2	22	10	ιĊ	:	09	:	:	:	112
Citize Birth O	Male	~	:	10	7	19	10	33		46	2	:		106
ip ned	Total	-	:	16	2	3	:	:	:	:	:	9	:	28
Citizenship Unascertained	Female		:	ıv	-	2	:	:	:	:	:	8	:	11
Ci	Male	-	:	11		-	:	:	:	:	:	n	:	17
	Total		:	12	:	9	34	10	:	33	2	19	-	117
Aliens	Female Total		:	9	:		12	4	:	12	-	11	:	47
	Male		:	9	:	ıv	22	9		21		00		70
you ion	Total	00		24	-	7		:		26	:	7.2	:	138
Citizens by Naturalization	Female	3	:	19	:	-		:	:	∞	:	37	:	89
Ci	Male	ro	:	Ŋ	-	9	:	:	:	18	:	35		70
)y	Total	146	33	145	20	189	45	115	2	133	14	233	9	1101
Citizens by Birth	Male Female	73	33	69	35	91	16	49		29	9	133		543
Ü	Male	73	:	92	35	86	29	99	T	99	∞	100	9	558
Hospital		Brockville	Cobourg	Hamilton	Kingston	London	Mimico	Orillia	Penetanguishene	Toronto	Woodstock	Whitby	Guelph	

TABLE No. 6

Covers the Psychoses of first admissions. It will be noted that these Psychoses are arranged in twenty-two classifications, which are standardized throughout the following tables.

			1	.,	1	1	1
		Males	Females	Total	Males	Females	Total
1.	Traumatic psychoses				. 3	1	4
2.	Senile psychoses				89	118	207
	Psychoses with cerebral arteriosclerosis				49	30	79
	General paresis				70	16	86
	Psychoses with cerebral syphilis Psychoses with Huntingdon's chorea				$\frac{4}{2}$	5	6
7.	Psychoses with brain tumour				1	2	3
	Psychoses with other brain or nervous				1	~	
	diseases, total				5	3	8
	(a) Cerebral embolism	2	1	3			
	(b) Paralysis agitans		1	1			
	forms						
	(d) Multiple sclerosis						
	(f) Acute chorea						
	(g) Other diseases	3	1	4			
9.	Alcoholic psychoses, total				19	8	27
	(a) Delirium tremens	4		4			
	(b) Korsakow's psychosis		2	2			
	(c) Acute hallucinosis	12	5 1	8 13	• • •		
10.	Psychoses due to drugs and other exo-	12	1	13			
	genous toxins, total				5	1	6
	(a) Opium (and derivatives), cocaine						
	bromides, chloral, etc., alone or	_					
	combined	3		3			
	(b) Metals, as lead, arsenic	1	• -	1			
	(d) Other exogenous toxins.	1	1	2			
11.	Psychoses with pellagra						
	Psychoses with other somatic diseases,						
	total				15	31	46
	(a) Delirium with infectious diseases.	1	1	2			
	(b) Post-infectious psychosis	$\frac{2}{7}$	5 6	7			
	(d) Delirium of unknown origin	'		1.5			
	(e) Cardio-renal diseases	1	1	2			
	(f) Diseases of the ductless glands	1	2	3			
	(g) Other diseases or conditions	3	16	19			. : :
13.	Manic-depressive psychoses, total		::		101	111	212
	(a) Manic type(b) Depressive type	33 65	45 65	78 120		• •	• •
	(c) Other types	3	11	14			
14.	Involution melancholia				13	49	62
	Dementia praecox (schizophrenia)				193	238	431
	Paranoia and paranoid conditions				20	13	33
	Epileptic psychoses				25	14	39
18.	Psychoneuroses and neuroses, total (a) Hysterical type	1	6		14	13	27
	(b) Psychasthenic type (anxiety and		0	/	• •		
	obsessive forms	3		3			
	(c) Neurasthenic type		6	16			
	(d) Other types		1	1			
19.	Psychoses with psychopathic person-				1	1	2
20	Psychoses with mental deficiency				1 41	33	2 74
	Psychoses with mental deficiency Undiagnosed psychoses				6	12	18
	Without psychosis, total				145	80	225
	(a) Epilepsy without psychosis	22	19	41			
	(b) Alcoholism without psychosis	25	1	26			
	(c) Drug addiction without psychosis.	9	5	14			
	(d) Psychopathic personality without	2		2			
	psychosis	77	44	121			
	(f) Others	10	11				
	Total				821	781	1,602



TABLE Furnishes the distribution of the patients in regard to race under the different psychoses. This

Race		Tota	1	Tr	auma	atic		Senile	e	a	With erebra rterio	al o-		Generaly:	
	М.	F.	T.	M.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.
African. American Indian. Armenian Bulgarian Chinese Dutch and Flemish East Indian. English French. German Greek. Hebrew Irish. Italian Japanese Roumanian Russian Scandinavian Scotch Slavonic. Spanish Syrian Turkish Other Specific Races Mixed Races. Races Unascertained	5 3 3 3 4 4 27 24 4 11 4 4 6 6 2 177 16 6 711 75 75 75 75 75 75 75 75 75 75 75 75 75	33 2922 9 322 200 2866 9 9 108 14 40 733 69	15 5 33 8 175 30 2 1 100 144 144	1	1	1 1 2 2 2	20 399 11 200 11 11	28 1 1 1 1 1 1 	1 1 3 3 48 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 2 2 3 1 1 4 4 7 7	88 22 11 5 55 55	233 3 5 14 2 2 1	1 266 2 3 3 11 1 1 5 5 2 2 3 11 1 4 4	1 2 2 2	2 5 1 1 1 6 2 3 7 2 12 6
Totals	821	781	1602	3	1	4	89	118	207	49	30	79	70	16	86

No. 7 differs in certain respects from Table No. 5, where the admissions were show nunder countries.

cer	Vith ebr phil	al	Н	With unti ton hore	ng- s	ŀ	With orair umo	ı	n	th ot orain ervou isease	or	Al	cohol	ic	exe	to dond ot	her us		With	
М.	F.	Т.	Μ.	F.	Т.	М.	F.	Т.	М.	F.	T.	M.	F.	Т.	М.	F.	T.	M.	F.	T.
	1	3	2	1	1		1	1		1	4 2 2	9 1 1 4	2	133 11 66 3 2 2	2		2 1 1 1 1			
4	2	6	2	5	7	1	2	3	5	3	8	19	8	27	5	1	6			

TABLE

Furnishes the distribution of the patients in regard to race under the different psychoses. This

Race	S	th ot omat isease	ic		Manic press		1	volut nelan cholia	-		emen		pa	aranc and aranc nditio	id
	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	т.	М.	F.	Т.
African. American Indian. Armenian. Bulgarian. Chinese. Dutch and Flemish East Indian. English. Finnish French. German. Greek. Hebrew. Irish. Italian. Japanese. Roumanian. Russian. Scandinavian. Scotch. Slavonic. Spanish. Syrian. Turkish.	3		19 2 2 5 5	333 22 66 5 5 5 10	2 8 3 1 8 1 1 13 3	822 4 144 8 8 1 21 1 6 6 5 5 23 3 3 1 1	3 4 4	1	1 20 9 9	22 	1	22 11 161 133 200 10 24 422 55 220 33 57 17		88	18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Other Specific Races Mixed Races Races Unascertained	1 5	1 5	2 10	4 8 8	13 11	4 21 19	1 1 1	1 7 5	2 8 6	4 14 8	9 27 11	13 41 19	1	1	1 1
Totals	15	31	46	101	111	212	13	49	62	193	238	431	20	13	33

No. 7—Continued

differs in certain respects from Tabe No. 5, where the admissions were shown under countries.

		1														
Epiler psycho	otic oses	ne	sycho eurose and eurose	es	,	With psych pathi rsona	O- C	1	With menta eficier	al	Une	diagn sycho	osed ses		Vitho sycho	
M. F.	Т.	М.	F.	T.	M.	F.	T.	М.	F.	Т.	М.	F.	Т.	M.	F.	Т.
2	1 5	9	3 3 4	122	1	1	2	199 3 2 5 5 5 1 1 1 6	133 4 1 1	7 3 6 6 1 8 1 4	4	6 1 1 1 2 2 2 2	88 1 2 2 2 2 1	433 1 1 1 1 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1	21	64 1 1 2 2
25 14	39	14	13	27	1	1	2	41	33	74	6	12	18	146	78	224

TABLE Furnishes an interesting study in regard to the

	,	Гota	1	Une Y	der ear			5–1 ear)–2 ear			5-2 ear)–3 ear	
Psychoses	М.	F.	Т.	Μ.	F.	Т.	М.	F.	Т.	М.	F.	Т.	Μ.	F.	Т.	М.	F.	Т.
Traumatic	3 89 49	1 118 30	207				1									1		1
4. General paralysis 5. With cerebral syphilis 6. With Huntington's chorea			86 6 7							1		2	3	1		14		15
7. With brain tumour 8. With other brain or nervous diseases	5	3										1				1		
Alcoholic Due to drugs and other exogenous toxins	19		27 6							2		2		1	1	2		2
11. With pellagra		31		1		1	6			8	2 5	2 13		5	5 22	1	5	6
13. Manic-depressive14. Involution melancholia15. Dementia praecox	13	111 49 238	62						30				1	13 37	1 84	14 2 29		23 2 72
Paranoia or paranoid conditions Epileptic psychoses	20 25				1	2	5	1	6	1 3	2	1 5	4		4	2	1 3	3 4
18. Psychoneuroses and neuroses	14		27					2			1	1	1	3	4	1	1	2
sonality	41	33 12	18				1	3	1		4 2 3	10 2 15	1	1 4 3 12	10 4 20	2	1	1
Total	-	-	1602		29				103			110		-	165		_	152

No. 8 age of the patients under the different psychoses.

35-39 Years		-44 ears	45- Yea			0–54 ears		55 Yea			0-6 ea			5–c 'ea				ars ver	Un ta	asc	
M. F. T	. M. F	F. T.	M. F	Т.	М.	F. 7	. M	. F.	T.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.
			2	2	1	2	3 2	1 2	1 6	7	i 7	24	21	25	46	1 56	70	1 126			
10 1 1	1 1	2 15 2 3	3 1 13 2 2	2	6 9 1	5 1	4 10 4 3 2	5 1	14 6	8 2 	8 1	16 3 	14 1	3 2	17 2	6	2	8	2	3	5
3 1		2 5	1 1	1 1 4	2	1	1		1 2 2	2		3	1 2		1 2	1		1			
1	1 2.	. 2			1		1														
2 3 13 12 2 1 5 28 28 5	6 1	3 6 6 23 7 8 3 44	11 20 1 13 8 19	5 31 14 27	2 9 2 5	13 1	7 2 5 4 5 2	2 8 2 11	2 15 6 13	5 8	1 6 6 11	6 14 6 13	1 4 1	 5 2 5	1 9 3 5	5	2 1 3	7 1 4			3
7 1	8 4	$\begin{bmatrix} 2 \\ 3 \end{bmatrix} \begin{bmatrix} 2 \\ 7 \end{bmatrix}$	2 4 2 1	6 3			1 3		4 1		2			2	2 3	1		· · · · · · · · · · · · · · · · · · ·			
1 1	2 5.	. 5	1	1	1	1	2	1	1	2	2	4	2		2					1	1
1		4 7 1 1 1 11	4 4 2 8 6	8 2 14	1 1 8	1	3 2 2 2 5	1	3	3 1 2	2	5 1 3	1 1	1	1 1 1	1 1		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
78 64 14	2 73 6	6 139	57 83	140	52	76 12	8 47	36	83	43	59	102	49	47	96	73	78	151	6	4	10

TABLE No. 9

To those interested in educational work, this table furnishes a study in regard to the degree of education of the first admissions.

Reads and Common High University Unascertained School	M. F. T. M. F. T. M. F. T. M. F. T. M. F. T. T. M. F. T.	5 4.1 35 76 33 59 92 21 10 12 3 8 12 4 24	150 221 170 410 331 376 707 67 124 191 25 6 31 71 33 104
Psychoses	M. F. T.	1. Tranmatic. 2. Senile. 3. In terebral arteriosclerosis. 3. With cerebral arteriosclerosis. 4. General paralysis. 6. With Huntington's chorea. 7. With brain tumor. 8. With other brain or nervous diseases. 9. Alcoholic. 10. Due to drugs and other exogenous toxins. 11. With pellagra. 12. With other somatic diseases. 13. Manic-depressive. 14. Involution melandoldia. 15. Dementia praecox. 16. Paranoia or paranoid conditions. 17. Epileptic psychoses. 18. Psychoneuroses and neuroses. 19. With mental deficiency. 20. With mental deficiency. 21. Undiagnosed psychoses. 22. Without psychoses. 23. Undiagnosed psychoses. 24. 14. 33. 74. 21. Undiagnosed psychoses.	7.2421

TABLE No. 10

Shows the environment of first admissions, and should be studied in conjunction with the population figures for the Province, as divided between Urban and Rural.

Psychoses		Tota	1		an, 2 1d ov			Rura	1		nasco	
	М.	F.	Т.	М.	F.	Т.	М.	F.	T.	М.	F.	Т.
1. Traumatic 2. Senile 3. With cerebral arteriosclerosis 4. General paralysis 5. With cerebral syphilis. 6. With Huntington's chorea 7. With brain tumour. 8. With other brain or nervous diseases 9. Alcoholic 10. Due to drugs and other exogenous toxins 11. With pellagra 12. With other somatic diseases 13. Manic-depressive 14. Involution melancholia 15. Dementia praecox 16. Paranoia or paranoid conditions 17. Epileptic psychoses 18. Psychoneuroses and neuroses 19. With psychopathic personality 20. With mental deficiency 21. Undiagnosed psychoses 22. Without psychoses 22. Without psychoses	3899 477 700 44 22 11 66 19 5 101 133 193 20 25 14 11 66 146	120 28	209 75 86 86 8 8 3 9 27 7 46 212 69	1 599 27 599 4 4 2 2	711 211 111 22 3 3 2 2 6 6 2 2 255 75 40 1811 211 7 7 62 2	1 1300 488 700 6 5 2 6 222 6 33 1311 48 301 23 26 21 24 9 9 174	2 300 200 111 · · · · · · · · · · · · · · · · ·	1 49 77 55 3 6 366 577 5 4 4 4 4 122 5 9 9	3 799 277 166 3 1 1 3 5 5 1 1 1 3 0 1 1 3 1 3 6 6 3 4 4 9 9 4 3 4 4 3 4 4 3			
Total	821	781	1602	544		1104	277	221	498			

TABLE No. 11
Shows the economical conditions of first admissions with principal psychoses.

Psychoses		Γota	1	DeI	end	ent	on	ivin Dai rnin	Ĭy	able f	mfo An or 4	ıple		iasc aine	
	Μ.	F.	Т.	М.	F.	Т.	М.	F.	Т.	Μ.	F.	Т.	Μ.	F.	Т.
1. Traumatic. 2. Senile. 3. With cerebral arteriosclerosis. 4. General paralysis. 5. With cerebral syphilis. 6. With Huntington's chorea. 7. With brain tumour. 8. With other brain or nervous diseases. 9. Alcoholic. 10. Due to drugs and other exogenous toxins. 11. Pellagra. 12. With other somatic diseases. 13. Manic-depressive. 14. Involution melancholia 15. Dementia praecox. 16. Paranoia or paranoid conditions 17. Epileptic psychoses. 18. Psychoneuroses and neuroses. 19. With psychopathic personality. 20. With mental deficiency 21. Undiagnosed psychoses 22. Without psychoses Total	5 15 101 13 193 20 25 14 1 13 139	13 14 13 14 13 25 68	33 39 27 2 74 38	8 10 2 1 1 1 5 5 1 1 49 4 4 66 2 2 13 6 86	13 2 34 5 2 2 17 10 56	3 83 9 84 4 30 16 142	1 8 57 5 112 10 12 9 18 4 18	9 12 1 3 1 2 2 17 48 24 76 4 9 9 2 2 10 10 10 10 10 10 10 10 10 10 10 10 10	31 58 3 4 3 10 3 25 105 29 188 14 21 11 28 14 26	16 14 1 3 6 3 4 27 7 28 3 1 1 1 1 0 3 3 3 4 2 3 3 4 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17 4 2 1 1 2 6 10 48 29 115 4 3 9 1 6 5 4 4 5 4	33 18 2 2 2 5 12 3 144 75 36 143 7 10 12 2 2 2 16 8 38 8	3 4 3	22 13 3	5 1 7 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

TABLE No. 12

As the use of Alcohol as a beverage has always been a controversial subject, the classification of the first admissions under the headings in this table forms an interesting study.

Psychoses	,	Tota	ŧ1	Al	stin	ent	Ter	npe	rate		ıten erat			nasc aine	
	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	T.
1. Traumatic. 2. Senile. 3. With cerebral arteriosclerosis. 4. General paralysis. 5. With cerebral syphilis. 6. With Huntington's chorea. 7. With brain tumour. 8. With other brain or nervous diseases. 9. Alcoholic. 10. Due to drugs and other exogenous toxins. 11. With pellagra. 12. With other somatic diseases. 13. Manic-depressive. 14. Involution melancholia. 15. Dementia praecox. 16. Paranoia or paranoid conditions 17. Epileptic psychoses. 18. Psychoneuroses and neuroses. 19. With psychopathic personality 20. With mental deficiency. 21. Undiagnosed psychoses. 22. Without psychoses.	13 192	28 16 2 6 2 8 8 8 2 3 3 11 1 5 6 2 3 7 1 3 1 4 1 2 1 3 0 1 3 1 3 1 4 1 2 1 1 3 0 1 3 1 3 1 4 1 2 1 1 3 1 3 1 3 1 4 1 2 1 1 3 1 3 1 3 1 4 1 2 1 1 3 1 3 1 3 1 3 1 4 1 2 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	75 86 68 3 9 27 7 46 21 69 429 33 39 26 21 18	266 188 1 1 2 2 1 1 3 3 8 8 8 9 1 4 2 1 5 5	27 14 1 5 2 2 2 96 53	53 32 2 7 3 5 2 33 134 61 303 11 35 17	3 3 8 49 5 72 15 3 8	1	3 3 9 61 7 7 3 8 1 9 3 8 1 1 8 7	13 1 19 2 3 10	88	144 66 144 11 27 2 2 3 11 1 16 1 16 1 16 1 16 1 16 1 16	11 10 11 11 11 11 11 11 11 11 11 11 11 1	21 13 2 2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total	821	781	1602	377	671	1048	283	77	360	122	18	140	39	15	54

TABLE No. 13

Classifies the first admission patients under marital conditions.

ained	Ξ.	9
Unascertained	<u>,, </u>	
Unas	M.	ν τ
D	Ε.	
Divorced	표.	
Di	M.	
pa	T.	20 5 2 11 33311
Separated	표.	10 2 11 10 10
Ser	M.	10 5 21
	T.	788 198 198 198 198 198 198 198 198 198 1
Widowed	표.	10000001
W	M.	2,2,2,4,5,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
77	T.	100 100 100 100 100 100 100 100 100 100
Married	<u>:-:</u>	33 8 8 2 1 103 3 35 8 8 8 8 33 3 3 3 3 3 3 3 3 3 3 3
M	M.	25555 11 12 13 14 10 10 10 10 10 10 10 10 10 10
	Ξ.	255 112 125 125 125 170 170
Single	12.	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
S	M.	110 113 132 133 133 133 133 133 133 133 133
	Ť.	20 31 113 211 18 63 14 63 25 65 65 7 7 7 7 111 112 125 69 133 146 146 147 147 147 147 147 147 147 147 147 147
Total	Ţ.	113 113 113 113 113 114 115 115 117 117 117 117 117 117 117 117
	Ä.	111 122 133 144 144 140 150 150 150 150 150 150 150 150 150 15
Psychoses		1. Traumatic 2. Senile 3. With cerebral arteriosclerosis 4. General paralysis 5. With cerebral syphilis 6. With Huntington's chorea 7. With brain tumour 8. With other brain or nervous diseases 9. Alcoholic 0. Due to drugs and other exogenous toxins 1. With pellagra 2. With other somatic diseases 3. Manic-depressive 4. Involution melancholia 5. Dementia praecox 6. Dementia praecox 7. Epileptic psychoses 8. Psychoneuroses and neuroses 9. With psychopathic personality 9. With mental deficiency 11. Undiagnosed psychoses 12. Without psychoses 13. Without psychoses 14. Undiagnosed psychoses 15. Without psychoses

TABLE No. 14

Is the first and only table dealing with the psychoses of re-admissions. A study of this as compared with the discharges of previous years will prove interesting.

Psychoses	Males	Females	Total
1. Traumatic psychoses	1		1
Senile pyschoses. Psychoses with cerebral arteriosclerosis.	11	0 5	17
4. General paralysis	10	3	10
5. Psychoses with cerebral syphilis.	1	1	2
6. Psychoses with Huntington's chorea.		i	1
7. Psychoses with brain tumour			
8. Psychoses with other brain or nervous diseases		2	2
9. Alcoholic psychoses	7		7
10. Psychoses due to drugs and other exogenous toxins	1	2	3
11. Psychoses with pellagra		1	1
12. Psychoses with somatic diseases		1	5
13. Manic-depressive psychoses	45	75	120
14. Involution melancholia	10	5	15
15. Dementia praecox	82	74	156
16. Paranoia and paranoid conditions	4	1	5
17. Epileptic psychoses	8	9	16
18. Psychoneuroses and neuroses		3	11
19. Psychoses with psychopathic personality	12	2	4
20. Psychoses with mental deficiency	1 2	4	16
21. Undiagnosed psychoses.	27	12	39
22. Without psychoses	<i>21</i>	12	39
Total	242	204	446

TABLE No. 15

Deals with the discharges of patients under the different psychoses, together with the condition of the patient at the time of discharge. From this table the reader is enabled to compare the recoveries and improvements with the total admissions for the year.

		Total			Recovered			ln	iprov	ed	Unimproved			
	Psychoses		F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	
2. 3. 4. 5. 6.	Traumatic. Senile. With cerebral arteriosclerosis. General paralysis. With cerebral syphilis. With Huntington's chorea. With brain tumour.	2 37 17 29 4	1 32 19 - 8	36	1 2 3 1 3	3 2	1 5 5 1 3	28 13 26 1	16 8	29 34 1	1 2	7 1	1 14 2 2	
8. 9.	With other brain or nervous diseases. Alcoholic. Due to drugs and other exo-	3 25	2 5	5 30	18	4	22	2 5	2	4	1 2		1 2	
11. 12. 13. 14.	genous toxins	10 118 16 221	8 15 146 36 215	52	8 65 7 47	6 13 97 15 63	21 162 22 110	1 2 50 9	2 1 48 20 140	3 98 29 305	3	1 1 1 1 12	1 1 4 1 21	
16. 17. 18. 19.	Paranoia and other paranoid conditions. Epileptic psychoses. Psychoneuroses and neuroses. With psychopathic personality	18 18 13 5 37	6 12 15 2 25	24 30 28 7	6 2 10 1 8	3 1 7	9 3 17 1	8 14 3 2 27	3 6 8	11 20 11 3	4 2 2 2	5	4 7	
21.	With mental deficiency. Undiagnosed psychoses Without psychoses. Total	107	3 54	$ \begin{array}{r} 62 \\ 3 \\ 161 \\ \hline 1288 \end{array} $	31 215	$\frac{5}{2}$ $\frac{10}{231}$	13 2 41 446	57	18 1 38 336	45 1 95 749	19	6	25	

TABLE

Deals with the deaths in the Institutions during the period covered, and furnishes the psychoses

													,5 y C		
Causes of Death		Total			Senile		With Cerebral Arterio- sclerosis		ral o-				Alcoholic		
		F.	T.	M.	F.	Т.	М.	F.	Т.	Μ.	F.	T.	М.	F.	Т.
I. EPIDEMIC, ENDEMIC AND INFECTIOUS				·		1					1	1		1	1
Diseases: Typhoid and paratyphoid fever															
MeaslesScarlet fever															
Diphtheria														l	١
Influenza	4		4									٠.			
Dysentery Erysipelas Lethargic encephalitis Tuberculosis of the respiratory system.		1	1		1	1								1::	
Lethargic encephalitis															
Tuberculosis of the respiratory system.	24	31	55	1	1	2						٠.			: -
Tuberculosis of other organs			3					1	1						
Syphilis (non-nervous forms) Purulent infection, septicaemia Other infectious diseases	2	2	4				1		1						
Other infectious diseases	1	5	6							1	• •	1		• •	
II. GENERAL DISEASES NOT INCLUDED IN CLASS I:															
Cancer and other malignant tumours Tumour (non-cancerous)	7	13	20		4	4									
Tumour (non-cancerous)	1	1	2									٠.			
Rheumatism. Pellagra											• •				
Diabetes														l	
Alcoholism (acute or chronic) Other general diseases	1.5		25			10									
Other general diseases	13	10	23	8		10				• • •	• •	• •			
III. DISEASES OF THE NERVOUS SYSTEM:	į						Ì		-						
Meningitis (non-epidemic)															
Tabes dorsalis (locomotor ataxia) Other diseases of spinal cord		1	1		1	1								::	
Cerebral hemorrhage, apoplexy	6	18	24	3	6	9		3	3						
General paralysis of the insane	33	2.2	70	16	1.2	20				32	9	41			
Other forms of mental disease Epilepsy	23	17	40	10	13	1 9 		- 4	3				1		1
Chorea		- 4	- 4												
Other diseases of the nervous system	1	1	2							• • •		• •			٠.
IV. DISEASES OF THE CIRCULATORY SYSTEM:												Ì			
Pericarditis	16	-11		10	16	35						. ;			
Endocarditis and myocarditis	46	11	87		10	33		4	4		1	1			
Other diseases of the heart	2	3	5	1		1		1	1						
Arteriosclerosis	15	26		5	6	11	10	12	22]		[
Other diseases of the arteries Other diseases of the circulatory system		10	24		7	17	· · · i		1						
			7.1												
V. DISEASES OF THE RESPIRATORY SYSTEM:		2	2				-								
Bronchitis	31	55	86	12	16	28	2	3	5	2	2	4	1	i	2
Lobar pneumonia	15	10	25	1	1	28 2	1		1				1		1
Pleurisy		1	1									٠ .			
Other diseases of the respiratory system			1				1			1	1	- [
(tuberculosis excepted)	20	34	54	7	10	17	1		1	1		1			

No. 16 complete information in regard to the cause of death and is further divided under classification.

M Dep	lar		M		tion in- ia		men		Pa: C	anc	oid li-			otic	ne	and	ses	Ps pa Pe	Vit yel ath erso lity	ic n-	M	Vit en				ther
М.	F.	T.	M.	F.	T.	M.	F.	Т.	М.	F.	Т.	Μ.	F.	T.	M.	F.	T.	М.	F.	Т.	М.	F.	Т.	Μ.	F.	Т.
		:::		1																						
	::	:::		9		2		· · · · · · · · · · · · · · · · · · ·				1		1							1		1			
	a			1			2	2					٠.													
		1								١ ا		Ì				l										
	1	1 -			1	12	20	32					2						: :		0 1	5	11		1	1
	1			1	ł		4																		1	1
					1	4	7	11		• •						• •					1	1	2		1	2
																									[
]														
1	4	ا ا				4	3	7	1		1		• •										• • •	1	1	4
	}	L		1				- 1	- l	- 1	1	1					- 1		- 1	- 1	- 1		- 1	- 1	- 1	
		1					3	· · · <u>·</u>	1							٠.	• • •				• • •	-		\cdots		
[· <u>·</u>		î		ĩ															
5	2	7	1	4	5	10	5	15			• • •	21	14	35		• •				• • •	4 2	6	10	• • •	$\cdot \cdot $	
	١٠٠			1 1]]]]]			- 4	7
								1		• •		• • •	• •	• • •		• •				• • •	1		1	• • •		
4	5	9	3		3	11	10	21				2	1	3							2	2	4	5	2	7
	· ·			::			i	1						: : :							· · i	i	2			
	2	2								5	5													1		1
							2	4						: : :								1	1			
							1.1			1	1										٠	1	1			
	0			1	1	5	3	8		1						1					3	2	6	3	3	3 6
										٠٠.]			• •			1	1
														1		• •										
1	3	4		2	2	7	6	13	2	3	5	1	6	7	!							1	1].		3	3

TABLE

Deals with the deaths in the Institutions during the period covered, and furnishes the psychoses

													psy		
Causes of Death		Tot	al		Seni	ile	Cei	ter	ral	Ge Pai			Alc	oh	olic
	М	F.	T.	M	. F.	T.	M.	F.	T.	М.	F.	T.	M.	F.	T.
VI. DISEASES OF THE DIGESTIVE SYSTEM: Diseases of the pharynx and tonsils Ulcer of stomach and duodenum Other diseases of stomach (cancer excepted)	2		1 2												
excepted). Diarrhea and enteritis. Appendicitis and typhilitis. Hernia and intestinal obstruction. Other diseases of intestines.	4	1	5	1		1				. 1 .					
Hernia and intestinal obstruction	2	3	5	1	i	2									
Cirrhosis of liver Biliary calculi		1				1									1
Other diseases of liverOther diseases of digestive system (can-															
cer and tuberculosis excepted) VII. Non-Venereal Diseases of Genito-		2	3										• • •		
URINARY SYSTEM AND ANNEXA: Nephritis. Other diseases of kidneys and annexa. Diseases of bladder.	4 2	3	7 2	1	1	2	1								
Benign tumors of uterus												: :			
Other diseases of genital organs Other diseases of genito-urinary system	1		1												
VIII. DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE: Gangrene	5	3	8	2	2	4								1	1
Other diseases of skin and annexa	1		1												
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION (tuberculosis and rheumatism excepted)															
X. Other Diseases not Included in Above Groups							1								
XI. External Causes: Suicide															
Homicide															
Accidental poisoning. Accidental traumatism. Other external causes.	2	3	2	· · · i		i									
Total]														5
														1	_

No. 16-Concluded.

complete information in regard to the cause of death and is further divided under classfication.

De	Ma				ivo Me ch	ela	n-			enti	ia	a Para Co	ano nd ano ndi ons	id	Ep Psy	ile ch	ptic ose:	n	eur ar	cho- oses id roses	F	pat	cho- hic on-	l A	Wit Ien fici		Ps)the
М.	. F	F.	Т.	. M	[.]	F.	Т.	М	. F	T	. M	. F	7.	۲.	Μ.	F.	T.	M	. F	Т.	M	.F	Т.	M	F.	T.	M.	F.	T.
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							-	1		1														1	. .				
21		-	18		14	-	- -			160			17	-	6 2	- -	51		4					37 3	3	-	13 2	3	36

TABLE Shows the age of the patients at the time of death in groups from under fifteen years

Psychoses	7	Γota	.1	U 15	nde Y e			5–1 ear			–2 ear	- 1		-29		1 -	0-3 ear	_
	М.	F.	Т.	Μ.	F.	Т.	Μ.	F.	T.	М.	F.	Т.	М.	F.	T.	M.	F.	T.
1. Traumatic. 2. Senile. 3. With cerebral arteriosclerosis. 4. General paralysis. 5. With cerebral syphilis. 6. With Huntington's chorea. 7. With brain tumour. 8. With other brain or nervous diseases. 9. Alcoholic. 10. Due to drugs and other exogenous toxins. 11. With pellagra. 12. With other somatic diseases. 13. Manic-depressive. 14. Involution melancholia. 15. Dementia praecox. 16. Paranoia or paranoid conditions 17. Epileptic psychoses. 18. Psychoneuroses and neuroses. 19. With psychopathic personality.	2 94 21 35 3 1 1 3 4 20 97 22 3 27	25 12 1 3 1 2 1 1 9 22 19	2 194 46 47 4 3 2 3 4 1 1 13 42 28 160 6							1	1	1 2 3	1 4 2	1 1 1 1 1	1	-	-	1 1 2
20. With mental deficiency	16 3 24	11 3 30	27 6 54	4	5			3	2 8		1 2	2 1 5	2 1	 1	2 1 1		1 	3
Total	338	352	690	5	5	10	8	4	12	7	7	14	10	9	19	19	15	34

No. 17 of age, to seventy years and over, and is also divided under principal psychoses.

35–39 Year			0-4 ear			5–4 'ea			0–5 'ea			5–5 ear			0-0			5–6 ear			Yea d ov		Un:	asc ine	
M.F.	Т.	Μ.	F.	Т.	М.	F.	Т.	Μ.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	T.	Μ.	F.	Т.	M.	F.	T.
1 1 8 1 1	1 9 1 1	6	1 1	1 7	5	2 1	2 6	2 6 1	1	2 4 9 1	4 4 2	1 1	8 8 4 1 	10 3 4 1	9 5 1	19 8 5 1	12 6 2 1		28 11 2 1	6	69 5	2		1	1
1	12		7	16 5	1 6 1 3	2 4 3 10	2 4 4 16 1 5	1 2 2 9 1 2	2 6 6 15 1 2	3 8 8 24 2 4	2 2 7		1 5 3 17	3 5 1 4	1 2 1 10 1 1	4 7 2 14 1 3	6	1 3 10	7 3 22 1 1	1 3 7	1 5 8 1	2 8 15 1 4		1	1
1 3	3	3	1	· · · · · · · · · · · · · · · · · · ·	2	1	· · · · · · · · · · · · · · · · · · ·	1 1	1 3	2 1 3	··· 2	2	 4 4	··· 2	2	4	1 1 1	2	1 1 3	· · · · · · · · · · · · · · · · · · ·	2 2 2	2 2 2			
19 19	38	21	16	37	19	25	44	29	44	73	27	36	63	38	37	75	43	38	81	93	95	188		2	2

TABLE Firmishes valuable information in regard to the length of stay in the

Psychoses	7	Tota	1		ss th Mon			1-3 ont	hs	l N	4-7 lont			8–12 lont	
	М.	F.	T.	Μ.	F.	Т.	Μ.	F.	Т.	Μ.	F.	Т.	M.	F.	T.
1. Traumatic 2. Senile. 3. With cerebral arteriosclerosis 4. General Paralysis. 5. With cerebral syphilis 6. With Huntington's chorea 7. With brain tumour 8. With other brain or nervous diseases. 9. Alcoholic. 10. Due to drugs or other exogenous toxins. 11. With pellagra 12. With other somatic diseases. 13. Manic-depressive. 14. Involution melancholia. 15. Dementia praecox. 16. Paranoid or paranoid conditions. 17. Epileptic psychoses. 18. Psychoneuroses and neuroses. 19. With psychopathic personality. 20. With mental deficiency. 21. Undiagnosed psychoses. 22. Without psychoses.	1 3 4 19 4 72 3 27 1 16 3 29	25 12 1 1 3 2 2 1 1 1 1 1 1 9 2 2 2 1 1 7 8 5 5 3 2 0 2 2	46 47 43 33 22 4 1 13 41 21 157 6 47 3 27 66	11 1 2 2 1 1 1	1 2	111 2 2 2 88 5 7 1 11 4	7 4 3 4 2 4 2 5	 1 1 1 0 5 4 2 1 1	13 10 1 1 3 9 4 3 3 4 2 7	2 4 1	2 1 1 1	2 4 1 1 2 1 3 3 4 1 1 4 4 1	2 1 1 1	7 4 4 · · · · · · · · · · · · · · · · ·	3 2 4
Total	338	352	690	42	50	92	47	37	84	26	19	45	17	19	36

No. 18 various Institutions of patients who died during the current year.

	1-2			3–4 'eai			5-('ea			7–8 ′ea)-1, 'ea			1-1 ear			3-1 'ear			5–1 'eai				ears
М.	F.	T.	M.	F.	Т,	Μ.	F.	Т.	М.	F.	Т.	М.	F.	Т.	М.	F.	Т.	Μ.	F.	Т.	М.	F.	Т.	М.	F.	Т.
222 3 100 1 1 2 1 1 100 1 1	3 3 1 2 5 2 11	2 7 3 21 1 3	22222282.25	1 1 1 1 1 1 1 4	3	11 77 3	2 2 7	2 1 2 14 	1 8	9	1 17	1 4		1	3		6	1	1 1 6	1 1 8	1	6 1 3	i	4 22	2 1 18 2 2	6 1 40 2 3
5	6		1	3	4	2	3	5	1	6	1		2	2	2	2	4				1	1	2	7	2 7	3 2 14
58	56	114	31	29	60	19	27	46	18	27	45	10	14	24	10	6	16	7	12	19	9	15	24	44	41	85

TABLE No. 19

Shows the abnormal conditions in relations of first admissions, classified with reference to principal psychoses.

_										
	Psychoses	Total No.	Psy- choses	Neu- roses		Suici- dal At- tempts		Alco- hol, Drugs, etc.	Un- ascer- tained	Denied
2.	Traumatic psychoses Senile psychoses	4 209	1 29	3		1	1	3	90	3 82
	Psychoses with cerebral arteriosclerosis	75	19	3	1			2	16	34
	General paralysis Psychoses with cerebral	86	10	2		1		3	32	38
6.	syphilis Psychoses with Hunting-	6							4	2
7.	ton's chorea Psychoses with brain tu-	8	3						4	1
8.	Psychoses with other brain	2				1				1
9.	or nervous diseases Alcoholic psychoses	9 27		1				1 5	13	8
	Psychoses due to drugs and other exogenous toxins	7		1	1			1	1	3
	Psychoses with pellagra Psychoses with other somatic diseases	46	12	4					10	20
13.	Manic-depressive psy- choses	212	54	7	3	4		7	22	115
	Involution melancholia Dementia praecox (schi-	69	12	8		2	1		3	43
	zophrenia) Paranoia or paranoid con-	429	104	17	7	8		12	49	232
	ditions Epileptic psychoses	33 39	3 6	1	1			1	7 11	21 20
	Psychoneuroses and neuroses	27	6						6	15
	Psychoses with psycho- pathic personality	2			1	1				
	Psychoses with mental deficiency	71	16		5	2		1	20	27
	Undiagnosed psychoses	18 223	7 140	5	3		1	5	5 21	4 48
	Total	1,602	422	53	22	20	3	43	315	724

TABLE No. 20

To those interested in the matter of the religion of the patients, this table furnishes a classification under the Church headings, for admissions of the year, the total number in residence, and the admissions since the opening of the Hospitals.

Religion	Admi	ssions of	Year	In	Residen	ce	Adı	nissions S Opening	
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Baptists. Congregationalists Anglicans. Jews Presbyterians. Roman Catholics. United Church. Other Denominations. Unascertained.	52 3 203 27 169 253 226 147 69		115 3 414 54 341 461 435 271 157	236 4 835 68 659 1,106 839 517 462	254 3 979 66 809 982 1,021 608 326	490 7 1,814 134 1,468 2.088 1,86° 1,125 788	145 6,294 7,702 7,386 3,335	54 7,250 144 6,321 6,734	3,023 113 14,543 289 12,615 14,436 15,281 5,999 2,839
Total	1,149	1,102	2,251	4,726	5,048	9,774	35,502	33,636	69,138

TABLE No. 21

This table should prove interesting in the study of the vocations of the patients admitted during the current year. It will be noted that the mechanical class has been divided as between outside and inside work.

Occupation	Adm	itted this	year
occupation.	Male	Female	Total
Professional:			
Clergy, military and naval officers, physicians, lawyers, architects, artists, authors, civil engineers, surveyors, etc	23	14	37
Bankers, merchants, accountants, clerks, salesmen, stenographers, typewriters, etc	125	49	174
Agricultural and Pastoral: Farmers, gardeners, stockmen, etc	196		196
Railway and stationary engineers, blacksmiths, carpenters, engine fitters, sawyers, painters, police, etc	84		84
Shoemakers, bookbinders, compositors, weavers, tailors, seam- stresses, bakers, factory workers, etc	90	42	132
Waiters, cooks, servants, etc	17	187	204
Education and Higher Domestic Duties: Governesses, teachers, students, housekeepers, nurses, etc	23	545	568
Miners, marine engineers, railway employees, seamen, etc	22 359		22 3 5 9
Jnascertained.	195 15	250 15	445 30
Total	1,149	1,102	2,251

TABLE No. 22

This table is a geographical study in regard principally to the Province of Ontario, and shows from what Counties in the Province the patients came, classified under the headings, admitted during the year, and remaining in residence. It also furnishes statistics in regard to warrant cases, by showing those admitted during the year, and admitted since the opening of the Hospital.

cases, by snowing those admit	ted dur	ing the	year, ai	id admi	tted sin	te the o	pening	of the ri	ospitai.
Counties and Districts	Adm	itted d Year	uring	1	mitted (Openin			maining Residen	
	М.	F.	T.	М.	F.	T.	М.	F.	T.
Algoma District	13		28 21						
Brant	20								
Carleton	47	43	90	1,330					450
Cochrane	19								
Dufferin	1 3	3 3	4						
Dundas Durham	9	5	14						
Elgin	13	19	32					1 .	
Essex	42	26	68	1					
Frontenac	26	24	50 17						150
GlengarryGrenville	13 6	$\begin{pmatrix} 4\\2 \end{pmatrix}$	8				33		56
Grey	11	13	24				104	1	
Haldimand	9	7	16				29		
Haliburton	2 6	2 5	11				8 22	23	18
HaltonHastings	18	14	32		1	1377	98	90	
Huron	8	13	21	634	667	1,301	63	79	142
Kenora	2	2	4			53	6	10	16
Kent	16 13	20 14	36 27			1,048 1,295	69 79	76 72	145
LambtonLanark	12	14	26	1			64	58	122
Leeds	21	21	42		1	1,152	53	85	138
Lennox and Addington	11	9	20			705	41	36	77
Manitoulin	23	17	40 4	464 32		886 57	56 17	48 16	104
Middlesex	44	52	96			3,499	180	229	409
Muskoka District	2	4	6	186	151	337	62	65	127
Nipissing District	17	6	23		246	577	58	28	86 71
Norfolk	10	13 12	23 21	286 496		1,060	29 70	42 79	149
Ontario	16	25	41	726		1,418	82	71	153
Oxford	20	15	35	629		1,178	63	75	138
Parry Sound District	8	4	12	$\begin{vmatrix} 174 \\ 320 \end{vmatrix}$		326 692	30 12	27 34	57 46
Peel	19	9	28	591	575	1,166	76	71	147
Peterborough	17	17	34	435	510	945	68	85	153
Prescott	4	11	15	249		484 397	56 28	52 17	108 45
Prince Edward	6	4	10 9	204 102	193	159	15	11	26
Renfrew	- 9	13	22	425		874	56	71	127
Russell	6	5	11	138	120	258	31	35	66
Simcoe	27	19	46 14	1,073 386	927 339	2,000 725	110	117	227 76
StormontSudbury	12	5	17	102	73	175	27	20	47
Temiskaming	12	4	16	189	92	281	37	20	57
Thunder Bay District	25	20	45	324		549	65	59	124
Victoria	15	35	10 50	486 539	472 571	958 1,110	42 74	55 96	97 170
Welland	71	76	147	419	444	863	72	72	144
Wellington	13	19	32	737	751	1,488	84	98	192
Wentworth	59	74	133	2,121	2,092	4,213	271	297	2 510
York Unascertained	377	361	738	8,941 677	9,070 193	18,011	1,053	1,457	2,510 57
Other Provinces.	11	7	18	152	45	197	38	6	44
-	1 207	1.163	0.270	25 404	22 (02	60.004	1.160	1.000	0.440
Total	1,207	1,163	2,370	35,191	33,693	68,884	4,468	4,980	9,448
	1			,					

ANNUAL DENTAL REPORT

For practically nine months of the period which this report covers, new arrangements have been made in the majority of the hospitals in regard to dental work. At each hospital a dental clinic is now held for a certain number of days each week, and the following table shows the various dental operations carried on at the different hospitals for periods of from seven to nine months.

Totals	1,061 5,563 4,248 4,248 11,661 1,651 2,084 873 873 873 873 1,464 102 1,842
Bowmanville, Dr. Bonnycastle	30 208 152 152 34 192 19 94
Burwash, Dr. Brownlee	45 400 377 377 348 348 32 44 44 32 77 77
Guelph, Dr. Wing	31 1 2 1 2 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1
Метсет, Dr. Black	37 180 246 246 345 345 439 1 2
Woodstock, Dr. Heath	27 250 802 65 108 29 29 29 29 33
Whitby, Dr. Beaton	11,104 423 423 423 1,275 1,275 125 62 82 82 82 82 1,270*
Toronto, Dr. Hodgins	117 261 1,032 429 43 183 91 90 136 126 24 22 24 22 175
Penetanguishene, Dr. King	18 232 174 174 639 639 4 4
Orillia, Dr. Seymour	191 352 675 33 33 1118 1118 58 58 30 4
Mimico, Dr. Hall	105 269 269 582 443 180 239 3 276
London, Dr. Smyth	1118 956 5,278 316 182 45 6
Kingston, Dr. Renton	79 246 386 386 24 294 48 48 242 198 69 280 33 10
Hamilton, Dr. Kappele	207 77 77 77 77 77 4 4 4 4 4 4 4 138 138 178 91 111 91
Cobourg, Dr. Kerr	37 432 366 36 265 265 1 1 346 1 3 6
Brockville, Dr. Woodrow	35 391 360 350 50 50 50 77 77
	Number of half days. Patients examined. Public charge, patients treated Private charge, patients treated Extractions. General anaesthetics. Local anaesthetics. Amalgum or cement fillings. Pyorrhea treatments. Other treatments. Prophylaxis. Replacements. Dentures repaired. Other work.

Mimico, Guelph and Burwash 8 months only. All others for 9 months. *Films taken by Dr. Webster. Note-Woodstock and Bowmanville 7 months only.

PER CAPITA COST STATEMENT

The foregoing tables have dealt with the various classifications of the patients, but the report would be incomplete without information as to the cost ō

operations of the various hospitals.

The following table shows the per capita cost of maintaining each patient per day and is shown divided under the different items of expenditure.

Wood- stock	cents 7.19 24.03 16.68 2.22 4.10 5.13 9.18 5.60 2.03	169.06	97.74	1.32.93
Whitby	cents 1.78 21.11 12.55 5.23 5.23 5.44 5.47 7.57 7.92 2.83 2.13 40.82	104.14	65.83	.74.55
Toronto	cents 1.53 23.13 11.78 4.18 6.65 7.78 7.78 44.37	103.68	71.88	. 89.02
Penetang	Cents 1.12 17.72 11.68 4.48 1.31 3.38 7.05 7.05 3.97 1.91 4.99	102.21 18.98	83.23	.89.49
Orillia	cents 1.28 15.51 8.22 4.27 4.27 4.29 1.24 34.56	81.16	63.57	73.84
Mimico	cents 1.71 21.74 12.34 4.71 7.21 8.47 8.75 1.28 1.28 1.28 1.27 5.27	115.08	81.11	1.16.20
London	cents 1.95 18.31 8.02 8.02 4.01 4.57 1.28 5.96 3.46 1.98 45.14	96.72 34.45	62.27	. 73.40
Kingston	cents 1.76 23.62 23.62 23.62 2.56 6.57 10.74 10.74 1.92 1.92 6.35	141.85 28.98	112.87	1.31.25
Hamilton	cents 1.39 10.90 10.65 3.30 3.30 1.44 1.03 1.00 1.44 1.44	110.47 37.10	73.37	.89.28
Cobourg	cents 2.08 20.44 13.92 3.56 1.59 6.85 6.85 6.32 70 1.31	88.37 10.98	20.96	.98.35
Brockville	cents 2.09 20.09 12.90 12.90 44.44 2.04 5.62 48 9.50 5.46 1.68 1.68 1.68	125.52 27.76	97.76	\$1.08.16
Items	Medicines. Provisions Provisions Prut, light and water Clothing. Laundry and cleaning. Furniture and furnishings. Office expense. Allowances. Feed and fodder. Farm expense. Contingencies.	Total Gross per Capita Less Recoveries	Net per Capita Cost	Total per Capita Payable by Province





REPORT

OF THE

Ontario Board of Parole

For the Year ending October 31st

1928

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER No. 16



TORONTO

Printed and Published by the Printer to the King's Most Excellent Majesty 1 9 2 9



To The Honourable William Donald Ross, Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to transmit to Your Honour the Annual Report of the Ontario Board of Parole for the year ending October 31st, 1928.

Respectfully submitted,

L. Goldie,

Provincial Secretary.

Toronto, February 6th, 1929.

TORONTO, February 1st, 1929.

To The Honourable Lincoln Goldie, M.P.P., Provincial Secretary and Registrar, Ontario.

SIR:

I have the honour to present herewith the Annual Report of the Ontario Board of Parole for the year ending October 31st, 1928.

I have the honour to be, Sir,

Your obedient servant,

ALFRED E. LAVELL,

Secretary.

REPORT OF THE ONTARIO BOARD OF PAROLE FOR YEAR ENDING OCTOBER 31, 1928

In submitting the report for the past year, a comparative statement is given below from which it will be seen that the number of cases dealt with was larger than any previous year, involving a greater amount of labour and necessitating the full time of the three officers which we were fortunate in having, and also making it necessary to add another stenographer to our office staff.

The statistical record for the year is as follows:

Meetings of the Board	26
Cases dealt with	1.680
Paroles authorized.	
Paroles put into effect.	
Disappeared	
Committed crime while on parole	
Sent back and parole cancelled.	
Recommended for Extra Mural Employment (Cap. 163, R.S.C., ss. 13-15, 49, 61)	
Recommended for ticket-of-leave	5

The following is the record for four previous years:

	1916	1925	1926	1927
Cases dealt with	164	1,347	1,296	1,364
Paroles authorized	52		473	504
Disappeared		25	41	46
Committed crime on parole	No	41	16	18
Sent back and parole cancelled	record	41	30	21
Recommended for Extra Mural Employment		108	116	141
Recommended for ticket-of-leave	23	25	16	11
Recommended for Extra Mural Employment		100	220	111

In the above figures for 1925 we are not able to give the number who committed crime on parole as distinct from those whose paroles were merely cancelled. The total for these two in that year was 41, which is about the same as in other years.

It will be noted that the number of paroles authorized was considerably in excess of those put into effect. The reason for this is that in a large number of cases the parole was authorized to take effect at a later date than the end of the fiscal year. There are also a number authorized in every year which cannot be put into effect because of inability to meet the conditions. Sometimes there is misbehaviour by the prisoner in the institution. Sometimes work is not available. At other times facts come to light which were not available when the decision of the Board was given. In a number of cases paroles are authorized to take place the following spring when farm positions will be open.

The percentage of failures should, of course, be computed upon the number actually paroled and on this basis the percentage of custodial failures (that is, persons on parole who disappeared or committed crime) was about 18 per cent. of those actually paroled. Considering the salvage nature of our work and the kind of material we deal with, this would appear to be a very fair figure and means that over 80 per cent. of those paroled made good, at least during the period of supervision, and from past experience it can be confidently expected that the majority of these will continue to succeed. We had to return twenty-four persons to the institutions from which they were paroled because it was considered unfair to the public to try them outside for the full period of their sentence. Their behaviour under supervision was not such as made it wise to continue them further on parole.

As in past years, the failures fall into two classes: those who broke faith when there was nothing apparent in their past history that would lead one to expect failure, and those who when paroled were considered rather doubtful risks, but to whom it was considered proper to give a chance of reformation, the indeterminate sentence having been given by the Court for that purpose. The fundamental aims of the Board are the re-establishment of criminals, the prevention of crime and the protection of the public. It is believed that in many cases the parole of a prisoner is more likely to accomplish these objects than his retention in prison until the end of his full sentence, but every prisoner is paroled under certain specific and strict conditions, and if these conditions are not faithfully kept the Board does not consider it safe either for the public or the prisoner to keep him outside on parole. He is with regret sent back, but no prisoner is returned to the institution without urgent cause, as we believe that our duty is to guide as many as possible into civil re-establishment. Sometimes warnings and caution are effective. When these fail there is only one recourse and that is return to close custody.

The personnel of the Board is as follows: Chairman, Mr. G. S. Matthews; Vice-Chairman, Mr. W. A. Evans; Vice-Chairman, Judge Emerson Coatsworth; Mr. J. B. Tudhope, Mr. D. Miller, Judge J. F. McKinley, Dr. F. C. Grenside,

Mrs. D. M. Brodie, and Mr. G. B. Woods.

The executive staff consists of Dr. Alfred E. Lavell, Secretary and Chief Officer; Mr. E. J. Etherington and Mr. T. D. Bell, Parole Inspectors. The clerk staff consists of four stenographers and a filing clerk.

Signed on behalf of the Ontario Board of Parole.

GEO. S. MATTHEWS, Chairman.

Sixth Annual Report

OF THE

COMMISSIONER

FOR THE

Extra Mural Employment of Sentenced Persons

For the Year Ending October 31st

1928

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY OF ONTARIO

SESSIONAL PAPER No. 33



TORONTO

TORONTO, February 6th, 1929.

To The Honourable William Donald Ross, Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to transmit to Your Honour the Annual Report of the Commissioner under The Extra Mural Employment of Sentenced Persons Act, for the year ending October 31st, 1928.

Respectfully submitted,

L. Goldie,

Provincial Secretary.

TORONTO, February 1st, 1929.

To The Honourable Lincoln Goldie, M.P.P., Provincial Secretary and Registrar, Ontario.

SIR:

I have the honour to present herewith the Annual Report of the Commissioner for the Extra Mural Employment of Sentenced Persons for the year ending October 31st, 1928.

I have the honour to be, Sir,

Your obedient servant,

ALFRED E. LAVELL, Commissioner.



REPORT OF THE COMMISSIONER FOR THE EXTRA MURAL EMPLOYMENT OF SENTENCED PERSONS (OFFENDERS AGAINST DOMINION LAW) FOR YEAR ENDING OCTOBER 31st, 1928

The powers and duties of the Commissioner are stated in the regulations approved by the Lieutenant-Governor in Council and given in each specific case by an Order-in-Council. The statutory basis is Chapter 163, R.S.C. (1927), Sections 13-15, 49 and 61.

GAOLS

13. The Lieutenant-Governor of any province may, from time to time, make regulations for the purpose of preventing escapes and preserving discipline in the case of prisoners in any common gaol or prison employed beyond the limits of such common gaol or prison.

14. After such regulations are made, the Lieutenant-Governor may, from time to time, direct or authorize the employment, upon any specific work or duty, beyond the limits of any common gaol or prison, of any prisoner who is sentenced to be imprisoned with hard labour in such gaol, for any offence against

any law of Canada.

15. Every such prisoner shall, during such employment, be subject to such regulations and to all the rules, regulations and discipline of the gaol or prison so far as applicable.

16. No such prisoner shall be so employed, except under the strictest care

and supervision of officers appointed to the duty.

REFORMATORY AND INDUSTRIAL FARMS

- 49. The Lieutenant-Governor may, from time to time, authorize direct or sanction the employment upon any specific work or duty without or beyond the limits of the Ontario Reformatory or an Industrial Farm of any of the prisoners confined or sentenced to be imprisoned therein or transferred thereto, as herein provided.
- 2. All such prisoners shall, during such last-mentioned employment, besubject to such rules, regulations and discipline as are approved by the Lieutenant Governor in that behalf.

MERCER REFORMATORY

61. The Lieutenant-Governor may from time to time authorize, direct or sanction the employment upon any specific work or duty without or beyond the limits of the Reformatory or Industrial Farm of any female confined or sentenced to be imprisoned or transferred thereto as herein provided.

All such prisoners shall, during such last-mentioned employment, be subject to such rules, regulations and discipline as are approved by the Lieutenant-

Governor in that behalf.

STATISTICAL RECORD

Takal fam

		Total for
	1927-1928	eight years
Permits put into effect	254	1,666
Custodial failures	12	73
Aggregate days served outside	50,609	192,013
Wages earned, all going solely to prisoners and families (cir.)	\$100,000.00	\$423,000.00
Total cost of system except for service of Parole Office (cir.)	800.00	6,300.00
Saving to Province in maintenance (cir.)	56,000.00	201,000.00

Of the twelve custodial failures above noted, eight disappeared and four committed crime and were reapprehended. All the rest of those placed outside on permit did well, except ten whom it was considered wise for various reasons to place back inside the institution.

It will be noted that the total number of custodial failures for the year continues to be less than 5 per cent. This has been the consistent record for each of the eight years of the system with a slight variation of a small fraction

of 1 per cent.

The system represents the equivalent of an institution having a daily population of from 50 to over 100 prisoners throughout the year. Its financial value to the Province, therefore, is not inconsiderable, and because its office and other work is performed by those who are on the staff of the Board of Parole, the cost of the system is very small indeed.

The Commissioner continues to receive the most hearty and effective co-operation from all quarters. The Board of Parole gives him the benefit of its judgment in recommending for permits certain inmates who are interviewed by it at the various Provincial Institutions. The public generally, including the police, the Salvation Army, clergymen and others, have given most willing and efficient services in the supervision of prisoners placed outside on permit. Courts and custodians have given valuable counsel and other assistance. Without this

co-operation the system would be impossible.

The best results of the system are not the financial. It has saved thousands of innocent dependents of prisoners from suffering which would have been caused had the prisoners been compelled to remain and work inside the institutions during their full terms. This has been done without any interference with the sentence of the Court which inflicted loss of liberty for a certain time. The term has not been shortened. The time and energies of the prisoner have been used to the best economic advantage of the Province and all concerned. The system has also resulted in the re-establishment of a large number of prisoners as citizens who merely needed strict control and who, having been given permission to support their families, were placed upon possibly the only road which could have led to their successful return into society as free citizens at the end of their sentence.

It would appear to be unnecessary at present to go into further detail as my exhaustive report for the first five years is on record and it seems unnecessary to repeat what was therein stated. It is the hope of the Commissioner to give a similar detailed report after the system has been in operation ten years.

ALFRED E. LAVELL, Commissioner.

FIFTY-NINTH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

Hospitals and Charitable Institutions

OF THE

PROVINCE OF ONTARIO

BEING FOR THE YEAR ENDING 30th SEPTEMBER

1928

Sessional Paper No. 17, 1929

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

Hospitals and Charitable Institutions

The Fifty-ninth Annual Report of the Hospitals and Charitable Institutions for the Province of Ontario, for the year ending September 30th, 1928, is presented herein. The grouping of the General Hospitals according to size, which was first carried out in the last Annual Report, proved so beneficial for comparative purposes that it has been continued in this report. The Governing Boards of the various Institutions listed in this report are respectfully requested to compare the standing of their own Institutions with that of others in the same group.

An explanatory note accompanies each table, showing the information that may be derived from the statistics given.

There are operating at the present time in the Province of Ontario:

- 113 Public Hospitals.
- 19 Red Cross Outpost Hospitals.
- . 6 Hospitals for Incurables.
- 10 Public Sanatoria.
- 43 City Refuges.
- 3 Convalescent Homes.

- 32 Orphanages.
- 31 County Houses of Refuge.
- 68 Private Hospitals.
 - 2 Private Sanatoria.
 - 2 Private Sanitaria (Mental).

During the current hospital year two new public hospitals have been listed for Government Aid, the Metropolitan General Hospital at Walkerville and the Stevenson Memorial Hospital at Alliston. It will also be noted that two additional Red Cross Outpost Hospitals were opened at Coe Hill and Redditt. In addition to the above, St. Mary's Convalescent Home, Toronto, Misericordia Orphanage, Ottawa, and four additional Private Hospitals have been added during the year.

All institutions have received as far as possible official visits of inspection during the year, and those entitled to Government aid in accordance with the Statutes have shared in the grants voted by the Legislature.

PROVINCIAL AID TO HOSPITALS

- 1. A Provincial grant is made for all patients in the hospital during the first ten years of its existence at the rate of sixty cents per day, irrespective of the amount contributed by the patients.
- 2. After a hospital has been in existence for ten years, the grant is paid only for patients for whose maintenance, \$12.25 per week, or less, is contributed.
- 3. In all cases the limit is 120 days, and for patients remaining beyond that period the refuge rate of ten cents per day is allowed.
- 4. No allowance is made for infants born in hospital, wards of the Department of Indian Affairs, or D.S.C.R. patients.

PUBLIC HOSPITALS AND SANATORIA

From the statistical tables the following items have been selected, in connection with the Public General Hospitals, Red Cross Outpost Hospitals, Hospitals for Incurables, and Sanatoria, which appear to be of special interest:

	General Hospitals	Ou	l Cross itpost spitals	Hospitals for Incurables	Sanatoria	Totals
Number of patients in hos- pitals on October 1st,1927 Number of patients admit-	6,429		65	547	1,710	8,751
ted during the year	167,467		2,100	293	2,122	168,780
Number of births during the year	19,527		308		3	19,459
Total number under treat- ment	193,535		2,473	840	3,835	196,990
Patients remaining in September 30th, 1927	6,541		75	621	1,829	9,228
Total number of deaths during the year Percentage of deaths to	8,842		114	156	413	9,392
number under treatment Total number of days' stay Total maintenance expendi-	4.59 2,652,591		4.61 25,529	199,026	765,599	3,642,745
ture	\$8,762,628.52	\$114	,076.24	\$404,032.27	\$1,456,309.61	\$10,738,046.64
Average cost per patient per day	3.93 10,651		5.19 151		1.89 1,971	13,420
Average number of beds per 1,000 population, General, Red Cross, Incurable, and Sanatoria						3.93

PROVINCIAL AID TO SANITARIA

- 1. A grant of \$4,000.00 on the erection and satisfactory equipment of the necessary buildings.
- 2. A grant of seventy-five cents per day for the maintenance and treatment of each indigent patient.

These grants to be in consideration of proper accommodation being provided, and only to assist in the maintenance and treatment of indigent patients from the Province of Ontario.

A. L. McPherson, Inspector of Hospitals.

H. M. ROBBINS,

Deputy Provincial Secretary.

TABLE I.—This table furnishes information in regard to the bed capacity as given in the last returns from the several institutions. It also shows the number of patients treated during the year, together with the mortality statistics, and valuable comparisons may be made along these lines.

GENERAL HOSPITALS

GENERAL HOSTITALS										
Name of Hospital.	Location.	Bed Capacity.	Number remaining under treatment Oct. 1st, 1927.	Number admitted during the year ending Sept. 30th. 1928.	Number of births during year.	Total number under treatment during the year ending Sept. 30th, 1928.	Number discharged during the year.	Number of deaths during year.	Number under treatment on Sept. 30th, 1928.	Percentage of deaths to total number under treatment.
Group 1—Bed capacity, 1 to 25 Stevenson Memorial Rosamond Memorial General Hospital Peel Memorial Haldimand County Memorial General Hospital Haldimand County Memorial General Hospital General and Marine Memorial Hospital Notre Dame Hospital St. Paul's Hospital Listowel Memorial Rosedale War Memorial Mount Forest General York County Hospital Cottage Hospital Willett Hospital General Hospital Seaforth Memorial Presbyterian Hospital Brebeuf Hospital Brebeuf Hospital Brebeuf Hospital General Hospital General Hospital Brebeuf Hospital Brebeuf Hospital General Hospital	Alliston Almonte Browmanville Brampton Clinton Dunnville Durnam Goderich Hanover Hawkesbury Hearst Listowel Matheson Mount Forest Newmarket Newmarket Neig-on-Lake Paris Penetang Seaforth Sioux Lookout So. Porcupine Sturgeon Falls Tillsopbure	2 k 20 200 203 255 188 155 255 255 191 166 144 200 122 155 210 166 188 155 251 101 115 215 215 215 215 215 215 215 215 21	177 111 99 44 77 78 8	86 341 295 238 215 348 190 287, 185 269 270 323 3156 105 330 82 218 318 318 318 318 318 318 318 318 318 3	13 711 80 63 34 56 36 36 37 36 40 40 73 36 14 73 36 22 41 32 23	99 429 386 310 253 408 233 347 211 276 311 370 195 134 419 99 456 260 247 412 253 173 173	86 400 357, 280 238 217, 321, 321, 321, 321, 321, 321, 321, 321	3 177 177 200 8 155 9 100 66 9 55 9 9 133 66 155 7 200 9 8 157 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	10 12 12 10 7 4 7 7 13 10 8 6 6 7 7 3 3 3 3 1 3 7 2 9 9	3.03 3.96 4.40 6.45 3.168 3.86 2.88 2.84 3.265 6.71 3.10 6.06 3.29 4.61 2.60 4.85 3.55 4.62
General Hospital	Wingham	435	163	360 290 5,898	$-\frac{43}{35}$	7,028	379 318 6,577	258	193	3,67
Group 2—Bed capacity			100						7,0	
Lady Minto Hospital. Cobalt Mines Hospital. Cobalt Mines Hospital. General Hospital. Lady Minto Hospital. Lady Minto Hospital. Lady Minto Hospital. Lady Minto Hospital. Alexandra Hospital. Alexandra Hospital. General Hospital. General Hospital. General Hospital. Ross Memorial. Bethesda Hospital. St. Andrew's Hospital. St. Andrew's Hospital. Salvation Army Maternity. Stone Memorial Hospital. Salvation Army Maternity. Stone Memorial Hospital. C. Englehart Memorial. Great War Memorial. C. E. Englehart Memorial. C. E. Englehart Memorial. Prince Edward County. General Hospital. Norfolk General Hospital. Norfolk General Hospital. Norfolk General. St. Francis' Hospital. General Hospital. Goneral Hospital. Orthopedic Hospital General Hospital. Mount Sinai Hospital Orthopedic Hospital General Hospital	Chapleau Cobalt Cobourg Cobourg Cochrane Collingwood Fergus Ingersoll Iroquois Falls Kenora Kenora Kenora Kincardine Lindsay London Midland North Bay Orangeville Ottawa Parry Sound " " Pembroke Perth Petrolia Picton Port Arthur Port Hope Renfrew Sault Ste. Marie Simcoe Smiths Falls Strathroy Toronto " Walkerton	344 363 353 4147 488 300 500 344 355 500 455 357 357 357 357 357 357 357 357 357 3	177 177 170 344 244 223 21 266 143 221 148 322 144 188 322 177 155 264 217 177 296 244 177 297 297 297 297 297 297 297 297 297 2	417 581 481 510 487 431 237 307 631 457 362 236 366 236 361 878 429 391 802 616 440 341 983 591 669 563 725 434 457 367 49 40 341 40 341 40 341 440 341 440 440 440 440 440 440 440 4	36 	598 548 577 549 480 360 368 720 549 463 876 450 860 1,073 474 475 474 890 697 515 412 21,058 64 475 541 487 64 487 64 487 64 487 64 487 64 487 647 647 647 647 647 647 647 647 647 64	453 568 511 529 498 443 354 683 500 416 799 11,008 371 11,415 444 440 819 650 451 396 629 675 597 808 450 450 450 450 450 450 450 450 450 450	10 19 235 26 244 15 24 25 53 46 44 42 42 42 43 32 32 32 32 34 41 41 41 41 41 41 41 41 41 41 41 41 41	77 111 144 144 233 25 11 13 7 7 222 25 244 233 211 11 18 29 29 24 24 23 11 30 13 30 27 23 21 20 21 10 9	2.13 3.19 4.38 4.73 5.42 8.00 1.90 2.08 4.37 5.35 4.10 6.84 2.67 5.35 4.72 4.72 4.72 4.72 3.29 7.96 4.87 3.73 4.73 5.44 4.87 3.73 5.42 4.73 6.73 6.74 6.74 6.75 6.75 6.75 6.75 6.75 6.75 6.75 6.75
Totals		1,294	655	18,645	2.669	21,969	20,469	883	617	4.02

TABLE I.—This table furnishes information in regard to the bed capacity as given in the last returns from the several institutions. It also shows the number of patients treated during the year, together with the mortality statistics, and valuable comparisons may be made along these lines.—Continued.

	GENERAL	5 110	.,	11110	COLLET	nucu				
Name of Hospital.	Location.	Bed Capacity.	Number remaining under treatment Oct. 1st, 1927.	Number admitted during the year ending Sept. 30th, 1928.	Number of births during year,	Total number under treatment during the year ending S-pt. 30th, 1928.	Number discharged during the year.	Number of deaths during year.	Number under treatment on Sept. 30th, 1928.	Percentage of deaths to total number under treatment,
Group 3—Bed capacity, 51 to 100										
Royal Victoria Hospital. General Hospital St. Vincent de Paul. Public General Hospital St. Vincent de Paul. Public General Hospital St. Joseph's Hospital. St. Joseph's Hospital. General Hospital General Hospital General Hospital. Kitchener-Waterloo Hospital. Kitchener-Waterloo Hospital. Kitchener-Waterloo Hospital. Oshawa Falls General. Orillia Soldiers Memorial Oshawa General. Misericordia Maternity Hosp. Ottawa Protestant Children's General and Marine Hospital Nicholls Hospital. St. Joseph's Hospital. General Hospital Memorial Hospital Memorial Hospital St. Mary's Hospital. St. Mary's Hospital. St. John's Hospital. St. John's Hospital. St. John's Hospital. St. John's Hospital. St. John's Hospital. Salvation Army Women's. Wellesley Hospital. Women's College Hospital. Woodstock Hospital.	Belleville Brockville Chatham Cornwall Galt Guelph Kitchener Mattawa Niagara Falls Orillia Oshawa Ottawa Own Sound Peterborough St. Catharines St. Thomas Sarnia Smiths Falls Timmins Toronto "" Welland	50 100 80 100 100 80 80 80 80 80 96 65 58 75 95 50 60 60 70 70 77 75 50 100 100 100 100 100 100 100 100 100	47 30 24 39 64	728 2,189 1,203 1,072 1,365 1,055 880 1,651 1,390 1,511 1,404 3,699 1,264 1,278 1,278 1,715 1,070 6,98 8,73 1,763 1,083 2,474 1,126 949 1,023	107 260 1055 71 157 154 124 178 148 132 161 9 116 179 306 179 306 245 2200 245 2210 206 93 37 1700 245 241 2700 245 241 2700 245 241 241 241 241 241 241 241 241 241 241	1,357 1,204 1,573 1,263 1,887 1,887 1,844 1,664 404 1,413 1,495 2,289 1,915 1,426 2,611 1,934 1,803 1,803 1,803 1,803 1,803 1,804 1,803 1,804 1,803 1,	780 2,276 1,123 1,421 1,133 955 1,718 1,453 1,714 1,554 1,494 1,294 1,294 1,2169 392 264 1,220 1,319 2,168 1,729 1,319 2,172 1,732 2,732 1,750 2,661 1,475 948 1,083	51 1733 533 530 1082 49 777 977 679 688 122 766 411 844 277 61 135 58 121 161 135 58 32 25 55 54 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	34 67 53 311 44 451 39 92 49 60 44 43 53 36 49 19 91 90 49 43 50 45 46 46 47 48 48 48 48 48 48 48 48 48 48 48 48 48	6.24 6.87 3.91 4.15 6.48 4.69 4.08 6.07 3.74 4.16 4.29 7.538 4.27 2.72 1.57 6.36 4.32 4.28 4.28 4.28 4.28 4.32 4.28 4.28 4.51 4.32 4.69 4.69 4.69 4.69 4.69 4.69 4.69 4.69
Total		2,431	1,453	40,378	5,600	47,431	43,756	2,170	1,505	4.66
Group 4—Bed capacity, 101 to 200										
Brantford General Hospital. McKellar General. Guelph General. St. Joseph's Hospital. Hotel Dieu Hospital. St. Joseph's Hospital. General Hospital. St. Joseph's Hospital. General Hospital. Stratford General St. Joseph's Hospital. St. Joseph's Hospital. St. Joseph's Hospital. St. Joseph's Hospital. St. Joseph's Hospital. St. Joseph's Hospital. Autropolitan General Salvation Army Grace. Hotel Dieu Hospital.	Fort William Guelph Hamilton Kingston London Pembroke Port Arthur Sault Ste. Marie Stratford	200 200 100 170 200 150 150 100 150 150 150 150	145 104 62 111 99 127 75 56 64 63 126 83	3,057 4,741 1,724 3,710 2,202 2,755 1,455 2,579 1,234 1,435 2,310 2,815 988 2,690 3,842	433 308 186 523 160 329 64 294 97 225 124 3100 224 361 363	3,635 5,153 1,972 4,344 2,461 3,211 1,591 2,948 1,387 1,724 2,497 3,251 1,212 3,134 4,314	3,301 4,945 1,811 4,053 2,256 2,965 1,463 2,757 1,302 1,584 2,350 2,930 1,083 2,901 4,008	204 115 88 174 104 140 57 89 47 76 75 199 55 152 205	130 93 73 117 101 106 71 102 38 64 72 122 74 81	5.61 2.23 4.46 4.01 4.23 4.36 3.58 3.02 3.39 4.41 3.00 6.12 4.54 4.85 4.75
Total		2,237	1,296	37,537	4,001	42,834	39,709	1,780	1,345	3.99
Group 5—Bed capacity, 200 and over										1
General Hospital Kingston General Victoria General Ottawa Civic Hospital General Hospital General Hospital Hospital Hospital Hospital Hospital In St. Michael's Hospital Western Hospital and Grace	Kingston London Ottawa	524 350 400 600 225 865 262 600 428	387 178 282 342 164 712 270 273 366	9,220 4,345 4,566 8,239 4,665 12,619 5,538 6,483 9,334	925 233 398 628 104 1,789 	10,532 4,756 5,246 9,209 4,933 15,120 5,808 7,427 11,242	9,661 4,381 4,726 8,472 4,630 13,501 5,002 6,669 10,318	477 184 241 386 140 848 545 411 519	394 191 279 351 163 771 261 347 405	4.53 3.87 4.59 4.19 2.84 5.61 9.38 5.53 4.61
Total		4,254	2,974	65,009	6,290	74,273	67,360	3,751	3,162	5.05
Grand Totals, Gen. Hospitals		10,651	6,541	167,467	19,527	193,535	177,871	8,842	6,822	4.59

TABLE II.—This table furnishes information in regard to the length of stay of patients, and the comparison of the average stay in the different institutions should be valuable information for those in charge.

Name of Hospital.	Location.	Number of patients, including infants born.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants.	Average stay of each patient, including infants.
	Ournam Goderich Hanover Hawkesbury Hearst Listowel Matheson Mount Forest Newmarket Niagara-on-the-Lake Paris Penetang	99 429 386 310 253 408 233 347 211 276 311 370 195 199 456 260 247 412 253 173 477 3173	108 850 875 775 433 676 692 575 650 73 414 436 874 912 146 805 391 264 309 230 767 568	458 4,174 3,898 3,915 2,387 3,869 2,845 4,302 2,595 3,535 1,398 4,619 1,257 4,907 2,209 2,277 3,750 2,047 1,828 4,309 2,884	566 5.024 4.773 4.690 2.820 4.545 3.537 4.877 3.090 3.971 1.797 1.672 5.531 1.403 5.712 2.600 2.541 4.054 2.436 2.058 5.076	12 10 11 9 12 12 14 12 12 10 11
TotalGroup 2—Bed capacity, 26 to 50		7,028	12,481	70,128	82,609	12
Lady Minto Hospital Cobalt Mines Hospital General Hospital Lady Minto Hospital General and Marine. Royal Alexandra Hospital Alexandra Hospital Anson General General Hospital General Hospital General Hospital St. Joseph's Hospital General Hospital Ross Memorial Bethesda Hospital St. Andrew's Hospital Oueen Victoria Hospital Lord Dufferin Hospital Salvation Army Maternity Stone Memorial Hospital St. Joseph's Hospital Cottage Hospital General Hospital Great War Memorial C. E. Englehart Memorial Prince Edward County General Hospital Victoria General Plummer Memorial Norfolk General St. Francis' Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital	Cobourg Cochrane. Collingwood Fergus Ingersoll Iroquois Falls. Kenora. Kincardine Lindsay London Midland North Bay Orangeville Ottawa. Parry Sound " Pembroke Perth Petrolia Picton Port Arthur Port Hope. Renfrew Sault Ste. Marie. Simiches	470 598 548 577 549 480 300 3688 720 549 450 860 1.073 340 99 1.496 475 474 480 497 515 412 1.058 644 876 499 499 499 499 499 499 499 49	970 737	5,544 5,991 4,257 11,552 8,814 3,796 3,171 3,538 9,470 4,775 4,604 9,494 5,088 9,363 9,123 5,662 10,719 4,244 4,247 12,114 8,505 6,626 2,996 12,483 4,910 7,294 5,768 8,511 8,	5,971 5,993 4,923 12,179 9,342 4,292 3,791 3,656 10,188 5,485 10,516 10,521 10,521 10,521 10,521 10,531 10,516 10,531 10,516 10,222 10,736 13,099 13,898 5,888 8,033 6,544 4,71 4,93 12,877 9,158 7,366 8,988 8,03 6,544 9,600 8,988 8,03 6,544 9,600 8,988 8,03 4,466	10 9 21 18 12 11 14 14 10 12 12 12 10 15 15 16 14 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17

TABLE II.—This table furnishes information in regard to the length of stay of patients, and the comparison of the average stay in the different institutions should be valuable information for those in charge.—Continued.

- GENERA	L HOSFITALS	COIICE	naca	1		
Name of Hospital.	Location.	Number of patients, including infants born.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants.	Average stay of each patient, including infants.
Group 3—Bed capacity, 51 to 100						
Royal Victoria Hospital General Hospital General Hospital St. Vincent de Paul Public General Hospital St. Joseph's Hospital Cornwall General Hospital Hotel Dieu Hospital General Hospital St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital St. Mary's Hospital Kitchen-r-Waterloo Hospital St. Mary's Hospital General Hospital Niagara Falls General Orillia Soldiers' Memorial Oshawa General Misericordia Maternity Hospital Ottawa Protestant Children's General and Matrine Hospital Nicholls' Hospital St. Joseph's Hospital General Hospital Memorial Hospital General Hospital Public Hospital St. John's Hospital St. John's Hospital St. John's Hospital St. John's Hospital St. John's Hospital Salvation Army Women's Wellesley Hospital Women's College Hospital Welland County Hospital	Belleville Brockville Chatham Cornwall Galt Guelph Kitchener Mattawa Niagara Falls Orillia Oshawa Ottawa Owen Sound Peterborough St. Catharines St. Thomas Sarnia Smith's Falls Timmins Foronto " Welland	865 2,516 1,357 1,206 1,573 1,266 1,043 1,887 1,599 1,844 1,606 404 1,413 1,495 2,289 1,328 299 1,328 2,191 1,426 2,611 1,981 1,323 8,21 9,34 1,803 1,	1,589 2,589 1,324 886 1,923 2,352 1,561 1,991 2,195 1,976 1,876 2,171 246 1,243 1,827 4,435 2,805 7,186 2,124 4,435 2,805 7,186 2,124 4,07 1,07 1,07 1,07 1,07 1,07 1,07 1,07 1	10,709 30,267 17,829 20,439 18,740 14,437 14,982 19,538 17,097 25,249 16,219 13,918 8,452 16,645 16,555 21,992 15,397 22,870 20,145 15,725 9,899 12,502 15,112 14,320 26,072 14,325 9,517 12,627	12,298 32,856 19,153 21,325 20,663 16,789 16,543 21,529 19,229 27,225 18,095 16,089 8,698 8,698 17,435 18,472 20,990 6,172 7,186 18,509 25,204 17,614 26,858 22,751 17,373 13,076 15,131 23,099 30,152 10,236 10,236 13,947	14 13 14 13 14 18 13 13 15 11 12 15 10 11 11 21 21 22 9 14 24 14 13 13 13 13 14 14 14 14 14 14 14 14 14 14 14 14 14
Total		47.431	77,809	507,523	585,332	12
Group 4—Bed capacity, 101 to 200						
Brantford General Hospital McKellar General Guelph General St. Joseph's Hospital Hotel Dieu Hospital St. Joseph's Hospital General Hospital St. Joseph's Hospital General Hospital General Hospital Stratford General St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital Metropolitan General Salvation Army Grace Hotel Dieu Hospital	Brantford Fort William Guelph Hamilton Kingston London Pembroke Port Arthur Sault Ste. Marie. Stratford Sudhury Toronto Walkerville Windsor Windsor	3,635 5,153 1,972 4 344 2,461 3,211 2,948 1,387 1,724 2,497 3,251 1,212 3,134 4,314	9,187 3,328 2,289 5,554 1,737 6,101 1,321 2,655 1,344 2,415 1,566 3,467 2,579 4,433 1,471	46,767 40,319 22,571 44,615 37,822 36,427 31,918 29,348 20,012 21,192 26,823 41,893 8,279 29,397 35,989	55,954 43,647 24,860 50,169 39,559 42,528 33,239 32,003 21,356 23,607 28,389 45,360 10,858 33,830 37,460	15 8 12 12 12 13 20 10 14 13 11 14 9 11
Total		42,834	49,447	473,372	522,819	12
Group 5—Bed capacity, 200 and over General Hospital. General Hospital. Victoria General. Ottawa Civic Hospital. General Hospital. General Hospital. Hospital Hospital. Hospital for Sick Children St. Michael's Hospital. Western Hospital and Grace. Total.	London. Ottawa Toronto	10,532 4,756 5,246 9,209 4,933 15,120 5,808 7,427 11,242	14,957 1,632 8,195 12,365 3,027 24,033 95,966 8,649 17,963	140,143 73,268 106,267 139,681 63,341 252,602 103,136 133,697	155,100 74,900 114,462 152,046 66,368 276,635 95,960 111,785 151,660	15 21 17 13 18 16 15
Grand Totals, General Hospitals		193,535	358,866	2,293,725	2,652,591	14
	1		l			

^{*}Children only.

TABLE III.—Shows the proportion of pay patients to the total amount, and it will be noted that there is a wide variation of these between the different institutions. It also shows the number of days for which Government grant is allowed.

Name of Hospital	Location	Collective days' stay exclusive of infants under one year of age	Deduction for incur- able and lying-in patients. (Refuge rate)	Deduction for pay patient days	No. of days for which Govern- ment grant is allowed
Group 1—Bed capacity, 1 to 25					
Stevenson Memorial Hospital	Alliston	431			431
Rosamond Memorial Hospital	Almonte	4,220	316		2,156
Peel Memorial	Bowmanville Brampton	3,595 3,755	494	2,502	1,093 3,261
Public Hospital Haldimand County Memorial Hospital	Clinton	2,513		2,436	77
General Hospital	Dunnville	6,072 2,809		2,136	3,936 2,809
General and Marine Hospital	Goderich	3,911	643	2,070	
Memorial Hospital. Notre Dame Hospital.	Hanover	2,403			2,403
St. Paul's Hospital	Hawkesbury Hearst	3,007 2,070	33		2,974 2,070
Listowel Memorial Hospital Rosedale War Memorial Hospital	Listowel	3,416	308		3,108
Rosedale War Memorial Hospital	Matheson	1,322			1,322
Mount Forest General Hospital	Mount Forest	1,428 4,225			1,428 4,225
Cottage Hospital Willett Hospital General Hospital	Niagara-on-the-Lake	1,148	563		1,148
Willett Hospital	Paris	4,901		971	4,338
Victoria General Hospital	Penetang Renfrew	2,325 6,441		3,039	1,354 3,402
Seaforth Memorial Hospital	Seaforth	2,070	33		2,037
General Hospital	Sioux Lookout South Porcupine	3,560 1,807			3,560
Brebeuf Hospital	Sturgeon Falls	1,581			1,807 1,581
Brebeuf Hospital Soldiers' Memorial Hospital	Tillsonburg Wingham	4,774	258		4,516
General Hospital	Wingham	2,195		1,859	336
Total		75,979	2,648	16,761	56,570
Group 2—Bed capacity, 26 to 50					
Lady Minto Hospital	Chapleau	4,560		3,160	1,400
Cobalt Mines Hospital	Cobalt	5,946	505		5,441
General Hospital	Cobourg	3,789		1,321	2,468
Lady Minto Hospital General and Marine Hospital Royal Alexandra Hospital	Cochrane Collingwood Fergus Ingersoll	9,715 7,379	336	6,409 3,007	2,970 4,121
Royal Alexandra Hospital	Fergus	753			753
Alexandra Hospital Anson General Hospital	Ingersoll	2,978		1,747	1,231 3,613
General Hospital	Kenora	3,650 7,326	383	4,782	
'St Insenh's Hospital	Kenora	5,440	62	2,646	2,732
General Hospital Ross Memorial Hospital Bethesda Hospital	KincardineLindsay	2,769 9,888	575	2,158 5,699	611 3,614
Bethesda Hospital	London	4,209	55	3,099	4,154
St. Andrew's Hospital	Midland	7,951	88	4,547	3,316
Queen Victoria HospitalLord Dufferin Hospital	North Bay Orangeville	9,358 4,888	32 366	4,648 2,439	4,678 2,083
Salvation Army Maternity Hospital	Ottawa	10,449	108		10,341
Stone Memorial Hospital St. Joseph's Hospital	Parry Sound	5,459	130	1,394	3,935
Cottage Hospital	Pembroke	4,389 10,487	3 64	1,835 6,770	2,551 3,653
Great War Memorial Hospital	Perth	7,842	213		7,629
C. E. Englehart Memorial Hospital Prince Edward County Hospital	Petrolia	6,815 2,891	183	4,547	2,085 2,891
General Hospital	Picton	12,539	198	7,301	5,040
General Hospital Victoria General Hospital Plummer Memorial Hospital	Port Hope	4,813	27	2,097	2,689
Victoria General Hospital	Renfrew	6,441 5,889		3,039 3,914	
Nortolk General Hospital	Simcoe	7,130	102		7,028
St Francis' Hospital	Simcoe Smith's Falls	8,701	1,020	3,668	
Mount Sinai Hospital	Strathroy	7,047 7,511	140 954	5,064	1,843 6,557
General Hospital Mount Sinai Hospital Orthopedic Hospital General Hospital	"	9,609	619	5,624	- 3,366
General Hospital	Walkerton	4,282	235	1,923	2,124
Total		212,883	6,686	89,739	116,458
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TABLE III.—Shows the proportion of pay patients to the total amount, and it will be noted that there is a wide variation of these between the different institutions. It also shows the number of days for which Government grant is allowed.—Continued.

General Hospital	Name of Hospital	Location	Collective days' stay exclusive of infants under one year of age	Deduction for incur- able and lying-in patients. (Refuge rate)	Deduction for pay patient days	No. of days for which Govern- ment grant is allowed
General Hospital. B-lleville 26.116 368 21,009 6 General Hospital. Brockville 16,020 980 11,257 4.3 6 General Hospital	Group 3—Bed capacity, 51 to 100					
General Hospital	Royal Victoria Hospital	Barrie	11,508	1,419	6,115	
St.	Ceneral Hospital	Belleville	26,316	368	21,609	4,339 4,689
St.	St. Vincent De Paul	Brockville	20.323	1.755	9,718	8,850
St.	Public General Hospital	Chatham	16,811	641	8,120	8,050
St. Joseph St.	St. Joseph's Hospital	Cornwall	14,433	296		4,522 7,080
St. Joseph St.	Hotel Dieu Hospital	"	20,013	421	3,727	15,865
Misericordia Maternity Hospital	General Hospital	Galt	16,016			
Misericordia Maternity Hospital	Kitchener-Waterloo Hospital	Kitchener	16.012		7,808	7.548
Misericordia Maternity Hospital	St. Mary's Hospital		14,373	314		14,059
Misericordia Maternity Hospital	General Hospital	Mattawa	7,414		1,235	6,179 9,789
Misericordia Maternity Hospital	Orillia Soldiers' Memorial Hospital	Orillia	14,881	468	6,321	8.092
General and Marine Hospital Owen Sound 14,004 507 8,515 5,5 Nicholls Hospital Peterborough 21,320 1,297 13,381 0,6 St. Joseph's Hospital St. Catharines 24,122 446 18,116 5,5 Memorial Hospital St. Catharines 24,122 446 18,116 5,5 Memorial Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 St. Mary's Hospital St. Thomas 19,007 1,005 18,0 St. Mary's Hospital Timmins 11,364 25 2,205 4,4 St. Mary's Hospital Timmins 11,364 27 2,205 3,81 10,0 St. Mary's Hospital Toronto 1,138 342 3,807 1,00 St. Mary's Hospital " 29,072 28,968 3,60 Wollesley Hospital " 14,301 96 8,790 5,5 Welland County Hospital Welland 9,71 202 4,532 4,88 Woodstock Hospital Woodstock 11,786 232 8,427 3,1 Total St. Joseph's Hospital Gelph 22,547 2,75 3,4 St. Joseph's Hospital Gelph 22,547 2,75 3,4 St. Joseph's Hospital Gleph 22,547 2,75 3,4 St. Joseph's Hospital Kingston 36,609 1,33 13,53 2,73 2,5 St. Joseph's Hospital Pembroke 2,741 2,75 3,4 St. Joseph's Hospital Pembroke 2,741 2,75 3,4 St. Joseph's Hospital Pembroke 2,741 2,75 3,4 St. Joseph's Hospital Stratford 1,781	Oshawa General Hospital			147	13,507	6,280 2,403
General and Marine Hospital Owen Sound 14,004 507 8,515 5,5 Nicholls Hospital Peterborough 21,320 1,297 13,381 0,6 St. Joseph's Hospital St. Catharines 24,122 446 18,116 5,5 Memorial Hospital St. Catharines 24,122 446 18,116 5,5 Memorial Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 General Hospital St. Thomas 19,007 1,005 18,0 St. Mary's Hospital St. Thomas 19,007 1,005 18,0 St. Mary's Hospital Timmins 11,364 25 2,205 4,4 St. Mary's Hospital Timmins 11,364 27 2,205 3,81 10,0 St. Mary's Hospital Toronto 1,138 342 3,807 1,00 St. Mary's Hospital " 29,072 28,968 3,60 Wollesley Hospital " 14,301 96 8,790 5,5 Welland County Hospital Welland 9,71 202 4,532 4,88 Woodstock Hospital Woodstock 11,786 232 8,427 3,1 Total St. Joseph's Hospital Gelph 22,547 2,75 3,4 St. Joseph's Hospital Gelph 22,547 2,75 3,4 St. Joseph's Hospital Gleph 22,547 2,75 3,4 St. Joseph's Hospital Kingston 36,609 1,33 13,53 2,73 2,5 St. Joseph's Hospital Pembroke 2,741 2,75 3,4 St. Joseph's Hospital Pembroke 2,741 2,75 3,4 St. Joseph's Hospital Pembroke 2,741 2,75 3,4 St. Joseph's Hospital Stratford 1,781	Ottawa Protestant Children's Hospital	Ottawa	7,128		417	6,304
St. Joseph's Hospital	General and Marine Hospital	Owen Sound	14,604	507	8,515	5,582
St. Mary's Hospital	Nicholls Hospital	Peterborough	21,320	1,297		
St. Mary's Hospital	General Hospital	St. Catharines	24,122	446		5,560
St. Mary's Hospital	Memorial Hospital	St. Thomas	19,097	1,065	0.205	18,032 4,411
St. Mary's Hospital. Timmins. 11,394 St. John's Hospital. Toronto. 15,318 St. John's Hospital. Toronto. 15,318 St. John's Hospital. 14,913 Wellealey Hospital. 22,072 Wellealey Hospital. 19,000 Wellesley Hospital. 19,000 Wellealey Hospital. 19,000 Welland 19,717 Welland 19,717 Welland 19,717 Woodstock Hospital. Welland 19,717 Total. 500,088 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 19,000 Brantford General Hospital. 20,000 Brantford General Hospi	Public Hospital	Smith's Falls	9,083	240		5,036
Total	St. Mary's Hospital	Timmins				11,095
Total	Salvation Army Women's Hospital	l'oronto				13,698
Total	Wellesley Hospital		29,072		28,968	104
Total	Women's College Hospital				8,790 4.532	5,505 4,873
Total	Woodstock Hospital	Woodstock	11,786		8,427	3,127
Brantford General Hospital			500,088	15,339	246,018	238,731
Brantford General Hospital						
McKellar General Hospital Guelph	Group 4—Bed capacity, 101 to 200					
Guelph General Hospital Guelph 22,547 276 12,775 9.4 St. Joseph's Hospital Hamilton 43,779 285 28,099 15,35 Hotel Dieu Hospital Kingston 36,609 1,132 15,557 19,9 St. Joseph's Hospital London 38,527 2,730 27,469 8.3 General Hospital Pembroke 27,419 1,537 6,381 19,5 St. Joseph's Hospital Port Arthur 29,404 628 10,549 18,2 General Hospital Sault Ste. Marie 19,143 72 4,547 14,5 Stratford General Hospital Stratford 19,989 745 11,541 7,7 St. Joseph's Hospital Stratford 19,989 745 11,541 7,7 St. Joseph's Hospital Stratford 19,989 745 11,541 7,7 St. Joseph's Hospital Windor 28,978 1,177 21,1781 14,9 St. Joseph's Hospital Walkerville 8,731 24				1,778		
Stratford General Hospital Stratford 19 989 745 11,541 7,7 7,51 Joseph's Hospital Sudbury 26,957 272 11,781 14,9 14,9 14,834 1,413 1,413 1,414 1,415 1	McKellar General Hospital	Guelph	37,492	1,432	17,432	18,628 9,496
Stratford General Hospital Stratford 19 989 745 11,541 7,7 7,51 Joseph's Hospital Sudbury 26,957 272 11,781 14,9 14,9 14,834 1,413 1,413 1,414 1,415 1	St. Joseph's Hospital	Hamilton	43,779	285	28,099	15,395
Stratford General Hospital Stratford 19 989 745 11,541 7,7 7,51 Joseph's Hospital Sudbury 26,957 272 11,781 14,9 14,9 14,834 1,413 1,413 1,414 1,415 1	Hotel Dieu Hospital	Kingston	36,609	1,132	15,557	19,920 8,328
Stratford General Hospital Stratford 19,989 745 11,541 7,7 75t. Joseph's Hospital Sudbury 26,957 272 11,781 14,9 75t. Joseph's Hospital Toronto 41,834 1,413 40,4 40teropolitan General Hospital Walkerville 8,731 24 8,7 8,7 8,7 1,077 27,9	General Hospital	Pembroke	27,419	1,537	6,381	19,501
Stratford General Hospital Stratford 19,989 745 11,541 7,7 75t. Joseph's Hospital Sudbury 26,957 272 11,781 14,9 75t. Joseph's Hospital Toronto 41,834 1,413 40,4 40teropolitan General Hospital Walkerville 8,731 24 8,7 8,7 8,7 1,077 27,9	St. Joseph's Hospital	Port Arthur	29,404	628		18,227
WalkerVine	Stratford General Hospital		19,143			7,703
WalkerVine	St. Joseph's Hospital	Sudbury	26,957	272	11,781	14,904
Total	St. Joseph's Hospital	Walkerville				8,707
Total	Salvation Army Grace Hospital	Windsor	28,978	1,077		27,901
General Hospital Hamilton 143,175 6,378 39,008 97,7	Hotel Dieu Hospital	**	36,448	408	20,208	15,832
General Hospital Hamilton 143,175 6,378 39,008 97,7 Kingston General Hospital Kingston 64,779 3,094 36,088 25,5 Victoria General Hospital London 90,541 4,964 53,424 32,1 Ottawa Civic Hospital Ottawa 1138,937 8,444 4,893 125,6 General Hospital " 65,676 990 32,354 32,3 General Hospital Toronto 250,231 9,086 82,341 158,8 Hospital for Sick Children " 86,885 8,244 5,667 72,9 St. Michael's Hospital " 103,971 3,102 36,144 64,7 Western Hospital and Grace Hospital " 137,317 4,518 56,555 76,2 Total 1,081,512 48,820 346,474 686,2	Total		463,334	13,809	181,314	268,211
General Hospital Hamilton 143,175 6,378 39,008 97,7 Kingston General Hospital Kingston 64,779 3,094 36,088 25,5 Victoria General Hospital London 90,541 4,964 53,424 32,1 Ottawa Civic Hospital Ottawa 1138,937 8,444 4,893 125,6 General Hospital " 65,676 990 32,354 32,3 General Hospital Toronto 250,231 9,086 82,341 158,8 Hospital for Sick Children " 86,885 8,244 5,667 72,9 St. Michael's Hospital " 103,971 3,102 36,144 64,7 Western Hospital and Grace Hospital " 137,317 4,518 56,555 76,2 Total 1,081,512 48,820 346,474 686,2	Group 5—Bed capacity, 200 and over					
Kingston General Hospital. Kingston 64,779 3,094 36,088 25,5 Victoria General Hospital London 90,541 4,964 53,424 32,1 Ottawa (viv Hospital) 0ttawa 138,937 8,444 4,893 125,6 General Hospital a 65,676 990 32,354 32,3 General Hospital Toronto 250,231 9,086 82,341 158,8 Hospital for Sick Children a 86,885 8,244 5,667 72,9 St. Michael's Hospital a 103,971 3,102 36,144 64,7 Western Hospital and Grace Hospital a 1,081,512 48,820 346,274 686,2		Hamilton	1/13/175	6 379	30 008	97,789
Victoria General Hospital London 90,541 4,964 53,424 32,1 Ottawa Civic Hospital 0tawa 138,937 8,444 4,893 125,6 General Hospital 65,676 990 32,354 32,3 General Hospital 7 250,231 9,086 82,341 188,8 Hospital for Sick Children 86,885 8,244 5,667 72,9 St. Michael's Hospital 4 103,971 3,102 36,144 64,7 Western Hospital and Grace Hospital 4 137,317 4,518 56,555 76,2 Total 1,081,512 48,820 346,474 686,2	Kingston General Hospital	Kingston	64 779	3,094	36,088	25,597
Solution See Children Solution Solution Solution Solution Solution See Children Solution See Children St. Michael's Hospital " 103,971 3,102 36,144 64,7 Western Hospital and Grace Hospital " 137,317 4,518 56,555 76,2 Total 1,081,512 48,820 346,474 686,2	Victoria General Hospital	London	90,541	4,904	53,424	32,153
Solution See Children Solution Solution Solution Solution Solution See Children Solution See Children St. Michael's Hospital " 103,971 3,102 36,144 64,7 Western Hospital and Grace Hospital " 137,317 4,518 56,555 76,2 Total 1,081,512 48,820 346,474 686,2	General Hospital	"awa	65,676			32,332
Solution See Children Solution Solution Solution Solution Solution See Children Solution See Children St. Michael's Hospital " 103,971 3,102 36,144 64,7 Western Hospital and Grace Hospital " 137,317 4,518 56,555 76,2 Total 1,081,512 48,820 346,474 686,2	General Hospital	Toronto	250,231	9,086	82,341	158,804
Total	St. Michael's Hospital	u		3.102	36,144	64,725
	Western Hospital and Grace Hospital	и	137,317	4,518	56,555	76,244
Grand Totals General Hospitals 2,333,796 87,302 880,306 1,357,1	Total		1,081,512	48,820	346,474	686,218
	Grand Totals General Hospitals		2,333,796	87,302	880,306	1,357,188

TABLE IV.—This table dears with financial matters only, and shows the comparative income of the different institutions, as between amounts received from Municipalities, patients' maintenance, investments and donations. In the first item, Grant from Municipalities, it will be noted that there is great difference in the financial treatment accorded to Hospitals by the different Municipalities. This table should serve as a guide in reaching a more equitable basis in the outstanding cases.

GENERAL HOSFITALS—Continued						
Name of Hospital	Location	Amount from municipalities as a grant and for patients' maintenance.	Amount from patients for board and treatment.	Amount as income from property or investments be- longing to hospital.	Subscriptions and donations from private individuals and incidental receipts.	Total from all sources other than Government grant.
Public Hospital. Haldimand County Memorial. General Hospital. General and Marine. Memorial Hospital. Notre Dame Hospital. St. Paul's Hospital. Listowel Memorial Rosedale War Memorial. Mount Forest General. York County Hospital. Cottage Hospital. Willett Hospital. General Hospital	Hanover Hawkesbury Hearst	579 50 1,750 00 951 00 750 00 2,075 25 782 75 1,631 00 1,100 00 1,842 25	\$ c. 1,863 64 10,864 19 12,859 21 10,155 81 8,749 57 12,664 07 7,939 73 8,543 07,367 15 4,205 90 4,211 47 7,991 32 2,074 9,392 8,75 10,607 32 2,355 03 9,464 94 5,149 69 7,106 46 12,052 82 7,445 07 4,133 97 13,105 35 8,482 74 183,322 15	54 65 22 95 635 05	97 61 1,434 08 3,540 40 880 38 3,793 97 933 54 1,739 50 659 31 2,605 28 1,511 18	\$ C. 2,772 09 14,682 57 14,937 81 12,058 52 16,820 14 5,895 60 9,233 47 12,874 07 8,876 476 7,482 23 7,751 8,68 92 5,868 92 5,188 94 17,844 77 7,988 46 15,123 71 8,963 77,988 46 15,123 71 8,272 18 4,340 45 18,869 47 10,191 79 250,438 07
Group 2—Bed capacity, 26 to 50 Lady Minto Hospital. Cobalt Mines Hospital. General Hospital. Lady Minto Hospital. General Hospital. General and Marine Hospital. Royal Alexandra Hospital. Alexandra Hospital. Anson General Hospital. General Hospital. St. Joseph's Hospital. General Hospital. Ross Memorial Hospital. Bethesda Hospital. St. Andrew's Hospital. St. Andrew's Hospital. St. Andrew's Hospital. Stone Memorial Hospital. Lord Dufferin Hospital. Stone Memorial Hospital. Stone Memorial Hospital. Cottage Hospital. Cottage Hospital. Great War Memorial Hospital. Great War Memorial Hospital. Prince Edward County Hospital. Prince Edward County Hospital. Prince Edward Hospital. General Hospital. Victoria General Plummer Memorial Hospital. Norfolk General Hospital. St. Francis' Hospital General Hospital General Hospital General Hospital General Hospital General Hospital. General Hospital General Hospital.	Penth Perth Pertolia Picton Port Arthur Port Hope Renfrew Sault Ste. Marie Simcoe Smith's Falls Strathroy Toronto.	\$ c. 300 00 5.247 75 1.609 00 5.00 00 3.384 60 421 50 1.800 00 242 25 1.939 61 1.951 25 2.500 00 4.535 00 4.535 00 4.535 00 3.662 25 2.845 65 1.513 25	\$ c. 11,400 15 10,409 73 10,347 94 10,192 88 18,756 59 14,809 73 8,987 60 10,756 80 12,205 80 11,757 36 10,163 69 10,718 74 21,563 87	\$ c. 180 00 110 00 298 37 620 82 731 04 3.278 80 196 55 1,400 00 84 71 3.050 00 359 57 1,180 23 1,083 51 74 80 2,325 99 475 47	\$ c. 4.944 75 8.344 40 1.406 71 6.756 67 1.251 51 195 58 753 20 3.716 51 371 371 371 371 371 371 371 42 65 530 1137 93 5.452 70 422 65 530 1142 65 530 1142 65 530 1142 65 530 115 4.396 95 4.395 36 2.827 61 4.926 95 4.395 36 2.827 61 1.491 51 2.179 34 580 387 13 3.667 01 2.594 33 92.018 41	\$ c. 16,824 90 24,111 88 13,363 65 17,747 75 24,013 52 15,426 81 10,999 05 23,452 51 19,703 92 13,231 34 34,642 29 20,706 44 28,043 09 32,096 71 17,722 80 17,723 62 8,693 36 15,718 89 4,344 90 37,602 48 9,434 90 37,602 48 17,409 02 3,567 51 20,931 81 31,678 42 21,794 43 26,192 21 27,185 16 53,797 82 770,647 68
Total		80,828 96	581,161 25	16,639 06	92,018 41	7/0,64/ 68

TABLE IV.—This table deals with financial matters only, and shows the comparative income of the different institutions, as between amounts received from Municipalities, patients' maintenance, investments and donations. In the first item, Grants from Municipalities, it will be noted that there is great difference in the financial treatment accorded to Hospitals by the different Municipalities. This table should serve as a guide in reaching a more equitable basis in the outstanding cases.—Continued.

Name of Hospital	Location	Amount from municipalities as a grant and for patients' maintenance.	Amount from patients for board and treatment.	Amount as income from property or investments be- longing to hospital	Subscriptions and donations from private individuals and incidental receipts.	Total from all sources other than Government grant.
Group 3—Bed capacity, 51 to 100 Royal Victoria Hospital	Barrie Belleville Brockville Chatham	\$ c. 7,719 50 21,881 75 2,750 00 3,982 25 11,878 36 1,569 58 5,378 00	\$ c. 25,136 38 78,514 03 56,088 43 42,176 48 50,520 00 49,162 44 31,675 71	\$ c. 478 50 1,463 64 38 00 24 68	\$ c. 914 93 428 37 844 45 8,001 87 6,569 21 9,843 77	\$ c. 34,249 31 100,824 15 61,146 52 54,198 60 62,423 04 57,301 23 47,927 31
Public General Hospital St. Joseph's Hospital Cornwall General Hospital Hotel Dieu Hospital General Hospital St. Joseph's Hospital St. Joseph's Hospital St. Mary's Hospital General Hospital General Hospital Orillia Soldiers Memorial Hospital Orillia Soldiers Memorial Hospital Misericordia Maternity Hospital	Galt	8,607 00 9,700 00 6,310 60 21,471 31 10,327 76 100 00 7,810 00 2,848 34 3,851 25	30,534 60 43,987 50 57,691 46 48,345 67 37,633 06	505 00	19,982 30 3,412 10 21,104 35 937 14 18,480 71 3,539 20 3,184 05 481 30 1,296 85	59,628 90 57,099 60 85,106 41 71,396 68 66,441 53 12,379 33 63,082 64 44,474 92 75,752 98 53,704 54
General and Marine Hospital	Owen Sound	3,588 03	36,034 21 8,263 17 35,248 53 57,780 43 38,603 73 70,288 60 72,390 05 41,236 27	12.457 86 4,260 90 914 36 2,910 06 2,250 15	15,332 89 1,202 61 5,621 00 971 08 	53,704 54 17,681 03 44,457 56 76,780 74 42,185 58 100,095 76 86,603 73 49,371 33 37,310 18
Nicholls Hospital. St. Joseph's Hospital. General Hospital. Memorial Hospital. Public Hospital. St. Mary's Hospital. St. John's Hospital. Salvation Army Women's Hospital. Wellesley Hospital. Women's College Hospital. Welland County Hospital. Woodstock Hospital.	Timmins Toronto " " Welland Woodstock	622 50 1,847 00 400 00 120 00 7,983 08 3,000 00 5,000 00	39,449 19 67,866 73 41,295 51 212,884 13 50,732 26 30,179 98 40,692 42	362 62 78 73	11,286 07 9,423 01 6,568 75 200 00 991 45 2,276 85	51,720 38 79,215 47 48,264 26 213,004 13 58,915 34 34,171 43 49,485 58
Group 4—Bed capacity 101 to 200			1,594,210 76			\$ c.
Brantford General Hospital McKellar General Hospital Guelph General Hospital St. Joseph's Hospital Hotel Dieu Hospital St. Joseph's Hospital General Hospital General Hospital General Hospital General Hospital Stratford General Hospital St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital St. Joseph's Hospital Hotel Dieu Hospital	Fort William Guelph Hamilton Kingston London Pembroke Port Arthur Sault Ste. Marie Stratford Sudbury Toronto Walkerville Windsor	\$ c. 43,305 45 22,867 57 13,604 45 5,356 73 11,209 00 5,798 73 4,772 98 4,789 31 3,230 00 22,552 00 23,480 36 4,488 61 8,733 00 16,856 55	100.041 54 65.846 45 140.380 65 65.475 25 113,278 26 39.081 46 65.045 58 39,601 52 62,178 52 58.561 00 98.633 29 33.456 41 90,456 05 52,694 00	1,612 00 476 00 123 93	7,711 96 2,279 43 964 03 918 29 41,025 00 31,394 93 16,718 92 5,283 08 1,100 00 1,408 59 34,419 44 3,641 54 18,210 89 58,131 84	141,889 12 125,288 54 80,414 93 146,655 69 117,709 25 150,471 94 62,185 36 75,594 44 42,639 82 76,941 04 95,532 44 122,250 56 117,399 94 127,682 39
Total		182,983 55	1,115,421 69	2,628 78	223,207 94	1,524,241 96
Group 5—Bed capacity, 200 and over General Hospital. Kingston General Hospital. Victoria General Hospital. Ottawa Civic Hospital. General Hospital General Hospital Hospital for Sick Children. St. Michael's Hospital. Western Hospital and Grace Hospita	Hamilton Kingston London Ottawa Toronto	\$ c 188,544 88 51,275 50 175,434 39 85,211 55 27,089 91 157,428 50 118,786 48 77,452 11 70,084 95	265,904 08 142,795 38 209,784 82 404,747 50 156,100 74 788,718 92 92,544 61 262,721 87	96 75 12,253 77 3,339 75 2,353 67 1,733 38 65,580 00 38,913 61	9,792 52 4,863 25 487 50 6,602 12 25,724 09 87,699 84 1,380 65	454,545 71 216,117 17 393,422 21 492,800 22 191,526 15 1,037,451 51 337,944 54
Total			2,749,537 90			3,977,198 90
Grand Totals, General Hospitals			6,223,653.75	181,000.49	661,137.23	8,518,926.80
*Campaign fund assets as of da	te September 30.	1928, \$56,259	0.11.			

^{*}Campaign fund assets as of date September 30, 1928, \$56,259.11.

TABLE V.—Shows the compilation of the Government Grant. The days' stay upon which these grants are based is taken from the Statistical return furnished by the Institutions and corrected in accordance with the monthly admission, discharge and death sheets as furnished by the Institutions.

GENERAL HOSPITALS—Continued										
Name of Hospital	Location.	Collective days' stay for grant at 50c. per day.	Collective days' stay for grant at 60c. per day.	Amount of Govern- ment grant for proper hospital cases	Collective days' say at refuge rate (10c.)	Amount at refuge rate,	Days stay at indigent rate (\$2.00)	Amount at indigent rate.	Total payable as Government grant.	
General Hospital General and Marine Hospital Memorial Hospital Notre Dame Hospital St. Paul's Hospital Listowel Memorial Hospital Rosedale War Mem. Hospital Mount Forest General Hos. York County Hospital Cottage Hospital Willett Hospital General Hospital Seaforth Memorial Hospital. Presbyterian Hospital Brebeuf Hospital Brebeuf Hospital Brebeuf Hospital Brebeuf Hospital	Almonte. Bowmanville. Brampton. Clinton. Dunnville. Durham Goderich. Hanever. Hanever. Hearst. Listowel. Matheson.	1,250 755 1,029 1,506 1,070 1,325 569 572 2,166 647 2,263 622 924 1,877	1,980 1,476 443 1,374 1,468 1,000	\$ c. 258 60 1,173 90 1,748 40 38 50 2,166 00 1,510 60 643 30 1,338 90 1,633 80 1,135 00 1,732 30 663 70 799 60 2,318 40 624 10 2,376 50 1,129 80 1,129 80 1,948 30 990 60 864 00 2,446 70 188 80 29,095 30	213 643 33 308	49 40	2 44 121	488 00 242 00 918 00	258 60 1,205 50 1,797 80 38 50 2,166 00 1,531 90 1,637 10 1,633 00 1,763 10 905 70 799 60 2,318 40 624 10 2,432 80 1,763 10 2,136 30 90 60 8,42 10 2,136 30 90 60 2,492 50 1,88 80	
General Hospital Ross Memorial Hospital Bethesda Hospital St. Andrew's Hospital Queen Victoria Hospital Lord Dufferin Hospital Lord Dufferin Hospital Salvation Army Mat. Hos Stone Memorial Hospital St. Joseph's Hospital Cottage Hospital Cottage Hospital Ceneral Hospital Ceneral Hospital General Hospital General Hospital General Hospital General Hospital Norfolk General Hospital Norfolk General Hospital Norfolk General Hospital Norfolk General Hospital Norfolk General Hospital Othopedic Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital General Hospital	Chapleau Cobalt Cobourg Cochrane Collingwood Fergus Ingersoll Iroquois Falls Kenora Kenora Kincardine Lindsay London Midland North Bay Orangeville Ottawa Parry Sound Parry Sound Perbroke Perth Petrolia Picton Port Arthur Port Arthur Port Arthur Port Hope Renfrew Sault Ste. Marie Simich's Falls Strathroy Toronto Walkerton	798 3,090 1,486 1,896 2,519 320 742 2,1822 1,238 1,833 314 2,242 2,302 2,1830 2,1830 2,1830 1,276 1,376 1,348 1,348 1,271 4,186 1,329 1,483 2,835 1,431 2,120 1,375 4,125 2,678 1,054 3,569 1,327 67,139	602 1.984 982 1,074 1,602 433 499 1,420 823 889 297 1,414 1,852 2,073 1,203 1,	\$ c. 760 20 2,735 40 1,332 20 1,592 40 2,220 70 419 80 670 40 1,112 80 1,112 80 1,449 90 2,262 20 1,806 00 2,546 30 1,122 20 5,649 80 1,395 80 1,181 10 1,586 30 2,740 30 1,586 30 2,740 30 1,586 30 2,740 30 1,586 30 1,189 877 10 4,404 30 1,404 30 1,600 40 3,577 20 4,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90 1,1683 90	505 336 251 37 383 62 575 55 88 322 366 108 130 130 140 102 1,020	10 80 13 00 30 6 40 21 30 18 30 2 70 102 00 14 00 95 40 61 90 23 50	904	\$ c	1,332 20 1,626 00 2,245 80	

TABLE V.—Shows the compilation of the Government Grant. The days' stay upon which these grants are based is taken from the Statistical return furnished by the Institutions and corrected in accordance with the monthly admission, discharge and death sheets as furnished by the Institutions.—Continued.

GENERAL HOSTITALS—Continued									
Name of Hospital.	Location.	Collective days' stay for grant at 50c. per day.	Collective days' stay for grant at 60c. per day.	Amount of Govern- ment grant for proper hospital cases	Collective days' stay at refuge rate (10c.)	Amount at refuge rate.	Days'stay at indigent rate (\$2.00)	Amount at indigent rate.	Total payable as Government grant.
Group 3—Bed capacity, 51 to 100									
Misericordia Maternity Hos. Ottawa Protestant Chil. Hos. General and Marine Hospital	Belleville Brockville "Chatham "Cornwall "Galt Guelph Kitchener "Mattawa Niagara Falls Orillia Oshawa Ottawa "Cwen Sound Peterborough St. Catharines St. Thomas Sarnia Smith's Falls Trimmins Toronto " "Welland	3,268 2,810 5,383 4,249 2,173 3,682 8,921 3,824	1,879 3,467 3,800 2,349 3,398 6,944 3,202 6,887 2,790 6,387 2,531 4,311 3,733 2,488 908 2,175 2,829 2,864 4,482 2,473 8,434 1,700 5,533 2,866	2,276 66 2,532 44 4,771 70 4,405 10 2,495 90 8,8626 90 3,879 80 8,626 90 3,777 50 7,713 20 2,996 60 3,338 80 4,419 30 3,073 90 3,607 40 3,073 90 3,073 90 3,073 90 3,366 10 2,424 80 2,688 00 6,100 80 3,366 10 7,432 90 62 40 3,025 10 2,153 30	0 368 980 1,755 0 421 0 421 0 421 0 50 0 386 0 346 0 314 0 620 0 468 0 147 0 620 0 468 0 147 0 129 0 296 0 314 0 296 0 346	36 80 98 000 175 50 64 10 29 60 34 60 34 60 42 10 15 50 39 60 63 50 31 40 	692	1,384 00	\$ c. 2,298 c. 2,298 c. 2,313 40 2,630 4,947 20 4,469 20 2,525 20 3,914 40 8,669 00 3,848 70 7,230 00 7,744 60 5,387 60 4,380 60 5,387 60 4,350 60 5,387 60 4,351 90 3,124 60 3,403 50 1,301 30 3,451 90 3,124 60 3,737 10 5,830 10 5,830 10 5,830 10 5,830 10 5,830 10 5,830 10 5,830 10 5,830 10 5,830 10 5,830 10 5,830 10 5,737 60 6,130 70 6
Total		132,695							131,873 60
Group 4—Bed capacity, 101 to 200									
Guelph General Hospital. St. Joseph's Hospital. Hotel Dieu Hospital. St. Joseph's Hospital. St. Joseph's Hospital. St. Joseph's Hospital. St. Joseph's Hospital. Stratford General Hospital. St. Joseph's Hospital. St. Joseph's Hospital. Metropolitan General Hos.	Pembroke Port Arthur Sault Ste. Marie.	15,612 10,830 5,829 9,369 11,661 5,478 11,090 9,860 8,347 4,244 7,174 22,958 320 16,369 8,548	13,112 7,690 3,667 6,026 9,259 2,850 8,511 7,748 6,177 3,459 7,730 17,375 8,387 11,532 7,284	10,029 00 5,114 70 8,300 10 11,385 90 4,449 00 10,651 60 9,578 80 7,879 70	1,432 276 285 1,132 2,730 1,537 628 72 745 272 1,413 24 1,077	\$ c. 177 80 143 20 27 60 28 50 113 20 273 00 153 70 62 80 7 20 74 50 27 20 141 30 2 40 107 70 40 80	619	1,238 00	\$ C. 15.851 00 11,556 20 5,142 30 8,328 60 11,499 10 4,729 10 10,805 30 10,879 60 4,271 90 4,271 90 8,252 20 22,201 30 5,194 60 15,211 40 8,685 20
Total		147,689	120,807	146,328 70	13,809	1,380 90	1389	2,778 00	150,487 60
Group 5—Bed capacity, 200 and over	Hamilton	57.052	30 927	\$ C.	6.270	\$ c.		\$ c.	\$ c.
Victoria General Hospital Ottawa Civic Hospital General Hospital	Hamilton. Kingston London Ottawa Toronto. " " " "	57,952 14,841 20,078 71,136 18,946 90,650 40,649 35,191 44,367	39,837 10,756 12,075 54,464 13,386 67,042 32,325 29,534 31,877	52,878 20 13,874 10 17,284 00 68,246 40 17,504 60 85,550 20 39,719 50 35,315 90 41,309 70	3,094 4,964 8,444 990 9,086 8,244 3,102	637 80 309 40 496 40 844 40 99 00 908 60 824 40 310 20 451 80	1112	2,224 00	53,516 00 14,183 50 17,780 40 69,090 80 17,603 60 88,682 80 40,543 90 35,626 10 41,761 50
Total	•••••	393,810	291,296	371,682 60				2,224 00	378,788 60
Grand Tota!, Gen. Hospitals.		268,164	590,764	738,540.40	87,515	8,751.50	5228	10,456.00	757,747.90

TABLE VI.—This is a very important table showing the comparison of costs, under the headings "Average cost per patient per day," and "Dietary" and "Salary cost per patient per day." Under all three headings there is quite a variation, and it would appear that a careful study of these, with a view of bringing the more outstanding ones into line, would be profitable in the cases of the Hospitals affected.

	GENERAL HOSPITALS—Continued										
Name of Hospital.	Location.	Collective days' stay, exclusive of infants.	Cost of dietaries.	Salaries, fuel, light, medicine, bedding, and all other main- tenance expendi- ture,	Total expenditure for maintenance.	Average cost of each adult patient per day.	Average dietary cost per day.	Average salaries cost per patient per day.			
Group 1—Bed capacity, 1 to 25 *Stevenson Memorial Hos. Rosamond Memorial Hos. General Hospital Public Hospital Haldimand Co. Mem. Hos. General Hospital General Hospital General Hospital Willer Haldimand Co. Mem. Hos. General Hospital General Hospital Notre Dame Hospital Notre Dame Hospital Listowel Memorial Hospital Listowel Memorial Hospital Cottage Hospital Willett Hospital General Hospital General Hospital Seaforth Memorial Hos General Hospital Seaforth Memorial Hos General Hospital Seaforth Memorial Hos General Hospital Brebeuf Hospital Brebeuf Hospital General Hospital General Hospital General Hospital General Hospital Bresbyterian Hospital General Hospital General Hospital General Hospital	Almonte Bowmanville Brampton Clinton Dunnville Durham Goderich Hanover Hawkesbury Hearst Listowel Matheson Mount Forest Newmarket Nia-on-Lake Paris	4,220 3,595 3,755 2,513 6,072 2,809 3,911 2,403 3,007 2,070 3,416 1,322 1,428 4,225 1,148 4,901 2,325 2,193 3,560 2,193	\$ c. 529 78 2.489 30 3,533 93 2,414 81 2.230 95 2.381 64 1,471 14 3,282 00 1,914 50 2,202 60 7,71 20 2,920 46 7,71 20 2,920 46 1,132 09 2,875 39 1,368 80 2,494 29 4,031 68 3,168 95 1,204 62 3,255 03 2,738 27	11,398 55 12,265 52 10,168 05 7,773 98 13,909 25 5,150 50 10,149 00 8,045 14	5,807 83 16,078 52 5,174 36 17,710 19 7,145 30 9,239 55 13,687 77 13,960 35	4 39 4 39 8 2 68 2 35 3 4 14 5 22 4 35 5 16 6 17 8 18 6 36 7 3 4 46 7 3 84 6 36 7 3 4 46 7 3 64 8 4 6 36 7 3 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	98 64 88 39 52 84 79 73 91 79 98 54 69 59 59 1 20 1 13 1 44	\$ c. 5 34 1 45 1 87 1 88 1 26 1 05 1 28 2 22 1 76 4 61 2 26 1 28 2 40 1 32 1 62 2 84 1 153 1 75			
Total		69,924	54,284 23	212,825 57	267,109 80	3 82	78	1 91			
Geoup 2—Bed capacity. 26 to 50 Lady Minto Hospital. Cobalt Mines Hospital. General Hospital. Lady Minto Hospital. Lady Minto Hospital. Lady Minto Hospital. Lady Minto Hospital. General and Marine Hos. Royal Alexandra Hospital. Alexandra Hospital. General Hospital. General Hospital. St. Joseph's Hos. General Hospital. Ross Memorial. Bethesda Hospital. St. Andrew's Hospital. Lord Dufferin Hospital. St. Andrem's Hospital. Schamber Hospital. Cottage Hospital. Great War Memorial Hospital. General Hospital. Great War Memorial Hos. C. E. Englehart Mem. Hos Prince Edward County Hos. General Hospital. Victoria General Hospital. Noriolk General Hospital. Noriolk General Hospital. Noriolk General Hospital. Ortopedic Hospital. Mount Sinai Hospital General Hospital. Mount Sinai Hospital General Hospital. Mount Sinai Hospital General Hospital	Kincardine Lindsay London Midland North Bay Orangeville Ottawa Parry Sound Pembroke Perth Petrolia Picton Port Arthur Port Hope Renfrew Sault Ste. Marie Simcoe Smith's Falls Strathroy Toronto. Walkerton	5,946 3,789 9,715 7,379 2,988 3,650 7,326 5,440 5,440 5,450 9,888 4,209 7,951 9,358 4,888 10,449 7,459 10,487 7,841 5,450 12,539	\$ c. 2.292 12 5.276 24 5.276 28 5.276 28 6.501 84 3.478 98 6.5087 81 5.683 94 6.5087 799 66 4.966 4.966 4.966 4.966 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.706 60 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 80 9.202 45 3.490 8.512 9.261 32 9.261 32 9.261 32 6.742 4.818 19 9.261 32 6.742 41 9.261 32 6.742 11 91 183,980 11	\$ c. 11,022 47 19,893 04 12,165 64 16,127 82 20,323 65 12,129 29 10,187 82 25,384 17 14,677 00 16,331 39 9,121 17 26,827 11 9,038 03 17,948 81 26,021 70 14,795 46 23,255 76 9,671 48 9,540 10 25,787 49 18,488 21 20,743 05 9,534 94 12,566 13 16,590 18 15,533 72 22,788 81 12,079 67 17,139 07 21,018 08 33,065 41 12,054 67	13,314 59 25,169 22 15,158 44 21,749 68 28,588 19 15,608 27 12,737 74 30,471 98 20,360 94 21,748 00 11,992 99 35,147 75 14,188 73 22,247 69 33,821 36 19,762 06 33,821 36 19,762 06 33,458 21 13,162 28 12,448 81 13,162 28 12,448 81 15,555 409 27,100 95 21,147 47 38,440 16 15,637 72 20,598 09 20,860 95 20,297 32 21,340 99 23,881 55	4 204 4 204 4 21 4 22 4 11 4 26 8 35 8 37 8 3 36 9 4 33 3 36 1 3 36	500 899 79 588 1 122 92 85 85 99 1 04 844 1 254 85 85 1 02 888 64 666 96 66 89 89 66 6	1 57 1 97 1 30 1 30 1 30 1 31 1 37 1 15 1 49 5 1 56 94 1 10 95 1 10 1 10 1 10 1 10 1 10 1 10 1 10 1 1			
			100,900 11	310,303 81	134,343 98						

Opened June 27th, 1928.

TABLE VI.—This is a very important table showing the comparison of costs, under the headings "Average cost per patient per day," and "Dietary" and "Salary cost per patient per day." Under all three headings there is quite a variation, and it would appear that a careful study of these, with a view of bringing the more outstanding ones into line, would be profitable in the cases of the Hospitals affected.—Continued.

GENERAL HOSPITALS—Continued										
Name of Hospital.	Location.	Collective days' stay, exclusive of infants.	Cost of dietaries.	Salaries, fuel, light, medicine, bedding, and all other maintenance expenditure.	Total expenditure for maintenance.	Average cost of each adult patient per day.	Average dietary cost per day.	Average salaries cost per patient per day,		
Group 3—Bed capacity, 51 to 100 Royal Victoria Hospital. General Hospital. St. Vincent de Paul Hospital. St. Vincent de Paul Hospital. St. Useph's Hospital. Cornwall General. Hospital. Cornwall General. Hotel Dieu Hospital. St. Joseph's Hospital. St. Joseph's Hospital. St. Mary's Hospital. St. Mary's Hospital. Niagara Falls General Hos. Orillia Soldiers' Mem. Hos. Orillia Soldiers' Mem. Hos. Otshawa General Hospital. Misericordia Maternity Hos. Ottawa Protestant Children's Hospital. General and Marine Hospital. Nicholls Hospital. St. Joseph's Hospital. General Hospital. General Hospital. General Hospital. General Hospital. General Hospital. Memorial Hospital.	Chatham Cornwall Galt Guelph Kitchener Mattawa Niagara Falls Orillia Oshawa Ottawa	11,508 26,316 16,926 20,323 16,811 14,433 13,492 20,013 16,016 21,118 16,016 21,118 15,351 14,813 3,367 7,128 14,604 21,320 16,761 24,122 19,097 13,641	\$ c. 11,321 95 21,731 62 17,965 17 22,078 16 17,427 70 12,850 46 11,931 11 13,917 11 13,917 11 13,917 12 14,149 52 11,537 85 3,723 99 16,551 72 10,903 31 48,484 29 8,015 87 2,037 93 12,590 66 21,991 59 11,355 98 30,989 01 19,504 65 15,688 39	\$ c. 23.282 07 66,292 24 39.670 85 36,399 39 43,000 50 33,104 07 35,670 02 52,763 54 47,867 81 50,921 82 50,070 21 13,726 70 30,998 17 39,732 30 30,972 31 49,373 94 32,500 92 19,023 07 28,723 78 52,919 89 29,019 70 79,130 18 69,664 41 38,775 17	\$ c. 34,604 02 88,023 86 57,636 04 58,477 55 60,428 20 45,954 53 47,601 13 66,681 40 63,433 68 73,533 94 64,219 73 25,264 55 34,722 41,875 94 64,222 23 40,516 79 21,061 00 41,314 44 74,911 48 40,375 68 110,119 19 89,169 06	2 02 2 52 1 79 2 56 2 29 2 63 2 99 2 41 3 .13 8 4 18 2 59 2 08 1 20 3 67 2 48 1 20 3 67 2 48 1 73 3 68 3 68 3 68 3 68 3 68 4 1 20 5 68 5 7 8 5 7 8 6 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	98 93 1 06 1 09 1 04 89 88 70 97 1 07 88 80 50 1 08 73 74 2 38 2 9 86 1 03 68 1 03 68 1 02	57 98 1 38 1 18 52 1 20 65 2 04 1 23 78 98 1 35 91 84 1 20 56 1 61 1 20		
Generaland Marine Hospital Nicholls Hospital St. Joseph's Hospital General Hospital General Hospital General Hospital General Hospital General Hospital Public Hospital St. Mary's Hospital St. John's Hospital St. Army Women's Hos Wellesley Hospital Women's College Hospital Woland County Hospital Woodstock Hospital Total		13,641 9,083 11,394 15,318 14,913 29,072 14,391 9,717 11,786	8,098 84 14,122 08 25,113 27 13,379 99 63,475 81 16,391 71 8,655 17 11,481 65	29,547 23 36,531 54 67,812 95	54,463 56 37,646 07 50,653 62 92,926 22 55,658 66 193,251 86 71,581 30 38,034 21 48,726 39	3 21 4 42 2 84 6 64 3 83 3 02 3 17	1 24 1 63 90 2 18 1 14 89 97	1 99 2 21 1 46 1 95 1 92 1 12 1 84		
Group 4—Bed capacity 101 to 200 Brantford Genera! Hospital McKellar General Hospital Guelph General Hospital St. Joseph's Hospital Hotel Dieu Hospital St. Joseph's Hospital General Hospital St. Joseph's Hospital General Hospital St. Joseph's Hospital General Hospital Stratford General Hospital St. Joseph's Hospital Mctropolitan General Hos Salvation Army Grace Hos Hotel Dieu Hospital	Brantford Fort William. Guelph. Hamilton Kingston. London. Pembroke Port Arthur. Sault Ste. Marie Stratford Sudbury Toronto Walkerville Windsor.	45,477 37,492 22,547 43,779 36,609 38,527 27,419 29,404 19,143 19,989 26,957 41,834 8,731 28,978 36,448	\$ c. 32,457 90 27,418 97 21,353 49 42,930 47 35,703 73 39,261 61 5,968 49 21,440 43 58 19,403 58 18,247 65 28,333 33 13,962 62 42,985 91	\$ c. 126,616 44 103,729 10 60,404 95 95,569 97,227 03 99,508 64 41,491 67 65,469 83 31,823 49 49,621 68 75,221 68 9,798 62 61,893 88 11,918 27 128,187 37	\$ c 159,074 3- 131,148 60 81,758 4- 138,499 90 132,930 77 138,770 22 57,460 16 86,910 22 45,485 0- 69,025 29 93,468 90 123,131 92 75,856 50 41,594 25 171,173 24	\$ c \$ 2 78 7 2 78 7 2 78 7 2 18 6 2 66 2 2 58 6 2 2 58 1 50 2 2 58 1 2 66 2 2 2 58 1 2 79 2 2 2 58 1 2 66 2 2 3 48 2 48 2 48 3 4 4 6 5 6 6 6 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ c. 71 713 955 999 98 1 022 91 18 97 18 9	\$ c. 1 36 1 33 1 19 73 1 02 1 11 48 87 1 02 1 13 1 109 1 20 4 23 1 44 1 43		
Total. Group 5—Bed capacity, 200 and over General Hospital. Kingston General Hospital. Victoria General Hospital. Ottawa Civic Hospital General Hospital General Hospital Hospital Hospital Hospital for Sick Children St. Michael's Hospital Western Hospital and Grace Hospital.	Hamilton Kingston London Ottawa Toronto	143,175 64,779 90,541 138,937 65,676 250,231 86,885 103,971 137,317	\$ c 115,443 77 74,479 8: 90,459 9: 149,113 6: 45,186 0: 245,248 3: 76,387 6: 93,226 1! 130,748 3:	397,688 91 140,782 92 4 299,543 45 5 392,688 68 8 151,487 70 1801,389 40 9 341,960 30 8 286,142 08 4 419,535 59 2 3,231,219 03	\$ 1,313 2 6 215,262 7 390,003 3 541,802 3 196,673 7 418,347 9 379,368 2 550,283 9 4,251,512 7	\$ cc 1 3 55 5 3 3 3 9 4 3 3 3 90 8 2 90 1 4 18 9 4 8 6 3 6 3 4 0 5 3 9	\$ c. \$ 80 80 1.12 1 000 1 099 698 988 988 988 98	\$ c. 1 49 1 07 1 1 98 1 74 1 1 1 2 3 1 8 5 1 68 4 1 63		
Grand Totals		2331160	12,183,373.5	016,579,255.02	2 8,762,628.5	2	1	}		

TABLE VII.—Shows the amount of Government grant, as reported in the financial statements submitted by the hospitals, together with all other earnings, and the total hospital maintenance expense.

Name of Hospital	Location.	All earnings, donations, etc., exclusive of Government grant.	Government grant in aid of maintenance as taken from hospital statements,	Total earnings, dona- tions, etc., for main- tenance.	Total expense for maintenance.
Group 1—Bed capacity, 1 to 25				Ì	
Stevenson Memorial Hospital. Rosamond Memorial Hospital. General Hospital. Public Hospital Haldimand County Memorial Hospital General Hospital Haldimand County Memorial Hospital General and Marine Hospital Memorial Hospital. Notre Dame Hospital. St. Paul's Hospital. Listowel Memorial Hospital. Listowel Memorial Hospital Listowel Memorial Hospital County Memorial Hospital Work County Memorial Hospital York County Memorial Hospital Cottage Hospital. Willett Hospital. Seaforth Memorial Hospital General Hospital. Fresbyterian Hospital. Brebeuf Hospital. Brebeuf Hospital. Brebeuf Hospital. Brebeuf Hospital. Soldiers' Memorial Hospital	Bowmanville Brampton Clinton Dunnville Durham Goderich Hanover Hawkesbury Hearst Listowel Matheson Wount Forest Newmarket Niagara-on-Lake Paris Penetang Seaforth Sioux Lookout	14.682 5' 14.937 8 12.058 5: 10.820 1' 15.895 6! 9.233 4' 12.874 0' 8.564 76 7.482 2: 7.751 8' 11.071 76 5.868 9' 5.188 94 17.844 77 4.659 34 14.981 41 8.963 87 7.988 46 15.123 71 8.272 18	1 832 22 1,789 66 4 91 56 7 1,302 56 7 1,302 56 0 564 00 1,511 00 1,511 00 1,511 00 1,718 50 4 622 40 4 622 50 4 622 50 61 2,210 70 7 1,718 50 62 742 50 63 893 00 2,064 00 63 452 50 64 452 50 84 55 893 00 1,544 50	2,772 00 15,796 5: 15,770 01 15,770 01 110,911 66 17,561 11 10,535 91 13,438 00 9,842 44 9,8159 73 9,262 83 12,416 20 1,611 42 5,811 44 19,563 27 5,301 74 17,192 11 9,583 37 8,881 46 17,187 71 8,724 68 4,777 95	10,004 93 16,290 89 7 6,621 64 13,431 00 9,959 64 15,710 36 8,996 97 11,264 75 6,818 26 5,807 85 5,807 85 17,710 19 7,145 30 9,239 55 13,687 77
	Wingham	10,191 79		10,302 79	10,441 47
Total		250,438 07	23,450 10	273,888 17	267,119 80
General Hospital Plummer Memorial Hospital Plummer Memorial Hospital Norfolk General Hospital St. Francis' Hospital General Hospital Mount Sinai Hospital Orthopedic Hospital General Hospital	Chapleau. Cobalt. Cobourg Cochrane. Collingwood Fergus. Ingersoll Iroquois Falls. Kenora. Kincardine Lindsay. London. Midland North Bay Orangeville Ottawa. Parry Sound. "embroke Perth. Petrolia. Picton. Port Arthur Port Hope Renfrew. Sault Ste. Marie. Simcoe. Smiths Falls Strathroy. Toronto. "Walkerton.	24,111 88 13,363 65 17,747 75 23,963 52 15,426 81 12,271 84 10,999 95 23,452 51 19,703 92 13,231 34 34,642 29 20,706 44 28,043 09 32,096 11 17,722 36 28,693 36 15,718 38 9,434 90 23,567 51 18,15,316 18 43,828 28 17,409 00 23,567 51 20,931 81 31,678 42 21,794 33 26,192 21 27,185 16 53,797 66 17,747 82	1,442 68 60 2,537 20 1,268 5.00 1,925 20 1,147 30 2,055 00 1,147 30 2,055 00 1,188 30 2,821 65 1,707 50 3,707 50 3,707 50 3,707 50 1,156 70 4,852 80 1,873 00 1,1873 00 2,091 90 3,846 50 1,180 00 4,252 40 1,180 00 4,252 40 1,180 00 4,252 60 1,180 00 1,267 90 1,2666 00 1,267 90 2,216 60 50 3,667 90 2,216 90 2,218 90 1,428 90 1,428 90 983 30	14,806 15 22,016 35 26,500 72 15,711 81 13,019 34 12,924 25 24,509 81 21,758 92 13,616 84 20,2750 59 35,804 21 18,879 06 60 33,546 16 20,798 38 31,239 24 40,926 27 50 25,233 51 23,92 24,010 32,666 21 28,991 65,226 56 18,731 12	\$ c. 13.314 59 25,169 25 15,158 44 21,749 62 28,588 19 15,608 27 12,737 04 30,471 98 20,360 94 21,748 90 11,992 99 35,147 75 14,188 73 22,247 69 33,821 36 19,762 06 32,458 21 13,162 28 12,448 81 35,554 09 27,100 95 25,168 79 12,147 75 38,440 16 15,637 72 20,598 09 20,860 05 29,297 32 21,340 99 23,881 52 27,701 78 41,614 23 14,866 58
Total		773,597 59	70,690 35	844,287 94	754,345 98

TABLE VII.—Shows the amount of Government grant, as reported in the financial statements submitted by the hospitals, together with all other earnings, and the total hospital maintenance expense.—Continued.

Name of Hospital,	Location.	All earnings, donations, etc., exclusive of Government grant.	Government grant in aid of maintenance. as taken from hospital statement,	Total earnings, donations, etc., for maintenance.	Total expense for maintenance.
Group 3—Bed capacity, 51 to 100					
Royal Victoria Hospital. General Hospital. St. Vincent de Paul. Public General Hospital. St. Joseph's Hospital. St. Joseph's Hospital. Cornwall General Hospital. Cornwall General Hospital. Hotel Dieu Hospital. General Hospital. General Hospital. St. Joseph's Hospital Kitchener-Waterloo Hospital St. Mary's Hospital. Niagara Falls General Hospital Orillia Soldiers' Memorial Hospital Orillia Soldiers' Memorial Hospital Oshawa General Hospital. Misericordia Maternity Hospital Ottawa Protestant Children's Hospital. St. Joseph's Hospital. St. Joseph's Hospital. St. Joseph's Hospital General Hospital. St. Joseph's Hospital St. John's Hospital St. John's Hospital St. John's Hospital St. John's Hospital Salvation Army Women's Hospital Wellesley Hospital Wellesley Hospital Wellesley Hospital Welland County Hospital Welland County Hospital	Barrie Belleville Brockville Chatham Cornwall Galt Guelph Kitchener Mattawa Niagara Falls Orillia Oshawa Ottawa "Owen Sound Peterborough St. Thomas Sarnia Smiths Falls Timmins Toronto " "" Welland Woodstock Welland Woodstock	100,824 115 61,146 52 54,198 60 62,423 04 57,301 23 47,927 31 59,628 05 67,746 41 71,396 68 66,441 53 12,379 36 44,474 92 75,752 98 53,704 54 17,681 07 42,185 58 100,095 76 86,603 73 49,371 33 37,310 18 51,720 38	2,995 20 2,699 30 3,853 10 4,507 90 3,437 60 3,437 50 6,514 70 4,158 50 7,189 20 4,009 40 5,284 30 4,059 40 3,300 30 6,441 15 3,433 40 2,524 30 3,297 40	35,751 51 103,819 35 63,846 02 58,051 70 66,930 94 59,981 43 51,284 91 67,406 10 91,621 11 75,555 18 73,630 73 16,379 33 68,366 94 48,534 32 79,053 28 60,145 60 921,114 43 46,981 86 80,078 14 47,635 48 103,261 69 95,812 73 51,953 83 40,886 98	88,023 86 57,636 04 58,477 55 60,428 20 45,954 53 47,601 13 66,681 40 63,433 68 73,533 68 73,533 68 74,219 73 25,264 55 34,722 16 56,284 02 41,875 94 64,222 23
Total		1,979,040 19	132,372 44	2,128,772 63	1,989,850 30
Salvation Army Grace Hospital. Hotel Dieu Hospital. Total. Group 5—Bed capacity, 200 and over	Brantford	\$ c. 141,889 12 125,288 54 80,414 93 146,655 69 117,709 25 150,471 94 62,185 36 75,594 44 42,639 82 76,941 04 42,639 82 76,941 04 122,250 50 41,586 50 117,399 94 127,682 39 1,524,241 96	\$ c.	\$ C. 158,024 92 137,655 54 85,858 83 154,297 29 129,508 25 154,773 54 71,154 16 85,188 44 46,860 82 80,537 24 105,577 24 144,478 30 105,577 34 144,478 30 137,714 49 1,670,069 66	\$ c. 159,074 34 131,148 07 81,758 44 138,499 97 132,930 76 138,770 22 57,460 16 86,910 26 45,485 04 69,025 26 45,485 04 69,025 26 45,485 04 123,131 95 75,856 50 41,594 29 171,173 28 1,546,287 48
General Hospital. Kingston General Hospital Victoria General Hospital Ottawa Civic Hospital. General Hospital. General Hospital. General Hospital. Hospital For Sick Children St. Michael's Hospital. Western Hospital and Grace Hospital. Total. Grand Total.	u u	454,545 71 216,117 17 393,422 21 492,800 22 201,256 40 1,037,451 51 377,944 54 342,054 63 511,336 76 4,017,199 00 8,554,246.96	16,867 90 32,437 80 16,676 10 108,378 60 47,689 10 41,146 30 52,518 00 389,760 40	231,576 87 410,290 11 525,238 02 649,682 50	215,262 75 390,003 39 541,802 33 196,673 78 1,046,637 75 418,348 42 379,368 26 550,283 93 4,251,513 22

RED CROSS OUTPOST HOSPITALS

TABLE I.

Red Cross Hospital Bancroft 7 5 141 36 182 167 10 5 Red Cross Hospital Coehill 6 29 8 37 35 2 2 Red Cross Hospital Dryden 19 6 270 52 328 306 15 7 Red Cross Hospital Englehart 10 4 130 20 154 140 9 5 Red Cross Hospital Hornepayne 7 1 61 16 78 74 1 3 Red Cross Hospital Kirkland Lake 14 15 465 41 521 486 18 17 Red Cross Hospital Loring 5 21 12 33 30 1 2 Red Cross Hospital Nakina 6 76 9 85 83 2 Lady Minto Hospital New Liskeard 18 7 268 23 298 271	Name of Hospital.		ame of Hospital. Location.	Bed capacity, Number remaining under treatment, Oct. 1, 1927,	Number admitted during the year end- ing Sept. 30th, 1928.	Number of births during year.	Total number under treatment during year ending Sept. 30, 1928.	Number discharged during year.	Number of deaths during year.	Number under treatment on Sept. 30, 1928.	Percentage of deaths to total number under treatment.
Red Cross Hospital. Whitney. 3 1 32 2 35 35 Red Cross Hospital. Wilberforce. 3 14 3 17 16 1	Red Cross Hospital Red Cross Hospital	ke 14	Cross Hospital Coehill Cross Hospital Coehill Cross Hospital Dryden Cross Hospital Englehart Cross Hospital Haileybury Cross Hospital Hornepayne Cross Hospital Lions Head Cross Hospital Loring Cross Hospital Nakina Minto Hospital New Liskeard Cross Hospital Rainy River Cross Hospital Rainy River Cross Hospital St. Joseph's Island Cross Hospital Thessalon Cross Hospital Whitney Cross Hospital Whitney Cross Hospital Whitney Cross Hospital Wilberforce	6	141 29 270 130 215 61 465 20 21 76 268 9 100 7 769 148 32 14	36 8 52 20 19 16 41 10 12 9 3 18 3 7 15 2	182 37 328 154 240 78 521 30 33 85 298 12 123 10 85 169 35 17	167 35 306 140 225 74 486 30 83 271 12 112 10 76 150 35	10 2 15 9 7 1 18 4 1 2 18 7	3 5 7 5 8 8 3 17 2 9 4 2 10 75	8.33 5.49 5.41 4.57 5.84 2.92 1.28 3.45 1.33 3.03 2.35 6.04 .0 0 8.23 5.69 .0 8.23 5.33 .0 5.88

TABLE II.

Name of Hospital.	Location.	Number of patients, including infants.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants	Average stay of patients, including infants.
Red Cross Hospital. Red Cross Hospital.	Apsley . Bancroft . Coehill . Dryden . Englehart . Haileybury . Hornepayne . Kirkland Lake . Loring . Nakina . New Liskeard . Quibell . Rainy River . Redditt . St. Joseph's Island . Thessalon . Whitney .	36 182 37 328 154 240 78 521 30 33 85 298 12 123 10 85 169 35	1115 355 76 541 322 193 175 500 82 128 141 309 31 203 57 90 174 12 36	207 1,038 253 2,654 1,376 2,071 576 4,773 196 235 755 3,232 66 1,169 65 1,052 2,011 143 117	322 1,393 329 3,195 1,698 2,264 751 5,273 278 363 896 3,541 97 1,372 122 2,185 155	9 8 9 10 11 9 9 10 9 11 11 12 8 11 12 13 13 14 9

RED CROSS OUTPOST HOSPITALS—Continued

TABLE III.

Name of Hospital.	Location.	Collective days' stay, exclusive of infants	Deduction for incurable and lying-in patients. (Refuge rate.)	Deduction for pay patient days.	No. of days for which Government grant is allowed at 50c.	No. of days for which Government grant is allowed at 60c.	Total days for which Government grant Is allowed.
Red Cross Hospital Total	Apsley. Bancroft Coehill Dryden Englehart Haileybury Hornepayne Kirkland Lake Lions Head Loring Nakina New Liskeard Quibell Rainy River Redditt St. Joseph's Island Thessalon Whitney Wilberforce	198 1.060 2,703 1.895 2.025 575 4.745 203 224 798 3,253 66 1,199 65 752 1,765 143 119	44	3,253	86 472 135 1,609 1,086 1,202 413 2,495 72 129 243 25 736 975 84 63	112 588 125 1.094 808 823 162 2.206 131 95 555 	198 1,060 2,703 1,895 2,025 5,75 4,745 203 224 798 66 1,199 65 752 1,765 143 119

TABLE IV.

Name of Hospital,	Location.	"Amount from Municipalities as a grant and for pa- tients' maintenance.	Amount from patients for board.	*Subscriptions and donations of private individuals and incidental receipts.	Total from all sources other than Govern- ment grant.
Red Cross Hospital Red Cross Hospital Red Cross Hospital Red Cross Hospital Red Cross Hospital Red Cross Hospital Red Cross Hospital	St. Joseph's Island. Thessalon Whitney	1,000 00	\$ c. 470 25 2,231 12 532 45 7,552 55 3,492 00 6,436 67 1,728 75 11,521 75 473 80 560 50 1,414 00 7,066 47 135 80 2,400 80 41 25 2,579 92 3,363 85 413 15 536 25	\$ c. 100 00 87 00 500 00	\$ c. 470 25 2,231 12 532 45 7,552 55 3,492 00 7,036 67 1,815 75 12,021 75 473 80 560 50 1,414 00 8,066 47 1,355 80 2,400 80 41 25 2,579 92 3,363 85 413 15 536 25

^{*}Amounts under this heading are mostly collected and apportioned by the Head Office of the Red Cross Society and therefore do not appear under the different hospitals.

RED CROSS OUTPOST HOSPITALS—Continued

TABLE V.

Name of Hospital.	Location.	Collective days' stay upon which Hospital grants are based,	Amount of grant for proper hospital cases.	Collective days' stay in excess of 120 days.	Computation at refuge rate of 10c, per day.	No. of days at \$2.00.	Amount at \$2.00.	Total grant payable by Legislature.
Red Cross Hospital. Red Cross Hospital.	Apsley	198 1,060 260 2,703 1,895 2,025 575 4,745 203 224 798 	\$ c. 110 20 588 80 142 50 1,460 90 1,027 80 1,094 80 303 70 2,571 10 114 10 454 50 37 10 645 80 39 00 392 60 961 50 77 40 65 10	44	\$ c.			\$ c. 110 20 588 80 142 50 1,460 90 1,027 90 1,094 80 303 70 2,575 50 114 10 454 50 37 10 645 80 39 00 392 60 77 40 65 10
•	Wilberforce	18,795	10,208 40	45	4 50			10,212 90

TABLE VI.

Red Cross Hospital. Apsley. 207 460 10 2.588 61 3.048 71 1 4 72 2 2 2 2 8 46 Red Cross Hospital. Bancroft. 1,038 1,078 37 4,172 51 5.250 88 5 09 1 04 2 97 Red Cross Hospital. Coehill. 253 514 89 2,448 57 2,963 46 11 71 2 04 6 48 Red Cross Hospital. Dryden 2,654 2,500 34 8,040 60 10,540 94 3 97 94 1 70 70 Red Cross Hospital. Englehart. 1,376 1,356 30 5,415 00 6,771 30 4 92 99 2 53 Red Cross Hospital. Haileybury 2,901 2,283 37 7,259 92 9,543 29 4 61 1 1 10 2 33 Red Cross Hospital. Hornepayne. 576 1,301 85 4,165 85 5,557 70 9 65 2 42 46 46 Red Cross Hospital. Lorne Head. 196 464 59 2,486 68 2,951 27 15 06 2 37 8 7 9 8 7 9 4 1 10 2 38 8 6 1,301 85 4,165 85 5,557 70 9 65 2 42 4 64 4 80 1 10 2 38 8 60 1,301 8	Name of Hospital. Location	Collective days' stay, exclusive of infants.	Cost of dietaries.	Salaries, fuel, light, medicine, bedding, and all other main- tenance expenditure.	Total expenditure for maintenance.	Average cost of each adult patient per day.	Average dietary cost per day.	Average salaries cost per patient per day.
Total	Red Cross Hospital Bancroft Red Cross Hospital Coehill Red Cross Hospital Dryden Red Cross Hospital Englehart Red Cross Hospital Haileybury Red Cross Hospital Hornepayne Red Cross Hospital Kirkland Lake Red Cross Hospital Loring Red Cross Hospital Loring Red Cross Hospital Nakina. Lady Minto Hospital New Liskeard Red Cross Hospital Quibell Red Cross Hospital Rainy River Red Cross Hospital Red Riny River Red Cross Hospital Reditt Red Cross Hospital Reditt Red Cross Hospital Reditt Red Cross Hospital Reditt Red Cross Hospital Wilberforce Red Cross Hospital Whitney Red Cross Hospital Whitney Red Cross Hospital Wilberforce	1,038 253 2,654 1,376 4,773 196 235 755 3,232 666 1,169 65 and 1,052 2,011 117	460 10 1,078 37 514 89 2,500 34 1,356 30 2,283 37 1,391 85 464 59 606 93 834 86 2,558 20 360 04 817 29 223 42 967 42 1,535 28 487 16 356 51	2.588 61 4.172 51 2.448 57 8.040 60 5.415 00 7.259 92 4.165 85 13.832 39 2.486 68 2.456 94 4.052 95 8.869 82 2.702 63 4.653 21 1.366 26 4.893 50 6.440 39 2.779 67 2.305 17	3,048 71 5,250 88 2,963 46 10,540 94 6,771 30 9,543 29 5,557 70 18,181 04 2,951 27 3,063 87 4,887 81 11,428 02 3,062 67 5,470 50 1,589 68 5,860 92 7,975 67 3,266 83 2,661 68	14 72 5 09 11 71 3 97 4 92 4 61 9 65 3 81 15 06 13 03 6 47 3 54 46 40 4 68 24 45 5 5 7 3 96 22 84 22 75	2 22 1 04 94 94 94 10 2 42 2 37 2 58 1 11 79 5 46 69 3 44 92 76 3 41 3 05	8 46 2 97 6 48 1 70 2 53 2 33 4 64 1 66 8 79 7 04 3 47 1 87 30 33 2 78 10 90 3 54 4 19 14 62

^{*}The "Average cost of each patient per day" includes cost of attendance on outpatients, which entails heavy travelling expenses in the outlying districts.

RED CROSS OUTPOST HOSPITALS—Continued

TABLE VII.

TABLE VII.								
Name of Hospital.	Location.	*All earnings, donations, etc., exclusive of Government grant.	Government grant in aid of maintenance.	Total earnings, donations, etc., for maintenance.	Total expense for maintenance.	Net cost to Canadian Red Cross Society for Operation of Hospi- tal.		
Red Cross Hospital	Apsley.	\$ c. 470 25	\$ c. 110 20	\$ c. 580 45	\$ c. 3,048 71	\$ c. 2,468 26		
Red Cross Hospital	Bancroft	2,231 12	588 80	2,819 92	5,250 88	2,430 96		
Red Cross Hospital	Coehill	532 45	142 50	674 95	2,963 46	2,288 51		
Red Cross Hospital	Dryden	7,552 55	1,460 90	9,013 45	10,540 94	1,527 49		
Red Cross Hospital	Englehart	3,492 00	1,027 90	4,519 90	6,771 30	2,251 40		
Red Cross Hospital	Haileybury	6,436 67	1,094 80	7,531 47	9,543 29	2,011 82		
Red Cross Hospital	Hornepayne	1,728 75	303 70	2,032 45	5,557 70	3,525 25		
Red Cross Hospital	Kirkland Lake	11,521 75	2,575 50	14,097 25	18,181 04	4,083 79		
Red Cross Hospital	Lions Head	473 80	114 10	587 90	2,951 27	2,363 37		
Red Cross Hospital	Loring	560 50	121 50	682 00	3,063 87	2,381 87		
Red Cross Hospital	Nakina	1,414 00	454 50	1,868 50	4,887 81	3,019 31		
Lady Minto Hospital	New Liskeard	7,066 47		7,066 47	11,428 02	4,361 55		
Red Cross Hospital	Quibell	135 80	37 10	172 90	3,062 67	2,889 77		
Red Cross Hospital	Rainy River	2,400 80	645 80	3,045 60	5,470 50	2,423 90		
Red Cross Hospital	Redditt	41 25	39 00	80 25	1,589 68	1,509 43		
Red Cross Hospital	St. Joseph's Island.	2,579 92	392 60	2,972 52	5,860 92	2,888 40		
Red Cross Hospital	Thessalon	3,363 85	961 50	₆ 4,325 35	7,975 67	3,650 32		
Red Cross Hospital	Whitney	413 15	77 40	490 55	3,266 83	2,776 28		
Red Cross Hospital	Wilberforce	536 25	65 10	601 35	2,661 68	2,060 33		
Total		52,951 33	10,212 90	63,164 23	114,076 24	50,912 01		

^{*}See note under Table IV.

SANATORIA FOR CONSUMPTIVES

TABLE I.

Name of Sanatoria.	Location.	Bed capacity,	Number remaining under treatment, Oct. 1, 1927.	Number admitted during the year end- ing Sept. 30, 1928.	Number of births during the year.	Total number under treatment during year ending Sept. 30. 1928.	Number discharged during year.	Number of deaths during year.	Number under treat- ment on Sept. 30, 1928,
*Muskoka Hospital for Consumptives. Mountain Sanatorium. Freeport Sanatorium. Queen Alexandra Sanatorium. Royal Ottawa Sanatorium. St. Catharines Sanatorium. Essex County Sanatorium. Preventorium.	Ottawa St. Catharines	70 346 395 70 346 138 20 87 108 391	57 319 343 73 319 105 18 77 62 337	55 445 293 49 455 166 26 106 168 359	3	112 764 636 122 774 271 44 183 230 699	34 383 212 38 353 94 17 90 159 213	65 14 75 39 8 9	74 324 359 70 346 138 19 84 71 344

SANATORIA FOR CONSUMPTIVES—Continued

TABLE II.

Name of Sanatoria.	Location.	Number of patients including infants.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants.	Average stay of patients including infants.
Freeport Sanatorium. Queen Alexandra Sanatorium. Royal Ottawa Sanatorium. St. Catharines Sanatorium.	GravenhurstHamilton Kitchener London Ottawa St. Catharines Sandwich Toronto	764 636 122 774 271 44 183	129	25,194 118,833 128,798 26,781 226,622 43,890 7,056 30,087 29,360 128,849	25,194 118,833 128,798 26,781 226,622 43,890 7,056 30,087 29,360 128,978	224.9 155.5 202.5 219.5 292.8 161.9 160. 164. 127.6 184.3

TABLE III.

Name of Sanatoria.	Location.	Collective days' stay exclusive of infants under 1 year of age.	Deductions for incurable and lying-in patients. (Refugerate).	Government
Brant Sanatorium	Gravenhurst Hamilton. Kitchener London Ottawa. St. Catharines. Sandwich. Toronto. Weston	25.233 108.578 128.706 26.300 83.888 43.150 6.990 28.709 29.258 122,460		108,578 128,706 26,300 83,888 43,150 6,990 28,799 29,258 122,460

TABLE IV.

Name of Sanatoria.	Location.	Amount from Municipalities as a grant and for patients' maintenance.	Amount from patients for board,	Amount as income from property or investments belonging to hospital.	Subscriptions and donations of private individuals and incidental receipts,	Totalfrom allsources other than Govern- ment grant.
Muskoka Hospital for Consumptives Mountain Sanatorium Freeport Sanatorium. Queen Alexandra Sanatorium Royal Ottawa Sanatorium. St. Catharines Sanatorium Essex County Sanatorium Preventorium	Hamilton Kitchener	127,511 02 180,211 00 8,100 00 200,974 50 56,828 66 9,985 50 32,912 69 30,954 75 171,090 76	41,485 00 36,234 75 8,994 11 697 85 15,381 03 1,604 38 14,194 50	51,653 92 400 68 	10.228 09 395 40 15,340 53	309,866 14 60,604 37 281,460 53 66,252 77 13,134 21 58,521 81

SANATORIA FOR CONSUMPTIVES—Continued

TABLE V.

Name of Sanatoria.	Location.	Collective days' stay upon which Hospital grants are passed.		Government grant.
Brant Sanatorium. Muskoka Hospital for Consumptives. Mountain Sanatorium Preeport Sanatorium Queen Alexandra Sanatorium Royal Ottawa Sanatorium St. Catharines Sanatorium Essex County Sanatorium Toronto Hospital for Consumptives. Total	GravenhurstHamilton Kitchener London Ottawa St. Catharines Sandwich Toronto	108,578 128,706 26,300 83,888	\$ c. 18,924 75 81,433 50 96,529 50 19,725 00 62,916 00 32,362 50 5,242 50 21,599 25 21,943 50 91,845 00 452,521 50	\$ c. 18,924 75 81,433 50 96,529 50 19,725 00 62,916 00 32,362 50 5,242 50 21,599 25 21,943 50 91,845 00

TABLE VI.

Name of Sanatoria.	Location.	Cost of dietaries.	Salaries, fuel, light, medicine, bedding, and all other maintenance expenditure.	Total expenditure for maintenance.	Average cost of each adult patient per day.	Average dietary cost per day.	Average salaries cost per patient per day.
Brant Sanatorium. Muskoka Hospital for Consumptives. Mountain Sanatorium Freeport Sanatorium. Queen Alexandra Sanatorium. Royal Ottawa Sanatorium. St. Catharines Sanatorium Essax County Sanatorium Preventorium Toronto Hospital for Consumptives. Total.	Hamilton. Kitchener London. Ottawa. St. Catharines. Sandwich. Toronto.	94,626 98 89,122 22 15,581 11 80,544 52 21,111 03 4,152 07 21,270 35 9,846 90 88,946 48	195,918 18 207,605 68 43,135 82 183,235 08 76,193 24 12,278 45 54,326 14 34,574 12	290,545 16 296,727 90 58,716 93 263,779 60 97,304 27 16,430 52 75,596 49 44,421 02 277,010 83	2 19 2 15 2 25 2 35 2 63 1 52 2 26	c. 39.86 79.63 62.79 58.18 65.79 48.09 58.84 70.69 33.54 69.03 72.13	91

TABLE VII.

Name of Sanatoria.	Location.	All earnings, donations, etc., exclusive of Government grant.		Total earnings donations, etc., for maintenance.	
Brant Sanatorium	Brantford	\$ c. 28,099 62	\$ c. 18,924 75	\$ c. 47,024 37	\$ c. 35,776 89
Muskoka Hospital for Consumptives	Gravenhurst	235,621 67	81,433 50	317,055 17	290,545 16
Mountain Sanatorium	Hamilton	307,159 69	96,529 50	403,689 19	296,727 90
Freeport Sanatorium	Kitchener	51,549 33	19,725 00	71,274 33	58,716 93
Queen Alexandra Sanatorium	London	281,939 78	62,916 00	344,855 78	263,779 60
Royal Ottawa Sanatorium	Ottawa	11,720 86	32,362 50	44,083 36	97,304 27
St. Catharines Sanatorium	St. Catharines	13,134 21	5,242 50	18,376 71	16,430 52
Essex County Sanatorium	Sandwich	58,521 81	21,599 25	80,121 06	75,596 49
Preventorium	Toronto	33,943 31	21,943 50	55,886 81	44,421 02
Toronto Hospital for Consumptives	«	220,178 00	91,845 00	312,023 00	277,010 83
Total		1,241,868 28	452,521 50	1,694,389 78	1,456.309 61

HOSPITALS, FOR INCURABLES

24

TABLE I.

Name of Hospital.	Location.	Bed capacity.	Number remaining under treatment, Oct. 1, 1927.	Number admitted during year ending Sept. 30, 1928.	Total number under treatment during year ending Sept. 30, 1928.	Number discharged during year.	Number of deaths during year.	Number under treatment on Sept. 30, 1928
Parkwood Hospital for Incurables	London	94	90	29	119	12	21	86
Perley Home for Incurables	Ottawa	91	57	26	83	2	7	74
St. Vincent Home for Incurables	4	140	32	49	81	3	8	70
Toronto Hospital for Incurables	Toronto	325	223	116	339	14	72	253
Home for Incurable Children	4	40	38	5	43	4	3	36
Mercy Home for Incurables	44	107	107	68	175	28	45	102
Total		797	547	293	840	63	156	621

TABLE II.

Name of Hospital.	Location.	Number of patients under treatment during year,	Collective stay of adult patients.	Average stay of patients,
Parkwood Hospital for Incurables	ondon	119	32,574	274
Perley Home for Incurables	Ottawa	83	22,750	274
t. Vincent Home for Incurables	и	81	11,879	147
oronto Hospital for Incurables	Toronto	339	80,577	238
Iome for Incurable Children		43	13,281	309
Mercy Home for Incurables	4	175	37,965	217
Total		840	199,026	237

TABLE III.

Name of Hospital.	Location.	Collective days stay, exclusive of infants under 1 year of age.	
Parkwood Hospital for Incurables	London	32,574	29,707
Perley Home for Incurables	Ottawa	22,750	21,492
St. Vincent Home for Incurables	"	11,879	10,865
Toronto Hospital for Incurables	Toronto	80,577	77,576
Home for Incurable Children	44	13,281	13,281
Mercy Home for Incurables	"	37,965	38,075
Total		199,026	190,996

HOSPITALS FOR INCURABLES—Continued

TABLE IV.

Name of Hospital.	Location.	Amount from Municipalities as a grant and for patients' mainten- ance.	Amount from patients for board.	Amount as income from property or investments belonging to Hospital.	Subscriptions and donations of private individuals and incidental receipts.	Total from all sources other than Government grant.
Parkwood Hospital for Incurables	London	\$ c. 29,642 50	\$ c. 22,844 40	\$ c. 11,739 86	\$ c. 2,175 00	\$ c. 66,401 76
Perley Home for Incurables	Ottawa	10,879 00	11,831 90	1,164 90	4,325 00	28,200 80
St. Vincent Home for Incurables	"	13,744 50	2,332 35	716 30	2,713 46	19,506 61
Toronto Hospital for Incurables	Toronto	97,997 25	26,769 28	12,298 32	6,257 39	143,322 24
Home for Incurable Children	"	1,618 75	2,190 75	4,593 07	15,870 29	24,272 86
Mercy Home for Incurables	"	51,386 75	8,062 73	199 49	84 00	59,732 97
Total		205,268 75	74,031 41	30,711 94	31,425 14	341,437 24

TABLE V.

Name of Hospital.	Location.	Collective days' stay upon which Government grant is based—at 50c.	Collective days stay upon which Government grant is based—at 60c.	Total Government grant
Parkwood Hospital for Incurables	London	7,552	22,155	\$ c. 16,317 90
Perley Home for Incurables	Ottawa	9,877	11,615	11,907 50
St. Vincent Home for Incurables		4,389	6,476	6,080 10
Toronto Hospital for Incurables	Toronto	36,103	41,473	42,935 30
Home for Incurable Children	"	7,011	6,270	7,267 50
Mercy Home for Incurables	4	19,300	18,775	20,915 00
Total		84,232	106,764	105,423 30

HOSPITALS FOR INCURABLES—Continued

TABLE VI.

Name of Hospital.	Location.	Collective days' stay, exclusive of infants.	Cost of dietaries.	Salaries, fuel, light, medicine, bedding, and all other maintenance expenditure.	Total expenditure for maintenance.	Average cost of each patient per day.	Average dietary cost per day.	Average salaries cost per patient per day.
Parkwood Hospital for Incurables	London	32,574	\$ c. 11,615 33	\$ c. 39,441 04	\$ c. 51,056 37	\$ c. 1 56	\$ c.	\$ c.
Perley Home for Incurables								59
·								99
St. Vincent Home for Incurables		11,879	4,917 34	19,454 95	24,372 29	2 05		
Toronto Hospital for Incurables	Toronto	80,577	66,364 11	160,032 10	226,396 21	2 81	82	95
Homefor Incurable Children	α	13,281	5,964 47	19,560 47	25,524 94	1 92	45	87
Mercy Home for Incurables	« · · · ·	37,965	11,236 81	37,055 36	48,292 17	1 27	30	49
Total		199,026	106,679 86	297,352 41	404,032 27	2 03	54	78

TABLE VII.

Name of Hospital.	Location.	All earnings, donations, etc., exclusive of Government grant.	Government grant.	Total revenue for maintenance.	Total expense for maintenance.
Parkwood Hospital for Incurables	London	\$ c. 66,491 76	\$ c. 16,317 90	\$ c. 82,719 66	\$ c. 51,056 37
Perley Home for Incurables	Ottawa	28,200 80	11,907 50	40,108 30	28,390 29
St. Vincent Home for Incurables	u	19,506 61	6,030 10	25,586 71	24,372 29
Toronto Hospital for Incurables	Toronto	143,322 24	42,935 30	186,257 54	226,396 21
Home for Incurable Children	"	24,272 86	7,267 50	31,540 36	25,524 94
Mercy Home for Incurables	и	59,732 97	20,915 00	80,647 97	48,292 17
Total		341,437 24	105, 423 30	446,869 54	404,032 27

CITY REFUGES

TABLE I.

Name of Refuge.	Location.	Number of inmates on Sept. 30th,	Number admitted during the year.	Total number under lodgment during the year.	Total number discharged during the year.	Number of deaths during the year.	Number remaining in on Sept. 30th.
Home for Friendless The Widows' Home Home for the Friendless. St. Paul's Home for the Aged House of Providence Elliott Home Home for Aged and Infirm St. Peter's Infirmary Home for Friendless Women and Infants. Home for Friendless Women and Infants. House of Providence House of Providence House of Refuge House of Providence London Convalescent Home McCormack Home for the Aged District of Nipissing House of Refuge Elizabeth Residence for Elderly Ladies. Monastery of Our Lady of Charity Ottawa Home for Friendless Women Protestant Orphans' Home, Refuge Branch St. Patrick's Asylum, Refuge Branch St. Patrick's Asylum, Refuge Branch Women's Convalescent Home Parry Sound District House of Refuge Peterborough Protestant Home St. Joseph's House of Providence Thomas Williams Home Aged Men's Home Aged Women's Home Aged Women's Home Church Home for the Aged Good Shepherd Female Refuge Haven and Prison Gate Mission Hillcrest Convalescent Home Toronto House of Industry House of Providence Humewood House Association Jewish Old Folks' Home "St. Mary's Convalescent Home Toronto Industrial Refuge Victor Home for Young Women Home for the Friendless	Cornwall Dundas Guelph Hamilton " Kingston " London " North Bay. Ottawa " " " " " " " " " " " " " " " " " "	12 16 34 58 130 26 52 52 157 13 19 152 54 200 1 1 57 46 18 147 39 22 24 24 26 27 37 32 32 34 67 32 32 34 36 36 37 37 38 38 38 38 38 38 38 38 38 38 38 38 38	3 3 3 10 45 40 6 6 12 8 8 7 9 10 4 10 12 18 10 18 1	15 19 44 103 170 32 64 60 209 32 58 32 17 69 234 16 119 58 32 226 143 42 226 143 42 217 96 74 135 113 34 42 211 96 74 135 145 145 145 145 145 145 145 145 145 14	1 3 3 13 22 26 1 16	1 3 1 1 1 4 4 7 8 8 2 5 10 0 1 1 2 5 10 11 1 2 7 7 2 2 1 1 1 3 3 3 4 7 1 9 2 0 1 1 1 1 2 2 1 5 1 1 1 3 3 9 2 0 1 1 1 1 2 2 1 5 1 1 3 3 9 2 0 1 1 1 1 2 2 1 5 1 1 3 3 9 2 0 1 1 1 1 2 2 1 5 1 1 3 3 9 2 1 1 1 1 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1	13 13 30 67 130 27 41 52 157 18 19 151 51 190 168 46 188 45 22 44 245 97 122 24 36 75 18 19 19 19 19 10 10 10 10 10 10 10 10 10 10
Total		3,263	2,241	5,504	1,992	353	3,159

^{*}Opened April 1st, 1928.

CITY REFUGES—Continued

TABLE II.

			1			
Name of Refuge.	Location.	Aggregate stay of inmates.	Cost of dietaries.	Cost of fuel, salaries and all general expenditure,	Total expenditure (ordinary).	Average cost per inmate per day
Home for Friendless. The Widows' Home Home for the Friendless. St. Paul's Home for the Aged House of Providence. Elliott Home House of Providence. Elliott Home House of Providence. Aged Women's Home. Home for Aged and Infirm St. Peter's Infirmary Home for Friendless Women and Infants House of Providence. House of Refuge. House of Providence. House of Providence. House of Providence. House of Providence. House of Providence. House of Providence. House of Providence. House of Providence. House of Providence. House of Providence. McCormack Home for the Aged. District of Nipissing House of Refuge. Elizabeth Residence for Elderly Ladies. Monastery of Our Lady of Charity. Ottawa Home for Friendless Women. Protestant Orphans' Home, Refuge Branch. St. Charles Hospice. St. Patrick's Asylum, Refuge Branch. Women's Convalescent Home. Parry Sound District House of Refuge. Peterborough Protestant Home. St. Joseph's House of Providence. Thomas Williams Home. District of Algoma House of Refuge. Aged Women's Home. Aged Women's Home. Church Home for the Aged. Good Shepherd Female Refuge. Haven and Prison Gate Mission Hillcrest Convalescent Home Toronto House of Industry House of Providence. Humewood House Association Jewish Old Folks' Home Toronto Industrial Refuge. Victor Home for Young Women Home for the Friendless Total	Brantford. Chatham Cornwall Dundas Guelph Hamilton. " Kingston " London. " London bay Ottawa. " " " " " " " " " " " " " " " " " "	4,309 5,793 5,556 23,568 47,082 9,659 16,938 9,427 58,311 5,168 9,569 59,616 618,311 35,208 7,638 52,389 14,150 11,873 8,344 98,493 35,786 2,969 8,868 8,252 5,27,384 6,123 13,533 20,429 40,862 21,384 6,123 13,533 14,150 16,133 16,133 17,638 17,638 18,141 18,150 11,873 11,533	\$ c. 729 96 1,297 61 1,297 61 2,041 01 3,929 83 14,583 80 3,747 87 3,681 12 4,153 84 14,128 05 2,100 00 822 27 23,808 02 4,960 50 14,510 31 4,510 31 4,510 31 7,721 35 4,186 36 3,340 91 7,531 07 3,426 40 2,561 19 24,183 34 6,863 52 1,518 03 2,120 93 2,837 07 6,949 69 1,659 61 6,242 79 6,288 95 12,794 38 5,068 89 18,851 93 8,529 78 5,738 91 5,670 21 37,862 10 2,682 30 4,374 41 4,949 85 27,35 82 8,934 32 1,935 58 3,152 21	\$ c. 1,495 24 2,620 15 4,022 25 9,124 50 18,615 55 7,503 95 10,038 48 8,113 70 19,542 95 31,825 00 1,318 88 29,350 96 14,642 34 4,998 08 14,908 56 30,234 46 5,235 43 41,080 20 21,666 08 4,363 44 5,982 20 6,732 66 6,003 88 5,338 88 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 20 11,707 30 11,707 20 11,707 80 16,973 47 24,120 63 9,668 12 5,670 22 36,876 58 7,621 21 10,594 59 9,677 70 8,594 37 31,000 24 6,290 35 3,505 50 579,530 77	\$ c. 2,225 20 3,917 76 6,062 26 13,054 33 33,199 35 11,251 82 13,719 60 12,267 54 33,671 00 2,141 15 53,158 98 1,512 49 25,985 31 18,828 70 8,302 99 22,439 63 33,660 86 7,796 62 65,263 54 28,529 60 5,881 47 8,103 13 9,569 73 12,952 77 6,998 49 17,949 99 17,949 99 17,949 99 17,949 90 16,166 69 35,825 40 32,650 41 15,407 03 11,340 43 11,340	\$ c. 47 68 1 099 1 300 555 70 1 166 89 1 300 57 6 56 222 89 7 72 2 89 4 211 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			1			

*Opened April 1st, 1928. †Financial returns included in other reports.

CITY REFUGES—Continued

TABLE III.

Name of Refuge.	Location.	Collective days' stay adults.	Collective days' stay at Orphanage rate.	Amount received from all sources other than Govern- ment.	Refuge days at 10 cents per day.	Orphanage days at 5 cents per day.	Government grant.
Home for Friendless The Widows' Home Home for the Friendless St. Paul's Home for the Aged House of Providence Elliott Home House of Providence Aged Women's Home Home for Aged and Infirm St. Peter's Infirmary	Brantford Chatham Cornwall Dundas Guelph	5,784 10,875 23,613 47,114 9,556 16,518 18,770 57,888		3,714 16 22,892 16 12,676 78 28,510 85 13,698 42 12,217 05 10,422 38 30,812 50	578 40 1,087 50 2,361 30 4,711 40 955 60 1,651 80 1,877 00 5,788 80	\$ c.	\$ c. 431 00 578 40 1,087 50 2,361 30 4,711 40 955 60 1,651 80 1,877 00 5,788 80 521 70
St. Peter's Infirmary. Home for Friendless Women and Infants. House of Providence House of Refinge. House of Providence. London Convalescent Home. McCormack Home for the Aged. Dist. of Nipissing House of Refuge. Elizabeth Residence for Elderly	London " " North Bay	70,894 359 29,832 16,920	272	47,259 72 11,868 04 26,854 61 1,618 17 71,613 01 17,190 80	5,932 60 2,780 80 7,089 40 35 90 2,983 20 1,692 00	13 60	2,780 80 7,089 40 35 90 2,983 20 1,692 00
Ladies. Monastery of Our Lady of Charity Ottawa Home for Friendless Women. Protestant Home for the Aged	Ottawa	10,149	10,894			544 70 199 95	771 80 4,426 90 1,214 85 1,168 80
Protestant Orphans' Home, Refuge Branch. St. Charles Hospice. St. Patrick's Asylum, Refuge Br. Women's Convalescent Home. Patry Sound Dist. House of Refuge Peterborough Protestant Home. St. Joseph's House of Providence. Thomas Williams Home. Dist. of Algoma House of Refuge. Aged Men's Home. Church Home for the Aged. Good Shepherd Female Refuge. Haven and Prison Gate Mission Hillcrest Convalescent Home. House of Industry. House of Providence. Humewood House Association. Jewish Old Folks' Home. Julia Greenshields Home. Salvation Army Rescue Home. St. Mary's Convalescent Home. Toronto Industrial Refuge. Victor Home for Young Women.	Powassan Peterborough St. Thomas Sault Ste. Marie Toronto. "" " " " " " " " " " " " " " " " " "	8,228 98,712 35,298 2,956 8,892 11,647 727,634 6,123 26,611 20,462 40,862 13,481 50,693 25,143 5,847 52,208 150,693 4,697 4,697 15,184 10,571 8,082 1,571 28,082 8,719	9,995 4,438 10,688 5,051 7,406 1,510 4,661	32,365 93 58,140 68 44,938 12 5,596 47 8,102 28 10,394 91 10,236 97 7,110 05 16,668 77 20,467 38 36,873 17 17,254 92 29,874 12 29,490 26 15,456 88 268,469 14 61,363 54 10,409 24 13,981 91 13,557 65 13,124 49	822 80 9,871 20 3,529 80 295 60 889 20 1,164 70 2,763 40 612 30 2,661 10 2,046 20 4,086 20 1,348 10 5,069 30 5,14 30 5	221 90 534 40 252 55 370 30 75 50 233 05	822 80 9,871 20 4,029 55 295 60 889 20 1,164 70 2,763 40 612 30 2,661 10 2,046 20 4,086 20 4,086 20 1,348 10 5,291 20 3,048 70 584 70 584 70 5,220 80 15,097 90 722 25 1,518 40 1,057 10 1,174 50 1,174 50 1,174 50 1,174 50 1,174 10
Total		11,562 1,148,865		5,395 80 1,160,492 98			1,156 20

ORPHANAGES

TABLE I.

N≥me of Orphanage.	Location.	Number in residence Sept. 30th, 1927.	Number admitted during the year ending 30th Sept., 1928.	Total number maintained dur- ing the year.	Number dis- charged during the year.	Number of deaths during the year.	Number remaining in residence on 30th Sept., 1928.
St. Joseph's Orphanage. Nazareth Orphanage. St. Joseph's Orphanage. St. Joseph's Orphanage. Boys' Home. Girls' Home. Home for Friendless and Infants' Home. St. Mary's Orphan Asylum. Salvation Army Rescue Home. Orphans' Home and Widows' Friend Society. St. Mary's of the Lake Orphanage. Kitchener Orphanage. Protestant Orphans' Home. Roman Catholic Orphans' Home. Roman Catholic Orphans' Home. Salvation Army Rescue Home and Children'. Shelter. Misericordia Refuge and Orphans' Home. Protestant Orphans' Home. St. Joseph's Orphanage. St. Patrick's Orphan Asylum. Salvation Army Rescue Home and Children'. Shelter. St. Patrick's Orphan Asylum. Salvation Army Rescue Home and Children'. Shelter. St. Vincent Orphanage. Loyal True Blue Orphanage. Loyal True Blue Orphanage. Protestant Orphans' Home. Boys' Home. Infants' Home and Infirmary Protestant Children's Home St. Mary's Infants' Home. Sc. Mary's Infants' Home. Sacred Heart Orphanage. Working Boys' Home. Jewish Children's Home.	Cornwall. Fort William. Hamilton. " " " Kingston. Kitchener London. " Ottawa. " Peterboro Richmond Hill. St. Agatha. St. Catharines. Toronto. " " " " " " " " " " " " " " " " " " "	24 40 100 43 52 83 128 20 112 22 24 33 30 261 47 7 101 31 141 65 29 47 234 135 24 43 30 261 47 47 27 28 30 30 30 30 30 43 30 43 43 43 43 43 43 43 43 43 43 43 43 43	18 47 57 18 25 120 70 115 28 49 28 53 101 7 7 100 380 32 74 109 47 182 41 44 11 23 33 464 115 55 56 57 58 58 58 58 58 58 58 58 58 58 58 58 58	42 87 157 61 77 203 198 135 40 159 50 96 297 37 155 510 437 94 283 72 185 76 51 76 51 76 77 78 78 78 78 78 78 78 78 78 78 78 78	13 40 64 22 35 120 86 104 30 70 28 48 107 7 111 325 46 63 129 42 214 36 58 10 117 37 38 48 10 48 10 10 11 11 11 11 11 11 11 11 11 11 11	39 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	28 47 93 39 42 82 21 12 30 10 88 22 48 190 30 44 146 29 40 241 52 68 36 127 66 34 45 45 46 47 48 48 48 49 40 40 40 40 40 40 40 40 40 40 40 40 40
Total		2,458	2,716	5,174	2,663	48	2,463

ORPHANAGES—Continued

TABLE II.

Name of Orphanage.	Location.	Aggregate stay of inmates.	Total expenditure on maintenance account for the year ending 30th Sept., 1928.	Average cost per inmate per day.
St. Joseph's Orphanage Boys' Home Girls' Home. Home for Friendless and Infants' Home St. Mary's Orphan Asylum Salvation Army Rescue Home Orphans' Home and Widows' Friend Scoiety St. Mary's of the Lake Orphanage. Kitchener Orphanas' Protestant Orphans' Home Roman Catholic Orphans' Home Roman Catholic Orphans' Home Romal Gray Memorial Home *Salvation Army Rescue Home and Children's Shelter Misericordia Refuge and Orphans' Home Protestant Orphans' Home St. Joseph's Orphanage St. Patrick's Orphan Asylum Salvation Army Rescue Home and Children's Shelter St. Joseph's Orphanage St. Patrick's Orphan Asylum Salvation Army Rescue Home and Children's Shelter St. Vincent Orphanage Loyal True Blue Orphanage St. Agatha Orphanage Protestant Orphans' Home Boys' Home Infants' Home St. Mary's Infants' Home St. Mary's Infants' Home St. Mary's Infants' Home Sacred Heart Orphanage Working Boys' Home Jewish Children's Home	Cornwall Fort William Hamilton " " " Kingston Kitchener London " " " Ottawa " " " Peterboro Richmond Hill St. Agatha St. Catharines Toronto	9,894 14,608 36,264 14,514 18,231 27,061 44,149 37,832 7,866 16,596 70,901 11,942 17,469 64,635 13,413 13,509 91,394 19,129 20,964 11,993 52,061 24,851 11,038 8,729 44,646 24,118 10,210 30,206 14,868 15,405	\$ c. 4,112 32 7,496 56 15,608 98 9,923 53 11,209 18 23,770 55 28,809 13 10,586 52 8,532 77 11,527 76 4,894 19 10,777 72 26,092 91 6,962 52 40,516 79 19,009 54 18,527 66 33,739 70 18,883 57 6,186 60 6,914 87 7,430 03 19,001 44 57,045 16 20,356 25 18,311 32 13,295 54 13,734 25	\$ c. 42 51 43 68 61 87 65 96 1 87 30 62 65 37 58 63 1 41 1 37 37 20 21 27 2 18 2 36 1 99 61 89 89 89
Total		813,971	508,650.45	62

^{*}Financial return included in Hospital report.

ORPHANAGES—Continued

TABLE III.

Name of Orphanage.	Location.	Collective days' stay at Orphanage rate.	Collective days' stay at Refuge rate.	Amount received from all sources other than Government.	Amount earned at 5 cents Orphanage rate.	Amount earned at 10 cents Refuge rate.	Total Government grant for 1928.
St. Joseph's Orphanage. Nazareth Orphanage. St. Joseph's Orphanage. Boys' Home. Girls' Home. Home for Friendless and Infants' Home. St. Mary's Orphan Asylum. Salvation Army Rescue Home. Orphans' Home and Widows' Friend. Society. St. Mary's of the Lake Orphanage. Kitchener Orphanage. Protestant Orphans' Home. Roman Catholic Orphans' Home. Roman Catholic Orphans' Home. Salvation Army Rescue Home and Children's Shelter. Misericordia Refuge and Orphans' Home. Ottawa Protestant Infants' Home. St. Joseph's Orphanage. St. Patrick's Orphanage. St. Patrick's Orphanage. St. Patrick's Orphanage. St. Vincent Orphanage Loyal True Blue Orphanage St. Agatha Orphanage. Protestant Orphanage. Protestant Orphanage St. Agatha Orphanage Protestant Orphanage Nowal True Blue Orphanage St. Agatha Orphanage St. Agatha Orphanage Protestant Orphanage Home Infants' Home Infants' Home Sacred Heart Orphanage Working Boys' Home Jewish Children's Home	Cornwall. Fort William. Hamilton " " " " " Kingston. Kitchener. London " " " Ottawa " " " Peterboro Richmond Hill St. Agatha. St. Catharines. Toronto " " " " " " " " " " " " " " " " "	36,264 14,514 18,231 20,459 41,851 4,875 4,549 37,146 7,866 70,901 11,942 11,381	6,602 2,298 6,051 686 6,088 24,113	\$ c. 3,710 63 69,193 61,8037 28 9,134 88 10,291 82 24,115 96 31,233 58 12,163 63 9,278 22 9,584 28 6,695 31 6,707 19 22,898 58 6,799 74	1,813 20 725 70 911 55 1,022 95 2,092 55 243 75 227 45 1,857 30 829 80 3,545 05 597 10 569 05 1,526 10 670 65 675 45 4,438 80 956 45	660 20 229 80 605 10 68 60 2.411 30 261 80 1,025 40	494 70 747 05 1,813 20 911 55 1,683 15 2,322 35 848 85 227 45
Total		737,955	66,016	592,938 63	36,897 75	6,601 60	43,499 35

COUNTY HOUSES OF REFUGE

	Approximate	Approximate	Approximate	Number	Average	Receipts	ipts		Expenditures	Average
County	value of Buildings	value of Contents	value of Land	of Acres	number of Inmates	Profits of Farm	Other Sources	County	Cost of Maintenance	weekly cost per Inmate
	66						1			65
Brant.	150,000 00	3,000 00	4,000 00	40	97		370 95	18,230 37	17,680 37	÷ 150
Bruce				62	48					₹
Elgin				100	41		:	9,973 39		₹•
Essex	27,750 00		5,000 00	60	71	0,864 97	1 602 30		10,150 16	3 33
Haldimand				50	32	1.525 00	1,059 16	9,660 01		9 00
Hastings				7.5	83					2
Huron				69	92	1,755 31	1,990 54			-
Kent		2,500 00		50	47					ς.
Lambton				00 ;	40					4,
Lanark				Ç (88		13,089 99			ა ∠
Leeds and Orenville				70	2 t C		7 076 81			+ V
Middlesex	50,000 00	10,000 00		110	08	3,500 00		22,114 00	21,364 40	5 10
Norfolk				102	58					4
Northumberland and Durham				80	20					4.
Ontario				52	59	3,262 00	1,242 18			4,
Oxtord				99	27		2,407 00		12,094 37	S C
Perth				5.3	# 3			6317 41		7 2
Peterborough.				96	37	389 10				S
Prescott and Russell				100	65		667 22			4
Prince Edward				45	47	2,500 00	1,500 00			7
Simcoe				100	88			_		<u> </u>
Stormont, Dundas and Glengarry.				140	98	580 36		14,954 55		8
Victoria				65	82			_		3
Waterloo				108	127			_		4
Welland		_		09	92	926 90				~ 0
Wellington		_		58	29		4,509 45	-		000
Wentworth	40,000 00	_		88.	53		4,286 18			3 92
X OFK.	15,000 00	2,000 00	1,400 00	140	9.5	1,800 00	00 079		0,609 00	1 33







Sixty-First Annual Report

OF THE

Inspector of Prisons and Public Charities

UPON THE

Prisons and Reformatories

OF THE

PROVINCE OF ONTARIO

BEING FOR THE YEAR ENDING 31st OCTOBER

1928

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER No. 18, 1929



TORONTO:

Printed and Published by the Printer to the King's Most Excellent Majesty
1929

INTRODUCTION

I have the honour of submitting herewith the Sixty-first Annual Report upon the Prisons and Reformatories of the Province of Ontario, for the fiscal year ending 30th of September, 1928. I also present the report of the Ontario Board of Parole for the year ending October 31st, 1928.

As the Report upon the Prisons and Reformatories is comprised of tables giving full statistical information and is prefaced by table of selected information of special interest, it would appear unnecessary to make further comment in an introductory way.

H. M. Robbins, Deputy Provincial Secretary.

Sixty-first Annual Report

UPON THE

Gaols in Ontario

The following statistics have been selected from the ensuing tables as being of special interest:—

(1) Number of gaols in Ontario	
Increase\$56	,529 96
Thirty-six out of the total number of 47 gaols showed expenditure over the previous year.	an increase in
(3) The cash revenue from gaol labour during 1928 was \$2,8 earned at Kingston and Ottawa.	62.65 and was
Average maintenance cost per day per prisoner	
(4) Number of persons committed during the past two years In 1927 In 1928	20,578
Increase	3,208
Commitments for murder in 1927	18 37
Increase	19
Commitments for manslaughter in ,1927	49 40
Decrease	9
Commitments for crime against the person: In 1927	728 786
Increase	58
Commitments for crime against property: In 1927	4,976 5,427
Increase	451

Commitments for crime against public morals and decency:	
In 1927. 595 In 1928. 701	
Increase	
Commitments for crime against public order and peace:	
In 1927	
Increase	
Commitments for insanity:	
In 1927. 273 In 1928. 341	
Increase	
Prisoners sentenced to the penitentiary during the past year show a decreas of 40, as compared with the previous year, while the number transferred to the reformatories was 609 more than in 1927.	
Number of prisoners sentenced in 1927	
Increase	
Number of days' stay of prisoners:	
In 1927. 283,205 In 1928. 390,891	
Increase	
Escapes and captures:	
Escaped Captured In 1927. 18 9 In 1928. 17 11	
Deaths in gaols: In 1927	

COMMON GAOLS

The following table shows the number of prisoners committed to the Common Gaols in the Province in each year, from 1st October, 1913, to 30th September, 1928.

" " " 1914 21,024 84 1,665 4 22,77 " " " " " " 1915 18,566 90 1,669 12 20,33 " " " " " 1916 14,506 80 1,502 12 16,100 " " " " 1917 11,417 142 878 8 12,44 " " " " 1918 12,182 136 914 10 13,24 " " " " 1919 12,034 183 872 7 13,000 " " " " " 1920 13,759 106 882 9 14,75 " " " " " 1921 16,526 93 1,168 13 16,82 " " " " " 1922 13,300 126 1,300 14 14,80 " " " " " 1922 14,564 78 12,115 14 13,90 " " " " " 1923 12,766 80 1,135 14 13,90 " " " " " " 1924 14,564 78 1,211 20 15,87 " " " " " " 1925 16,343 98 1,567 15 18,00 " " " " " " 1925 16,343 98 1,567 15 18,00 " " " " " " 1927 19,564 110 884 20 20,57 " " " " " " " 1928 22,047 89 1,638 12 23,78 The disposition made of the persons committed to the Gaols of the Province is set forth in the table printed below: Acquitted on being brought to trial, and discharged.		Date of Commitme	ent		Men over 16 years of age.	Boys under 16 years of age.	Women over 16 years of age.	Girls under 16 years of age.	Totals.
Acquitted on being brought to trial, and discharged 2,538 2,73 Discharged without trial by order of judges, magistrates and courts, including remand cases. 1,554 2,14 Detained for want of sureties to keep the peace 14 Detained as witnesses 137 4 Detained as fraudulent debtors 135 5 Dietained as lunatics, idiots and persons unsafe to be at large 335 33 Died before trial 12 Detained by civil processes other than above 270 1 Waiting trial and otherwise detained on 30th September, 1927 188 2 Found guilty and sentenced 13,927 16,33 Discharged under suspended sentence 1,568 1,63 Total number of commitments 20,578 23,73 The places of confinement to which the convicted persons were sentenced are set forth the following statement, and similar information is given as regards the sentenced prisoners when previous year: Sentenced to Kingston Penitentiary 391 33 "" to the Industrial School 33 33 33 "" direct to the Ontario Reformatory 2,278 3,04 "" to the Common Gaols and subsequently transferred to the Ontario Reformatory 4,082 3,89 "" direct to the Reformatory for Females 167 167 "" to the Common Gaols and subsequently transferred to the Reformatory 5 of Females 167 167 "" to the Common Gaols and subsequently transferred to the Reformatory 6 of Females 167 167 "" to the Common Gaols and subsequently transferred to the Reformatory 6 of Females 167 167 "" to the Common Gaols and there detained until the expiration of 8 sentence 100 Died while undergoing sentence 100			66 66 66 66 66 66 66 66 66 66	1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1925	21,024 18,566 14,506 11,417 12,182 12,034 13,759 16,526 13,360 12,766 14,564 16,502 19,564	84 90 80 142 136 183 106 93 126 80 78 98 62 110	1,665 1,669 1,502 878 914 872 882 1,168 1,300 1,135 1,211 1,567 1,460 884	10 4 12 12 8 10 7 9 13 14 14 14 26 15 9	19,250 22,777 20,337 16,100 12,442 13,090 14,750 14,800 14,800 14,800 13,895 18,023 18,033 20,578 23,780
Discharged without trial by order of judges, magistrates and courts, including remand cases. Detained sees. Detained for want of sureties to keep the peace. Detained as witnesses. Detained as fraudulent debtors. Detained as lunatics, idiots and persons unsafe to be at large. Detained by civil processes other than above. Waiting trial and otherwise detained on 30th September, 1927. Discharged under suspended sentence. Total number of commitments. Total number of commitments. Discharged under suspended sentence. Total number of commitments are gards the sentenced are set forth the following statement, and similar information is given as regards the sentenced prisoners the previous year: Sentenced to Kingston Penitentiary. Total number of common Gaols and subsequently transferred to the Ontario Reformatory. Total che Common Gaols and subsequently transferred to the Reformatory for Females. Total che Common Gaols and there detained until the expiration of sentence. Died while undergoing sentence. One of the Common Gaols and there detained until the expiration of sentence. Died while undergoing sentence.	The disposi he table printe	tion made of the p d below:	ersons commi	itted to t	he Gaols	of the	Province		forth in
The places of confinement to which the convicted persons were sentenced are set forth the following statement, and similar information is given as regards the sentenced prisoners the previous year: Sentenced to Kingston Penitentiary	Discharged wit remand cas Detained for wat Detained as with Detained as fra Detained as lundied before triade by civillating trial ar Found guilty ar Found guilty ar	hout trial by order ies. Int of sureties to ke nesses. udulent debtors. atics, idiots and pe il. il processes other to d otherwise detain d sentenced.	eep the peace ersons unsafe chan above ed on 30th Se	to be at l	arge	urts, in	cluding	1,554 14 37 135 335 12 270 188 13,927	2,735 2,14 4 9 333 12 29 16,35 1,65
the following statement, and similar information is given as regards the sentenced prisoners the previous year: 1927 1927 1928 1929	Tota	al number of comm	itments				-	20,578	23,78
Sentenced to Kingston Penitentiary. "to the Industrial School. "direct to the Ontario Reformatory. "to the Common Gaols and subsequently transferred to the Ontario Reformatory. "direct to the Reformatory for Females. "to the Common Gaols and subsequently transferred to the Reformatory for Females. "to the Common Gaols and subsequently transferred to the Reformatory for Females. "to the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and there detained until the expiration of sentence." "To the Common Gaols and there detained until the expiration of sentence. "To the Common Gaols and the expiration of sentence."	the following st	atement, and simi							
tory for Females. 97 G to the Common Gaols and there detained until the expiration of sentence. 6,731 8,67 Died while undergoing sentence 10	Sentenced to K to tl direc to tl direc direc	ingston Penitentian the Industrial Schoo to the Ontario R Common Gaols Reformatory to the Reformat	leformatory and subseque	ently trai	nsferred	to the	Ontario	391 33 2,278 4,082	192 35 3 3,04 3,89
Died while undergoing sentence	,,	tory for Females he Common Gaols	and there	letained	until the	expira	ition of		9 8 67
	Died while und Sentenced elsev	ergoing sentence						10	5,07

The following table shows the period of sentence passed on the convicted prisoners:

The following table shows the period of sentence passed on the convicte	u prison	CIS.
Periods of Sentence		
TERIODS OF SENTENCE	1927	1928
For periods under thirty days. For thirty days and up to sixty days or two months, not including the last term. For sixty days, or two months. Over two months to three months. Over three months to four months.	4,523 3,772 1,139 1,138	5,439 4,306 1,602 1,456 530
Over four months to five months. Over five months to six months. Over six months to nine months. Over nine months up to one year, inclusive. Over one year and up to two years.	659 187 421 916	149 833 200 441 923
Over two years and up to three years in the Penitentiary. Over three years in the Penitentiary. For periods of any length in the Industrial Schools. Sentenced to death and executed. Sentenced to death and commuted to imprisonment.	148 404 2	194 129 301 1
Sentenced to death and commuted to imprisonment. Sentenced to imprisonment with corporal punishment.		45
	13,927	16,358
The following table shows the sex, social conditions, habits, and educatio prisoners committed:	nai stati	us of all
Sex		
Male Female		1928 22,097 1,689
Social Conditions	20,578	23,786
Married	7,798 12,780	9,102 14,684
	20,578	23,786
HABITS		
Temperate	8,139 12,439	9,091 14,695
EDUCATIONAL STATUS	20,578	23,786
Could read and write	18,298 2,280	21,714 2,072
	20,578	23,786
The following table shows the nationality and religion of all prisoners commi	tted.	
Nationality		
	1027	1928
Canadian-born English Irish	10,981 1,894 765	13,620 1,799 928
Scotch	893	996
United States. Other countries.	1,077 4,978	1,188 5,255
Religio us Denominations	20,578	23,786
	1927	1928
Roman Catholic	8,626 3,627	9,763 3,731
English Church	2,479	2,766
United		2,804
Other denominations	3,860	4,722
	20,578	23,786

The number of prisoners confined in the various custodial institutions of the Province at the close of the past official year, and the year preceding, is exhibited in the following summary:

	1927	1928
In the Common Gaols.	800	1,013
In the Reformatory for Females (Mercer), Toronto	181	188
In the Dominion Penitentiary, Kingston	657	770
In the Industrial Farm, Burwash	320	312
In the Industrial Farm, Fort William	56	81
In the Industrial Farm, Langstaff (for Men)	311	290
In the Industrial Farm, Concord (for Women)		207
In the Ontario Reformatory Clay Plant, Mimico	118	145
In the Ontario Reformatory, Guelph	507	535
	2,984	3,541

The following is a classification of the offences committed and shows the number of persons committed and sentenced:

I. CRIMES AGAINST THE PERSON

	Total co	mmitment year	ts for the	Number	found gr	
	Male	Female	Total	Male	Female	Total
Abortion	10 416 114	4 14 8	14 430 122	6 302 71	2 7 2	8 309 73
shooting with intent	33 77	1	34 77	18 38	1	19 38
MurderManslaughter	34 38	3	37 40	8 7	1	8
Attempted suicide	28	4	32	19	1	20
	750	36	786	469	14	483

II. CRIMES AGAINST PROPERTY

	Total co	mmitmen year	ts for the	Number found guilty and sentenced		
	Male	Female	Total	Male	Female	Total
Arson and incendiarism	36	8	44	14	2	16
Burglary		17	388	215	2 3	218
Counterfeiting and passing counterfeit						
Destroying and injuring property	3		3	3		3
Destroying and injuring property	75	2	77	55	1	56
Embezzlement	9	1	10	02	1	8
Fraud and obtaining money and goods	146	14	160	93	8	101
under false pretences	506	37	543	331	22	353
Horse, cattle and sheep stealing	13		13	8		8
Housebreaking and robbery	350	29	379	296	15	311
Larceny	2,854	144	2,998	1,825	74	1,899
Receiving stolen goods	105	25	130	62	13	75
Trespass	679	3	682	615	1	616
	5,147	280	5,427	3,524	140	3,664

III. CRIMES AGAINST PUBLIC MORALS AND DECENCY

	Total commitments for the year				found gu sentenced	
	Male	Female	Total	Male	Female	Total
BigamyInmates and frequenters of houses of ill-	15	10	25	11	5	16
fame	118 77	57 100	175 177	87 58	51 43	138 101
Perjury. Seduction. Seduction.	30 51	6	36 51	20 19	2	22 19
Indecent assault and exposure Prostitution	201	33	204 33	103	27	103 27
	492	209	701	298	128	426

IV. OFFENCES AGAINST PUBLIC ORDER AND PEACE

	Total commitments for the year			Number found guilty a		
	Male	Female	Total	Male	Female	Total
Abusive and obscene language Breaches of peace, breaches of by-laws, escapes from and obstructing con-	38	1	39	11		11
stables	554 76	49 5	603 81	233 42	18	251 42
Deserting employment, etc	4,582	187	$\frac{3}{4,769}$	3,804	162	3,966
Selling liquor without a license and selling or giving it to Indians Threatening and seditious language	4,603 27	246	4,849 30	3,542 14		3,730 16
Vagrancy	3,416 199	401 2	3,817 201	2,151 186		
Lunatics	282	59	341			
	13,781	954	14,735	9,985	531	10,516
Other offences not classified above	1,927	210	2,137	1,198	71	1,269
Grand Totals	22,097	1,689	23,786	15,474	884	16,358

TABLE No. 1

Offences for which prisoners were committed to gaol during the year showing commitments and sentences under each offence.

		ng the Nu Committed		Num	ber Sente	nced	Percent- age of sentences
	Males	Females	Total	Males	Females	Total	to com- mit- ments
Abortion	10	4	14	6	2	8	.57
Abusive and obscene lan- guage	38	1	39	11		11	. 28
Arson	24	- 1	29	11	2	13	
Assault folonique	416 114		430 122	302 71	7 2	309 73	
Assault, felonious	28		32	19	1	20	
Abduction	14		16	7	2	9	. 59
Bigamy	15		25	11	5	16	
Breaches of the peace Breaches of by-laws	154 352		163 389	37 164	3 14	$\frac{40}{178}$	
Burglary	371	17	388	215	3	218	
Carrying unlawful weapons.	76	5	81	42		42	. 50
Contempt of court	199		201	186		188	
Cruelty to animals	12	2	14	9	2	11	.78
counterfeit money	3		3	3		3	100
Cutting and wounding and							
attempting same	13		13	8		8	. 61
Debtors Deserting employment	32	3 1	35	2		2	. 66
Deserting the militia	2		2				
Destroying and injuring pro-		_					
perty	75	2	77	55	1	56	.73
Detained as witnesses Drunk and disorderly (not	65	2	67				
including breaches of							
Liquor Act)	4,582	187	4,769	3,804	162	3,966	
Embezzelement	9	1	10	7	1	8	. 80
Escaping from or obstructing constable	48	3	51	32	1	33	. 65
Escaping from prison	30	$ $	31	20	6	26	
Forgery	146	14	160	93	8	101	. 63
Fraud and obtaining money							
or goods under false pre- tences	506	37	543	331	22	353	. 65
Gambling	101	i	102	57		57	.56
Giving liquor to Indians (not)							
to include ordinary Breach	20	1	21	10	1	10	0.1
of Liquor Act)	20	1	21	18	1	19	.91
ing	13		13	8		8	.61
Housebreaking and robbery.	350	29	379	296	15	311	.82
Incendiarism	12	3	15	3		3	.20
Indecent assault and exposure	201	3	204	103		103	.50
Inmates and frequenters of			1				
houses of ill-fame	118	57-	175 177	87	51	138	.78
Keeping houses of ill-fame Larceny	77 2,854	100 144	2,998	58 1,825	43 74	101 1,899	.57 .64
Lunatics and persons who	2,034	144	2,990	1,023	17	1,099	.04
were unsafe to be at large.	282	59	341				
Manslaughter	38	2	40	7	1	8	. 20
Misdemeanour	66 34	15	81 37	40	9	49 8	. 60 . 22
Murder Perjury	30	6	36	20	2	22	.61
Prostitution		33	33		27	27	.82
Total	11,532	827	12,359	l 7,976l	469	8,445	

TABLE No. 1-Continued

	Showing the Number Committed			Num	Percent- age of sentences		
	Males	Females	Total	Males	Females	Total	to com- mit- ments
Total forward Rape and assault with intent Refusing bail	77	827	12,359 77		469	8,445 38	49
Receiving stolen goods Seduction Selling liquor without license	105	25	130 51	62		75 19	
or Breach of Liquor Act Shooting with intent Stabbing Threatening and seditious	4,583 13 7		4,828 13 8	3,524 6 4	187	3,711 6 5	.77 .46 .63
language	27 679		30 682	14 615		16 616	
Unlawful shooting	3,416		3,817	2,151			
Other offences not above enumerated	26 1,581	181	28 1,762	1,065	52		
Total	22,097	1,689	23,786	15,474	884	16,358	. 67 Average

TABLE No. 2

Showing the social status and habits of prisoners committed during the year ending 30th September, 1928

Name of Gaol	Married	Un- married	Temperate	In- temperate	Total committed to gaol	Illiterate
Barrie. Belleville. Bracebridge. Brampton. Brantford. Brockville. Cayuga. Chatham. Cobourg. Cornwall. Fort Frances. Goderich. Gore Bay. Guelph. Haileybury. Hamilton. Kenora. Kingston. Kitchener. Lindsay. London. L'Orignal. Milton. Napanee. North Bay. Orangeville. Ottawa. Owen Sound. Parry Sound. Perth. Peterborough. Picton. Port Arthur. St. Catharines. St. Thomas. Sandwich. Sarnia. Sault Ste. Marie. Simcoe. Stratford. Sudbury. Toronto. Walkerton. Welland. Whitby. Woodstock.	75 136 26 34 110 67 53 181 52 108 81 26 9 51 151 519 27 99 116 39 371 33 53 27 468 25 429 97 76 23 75 89 40 254 171 103 782 131 137 62 61 330 2,815 45 198 171 76	113 220 35 55 144 92 122 293 91 125 152 63 10 101 263 586 109 141 168 63 554 16 164 48 107 44 632 75 134 83 113 138 54 87 88 113 138 148 149 141 159 169 169 170 170 170 170 170 170 170 170 170 170	121 237 48 34 75 60 63 306 87 50 93 58 9 116 203 294 133 67 137 47 339 48 136 54 210 48 461 81 101 36 86 200 17 47 47 228 516 80 102 23 24 48 40 103 104 105 105 105 105 105 105 105 105 105 105	67 119 13 55 179 99 112 168 56 183 140 36 211 811 3 173 147 55 586 1 81 21 365 21 600 91 109 70 102 27 77 7662 281 14 871 256 276 89 51 139 51 51 51 51 51 51 51 51 51 51 51 51 51	188 356 61 89 254 159 175 474 143 233 233 233 89 19 152 414 1,105 136 240 284 102 925 49 217 75 575 69 1,061 172 210 106 188 227 94 1,132 353 242 1,387 353 242 1,387 37 1,499 8,085 105 105 105 105 105 105 105 10	20 40 4 2 12 13 39 12 71 18 8 10 47 43 36 1 1 3 10 16 7 5 3 91 104 10 24 17 17 10 4 85 22 22 29 40 68 68 68 68 68 68 68 68 68 68 68 68 68
Totals	9,102	14,684	9,091	14,695	23,786	2,072

Showing the number of persons committed, the number over and under sixteen years of age, unsound mind, number acquitted on trial, number discharged without trial, number

		mind, m					· ·	marged	withou	t triai, i	lamber
No. of and	comm	al num nitted d the year	uring		ber unc			iber ove		first time	For the second time
Name of gaol										fir	sec
	ه	Female	Ē	٥	Female	=	e l	Female	<u></u>	the	the
	Male	em	Total	Male	em	Total	Male	em	Total	For	or
1		<u> </u>			1 1		4	14		<u> </u>	<u> </u>
Barrie Belleville	176 339	12 17	188 356	1	1	1	176 338	11 17	187 355	128 278	44 48
Bracebridge	55	6	61	1		1	54	6	60	43	12
Brampton	87	2	89				87	2	89	61	13
Brantford	245	9	254				245	9	254	151	41
Brockville	157	2 2	159	2		2	155	2	157	107	37
Cayuga Chatham	173 445	29	175 474	1		1	173 444	29 29	175 473	116 277	24 99
Cobourg	134	9	143	2	1	3	132	8	140	108	22
Cornwall	226	7	233	3		3	223	7	230	133	43
Fort Frances	216	17	233	3		3	213	17	230	196	20
Goderich	88	1 2	89				88	1	89	68	11
Gore Bay	17 148	4	19 152				17 148	2	19 152	13 97	32
Haileybury	387	27	414				387	27	414	308	69
Hamilton	991	114	1,105	10		10	981	114	1,095	604	174
Kenora	128	8	136	2		2	126	8	134	69	67
Kingston	232	8	240	1		1	231	8	239	164	29
Kitchener Lindsay	267 94	17 8	284 102	3	_	4	264 93	16 8	280 101	184 74	66 17
London	822	103	925	14		15	808	102	910	602	162
L'Orignal	43	6	49				43	6	49	38	11
Milton	214	3	217				214	3	217	75	33
Napanee	71 558	4 17	75 575	2		2	69 558	$\frac{4}{17}$	73 575	72 376	2
North Bay Orangeville	66	3	69	1		1	65	3	68	57	94 12
Ottawa	967	94	1,061	6		6	961	94	1,055	988	51
Owen Sound	162	10	172				162	10	172	77	29
Parry Sound	200	10	210		2	2	200	8	208	192	18
Pembroke	103 182	3 6	106 188				103 182	3 6	106 188	103 168	3
Peterborough.	190	37	227	i i		1	189	37	226	155	54
Picton	85	9	94	1		1	84	9	93	71	14
Port Arthur	1,088	44	1,132	3		3	1,085	44	1,129	901	148
St. Catharines.	336	17	353				336	17	353	185	52
St. Thomas Sandwich	228 1,291	14 96	242 1,387	2		2	226 1,291	14 96	240 1,387	141 1,233	55 46
Sarnia	315	21	336	7	2	9	308	19	327	223	77
SaultSte. Marie	337	42	379	4			333	40	373	248	85
Simcoe	120		123	5		5	115	3	118	88	22
Stratford	134 1,412	87	137 1,499				134 1,412	3 87	137 1,499	79 1,274	36 66
Sudbury Toronto	7,455	630	8,085	12	2	14	7,443	628	8,071	3,395	2,499
Walkerton	100	5	105	1	_	1	99	5	104	90	8
Welland	501	29					501	29	530	376	94
Whitby	361 190	40 13					361 190	40 13	401 203	266	71
Woodstock	190	13	203				190	13		196	5
Totals	22,136	1,650	23,786	89	12	101	22,047	1,638	23,685	14,848	4,623
	1				1						

No. 3.

the number of re-committals, the number for want of sureties to keep the peace, number of waiting trial, number sentenced, and number committed under civil process.

	-							der er	vii proc	ÇSS.		
For the third time	For more than the third time	For want of sureties to keep the peace	Witnesses	Lunatics and idiots	Fraudulent debtors	Under civil process	Acquitted on trial and discharged	Discharged with- out trial	Discharged under suspended sentence	Died before trial	Waiting trial	Sentenced for any period
21 88 23 15 4 23 15 4 4 17 16 69 17 17 6 49 13 14 13 6 7 8 8 83 24 21 17 16 69 17 16 17 18 18 19 19 19 10 10 10 10 10 10 10 10 10 10	7 9 9 1 7 9 9 1 7 9 9 1 7 9 9 1 7 9 9 1 7 9 9 1 9 1	1 1	3 3 4 2 8 4 4 2 2 4 2 4 1	100 11 33 22 4 4 77 55 8 8 7 22 11 4 4 1 1 6 6 6 11 9 1 1 4 4 20 3 18 16 6 22 7 7 38 10 . 1 3 3 5 335	1 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 2 19 4 1 24 1 1 3 4 	141 512 611 88 88 74 13 6 22 55 20 7 7 1 5 404 26 52 1 1 29 49 88 11 13 88 11 13 13 13 13 13 14 15 16 17 18 18 18 18 18 18 18 18 18 18	41 41 9 1999 46 77 5 385 3 18 35 94 77 15 38 13 1,031	1	2	1 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 154 308 4 75 3 180 134 68 151 347 841 100 176 183 499

TABLE Showing the number of prisoners upon whom sentences were passed, the nature of such

Showing the numb	er of pris	oners	upon	whom sen	tences	were pass Crin	ed, the iinal Co	nature ourt dui	of such
	Total r	s sen	tenced		W	nere sente)	
Name of Gaol	Male	Female	Total	To gaol and later to the Reformatory	To Reformatory direct	To gaol and later to female Reform- atory	To female Reformatory direct	To Penitentiary	Sentenced elsewhere
Barrie. Belleville Bracebridge Brampton Brantford Brockville Cayuga Chatham Cobourg Cornwall Fort Frances Goderich Gore Bay Guelph Haileybury Hamilton Kenora. Kingston Kitchener Lindsay London L'Orignal Milton Napanee. North Bay Orangeville Ottawa Owen Sound Parry Sound Pembroke Perth Peterborough Picton Port Arthur St. Catharines St. Thomas Sandwich Sarnia. Sault Ste. Marie Simcoe Stratford Sudbury Toronto Walkerton Welland Whitby, Woodstock	107 202 39 51 175 115 152 294 71 174 129 67 13 147 330 767 94 172 174 61 469 41 140 47 482 32 585 128 116 100 122 104 85 996 292 92 827 200 247 67 70 1,345 4,704 40 367 40 40 40 40 40 40 40 40 40 40 40 40 40	100 5 3 3 3 14 4 4 6 6 5 1 1 2 2 4 4 7 7 4 4 6 4 9 9 2 2 30 5 5 3 3 1 7 7 7 4 4 4 4 4 4 9 9 2 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1	117 207 42 51 179 116 154 308 75 180 134 68 15 131 143 489 46 143 489 33 626 113 125 111 194 1,021 309 99 99 87 11 1,404 5,062 349 125	33 50 39 61 9 9 4 4 3 45 2 1 1 14 6 3 7 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	166 40 3 100 111 15 399 7 3 310 44 200 2227 6 37 9 49 9 38 67 9 38 10 19 3 7 48 6 12 12 13 7 48 69 1,387 4 69 9	1 2 3 3 72 7 7	1 1 2 2 2 2 2 2 2 1 3 3 2 2 2 2 2 2 2 2	10 10 22 33 22 11 10 6 33 33 23 33 23 31 11 11 12 22 14 11 17 16 16 16 17 18 19 19 19 19 19 19 19 19 19 19	2 1 1 1

Totals.....

15,474

884 16,358

191

99

3,897 3,046

351

55

No. 4 sentences, and the disposal of those who elected to be tried at the County Judge's year ending September 30th, 1928.

		Capital	and corpora	l sentences	County Ju	dge'sCrim	inalCourt
To industrial school or refuge. Died while undergoing sentence	To gaol until expiration of sentence or payment of fine	Number sentenced to death and executed	Number sentenced to death and commuted to im- prisonment	Number sentenced to corporal pun- ishment and im- prisonment	Acquitted on trial and discharged	Found guilty and sentenced	Total number who elected to be tried
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	81 148 33 38 136 88 147 250 60 111 125 53 9 117 296 491 88 137 129 45 417 43 119 31 402 21 542 116 76 91 111 73 87 259 263 67 752 170 237 60 50 701 713 36 294 264 101 8,678	1	1	1	1 1 1 1 1 2 2 2 1 1 1 1 1 2 2 1 1 1 1 1	5 6 1 2 5 9 8 8 9 19 3 2 2 2 10 13 92 1 5 5 10 11 5 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 5 10 11 1 1 1	6 6 2 3 6 6 11 100 100 10 21 4 3 2 4 100 14 97 2 9 1 4 7 7 12 12 12 17 16 8 6 13 327 16 6 13 327 17 16 8 6 13 327 17 16 8 6 13 327 17 16 8 6 13 327 17 16 8 16 17 17 16 18 18 18 18 18 18 18 18 18 18 18 18 18
1	0,070	1	•	10	1		

TABLE

Showing the number of prisoners, how maintained, cost of maintenance, and

			Hov	v maintai	ned	
Name of Gaol	Name of Gaoler	Fotal number of prisoners committed during the year	Number paid for by Province	Number paid for by municipalities	Number of days' ustody of Government prisoners	Number of days' ustody of muni- cipal prisoners
Bracebridge. Brampton Brantford Brockville. Cayuga. Chatham. Cobourg. Cornwall. Fort Frances. Goderich. Gore Bay. Guelph. Haileybury. Hamilton. Kenora. Kingston. Kitchener. Lindsay. London. L'Orignal. Milton. Napanee. North Bay. Orangeville. Ottawa. Owen Sound. Parry Sound. Pembroke. Perth. Peterborough. Picton. Port Arthur. St. Catharines. St. Thomas. Sandwich. Sarnia. Sault Ste. Marie. Simcoe. Stratford. Sudbury. Toronto. Walkerton. Welland. Whitby.	J. J. D. Banting J. Ketcheson. Duncan McDonald W. A. Partridge. John Cook J. A. McLean Jas. B. Smith M. W. Shaw G. L. McLaughlin T. W. Ault John E. King Jas. B. Reynolds J. W. Grifith Major Thorne Cosby John L. Maltby Frank V. Lalonde E. Cox. Jos. T. Hawkey Jonathan Cook Henry W. Stone Chas. H. Mitchell Felix Millette Archie McGibbon W. E. Loyst J. W. Bourke Geo. A. Leighton A. G. Dawson W. A. Grier Thomas W. Keating William Brown John Oates. Thos. D. Johnston E. Croft G. F. Lasseter John J. Dundas C. P. Ermatinger W. A. Wanless J. N. Dodd R. M. Hearst Oliver Robertson A. T. Trethewey W. H. O'Leary Major G. H. Basher Matthew W. Hyndman Donald Sharpe Hugh F. Lucas George Forbes	188 356 61 89 254 159 175 474 143 233 389 19 152 414 1,105 136 240 284 49 217, 75, 575 69 1,061 172 210 1,08 1,387 2,33 2,33 3,33 3,33 3,33 3,33 3,33 3,33 1,105 1,061 1,72 210 1,132 3,53 2,42 1,387 3,786 1,387 1,499 8,085 5,30 401 203 23,786	53 160 61 36 98 600 222 56 55 93 233 33 19 91 414 175 136 79 57 37 88 10 49 34 575 523 185 555 210 38 92 46 31 133 35 70 133 35 70 133 37 88 92 46 66 66 66 61 49 90 90 90 90 90 90 90 90 90 9	135 196 	1,459 2,274 2,211 575 2,272 1,384 689 1,823 1,453 2,044 3,424 1,185 1,011 1,637 18,400 6,596 3,568 2,267 1,616 1,297 1,698 3422 825 551 1,616 1,092 1,974 4,486 1,847 875 849 9,2289 1,253 1,160 5,442 2,003 1,576 1,576 1,576 1,576 1,573 1,576	3,039 4,320 613 3,875 2,348 1,466 8,008 2,288 2,645 1,264 2,256 14,621 4,967 4,559 1,508 13,043 1,467 2,785 656 1,590 10,855 3,141 2,316 4,400 2,693 5,788 14,325 8,414 3,230 21,809 6,066 819 2,501 58,730 1,146 8,436 6,194 2,547 235,518
			-			

No. 5 salaries of various gaol officials, for the year ending Septebmer 30th, 1928.

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Ex	enditure			Salaries					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Cost of fuel, food and clothing		Cost of repairs		Average cost prisoner		Turnkeys, etc.				
	2,164 94 3,695 00 686 60 909 58 1,338 98 2,076 84 1,019 72 3,791 44 4,268 05 2,567 77 1,161 55 1,037 59 1,771 14 1,590 68 5,997 13 4,614 00 2,420 49 3,015 85 2,408 57 1,501 30 4,252 58 616 38 934 06 628 16 2,459 05 1,922 43 10,022 00 3,316 03 1,757 14 1,409 35 2,260 09 1,225 15 76 28 8,990 12 3,893 75 1,648 76 8,602 90 2,864 38 7,203 14 1,508 77 2,148 14 3,204 82 21,131 02 736 71 7,362 47 2,992 89 2,886 93	3,470 00 2,000 00 1,850 00 1,850 00 4,956 07 2,278 70 2,340 00 5,101 00 2,344 00 2,904 50 2,577 00 1,043 24 2,322 99 6,277 50 12,080 00 1,475 00 3,338 90 2,500 00 1,475 00 1,475 00 3,028 75 3,245 00 1,075 00 1,075 00 2,050 00 1,071 00 3,528 40 1,578 70 1,775 00 3,528 40 1,775 00 4,771 3,482 00 4,714 34 2,230 00 2,673 31 6,281 50 2,973 00 5,272 50 3,935 93 2,993 00	61 91 100 00 27 00 27 00 91 43 181 93 8 25 166 13 107 40 428 18 169 70 130 28 70 72 605 69 1,050 00 269 81 416 46 96 08 12 00 75 00 618 56 1,863 15 424 76 50 00 45 00 45 00 45 00 269 81 275 00 45	5,696 8; 5,795 00 2,563 60 2,563 60 2,671 01 6,295 0; 4,537 41 3,367 9; 9,058 5: 6,719 4; 5,900 4; 3,913 6; 12,880 3; 17,744 00 2,178 1; 14,649 6 2,446 3; 2,846 00 2,178 1; 9,415 3 5,510 5; 20,741 7; 6,016 0. 4,852 1; 4,438 1; 4,852 1; 4,438 1; 4,852 1; 4,438 1; 5,592 4 3,358 3; 1,480 2; 15,701 6,7687 4; 5,227 2; 20,411 9; 7,514 9; 7,514 9; 7,514 9; 7,514 9; 7,514 9; 7,590 4; 5,009 8; 9,486 3; 65,968 1; 3,167 4 14,907 8; 7,590 4; 6,146 0	88	1,200 00 700 00 1,400 00 720 00 1,458 34 1,150 00 1,000 00 1,000 00 1,000 00 1,500 00 1,000 00 1,500 00 1,800 00 1,800 00 1,800 00 1,800 00 1,800 00 1,800 00 1,371 29 750 00 900 00 1,371 29 750 00 900 00 1,371 29 750 00 900 00 1,371 29 750 00 900 00 1,370 00 1,000 00 1,370 00 1,000	650 00	500 00 400 00 300 00 250 00 400 00 200 00 350 00 200 00 350 00 200 00 350 00 225 00 288 72 390 00 225 00 240 00 409 90 240 00 409 90 240 00 400 00 320 72 400 00 320 72 400 00 320 72 400 00 320 72 400 00 320 72 400 00 320 72 400 00 320 72 400 00 330 00 300 00 3250 00 540 00 330 00 350 00 250 00 300 00	300 00 250 00 150 00 150 00 150 00 140 00 200 00 200 00 120 00 200 00 300 00 500 00 100 00 50 00 150 00		

TABLE No. 6

Showing the total number of prisoners who were in the several gaols in the Province on the evening of September 30th, 1928, and the nature of their imprisonment; also number of cells in each gaol.

	1 (10.00	i6 aatia		1	NT-4-	C T					
	-	lass	sificatio		-		ire of Imp	risonme	ent			
Name of Gaol	Men	Women	Boys under 16 years	Girls under 16 years	Waiting trial	Under sentence for periods of 2 months and under	Under sentence for periods over 2 months	In default of sureties to keep the peace	Insane, idiotic or imbecile persons	Otherwise detained	Total number of persons who remained in custody, 30th Sept., 1928	Total number of cells
Barrie. Belleville. Bracebridge. Brampton. Brampton. Brantford. Brockville. Cayuga. Chatham. Cobourg. Cornwall. Fort Frances. Goderich. Gore Bay. Guelph. Haileybury. Hamilton. Kenora. Kingston. Kitchener. Lindsay. London. L'Orignal. Milton. Napanee. North Bay. Ovangeville. Ottawa. Owen Sound. Parry Sound. Parry Sound. Perth. Peterboro. Picton. Port Arthur. St. Catharines. St. Thomas. Sandwich. Sarnia. Sault Ste. Marie Simcoe. Stratford. Sudbury. Toronto. Walkerton. Welland. Whitby. Woodstock.	9 18 6 6 5 9 13 3 3 2 9 9 10 17 11 1 1 8 5 5 5 3 3 17 7 9 5 0 11 1 1 1 7 7 7 2 1 7 7 7 7 7 7 7 7 7 7	4 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3		3 4 3 3 4 1 1 9 4 2 2 3 3 1 1 1 1 3 3 3 3	6 2 1 4 4 5 5 1 1 7 1 3 4 4 1 1 20 1 1 5 4 1 1 1 8 8 5 5 1 5 1 5 1 1 1 3 2 6 1 2 1 1 5 2 4 2 1 3 3 3 1 1 5 2 4 2 1 3 3 3 1 1 5 2 4 2 1 3 3 3 1 1 5 2 4 2 1 3 3 3 1 1 5 2 4 2 1 3 3 3 1 1 5 2 4 4 2 1 1 5 2 4 4 2 1 3 3 3 1 1 5 2 4 4 2 1 3 3 3 1 1 5 2 4 4 2 1 3 3 3 1 1 1 5 2 4 4 2 1 1 5 2 4 4 2 1 3 3 3 1 1 1 5 2 4 4 2 1 3 3 3 1 1 1 5 2 4 4 2 1 1 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 9 1 4 4 4 5 5 1 5 5 12 2 2 5 5 2 2 2 17 24 6 8 8 1 1 6 6 1 1 3 3 100 28 2 6 6 4 4 13 2 15 6 6 4 4 40 8 9 1 4 4 1 8 7 3 4 4 4 2 2		1 2 1 3 3	5	9 19 6 5 9 14 3 3 33 12 18 12 7 2 4 43 45 11 10 32 6 5 4 18 10 56 11 11 17 17 17 5 3 4 2 2 8 8 7 17 17 17 17 17 17 17 17 17 17 17 17 1	23 38 10 24 24 40 24 41 7 10 16 12 13 60 14 49 20 24 57 18 19 22 24 18 19 22 24 18 18 18 18 18 18 18 18 18 18
Totals	917	86	8	2	230	344	382		26	31	1,013	1,564

TABLE No. 7

Showing the number of escapes and deaths, the revenue derived from prison labour, the cost of diet, the accommodation of the various gaols, and the highest and lowest number of prisoners in custody during year ending September 30th, 1928.

	υ	Prisoners who escaped and were recaptured		IIs	Greatest number of prisoners confined in gaol at any time during year	Least number of prisoners confined in gaol during year	Actual cash revenue derived from prison labour	ita
	Prisoners who escaped and evaded capture	Prisoners who escaped and w recaptured	Prisoners who died	cells	cc cc ye	ast number isoners confi gaol during ar	ive	Daily per capita dietary cost
Name of Gaol	Prisoners who escaped and evaded captur	» « Pu	*	Number of c in each gaol	Greatest nur of prisoners fined in gaol time during	mh co uri	Actual cash revenue der from prison labour	Daily per ca dietary cost
	Prisoners escaped evaded ca	Prisoners v escaped an recaptured	ers	er s	on on on ur	nu ers I d	ce le o rris	pe.
	on pe lec	on pe pti	ouo	act	ate ris I in	st onc aol	lal q t	P E
	ris sca vac	ris sca sca	ris	lur e	f p ned med	Leas priso in ga year	15 % E 61)ai iet
	ا ك ق ق	T es P	00	Z.=	004.2	コロコン	Azital	
Barrie				23	22	Λ	\$ c.	cents 16.75
Belleville				38	28	4 7		16.89
Bracebridge	1			10	10	2		14.75
Brampton				24	10			16.00
Brantford				24	32	8		15.75
Brockville		3		33 12	16 18	4		12.15 16.42
Cayuga				40	42	14		13.22
Cobourg				24	17	4		17.50
Cornwall				17	24	2		17.75
Fort Frances			1	10	17	3		16.68
Goderich				16	18	5		13.75
Gore Bay				12 18	6 22	4		60.00
Guelph Haileybury				32	75	33		19.00
Hamilton				60	84	34		15.16
Kenora				14	23	5		18.65
Kingston				49	30	12	2,200 00	16.00
Kitchener				20 24	29 13	7 3		16.07 14.30
Lindsay London				57	62	20		14.40
L'Orignal				18	13	2		22.00
Milton		1		19	17	4		15.57
Napanee				18	10	1		13.48
North Bay				19 22	39 13	7 4		14.75 23.75
Orangeville Ottawa		1		93	84	35	662 65	17.00
Owen Sound				32	23	6		18.18
Parry Sound				22	27	. 6		20.93
Pembroke		2		24	16	4		15.00
Perth				18	17	5		12.60
Peterborough				18 18	16 10	1 2		16.50 14.00
Port Arthur		1		73	77	26		18.50
St. Catharines				36	47	13		14.66
St. Thomas				16	23	6		12.86
Sandwich				109	112	37		14.00
Sarnia				13 23	36 55	11 23		15.25 23.62
Simcoe				18	15	1		14.35
Stratford		2		30	18	6		12.73
Sudbury				22	75	14		21.20
Toronto			2	214	289	136		13.00
Walkerton		2		24 48	12 46	16		14.75 15.65
Whitby		1		28	36	10		16.50
Woodstock				32	21	3		13.56
								45.01
Totals	1	13	3	1,564	1,745	552	2,862 65	17.21
		l				1		

TABLE No. 8

Showing the daily cost per prisoner in each of the gaols, excluding the District Lock-ups, for the year ending September 30th, 1928

Name of Gaol	Number of prisoners committed dur- ing year	Total days' stay of prisoners during year	Cost of fuel, food and clothing	Average cost per day for fuel, food and clothing
Barrie. Belleville. Bracebridge Brampton. Branttord. Brockville. Cayuga. Chatham. Cobourg. Cornwall. Fort Frances. Goderich. Gore Bay. Guelph. Haileybury. Hamilton. Kenora. Kingston. Kitchener. Lindsay. London. L'Orignal. Milton. Napanee. North Bay. Orangeville. Ottawa. Owen Sound. Parry Sound. Pembroke. Perth. Peterborough Picton. Port Arthur St. Catharines St. Thomas. Sandwich Sarnia. Sault Ste. Marie. Simcoe. Stratford. Sudbury. Toronto. Walkerton. Welland. Whitby. Woodstock.	188 356 61 89 254 159 175 474 143 233 233 89 19 152 414 1,105 136 240 284 102 925 49 217 75 575 69 1,061 172 210 106 188 227 94 1,132 353 242 1,387 379 123 137 149 8,085 105 106 107 108 108 108 109 109 109 109 109 109 109 109	4,498 6,594 2,211 1,188 6,147 3,732 2,155 9,831 3,741 4,689 3,424 2,449 1,011 3,893 18,400 21,217 3,568 7,234 6,175 2,805 14,741 1,809 3,610 1,207 8,122 3,016 20,877 5,115 4,486 3,302 6,247 3,568 1,427 16,614 9,667 4,390 27,251 8,135 13,965 2,703 4,354 11,656 73,687 2,068 11,592 8,123	\$ c. 2,164 94 3,695 00 686 60 909 58 1,338 98 2,076 84 1,019 72 3,791 44 4,268 05 2,567 77 1,161 55 1,037 59 1,771 14 1,590 68 5,997 13 4,614 00 2,420 49 3,015 85 2,408 57 1,501 30 4,252 58 616 38 934 06 628 16 2,459 05 1,922 43 10,022 00 3,316 03 1,757 14 1,409 35 2,260 09 1,225 15 76 28 8,990 12 3,893 75 1,648 76 8,602 90 2,864 38 7,203 14 1,508 77 2,148 14 3,204 82 21,131 02 736 71 7,362 47 7,992 89 2,886 93	cents
Totals	23,786	390,891	154,090 72	.4/

Reformatories

ONTARIO BRICK & TILE PLANT, MIMICO, ONTARIO

H. M. ROBBINS, Esq.,

November 5th, 1928.

Deputy Provincial Secretary,

Parliament Buildings, Toronto, Ontario.

Dear Sir:-

I have the honour to present you with the Annual Report of this Institution for the year 1927-1928.

November 1st, last year, we took over the criminal records from The Ontario Reformatory, Guelph, who up to that time were responsible for same. We have found the change to prove quite satisfactory and more helpful to all concerned.

HEALTH OF INMATES

During the past year we have been very fortunate regarding the health of inmates, having only a few isolated cases where it was necessary to have them transferred to a hospital.

POPULATION

We admitted this past year 344 men, leaving a population of 145 on our strength at the end of the present year, this being the largest count in the history of the institution.

FARM

Stock.—Last April, we purchased through Mr. Beatty, a herd of thirteen holsteins and twenty-one jersey cows, valued at eight thousand and twenty-five dollars (\$8,025.00). The stock and equipment consisting of 34 cattle, \$8,025.00; 8 horses, \$1,000.00; 113 hogs, \$2,350.40; implements, \$1,648.00. Our grain and crops proved very satisfactory owing to a considerable amount of under-draining; vegetables and roots also showing far above the average. We are undertaking to supply this winter, three institutions besides ourselves.

BUILDINGS

We have added several buildings and improvements this year, which include: Office in machine shop; oil room and office off boiler room; new transformer house; brick shed now in construction. The barns and outbuildings of the institution have all been painted. I might state here that an extensive alteration of the cattle stable is very necessary in the near future.

FACTORY

We have been busy filling orders; fortunately we had no serious breakdowns to hold up the output.

ENTERTAINMENTS

Concerts and entertainments have been arranged from time to time under the direction of Major Sheard and Major McElhiny. Mr. Morresy from the city has on several occasions, helped us by bringing entertainers out, which we appreciated very much. The staff had a very pleasant and enjoyable dance last Christmas, by the kind permission of the Minister.

In conclusion I wish to thank you, Sir, and also all officials for their co-operation in making this institution run so smoothly during the past year.

Yours obediently.

I. R. ELLIOTT,

Superintendent.

INDUSTRIAL FARM, BURWASH, ONT.

December 19th, 1928.

Dear Sir:-

I have the honour to submit to you the Annual Report for this institution for the year ending October 31st, 1928.

Our statistical report from the custodial department shows that we have had a larger number of first offenders than at any time in the history of the institution, namely, seven hundred and sixty. We have also carried the largest population of any year, namely, 1,175.

BUILDINGS

During the past year we have had a rather heavy building programme; we have widened the main dormitories and brought them down to the two tier of beds, this has made roomy and well-ventilated dormitories. We have also added new night room of 30 beds, new day room, dental clinic, three lavatories, 12 bedrooms for guards, and are at present finishing new venereal clinic, lavatory, day room and dining-room. We have also built large out-buildings at Camp No. 5, and converted two homes into flats, making increased accommodations for our married men. We erected on the front of our dormitory a new building, housing sergeant's office, two bedrooms, lavatory, clothes room and waiting room.

FARM PRODUCTS

The total value of farm produce, grain, vegetables and milk, etc., amounts to \$32,828.25. The value of lumber used for building, fuel and for other purposes amounts to \$28,699.02, making a total of \$61,527.27. This is an increase over the previous year.

Farming operations in the north country have been practically a failure in the last year, indeed, many farmers are absolutely ruined, and despite the fact that we had more than our share of rain along with the other fellow, we had very good crops over our farm.

SERVICE

I am very grateful for the courtesy and helpful service of the officers of the department; it enables us in our isolation to carry on.

Sincerely yours.

J. K. FAIRFIELD,
Superintendent.

THE INDUSTRIAL FARM

Fort William, Ont., January 10th, 1929.

H. M. Robbins, Esq.

Deputy Provincial Secretary,

Parliament Buildings, Toronto, Ont.

Sir:-

I have the honour to submit herewith the annual statistical report for this institution for the fiscal year ending October 31st, 1928, and in doing so I would like to make a few general comments on the year's work.

For the past two years our admissions have shown a marked increase over the years preceding; in 1926 we had 312 commitments; in 1927, 487, and in 1928, 551.

Our population continues in a good state of health. We have had no epidemics, and very little ordinary sickness during the past year, and during the recent 'flu epidemic we did not have a single case among our custodial population.

Discipline in the institution has presented no exceptional difficulties in the year. The greater percentage of our inmates appreciate fair treatment and respond by faithful work and good discipline. We have had no escapes from the institution during the fiscal year.

Our crops have been a fair average in 1928. I pointed out in our 1927 report that we are lacking in barn and stable accommodation. We are bringing more land under cultivation each year and we cannot house sufficient livestock to maintain our soil fertility. This year we had to stack all our grain and 50 tons of hay.

Some thought should soon be given to the establishment of a winter industry at this institution. At the present time we have a visible supply of only two years' wood for fuel. When this is exhausted we will either have to secure more land or burn coal, and in case of the latter, we would have no employment for a large part of our population for the winter months.

The Rev. D. McIvor, of Fort William, and the local unit of the Salvation Army conduct religious services for the inmates at the institution on alternate Sundays. Much good work, social and religious, is being done by the Rev. Mr. McIvor and the officers of the Army, and their efforts are sincerely appreciated by inmates and staff.

AGRICULTURAL EXTENSION WORK

This institution has for some years carried on a limited amount of agricultural extension work; we have maintained pure-bred herds of Holstein cattle, Yorkshire swine and a flock of Oxford sheep, with the object of supplying breeding stock to the farmers of this area. The young males are sold at very reasonable prices, and we believe that this service has considerably improved the class of live-stock in the district. A young Percheron stallion, "Pride of Commodore," was purchased last year and stands for service at the farm.

In March last year in co-operation with the agricultural representatives a four weeks' short course in agriculture was held at this institution. This course was attended by 39 farm boys from the district. The boys were supplied with board and lodging and received their instruction at the farm.

This year we completed a three-year experiment in the testing of ten varieties of wheat, ten varieties of oats and nine varieties of barley, with the object of ascertaining the most suitable varieties of cereals for this north country, and we believe that we have obtained some valuable information. These tests were made by the rod row method and in co-operation with the cereal division of the Central Experimental Farm at Ottawa.

In conclusion, I beg to thank you and all the officers of the department for their co-operation and guidance in carrying on the work here and commend to you the loyal services of the staff of this institution.

All of which is respectfully submitted.

Yours faithfully,

H. M. McElroy,
Superintendent.

INDUSTRIAL FARM, LANGSTAFF, ONTARIO

In submitting his twelfth annual report for the above institution, Major W. J. Morrison, Superintendent, makes the following comment:

"In reviewing the past year's figures it is noted that 2,027 inmates were committed to the institution as compared with 2,670 during the previous year, a decrease of 643, this being accounted for by the fact that longer terms have been imposed instead of the very short terms formerly given; the average monthly count being 309.66. There was only one escape and the offender was apprehended shortly after and was given a substantial term of imprisonment; there were nine deaths during the year, the most of whom were aged inmates. The health of the institution was on a very satisfactory footing as regards epidemic diseases. Due attention has been paid to social disease as you will note from the report of the institution surgeon. The discipline of the inmates remains exceptionally good, which in a measure is due to the fact that inmates can earn time off for good conduct and application to work."

He also desires to extend his thanks to all those who have ministered to the spiritual and social welfare of the inmates, among whom are Captain Buntin, Salvation Army; Canon J. C. Davidson, Church of England; Rev. Fr. Malone, Roman Catholic Church; Mrs. Cooper and Mrs. Barker of the Christian Science Church; Mr. Fred Graham, of the Y.M.C.A., and many others.

INDUSTRIAL FARM

Concord, Ont., July 5th, 1929.

H. M. ROBBINS, Esq.,

Deputy Provincial Secretary,

Parliament Buildings, Toronto.

Dear Sir:-

I have the honour to submit for your information the annual report for the Municipal Farm for Women, Concord, Ontario, for the year 1927-28.

Discipline throughout the year has been good,—of course, there are always a few whose mental or physical condition makes them rather difficult—fortunately these have been in the minority.

The health of the 241 inmates who have passed through during the year has been excellent. There were no serious illnesses, and no deaths to record. This is no doubt, due to the careful supervision of the attending physician, Dr. Lillian Langstaff, who makes a detailed report to the superintendent on the physical and mental condition of each inmate upon entering the institution, so that proper treatment is given, also advice, concerning work for which the individual is adapted.

We regret to record the passing away of Miss G. A. Carson, who will be much missed by the staff with whom she was very popular, as well as with the inmates who came under her kindly supervision during the thirteen years of service as matron in the institution.

DEVELOPING OUTSIDE WORK FOR INMATES

The garden and dairy work and the care of the poultry is now successfully carried on under the supervision of a capable "Farmerette."

We wish to gratefully acknowledge the help given by Rev. Archdeacon Davidson, Rev. Father Malone, and different officers of the Salvation Army, in conducting religious services and entertainments throughout the year. Also to Adjutant Mary Bridge, social service worker of the Salvation Army, who visits regularly at the "Farm," keeping in touch with those who are in need of employment, or friends to help them when released from custody.

In conclusion, Sir, permit me to express to you and all the officers of your department, my sincere appreciation for the courtesy and assistance I have at all times received, and to commend to you the loyal services of this staff.

All of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,

MARGARET MAUD CARSON,

Superintendent.

MERCER REFORMATORY

Toronto, December 4th, 1928.

H. M. Robbins, Esq.,

Deputy Provincial Secretary,

Parliament Buildings, Toronto.

Sir:-

I have the honour to submit herewith the annual report of the Andrew Mercer Reformatory for Females for the year ending October 31, 1928.

The statistical tables for the year show a slight increase in the number admitted to the institution. Of the 180 admitted, 127 were under 24 years of age, and 53 were between the ages of 24 and 50. The number committed for the first time was 145. Having first offenders increases our responsibility to so train and encourage them that a lasting impression for good will be carried by each one from the reformatory.

The average inmate received requires to be taught everything—order, neatness, cleanliness, sewing, cooking and other domestic arts, as well as the elements of reading and writing, etc. To all is given such training as may enable them to earn an honest living when released. In the factory, where all kinds of sewing for government institutions is turned out, opportunity is given inmates to become skilled operators. In our laundry (where laundering is done for the Psychiatric Hospital, the Boys' Training School at Bowmanville, the Ontario Brick & Tile plant at Mimico, and for our own institution), in the bake shop, the kitchen, and the dining-rooms, etc., an excellent training is given in domestic work.

In conclusion, permit me to express my thanks to you and all the officials of your department for the consideration and courtesy which have always been accorded me, and to my staff for the faithful service rendered.

To the many kind friends who have remembered the institution on holiday occasions with gifts, and to those who have placed their talents at our disposal for concerts and entertainments, my thanks are sincerely tendered.

I have the honour to be, Sir,

Your obedient servant,

LETITIA SCOTT,
Superintendent.

REPORT OF THE ONTARIO BOARD OF PAROLE FOR YEAR ENDING OCTOBER 31, 1928

In submitting the report for the past year a comparative statement is given below from which it will be seen that the number of cases dealt with was larger than in any previous year, involving a greater amount of labour and necessitating the full time of the three officers which we were fortunate in having, and also making it necessary to add another stenographer to our office staff.

The statistical record for the year is as follows:

Meetings of the Board	26
Cases dealt with	1,680
Paroles authorized	650
Paroles put into effect	369
Disappeared	35
Committed crime while on parole	31
Sent back and parole cancelled	24
Recommended for extra-mural employment	305
(Cap. 163, R.S.C. ss. 13-15, 49, 61.)	
Recommended for ticket-of-leave	5

The following is the record for four previous year.

	1916	1925	1926	1927
Cases dealt with	164	1,347	1,296	1,364
Parole authorized	52	408	473	504
Disappeared		25	41	46
Committed crime on parole	no		16	18
Sent back and parole cancelled	record	41	30	21
Recommended for extra-mural employment		108	116	141
Recommended for ticket-of-leave	23	25	16	11

In the above figures for 1925 we are not able to give the number who committed crime on parole as distinct from those whose paroles were merely cancelled. The total for these two in that year was 41, which is about the same as in other years.

It will be noted that the number of paroles authorized was considerably in excess of those put into effect. The reason for this is that in a large number of cases the parole was authorized to take effect at a later date than the end of the fiscal year. There are also a number authorized in every year which cannot be put into effect because of inability to meet the conditions. Sometimes there is misbehaviour by the prisoner in the institution. Sometimes work is not available. At other times facts come to light which were not available when the decision of the board was given. In a number of cases paroles are authorized to take place the following spring when farm positions will be open.

The percentage of failures should, of course, be computed upon the number actually paroled, and on this basis the percentage of custodial failures (that is, persons on parole who disappeared or committed crime), was about eighteen per cent. of those actually paroled. Considering the salvage nature of our work and the kind of material we deal with, this would appear to be a very fair figure, and means that over eighty per cent. of those paroled made good, at least during the period of supervision, and from past experience, it can be confidently expected that the majority of these will continue to succeed. We had to return twenty-four persons to the institutions from which they were paroled because it was considered unfair to the public to try them outside for the full period of their sentence.

Their behaviour under supervision was not such as made it wise to continue them further on parole.

As in past years, the failures fall into two classes: those who broke faith when there was nothing apparent in their past history that would lead one to expect failure, and those who when paroled were considered rather doubtful risks, but to whom it was considered proper to give a chance of reformation, the indeterminate sentence having been given by the court for that purpose. The fundamental aims of the board are the re-establishment of criminals, the prevention of crime and the protection of the public. It is believed that in many cases the parole of a prisoner is more likely to accomplish these objects than his retention in prison until the end of his full sentence, but every prisoner is paroled under certain specific and strict conditions, and if these conditions are not faithfully kept the board does not consider it safe either for the public or the prisoner to keep him outside on parole. He is with regret sent back, but no prisoner is returned to the institution without urgent cause, as we believe that our duty is to guide as many as possible into civil re-establishment. Sometimes warnings and caution are effective. When these fail there is only one recourse, and that is return to close custody.

The personnel of the board is as follows: Chairman, Mr. G. S. Matthews; vice-chairman, Mr. W. A. Evans; vice-chairman, Judge Emerson Coatsworth; Mr. J. B. Tudhope, Mr. D. Miller, Judge J. F. McKinley, Dr. F. C. Grenside, Mrs. D. M. Brodie and Mr. G. B. Woods.

The executive staff consists of Dr. Alfred E. Lavell, Secretary and Chief Officer, Mr. E. J. Etherington and Mr. T. D. Bell, parole inspectors. The clerical staff consists of four stenographers and a filing clerk.

Signed on behalf of the Ontario Board of Parole.

G. S. Matthews,

Chairman.

REPORT OF THE SALVATION ARMY IN ONTARIO

The manifold operations of the Salvation Army continued during 1928. These operations include the management of Hostels and Labour Bureaus in Toronto, Ottawa, Hamilton, London and Windsor. The Hostels supply beds and meals to the deserving and when there is actual poverty these services are given free. In the Hostels there are over 400 beds which are filled all the time. Special beds are reserved for discharged prisoners until they find work. The Bureau found work for over 8,000 persons in Toronto and about 7,600 outside of Toronto.

Work is carried on in twenty County Gaols and at the Provincial Institutions at Burwash, where two Officers are giving their whole time; also at Guelph, Mimico, Langstaff, Concord and the Mercer Reformatory. In some of the police courts the prisoners are given suspended sentences and handed over to the care of the Army.

The families of 888 prisoners were looked after in Toronto, their rent was paid to the extent of \$918. Clothing and food was supplied to over 3,600 persons, most of whom were prisoners.

Much of the work of the Salvation Army cannot be described in actual material terms. Interviews with 18,765 persons, services held in prisons, visits made to struggling ex-prisoners in their homes, letters written for them and for their families, who were in want, and Christmas gifts, raised largely by the Self-Denial offerings of the Army members, cannot be written down in dollars and cents. This is an order of values that is spiritual and as such cannot be appraised as entries in a ledger. In Ontario the Army spent \$16,188.68 and the contribution from the Province was \$5,500; from Toronto City, \$2,100; from all other sources, \$953.92; which shows a deficit that had to be raised by the Army of \$7,654.76.

No. 18

Showing the number of prisoners in custody October 31st, 1928, the number the number in custody.

	In custody Oct. 31st, 1927	Committed during year	Total number in custody	Discharged on expiration of sentence	Discharged by ticket-of-leave	Discharged by Parole Board	Discharged by payment of fines
Ontario Reformatory—Guelph Ontario Reformatory—Mimico Industrial Farm—Burwash Industrial Farm—Fort William Industrial Farm—Langstaff (males) Industrial Farm—Concord (females) Mercer Reformatory—Toronto (females) Totals	524 120 320 56 311 34 181 1,546	352 1,175 551 2,027 207 180	1,525 472 1,495 607 2,338 241 361 7,039	512 146 888 475 1,766 191 149	16 34 4 3 2 2 2 61	269 70 117 4 7 4 18	6 9 22 23 76 5

No. 1 received during the year, the number discharged, died, etc., and on October 31st, 1928.

Discharged by remission sentence	Discharged by Order-in-Council	Discharged by Minister of Justice	Conditional discharges	Other reasons	Escaped	Returned to gaols	Transferred to penitentiaries	Transferred to hospitals for in sane	Transferred to provincial institutions	Released on writ Habeas Corpus	Died while in custody	Remaining in custody, Oct. 31st, 1928
2 1	162 5	77	2	31 9 49	3 2 5 5 1	22 22 22	11 1		23 40 8 4 75		2 2 5 1 9	535 145 312 81 290 34 187

TABLE No.

TABLE No. 2	
Showing Social Conditions	
MarriedSingle	2,081 3,412
_	5,493
TABLE No. 3	
Showing the Educational Status	
Read and write	4,827
-	
TABLE No. 4	5,493
Showing the Habits of Prisoners	
Temperate	2,069
Intemperate	3,375 49
Tug addicts	
TABLE N. 5	5,493
TABLE No. 5	
Showing the Religions of Prisoners Anglicans	1,164
United	578
Presbyterians	877 2,132
Others	742
_	5,493
TABLE No. 6	
Showing the Length of the Sentences	
One month (or less)	1,308
Three months	1,067
Four months. Five months.	225 67
Six months	476
Nine months. Twelve months.	44 176
Fifteen months	8
Eighteen months	27 99
Two years	11
Indeterminate	1,055
	5,493
TABLE No. 7	
Showing the Nationalities Canadian-born	3,343
English	570
IrishScotch	254 163
United States,	179
Other nationalities	984
	5,493
TABLE No. 8	
Crimes against the Person	156
Cutting, wounding, stabbing, shooting	12
Manslaughter	i
Rape	4
Attempted suicide	4 33
Miscellaneous.	51
	261

Crimes against Property:	
LarcenyArson and incendiarism	0
Burglary, housebreaking and larceny Forgery.	400
Fraud and false pretences	155
Receiving stolen goods. Trespass. Miscellaneous.	25 367 70
Crimes against public morals and decency:	1,593
Bigamy Inmates of houses of ill-fame	6 28
Keeping houses of ill-fame. Perjury.	41
Seduction	2 7
Indecent assault	30 169
Offences against public order and peace:	283
Escaping and obstructing constables	29
Carrying unlawful weapons. Drunk and disorderly.	21
Dreacnes of Liquor Law	1,347 802
Breaches Inland Revenue Act. Breaches Drug Act.	22
vagrancy	55 935
Other offences.	145
	3,356
TABLE No. 9	
Showing Occupations when Committed	
Agricultural. Commercial.	322
Domestic	1,784 505
Labourers. Mechanics.	2,051
Professional	603 80
No occupation	148
	5,493









THIRTY-FOURTH REPORT

CHILDREN'S AID SOCIETIES LEGAL ADOPTION ACT UNMARRIED PARENTS' ACT

1927

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

Toronto, February 15th, 1928.

HONOURABLE LINCOLN GOLDIE,

Provincial Secretary,

Parliament Buildings, Toronto.

SIR,—

I have the honour to transmit herewith the Thirty-fourth Annual Report under The Children's Protection Act of Ontario, and the Annual Reports under The Adoption Act, 1927, and the Children of Unmarried Parents' Act, 1927.

I have the honour to be, Sir,

Your obedient servant,

J. J. Kelso, Superintendent and Provincial Officer.

Toronto, February 18th, 1928.

To HIS HONOUR WILLIAM D. Ross,

Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour:

The undersigned has the honour to present to your Honour the Thirty-fourth Annual Report under The Children's Protection Act of Ontario, and Annual Reports under The Adoption Act, 1927, and The Children of Unmarried Parents' Act, 1927.

Respectfully submitted,

L. Goldie,

Provincial Secretary.



THIRTY-FOURTH ANNUAL REPORT

Toronto, February 7th, 1928.

The preparation and presentation of this Thirty-fourth Annual Report marks another year of activity on behalf of needy and handicapped children. The work has gone steadily forward and the year, while crowded with useful activities, has been marked by very few changes either in personnel or purpose. What has been accomplished by the united efforts of the many friends of the children throughout the Province will be evident in the figures given herewith, but figures alone do not tell the whole story as they cannot represent the improvement brought about in social conditions—the happiness created in many homes and the many young lives that have been conserved in health and fitted for worthy citizenship. Loss and waste is evident in many directions, but nowhere is it more tragic than in the wastage of child life. An aim kept steadily in view has been the prevention of this waste and the protection of child life in all parts of our Province with a view to the advance and perfecting of our civilization. The mortality among children has been steadily lessened and physical defects that in former years remained with the child through life have now been corrected, to the advantage of not only the child but the whole community.

In other directions there has been wonderful progress in securing of better health and better conditions of living in the homes of the people.

Before proceeding to a detailed report of Children's Aid activities it might be mentioned that the offices of the Children's Aid Branch are now located once more in the Parliament Buildings in harmony with the policy to group together the various branches of public service carried on under the direction of the Provincial Secretary. This return to former surroundings is much appreciated.

Although the duties and responsibilities of this Branch have been widely extended in recent years, our first and chief responsibility must necessarily be the better care and protection of neglected and dependent children as outlined in the Children's Protection Act of 1893. This pioneer legislation has spread far and wide and its development naturally paved the way for many social reforms now accepted as a matter of course.

The well-defined policy of the Department has been, first of all to keep children in their own homes where at all possible, and failing this to secure for them suitable foster homes instead of retaining them in public institutions.

Under this system nearly 30,000 children have been placed by the various Children's Aid Societies in foster homes, and looking back over this large record it seems quite clear that the policy of home-finding has been a pronounced success. The number of children reported as having been ill-treated or over-worked is insignificant compared with the vast number who have done well and have received excellent care and treatment. It is true that many of the children have been expected to help with ordinary household duties, but this has proved a useful preparation for the duties of later life, and the habits of industry thus established has been a great advantage in adult years.

There has been regular correspondence and visits, and unfavourable conditions have been remedied when they became known; the aim throughout has been to remove any taint of charity or the separation of these children from ordinary community life and this has meant much in the happiness of the young people concerned.

UTILIZING LOCAL PHILANTHROPY

Our Ontario system of child-protection is made effective through the organization of local Children's Aid Societies composed of progressive citizens who from a desire to be of service give freely of their time and thought. Over sixty of these societies are in active operation and the publicity given to their proceedings assures the prompt exposure of child neglect or ill-treatment and the creation of healthy and happy social conditions. In no part of the world is there a more sensitive public sentiment in all that affects child-life than here in this banner Province of Ontario. To the cry of a needy child there is a quick and sure response and appeals in their behalf are generously met. Nothing could be more gratifying than this fine spirit of benevolent interest and service.

The Children's Aid Society does not seek to take children away from their parents for it is fully recognized that a home, with father, mother, and proper nurture and care, is the child's natural heritage. To preserve this to the child is the Society's constant endeavour. What it really aims at is to remove poverty, misery, immorality, sickness and trouble of every kind that militates against the child's welfare and happiness. It is our constant endeavour to patiently work out the family problem and to impress on parents a true sense of their responsibility. The solution for careless living may be found in moving the family to a better house, in getting relatives and friends interested in securing employment—in bringing about church affiliation, anything and everything that will bring about the desired improvement. There are, of course, social conditions that warrant prompt and effective action, and then there should be no hesitation in doing what appears to be absolutely necessary for the best welfare of the child.

CHILDREN MADE WARDS

In the past year 686 children were made wards of Children's Aid Societies by Court Order, and added to those of former years we find a total of 27,243 children for whom this organization became legally responsible during their minority. Many of these, now men and women—heads of families themselves—have amply repaid the assistance and protection afforded them and occupy widely varied positions—from farm labourers and mechanics to the leading professions. We hear frequently from these wards of former days and have often found encouragement in their progress and success.

The number still under age and requiring supervision would be from eight to nine thousand. A comparison with former years shows that there has been a slight decrease in the number of children made wards. The figures are:

Made	wards in	1923	786
		1924	
4.6	4.6	1925	977
4.6	6.6	1926	809
	4.6		

It has to be taken into account, however, that owing to a change in the Children's Protection Act in April, 1927, there were 157 children committed to the Societies as temporary wards. When children are made temporary wards it gives the parents a chance to improve conditions in their home, so that the children may be returned to them. Also maintenance is provided for children while parents are on probationary period.

RELIGIOUS AFFILIATION

Divided into the two great bodies of Christian faith the total of 686 children is made up of 569 Protestant and 117 Roman Catholic children.

How Supervised

All children made wards of a Children's Aid Society are reported at once to the head office, where a complete record is kept of every child. Individual entries are made by means of a fine card system and each child's file can be located without delay. Wards are usually placed in the Children's Shelter to have their physical condition carefully scrutinized before going out to foster homes. The doctor, the dentist, the psychiatrist are all asked to lend expert aid that the child's defects and disabilities may be removed—clothing is provided—moral instruction given—and then the important and anxious task of locating the right kind of foster home where the child's nature and talents may expand under the most favourable conditions. If homes cannot be readily secured in the vicinity, arrangements are made to transfer the child to another locality and often a complete change of neighbourhood is most desirable and leads to better prospects.

Once comfortably settled in its foster home, the superintendent in that county is given the address so that he may call and extend encouragement to both child and foster parents. The correspondence relating to foster children is heavy, and desirably so, for neglect of this important duty would savor of child-desertion. The number of children actually visited during the year was Protestant, 4,590; Roman Catholic, 892, and this represents many arduous journeys in all parts of this wide-stretching province. When a child has been two or more years in a foster home and has become rooted in the affections of the family, provision is made for legal adoption and release of supervision, referred to later on in this report.

SEX AND AGE

A curiously interesting comparison is that of sex—of the 686 children made wards, 341 were male and 345 female.

Ages of children made wards—227 under three, 117 between three and seven, 107 between seven and ten; 100 between ten and thirteen; 76 between thirteen and sixteen.

It is hardly correct to say that all wards go to foster homes. Of the number dealt with—107 were transferred to the care of relatives—a good plan when it can be safely carried out—and about thirty-five had to be placed in orphanages, hospitals or industrial schools. Of the total—280 were in Children's Shelters awaiting further action when the year ended. There are thirty-eight Children's Shelters and the average daily population would total 500 children. Care should constantly be taken to see that these Shelters are not overcrowded, are adequately officered, and that the children are not kept too long—for they can get as much harm in a Shelter as anywhere else, unless there is efficiency, faithfulness and vigilance.

WHY CHILDREN COMMITTED

On the parental side there are two main causes for the Committal of Children—Desertion of fathers, 140; born out of wedlock, 170; general neglect and depravity is also a leading factor, 156; fathers sent to prison, 23; mental unbalance, 32. Most of the children are quite innocent of offence, but there were thirty-five children from ten to fifteen committed for infractions of law such as theft, persistent truancy, etc.

While 686 children were added at one end, 615 were released at the other,

having reached years of maturity or through legal adoption.

Nationality is hard to define statistically, the majority 445 were classified as Canadians born in Ontario, though not always of Ontario-born parents. One hundred and twenty-five were of recent British stock, English predomination, and one, two and three from almost every other country on the globe.

APPEALING TO THE BEST IN PEOPLE

Again let it be noted that improvement in home-life is the great consideration in all this work and that prosecution is only resorted to when milder methods fail. Patient and sympathetic visiting, getting good people interested, arousing ambition and pride for and in their children, will work wonders. Occasionally, however, neglectful parents are brought before the Court and warning given

of the danger of losing their children altogether. In one case with a family of six children ranging in age from eleven down to one year, the conditions in the house were deplorable. The children were found to be in an extreme state of dirt, and all looked miserable and ill-nourished. Their clothing was described as being nothing but rags. The house itself was in a filthy condition, infested with vermin, the natural result of unclean living. This was not due to poverty as the parents were quite able to do better—simply laziness and indifference. It is pleasing to report that bringing them before the magistrate proved a salutary lesson and the chief cause of complaint was removed. This result is frequently brought about through the kindly activity of our local Superintendents.

. CHILDREN'S SHELTERS

We now have in active operation in Ontario forty-two Children's Shelters with an average daily population of about 500 children. No difficulty is experienced in maintaining these Shelters as the municipalities fully recognize their responsibility and make generous provision for the maintenance of the work. In some counties the annual grant amounts to from seven to ten thousand dollars. The usual weekly allowance for maintenance of children is seventy-five cents per day, but owing to extra expenses some of the Societies in Northern Ontario are allowed one dollar per day. In Toronto where the Societies claim the right to include capital expenditure in the amount payable, the Court order provides for one dollar and thirty cents per day in the case of the Toronto Society, and one dollar and seventy cents per day to the St. Vincent de Paul Society. This is a marked contrast to the early days of the work when the average amount allowed for the maintenance of child did not exceed fifty cents per day and was more often twenty-five. The ease with which payment is secured constitutes a danger in that the child may drift on for months and sometimes years in a Children's Shelter without determined effort being made to find it a free home. Not only does this entail heavy and unnecessary expense on the municipality, but also deprives the child of benefits conferred by the Act. All our officers and members of Societies should make special effort to see that children are provided with good family home life at the earliest possible date after coming under the permanent care of the Society.

CHILDREN'S SAVINGS ACCOUNT

As pointed out in previous reports, foster parents are encouraged to set apart a small wage for children over fifteen or sixteen years of age, so that they may have something coming to them when they are old enough to appreciate the value of ready cash. The various treasurers of our Children's Aid Societies have trust accounts for about 750 children, and the total amount held in trust at the end of the year was \$83,500.00. This money is paid to the boy or girl when they become of age, get married, or at any time the Society may decide they are capable of managing their own affairs. It does not follow that children who have a trust account are better off than others who have no stated sum in the bank, for there are many children enjoying advantages that a few dollars could

never purchase. Some have been assisted by their foster parents to take music and art lessons; others have been financed through special educational courses of various kinds while others have been comfortably maintained long after they had passed the legal age.

It is one of the gratifying features of this work that so much is done by foster

parents for children—far more than they ever get credit for.

JUVENILE COURTS

Youthful delinquency is the root problem of nearly all our social troubles, and it is well worth concentrated effort to solve it. Although we have been working at it many years the progress has been slow because of changing conditions, and there has been some hesitancy on the part of municipalities in requesting that the Juvenile Court Law be put into active and efficient operation. Only in a few municipalities has it been proclaimed.

One thing is certain, however, whatever policy may be followed as to leniency in dealing with a first offender, the wrong-doer whether young or old should be made to realize that punishment is inevitable and unescapable. Careful investigation of all the facts is necessary, for if a lad manages to deceive the judge and is let go without detection more harm than good may be the result.

When an offence has been committed there must be real contrition—Godly sorrow—tears of penitence, before the penalty is decided upon. To secure this, individual treatment is essential, for the massing of delinquent boys always has a hardening effect. In a Juvenile Court three lads charged with theft were lined up at the same time, and it was impossible to get at the truth; one lied and the others had to back him up, so that practically nothing was gained. A heart-to-heart talk with the individual boy in a quiet corner would most likely have revealed the truth.

The judge must be able to impress the boy—to dominate his emotions—his will power—and give him the inspiration that will create the desire to do better and strengthen him in overcoming his faults.

In dealing with children the attitude and surroundings should be entirely different from the usual legal procedure, for the Juvenile Court is a spirit—an atmosphere—rather than a law.

The greatest care should be observed to prevent the Court becoming a mere routine performance. In any social movement the natural tendency is to get into fixed habits of action—as the machinery becomes perfected the spirit of self-sacrificing service is apt to go. Some of the Juvenile Court judges make the great mistake of trying to follow Police Court methods.

During one of my visits to the United States a morning spent in the Juvenile Court only left the impression of machine-like precision without appeal to heart or conscience, in fact, it was simply a second-rate Police Court. About thirty cases were passed upon by the judge and not one lad seemed to be influenced for the better by anything that took place.

There should be some inner sanctuary where the boy and the man who is to undertake the task of re-moulding him may earnestly talk the situation over, would say prayerfully, for, after all, if the Christ spirit is left out nothing remains.

PROBATION

The next step after the boy has shown promise of reform is probation. Here again everything depends on the kind of person appointed to this great responsibility. Men and women of the highest character and of earnest purpose should alone be selected as they have to take up the task and carry it on to completion. The relationship is an even closer and more responsible one than that between the boy and the judge.

In one town a very poor method is followed—the probationer is given a card and told to report at a certain office every Saturday morning—and from ten to twenty would assemble to be given a lecture that was absolutely uneffective. The gathering together of mischievous lads who should be widely

separated is wrong—dangerous in the extreme.

If this were the place, much could be said on "the gang" and its terrible consequences to the community. If analyzed it would I think be found that the criminal gang is the natural outcome of acquaintanceships formed in the detention home, the industrial school, etc.—companions in misery—workless—friendless—characterless—what more natural than that they should unite their resources and become professional outlaws?

Massing together of wayward youths is always and everywhere fraught

with the greatest danger to Society.

Probation officers should be adequate in number to meet the need, and should be appreciated and encouraged to realize how great the trust that has been reposed in them. Theirs to turn the erring feet toward a worthy and useful career or by indifference confirm the tendency in the wrong direction.

Probation means getting thoroughly acquainted with the lad, his home, and parents, supervising his occupation and employment and staying with the job until all danger is past and the lad is safely tided over the dangers and temptations

that heset him

Child-saving work is surely worth spending thought and money on, for in proportion to its thoroughness will the need for police protection and enlarged prisons be lessened.

As to the proposal that the benefits of the Juvenile Court law should be extended to youths up to eighteen years of age, the time is hardly ripe for that yet. Far better to first of all develop this prevention work for boys under sixteen, for a law not well enforced is worse than no law at all.

JUVENILE COURTS IN ONTARIO

Modern philanthropy expresses itself in child welfare work more extensively than in any other direction and our judges and magistrates are as a rule imbued with the spirit and aim of preventive measures. The Juvenile Court law as passed by the Dominion Parliament twenty years ago, has been proclaimed in only a few of our municipalities, but notwithstanding this there are many magistrates who are at great pains to help young offenders and save them from the natural consequences of their folly. It is a big problem—Crime and its Prevention—and we are still far from the solution as our police record indicates. Still there are many thoughtful people who are constantly and sympathetically studying it, and out of all this will gradually come better home training, discipline, and more efficient means of checking those who deliberately enter on a career of

crime. At present we expect too much from the small amount of money we are willing to invest in reclamatory measures. One probation officer to one hundred police officers is about the usual proportion. But unsatisfactory as conditions may be, they might readily be ten times worse, considering the fast and pleasure-loving age in which we live.

The municipalities in Ontario where the Juvenile Court law has been

definitely proclaimed are as follows:

JUDGES OF JUVENILE COURTS IN ONTARIO

H. S. Mott	. Toronto
S. Atkinson	
J. A. Makins	.County Perth, Stratford and St. Mary'
J. J. A. Weir	
His Honour A. D. Hardy	
J. F. McKinley	
J. R. Blake	
A. D. Creasor	
Rev. G. Quintin Warner	. London and Middlesex County
A. D. Bowlby	
C. A. Reid	
G. F. Jelfs	
C. S. McGaughey	. District of Nipissing
His Honour John S. Campbell	.St. Catharines and Lincoln County
Col. J. C. Massie	. Dunnville
	.Stormont, Dundas and Glengarry
E. R. Tucker	

CORRECTING CHILDISH FAULTS

The wisdom or unwisdom of whipping as a means of discipline and training of children has been much discussed during the past year. There are special occasions when corporal punishment is a necessity, but in the general upbringing of children the emphasis must always be on a patient sympathetic understanding of child-nature and the development of good thoughts and habits by example as well as precept. Children are too often the victims of bad temper and of a hasty decision. They realize keenly the injustice done them and their lives and characters are embittered and hardened by it. Here is an incident of recent occurrence illustrating the two methods.

A boy of nine years in one of our Children's Homes had been repeatedly whipped for theft of small articles, and he only seemed to get worse after each whipping. He was removed from this institution to a private family and his fault explained to the people. Shortly after, the lad stole a penknife and denied taking it. The seriousness of taking things that did not belong to him was pointed out and he was left by himself for a short time with a request that he ask God to help him to do what was right. Then the woman who was taking care of him returned in a few minutes and asked him to say a little prayer; this he did with tears in his eyes and then went and got the knife and handed it back. Since then he has made steady improvement with absolutely no whipping or scolding. He fully realizes his besetting sin and is making a big effort to avoid this and the companion sin of lying. From every standpoint this is the better way of dealing with the boy.

WHERE SEVERITY BEGINS

For the very young, the inexperienced, the first offender, the policy of kindness and patience should be the rule, but of course there is a limit to all this and there comes a time when severity and corporal punishment may be necessary to teach these young people that they cannot continue to do wrong with impunity. One boy who was allowed to go with a warning on eight different occasions simply looked upon the whole procedure as a joke, whereas if he had been given a smart whipping on his third appearance he would not have been so indifferent and defiant.

A young man who is now in the penitentiary stated in a newspaper interview that if when he first started doing wrong he had been given a sharp punishment and put in a room by himself for an hour or two he would never have repeated his offence, but familiarity with Court procedure and acquaintanceship with other youths had confirmed him in criminal ways.

It is necessary to add this explanation since there is frequently a mistake made of continuing the lenient policy when leniency has been clearly proven a

failure.

INDUSTRIAL SCHOOLS

There are four Industrial Schools carrying on work in Ontario in addition to the Boys' Training School at Bowmanville. Two of these schools operate under the direction of the Industrial Schools Association, a benevolent organization formed some thirty-five years ago to carry out the provisions of the Industrial Schools Act.

Victoria School for Protestant boys, 245 pupils. St. John's School for Roman Catholic Boys, 130 pupils. Alexandra School for Protestant girls, 135 pupils. St. Mary's School for Roman Catholic girls, 52 pupils.

Pupils are sent to these institutions on the indeterminate plan. They cannot be retained for a longer continuous period than three years, but the average length of stay is from eighteen months to two years. The Act provides that they remain under the guardianship of the school until twenty-one years, and if a lad is not doing well he can be recalled at any time. Maintenance is provided for to the extent of \$1 per day for each pupil, half of which is paid by the Government and half by the municipality. From the fund thus created all

the expenses of the school are met.

The Industrial Schools Act is one of the best pieces of child-welfare legislation on the Statute Books, and if its provisions were fully observed a great deal could be done to check up the juvenile crime that is so prevalent. It is a well-known fact that many of the worst young criminals in the penitentiary have been graduates of the Industrial Schools, and this is perhaps to some extent due to the failure to properly supervise and follow up boys after their parole from the institution. Fully as much attention should be given to boys on parole as to those remaining in the institution, but on the ground of economy this has not been given the attention it deserves, with the result that un-reformed boys having gained their freedom and become discouraged through lack of employment and loss of reputation, have settled down into a criminal career which ultimately

lands them in the penitentiary. One of these boys when finally apprehended was shown to have committed at least twenty-five serious offences during the time of his freedom; others had similarly bad records—and all this reflected on the work of the school. Probably the greatest reform that should be brought about is a thoroughly efficient system of supervising and assisting boys after their release from these institutions. At the same time it is hardly fair to say that a few conspicuous failures destroy the usefulness of the institution, for it can be said with a reasonable degree of certainty that 75 to 80 per cent. of the boys leaving the Industrial Schools have been improved and helped by their period of training.

CHILDREN'S AID FINANCIAL RETURNS

		Expendi-		
Place	Receipts	tures	Surplus	Deficit
	\$ c.	\$ c.	\$ c.	\$ c.
Algoma and Sault Ste. Marie	19,479 38	19,322 32	157 06	
Brant and Brantford	6,962 92	6,816 84	146 08	
Bruce County			1,347 58	
Carleton and Ottawa	5,952 88	5,598 52	394 36	
Cochrane and Timmins	9,108 73	8,821 37	287 36	
Dufferin and Orangeville	4,060 16	3,502 71	557 45	
Elgin and St. Thomas	14,520 72	13,497 67	1,023 05	
Essex and Windsor				
Thunder Bay and Fort William	7,505 25	7,127 27	377 98	
Frontenac and Kingston	5,027 25	4,991 28	35 97	
Grey and Owen Sound	6,509 67	5,407 47		
Haldimand	5,748 29	5,536 77	211 52	
Haliburton	1,352 27	1,352 27		
Hamilton	14,483 80	13,051 67	1,432 13	
Hastings and Belleville	11,768 83	12,716 51		947 68
Huron	3,693 77	3,305 78	387 99	
Kenora	2,024 21	1,796 07	228 14	
Kent and Chatham	7,083 70	7,375 59		291 89
Lambton and Sarnia	3,278 91	2,763 49	515 42	
Lanark	1,419 49	1,419 49		
Leeds and Grenville	3,794 06	3,758 61		
L'ennox and Addington	2,176 08	398 70	1,777 38	
Lincoln and St. Catharines	6,596 85	6,596 85		
London and Middlesex	11,766 46	16,459 02		4,692 56
Manitoulin	596 61	68 53		
Muskoka (District)	1,930 46	75 39		
Nipissing and North Bay	6,224 63	6,683 21		
Norfolk	6,729 64	5,542 11		
Northumberland and Durham	6,322 45	6,072 06	250 39	
Ontario and Oshawa	7,322 55	8,357 61		1,035 06
Oxford and Woodstock	5,778 85	5,778 85		
Parry Sound (East)	515 93	474 95	40 98	
Parry Sound (West)	3,056 05	2,658 85		
Peel and Halton	5,388 91	5,272 73	116 18	
Perth and Stratford	5,087 95	4,509 54	578 41	
Peterborough	5,744 39	5,153 25		
Port Arthur	5,441 23	4,959 80	481 43	
Prescott and Russell	8 00		8 00	
Prince Edward County	2,356 96			
Rainy River District	319 88		163 78 33 85	
Renfrew	3,466 95	3,433 10	33 83	
Simcoe and Barrie	11,408 59	11,408 59	101.66	
Stormont, Dundas and Glengarry	2,075 05 6,059 17	5,995 40	104 66 63 77	
Sudbury				
Temiskaming	6,078 09 4,229 27		350 62 63	
Victoria and Lindsay	4,229 27 7,622 55	4,228 64 7,286 44	336 11	
Waterloo County	4.171 51	3,886 65	284 86	
Welland (Niagara Falls)	3,012 64			
Welland (County)	9.393 59		175 58	
Welland (County)	8,080 48		1.123 03	
Wellington and Guelph	331 31	296 65	34 31	
WentworthYork (County)	7,475 00		741 40	
	92,857 74		741 40	23,442 26
Toronto C.A.S	19,726 19		2,467 20	
St. vintent de Lan (10101110)	17,720 19	11,230 99	2,407 20	
Total	403,126 30	412,642 37	23,197 77	30,409 45
10001	100,120 00	1 -1-,012 01	20,27, 77	00,107 13

CHILDREN'S AID SOCIETIES

LIST OF OFFICERS, 1928

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REVIEW OF ACTIVITIES

In keeping with the trend of public sentiment and under the pressure of new social enactments passed by the Legislature and referred to this office for enforcement, it has been necessary in recent years to greatly increase the working staff of this Branch. Not so long ago we were able to do the work nicely with ten or twelve people—to-day we have a staff of thirty-six and not one has an idle moment. It might be well to mention here just what this large staff represents in the way of results:

First, we have the Children's Aid with its accumulated work of thirty years and its constantly growing problems with the natural development of the country. There are over 30,000 records and each day brings requests for advice, assistance and action for the better protection of children. There are sixty Children's Aid Societies all reporting the work carried on and sending in the commitment papers, reports of visits and general information. This is preventive work of the highest kind and naturally deserves first place.

Four Industrial Schools come under the supervision of this office, and it will be interesting to know that we have here a history statement of every boy or girl sent to an Industrial School during the past twenty-five years. An official visits these schools from time to time and the accounts for Government grant are supervised and recommended for payment. Juvenile Courts to some extent receive attention; many requests are sent in for advice and information as to the best methods of dealing with wayward children.

Legal adoption is now an important branch, as every application must be investigated and recommended by the provincial officer before it is submitted to the County Judge for his final approval. This involves something in the neighbourhood of one thousand applications during the year with considerable correspondence in ascertaining all the facts to arrive at a correct decision.

But overshadowing all the others in its widespread social implications is the branch dealing with the child born out-of-wedlock. When it is understood that in one year over 1,700 cases have been reported and sifted out it can readily be seen how great the task. The unmarried mother, in probably the greatest sorrow and trial of her life, is referred to this branch for advice and relief, and this has been generously given in every case, although it has not been possible to secure action or financial recovery in more than one-third of the cases dealt The sum annually collected by this office from putative fathers is now about \$100,000 per year. Here again, another big work begins, for the collection and disbursement of this large sum involves many careful inquiries and calls for judgment of the highest kind. This social problem is one that will never be entirely solved as it is fundamental in human nature, but it can be said without fear of contradiction that in no other country in the world has this problem been so earnestly and efficiently attacked and real effort made to produce satisfactory results. Owing to the delicacy of the question very little public reference is made to the work that is carried on, but the fact that there is so little adverse criticism is in itself a compliment, for injudiciously handled, all sorts of bitter opposition and antagonism would soon be encountered. It is a work that is surrounded with many difficulties and is extremely distasteful, and one can only find comfort in the thought of the undoubted good accomplished.

LEGAL ADOPTION

Since the Act was passed in 1921 there have been 4,000 adoptions approved of by provincial officer and County Judge.

During the past year the number of adoptions was 640.

Age of Children Adopted—It is interesting to note that of the 640 children legally adopted during the year, 429 were under seven years of age and 264 under three years of age, clearly indicating that they were adopted with the highest motives. This work has given the utmost satisfaction to both foster parent and the general public. No complaints—no adverse criticism.

The Provincial Officer, who is also Superintendent of the Children's Aid Branch, reviews every application for adoption and certifies that the provisions of the Act are duly observed. Agents throughout the Province give assistance when called upon.

There is no fee in connection with the adoption of a child. It has been suggested that by making a charge of from five to twenty-five dollars for each adoption, a revenue sufficient to defray the cost of the work would be obtained. This was discussed at the last convention of the Association of Children's Aid Societies, and a resolution was passed strongly opposing any charge being made on the ground that a fee would put a limit on adoptions, as it is an entirely voluntary act and if foster parents neglect to apply, the child is the one that suffers.

To illustrate the loss to the child it might be stated that some time ago foster parents died intestate leaving a girl unprovided for who had for nine years occupied the place of a daughter. Distant relatives in the United States received a twelve thousand dollar estate, and this girl who should have inherited, was entirely overlooked. Had she been legally adopted her status as a daughter would have been clearly established.

Changes in Act—In the process of revising the Statutes, a number of changes were made during the past year, and the Act is now known as the Adoption Act of 1927. One change, introduced from the English Act, prohibits the adoption of a child not a British subject. This has proven quite a hardship as several adoptions had to be rejected because parents were subjects of the United States, and in one case a highly appreciated little boy happened to be born in France, thus putting him outside the advantages of this law. A modification of this section may be advisable.

The Adoption Act requires that persons adopting a child must be resident and domiciled in Ontario. Quite a number of applications have been received from foster parents moving out of Canada who have foster children and found difficulty in getting admission for them to the United States. In making application they were required to present adoption papers and these could not be granted since they were removing outside our jurisdiction. To overcome the difficulty the authorities agreed to accept a properly-drawn statement that the foster parents were rightfully in possession of the child and that it would not at a later date become a public charge.

An important feature of the Adoption Act is that proceedings are regarded as private and confidential, as it is the invariable wish of foster parents that the child should not be handicapped in later life by the fact of adoption being broadcasted. No publicity attaches to the application and the Act requires that the

papers should be filed away in a sealed envelope and only opened for inspection on the Order of the Judge or the provincial officer.

Too much cannot be said as to the value and importance of this legislation. It has been a boon to many citizens.

ADOPTION STATISTICS

NOVEMBER 1, 1926, TO OCTOBER 31, 1927

	Children's Aid Wards,	Soldiers' Aid Wards.	Other Organiza- tions.	Children of Unmarried Parents.	Orphaned Children.	One Parent Living.	Both Parents Living.	Adopted a Second Time.	Over 21 Years of Age.
November, 1926 December, 1926 January, 1927 February, 1927 March 1927 April, 1927 May, 1927 June, 1927 July, 1927	44 32 24 28 23 25 24 13	2 9 1 2 1 3 4 4	2 1 2 2 2	19 26 14 26 10 33 27	2 6 8	7 5 3 11 3 6 9	8 2 4 6 7 3 5 2	2	2
August, 1927 September, 1927 October, 1927	1 3 11 11			1 7 12	1 2 1	13 6	1 2 2		2 1

CHILDREN OF UNMARRIED PARENTS

This important social legislation has been steadily developing and is meeting with increased interest and support on the part of social and welfare workers generally. In April, 1927, following the work of the Statute Law Revision Committee the Act passed in 1921 was repealed and the Act of 1927 placed on the Statute Books. While the changes made in the law have increased the work of administration it is felt they will greatly strengthen its enforcement. Forms are being prepared to facilitate the carrying out of the new sections.

INVESTIGATIONS

There were 1,724 cases reported during the year ending 31st October last, an increase of nineteen over the previous year. Schedule "A" shows how these were dealt with. Of this number 613 were investigated in Toronto by the provincial officer, the remaining investigations being carried on by our local officers situated in each county and district town of Ontario. We again wish to express our appreciation of the co-operation of the social organizations, maternity homes, legal and medical professions, newspapers, the police department, to all of whom we are indebted in one way or another for assistance in the administration of the Act.

SETTLEMENTS

The duty of the Provincial Officer is to locate and interview the alleged father, endeavour to secure a settlement by agreement or Court order and where successful, make collections thereunder. Outside of Toronto these men are approached by our local officers and in Toronto by two inspectors attached to the provincial officer's staff. A number seek to evade their obligations by leaving Ontario and frequently go to Quebec or the Western provinces. The majority however, drift to the States (particularly the border cities of Detroit and Buffalo) where, if we are able to provide the street address, expert social workers are usually able to locate them and report their attitude towards settlement, sometimes serving them with Court papers. This is true also of Quebec, while in the West we are assisted by Government departments who use the services of the North-West Mounted Police in getting reports. Once outside this Province, however, the task of securing settlements is rendered much more difficult.

AGREEMENTS

There were 240 agreements entered into with the Provincial Officer during the year, some being for expenses and weekly maintenance and others for lump sum settlements. The rate of maintenance in most instances is from \$3 to \$5 per week and the majority of cash settlements run from \$500 to \$800. These agreements do not now call for admission of paternity and where default is made are no longer proof of paternity but merely *prima facie* evidence.

Private agreements, forty-four in number and totalling, \$15,009.75, were filed with the provincial officer. Such agreements are made between the parties and approved by the Judge. The provincial officer does not take any responsibility for these nor does he collect the money, which formerly was paid direct to the mother and under the new Act goes to the Public Trustee or as directed by the Judge, thus tending to ensure its proper use for the benefit of the child.

In addition fifty-two private settlements, totalling \$9,770.30, were made without agreement of any kind, so far as can be ascertained. Such settlements are sometimes effected as the result of negotiation between the parties interested, possibly with the assistance of social workers, friends or relatives, and sometimes as a result of interviews by our local officers. They frequently cover payment of expenses only or small lump sums, and are generally made where corroborative evidence is too weak for Court action and the best settlement obtainable is accepted, or where the mother does not wish action taken.

Other settlements, fifty-eight in number, were made in cases in which we

have been unable to secure information as to the amount paid.

COURT ORDERS

An affiliation order is applied for where the mother appears to have reasonable corroboration of her story and the alleged father refuses to settle and also where collections are in arrear under our own agreement. One hundred and eleven such orders were made during 1927. Our cases come before the District or County Court Judges, except in Toronto where they are heard by the Juvenile Court Judge. In most instances the crown attorneys act for the provincial officer, although a few of our local officers conduct the court work themselves, and occasionally local solicitors are employed. The father may now be directed to pay legal costs.

In Toronto forty-one orders were made varying from \$1.50 to \$5 per week.

APPEALS

Leave to appeal was granted in five cases during the year. Of these appeals, three were dismissed, one abandoned and a \$400 settlement made, and one is pending. Another appeal standing over from 1926 was dismissed. Showcause summons actions at once follow the dismissal of appeals, which in most cases are successful. The Attorney-General's Department represents the Provincial Officer in the Appellate Court. Under the new legislation leave to appeal must be applied for to the Appellate Division by leave of a Judge of the Supreme Court.

Collections

All moneys payable under Court orders and agreements with the Provincial Officer are collected by the Central Office at Toronto. The total receipts, which include over \$31,000 paid in cash, amounted to \$95,274.72 with disbursements of \$93,395.11. Cheques go out monthly to the mother or whoever may be caring for the child. A collector is kept busy on Toronto cases, and our local officers frequently aid us in locating and interviewing the men living in other parts of the Province who do not respond to letters demanding payment. Schedule "A" gives a comparative statement of receipts and disbursements since the year 1921 when the Act first came into force.

VARIED AGREEMENTS AND ORDERS

After collections have been made for some time under an agreement or order, a cash settlement is sometimes considered desirable. Very often a reduced or increased rate of maintenance is applied for. Where both parties interested consent, the agreement is then varied by the provincial officer, or in the case of an order, application is made to the Judge for this purpose. Nine agreements and seventeen orders have been so varied.

COURT ACTIONS ON DEFAULT

Default under an agreement results in a further application to the Court for an affiliation order. The Judge may now, where fraud is shown or upon discovery of new evidence, allow the case to be re-opened in which event such agreement is only used as additional corroboration. Thirty-five orders to enforce agreements were made during the year. Where there is default under an affiliation order a show-cause summons is applied for. If the father does not appear upon personal service having been made or it is shown he has deliberately disobeyed the terms of the order, application may be made for his committal to gaol. Seventy-five show-cause summons actions were taken in 1927.

STATISTICS

Our statistics deal with nationality, religion, occupation and other facts relative to our cases. It is not always possible to get complete data but Schedule "B" contains interesting information.

CHILD PLACING

Every effort is made to keep mother and child together for the nursing period, and indefinitely where the circumstances warrant it. One thousand three hundred and twenty-nine children were reported as being with the mother during 1927.

Where unable or unwilling to keep her child, the mother is referred to The Children's Aid Society of the city or county in which she has domicile to have it listed for adoption. Frequently the local officers of adjoining counties co-operate in finding foster homes. During the year legal adoption has been granted in seventy-one cases of children born out of wedlock, and forty-four children are still in foster homes, legal adoption being under consideration.

If the mother desires to keep her child but is self-supporting, and her work is such that she cannot have it with her, our local officers and social agencies find approved boarding homes. One hundred and twenty-nine children have been so placed during 1927.

Application to have the child committed as a ward of the local Children's Aid Society is made where the mother has no means of providing for it. If mentally and physically fit, an effort is made to find a foster home. Ninety-nine children have been made wards during the year.

Of our 1,724 cases the deaths of only fifty-two children are reported, which is a remarkably good showing in view of the heavy infant mortality of previous years. Medical certificates are obtained where possible showing causes of death.

REPEATERS

It is regrettable to state that 193 mothers came under this hearing in 1927. Quite a large percentage of these are feeble-minded and constitute one of our most serious problems. Where they have only been a short time in the country, deportation is considered, while those having domicile here are in many instances placed under supervision of some kind.

SCHEDULE "A"

CHILDREN OF UNMARRIED PARENTS' ACT

Comparative report showing number of cases dealt with from July, 1921, to 31st October, 1927.

1921					
July 1st, 1921, to October 31st, 1921	102	cases	were	dealt	with.
1921-1922					
October 31st, 1921, to October 31st, 1922	672	"	"	"	"
1922-1923					
October 31st, 1922, to October 31st, 1923	1,162	66	46	"	"
1923-1924					
October 31st, 1923, to October 31st, 1924	1,205	66	"	"	"
1924-1925					
October 31st, 1924, to October 31st, 1925	1 347	"	"	66	"
1925-1926					
October 31st, 1925, to October 31st, 1926	1 705	"		"	"
1926-1927					
October 31st, 1926, to October 31st, 1927	1,724	"	"	"	66
T + 1	F 04 F				
Total	7,917				

N.B.—The above statement indicates a yearly increase in the number of cases brought to attention, rather than any increase in immorality.

Statement showing number of cases dealt with during last fiscal year.

From October Of these	31st,	026, to October 31st, 1927 1,724 cases were dealt with 505 have become finance	
		799 have been closed.	iai cases.
"		420 are pending.	
Of the fina	incial	ases. 240 were settled by ag	greements
"	66	" 111 by Court Orders,	
ч	66	" 44 by private agreemen	+0
"	66		
		" 52 by private settleme out agreement.	nts with-
"	"	" 58 by private settlement not stated.	samount
Of the clos	sed ca	es 243 cases no action was	s desired.
"	16		
"	**		k of cor-
"	i6 (208 cases the man disap	neared.
66 6	16 (68 cases the couples ma	

Comparative statement showing receipts and disbursements from July, 1921, to October 31st, 1927.

,				
July 1st, 1921 to October 31st, 1921	Receipts \$691		Disbursements \$40 00	
1921-1922	****		****	
October 31st, 1921, to October 31st, 1922	27,066	81	13,954 09	
1922-1923				
October 31st, 1922 to October 31st, 1923	57,113	03	38,663 66	
1923-1924				
October 31st, 1923, to October 31st, 1924	73,258	76	57,698 63	
1924-1925	70,200	, ,	01,020 00	
October 31st, 1924, to October 31st, 1925	86,105	00	71,908 60	
	00,103	00	11,900 00	
1925-1926			#0 #10 00	
October 31st, 1925, to October 31st, 1926	88,353	80	79,540 90	
1926-1927				
October 31st, 1926, to October 31st, 1927	95,274	72	93,395 11	
-				
	\$427,863	12	\$355,200 99	

SCHEDULE "B"

Ages		
Women		
Under 16		111 539
21-30.		489
Over 30		125
1/		
Men		
(Record not kept.)		
NATIONALITY		
	omen	Men
Canadian	821	673
English	190	119
Scotch	130 42	78 49
Irish	94	109
i oreign	71	107
Religion		
Protestants	993	720
Roman Catholics	276	248
OCCUPATION		
Domestic and waitresses	578	
Factory	204	
Stenographers and clerks	100	
Miscellaneous	258 36	
Housewife	30	
Married or Single		
Single	1.513	767
Marriad		20.3

N.B.—The above figures are only approximate as there are a number of cases in which we are unable to get any data.

Married....

CONCLUSION

In conclusion, it might be said that the work carried on by the Children's Aid Branch has only been possible through the devoted volunteer service given by thousands of citizens in many directions. Public sentiment is the strongest factor in the successful operation of any social law, and this has always been with the Children's Aid Society in its efforts to safeguard and enrich the child life of the Province. To make the work still more complete we would ask those who have comfortable homes and no children to consider seriously the adoption of a little boy or girl and thus add to their own happiness in addition to performing an act of the highest altruistic service.

J. J. Kelso.

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SECOND REPORT

OF THE

LIQUOR CONTROL BOARD

OF

ONTARIO

From November 1st, 1927, to October 31st, 1928

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed and Published by the Printer to the King's Most Excellent Majesty 1929



Liquor Control Board of Ontario

110 University Avenue, Toronto 2, January 25th, 1929.

To Colonel the Honourable W. H. Price, K.C., Attorney-General, Province of Ontario,
Parliament Buildings, Toronto 5, Ontario.

SIR:-

The Liquor Control Board of Ontario has the honour to submit herewith its second report for the year ending 31st of October, 1928.

FINANCIAL STATEMENT

Forwarded herewith is the balance sheet and profit and loss account prepared and certified to by Messrs. Clarkson, Gordon, Dilworth, Guilfoyle and Nash, who conduct a current and extensive audit of all the Board's activities.

On referring to the balance sheet, it will be noted that the amount of fixed assets was \$210,732.17, this amount being made up of the cost less depreciation of the premises at 154 Wellington Street West, Toronto, and the land purchased in Fort William and on which a warehouse is now being erected. Included also is the value of fixtures and alterations in rented premises, furniture and equipment less the amount written off.

Current assets amount to \$3,737,069.09, being composed of the following items:—

Cash on hand	\$120,041 43
from Customs Department, freight claims	84,335 85
Inventories of liquors and supplies	3,502,880 33
Prepaid insurance and rental	29,811 48

The liabilities are shown as \$3,339,952.69. This amount is composed of the following items:—

For liquors and supplies	\$3,296,862 40
Miscellaneous accrued charges.	11,735 95
(The principal item being accrued rents, \$9,997.17)	
Due Provincial Treasurer	31,354 34
(For permit sales and confiscated stock)	

It will be observed that a surplus is shown of \$607,848.57, being the balance of the net profits for the fiscal year after paying the Provincial Treasurer the sum of \$7,225,000.00. This surplus is represented by our assets, the amount thereof being the excess of assets over liabilities. It does not, of course, take into consideration contingent liabilities which amount to \$4,316,025.24. These contingent liabilities, while representing matters that have to be set up, are nevertheless not a fair charge on the operations of the Board, for the year that just closed.

The profit and loss account shows sales of \$48,995,591.19. These sales include sales made through the Liquor Control Board stores and warehouses and the sales made from breweries and brewery warehouses. The amount sold by the breweries and brewery warehouses being \$14,649,666.00 as against \$34,345,925.19, the amount sold by the Board.

The statement shows a gross trading profit of \$9,869,020.12 and a net trading profit of \$7,019,944.39. This sum was augmented by other revenue to the extent of \$808,143.93, resulting in a total amount of \$7,828,088.32, which is carried to the balance sheet.

For purposes of comparison, the percentages that the cost of stock sold, miscellaneous earnings and expenses and other revenue, bear to the total of gross sales are given for the year 1928 and for the five months' operation in 1927.

Besides the balance sheet and profit and loss account, statements showing summary of sales and the Board's expenses of administration and operation for the twelve months are also attached. Again for the purpose of comparison, the individual percentage which all these expenses bear to the total sales is given for both periods on the expense statement.

In addition, all Liquor Board stores, brewery warehouses, breweries, wineries, and all the companies operating distilleries in Ontario are set forth on Schedule III attached and a classification of permit and license sales appears on Schedule IV.

STORES

Thirty-nine new stores were opened during the year. They were:-

	ity inite new westers were opened durin	ig the year. They	***************************************
	Location		Date of Opening
Store No.	39—King Street	Cohourg	
"	25—King and Sydenham Streets.	Dundas	Nov. 10th, 1927
"	88—River Street	Paris	Nov. 24th. 1927
46	89-Main, Mattawa-Pembroke Highway	Mattawa	Dec. 1st. 1927
66	87—Front Street	Sioux Lookout	Dec. 6th 1927
"	90—68 Simcoe Street North	Oshawa	Dec. 12th, 1927
66	29—Burford Street	Wiarton	Dec. 13th, 1927
66	86—Queen and White Streets	Dryden	Dec. 15th, 1927
66	91—29 Duncan Avenue	Kirkland Lake	Dec. 19th, 1927
"	92—71 4th Avenue		
66	30—West Victoria Street	Walkerton	Feb. 9th, 1928
46	19—Rogers Road and Blackthorn Avenue		
66	93—Gilmour Road		
66	95—21 Water Street North	Galt	Mar. 1st, 1928
66	94—Bridge Street North	Eganville	Mar. 15th, 1928
"	97—Dundas Street		
"	96—112 Main Street		
- 66	98—22 Main Street	Alexandria	April 23rd, 1928
46	100—23 Albert Street	Thorold	May 5th, 1928
"	99—Emard Street	Embrun	May 8th, 1928
66	16—106 Richmond Street West.	Toronto	June 6th, 1928
66	101—48 Main Street	Grimsby	June 9th, 1928
"	103—Tudhope Street	Espanola	June 13th, 1928
46	105—Concession Street	Tamworth	June 13th, 1928
46	102—Muskoka Street		
66	104—Main Street		
66	106—Main Street.		
66	108—Woodward Avenue	Blind River	Julie 20th, 1920
66	109—Ramsay Street.	Ambarethura	July 12th 1028
"	110—46 Wallace Street.	Wallaceburg	Aug 2nd 1028
66	111—Bedford Street		
66	115—43 King Street North	Waterloo	Aug 27th 1928
66	114—Corner 4th Street and Broadway	Rainy River	Aug 28th 1928
	ATT COINCI THI DITCE and Diodaway	ixuity ixiver,	1.08. 2001, 1720

STORES—Continued

	Location	Date of Opening
Store No.	. 116—Arthur Street	Elmira
"	112—Government Road	
"	113—Opongo Street	Barry's Bay Sept. 6th, 1928
"	117—Birch Street	

The total number of stores in operation at the close of the year was 117.

Brewery Warehouses

27 Brewery Warehouses were opened during the year, as follows:

Location		Date of Opening
897 Queen Street East	.Toronto	. Nov. 19th, 1927
King Street West	. Dundas	. Nov. 26th, 1927
497 James Street North	. Hamilton	. Dec. 8th, 1927
426 Bank Street		
223 Dalhousie Street	.Ottawa	.Dec. 12th, 1927
161 King Street West	.Oshawa	. Dec. 14th, 1927
14 St. Paul Street	.St. Catharines	. Dec. 15th, 1927
9 Market Street	.Thorold	. Dec. 19th, 1927
Colborne Street	.Oakville	. Dec. 17th, 1927
Front Street	.Sioux Lookout	.Dec. 21st, 1927
Burford Street	. Wiarton	.Dec. 19th, 1927
35 Goodfish Road	. Kirkland Lake	.Jan. 14th, 1928
Durham Street	. Walkerton	.Feb. 11th, 1928
39 Dickson Street	. Galt	. Feb. 15th, 1928
Muskoka Road and Main Street	.Gravenhurst	.Feb. 14th, 1928
Mill Street	. Napanee	. April 5th, 1928
Main Street	. Alexandria	.April 7th, 1928
Nelson Street	. Wallaceburg	. April 14th, 1928
1395 Gerrard Street East	. Toronto	. April 14th, 1928
Goderich Street	.Port Elgin	.April 21st, 1928
2 Marlborough Street South	.East Cornwall	. May 15th, 1928
1 Main Street	. Morrisburg	. May 23rd, 1928
2420 Dufferin Street	.Fairbank	. June 15th, 1928
1145 Yonge Street	. Toronto	July 7th, 1928
Main Street	. Palmerston	.Aug. 4th, 1928
Regent and King Streets		
3333 Danforth Avenue	.Toronto	. Sept. 12th, 1928

The total number of brewery warehouses in operation at the end of the year was 102. It should be noted that there are thirty-seven breweries producing and selling beer in Ontario and that in addition to this, five other Canadian breweries, outside of the Province, also are represented in the brewery warehouses.

The Board is convinced that this number of breweries and the number of distilleries now authorized are sufficient and more than sufficient to cover the Ontario field and that no new undertakings should be incorporated either by Dominion or Provincial authority.

WINERIES

The number of native wineries operating is fifty-one, all of which have been properly licensed by the Board.

SALES

1928 has been a prosperous year. The number of tourists has largely increased. The large Fairs and Exhibitions were particularly well attended, bringing many strangers to Ontario. The sale of liquors has increased. In

the five months' period of 1927, compared with the like period of 1928, the results were as follows:—

Domestic beer. Imported beer. Wines—Canadian Wines—imported. Spirits.	118,302 45 140,531 20 397,578 14	125,101 20 469,425 80 704,876 60	\$3,133,205 98 6,798 75 328,894 60 307,298 46	5.5 234. 77.2
	\$17,533,659.41	\$23,581,667 26	\$6,048,007 85	34.5

The consumption of spirits varies. Periods of prosperity increase it. It decreases with periods of decreased purchasing power. Over and above all this, the teaching of the principles of temperance and the advance of moderation and self-restraint always plays the most important part. After the test of prohibitory laws, it may be affirmed that moral advance and the personal acceptance of voluntary limitation, if not voluntary abstinence, is the real solution of evils arising from the abuse of intoxicating liquors.

The Dominion statistics showing the consumption of spirits (Canadian

production) for Ontario are of interest.

Year Distilled liquo consumption	
1912	
19131,935,386	"
1914	
1928. 1,049,825	

As Prohibition became effective in 1916 and the unrecorded and unrecordable activities of bootleggers commenced on a very large scale—carried on by men who became very affluent—statistics for intermediate years are not of much value. A great quantity of liquor was brought into Ontario from other Provinces and as well as liquor produced in Ontario, illegally sold.

The great activities brought about largely by large railway development still persisted in 1913, although signs of financial depression were evident.

1915 was a year of depression. The Great War was in progress and Canada had not then developed her war mercantile activities.

A decrease of 264,827 gallons or over 13.68 per cent. will be noted, but many of Ontario's population had already left the country on war activities.

The regular compilation of trade statistics is based on Dominion trade only, but commencing with the fiscal year 1918, a special compilation of Provincial trade has been made. Prior to that date, the figures showing the volume of imported distilled liquors released for consumption in Ontario are not available.

To note the consumption of liquors including the imported, reference must be made to the totals for the whole country. Those for 1915, a year of reduced volume, are taken.

Distilled liquore (demostic) and and for a sure visit	1915	1928
Distilled liquors (domestic) entered for consumption in Canada Distilled liquors (imported) entered for consumption in	4,021,091 gals.	1,896,357 gals.
Canada Excess of 1915 over 1928	2,921,839 "	2,457,131 " 2,589,442 "
5.1000 01 1710 0ver 1720		2,309,442
	6,942,930 "	6,942,930 "

The result of these statistics then shows a reduction in the consumption of domestic distilled liquors in Ontario as between 1915 and 1928 of 620,734 gallons or 37 per cent. and for Canada including imported liquors a reduction of 2,589,442, the same percentage. Further examination is, however, necessary. The use of non-potable alcohol, with the advance of the manufacturers and the arts, has very largely increased since 1915. The statistics for 1915 include non-potable with the potable. What the total use of non-potable alcohol was in 1915, the Board has been entirely unable to ascertain, but it was negligible compared to the 1,069,622 gallons of non-potable spirits entered for consumption in 1928.

Again in 1915, none of the liquors exported into the United States were entered for consumption in Canada. It was all exported under bond without release for consumption. To-day, all liquor exported to the United States is liquor already released for consumption in Canada. Exports to the United States in 1928 were 1,148,000 gallons.

If the statement be recast giving effect to this export and on the violent assumption that there has been no increase in the use of non-potable alcohol, the result would be:—

Distilled liquor (domestic) entered for consumption in	1915		1928	
Canada. Non-potable liquor entered for consumption in Canada Distilled liquor (imported) entered for consumption in	4,021,091	gals.	1,896,357 g 1,069,622	als.
Canada	2,921,839	"	2,457,131	"
Less amount of liquor entered for consumption in	6,942,930	"	5,423,110	"
Canada, but exported to the United States	None		1,148,000	"
Excess of 1915 over 1928	6,942,930	"	4,275,110 2,667,820	"
	6,942,930	46	6,942,930	"

The unit of alcoholic consumption again depends on population. Ontario's population was estimated by the Dominion Bureau of Statistics as 2,681,070 for 1915 and as 3,229,000 for 1928. The estimate for the Dominion for 1915 was 7,862,000 and for 1928, 9,658,000.

In view of the increase of population and the fact that 1928 was a very prosperous year and 1915 much the reverse, the official figures indicate a very large decrease in the consumption of alcoholic liquors.

The results, however, must be qualified by certain considerations:-

First.—The exports of 1915 were made in bond and there was no short-circuiting in Ontario of liquors presumed to be for export. This has taken place to an amount entirely unascertainable in 1928. It is hoped that the new regulations of The Honourable The Minister of National Revenue, for the better control of the export business, will relieve this short-circuiting. In proportion to the efficacy of such Regulations an increase may be expected in the gallonage entered for consumption in Ontario.

Second.—A large amount of liquors were stocked by people, who could afford to stock them, prior to Prohibition. While in the majority of cases those supplies have been exhausted, they are not entirely exhausted and to the extent that they still exist it will be reasonable to suppose that the total entered for consumption in Canada would proportionately increase after their complete disappearance.

Third.—While bootlegging on a grand scale by the big bootleggers could be and has been stopped and their great profits now enjoyed by the Province, there is still far more bootlegging on a small scale than there was in 1915,—far more "swamp" or "moonshine" whisky and far more deleterious substitutes for alcohol than in 1915. It should also be noted that for Ontario alone the filings with the Department of Excise under which Home Brew beer may be produced reached the great total of 74,663 as of October 31st, 1927. The Board have been unable to secure later figures from Ottawa.

Illegal practices once gaining sway and the safer methods of production and distribution worked out, the process of ending them is slow and difficult.

The lessening and ultimate cessation of these illegal practices will again tend to transfer their unrecordable volume to the official figures and thereby increase them; certainly to the extent liquor has been short-circuited and illegally produced in the Province, the official figures fall short of showing the

actual consumption.

The large reduction shown in gallonage will undoubtedly surprise many in view of the large sales of your Board. The reason, however, of any misunderstanding is very plain. The Board's results are in dollars and indicate retail prices and there has been a very great increase in the price of whiskies and other spirits. The Dominion tax has risen from \$2.40 per gallon of alcoholic content on imported liquors to \$10.00, while the Excise tax on domestic liquors has been raised to \$9.00. In addition to this, the Dominion Sales Tax of three per cent. is now applicable. As a result the public to-day pays \$2.75 for the same domestic whisky they purchased in 1915 for 75 cents per bottle, while the standard Scotch brands which formerly sold for \$1.00 per bottle are now sold for \$3.55.

An equal dollar public sale, gross total, in 1915 to a like gross total in 1928 would mean that approximately three and one-half times as many gallons would have to be sold in 1915 as in 1928.

The Board is of the opinion that too much reliance cannot be placed in statistics in view of the illegal practices that have grown up and which are now in process of eradication. No one can have any definite information of what the consumption of liquor has really been of recent years.

ALCOHOL

The Board has felt obliged to change the regulations affecting the sale of grain alcohol. Formerly, grain alcohol was never regarded as a beverage in Ontario, although used as a base for beverages in Latin and other countries where its strength and dangerous qualities were well known. Its use in Ontario was formerly confined to medicinal, scientific and manufacturing purposes. When your Board commenced to function, it found that a large sale had been carried on by the Ontario dispensaries. In the year ending October 31st, 1926, and for the seven months' period ending May 31st, 1927, 25,253 gallons had been sold by the dispensaries. In addition to that, large sales were being made by older established Government Commissions. The Board therefore listed alcohol following the practice which had grown up. Your Board, however, became convinced that by far the greater part of this alcohol was being used for beverages and not for medicinal purposes and stopped its general sale. It can now only be obtained for medicinal, scientific or manufacturing purposes. Its strength is 65 per cent. overproof, or in other words, it contains 94.2 per cent. by volume of absolute alcohol, equivalent to 165 degrees of proof spirits.

The Board's conclusion has been borne out by the result. General sales stopped with June 30th of the current year. The fortnightly return of sales in the Board's stores shows that for the fortnight ending June 30th, 534 cases of 65 per cent. overproof alcohol were sold. For the fortnight ending July 14th, that sale had dropped to ten cases. The result of this fortnight is not out of line. Eight fortnightly periods have elapsed since the change came into effect. Taking eight fortnightly periods before the change became effective, the total sales amounted to 4,755 cases of 65 per cent. overproof alcohol, while the sales for the like number of periods after the change, only amounted to 123 cases. There was then under former conditions, an average fortnightly sale of 595 cases, as against 16 cases since the change became effective.

It was forcibly represented to the Board that should the sale of 65 per cent. overproof alcohol be stopped and large sales by other Commissions continued, in view of the fact that a large number of the public had become used to this intoxicant, bootlegging in alcohol would become rampant. This situation has been met by the sale of "Whisky Blanc," which is simply grain alcohol reduced to a strength of 48 per cent. underproof—a reduction of 113 degrees. The character of the drink remains as it was, but its dangerous strength which had

resulted in deaths, entirely removed.

Grain alcohol, proper and necessary as it is for medicinal purposes, is extremely dangerous. The average strength of whisky sold to-day is 25 per cent. underproof or 75 per cent. of proof spirits by volume. Alcohol contained therefore, 120 per cent. more alcoholic content than whiskies and was more than twice as intoxicating. The Board's statistics demonstrate beyond all question the alarming extent to which this dangerous article had been subverted to beverage purposes. Its sale was also a great help to bootlegging, as three or more bottles of whisky could be and were made out of one bottle of alcohol.

DOMINION TAXATION

Dominion taxation still continues to be the greatest expense attendant on your Board's operations. These taxes comprise Custom's duties, Excise rates, malt duties, beer gallonage and Sales Tax. During the period now closed, the total amount paid to the Dominion under the above headings, exceeded \$15,500,000.00. It will be observed, therefore, that in respect of the activities of but one province, the Dominion receives from the liquor business a sum more than twice the net profits of this Board. On a bottle of cheap Canadian whisky, which we sell to the public of Ontario for \$2.30, the Dominion taxes are \$1.15, while on a bottle of imported Holland's Gin, selling to the public for \$2.60, the Dominion taxes amount to \$1.50.

The standard carton containing two dozen pints of beer sells for \$3.25 less a rebate of 72 cents for the returned empties resulting in a net cost to the public of \$2.55. The Board's charges on the carton are 5 per cent. or $16\frac{1}{4}$ cents., while the Dominion's taxes on the carton amount to 42 cents.

PERMIT SUPERVISION

The social side of the Board's work has been largely extended. It will be entirely impossible to finally achieve proper results without the co-operation of social workers and others desirous of improving the social conditions of the people. The Board is in the happy position to-day of having co-operation from a number of associations and people who have devoted their lives in the great field of social reform, as well as from family sources.

Many permits have been cancelled. In the opinion of the Board, permits ought to be cancelled, not only in cases where liquor has been abused, not only in cases where liquor may be purchased for resale, but also in all cases where the purchases of liquor are made at the expense of the home. The purchase of liquor ought to come and must come after, and a long way after, the necessities of life, and adequate duty to dependents, if proper living conditions are to be maintained.

Further, vendors and store staffs have been enjoined to render co-operation in the putting down of abuses of the permit privilege, to apply their local knowledge, to collect doubtful permits, and from time to time to invoke Head Office assistance in dealing therewith. It has been emphasized to them that the keynote of the law is "control," not sale, that moderation is the best way to support the law, and that satisfactory service by a store is best proved, not by volume of sales, but by prevalence of good social conditions in the surrounding community and absence of drunkenness and of complaints from neglected dependents.

Many hundreds of interviews have contributed wholesomely to the checking of excess. Constantly improving "team work" throughout our organization has resulted, with salutary effects, and we are glad to believe it is recognized as a rule by those affected that these measures are prompted not by caprice but by the desire to assist the good working of the law through inculcating moderation and good sense on the part of permittees.

It is desired that the public be made aware of the prominence that is being given to the work thus initiated and hence the Board gratefully acknowledges the assistance of those who, whether they are in sympathy with the Act or not, nevertheless place the good of those requiring assistance above all other considerations and have given the Board the intimate details which outside of the family itself, can only be known to the clergyman and the social worker.

As a result of this co-operation, the number of cancellations of permits has increased rapidly. During the initial five months' period ending October 31st, 1927, cancellations totalled 615, with four orders of interdiction. With the fiscal year ending October 31st, 1928, the number of cancellations has risen to 5,118 with twenty orders of judicial interdictions and the examination of 391 cases which have been so adjusted as to limit permittees without cancellations. At the close of the fiscal year, there were some 738 cases being investigated with a view of cancellation or other proper discipline.

It has been said that by cancelling permits, the Board is only playing into the hands of the bootlegger. In some cases, the bootlegger is probably assisted through cancellations, but on the other hand, the campaign against the bootlegger proceeds actively and it is the opinion of the Board that abuses and excesses ought never to be sheltered by a permit after the Board is seized of the facts.

Dangerous Substitutes

The police are active in their prosecution of drunkards. The casual drunkard is not simply released when sobered, in the morning, as was generally the case, but all cases of drunkenness known to the police are pressed to trial. Although drunkenness may not be much in evidence in the streets, at the fairs and exhibitions and although months may pass before the general citizen observes a single case of drunkenness, nevertheless drunkenness still exists as is shown by police statistics.

Many of the convictions for drunkenness are the result of practices which have sprung up in the last few years. The social workers who attend the police courts and are active in the work of regenerating the unfortunates therefrom, show that a very large number of those convicted for drunkenness became drunk on rubbing alcohol; others on "canned heat."

Rubbing alcohol is a compound which has been specially authorized by Dominion authority. The objects which led to the introduction of rubbing alcohol were entirely laudable. Under Dominion law, the tax on alcohol domestically produced, which was \$9.00 a gallon, 100 per cent. proof spirits, became \$14.85 in the case of the regular grain alcohol which was used for medicinal purposes as that alcohol, being of a strength of 65 per cent, overproof, was of course, taxed on the extra alcoholic content. The motive for the cheap rubbing alcohol was to supply those who could not afford to pay the high price for pure grain alcohol with a cheap substitute. The Dominion levies no tax whatever on its alcoholic content, but with a view of rendering it non-potable and preventing it coming into direct competition with alcohols which had paid the high Dominion tax, it had to be manufactured containing such ingredients as in the opinion of the Dominion chemist rendered it too nauseous for beverage purposes. Since 1922, slowly but surely, there has grown up a group of people who, desiring to have the effect of complete drunkenness brought about just as easily and just as cheaply and quickly as possible, have so trained their palates—that this nauseating mixture—to those unaccustomed to it—is drunk freely by them. In one large city, fifty per cent. of all the drunks consisted of the so-called rubbing alcohol addicts. The question has been taken up with the Ottawa authorities who are trying out other prescriptions which, short of poisoning and destroying the effect of the proper application of the rubbing alcohol, will render the mixture so unpalatable as to be undrinkable. The Board is of the opinion that these attempts will fail and is now considering treating the sale of this rubbing alcohol which is carried on by the druggists along the lines of sales of noxious drugs.

Although not so large in number, there are also drunkards who use the alcohol extracted from "canned heat" and "home brews" fortified by alcohol. None of these intoxicants are obtainable in the Board stores.

EXPORT OF LIQUOR

Prior to the enactment of the so-called Volstead Act of the United States, liquor was exported to that country subject to duty, but a bond of double the amount of the duty was taken. This bond, in the ordinary course of business, was discharged on the receipt of proper evidence of the arrival of the liquor in the United States. Under these conditions, probably no liquor sold for export ever returned to the Province. Under existing conditions, it is of course impossible for the exporters to receive the required certificates of landing in the United States. As a result, the practice has sprung up of exporting to that country, duty free liquor, that is, liquor on which all Dominion taxes, whether Customs, Excise or Sales Tax, has been paid. The business is carried on under the shelter of what is known as B-13 forms. These forms may be obtained by anyone desiring them. They are looked upon as evidencing the intention to export.

Under the Dominion law, liquor may be shipped into and out of the Province, but may not be shipped into the Province for consumption or sale in

the Province, unless it be addressed to the Board.

Irregularities were found to exist in connection with the so-called export

business. Liquors which were, as the term is, short-circuited, were sold in Ontario and seized at various points. The conditions were particularly bad in the Windsor district; a number of seizures were made and prosecutions conducted to a successful termination, but, much more important, the real short-comings of the system—the methods by which liquor was short-circuited and sold for consumption in the Province—were made manifest.

The whole question was taken up by your Board with the Honourable the Minister of National Revenue, whose Department controls the Export business. He advised your Board that under the law, as it stood, he could not refuse Export clearances to the United States, and that any change in the law would have to be a matter of Government policy and was not a matter

of Departmental administration.

In order to reduce the irregularities which existed and, if possible, to remove them, the Honourable the Minister of National Revenue has made a large reduction in the number of docks in the Windsor district from which export can be made. While loadings could take place and did take place in the past without any supervision whatever, the loadings, in future, will only be made in the presence of a Custom's officer who can accurately check the actual movements out of the Province, as under the new regulations put in force by the Honourable the Minister of National Revenue, liquor can only be shipped from docks at which there is a Custom's officer in charge. In addition to this, the use of B-13 forms is to stop. Their abuse was amply shown in the cases tried in Windsor.

Hereafter, the movements of liquor for export from the Province must be made by a permit with the proper serial number issued by the Department itself. The Board understands that at an early date the new regulations will cover all export docks in the Province and that docks at other points will also be reduced. It is hoped that a substantial relief will be obtained through these reforms and that the short-circuiting, which has so undoubtedly taken place, substantially reduced. The changes effected by the Minister may be summarized as:-

1. The reduction of docks.

The elimination of the abuse of the B-13 forms.
 The loading of liquor for export in the presence of a Custom's officer.

SUGGESTED AMENDMENTS

From time to time, large seizures are made of liquor which is claimed to be held for export. The usual proceedings taken are to charge "illegally having" under the Act. Constables are unable to prove "keeping for sale" by actual evidence, and magistrates usually refuse to give effect to the presumption that the having of a large quantity of liquor under certain circumstances was for the purposes of sale. The liquor is, of course, confiscated and the holder fined under the Act. This is not at all a satisfactory solution. It does not enable the authorities to trace the liquor to its source, and the source of the supply is the matter of prime importance to be established in order to stamp out illegal practices. One illustration will suffice:

A recent seizure was made on a farm in the Niagara district, some six miles away from the water. The police found in a hide, liquor which they estimated at a value of \$3,000.00; none of it bore the Board's seals. The holder was charged with "illegally having" under Section 72 (2) of the Act. The penalty for the infringement of this section is provided by Section 103, which provides a minimum fine of not less than \$100.00 and not more than \$1,000.00. The fine imposed was \$250.00. Those engaged in the business always refuse to give any information to the police, from which the movement of the liquor could

be properly traced to its source.

Bootlegging and short-circuiting will never really be stopped until proceedings are effectively taken against those supplying liquor in the first instance. The Board suggests an amendment to the penalty clause which would provide that in all cases where the liquor seized carries the Board's seals and exceeds \$50.00, and in all cases where such liquor is without such seals that, in addition to the fine, a three months' sentence be imposed, unless the accused, to the satisfaction of the court establishes the manner in which the liquor was conveyed to the place where it was found, and by whom, as well as full particulars of the vendor or vendors and of the whole transaction.

Seizures, in the past, have been made of large quantities of liquor under the Ontario Temperance Act, which seizures were of necessity abandoned owing to proof of ownership by an American citizen and on the ground that the goods were in process of export. Under the local Acts, just as much under the Liquor Control Act as the Ontario Temperance Act, officers with search warrants could only seize and take intoxicating liquors. They could not seize and take books showing the course of business and papers indicating ownership. The only reason why the raids of last summer have succeeded where others failed, was that charges were laid under the Criminal Code which enabled search warrants to be issued under the Code, under which the police could seize and did seize not only the intoxicating liquors found, but also all books of account, documents and papers. The possession of these papers rendered impossible the effective defences of the past. It is submitted that the appropriate amendments should be made so that the seizures of papers, etc., can be made under the Liquor Control Act as fully and completely as under the Criminal Code itself.

Attention should also be called to the existing penalties for drunkenness. The penalty for the first offence is \$100.00 and in default imprisonment for not more than thirty days. For the second offence, to a penalty of not less than \$200.00 nor more than \$500.00 and, in default, to imprisonment for not less than two months, nor more than four months. The greater majority of these cases are poor people, whose families can ill afford the loss of the fine or the loss of a month's support. Drunkenness is now regarded as an offence and it ought to continue to be so treated and convictions always secured, but the Board is of the view that some greater discretion might well be left the magistrates.

LAW ENFORCEMENT

Enforcement of the Liquor Control Act being under your charge, the Board heartily appreciates the co-operation given to it by yourself and all members of the staff of the Commissioner of Police. Material aid has also been given by the Municipal Police throughout the Province, all of which has produced satisfactory results.

We have the honour to be, Sir,

Your obedient servants,

H. A. DRAYTON,

Chief Commissioner.

STEWART MCCLENAGHAN,

Commissioner.

J. M. McNamara,

Commissioner.

BALANCE SHEET

31st October, 1928

. Assets

Confiscated liquor. Sayable and Accrued Charges Sayable and
Accounts Payable and Accrued Charges
Accounts Payable and Accrued Charges. \$3,308,598 35 Provincial Treasurer: Permit Sales—Balance from 1927. \$13,390 33 " " —1927–1928 (net) 881,472 04 Less: Paid to Provincial Treasurer 893,390 33 Permit sales—1928-1929 20,939 37
Provincial Treasurer: Permit Sales—Balance from 1927. \$13,390 33 " "-1927-1928 (net) 881,472 04 \$894,862 37 Less: Paid to Provincial Treasurer 893,390 33 Permit sales—1928-1929 20,939 37
Permit Sales—Balance from 1927
Less: Paid to Provincial Treasurer
Permit sales—1928-1929
31,354 34 \$3,339,952 69
Surplus 1st November, 1927
October, 1928
Less: Paid to Provincial Treasurer. \$7,832,848 57 7,225,000 00 Surplus 31st October, 1928 (represented by goods purchased and other assets) 607,848 57
Contingent liabilities: Goods ordered but not delivered\$2,338,180 61 Duty on goods in bond
William

Auditors' Certificate

We certify that we have audited the books and accounts of the Liquor Control Board of Ontario for the year ending 31st October, 1928, and in our opinion the above balance sheet exhibits a true and correct view of the position of its affairs on that date.

CLARKSON, GORDON DILWORTH, GUILFOYLE & NASH, Chartered Accountants.

Toronto, 18th December, 1928.

PROFIT AND LOSS ACCOUNT

For year ending 31st October, 1928

			Perce of S	entage
		040 00F F04 44	1928	1927
Sales (Schedule I),	\$2,495,978 99 40,146,296 38	\$48,995,591 1	9 100.00	100.00
	\$42,642,275 37			
Stock on hand, 31st October, 1928	3,488,155 98			
Cost of stock sold		39,154,119 39	79.91	80.47
Miscellaneous earnings		\$9,841,471 80 27,548 3		19.53
		\$9,869,020 12	20.14	19.55
Expenses: Administering and operating head office warehouses and stores (Schedule II). Furniture, equipment, fixtures and alterations to rented premises, written off	\$2,293,381 82			
tions to rented premises, written on	333,093 91	\$2,849,075 73	5.81	5.08
		\$7,019,944 39	14.33	14.47
Other Revenue: Brewery warehouse fees Brewery fees Light beer licenses, standard hotels, etc Fines (net)	\$360,950 00 166,500 00 49,022 00 231,671 93		1 6"	1 50
		808,143 93		1.53
Carried to Balance Sheet		\$7,828,088 32	15.98	16.00

SCHEDULE I

SUMMARY OF SALES

Year ending 31st October, 1928

Store—Counter and mail order sales of wines, spirits and beer		73	
Beer orders taken at stores for delivery by breweries and brewery			
warehouses	474,844	55	
Head office and warehouse sales	42,673	91	
			024 24

\$34,345,925 19
Beer sales by breweries and brewery warehouses. 14,649,666 00

\$48,995,591 **19**

SCHEDULE II

ADMINISTRATION AND OPERATING EXPENSES—HEAD OFFICE, WAREHOUSES AND STORES

Year Ending 31st October, 1928

And Number of Employees on the Staff at 31st October, 1928

	Head Office	Warehouses	Stores	Total	Perce to Tota 1928	ntage al Sales
Executive salaries Salaries Legal, audit and ac-	\$53,999 52 452,306 58	81,239 74	875,496 67	\$53,999 52 1,409,042 99		.16 2.57
countants'services Rentals Travelling Foreign exchange	28,081 77 25,200 00 35,357 40	16,200 22	1,490 81	36,876 96	.38	.12 .34 .09
Insurance	2,099 02 11,280 49 24,397 08	6,003 79 159 53	39,545 66 6,770 41	47,648 47 18,200 43	.10	.09
graph Dominion Electric protection		398 52	5,865 41	12,010 06 6,263 93	.01	
BreakageLight, heat and power. Repairs and maintenance	6,052 13 5,889 91	3,110 98	24,924 56 11,567 91	34,292 91 20,568 80	.07	.04
Sundries	18,786 77 1,017 45	10,135 76			.40	.18 .42
Discounts to hospitals, etc	61 09 1,051 73		9,380 92			.01 .02 .11
	\$670,390 87		\$1,410,900 03			4.69
Percentage of total exp Percentage of total sale			29.23% 9.2	5% 61.52%		0.00%
1928 1927				44% 2.88% 36% 2.89%		4.69% 4.69%

NUMBER OF EMPLOYEES ON THE STAFF

At 31st October, 1928

SCHEDULE III

STORES, BREWERS' WAREHOUSES, BREWERIES AND WINERIES IN OPERATION

At 31st October, 1928

STORES

STORES	
154 Wellington Street West	. Toronto
1881 Queen Street East	. Toronto
1271 Queen Street West	.Toronto
2223 Dundas Street West	.Toronto
617 Yonge Street	. Toronto
949 Gerrard Street East	. Toronto
106 Richmond Street West	. Toronto
52 Wyandotte Street East	. Windsor
	Lombard and Church Streets. 154 Wellington Street West. 1271 Dundas Street West. 170 Danforth Avenue. 1881 Queen Street East. 1271 Queen Street West. 2223 Dundas Street West. 2123 Dundas Street West. 2136 Bloor Street West. 2167 Yonge Street. 217 Yonge Street. 218 Danforth Avenue West. 218 Danforth Avenue. 219 Gerrard Street East. 219 Gerrard Street East. 220 Parliament Street. 231 Avenue. 242 Parliament Street. 243 Danforth Avenue. 244 Spadina Avenue. 254 Spadina Avenue. 255 Dundas Avenue. 266 Richmond Street West. 267 Road and Blackthorn Avenue. 278 Charles Street. 287 King Street East. 287 King Street East. 288 Fraser Street. 29 Charles Street. 29 Charles Street. 20 Charles Street. 21 Canal Street. 22 Canal Street. 238 London Street. 338 London Street. 338 London Street. 338 London Street.

STOERS—Continued

Chan V	STOEKS—Continued	
Store No.	and the state of t	
33	93 Drouillard Road	. Ford
34	82 Victoria Road	. Walkerville
35	29 Sandwich Street	
36	272 Queen Street	
37	685 Bank Street	
38	188 Rideau Street	
39	King Street	. Cobourg
40	Market Square	Kingston
41	100 Simpson Street	Fort William
41A	109 Simpson Street	Fort William
42	101 Vive Charact West	Day -1
	101 King Street West	. Brockville
43	137 King Street East	
44	69 Dalhousie Street	. Brantford
45	408 George Street	. Peterborough
46	Christina and Cromwell Streets	.Sarnia
47	Ontario Street	St Catharines
48	937 Victoria Avenue	Ningara Falle
49		
	66 Pitt Street	. Cornwan
50	Cedar and Elgin Streets	Sudbury
51	72 Carden Street	. Guelph
52	269 Main Street East	. Welland
53	66 Cumberland Street South	. Port Arthur
54	88 Main Street East	
55	185 Alexandria Street	Pembroke
56		
	Water Street	
57	52 Bridge Street East	. Belleville
58	4 Balsam Street North	. Timmins
59	72 Collier Street	. Barrie
60	88 Ontario Street	.Stratford
61	210 King Street West	
62	314 Talbot Street	
63	343 Queen Street East	Soult Sto Morio
	545 Queen Street East	. Sault Ste. Marie
64	516 Dundas Street	
65	Front Street	
66	6th Avenue North	. Cochrane
67	Main and Ferguson Streets	. Haileybury
68	214 Main Street South	Kenora
69	Church and Mowat Streets	Fort Frances
70	Bickwith Street	Smith's Falls
71		
	King and Main Streets	. Gananoque
72	Gore and Herriot Streets	. Pertn
73	610 King Street	
74	61 Robinson Street	. Simcoe
75	Devonshire Avenue	. Iroquois Falls
76	Prospect and Silver Street	
77	121 Main Street	Penetang
78	Whitewood Avenue	Now Lieboard
79		
	79 Walton Street	. Port nope
80	Great North Road.	. Parry Sound
81	Main and Queen Streets	. Sturgeon Falls
82	79 Kent Street	. Lindsay
83	31 Main Street West	. Hawkesbury
84	Main Street	
85	Daniel and Elgin Streets	Arnorior
86	Queen and White Streets	Dryden
87	Front Street	Ciour Lookout
88	River Street.	. Paris
89	Main and Mattawa-Pembroke Highways	. Mattawa
90	68 Simcoe Street North	, Oshawa
91	29 Duncan Street	. Kirkland Lake
92	71 Fourth Avenue	. Englehart
93	Gilmour Road.	Fort Erie
94	Bridge Street North	
95	21 Water Street North	Calt
96	112 Main Street	Dogomon4-
	112 Main Street	. Deseronto
97	Dundas Street	
98	22 Main Street	
99	Emard Street	. Embrun
100	23 Albert Street	. Thorold
101	48 Main Street	. Grimsby

13W

14\V

15W

16W

17W 18W 19W 20W 21W

22W

23W

24W

25W 26W

27W 28W 29W 30W

31W 32W

33W

34W 35 W

36W 37W 38W 39W

40W

41W 42W

43 W 44W 45W 46W 47W

48W

49W

	Stores—Continued
Store No.	
102	Muskoka Street
103	Tudhope Street
104	Main Street
105	Concession Street
106	Main Street
107	Main Street
108	Woodward Avenue
109	Ramsay Street
110	46 Wallace Street
111	Bedford Street
112	Government Road
113	Opongo StreetBarry's Bay
114	Corner Fourth Street and Broadway
115	43 King Street North
116	Arthur Street
117	Birch Street
118	Young Street
	D I W
0. 27	Brewers' Warehouses
Store No.	354 D C D
1W	351 Front Street East
2W	74 King Street EastToronto
3W	581 Queen Street West
$4\mathrm{W}$	398 College StreetToronto
5W	496 Bloor Street West
6W	1485 Queen Street West
7W	2233 Dundas Street West
8W	1083 St. Clair AvenueToronto
9W	185 Danforth AvenueToronto
10W	1852 Danforth AvenueToronto
11W	Ferguson and Hunter Streets
12W	1092 Barton Street

80 Bathurst Street London

665 Dundas Street.....London

413 Hamilton Road.....London

1630 Ottawa Street Windsor 1503 London Street West Windsor 109 Sparks Street Ottawa 842 Somerset Street Ottawa 294 Princess Street Kingston

222 King Street East......Kitchener

217 Talbot Street St. Thomas Water and Lorne Streets Port Arthur

 268 George Street
 Peterborough

 23 Water Street
 Brantford

 112 McDonnell Street
 Guelph

58 Brock Street.....Brockville

150 Pinnacle Street.....Belleville

1 Pitt Street ... Cornwall University and Spring Streets ... Cobourg

George and Water Streets Prescott
22 Lorne Street Sudbury
143 Victoria Street North Sarnia

Lindsay and King Streets.....Lindsay

198 First Avenue West......North Bay

Beckwith Street.

Ridgeway Street.

Burger and Victoria Streets

Welland
492 Peel Street.

Woodstork

Killally Street......Port Colborne

423 Erie StreetStratford

78 Niagara Street......St. Catharines

Brewers' Warehouses—Continued

	Brewers' Warehouses—Continued
Store No.	
50W	Argyle Street
51W	269 Mill Street
52W	10 Main Street
	19 Main Street
53 W	182 Prince StreetPembroke
54\V	767 King StreetPreston
55\V	27 Cockburn StreetPerth
56W	Railway StreetKenora
57 W	101 Church Street Fort Frances
58W	King Street
59 W	Gilmour Road
60\\\	Post Office Square Barrie
61W	100 Daniel Square
	180 Drouillard RoadFord
62\V	Main Street
63W	Ferguson Avenue
64W	Main Street
65\V	William Street
66W	185 Lake Shore Road
67W	Main Street Picton
68\V	Dalhousie Street
69W	North Cayuga Street
70W	Main StreetBelle River
71W	
	Main StreetGlencoe
72W	Champagne Street
73W	Main Street Ridgetown
74W	Queen Street SouthTilbury
7:5\V	56 Lesperance RoadTecumseh
76W	897 Queen Street EastToronto
77\V	King Street West
78W	497 James Street North
79W	426 Bank Street Ottawa
80W	223 Dalhousie Street
81W	161 King Street WestOshawa
82W	14 St. Paul Street St. Catharines
83\V	9 Market Street
84\V	Colborne Street
85 W	Front Street. Sioux Lookout
86W	
87W	Burford Street
88W	35 Goodfish Road Kirkland Lake
89W	Durham Street
	39 Dickson Street
90W	Muskoka Road and Main Street
91W	Mill Street
92\V	Main Street Alexandria
93 W	Nelson Street
94W	1395 Gerrard Street East
95W	Goderich Street Port Elgin
96W	2 Marlborough Street South E. Cornwall
97W	1 Main Street
98W	2420 Dufferin Street
99\V	1145 Yonge Street
100\V	Main Street
101\V	Regent and King Streets
102W	3333 Danforth Avenue
10211	Daniel Frende Totolito

Breweries

O'Keefe Beverages, Limited
Dominion Brewery Company, Limited
Canada Bud Breweries, Limited
Hamilton Brewing Association, Limited Hamilton John Labatt, Limited London
Carling Export Brewing Company. London British American Brewing Company. Windsor
Capital Brewing Company, Limited. Ottawa Brading Breweries, Limited. Ottawa
Lake Ontario Brewing Company, Limited
Taylor & Bate, Limited

Breweries—Continued

Huether Brewing Company, Limited	Kitchener
Kakabeka Falls Brewery, Limited	Fort William
Port Arthur Beverages, Limited	Port Arthur
Bixel Brewing & Malting Company, Limited	Brantford
Quinte Breweries, Limited	Belleville
Sudbury Brewing & Malting Company, Limited.	Sudbury
Sarnia Brewing Company, Limited	Sarnia
Soo Falls Brewing Company, Limited	Sault Ste Marie
Cronmiller & White Brewing Company	
Perth Brewery, Limited (Devlin, Felix & Thomas)	
Kuntz Brewery, Limited	
Walkerville Brewery, Limited	Walkerville
Kenora Brewery, Limited	. Kenora
Fort Frances Brewing Company, Limited	Fort Frances
Riverside Brewery Company, Limited	Riverside
Formosa Spring Brewery, Limited	Formosa
Sleeman's Spring Bank Brewery	. Guelph
Chas. Schwan Brewery	
Reinhardt Brewery Company, Limited	. Toronto
Holliday Brewery, Limited	. Guelph
Rock Brewery	. Preston
Rock Brewery Tecumseh Brewing Company, Limited	. Tecumseh
Copland Brewing Company, Limited	. Toronto
Hofer Brewing Company, Limited	. La Salle

Breweries Located Outside the Province of Ontario whose products are sold through Ontario Brewers' Warehouses

Kiewel Brewing Company, Limited	
Molson's Brewery, Limited	Montreal, Que.
Frontenac Breweries, Limited	Montreal, Que.
Ontario National Beverages	
(Dow Brewery—Montreal)	

(Dawes Brewery—Montreal)

Wineries

Badalato, S	R.R. 9London
Bayliss, F. W	427 Spadina Ave Toronto
Belluz, Pietro	514 McTavish Street Fort William
Bradley, E. C	. R.R. 1 Fonthill
Bright, T. G., & Company, Limited	Niagara Falls
Canada Vine Growers, Ltd	
Canada Wine Products, Limited	83 King Street West Toronto
Canadian Wine Company	. 889 Oueen Street West Toronto
Castrucci, O. A.	187 Parliament Street Toronto
Ciurluini, A	R.R. 4 St. Catharines
Concord Wine Company, Limited	181-185 Bathurst Street Toronto
Danforth Wine Company	355 Danforth Avenue Toronto
Davie Brothers	176 Minto Street Sudbury
DeConza, Antonio	
DePietro, D	R R 1 Beamsville
Dibbley, Mrs. R. E	1 Tournier Street Sandwich
Dominion Wine Growers	Dundas Street Oakville
Donovan, Mrs. E. H	
Fort William Wine Company	114 McVicar Street Fort William
Furminger, F. L	R R 2 St Cathorines
Gordon, Rabbi Jacob.	116 Roverley Street Toronto
Hagaman, H. C.	Dundas Street Oakville
Hamilton, J. S., & Company, Limited	11 Dalhausia Street Brantford
Huehnergard, B	D D 2 Vitchonor
Lordon Wine Company	Iordan
Jordan Wine Company Kampman, Fred	217 Proithount Street Vitchoner
Lineal Wines Limited	217 Breithaupt Street Kitchener
Lincoln Wines, Limited	D. D. 1
London Winery	160 ()u-au Chuart C-uth Vitahanar
Luelo, Carl	121 Was all the Street Bouth Kitchener
Meconi, Mariano	21 Decale Assessed E Windson
National Fruit & Wine Company	
Ontario Grape Growing Company	Ct - 22 I also Chara Dand Now Toronto
Ontario Wine Company	
Parkdale Wines, Limited	1303 Queen Street West 1 oronto

WINERIES-Continued

Peerless Wine, Limited	448 Queen Street East Toronto
Pensa, Phillip	24 Yonge Street Kitchener
Porpiglia, Joseph	R.R. 2 St. Catharines
Rizzo, Nicholas & Sons.	. 137 York Street
	100 Baby Street Sandwich
Robinet, Clovis	
Robinet, Frank	. 177 Sandwich Street Windsor
Robinet, Jules	. 17½ Sandwich Street E Sandwich
Robinet, Victor	. 141 Sandwich Street E Tecumseli
Rossoni, Carlo	. 1218 Tecumseh Road E Windsor
Stamford Park Wine Company	R.R. 3 Niagara Falls
Subosits, Victor	Box 64Welland
Fadeussow, Thomas	Niagara Falls
Thomas, Alexander	Dundas Street Cooksville
Thorold Winery Company, Limited	Ormand Street Thorold
Toronto Wine Manufacturing Company	
Turner Wine Company	106 Front Street Fast Toronto
Turner wine Company	117 11 1) 1 1 C1
Windsor Company, Limited	Walker Road and Edna
	Street

DISTILLERS

Hiram Walker & Sons, Limited	. Walkerville, Ont.
Gooderham & Worts, Limited	
Consolidated Distilleries, Ltd	. Head Office—Montreal, Que.
	Distillery at Corbyville, Ont.
Lindsay Distilleries, Ltd	Lindsay, Ont.
Highland Scotch Distillers, Ltd	Port Colborne, Ont.
Joseph E. Seagram & Sons	Waterloo, Ont.
Wiser's Distillery, Ltd	Prescott, Ont.
•	

SCHEDULE IV

STATEMENT SHOWING THE NUMBER OF PERMITS AND LICENSES ISSUED DURING THE TWELVE MONTHS' PERIOD ENDING 31st OCTOBER, 1928

PERMITS

November 1st, 1927, to October 31st, 1928: Resident Temporary Duplicate Physicians Druggists Dentists and Veterinary Surgeons Manufacturers Mechanical and Scientific Minister of the Gospel Hospitals	376,839 88,135 26,064 645 458 173 290 79 203 257	493,143
LICENSES		
Brewers' Licenses	44 1,265	1,309
Native Wine permits. Sacramental Wine Vendorships Non-potable Alcohol. Standard Hotel	51 3 6 287	347
		1 656





Ontario Department of Agriculture

REPORT

OF THE

Minister of Agriculture

Province of Ontario

FOR THE YEAR ENDING OCTOBER 31, 1928

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER No. 21, 1929



TORONTO
Printed by the Printer to the King's Most Excellent Majesty
1929



REPORT

OF THE

Minister of Agriculture for Ontario

To His Honour W. D. Ross,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit the Annual Report of this Department for the fiscal year ending October 31st, 1928.

A glance at the comparative figures of values herein given, will show that the past season was not quite up to the previous season:

-	1927	1928
Field crops Farm animals Wool. Dairy products Fruits and vegetables. Poultry and eggs. Fur farming Maple products. Tobacco Flax fibre Clover and grass seed Honey.	566,000 1,772,000 7,556,000	\$243,768,000 75,908,000 1,502,000 102,000,000 19,658,000 45,993,000 600,000 1,888,000 5,823,000 509,000 2,212,000 960,000

The variations were even greater than the figures indicate. Certain sections of the province, particularly in eastern Ontario and in northern Ontario suffered very severely on account of excessive and repeated rains and there were many cases of individual hardship. On the other hand, other sections had good crops and excellent returns. It was, for instance, a splendid year for the dairy industry, both from the standpoint of volume of output and quality of product.

The activities of the department have been carried on with marked evidences of success. It is most encouraging to find an increasing demand from farmers, in all sections of the Province, for information on the various problems which come up. It is also particularly encouraging to note the special interest which is being displayed by the boys on the farms in the opportunities for self-improvement which are offered from time to time. A more detailed review of these activities will be found in the accompanying pages, under the different Branches of the Department.

All of which is respectfully submitted,

JOHN S. MARTIN,

Minister of Agriculture.

ONTARIO AGRICULTURAL COLLEGE

Following are the figures showing the attendance in the different departments of the College, the total indicating an increase over the previous year:

General Course	335	
Specialists in General Course Work	7	
Farm Drainage	11	
Dairy Courses	114	
Live Stock and Field Crops	282	
Poultry Raising	33	
Horticulture	34	
Apiculture	13	
Better Seed Course	23	
Farm Power.	33	
Spray Supervisors' Course	53	
Baking School	30	0.40
		968
Home Economics Short Course.		8
Domestic Science (at Macdonald Institute)		446
Girls' Conference (Junior Women's Institute)		233
Summer Courses:	105	
High School Teachers—1st year, 51; 2nd year, 54	103	
rubic School Teachers—1st year, 32; 2nd year, 09	121	226
	_	220
Total		1.881

CHANGE IN PRESIDENCY

A change in the presidency is an important event in the life of an institution of this character. During the year Dr. J. B. Reynolds retired and was succeeded by Dr. George I. Christie. Dr. Reynolds occupied the presidency for some eight years. He was, however, for some twenty-two years attached to the staff of the College in other capacities, mainly as Professor of English. Thus, with the exception of a few years as president of the Manitoba Agricultural College, his life work has been devoted to this institution and he retires to the position of president emeritus, with the respect of those among whom he has laboured faithfully. Dr. Christie, who succeeds, is a graduate of the institution who has spent upwards of twenty-five years across the line, mainly at Purdue University, where he was Director of the Experimental Station and extension work. He has had a particularly outstanding and brilliant career and comes back to his alma mater at a time of life when he should be able to render many years of excellent service.

ANIMAL HUSBANDRY DEPARTMENT

Following is a summary of some of the investigational work in live stock, which has been done during the year.

1. An investigation into the blood lines of the winning Clydesdales at the three largest shows in Canada during the past ten years. This study revealed that over ninety per cent. of the Clydesdales winning in our shows traced to Baron's Pride, and over seventy per cent. of these were through Baron of Buchlyvie, the outstanding son of Baron's Pride.

2. A study of the blood lines of the Shorthorn bulls that qualified in the Record of Performance and some of the outstanding Record of Performance cows. The result of this work showed that Scotch bred animals have played a larger part in the blood lines of milking Shorthorns in this country than have animals imported from England.

3. A study of the blood lines of the show-ring winners of Canadian Aberdeen Angus cattle for the past twenty years. The result of this work showed that Prince of Benton, Iliad, Advocate of Hillhurst, Black Woodlawn, Lord Val 2nd, Kyma's Heir and Prince Ito were the outstanding sires of this breed, a great

many of them being of American breeding.

4. A study of the relationship of the show-ring animals and milk production of the Ayrshire breed in Canada. The result of this study shows that a great many of the leading show bulls of the Ayrshire breed in Canada are the leading sires of qualified daughters and that there is probably a little closer relationship between the show-ring winners and the best producers in this breed than in any other breed in Canada.

5. An extensive study of the Record of Performance for dairy cattle was

made.

In order to test the efficiency of a dry meal mixture for raising dairy calves the following experiment was run with dairy calves after they were two months old.

Lot 1 fed on the regular feeding which included roots, clover hay, meal and skim milk cost 14 cents per day but gained 1.9 pounds per head per day for a period of three months.

Lot 2 fed roots, clover hay, meal and commercial calf meal which had water added cost 11 cents per day and gained 1.5 pounds per head per day for

the same period.

Lot 3 fed roots, clover hay, and a meal mixture of 100 pounds oats, 100 pounds bran, 75 pC unds oilcake and 8 pounds of bone meal, cost 7.5 cents per day and gained 1.15 pounds per day for the three months' period.

Note.—The meal fed to Lots No. 1 and 2 was composed of 100 lbs. oats, 100 lbs. bran and 20 lbs. oilcake.

In the Swine Department an investigation is being made to discover, if possible, the cause of the heavy mortality common to young pigs which are farrowed during winter months. While considerable work has been done on this subject during the past two years, definite conclusions have not yet been reached and the work will be continued.

APICULTURE DEPARTMENT

In addition to teaching and research, the Apiculture Department supervises the inspection of apiaries throughout the Province. Altogether 115 apiary inspectors were engaged for varying periods during the active season. There were 2,872 apiaries inspected and 45,953 colonies examined. A total of 3,460 colonies were found to have American Foulbrood and were consequently destroyed. Progress now seems to be achieved in reducing the damage done by American Foulbrood. The work is receiving greater support from the men in the industry than ever before.

In the experimental work in the department, study was made of the spread of American Foulbrood through honey. It was found that honey in combs from colonies infected with American Foulbrood would infest any colonies of bees to which it might be fed. This experiment was conducted to prove to beekeepers the danger of feeding back honey to colonies unless positive the honey came from colonies free from American Foulbrood.

BACTERIOLOGY DEPARTMENT

The Bacteriology Department has been able, during the year, to render considerable service to the Province in addition to the teaching and investigational work carried on at the College. The dairy industry has called for considerable assistance from the bacteriologists. A total of 1,049 samples of butter from various creameries was forwarded from the Butter Grading Station at Toronto for the determination of yeast and mould content. This test serves as a check on the cleanliness and the general efficiency of the creamery in which the butter was made. Comparing the results obtained during the past season, with those obtained previous years, it would appear that a steady improvement was being made in the hygienic conditions under which butter is manufactured in this province. Thirty-seven samples of lactic starters used in cheese factories in western Ontario were sent in for examination, and 120 samples of water from the creameries and cheese factories were also examined.

Bacteria for the inoculation of legumes was, as usual, prepared and sent

out, 3,557 being used by the farmers during the season.

Samples of farm well water were examined to the extent of 110, and of these, 81 were found to be contaminated. This would indicate that this important matter is worthy of even more attention on the farms of the Province.

CHEMISTRY DEPARTMENT

Soil work has continued to be prominent in the outside activities of the Department of Chemistry. The soil survey of Norfolk County has been completed, and the information secured has resulted in the remarkable development in the tobacco industry in this section of the province. In addition, other areas have been found to be well adapted for the growing of canning crops. Along with the survey of soils a good deal of attention is naturally being given to the treatment of soils. Soil acidity surveys have been made in several districts where farmers believed agricultural lime to be needed, and in some cases these tests proved clearly that lime was not required, where it had been intended to apply it. Thus the farmers were prevented from expending money on something which would not have proved beneficial, and are, therefore, in a better position to purchase what really would build up their soils. In other sections, demonstration plots have been conducted to show the value and influence of fertilizers. There is an increasing demand for work of this nature.

DAIRY DEPARTMENT

Experiments carried out in the Dairy Department brought out some interesting facts.

The Cheddar Cheese investigations show:—

(a) That viscolizing milk, at pressure of 1,000 to 2,000 pounds before adding the rennet reduced the loss of fat in the whey, and increased the yield of cheese by 2.27 pounds per 1,000 pounds milk, chiefly by increasing the moisture content of the cheese, but the score of the cheese from the viscolized lots was not so high as in the case of the unviscolized lots, the chief differences being in flavour and texture, which were adversely affected by viscolizing.

(b) A good culture ("starter") increased the yield of cheese by 4.9 pounds per 1,000 pounds milk, and improved the score of the cheese, as compared with using an "off-flavoured" culture. Cheesemakers are advised to give special attention to the quality of their cultures and not to use one which is not good.

(c) Milk which was graded "Good" produced more cheese and cheese of better quality (graded No. 1) as compared with cheese made from milk which was graded "Poor" or "Bad" at the time it was received. The time will come when it will be necessary to grade all milk for cheesemaking and pay a higher price to the producer of "good" milk, in order to maintain a high standard of quality in Canadian cheese.

The addition of "Cheese Mineral" to milk and cream for the manufacture of cheese and butter did not improve the quality of either the cheese or the butter.

Butter investigations gave the following results:

(a) The quality of butter made from sweet or unripened cream was better, both when fresh and after holding in cold storage for six months, as compared with butter made from similar cream ripened with pure cultures. Similar results were got in favour of churning "neutralized" cream without ripening, as compared with lots "neutralized" and afterwards ripened with a lactic acid culture.

(b) The addition of ten per cent. lactic culture to sweet cream immediately before churning did not improve the flavour of the butter when fresh, nor after

holding it in cold storage for six months.

(c) The fat lost in the buttermilk can be separated quite readily by using a cream separator if the cream be not allowed to sour, but when the cream is allowed to sour the fine particles of curdy material clog the separator bowl in a short time, making it impossible to separate the fat until the bowl is cleaned.

By using a special U.S. culture, skim milk can be made into a semi-solid product similar to that obtained from buttermilk. The ordinary lactic acid culture does not produce sufficient acidity in skim milk to preserve it, and give a smooth product free from lumps and water.

A comparative test of pasteurized viscolized milk with unviscolized pasteurized milk, among customers of the Market Milk Branch in the Dairy Department, showed that sixty-two per cent. favoured the viscolized and thirty-eight per cent.

the unviscolized milk.

FIELD HUSBANDRY DEPARTMENT

More than thirty per cent. of the grain crops now grown in Ontario came from seed of varieties originated, tested and distributed through the Field Husbandry Department, where similar extension work was again carried on

last year. It may be of interest to review a few of these varieties.

O.A.C. No. 104 Winter Wheat is being grown widely throughout the Province. It was produced by crossing Dawson's Golden Chaff and Bulgarian varieties and it is now a close rival of Dawson's Golden Chaff. It has attracted attention outside of the Province, and has been subject to close study by the Michigan Agricultural Experiment Station across the line. This station reports that it found O.A.C. No. 104 produces more grain to the acre, is slightly higher in protein content, and is more winter hardy than American Banner, a white wheat, commonly grown in that state.

O.A.C. No. 144 oats, introduced only five years ago, is already taking a prominent place in the field crop competitions in oats throughout the Province.

O.A.C. No. 181 field peas, a cross between the Prussian Blue and White Wonder, are now in great demand. Last season the supply of seed of this variety was not sufficient to meet the demand.

O.A.C. No. 21 barley continues to hold its outstanding position in the Province and has recently been reported on, after a series of tests, as being the best existing six-rowed barley for malting purposes, available in this country.

AGRICULTURAL ENGINEERING DEPARTMENT

DRAINAGE

With the excessive rains in many parts of the Province, there has been an increased attention to the importance of proper drainage. Assistance with these problems has, as usual, been rendered in many ways. In the first place field surveys have been made and a plan provided showing where tile should be placed. The following summary will show the extent of this work.

County	Number of Surveys	Acres	Feet
Western Ontario Elgin. Essex. Kent. Lambton. Middlesex. Eastern Ontario Carleton.	23 19 42 20 12	871 1,452 405 11	45,100 41,095 41,275 23,600 143,500
Frontenac Glengarry Grenville Hastings Lanark Leeds Lennox Renfrew	2 2 4 1 1 1 4 5 8	21 115 85 30 165	30,400 16,000 2,300 4,000 26,000 20,500 85,000
SOUTHERN ONTARIO Brant. Halton Lincoln. Norfolk. Peel Welland. Wentworth York.	2 12 16 5 5 2 9 8	10 215 223 10 50 	1,200 25,300 13,900 13,600 7,000 5,000 13,300 4,000
Central Ontario Bruce Grey Huron Ontario Oxford Perth Simcoe Victoria, Waterloo Wellington Wellington Wellington Oxford	3 2 3 5 2 10 14 2 12 5	50 25 175 260 155 	4,700 20,000 6,400 11,585 11,800 4,800 3,400 3,700

In addition, advice has been given in many cases where actual plans were not required. Furthermore a special effort has been made to see that the work of laying tile is done efficiently. The cost of this work is too great to take chances. Wherever possible men on the drainage staff have endeavoured to inspect the work as done by those who have been laying the tile. In many cases errors were checked up and serious disappointments prevented. While the department, of course is not in a position to give any guarantees in regard to the installation, which is a business matter between the farmer and the operator, the men are

glad to render assistance by way of inspection wherever possible. Furthermore educational work has been carried on among ditching machine operators to bring about a higher standard of efficiency. There are over 200 ditching machines working in the Province at the present time. Demonstration plots have been carried on at a number of points.

POULTRY DEPARTMENT

There has been a steady development in the work with poultry and in the demands being made by poultry raisers throughout the Province.

One of the outstanding features of the work of the past year has been the research work carried on in co-operation with the Empire Marketing Board. Several thousand eggs were set during the year and the results recorded. This work, of course, is being continued over a period of years and definite conclusions should not be drawn too soon. So far, however, results indicate possibilities of making very effective improvements in diet, by the use of cod liver oil. These results suggest that cod liver oil included in the diet will, in a large measure, offset the lack of sunshine in the month of March and will bring the percentage of hatchability in eggs up to that shown in months in which there is plenty of sunshine. There are many scientific problems involved in this work and its continuation will be watched with interest.

The turkey farm in Norfolk County has been operated under this department and is now in its third year. Excellent results were obtained and upwards of 1,200 turkeys were raised, without any serious loss through disease. This splendid result is attributed to the sanitation methods which are followed. Care is exercised to see that the feed is always supplied in a clean trough and never placed on the ground. Where troughs are moved daily and kept clean, there has been little or no disease, but where the feed has been placed on the ground, particularly near buildings, disease quickly develops.

In addition to the culling work which has been looked after in the past, the department has undertaken a more scientific inspection of poultry farms coming up to a certain standard. Altogether about 60,000 birds have been entered for this inspection, which is to be started this fall.

One of the experiments carried on during the year was a test made, at the request of a man from across the line, who claimed that by the application of X-ray to eggs, the sex of the chickens hatched could be controlled and growth greatly hastened. Several hundred eggs were treated as advised, but the results so far have been negative. It is possible that more work will be done on this matter of the application of X-Ray to eggs for hatching purposes.

ONTARIO VETERINARY COLLEGE

In the matter of attendance at this institution there has been a slight increase. For the session ending April 30th a total of seventy-six students were in attendance, including twenty-two in the first year class, sixteen in the second, eighteen in the third, and twenty in the fourth. Of the latter number, eighteen were successful in passing their final examinations and received the Degree of Bachelor of Veterinary Science (B.V.Sc.) from the University of Toronto. For the present term there are eighty students registered.

Graduates have made an excellent showing in being able to pass successfully civil service examinations for veterinarians both in Canada and the United States. That there are many excellent openings for graduate veterinarians is indicated by the fact that all recent graduates have become satisfactorily settled either in private practice or in official positions, in which there is an opportunity to render excellent service in safeguarding the animal health of the country.

RESEARCH WORK

In addition to carrying on the work of instruction, a good deal of research work is also done at the Veterinary College. Two features of this may be mentioned. The making of blood tests in poultry and cattle and sending out abortion and other vaccines have been started on very extensively as a result of the general and popular demand for this work. If this service had been made available on the prevailing commercial terms, the amount of work done would have brought to the College a revenue of over \$100,000. This gives some idea of the extent and value of the service which has been quietly but effectively rendered to the live stock interests of the Province by this branch of the Veterinary College work. As a matter of fact a great deal of time is given to this phase of college activity and there is every indication that this work will develop in accordance with the popular demand and the opportunity for rendering excellent service. A real assistance is also rendered through correspondence.

Much of the work carried on during the past year is outlined in a separate report of the College, which contains a good deal of valuable information. The subjects dealt with are as follows:

Cattle Diseases.
Diseases of Sheep.
Diseases of Pigs.
Small Animal Diseases.
Liver Disease in Horses.
The Disinfection of Incubators during Hatching.
Subacute Infections in Fowl.
Vermicidal Action of Iodine and Kamala,
and other related subjects.

PUBLICATIONS AND STATISTICS BRANCH

The work of compiling agricultural statistics was carried on in co-operation with the federal authorities. The results are published from time to time as completed.

The distribution of the annual reports has been continued and the following are the figures of the numbers printed for distribution:—

Minister's Report	3,000
Minister's Report	2,500
The Every montal Union	
The Experimental Union	50,000
	14,000
Horticultural Societies	20,000
Vegetable Growers' Association	5,000
Ontario Veterinary College	4,000
Agricultural Development Branch	3,000
Stallion Enrolment Board	3,500
Agricultural Statistics	15,000
Fruit Growers' Association	4,000
Entomological Society	3,000
Beekeepers' Association	4,000
Women's Institute	40,000
Women's Institute Ontario Commodities on the British Market	5,000
Citatio Commodities on the British Warket.	5,000
Total	176,000
Total	170,000
The following crop bulletins have been printed for distribut 173 December, 1927	32,000 3,000
	3,000
175 May, 1928	4,000
170 August, 1928	4,000
*188 Weeds of Ontario. *188 Weeds of Ontario. *305 Poultry Diseases. *312 Vegetables: Their food value and preparation. 332 Forty Years' Experiments with Grain Crops. 333 Tobacco Culture. 334 European Corn Borer. 335 The Strawberry. 336 Cheese and Butter Making. 337 Parasites Injurious to Sheep. 338 Hints on Judging Live Stock, Poultry, Grains, Grasses and Roots. 339 Potatoes. 340 Parasites Injurious to Swine.	12,000 12,000 40,000 50,000 12,000 50,000 15,000 15,000 20,000 30,000 30,000 30,000
Total	316,000
Circulars were printed for special distribution as follows:—	
-	
50 Eradicate the Common Barberry	15,000
Circulars without serial number:—	
Weed Act and Regulations	15,000
Tobacco Soils in Norfolk County	5,000
Hemorrhagic Septicaemia of Cattle	5,000
Dead Arm of the Grape	4.000
Dead Ann of the Grape	1,000
and the second s	

^{*}New edition.

AGRICULTURAL AND HORTICULTURAL SOCIETIES BRANCH

The majority of the agricultural societies in Ontario are showing steady progress, not only in the number of exhibits at their fairs, but also in the quality of the live stock and farm products entered for competition. Judges of horses report that the animals in different classes were better, both in type and condition, than had been in evidence before the Great War. There has been a decided improvement in the preparation of prize lists of fairs, which has been the means of attracting many exhibitors who had been indifferent in the past. The difficulty experienced in former years because amateurs would not show their handy work in the main buildings in competition with professional exhibitors has been solved by societies setting apart special classes for amateurs only.

One of the most serious drawbacks that a fair has to contend with is bad weather conditions. The arrangements of directors for a successful fair may be the very best possible and yet these may be all destroyed by heavy rain storms, and, what makes things worse, is the fact that a large quantity of the exhibits may have arrived before the rain had fallen and the prize money has to be paid, although the gate receipts are very much less than they ordinarily are. The losses in gate receipts through wet weather are, as a rule, considerably larger than the legislative appropriation set apart to assist agricultural societies which meet with such losses. In 1928 the loss in gate receipts owing to bad weather conditions was over \$13,000, being \$3,000 more than the appropriation for this purpose. The provision in this regard made by the government has saved many societies from heavy deficits and is greatly appreciated by the boards of directors of fairs and exhibitions.

The work of the several hundred judges sent out by the Department has been satisfactory and very few complaints have been received regarding the efficiency of their work. This applies to judges of field crop competitions as well as those who placed the awards at fairs and exhibitions. The holding of short courses for judges at the Ontario Agricultural College, Guelph, and the Central Experimental Farm, Ottawa, has been of untold benefit in bringing about a more uniform standard of judging both live stock and field crops.

FIELD CROP COMPETITIONS

These competitions, both regular and combined, continue to meet with the approval of agriculturists all over the Province. Over 4,000 Ontario farmers entered the competitions and in some societies there were as many as thirty competitors, and the quantity and quality of the grain produced by these enterprising farmers have never reached a higher degree of excellence, and the quantity of registered seed grain has been largely increased and harvested.

In Northern Ontario crops were badly damaged owing to the extremely bad

weather conditions which prevailed over so continuous a period.

The grain exhibited at the Canadian National Exhibition and the Royal Winter Fair was considered by those in a position to judge as the finest ever

staged at what can be truly described as two outstanding world fairs.

These field crop competitions were inaugurated in 1907 and have shown continuous progress and the year just closed has broken the record in point of entries and exhibits. Those in charge of these competitions have from time to time reduced the number of varieties best suited to Ontario farmers. In oats alone in 1907 there were over 100 named varieties while to-day there has been a standard fixed with a list of eight varieties and standards have also been set for other varieties of grain.

HORTICULTURAL SOCIETIES

Few branches of the Department of Agriculture have shown such marvellous progress as have the horticultural societies of Ontario. No country in the world has such a large and progressive organization for the beautification of urban and cural sections, such as we have in this banner province.

Specially marked for notice and comment is the fact that farmers are catching the spirit of beautification of home and farm surroundings by the encouragement given in the planting of trees, vines, shrubs and flowers around formerly somewhat naked environments. The time is not far distant when every community in this province will be engaged in this laudable work, which creates such favourable comment on the part not only of our own citizens, but also of tourists from other countries who cross our boundary line in their thousands, particularly during the summer season and find in Canada excellent roads and cities, towns and villages with well-kept lawns and gardens, and express surprise at the beauty and prosperity in this specially favoured section of our Dominion.

Over 78,000 members have been enrolled in this progressive organization and it is expected that in the near future the 100,000 mark will be reached.

A number of horticultural societies are doing good work among children, having organized them into junior branches. The child who commences to take an interest in flowers and yegetables in early life will never lose its love for them, and in due time will become a full-fledged and enthusiastic member of the parent society.

The great quantity of rain that fell over many parts of the province during 1928, while it had its disadvantages so far as grain and vegetables were concerned, yet had the effect of keeping lawns verdant and flowers blooming on every hand.

The number of new societies organized in 1928 was twenty-four, seven more than in the year previous, nearly half of these being rural ones.

Numerous requests for lectures have been received from the societies, and these have been met by speakers from the Department and from qualified horticulturists in different sections. These lectures are greatly appreciated, and the subjects are selected to meet the requests of the societies applying.

ONTARIO VEGETABLE GROWERS' ASSOCIATION

It is a quarter of a century since the Ontario Vegetable Growers' Association was organized, and during those years substantial progress has been made by those intensive tillers of the soil, who grow as fine garden products as are produced anywhere on this continent. For the last two years the Canadian National Exhibition has given large and outstanding prizes for the best exhibits put up by the different branches, and never before in the history of the Canadian National Exhibition has there been such a fine display by market gardeners. It is doubtful if any exhibit of garden produce ever created greater interest than the one in 1928. An officer of the Department was in charge and was continuously required to answer questions by American citizens and others what part of Canada these products were grown in.

A number of markets have been established by our growers in urban centres and these are much appreciated by consumers wherever they are located, and have proved a financial success.

Much disappointment was expressed, wherever a branch of the Ontario Vegetable Growers' Association is established, at the action of the Federal

government in making the dumping clause inoperative. Several delegates visited the Tariff Board, not only from Ontario but also from the other provinces, urging that relief be given in this regard, but nothing has yet been done to right what vegetable growers consider a serious injustice.

The board of directors have offered a permanent \$100 trophy to be competed for annually by the members of the association in the Province at the Royal Winter Fair, and a replica is given each year to the winner. This trophy has created keen competition throughout the Province and was won by John Brown, Humber Bay, in 1928.

A larger number of meetings were held by the branches than ever before, and a new departure was inaugurated by the members of one branch visiting those of another, and the interchanging of ideas and methods of culture has proved invaluable to all concerned.

A bulletin is issued each month to the branches from the head office at the Parliament Buildings, which is much appreciated by the members.

Many of our gardeners are utilizing their greenhouses for growing flowers during the winter season. This new line of work has proved satisfactory.

ONTARIO FIELD CROP AND SEED GROWERS' ASSOCIATION

For the third year in succession the Department of Agriculture, with the consent and assistance of the railways concerned, has sent out a seed-cleaning demonstration train to sections of the Province. The demonstration in 1928 commenced at Alvinston on February 16th, and traversed a portion of Ontario through which the train had not been previously. At every stoppage the cars were visited by thousands of interested farmers, who examined the seed-cleaning machinery carefully with a view to purchasing, and saw them in operation and attended the lectures on the best varieties of grain and seed and on methods of weed eradication, which were particularly timely in view of the campaign now under way against noxious weeds. A limited quantity of grain was brought to the train and carefully cleaned and graded. The demonstration train consisted of three cars. In one, lectures were delivered, in another were displayed standard varieties of grain and clover, and the third car accommodated the seed-cleaning machinery. Arrangements were made with the several railways to handle the cars so that they would be at the next stopping-place in time for the staff to commence work at 9.00 a.m.

The object of having this train pass through the different sections of the Province is to get in touch with agriculturists who have hitherto paid very little attention to the grain they have been sowing. In some cases a considerable percentage of their (so-called) seed grain is intermixed with some of the worst weed seeds in Ontario. When it can be demonstrated to these farmers that a modern seed-cleaning machine will remove all these weed seeds and make their own grain and whatever quantity they have for sale much more valuable, they will then be found more ready to co-operate in carrying out the provisions of the Weed Control Act, which must be universally observed if the best results are to be obtained.

Last year at the convention there was a motion passed that Bladder Campion be placed on the list of primary noxious weeds. This has now been done as it is recognized that this weed is a great menace to farmers owing to its rapid spread.

ONTARIO PLOUGHMEN'S ASSOCIATION

An ever-increasing interest is being taken each year in the work of this association and its branches, organized as they are all over the Province. Not only does the great international ploughing match draw tens of thousands from far and wide, but the local matches are also the centres which attract large numbers of interested onlookers, not only from the farms, but also from the towns and cities adjoining, thus certifying that citizens, too, recognize the importance of this phase of agriculture to the welfare of the Dominion. Better ploughing means better crops and better crops result in a more contented population, and a higher standard of living.

At the provincial ploughing match which was held adjoining the city of London, in Middlesex County, was seen the finest and largest farm machinery demonstration yet staged. Threshing, ditching, seed-cleaning machines and all types of power machines were in evidence and the multiple hitch with 4, 6 and 12 horses driven by one man with one set of lines was an attractive feature, and was put on through the assistance given by the Federal and Provincial Departments of Agriculture. The Hydro-Electric System had, as in other years, a 100foot tent filled with all the varied appliances used on Ontario farms and in Ontario farm homes. Milking, washing and pumping machines and every conceivable household appliance was there, and through the courtesy of the official in charge, water was pumped to different sections of the grounds by hydro power.

No side-shows, midways, or fakirs running their gambling devices were allowed to operate on the grounds. The only amusement was a horse-shoe pitching contest for the farmer boys and it attracted considerable attention. It is a farmers' game of skill and is being encouraged in nearly every section of the rural parts of the Province. It was estimated by those who were in a position to judge that there were nearly 100,000 persons on the grounds; in this number there were many thousand farmers' wives and daughters. Two large tents were erected on the grounds by enterprising patrons, and tea and light lunches were served in each of these tents free of charge during the afternoons. Thousands of ladies who honoured the ploughmen with their presence took advantage of this

new departure during the four days of the demonstration.

For the first time in the history of the Ontario Ploughmen's Association, a short course for ploughing judges was held on Welwood Farm in Middlesex County. This proved of educational value, as our judges are endeavouring to

arrive at a standard and uniform system of judging at matches.

Another feature that is worthy of note is the short courses held in each township for the plough boys of Middlesex County, giving them an idea of the value and outstanding principles of good ploughmanship, and the result of these courses was a large number of local contestants who took part in the competition from that fine farming constituency. These courses were in charge of competent

instructors from the Department.

This great annual demonstration of the Ontario Ploughmen's Association is looked forward to with the keenest interest by the stalwart farmers of Ontario and city dwellers as well. Nearly 300 ploughmen entered in the competitions, and over \$7,000 were offered in prizes. Over eighty plough teams were furnished by the farmers of Middlesex County for the ploughboys from outlying sections of this province. To show the interest taken, one farmer drove his team and plough in a lumber wagon over 100 miles to take part in the proceedings. Many of the old-time implements drawn by oxen that were used by stalwart pioneers were in evidence, and were of interest to the younger generation.

LIVE STOCK BRANCH

During the year a new policy in sheep extension was adopted whereby small flocks of breeding ewes were placed with young farmers on whose farms sheep were not being kept. We endeavoured to organize clubs of at least ten members having a common shipping point, and to each member of such club five breeding ewes were given. The use of a pure-bred ram was also supplied by the Department.

An agreement was entered into between the club member and the Live Stock Branch whereby the club member, on following approved practices of sheep husbandry and upon making returns in the form of market lambs for a period of four years following the year of the formation of the club, would receive the right and title to the entire flock.

Under this policy the following table gives a summary of the flocks placed

in 1928:

County	Name of Club	No. of	Members
Grey	. Markdale		8
	.Cayuga		14
	. Dunnville		11
	.Stirling		16
	.Ferguson's Falls		12
	.Lanark		16
	. Douglas		12
	.Eganville		12
	. Carley		10
	.Oro		11
	. Phelpston		9
	.Arthur and Maryboro		12
Wellington	. Minto		11

BACON HOG CLUBS

The work begun under this head in 1922 has been carried on aggressively during the year 1928. Rather than extend operations over a larger field it has been aimed to consolidate the work more effectively in districts and thereby enable the field-man to give more time to the checking of the breeding qualities of the boars and the members of the clubs more assistance in the selection of breeding stock and with their general swine problems. Clubs that, owing to changed conditions in the districts, have not been functioning with a maximum of usefulness have been disbanded and a few new clubs organized. The number of clubs and the counties in which they are located are given in the list which follows:

•	No. of		No. of
County	Clubs		Clubs
Brant	. 8	Norfolk	. 3
Bruce	. 13	Northumberland	. 17
Carleton	. 5	Ontario	. 2
Dufferin	. 4	Oxford	. 11
Elgin	. 9	Peel	. 4
Essex	. 5	Perth	
Glengarry	. 2	Peterborough	. 4
Grey	. 27	Prescott and Russell	
Haldimand	5	Prince Edward	. 2
Halton	. 10	Renfrew	
Hastings	. 14	North Simcoe	
Huron	. 7	South Simcoe	
Kent	. 7	Thunder Bay	. 4
Lambton	. 6	Victoria	. 6
Lanark		Waterloo	. 17
Leeds		Wellington	. 15
Lennox and Addington		Wentworth	. 8
Middlesex		York	. 3
Muskoka and Parry Sound	. 1		
		Total	. 289

During the year ninety-eight boars were bought at an average price of \$42.87 per head. These were delivered freight or express prepaid to the nearest railway station of the clubs, and to provide for this service and the interchange of boars between clubs, the Department paid \$649.52.

Some very interesting evidence of the very splendid breeding qualities of the boars purchased under this policy during the past six years is to be found in the winnings of some of the progeny at the larger shows. In the Yorkshire classes at the Canadian National Exhibition in 1928, the major portion of the prizes was awarded to the progeny of boars owned by the Department and loaned to clubs. The Grand Champion Yorkshire Boar at both the Canadian National Exhibition and the Royal Winter Fair of 1928 was bred from club boars on both sides, and by a breeder in a district which previous to the inauguration of the Bacon Hog Club policy produced a very ordinary class of market hog, and did not have a pure-bred breeder in the whole district. Now a number of the most promising young breeders and showmen operate in that section.

The records kept in connection with this Bacon Hog Club work reveal some interesting facts in connection with the use among pure-bred breeders at any one time of the blood of any strain of a breed that happens to gain prominence in the show ring. At the present time the blood of one boar predominates in the sires being used in pure-bred herds. It has been the aim to select from among our best breeding boars those sires which when made available to pure-bred breeders may provide for such changes of blood as will assure a virile seed stock.

The special bacon hog fairs which have been held in the past in co-operation with the Dominion Department of Agriculture have been continued in 1928. Five such fairs were held at the following points:

Caledon East Simcoe Ilderton Campbellford Orono Peel Norfolk Middlesex Northumberland Durham

It was felt that in view of the very close relationship between feed costs and the selling price of market hogs the interest in these fairs would not be keen. This was not found to be the case. The entries were as numerous as in former years and the general quality indicated a steady improvement.

In co-operation with the Provincial Zoologist some very interesting investigational work was conducted among swine herds throughout the Province, particularly in the eastern section. Public meetings and demonstrations were held at a number of club centres and much valuable information on health and parasitic problems among swine given. The Bacon Hog Club formed a splendid medium of contact for this very necessary work.

LIVE STOCK IMPROVEMENT

The Live Stock Branch has continued to work through the agricultural representatives of the Province in live stock improvement work. To this end live stock improvement associations have been formed in many of the best live stock counties, and, while other lines of activity have been followed, the major project before these improvement associations is in the elimination of grade or scrub bulls and the replacing of same by good pure-bred bulls.

To assist in this work the Ontario Live Stock Branch by Order-in-Council is enabled to pay a bonus of twenty per cent. of the cost price of an approved purebred bull when purchased through a live stock improvement association by a farmer who has not previously owned a pure-bred bull. While this bonus has acted as a stimulus in the exchanging of bulls, in many cases the bonus has not been applied for. The following table shows the bonuses paid during the year ending October 31st, 1928.

County	No. of Applica- tions for bonus	Amount of Bonus
Lambton Middlesex Bruce North Simcoe Lennox and Addington Haldimand Essex Peel Perth	17 10 2 2 1 2 1 2 4 9 37	\$365 00 242 00 40 50 40 00 16 00 39 00 92 00 220 00 750 90 \$1,805 40

In the counties of Oxford, Wellington and Perth, a census of the bulls being maintained within the county shows that over eighty per cent. of these bulls are pure-bred. Consequently, the county council of these counties took action and constituted these counties as better bull areas under the Protection of Cattle Act.

As an illustration of the work which is carried on by some of these improvement associations, it is interesting to note in the report of the Agricultural Representative for Perth County that he states as follows:—

"After six years of extensive live stock work with cattle, conducted in conjunction with the Perth County Live Stock Improvement Association, we reached the position of having our 80 per cent. pure bred sires and were able to go to our county council and ask them to pass a by-law making Perth County a "Better Bull Area."

During the campaign approximately 400 grade sires have been removed from the county.

During the campaign approximately 400 grade sires have been removed from the county. We feel very proud of the fact that within a period of six years this county should make such a satisfactory clean up and be in a position to be second county in Ontario to be declared a 'Better

Bull Area.' '

The following table shows the result of the work in the elimination of poor bulls in Oxford County since its inauguration in 1921:—

Year	Registered Pure Bred	Unregis- tered Pure Bred	Grade
1921	1,174	299	559
1922	1,200	261	427
1923	1,190	204	339
1924	1,169	255	306
1925	1,214	247	194
1926 and 1927	1,561	291	95
1927 and 1928	1,365	432	142

During the year ending October 31st, 1928, by Order-in-Council the Live Stock Branch was authorized to assist settlers in Northern Ontario in the securing of approved pure-bred bulls for the upbuilding of their cattle. To this end a grant of thirty per cent. of the purchase price of the approved bull is paid to the purchaser together with the freight charges on same. This policy became effective in the spring of 1928, and the following table shows the bulls which have been purchased under this policy:—

TABLE SHOWING BULLS BY BREEDS

Breed	Number	Total	Average
	Bulls	Purchase	Purchase
	Purchased	Price	Price
Shorthorn Hereford Holstein Ayrshire Guernsey	10 1 5 4 1	\$1,689 40 125 00 590 00 260 00 125 00 \$2,789 40	118 00 65 00 125 00

PLACING OF BULLS BY DISTRICTS

District	Breed	No. of
Algoma	Holstein	Bulls
Cochrane	Ayrshire	4
Muskoka	ShorthornShorthorn	2
Muskoka	Holstein	2
	Hereford	
Nipissing	Shorthorn	1
	HolsteinShorthorn	
	Holstein	

STALLION ENROLMENT

During the season of 1928 there were 1,282 stallions enrolled, which is an increase of twenty-two stallions from the preceding year. The following certificates were granted: 157 A 1; 421 approved Form 1; 570 passed Form 1; and 134 defective Form 2. Out of this total number of stallions, 157 are enrolled as premium sires for the season of 1928. During the fiscal year just ending, cash premiums were paid to stallion owners on seventy-three stallions which stood for service during the season of 1927.

ONTARIO PROVINCIAL WINTER FAIR

The Ontario Provincial Winter Fair was held in Guelph, December 5th to December 8th, inclusive, 1927. The increased interest and attendance, evidenced so markedly in 1926, were again shown in 1927, with an increased attendance, as intimated by the gate receipts, and increased entries in many sections. The light horse show, which was so well begun in 1926, was continued in 1927, and the horse entries in both heavy and light sections taxed the accommodation.

ONTARIO PROVINCIAL WINTER FAIR, GUELPH SUMMARY OF ENTRIES AND GATE RECEIPTS, 1918 to 1927

	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Heavy HorsesLight Horses	305 93	282 60		286 50		191 35				240 252
Beef Cattle. Beef Carcases Dairy Cattle.	260	270	312 74	367	387	317	305	280	11	312 5 26
Sheep Sheep Carcasses Wool	588 96 29	536 93 49	536 96 40	716 121 43	768 179 54	581 112 42		408 96 40	419 100 38	398 99 35
Swine	302 45 394	302 48 350	301 34 291	287 33 282	391 134 295	273 34 308	153 45 372	184 48 334	199 63 262	173 42 211
Fowls	4,730 455 1,002	5,066 449 1,072	3,918 367 587	4,154 441 715	3,817 372 763	1,570 458 378	794 359 247	1,297 456 227	1,423 383 261	1,437 408 308
Dressed Poultry	136 \$ 2,770	\$	186 \$ 7,984	277 \$ 6,202	273 \$ 5,286	290 \$ 2,826	145 \$ 2,813		111 \$ 3,685	150 \$ 4,944

PREMIUMS TO PURE-BRED STALLIONS

During the fiscal year ending October 31st, 1928, the new federal-provincial premium policy for stallions was inaugurated upon a mutual agreement between the Dominion and Ontario Departments of Agriculture. Under this agreement the amount of premium paid to premium stallions has been increased approximately 100 per cent., each Department sharing equally in the total premium paid. This premium policy has necessitated further inspection of all stallions recommended for premiums by the regular inspectors under the Ontario Stallion Enrolment Act. With the increased premium it is hoped that sufficient assistance is now being given to stallion owners in Ontario to induce them to purchase stallions of outstanding excellence so that they may receive assistance under this premium policy and that good stallions already in Ontario will continue to remain here for breeding purposes because of the assistance rendered under this policy.

Premiums paid to stallions in 1928 on their breeding report for the season of 1927 is given below, which shows that \$8,490 has been paid for premium horses in the Province of Ontario for 1927.

Number of In-Foal Mares	No. of Stallions Qualifying	Premium
15 to 20. 21 to 30. 31 to 40. 41 to 50. 51 and over.	4 10 14 8 37	\$30 00 60 00 90 00 120 00 150 00

SUMMARY FOR THE PROVINCE OF ONTARIO SHOWING BY COUNTIES THE NUMBER OF DIFFERENT BREEDS OF STALLIONS ENROLLED DURING 1928

County	Clydesdale	Percheron	Standard Bred	Belgian Draft	Thoroug' bred	Hackney	French Canadian	Shire	Suffolk	French Coach	German Coach	Ponies & Morgans	Total Horses Enrolled
Brant. Bruce. Carleton Dufferin Dundas. Durham Elgin Essex. Frontenac Glengarry. Grenville. Grey Haldimand Halton. Hastings. Huron Kent. Lambton Lanark Leeds. Lennox and Addington Lincoln Middlesex. Norfolk Northumberland Ontario Oxford. Peel. Perth Peterborough Prescott. Prince Edward Renfrew Russell Simcoe. Stormont Victoria Waterloo Welland Wellington Wentworth York New Ontario Outside Points	4 366 166 199 4 4 6 6 2 3 3 3 3 5 5 3 3 2 2 2 5 5 6 6 100 2 6 6 4 2 4 2 3 3 15 5 8 8 2 2 2 0 0 7 7 2 6 6 4 17 7 9 9 1 2 8 2 2 2 1 1 2 1 1 3 3 3 5 6 6 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8 6 7 7 9 9 1 1 2 8	5 122 11 1 5 2 2 8 8 8 8 200 7 7 3 3 122 21 16 9 9 6 6 8 8 4 4 13 19 13 3 9 6 6 100 100 100 100 100 100 100 100 100	2 10 4 4 1 1 5 5 4 4 2 2 1 1 4 1 1 3 3 7 7 2 2 2 5 5 1 5 5 1 1 8 8 3 3 1 1 2 2 1 1 1 1 1 5 5 2 1 1 1 1 5 5 2 1 1 1 1	6	1 3 3 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4	1 1 1 2 2 1 1	1 1			1			12 61 39 27 33 33 14 28 8 13 33 19 11 28 65 33 34 6 27 22 210 9 74 16 6 22 23 37 25 50 32 19 15 37 25 6 46 64 36 66 64 66 65 36 66 66 66 66 66 66 66 66 66 66 66 66
Total	561	410	161	62	26	33	13	4	4	1	6	1	1,282

The Clydesdale stallion "Mainring," which is owned by this department, stood during the past season in the County of Middlesex. During the season of 1928 thirteen mares were bred. Unfortunately this stallion is not proving satisfactory at service, which has been a great disappointment to many, as much was expected of him.

HORSE SHOWS

The following horse shows have received grants during the fiscal year November 1st, 1927, to October 31st, 1928:

Association	Grant	No. of Entries	Prize Money
Elora. Drayton. Clinton. Ottawa Horse Parade. St. Clements Horse Parade. Toronto Open Air. Linwood Spring Horse Show.	\$50 00	37	\$193 00
	50 00	27	103 00
	100 00	91	456 00
	100 00		
	100 00	46	143 00
	300 00		
	100 00	39	127 00

LIVE STOCK EXPOSITION WINNINGS AT CHICAGO, ILL., 1928

Ontario was represented in the Shorthorn classes at the 1928 International Show at Chicago by two Ontario exhibitors, Mr. Duncan Campbell, of Moffat, and Mr. T. A. Russell, of Downsview. The following table shows the winnings of these two exhibitors in the various classes:

SHORTHORNS

Class	Total Entries	Ontario Prizes	Owner
Bull calved before June 1, 1925	6 15 7 8 8	2nd 4th 10th 6th 7th 1st 5th 2nd 7th 2nd 9th 3rd 9th 3rd 4th 3rd 4th 3rd 4th	D. Campbell T. A. Russell D. Campbell T. A. Russell D. Campbell D. Campbell T. A. Russell D. Campbell T. A. Russell

SHEEP

Through the assistance given by the Ontario Department of Agriculture to the Ontario Sheep Breeders' Association a provincial exhibit of sheep was sent to Chicago to compete at the 1928 exhibition. The following tables give a summary of the excellent showing made by Ontario exhibitors in competition with the leading flocks from United States. Undoubtedly this policy of exhibiting sheep at Chicago on the part of Ontario breeders has done much to advertise Ontario flocks and has stimulated trade with American buyers. This is particularly noticeable in regard to the export of long wool rams by Ontario breeders to the western States, where these rams are used for crossing on Merino ewes to improve the length of sample and weight of fleeces.

Breeding Classes

	Ont-			Ont-			On	tario W	7on		
Breed	ario exhi- bitors	Total exhi- bitors	Total 1st prizes	ario com-	1st	2nd	3rd	4th	5th	Cham- pion- ship	Res. Cham- pion- ship
Oxfords	1	12	8	7	7	1	1	1	1	2	1
Lincolns	2	5	8	8	5	. 6	5	1	2	2	0
Cotswolds	1	6	8	8	5	3	2	1	2	1	1
Southdowns	3	10	8	8	4	6	5	2	1	1	1
Leicesters	1	3	8	8	7	4	1	1	0	2	1
	8	36	40	39	28	20	14	6	6	8 out of 10	4 out of 10

FAT CLASSES

Ont- Ont-					Ontario Won							
Breed	Total ario	ario com- peted for	com- exhi- peted bitors		1st	2nd	3rd	4th	5th	Cham- pion- ship	Res. Cham- pion- ship	
Oxfords Lincolns Cotswolds Leicesters Southdowns Grades and crosses,	3 3 3 3 3 3	3 3 3 3 3 3	2 3 2 2 3 3	11 5 5 4 20	2 3 1 3 0	2 3 2 2 0	0 2 2 1 0	1 2 2 0 0	0 0 1 0	0 1 1 1 0	1 1 0 1 0	
medium wool Grades and	4	2	2	21	0	0	0	0	0	0	0	
crosses, long wool	4	4	4	7	4	4	4	2	1	1	1	
	23	21	18	73	13	13	9	7	2	out of 7	4 out of 7	

DAIRY CATTLE WINNINGS AT THE NATIONAL DAIRY DAIRY SHOW, 1928

During the year ending October 31st, 1928, the Ontario Cattle Breeders' Association made an exhibit of Jersey cattle at the National Dairy Show which was held in Memphis, Tennessee. These cattle were given an excellent location in the show and were nicely fitted with blankets advertising the province. The stable was well decorated and the exhibit drew very favourable comment from the many visitors at the show. The following gives a list of the winnings:

Bull calves:

5th Prize - W. G. Moncrieff, Niagara-on-the-Lake.

Junior Yearlings:

1st Prize-E. W. Nesbitt, Woodstock.

Senior Yearlings:

1st Prize—J. W. Innes, Woodstock. 3rd Prize—Norman Dedels, Breslau. 5th Prize—Douglas Thomson, Brooklin.

Two-year-olds:

None from Ontario.

Three-year-olds:

4th Prize-F. H. Silcox, Iona.

5th Prize-Field Lodge Farm, Roseneath.

Aged Bulls:

2nd Prize-B. H. Bull & Son, Brampton.

Aged Cows:

10th Prize-J. W. Innes, Woodstock.

Four-vear-olds:

8th Prize-B. H. Bull & Son, Brampton. 10th Prize-Douglas Thomson, Brooklin. 11th Prize-E. W. Nesbitt, Woodstock.

Three-year-olds:

8th Prize-Douglas Thomson, Brooklin.

Two-year-olds:

1st Prize—B. H. Bull & Son, Brampton. 3rd Prize—John Pringle, London.

Senior yearling heifers:

11th Prize—John Pringle, London. 12th Prize—A. T. Little, London.

Junior yearling heifers:

9th Prize—Queen Alexandra Sanatorium, Byron. 12th Prize—J. W. Innes, Woodstock.

2nd Prize-Field Lodge Farm, Roseneath. 6th Prize-B. H. Bull & Son, Brampton.

State Herd: (7 entries).

3rd Prize—Ontario.

In addition to the prizes which were won by the Ontario breeders, many of the cattle which were awarded prizes for American exhibitors were purchased in the Province of Ontario. This includes the Grand Champion Cow of the Show.

THE DOG TAX AND SHEEP PROTECTION ACT

This Act is becoming more widely and thoroughly known by both sheep owners and municipalities. During the year ending October 31st, 1928, nine appeals have been made under this Act to the Department of Agriculture. Appeals have been received from municipalities as well as from sheep owners. The following counties have been represented in the appeals made: Frontenac, Haldimand, Middlesex, Hastings, Simcoe, Victoria, Bruce.

RAM CLUBS

The Live Stock Branch has continued to carry on the policy of sheep extension through ram clubs which were organized in selected districts. During 1928 four ram clubs were in operation, namely, one club in Rainy River Section, two clubs on Manitoulin Island, one club at Little Current and one at Manitowaning, and one club in Lanark County at Franktown.

As a follow-up programme in this work, market lamb fairs were organized, a prize list of approximately \$200 being offered at each of these fairs. Co-operation in furnishing prize money was given by the Dominion Live Stock Branch. At the annual lamb fair held at Emo on October 16th, 336 sheep and lambs were exhibited of which 273 head were marketed. Of these, 220 were sold for \$13.50 per hundredweight, 33 head for \$12.75 per hundredweight, and 20 head for \$10.50 per hundredweight. It will be noted that a very high percentage of the lambs offered for sale were graded as No. 1. These lambs would average in weight about 87 pounds, and were a real choice lot of commercial lambs. This work has been much appreciated in the Rainy River section, and through the excellent support rendered by the agricultural representative, co-operative marketing of lambs throughout the district has been a prominent feature of the work. The financial returns which have accrued have been highly satisfactory and have done much to promote the sheep industry in the Rainy River district.

The lamb fair held at Franktown in 1928 is the fourth fair to be held in the district, consequently the period of agreement between the flock owners and the Live Stock Branch has expired. The remaining rams in the club were in most cases sold to farmers for breeding purposes. The lamb fair which was held at Franktown during the past season was the most successful fair which has yet been held in that district. Three hundred and twenty-five sheep were exhibited at this fair and 195 of these were market lambs which were graded and sold. The following gives the table for grades and prices:

	per cwt.
101 choice lambs	\$11 00
66 seconds	10 00
17 thirds	10 00
11 feeders.	9 00
These prices were forb. Franktown	

In connection with the work carried on in this section, demonstrations in the control of internal and external parasites were given by Dr. Lionel Stevenson, Provincial Zoologist. Considerable trouble has been experienced in this district in the control of stomach and tape worm and these demonstrations were very much appreciated. The agricultural representative in this county states that he is of the opinion that fifty per cent. of the flocks in the country are now being treated at least once a year for internal parasites.

Lamb fairs were held on Manitoulin Island in connection with the two ram clubs organized in this district. Unfortunately, the quality of lamb produced on the island is suffering because of the conditions under which sheep now have to be maintained. The wolf menace on the island has assumed alarming proportions, so much so that some farmers have discontinued keeping sheep, while others find it necessary to pen their sheep at nights as a matter of protection. Under this latter condition the lambs when brought to market in the fall do not show the finish that would exist if the sheep had free range at all times. Furthermore, by keeping sheep under confined conditions parasites are causing more losses than when sheep were allowed free range.

It is interesting to note that wolves are being caught on the island in increasing numbers in spite of the fact that the local bounty has been decreased. Since October, 1928, the local bounty stands at \$15.00 for adult wolves and \$7.50 for pups. For the year ending October 31st, 1926, 76 wolves were accounted for; for the year ending October 31st, 1927, 67 wolves were killed; and for the year ending October 31st, 1928, 85 wolves were killed. Since October, 1928 to February, 1929, 45 more wolves have been accounted for. Thus, in a little over three years the local committee on the island has paid a bounty of 273 wolves. The greatest number of wolves killed by any one man on the island during the year ending October, 1928, was ten.

The following tables show the results of the marketings of the lamb fairs at Manitowaning and Little Current:-

Manitowaning Lamb Fair—Sold October 3rd, 1928

No. Head	Grades	Weight	Average weight	Price	Amount
54	1 2 2 2 2 3 3 4 ewes "	4,212 78 5,400 352 7,498 119 1,771 470 335 125 155	78 79.8 87.5 59	\$13 50 13 50 \$12 25 \$11 25 \$11 25 \$10 00 10 00 6 00 3 00 5 00	\$568 62 10 53 661 50 39 60 843 52 11 90 177 10 28 20 20 10 3 75 7 75
251		20,515			\$2,372 57

		ř	1	VE	ΞR	lΑ	C	E)	P	ŀ	lΣ	C	E	S	
Grade	1															\$13 50
																12.2064
																11.2304
																10.00
/ ewes	at.															5 5152

EXPENSES

Freight	\$209	88
Transit Insurance	20	80
Unloading		
Fire Insurance		
Yardage	12	55
Co. service	2	
Commission	30	00

\$278 51

\$2.094 06

4.290	374	8.01
4,290 5,752 7,617 1,771 1,085	473 564 131 107	7.59 6.8 6.9 8.9
	7,617 1,771 1,085	7,617 564 1,771 131 1,085 107

LITTLE CURRENT LAMB FAIR—Sold October 1st, 1928

No. Head	Grade	Weight	Average weight	Price	Amount
62. 47. 29. 1. 59. 1. 1. ewe. 6 ". 1. ". 5. ".		4,780 3,680 2,750 85 3,630 60 165 690 140 500	7,709 7,517 9,482 6,125	\$14 00 12 75 12 00 10 00 11 50 8 00 6 00 3 00 6 00 4 00	\$669 20 469 20 330 00 8 50 417 45 4 80 9 90 20 70 8 40 20 00
212		16,480			\$1,958 15

Average Prices		Expenses		
Grade No. 1 Grade No. 2 Grade No. 3 Grade No. 4 13 ewes at	12.75 11.94 11.443	Freight. Unloading. Insurance. Yardage. Hay. Co. service. Commission.	2 00 30 10 60 7 68 1 50	\$ 136 33
				\$1.821 82

Grade	Weight at	Weight at	Amount	Percent-
	Little	Stock	of	age
	Current	Yard	Shrink	Shrink
1	5,207	4,780	427	8.2
	4,015	3,680	335	8.3
	3,050	2,835	215	7.05
	4,044	3,690	354	8.7
	1,682	1,495	187	11.1

ASSISTANCE TO AUCTION SALES OF PURE-BRED LIVE STOCK

During the year November 1st, 1927, to October 31st, 1928, assistance has been given to seventeen local associations that have held sales. A total of 639 cattle was sold, and the total assistance given amounted to \$2,115.

By an Order-in-Council, dated May 18th, 1928, an allowance of \$4 per head was made for tested cattle, providing all cattle at the sale had successfully passed the tuberculosis test and that an affidavit was taken by the contributors to the sale that their herds were free from contagious abortion and other infectious and contagious diseases. The maximum grant in such cases is \$150. In sales where the cattle are not all tested for tuberculosis, but are free from abortion or other infectious diseases, the grant remains at \$3 per head with a maximum of \$100 for any one sale.

CO-OPERATIVE CAR SHIPMENTS OF LIVE STOCK

As a service to breeders of pure-bred stock in Ontario in enabling them to market their animals in Western Canada, the Live Stock Branch maintains a service known as our co-operative car shipments whereby when sufficient stock is sold to purchasers in Western Canada, this stock is assembled, shipped west, and distributed to the purchasers. This service is appreciated not only by our Ontario breeders, but by western buyers.

NUMBER IN EACH SHIPMENT

Year	Horses	Cattle	Sheep	Swine	Total
1908	22	74	14	15	125
1909	25	70	84	4	183
.910	39	51	36	7	133
911	58	51	51	18	178
912	51	45	24	20	140
913	47	71	107	21	246
914	49	97	34	20	200
.915	28	104	76	8	216
916	59	185	100	22	366
917	70	269	196	15	550
918	67	250	180	4	501
919	24	154	154	4	336
920	18	110	37	6	171
921	1	37	19	5	26
922	3	18	6	21	48
923	6	32	9	28	75
924	1	22	2		25
925	1	12	11		24
926	2	4.3	33	5	83
927	3	56	43		102
928	4	46	81	7	138

PURCHASE OF COWS FOR NORTHERN ONTARIO

The Live Stock Branch has, during the past year, continued the co-operation with the Department of Northern Development in the supplying of cows to settlers in Northern Ontario. Five carloads containing seventy-four cows were shipped to Northern Ontario, two carloads being sent to Kapuskasing, two loads to Fort William, and one load to Mileage 103 west of Cochrane.

Since this policy was inaugurated a total of 488 cows and four bulls have been sent to the settlers and in the great majority of cases excellent satisfaction has been given and the service has been much appreciated by the farmers.

LOCAL POULTRY ASSOCIATIONS

Local poultry associations again received assistance from the Department through the supplying of judges, lecturers and grants to associations during the fiscal year, November 1st, 1927, to October 31st, 1928.

Number of associations holding a show during the fiscal year. Number of poultry judges supplied.	42 35
Number of fecturers	15
total amount of grants paid to local associations, November 1st, 1927, to October	
31st, 1928	\$2,040 00
Total expenditures in connection with local poultry associations—judges, lecturers,	4 4 30 00
grants, confederation, etc	4,130 00

INSTITUTES BRANCH

The Women's Institutes of the Province have continued to carry on along very effective lines during 1928. Branches have been established at fifty-four additional places during the year, and there are now 1,115 branches, with a membership of over 40,000 in the Province, with many inquiries in hand as to how to proceed to organize. The example set by Ontario from 1897 on in establishing organizations for rural women and carrying on successfully has been followed in many other countries, and the Women's Institute is fast becoming a world-wide force in making for better homes, better health, a better agriculture, effective community service, and good citizenship.

A splendid development has been made in South Africa during the year, where they now have 174 branches with a prospect of rapid expansion and development. The work continues to expand and become more effective in practically all overseas dominions and the motherland, as well as in a number of European countries.

The success and permanency of the work in Ontario has been due in large measure to co-operation between the local voluntary organizations and the Institutes Branch, which renders a variety of valuable service to the Institutes and also links them up with other branches of government which have service and literature of value for the rural districts. The Institutes have monthly programmes for education along practical lines and wholesome social life.

WORK OF THE STANDING COMMITTEES

While the services of the Department of Agriculture are being gradually extended and made more effective from year to year, the Institutes have been developing rapidly in so far as their own programmes are concerned. This is set, forth in the summarized report of the standing committees as given herewith. We are not only presenting a brief statement of the accomplishments, but an outline of the programme as decided upon by the Institutes.

HEALTH

Programme.—Medical and dental services, health rules and laws, preventive measures and disease, courses in nursing and first aid, diet for corrective purposes and disease, public sanitation, health conferences and exhibits.

Activities.—Healthy growth is shown not only by the actual accomplishments, but by an educational advance, a clear understanding of the needs and a definite working towards their solution. A "Health Day," "Health Week" or "Health Exhibits" have been features of the programmes. Attention has been effectively concentrated on the problems of lessening maternal and child mortality, pre-natal care being frequently furnished by the members themselves and a special study made of the care and feeding of children of the pre-school, school, and adolescent ages. Much use has been made of the departmental literature and courses in nursing, and there has been close co-operation between the doctors, medical officers of health and school nurses. Water has been tested and drinking fountains provided, prizes offered in schools for attendance and cleanliness, hot lunches arranged for and milk supplied to under-nourished children. Best of all, preventive measures, right eating, immunization against disease, medical and dental inspection, fresh air, proper rest and recreation are being emphasized.

Home Economics

Programme.—The study of clothing, feeding and housing, including food values and desirable combinations, clothing requirements, house planning, labour saving equipment, water supply, power, heating and lighting, household budgeting.

Activities.—Papers, demonstrations and discussions on the proper feeding, clothing and housing of the family were features of the monthly meetings. Short courses in foods and cookery, sewing and millinery were given in many branches. Girls' garment clubs were formed and girls' judging competitions in home economics held at centres throughout the Province. Well attended girls' conferences and Women's Institutes conventions for the exchange of ideas on better homemaking took place at fifteen centres. Government bulletins were distributed and widely utilized. Labour saving, family budgeting, plans for new houses were other items of interest, also visits to the schools and colleges of domestic science. Foods and handicraft exhibits were put on at the fall fairs.

EDUCATION

Programme.—The utilization of literature—standard works, bulletins, reports, periodicals, etc. Programmes for regular meetings, lecture courses, debates, plays, music. All co-operation with and assistance to the schools, except along "Health" lines and supplies and equipment for school grounds.

Activities.—Decided progress has been made in getting music taught in the public schools and choral clubs established in communities. There has been stimulated interest in community educational measures too, as in the study of current events, League of Nations bulletin, birds, flowers, eradication of weeds and beautification of home grounds, public speaking, debates and essay writing, short courses. Travelling and other libraries are coming more and more into use and university extension is widening its field. Curfew by-laws have been made effective through Institute influence. The monthly meetings have had papers, discussions, and demonstrations on practical subjects—education, citizenship, home economics.

AGRICULTURE

Programme.—All efforts of women and girls to increase the production of the farm or to add to its beautification; tourist camps and other money making undertakings by women and girls on the farm; school fairs, fall fairs and the marketing of produce.

Activities.—By the exchange of seeds, slips, bulbs and roots among members the beauty of country homes and neighbourhoods has been augmented. A healthy public opinion in support of the extermination of weeds campaign is being developed. Horticultural societies have been made use of and encouraged, government bulletins read and distributed and the more attractive and standardized preparation of Ontario apples and potatoes for market urged, also cooperative marketing by women. There was active co-operation with the agricultural representatives, assistance with the short courses, fall fairs, school fairs; also improvement in the farm home, its working equipment and furnishings, and a greatly stimulated interest in pure milk and accredited herds. Accommodation for tourists was a revenue-producing side line on some farms; bee-keeping, chicken, geese, turkey raising, the sale of fruit, flowers, pickles and homecanned goods in others.

LEGISLATION

Programme.—The study of laws, the regulations made thereunder and method of administration, laws concerning inheritance, property rights, marriage, custody of children, orphanages, care of the unfortunate, are of special interest.

Activities.—A study of the laws of Ontario which concern the home and family welfare, such as inheritance, marriages, wills, immigration, pensions, child labour, mothers' allowances, adoption of children, minors and feebleminded has been an outstanding feature in Institute work. Various family problems have been discussed and in a number of cases the right solutions found. Legislative problems bearing on rural home life were taken up with the Cabinet with satisfactory results. Active interest was taken more than ever before in the doings of school and municipal authorities and in the sessions of the Provincial and Dominion governments. "It is better to educate our people so they will demand good laws than for the government to make the demand," is the view expressed.

IMMIGRATION

Programme.—The study of immigration laws and assistance given to immigrants, welcoming newcomers and helping them to get established in community life, teaching the foreign-born the English language and Canadian ways and customs; co-operation with the Children's Aid Society in getting homes for orphan or neglected children.

Activities.—The Institutes have tried to co-operate understandingly with the Government Departments of Immigration and Colonization in helping families and individuals to get successfully "on their feet" where they have settled within reach of a branch.

The question of emigration as well as immigration is of increasing interest to members who in some places put on an annual study of helping young people to find the right life work in Canada.

There has been some co-operation with the Children's Aid Society in securing good homes for children for adoption; in a number of cases individual members have adopted children.

RELIEF

Programme.—Assistance to the individual or the family in need, homes for the aged, hospitals, children's shelters, and financial help to those requiring special treatment or care.

Activities.—Much effective and humane work has been done in medical aid in Northern Ontario and in clothing for fire sufferers and orphans. Needy school children were equipped to go to day and Sunday schools, blind and crippled children provided with treatment. Assistance was given in sickness, death and maternity cases. Outpost and other hospitals received donations of linen, fruit and funds, in a number of cases a whole room being maintained by local institutes. First aid kits were given to schools and layettes to needy mothers. The short courses in nursing resulted in a considerable amount of voluntary service from members to the afflicted of their own communities.

COMMUNITY ACTIVITIES

Programme.—Undertakings in the interests of the whole community, such as providing or maintaining community halls, rest rooms, parks, libraries, fire

equipment, street lights, school grounds, cemeteries, banquets, entertainments, Christmas trees, games, amusements for the whole community.

Activity.—Many community activities are similar to those carried on last year according to programme, with an occasional new venture. Rest rooms in market towns and parks, community halls built, renovated, maintained and improved cemeteries, parks, tourist camps remain in the foreground of interest, as do libraries, the Packet Loan of the O.A.C. being much used. Many have caught the idea of having community Christmas trees, others Hallowe'en frolics to turn youthful energy into constructive rather than depredatory channels. Plays, banquets, entertainments, music festivals, skating rinks and other outdoor recreation have been part of the work. A banquet was held in honour of the Minister of Highways to create a spirit of enthusiasm among the members for a highway wanted to come in that direction.

HISTORICAL RESEARCH

Programme.—Making collections of historical records and articles; compiling local and township history of individuals, industries, customs, developments; making records of interesting current events; exhibits of antiques; co-

operating with the Provincial Archivist.

Activities.—Many branches have an historical research committee and are aiming at a readable and comprehensive history of their own townships and counties, while roll calls giving briefly the history of the farms have been a feature of programmes. In some cases these records are being stored in the history department of the University or the Government archives, in others, preserved locally in libraries or museums. Considerable local history is being printed in local papers. Collections of antiques bearing on the pioneer history of Ontario have been made and historic sites marked with tablets. The history of villages, townships, farms, homes, churches, industries, schools, families is thus being to some extent preserved. Grandmothers' days with stories and exhibits of old times are an annual feature of many branches. Current events, too, have been studied and the current doings of municipal councils, legislatures and school boards observed. Altogether a very lively interest in history past, or in the making, is being developed.

Canadian Industries

Programme.—A study of the natural resources and industries of the locality, the Province and the Dominion. The comparison of imported and home-made articles as to quality and price. To encourage the purchase and use of Canadian goods where the values compare favourable with the price and quality of imported articles. Study of trade methods.

Activities.—A study of the resources of Canada was made and an intelligent grasp gained of the reasons for encouraging home trade by buying Canadian made goods when quality and price compare well with imported articles. An exhibit of Canadian manufactured goods was put on at several area conventions which proved enlightening to the delegates and public generally.

PUBLICITY

The institutes advertise their educational programmes in the community through printed cards, bulletin boards, telephone, and the local press. Cordial relations exist between them and the city dailies and country weeklies which give much appreciated publicity to worth-while social activities in branch and district throughout the Province.

The agricultural press of the Province is ready at all times to publish Institute news of general interest, and this co-operation has done much to create a more general interest in the work and to stimulate the branches to more effective effort.

DEMONSTRATION LECTURE COURSES

Over 9,000 girls and women took advantage of the systematic instruction given in the short courses in "Food Values and Cookery," "Home Nursing and First Aid," "Sewing" and "Millinery." In the rural districts, where for the most part there are no other opportunities for education along the lines covered, there is keen appreciation of the services being rendered by the Department of Agriculture through the regular courses, consisting of ten lessons covering a period of two weeks, the one-month and the three-months courses.

The programmes for the regular demonstration lecture courses are as follows:

FOOD VALUES AND COOKERY

Food values, preparing, cooking and serving food, with emphasis on the value of food in relation to health. The lessons cover—vegetables, fresh and dried; fruits, eggs, milk (with special instruction as to children's and invalids' diets); cereals and cheese; meat (uses of different cuts); meat substitutes, bread, biscuits, etc., desserts, salads.

HOME NURSING AND FIRST AID

The object of this course is to enable women to obtain a knowledge of how to care for the sick in the home, what to do in an emergency and how to do it, how to render assistance to the doctor, or to the nurse where such service is necessary. The lessons include—general instruction in daily health; national and personal hygiene; selection and care of the sick room, taking the temperature, pulse and respiration, keeping records, preventative measures; home sanitation and ventilation; the uses of water internally and externally; baths and packs; local applications—hot and cold; poultice making, nursing in isolation cases; disinfecting and fumigating; how to treat fractures of various kinds, dislocations, sprains, artificial respiration, checking of hemorrhages, dressing wounds in common emergencies; the mother and baby—prenatal care, preparation for child-birth, care of mother and baby.

SEWING

Plain and fancy stitches; the use and care of the sewing machine; finishings, bindings, pockets, collars, plackets, gussets, use of patterns and the making of a dress; renovating, purchase of materials, setting colours, shrinking and pressing goods, etc.

Courses held from November 1, 1927, to October 31, 1928.

Nature of Course	Number	Persons taking Instruction
Millinery Regular	8	379 281 283
Sewing Regular	23	

9.378

Nature of Course	Number	Persons taking Instruction
Food Values and Cookery Regular	32	1,135
Home Nursing and First Aid Regular	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,006

SUMMER SERIES OF MEETINGS

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During the last two weeks of May and throughout June, a staff of lecturers thoroughly familiar with Institute aims, programmes, methods and accomplishments, and specially qualified to give up-to-date information along one or more lines of practical value to homemakers, gave addresses at some 749 centres. The members of many of the institutes not included in the list attended meetings at neighbouring branches. Some of the subjects for addresses and discussions were:

A Mother's First Duty to Herself. In Training for Health, Beauty and Happiness. The Value of Temperature, Pulse and Respiration. Full Value out of a Garden. What to Eat and How to Serve it. Treasures from an Old Scrap Book. Historic Research. The Well-Balanced Institute. A House and a Home. A Few Food Facts. Old Age Retarded. The Physical Development of the Child. How to Conduct a Meeting and Utilize the Talents of the Members. The Value of the School Nurse to the Community. Libraries, Music and Debates. Cake-Making and Baking. A Balanced Ration of Work, Pleasure, Exercise and Rest. The Principles of Dress. A Girl's Preparation for Life. Books for Children. Amusements and Games for the Rural Community. Making the Institute Serve the Community. Those Nerves of Ours. Eating for Beauty and Efficiency. Helping Boys and Girls to Find the Right Life Work. Working Your Own Gold Mine. A Mother to the Community. The Child, the Parent, and the Teacher. Opportunities for the Rural Girl. Efficiency and Self-control as a Science. The Institute as a Builder in National Life. The Utilization of Colour and its effect on the Individual. House-Planning, Furnishing and Decoration. Relation of the W.I. to the Public School. Business Principles and Methods. Hospitality—The Old and the New. Farm Poultry—Selecting the Layers and Dressing—Demonstrated. Respect for my Job; or the Market Value of a Homemaker. How to Meet Medical and Surgical Emergencies. Programes and Projects for Junior Institutes. Keeping out of Ruts.

Putting Unity into the Community.

The annual visit by a representative of the Department provides in many instances the only direct contact between the departmental staff and the local branches during the year, and as a result of this contact, the officers and members in many branches adopt features in their regular monthly programme which make the work of the organization more effective.

DISTRICT ANNUAL MEETINGS

The 1,115 branch Institutes of the province are consolidated in 100 district organizations, with officers appointed by representatives from the branches concerned. The annual district meeting provides an occasion for presenting reports, outlining methods of work, surveying the needs of the various communities, and offering suggestions for making the work more effective in the individual branch as well as throughout the district.

Special speakers were provided by the Institutes Branch for a number of these meetings, while the representative of the Provincial Board for the area concerned attended to report on the activities of the Board and to encourage the

branches to more progressive work.

ANNUAL CONVENTIONS

Conventions were held at the following places during the fall:

Place	Counties and Districts Represented	Date	Attend- ance
Port Sydney	Temiskaming (N.C.S.)	Sept. 12, 13 Sept. 13, 14	90 150 200
	Rainy River, Kenora and Thunder Bay	Sept. 26, 27 Oct. 4, 5	85
Little Current	Manitoulin Island	Oct. 10	125
Walkerton	Bruce, E. & W. Huron, N. Perth	Oct. 17, 18	300
0	Addington, Amherst Island, Brockville, Frontenac, Lennox, Leeds	Oct. 25, 26	320
	ton, Lanark, Renfrew, Russell	Oct. 30, 31 Nov. 1	210
	Lambton, Middlesex, S. Perth, Essex, Elgin, Kent S. Huron	Nov. 6, 7, 8	420
Hamilton	Oxford S., Haldimand, Lincoln, Welland, Water- loo, Wentworth, Brant, Norfolk	Nov. 13, 14, 15	450
Belleville Toronto	Hastings, Northumberland, Prince Edward Durham, Haliburton, Peterboro, Victoria, On-	Nov. 15, 16	300
	tario, York, Dufferin, Grey, Halton, Peel, Wellington, Simcoe and Muskoka	Nov. 27, 28, 29	600
			3,250

The number of conventions has been increased during recent years with a view to providing an opportunity for the busy women who cannot afford to be away from home for more than one or two days, to meet with leaders and secure information which would enable them to carry on more effectively in their respective units. The utilization of a large number of members in planning for the conventions, formulating programmes, presenting reports of standing committees and taking part in the discussions, has resulted in rapid development of the splendid talent and executive ability which is to be found in all parts of rural Ontario. There was no difficulty in securing leaders in all twelve areas to accept responsibility and carry on effectively. This is a splendid tribute to the value of the training and experience gained in the Institutes.

JUNIOR INSTITUTES

Our junior Institutes are steadily growing in number of branches and membership, but what is more encouraging is their continued enthusiasm and the scope and breadth of the work which they are undertaking. There are 88 junior branches with a membership of over 2,000. This, of course, does not include the many girls doing excellent work with our senior branches. The junior Institutes are organized on a similar basis to the senior Institutes, and co-operate with them and the junior farmers. They plan programmes of special interest to girls and carry out various practical projects closely associated with their home and community life. The musical festivals, public speaking contests, debates, and judging competitions afford excellent training for the girls and do much to foster a community and county spirit.

GIRLS' JUDGING COMPETITIONS

By means of coaching classes held throughout thirty-one counties prior to county judging competitions, a large number of girls received special lectures and demonstrations in:

Nutrition:

(1) School Lunches (2) Family menus.

Home Furnishing.
(1) Farm Living Rooms.

(2) Farm Kitchens.

Clothing:

- (1) Suitable Costume for Church.
- (2) Country Girls' Wardrobe.

Thirty county judging competitions were held with an aggregate attendance of 1,069. Peel County had the largest attendance, with Thunder Bay second, and Temiskaming third. Judging competitions were held during the year at Toronto, Ottawa and London.

The annual provincial competition at Toronto was very popular, and keenly contested by twenty-six county teams and 125 contestants in the open class. Middlesex County team carried off the much coveted cup with the honours, Wellington County, the winners in 1927, holding second place. Eight eastern counties entered the first household science judging competition (intercounty) held at the Central Canada Exhibition, Ottawa. The Frontenac County team received the highest score. Lanark County standing second.

At the Western Fair, London, a competition was held with thirty-four girls competing. Middlesex County won honours for three girls securing highest standing, while an Elgin County girl obtained the highest score.

Judging competitions with the coaching classes have real educational value and should receive the hearty support and co-operation of both the senior and junior Institutes. Girls who have taken an active part in judging competitions realize that the coaching classes open new avenues of interest, and suggest to the keen alert girl special phases of home economics which she may follow up and apply to herself, her home and her community.

The county consciousness aroused by county girls getting together is not an unimportant feature and is emphasized still further at intercounty competitions. They also afford an excellent opportunity for our girls to learn to win without boasting and lose without whining.

GIRLS' GARMENT MAKING CLUBS

The girls' garment making clubs are organized in order to give the rural girl an opportunity to learn the elementary steps in sewing. Through the local branch Institute, a woman or girl with a knowledge of sewing and a gift for leadership is secured to act as a leader and teacher to a group or club of girls from ten to sixteen years of age, or twenty years for second-year work. The girls meet every week or so, carry on their club meeting in a business-like manner, sing their club songs, and cover the course prescribed in the garment making club bulletin. At the close of each session there is an exhibit, when a representative from the Department judges the girls' work, and certificates of achievement are awarded to those who successfully complete the year's course.

Some twenty Institutes conducted garment making clubs during the past year. Club work exhibited at the C.N.E. and various conventions justly merited the highest commendation. A new issue of garment making club booklets was published during the year.

GIRLS' CONFERENCE

Five hundred and twenty-five girls attended the conferences held during the year at Guelph, Kemptville, Cobourg and London.

The three-day conference at Guelph and at Kemptville took the form of a short college term for the girls. The keen interest, hearty co-operation and assistance given by the staff, both at Guelph and Kemptville, were invaluable. The girls entered earnestly into the spirit of the conference, adhering to the limited set of rules, and taking an active part in discussions.

Some of the subjects under discussion were: House planning, income earning, rural health, budgeting, hospitality in the home, community service, beautification of farm home, judging dairy cattle and poultry. Popular demonstrations were given in wax work, paintex and the making of rugs and gloves.

In the one-day conference programme planning and practical projects which might be undertaken by junior Institutes and junior farm girls' organizations were the main features discussed.

These conferences help the girls to meet the challenge given them at one of the conferences "to enrich and beautify rural life and to make the best use of their opportunity, to lead in the wise spending of the farm income, and to lead in beautification and social enrichment through the home, the school, and the church."

SPECIAL MEETINGS

This branch continues to furnish speakers on a variety of agricultural topics for meetings representative of the various lines of agriculture in different sections of the Province. We are asked to furnish fruit men, potato specialists, poultrymen, vegetable growers, seedsmen, and stockmen to attend special meetings of swine and sheep-breeders, dairy men and beef producers. Occasional calls come to hand for speakers to take up special crops, such as tobacco growing, bean production, canning factory crops. Nearly all these meetings are arranged in co-operation with the agricultural representatives. From time to time throughout the year the Women's Institutes make special request for some definite line of instruction, supplementing the regular summer series of meetings and the short courses reported elsewhere. We are usually able to meet these requests.

FRUIT BRANCH

The unusual weather conditions of the past season affected the fruit-grower even more seriously than the general farmer. Continued dull and wet days during the bloom on pears and apples, with late frosts in one of the southern counties, reduced the crops of these fruits very materially. Peaches and plums came through in better condition, with a good crop of most varieties, while grapes also increased materially in volume over 1927. Raspberries and strawberries were lower in production from somewhat weaker condition of the patches in the previous year. The final estimates for Ontario compared with 1927 as given by the Dominion Fruit Branch are as follows:—

	1927	1928
Apples	673,500 barrel	s 543,970 barrels
Pears	211,300 bus.	126,780 bus.
Peaches	306,180 "	535,800 "
Plums	150,100 "	274,900 "
Grapes		52,000,000 lbs.
Raspberries	2,304,000 qts.	1,843,000 qts.
Strawberries	2,644,000 "	2,600,000 "

Quality of all fruits was much better than in 1927 and prices in most lines were more satisfactory to the grower. Owing to the demand from our home markets, the export of apples and pears was still further reduced over the light export of 1927, while that of plums increased.

BRITISH AND CONTINENTAL MARKETS

Owing to very heavy exports of apples from both Canada and the U.S.A., prices on all these markets up to December were very low. In Ontario, the home market demand and prices were such that practically no shipments were offered. A brisk demand from the canneries also absorbed a large amount of varieties like Ben Davis that usually have to find a market abroad.

Under the circumstances, the representative of the Ontario Fruit Growers' Association in Great Britain returned home after completing his work with the shipments of the early fruits, plums and pears. These shipments originated entirely in Burlington and Grimsby and were, on the whole, satisfactory. The only weak link in the handling of these soft fruits is in the cold storage on the ships, correct temperatures not having been maintained, resulting in soft, wasty fruit on arrival or in a lesser number of cases in frozen fruit. The railway companies are to be commended for their handling of this produce, both in rates and transportation service.

Heavy plantings of Japanese plums like Shiro and Burbank have resulted in general low prices here in years of a good crop. While recognizing that this fruit, on account of its early ripening, would come into keen competition with fruit from both English and continental orchards, it was decided to send experimental carload shipments of these varieties to London in 1928 from both Grimsby and Burlington. Part of the Grimsby cars were purchased at Montreal for export. All the Shiro cars went through for sale by the brokers and some small losses were incurred, especially in those shipments that did not receive proper storage on the boats.

Our representative in London reports as follows on these early shipments: "Generally speaking, the conditions of the plum market have not been as good as they were last year or the year before. It seems that enormous quantities of

Idaho prunes have come over, and I am told that the market is flooded with them and they are selling at such low prices, that very heavy losses are being incurred. Last year, Idaho prunes were pretty well off the market by the first week in October, but, this year, on account of prices being so bad, a lot of them were put into cold storage and are still overhanging the market.

"On the whole, however, I do not think that you will find Burlington or Grimsby complaining very severely about prices received for fruit that landed

in good condition.

There has been a lot of trouble, however, about the fruit not turning out well when landed from the boats. This year the steamship companies have refused to state any temperatures in their contracts, which leaves them free to do what they like—they seem to have paid little attention to the shippers' request for temperatures of 33 degrees to 37 degrees for plums. I think there has been only one boat that has given good refrigeration service in this regard.

"Temperatures starting at over 40 degrees and working down to 40 degrees or 38 degrees at the best, are not enough. There has only been one ship, according to the thermograph records as far as I have seen them, that received anything like proper attention, and the fruit that was landed from this boat was

in very much better shape.

One interesting example that was given, was in the boats that carried the first two carloads of Shiros, which were sent forward by the Niagara Packers, Limited—the S.S. "Aurania" gave a temperature around 40 degrees, the S.S. "Megantic" got down very quickly to 36 degrees. The fruit was the same quality throughout, and was packed and shipped at the same time—the fruit from the S.S. "Aurania" landed over-ripe and that from the "Megantic" shipment arrived in excellent condition. There is no question to my mind but that Shiros can be sent over in first-class shape if they get reasonable refrigeration. I have some doubt about Burbanks, but they have never been properly refrigerated for any shipment that has been sent over, and one cannot come to conclusions on that account.

"In spite of the Burbanks and Shiros arriving in poor condition, however, I am inclined to think that prices received will not be unsatisfactory on the whole. I believe that even though they were not given a fair chance at all, the Burbanks sold to realize better net prices than could be had on the open market.

"Aurania.—The temperature of the S.S. "Aurania" shows that the boat started off at a temperature of about 42 degrees, and reduced this to 40 degrees about the end of the second day, then ran along at about 40 degrees until the fifth day, when the temperature dropped between 38 degrees and 39 degrees for the rest of the journey.

"Megantic.—The s.s. "Megantic" arrived September 3rd, whereas the S.S. "Aurania" arrived September 4th, and showed a temperature much better than the latter, dropping to 38 degrees on the first day and gradually going down to 36 degrees about the third day, then staying around 36 degrees with a drop to 33 degrees on the eighth or ninth day, and up to 36 degrees for the rest of the journey.

The report by cable was that the S.S. "Aurania" arrived with the fruit ripe and the S.S. "Megantic" in excellent condition. The result is shown in the account sales practically the same—the fruit from the "Megantic" realizing

£278 as against £222 for the "Aurania."

"While there may be some doubt as to whether Burbanks can be sent over to England with any assurance that they will arrive in condition, there does not seem to be any doubt that Shiros, if they are given proper refrigeration, will do so. Refrigeration around 40 degrees, however, is not good for any plums. We must get a temperature from 33 degrees to 37 degrees, and this would particularly apply to Shiros or Burbanks.

"'Alaunia.'—I am enclosing comments from Messrs. T. J. Poupart, Ltd., on the condition of the fruit that arrived per the S.S. "Alaunia" September 17th. The whole story is one that the fruit arrived in very poor condition, at least as far as the Burbanks were concerned. The Orleans seemed to carry better, but were wasty. The Niagaras were variable also. I have before me the thermograph record of the "Alaunia," which shows that starting at a temperature of 42 degrees they gradually got down to about 38 degrees at the end of the first day, and maintained a temperature of 38 degrees practically all through the voyage, which temperature was too high for these early plums. If the steamship company had given a temperature from 33 degrees to 37 degrees—that is a lower range of temperature of only a few degrees—I believe that the results would have been very different.

"'Ascania.'-Arrived September 10th. I am enclosing a report on this shipment, in which the comment is that both varieties of plums arrived in a forward and ripe condition. Boxes which were shipped without pre-cooling were in a worse condition, as far as Burbanks were concerned, than those which had been pre-cooled. In spite of the report of the bad condition of these plums, they did not sell at such bad prices. The prices quoted in the account sales are per bundle, and, considering how bad they say they were, they seem to have done pretty well, in connection with the bulk of them, although some of them are reported as useless, and some sold at pitiable prices. Immediately on my arrival here, I arranged with Messrs, Poupart's to quote the price per tray or per unit, so as not to leave any room for misunderstanding. I have looked over the government thermograph record of the S.S. 'Ascania' and noted that she started at a temperature of about 45 degrees, which was gradually reduced until at the end of four days the temperature got down to 40 degrees, and from then on it ran at 38 degrees to 39 degrees, until about the 9th day, when it got down to 36 degrees. This temperature could not be considered satisfactory for fruit like Shiro and Burbanks. The temperature for this variety, I am quite certain, should not be higher than from 33 degrees to 37 degrees at any time during the voyage.

"'Calgaric.—September 22nd. I am enclosing letter from Messrs. T. J. Poupart, Ltd., of Liverpool, which gives information in very considerable detail. The condition of the Burbanks seems to have been pretty bad. The Pond's Seedlings were worthless, and the condition, as a matter of fact of all the plums, was so bad and wasty that they were sold at considerable sacrifice, although it was quite evident that Messrs. Poupart's Liverpool office did all they could to save the situation. Luckily the pears arrived in good shape, so that the returns from the whole car-load were not so bad as to total, although if the plums had been brought over in good condition, the results might have been quite good."

SPRAY SERVICE

In co-operation with the Agricultural College and the county representatives instruction in spraying was carried on in every important fruit-growing county in the Province. The field men were supplied by the Fruit Branch with the assistance of two members of the O.A.C. staff, the whole being under the expert

supervision of the professors of entomology and botany at Guelph. The expen-

diture for this work was borne by the Fruit Branch.

The following counties had each a field man for the spraying season: Prince Edward, Northumberland, Durham, Norfolk, Lambton, Huron, Grey, Middlesex, Brant and Oxford, Halton and Peel, and the eastern counties on the St. Lawrence were each combined for the service and the Ridgetown Experimental Farm staff looked after the few large orchards in that section requiring assistance.

PROVINCIAL ENTOMOLOGIST

The work of the year may be classified under three headings—Administration, Extension, and Research.

ADMINISTRATION

I. The Fruit Pest Act. (a) Nurseries.—All nurseries, except one in St. Joseph Island which is known not to need inspection, have been inspected. The total number of plants examined was,—fruit trees of various kinds, approximately 1,200,000; ornamental trees and shrubs, including bush fruits, 1,080,000. Of all these plants, 650 were found infested with San José scale and destroyed.

(b) Orchards.—The usual inspection in spring for black knot and San José scale was carried out. San José scale is at present less numerous than at any time for over 30 years and is doing very little damage. Black knot is also scarce

in the Niagara district.

In midsummer and fall, peach orchards were examined for Yellows and Little Peach. The total number of trees found affected and destroyed was 1,591. This is considerably higher than in 1927, but the increase was chiefly in the township of Niagara where the former inspector in 1926 and 1927 had failed to cover the district properly. A new and more energetic man was inspector this year.

Fumigation of nurseries.—By the new regulations all nursery stock has been exempted from fumigation except that destined for Nova Scotia. This stock has

been treated as required.

II. Spray Service.—All the main apple districts of the Province except the Niagara district were under the service this year. Two training days were held at Guelph for all the local supervisors and agricultural representatives concerned. At this short course all sides of orchard work were discussed, so that the spray supervisors might be able to help the growers in other ways as well as spraying.

The season was remarkably favourable for the development of scab, yet in spite of this a large number of the men in the service had a high percentage of clean apples. There is no doubt that had it not been for the guidance of the supervisors we would have had one of the dirtiest crops of apples on record.

In Huron county the death in the midst of the spray season, of Mr. Wm.

Grant, the local supervisor, hampered the work greatly.

III. Corn Borer Act.—In 1926 the Corn Borer Act was put in force in eight counties; in the fall of 1927 the number was more than doubled; and this fall all the territory west of Toronto except the counties of Grey, Bruce, Simcoe, Dufferin and the northern half of Wellington are under it. East of Toronto it includes York, Ontario, Durham, Northumberland, Prince Edward and the southern half of Hastings.

Of the twenty-four counties under the act this year, the clean-up in twenty

was good and in the other four only moderate.

The results have been gratifying for there has been a decided reduction of the borers in all the heaviest infested counties, and in no county under the Act was there any increase except in those where sweet corn was largely grown. It seems harder to combat the insect in sweet corn, especially Golden Bantam, than in any other variety, but there is almost no doubt that with a little extra care it can be done.

EXTENSION.—This aspect of the work has been carried on in the following ways:—

- (a) By timely letters in the press, by leaflets and the spray calendar.
- (b) By public addresses at fruit meetings.
- (c) By talks over the radio from London. Eight addresses were broadcasted in this way.
- (d) By orchard meetings and visits to various parts of the Province where the presence of an entomologist was needed.

RESEARCH

- I. Spray Experiments.—A series of experiments were conducted on twenty acres of apple trees about fifteen years of age to test new spray mixtures in comparison with those recommended in the spray calendar, and to test the merits of dusting with the latest dusts applied by an up-to-date dusting machine in comparison with liquid sprays. Valuable information for ourselves and also for the growers was obtained. Further experiments of a similar nature involving still more mixtures are being planned for the coming season.
- II. Oriental Peach Moth.—Mr. G. G. Dustan continued his research studies at St. David's on this insect and obtained much further data. Fortunately weather conditions aided by parasites have reduced the insect this year by fully fifty per cent.
- III. The Corn Borer.—Research on this pest is being continued, chiefly along the line of discovering the best available implements for crushing stubble and making it easier for the farmer to clean up his cornfields. This year we hope to be able to introduce low-cutting attachments for corn-binders and to devise an implement with knives or points which will run about two inches below the ground and lift out all corn stalks. This device would be used in Essex and Kent in spring if it works as we hope, would remove the necessity of ploughing; for the stalks after being lifted up could easily be gathered and burned. Cutting level with the ground and ploughing, we found by experiments this fall, will some years leave too many borers in the part beneath the soil to omit with safety, ploughing.

TOMATO INVESTIGATION

This year special investigational work on canning crops was requested by the growers in the eastern counties, particularly Prince Edward and Northumberland. A preliminary report on this work is submitted herewith covering the tomato.

Following several meetings to discuss tomato-growing problems last spring it was decided to conduct a series of experiments with tomatoes this season. Nine strains of John Baer, two of Marglobe, one each of Norfolk Canadian, Bonny Best and J.T.D., were grown side by side for a comparative test. Owing to poor soil, and a bad attack of blight, very few facts of any value were gained. Norfolk, like the Earliana, has not a vigorous enough foliage for a canning tomato. J.T.D., a strain used by the Campbell's Soup Co., was found to be too late for our use. A comparison of dusting and spraying with Bordeaux showed the sprayed plants to have more vigour and healthier foliage than dusted plants,

and the sticking quality of the liquid Bordeaux is far superior to dust. No check on the yields of any of these plots were taken as seasonal conditions brought on a severe attack of black rot in August which made records of yields practically worthless. Another experiment to find out if any increase was made in yields from plants grown sixty and eighty to a flat compared with those from one hundred to a flat was conducted, but nothing definite was found for the same reason.

Spraying was done from Port Hope, Brighton, Smithfield to Bayside and Wellington on the fields. The sprayed areas varied in size from one-half acre to five acres, and had from one to three applications. Orchard sprayers, horse-power potato sprayers and knapsack dusters and spraying outfits were used. Power sprayers at one hundred to one hundred and fifty pounds with a single nozzle or 200 to 300 pounds pressure, with two guns did effective work, but were very expensive, varying from \$4.35 to \$13.60 an acre, depending on the size of the plants, the distance from the water supply and the time involved in getting the tank filled.

The knapsack sprayer was a back-breaking job for a large field and was slow, although comparatively inexpensive. Dust cost considerably more than spray material although it was applied faster than with a knapsack sprayer, but it did not stick so well, particularly if it were windy. The two wheeled barrel spray which did four rows at a time seemed to be the most economical investment for field spraying. It cost sixty-seven cents to spray an acre and the rows were sprayed both ways. The amount of foliage covered was far from satisfactory, but with this type of an outfit it would be possible to spray every week or oftener from the time the plants were set until the plants filled the rows, and in that way keep the foliage covered. Professor MacLennan believes that a power pump barrel spray outfit would be very satisfactory.

Greenhouse practises were closely followed. In the spring most men use fresh soil. Very few treat their seed and practically none spray or dust. What spraying that is practised is done in a very indifferent manner. Blight was evident in Northumberland and Durham counties, in ninety-five per cent. of the greenhouses or frames, just before the plants were released to the growers. Many growers over-water their plants.

It is the belief of some that greenhouse men start their plants too early and plants receive a severe set-back when they are set out, either from being held back too long or from becoming too leggy and soft in the greenhouse. They do this particularly where large numbers are grown in order to spread out the work of transplanting. This is something that needs further investigation. Overcrowding in the greenhouse seems to be a common fault. Cotton sash is frequently used instead of glass, but it is not nearly so satisfactory, tending to throw soft leggy plants.

The dirt used by plant growers is not always the best. The sod used is often not sufficiently rotted and the dirt is frequently of a very heterogeneous nature which makes the plants uneven in the flats.

Some criticisms have been made of the plant growers that their soil is not rich enough. In cases this has been found to be true, but growers say that a soil too rich tends to throw very sappy leggy growth which won't stand up when set out, and by retarding too much the plants are given just as serious a set back. Even so, many growers use a small quantity of commercial fertilizer in their flats. These soil problems need a great deal of further study.

The common price for plants is \$4.50 per thousand, but some districts pay less, and others as high as \$5.00 and \$5.50 for flats containing one hundred plants. Plants spaced further apart in the flats cost proportionately more,

usually forty-five cents a flat, irrespective of the number of plants it contains. It is doubtful if wider spacing in the flats gives an increased yield to cover the additional cost of the plants, but this is something that needs more investigation.

John Baer is used by ninety per cent. of the growers. Chalk's Jewel is popular around Port Hope. The remainder use Bonny Best, Worden, Landreth, and Marglobe.

Much more effective work can be done with the greenhouse men than with the farmers, as their activities are much more concentrated and one may grow plants for several hundred farmers.

When blight was discovered in the greenhouses and frames of the plant growers, as many plants as possible were treated with Bordeaux from a portable dusting outfit carried in the car, either at cost of the dust or free, depending on the number of flats to be treated. Several greenhouse men are going to buy dusters for next year as the result of this work.

Some successful growers follow an excellent rotation, following tomatoes after a clover sod, but others practice a very indifferent rotation. Fall ploughing shows up to good advantage, particularly on heavy soil, but it is not as common a practice as it should be.

Many farmers give their plants a severe set-back by planting before the ground is sufficiently warmed up or before the land is properly prepared.

Few men in Prince Edward County use commercial fertilizer, while a large percentage use it in Northumberland and Durham. Prince Edward men, however, seem to be more earnest in their efforts to grow good tomato patches and keep the weeds checked than the Northumberland and Durham men do, the latter men probably expecting too much from the fertilizer without giving enough care to cultivation.

Tomatoes are grown on all types of soil, from light sand to heavy clay, but seem to do best on heavy sandy loam or light clay loam. Blight is more severe on light sandy soils, while the maturity is retarded on heavy clay.

We co-operated closely with the Northumberland Tomato Growers' Association, and with the Canadian Canners. A field day on August 22nd was arranged, at which about thirty-five Northumberland tomato men visited some of the best tomato patches in Prince Edward County. Some time was spent with Mr. H. D. Clemenson, of the Canners Seed Co., Wellington, whose firm supplies much of the tomato seed used by the growers. Many erroneous ideas as to how the seed was saved were cleared away. On another occasion the president of the Association was taken to Wellington to visit the seed plots, as the fruit for seed purposes was being harvested. The various strains and varieties of tomatoes from all of the more important seed houses of Canada and United States were compared, as they grew side by side, with the varieties distributed by the Canners Seed Co. This is helping to bring about a much-needed understanding between the growers and the canner.

Seed selection operations at Wellington have been closely followed and several changes are being made which will tend to produce less off-type fruit than formerly. In the future all seed produced by the Canners Seed Co. will be disinfected. Mr. Clemenson, as well as most of the factory managers, is cooperating very closely with us.

The crop along the lake from Port Hope to Napanee has been very disappointing this season. The tomatoes have not yielded as high as were expected and the quality is poor. Seasonable conditions have caused cracked fruit, soft fruit with poorly coloured flesh, together with blight, black rot and a large percentage of yellow ends. Loss from leather end has been worse on light sandy

soil. According to Professor Howitt the chlorophyll is injured by too direct sunlight. Loss of foliage from blight and black rot brings about a variation in the normal ripening process of the fruit, causing the formation of a hard yellow rind and poorly coloured fruit. Climatic conditions have been very favourable this season for yellow ends. Marglobe seems to have a very vigorous foliage and is resistant to blight more than any varieties commonly used. Although it is later than John Baer it is in every other way a first-class canning tomato of good shape, well-coloured and very meaty. We believe there is a possibility for it or some of its hybrids on light land. Selection for Marglobe for earliness has met with some success at Wellington.

Many growers try to grow a greater acreage than they can properly handle and many patches now show the result of lack of cultivation in the early summer. Contrary to the average season, the well-cared for patch on light land has given better yields than those on heavier soils, but the abundance of rainfall this summer would cause this. Most patches on heavy low land have scarcely paid for the cost of the plants. Many patches were drowned out, and it is evident that men should give more care to the selection of suitable tomato land. There

is need for more drainage in Northumberland and Durham counties.

Prince Edward County, due to climatic conditions, does not have to face the same conditions of disease that exist around Brighton. Most Prince Edward growers simply plant tomatoes on clover sod fall-ploughed and again ploughed in the spring after being dressed with manure. Few use fertilizer. The manager of the Canadian Cannery at Rednersville is very anxious that we run a fertilizer plot at Rednersville on heavy clay land, and promised to co-operate in every way possible. We plan to select land for this experiment next spring.

HORTICULTURAL EXPERIMENT STATION

The fruit-breeding work of the Horticultural Experiment Station has now developed to the point where it seems advisable to make a permanent record of the progress to date. Therefore the 1928 report will be confined mainly to this phase of the activities of the station, and more particularly to descriptions of the new varieties introduced and the extent to which they have been disseminated.

Extensive and systematic breeding work is being carried on with the following fruits,-strawberry, raspberry, apples, cherry (sweet), peach, pear and grape. Somewhat less extensive work is under way with other fruits, including the plum, currant, gooseberry, apricot, black raspberry, blackberry, etc. Definite projects having some particular improvement in mind for the fruit in question, are planned for each fruit. Some of the more important breeding projects may be briefly stated as follows: Strawberry, improvement in size and quality of early varieties; canning varieties equal to Portia, but of the perfect bloomed type. Raspberry, resistance to "mosaic" and virus diseases generally; increased hardiness, and improvement in vigour and strength of cane, size and firmness of berry. Sweet Cherry, earlier and later maturing varieties of the firm flesh type; resistance to brown rot. Apple, regularity of bearing, that is, annual in bearing habit rather than biennial; production of improved red winter varieties, better quality and increased hardiness being especially desired. Peach, improvement in appearance and in quality of the early season, yellow-flesh, free-stone varieties; extension of the season of peaches and of the Elberta type with earlier and later maturing varieties; cling-stone canning types suited to Ontario conditions. Pear, blight-resistance. Grape, production of varieties of the fruit-type of the Vinifera or Old World varieties, but possessing the freedom from disease and the climatic adaptability of our present commercial sorts; improvement in varieties for wine-making purposes in respect to increase in sugar content and decrease in acidity, and in intensity of juice colour.

The extent of the breeding work on the above indicated, and other similar projects, is summarized in the accompanying table:

TABLE I.—SUMMARY OF FRUIT-BREEDING WORK, 1911-1927

	Year	Total Number of	Total	No. of	No. of
Kind of Fruit	Breeding	Crosses or parentages	plants	selections	introduc-
	started	to date—1927	set out	to date	tions
Apple	1915	94 crosses	5,773		
**Pp.tc.	1713	65 open	3,773		
Cherry (1)	1915	22 crosses	2,027	16	1
(1)	1710	27 open	2,021	10	•
Peach	1911	350 crosses and open	12,646	118	4
Pear	1913	98 crosses	4,522	9	
		39 open	,-		
Plum (1)	1913	55 crosses	3,328	4	
		57 open ·			
Grape (2	1913	499 crosses	55,786	55	
Strawberry (3)	1913	293 crosses	22,171	232	2
R. Raspberry (3)	1913	261 crosses	18,434	126	1
B. and Purple Raspberry	1914	11 crosses	800		
Blackberry	1917	28 crosses	2,000		
Current (red and black)	1915	21 crosses	2,240		
C 1	1017	20 open	2.074	24	
Gooseberry	1915	47 crosses	3,971	21	
Miscellaneous		38 open			
(apricot, etc.)					

⁽¹⁾ In cherries and plums many crosses produced no viable seed, hence low number of seed in proportion to crosses made.

(2) Exclusive of 1926-27 breeding.(3) Exclusive of 1927 breeding.

STATION INTRODUCTIONS

The introductions briefly described in Bulletin 343 are selections from the earlier breeding work of the station. In the judgment of the Experiment Station staff they represent distinct advances in their respective fruits. In fact, no seedling is saved, even for preliminary testing, unless it is thought to be *better* in some way than present commercial varieties of the same season. A very few seedlings survive all tests and are thought worthy of extended trial with the grower. These few are officially named and introduced. Some few other seedlings of promise are given limited distribution for trial. These, however, are not named, but are sent out under number, as for example, peach seedling No. 194055.

The fact of listing these new varieties under name in this report does not necessarily imply that they are recommended for extensive commercial planting. In fact, the Viking red raspberry is the only variety listed which is given such a recommendation. The other varieties are, however, of sufficient promise to warrant extensive and thorough test by the commercial grower. The extent to which certain varieties, such as the Vedette and Valiant peaches, have been planted, would seem to indicate unqualified recommendation of these varieties by this station. Such, however, is not the case. These heavy plantings simply indicate two things, the optimistic nature of the average fruit-grower, and the fact that these new varieties give promise of meeting a long felt want.

For complete list and description see Bulletin 343.

DAIRY BRANCH

The season of 1928 may be considered one of the most satisfactory since the war. The comparatively wet season was favourable for an abundant pasturage, and weather conditions were very favourable for the production of sweet milk and cream. The average price for cheese was about 21 cents per pound— $2\frac{1}{2}$ cents higher than in 1927; and the average price for butter about 37 cents—2 cents higher than in 1927.

The outstanding feature of the dairy industry in Ontario in 1928 was the organization of cheesemakers' associations or clubs in every instructor's group in eastern Ontario, and an association in western Ontario comprising all the cheesemakers west of Toronto. The organizations in eastern Ontario met together at different factories in each group every week or two weeks to discuss any problems that had arisen in their work. These meetings in many instances, were attended by the officers and patrons of the factories, and a spirit of goodwill and cooperation developed that has never been equalled in the history of the industry in this province. To these meetings can be attributed almost entirely the splendid improvement made in the quality of the cheese in 1928 as shown elsewhere in this report.

INSTRUCTION AND INSPECTION AT CHEESE FACTORIES

This work was carried on as in 1927. The Province being divided into thirty-five districts or groups. In each group there are from twenty to twenty-five factories with an instructor in charge.

In addition to instruction and inspection work the instructors tested the composite milk samples at 688 factories in 1927, and at 674 factories in 1928.

The charge for testing is fifty cents per patron per year.

Certificates of qualification were issued under the Dairy Products Act and regulations to cheese and butter-makers for the first time in 1927. As was expected there has been a few complaints and criticisms, but the large majority of the makers and factory owners are well pleased with the scheme. It has given our best makers a standing and prominence which they never had before and has been an incentive to young makers to secure a first-class certificate, which is becoming a valuable asset in securing good positions in their chosen profession. To secure a first-class certificate a maker must be qualified to test milk and cream; keep his factory or creamery clean and sanitary; and make ninety-three per cent. of his butter in a first-class workmanlike manner, or ninety-three per cent. of his cheese first grade. The second-class certificates are issued to makers who make under ninety-three per cent. and over eighty-eight per cent. of their cheese first grade, or their butter in a first-class workmanlike manner. Makers scoring under eighty-eight per cent. may be granted a permit. Permits are also issued to young makers who are considered qualified to take charge of a cheese factory or creamery. No maker can be granted a permit for more than two years. The certificates and permits are issued annually.

The following tables show the number of plants, patrons, quantity and quality of the butter and cheese, and the certificates issued in 1927 and 1928:

CHEESE FACTORIES Northern Ontario. Eastern Ontario. Western Ontario.	1928 15 655 79	1927 13 671 84
_	749	768

Patrons		
	1928	1927
Northern Ontario	330	287
Eastern Ontario	22,182	22,503
Western Ontario	4,985	5,550
	27,497	28,340
		1927
Value of improvements	\$193,664 \$	3207,729

The quantity of cheese manufactured in western Ontario from January 1st to November 30th, and in eastern Ontario and Northern Ontario from May 1st to October 31st, 1927-28 was as follows:

	1928	1927
Eastern Ontario. Western Ontario. Northern Ontario.	16,591,530 732,958	lbs. 80,006,475 16,449,264 590,448 97,046,187

Decrease—4,568,603 lbs.

QUANTITY AND QUALITY OF CHEESE BY PROVINCES AS SHOWN IN THE FEDERAL GRADERS' REPORTS 1927-28

	1928		1927	
	No. of Boxes	Per Cent. Sp. and 1st Grade	No. of Boxes	Per Cent. Sp. and 1st Cheese
Prince Edward Island. New Brunswick. Quebec. Ontario. Manitoba	17,169 253 506,533 1,041,876 1,374	94.9 9.1 85.9 96.7 82.2	16,099 164 413,061 1,040,133 2,876	91.9

QUANTITY AND QUALITY OF ONTARIO CHEESE BY DISTRICTS AS SHOWN BY FEDERAL GRADERS' REPORTS

	1928 .		19	027
	No. of Boxes	Per Cent. Sp. and 1st Grade	No. of Boxes	Per Cent. Sp. and 1st Grade
Northern Ontario. Eastern Ontario. Central Ontario. Western Ontario.	7,618 558,400 300 913 174,945	94.88 95.88 97.65 97.72	6,282 634,212 231,351 168,288	93.2 92.0 93.7 93.1
Totals	1,041,876		1,040,133	
Increase Average for the Province	1,743	96.7		92.6

OUALITY OF THE CHEESE IN THE DIFFERENT INSTRUCTORS' GROUPS-1928

1 group99	.3%	special	and	first	grade
6 groups	%	- 66	"	66	"
12 groups	70	66	66	"	"
3 groups	0%	66	"	66	66
6 groups		66	"	66	66
4 groups	%	"	"	"	"
2 groups		66	"	66	"
1 group under 93		"	66	66	"
1 group under 50	/0				

Ninety-two makers made 100 per cent. first grade cheese in 1928.

QUALITY AND QUANTITY OF ONTARIO CHEESE BY COUNTIES

	19	928	1927		
	No. of	Per Cent. Sp. and 1st	No. of	Per Cent. Sp. and 1s	
	Boxes	Gra de	Boxes	Grade	
Durham	210	100.	280	88.9	
Prince Edward	35,029	99.3	38,765	92.2	
Hastings	84,988	98.5	84,019	94.9	
Northumberland	39,069	98.15	40,134	95.4	
Peterborough	19,050	97.9	17,343	91.2	
Addington	22,447	97.9	21,411	94.4	
Stormont	44,813	97.6	47,874	94.4	
Lanark	39,260	97.6	40,467	96.0	
Renfrew	10,759	97.0	9,633	85.7	
Carleton	56,854	96.6	59,498	94.1	
Leeds	91,175	96.2	88,833	90.4	
Glengarry	67,042	96.2	63,800	93.8	
Frontenac	70,316	96.2	64,864	94.2	
Russell	68,331	95.94	71,674	92.3	
Lennox	26,342	95.9	26,474	91.6	
Victoria	3,462	95.6	2,929	89.5	
Dundas	63,094	95.2	71,441	87.2	
Nipissing District	7,618	94.88	4,985	94.6	
Prescott	89,931	94.61	91,799	92.1	
Grenville	27,141	92.7	24,329	85.6	
Average for Province		. 96.7		92.6	

CHEESEMAKERS' CERTIFICATE

		1928			1927	
Northern Ontario	334	2nd Class 4 136 19	Permits 7 177 18	1st Class 4 312 47	2nd Class 2 173 13	Permits 5 177 20
_	380	159	202-741	363	188	202—753

Instruction and Inspection Work at Creameries

In 1927 the staff of creamery instructors was increased from eight to eleven by changing three members of the staff from milk and cream testing work to instruction work and placing the check testing of cream in the hands of the instructors. To supervise the grading of cream properly two assistant instructors were employed during the busy season. Mr. G. H. Barker was appointed chief

instructor in Northern Ontario, with headquarters at North Bay. This appointment enabled the Dairy Branch to give much better service to the creamery men in that section of the province. In 1928 we unfortunately lost the services of Mr. C. O. Hand, who resigned to accept a position with the Toronto Creamery Company, and the work was rearranged with ten instructors and three assistants.

Grading cream and paying for it on a graded basis was made compulsory in 1926, and the following figures are taken from the Ontario Butter Grading Station records:

	Per Cent.
	1st Grade Increase
1925	
1926	71.72 10.61% (First Year)
1927	76.56 4.84%
1928	78.63 2.07%

About eighty-five per cent. of the creamery butter in the Province is manufactured from pasteurized cream. There is no doubt that the improvement in quality has increased the consumption of butter very much.

The creameries are located as follows:

	1928	1927
Toronto and West	168	165
East of Toronto	83	80
Northern Ontario	28	30
	279	275

CREAMERY PATRONS

	1928	1927
Northern Ontario	4,218	3,946
Southern Ontario	78,914	73,462

BUTTERMAKERS' CERTIFICATES

	lst	2nd	Permits	Total
	Class	Class		
1928	176	61	50	287
1928		49	70	300

QUALITY OF THE CREAM SEEN BY THE INSTRUCTORS

	Per Cent.	Per Cent.	Per Cent.	Per Cent.
	Sp. Grade	1st Grade	2nd Grade	Off Grade
1928		76.5 73.6	19.1 19.5	.6 1.4

BUTTER-GRADING STATION

CREAMERIES TAKING ADVANTAGE OF GRADING, AND CHURNINGS GRADED

	No. of Creameries	No. of Churnings
1928	139	24,031
1927	140	23,884

QUALITY OF THE BUTTER GRADED

	Per Cent. 1st Grade		
1928.	76.60	21.17	. 20
1927.	73.53	22.92	. 52

Ontario for the third time won the sweepstakes prize at the Royal Winter Fair for the highest scoring butter on exhibit, with a total score of 98.5. This was without any doubt the largest exhibit of butter ever made in Canada, and perhaps in America.

Cow Testing

The Dairy Branch tested the samples of milk as in 1927. Two men give their full time to testing in the counties of Norfolk, Haldimand, Brant, Wentworth, Waterloo, Perth, Halton, Peel, York, Ontario and Durham. A large percentage of the milk in these counties is produced for human consumption. The instructors at creameries and cheese factories tested any samples taken from herds in their various districts.

EASTERN DAIRY SCHOOL, KINGSTON

The school is operated as a combined cheese factory and creamery from April 1st to December 31st each year. During January, February, and March, regular dairy courses are held. The attendance was as follows:

	1928	1927
Regular long course January 2nd—March 31st		38
Special course for cheese and butter-makers		105
Special course for instructors	30	30
	131	173

STANDING OF STUDENTS IN REGULAR LONG COURSE

	1st Class	2nd Class	Pass
1928.		17	12
1927.		20	7

Manufacturing Statement for the Fiscal Year November 1st-October 31st

Butter manufactured	124.1 lbs.	1926-1927 169,815 lbs. 124.7 lbs. 42.7c
Cheese manufactured	21.7c 11.23 lbs. 2.60 lbs.	78,740 lbs. 18.88c 10.77 lbs. 2.68 lbs. 42.64c

COLONIZATION AND IMMIGRATION BRANCH

The following figures give some idea of the work carried on by this branch during the past year:

Number of farm labourers placed	3,127
	1,654 1,387
SALVATION ARMY:	
Summary of Arrivals in the Province of Ontario.	
Domestics	317
Youths	280
Farmers	132
Widows.	17
(Children accompanying)	17
Unclassified	335
-	1,098
u p p c	
Vimy Ridge Farm, Guelph:	
Boys received	376
(This makes a total of 1,013 since the inception of the Vimy Ridge scheme, May 1926.)	
Number of railway certificates issued to settlers proceeding to Northern	
Ontario (consisting of 461 adults—34 children)	378 8.349
man to twitter of the control of the	0,017

The work has as usual been confined to those willing to go on the land as labourers or settlers, and those taking up domestic service. An effort has been made to meet the demands under these heads, but the number coming out from the Old Land is still short of the demand in this province. As indicated by the summary the plan for bringing out boys as farm apprentices has been continued, and 376 additional boys were placed during the year. This scheme is working out very well and there are many evidences that these boys are becoming good settlers

LONDON OFFICE

The Agent-General for Ontario in Great Britain continues to keep the Province prominently before the people of the British Isles. This is done in a great variety of ways and is of great benefit along business lines as well as along the lines of emigration. The greatest care is taken in the selection of persons who are sent out to this province and the office receives many letters which testify to the satisfaction of those who have been sent out. The following is a specimen letter from one of the girls who has come out for domestic employment:

"It is now nearly twelve months since I first corresponded with you with reference to coming to Canada, and I must assure you that I still feel deeply indebted to the Ontario Government for the assistance it afforded me at that time.

You will be pleased to learn that I am exceedingly happy in my now familiar and delightful surroundings, my only regret being that I never availed myself of this wonderful chance long before. As I feel that there are many would-be immigrants who only refrain from taking the step because they mistrust the 'glowing descriptions' held out to them of life in this country, I would like you to tell them (from one who has enjoyed eight months' experience of that life) that I have found nothing in the least exaggerated, and many things beyond my greatest expectations.

You are, therefore, at liberty to use my letter for purposes of advertisement, or in any way you wish.

Apart from any monetary gain (which is considerable, in comparison with wages paid in England), one develops personality and broader views than would be possible when remaining for ever in the same rut.

I shall always remember the jolly time on board, and still correspond with several of my 'shipmates,' who are equally pleased with their respective positions in various parts of Ontario and the Dominion."

Here is a letter from one of the boys:

"My darling Mum and Dad,—Thanks for all the letters received safely. The boots are safe in Galt, ready for me to fetch. I have to write you on Sundays every week, because that is the only day I get to myself. All other days it is up at 6 o'clock, breakfast, do the chores, then from 10 o'clock to 6 o'clock at night I cut corn or pitch sheaves, or clean out the stables; then at six is supper. Dinner is around about 12 o'clock. After supper, get the cows in, milk them, then get the calves in, feed pigs and get the ducks and geese in, and go to bed about 7.30 or 8 o'clock, and I can tell you I feel like it too!

How are things at home? I think of you an awful lot, and it makes me feel homesick, but I choke it down. I am out here to make good, not to be a wet rag doll. Do hurry and come out here. It's lovely. I am quite happy, and the work is not too hard. It was too great a chance to miss, and I am glad I came out here. On this farm we grow those winesap apples and russets, tomatoes and everything; fresh eggs, fresh cream and milk every day; and the most delicious apple tarts and rice pudding and things that you ever saw. All the cows are friendly. A lot of them are in calf this fall. I am looking forward to your next letter.

I hope Dad and you are happy and well. I am, and I am very brown already. My face, neck, chest and arms so much that you would think I was dirty, but I have changed my things this morning, and shaved, too. Well, I am waiting for the next letter. I hurry to the mail box each day to see if there is a letter; it cheers one so."

Apart from the attention devoted to agricultural interests the London Office has been able to bring the Ontario mining interests prominently before a large number of people interested in this subject.

The following statistical information shows to some extent the comparative use being made of the different branch offices:

use being made of	the thin	CICITE IN	anch on	ices.				
County	No. of letters received	No. of letters written	No. of circulars mailed	No. of incoming 'phone calls	No. of visitors at office	ings	No. of bulletins and re- ports dis- tributed	No. of miles travelled by motor
A.1	2 127	2.051	7 225	1.170	2,000	2	1.760	10.075
Algoma	2,437 1,427	3,851 3,927	7,335 12,662	$\frac{4,479}{752}$	2,090 3,689	$\begin{vmatrix} 3\\42 \end{vmatrix}$	1,760 875	10,075
Brant	2,400	2,000	17,500	1,700	1,500	22	2,500	30,200
Carleton	1,675	1,172	1,730	1,430	590	42	254	16,962
Cochrane	834	810	1,038	242	328	3	725	5,250
Dufferin	2,500	2,350	8,000	1,870	2,100	15	2,000	9,500
Dundas	1,930	1,642	6,800	1,540	1,450	98	600	12,000
Durham	1,716	2,418	8,182	848	1,230	42	1,127	16,924
Elgin	2,480	2,339	10,083	2,612	3,128	98	2,980	20,200
Essex	5,353 1,910	4,147 1,181	25,963 3,618	2,325 1,928	4,504 1,023	98	2,000	21,000 12,538
Glengarry	1,273	1,003	8,110	1,384	754	10	223	13,231
Grenville	1,103	969	6,211	1,555	606	5	706	15,210
Grey	5,700	6,000	13,650	3,900	4,906	96	1,400	30,400
Haldimand	989	1,236	2,614	1,428	923	3	3,500	21,300
Halton	1,966	1,968	9,503	1,787	1,773	25	427	18,000
Hastings	2,500	2,472	8,950	2,040	1,800	106	3,200	24,000
Huron	2,351 972	1,478 1,023	11,740	1,484	1,564	16	1,850	28,300
Kenora	3,300	3,700	7,500 24,050	6,400 2,800	675 2,900	26	3,050	6,800 13,585
Lambton	2,629	2,366	5,366	825	2,417	22	429	23,000
Lanark	2,272	1,070	5,546	590	1,006	37	500	17,176
Leeds	1,600	1,570	16,762	650	975	14	418	12,550
Lennox and Adding-								
ton	2,014	1,810	3,985	1,448	1,633	44	850	8,020
Lincoln	2,634	1,843	10,293	1,117	1,198	42	1,636	21,373
Manitoulin	1,571	1,160	2,178	1,119	1,580	30	164	11,037
Middlesex Muskoka and Parry	1,798	2,407	15,412	2,876	3,363	46	3,125	38,315
Sound	2,981	2,438	10,500	1,125	1,500	9	575	12,500
Norfolk	2,381	2,032	24,501	1,831	3,533	61	1,793	12,559
Northumberland	2,650	2,478	9,020	2,328	2,192	24	725	16,400
Ontario	2,400	3,000	18,000	1,400	1,300	30	1,250	15,000
Oxford	3,285	3,887	24,712	1,906	3,584	24	972	16,905
Peel	3,200	3,530	6,673	8,300	5,891	21	3,538	16,500
Perth	1,615 1,600	2,000 1,400	10,410	1,080 1,000	1,050	45 40	300 2,000	6,850
Peterborough Prescott and Russell.	2,856	3,167	5,000 15,610	2,479	1,500 1,732	8	6,862	16,000 16,881
Prince Edward	1,250	1,310	3,000	2,500	2,100	34	1,100	13,000
Rainy River	1,414	1,229	7,013	2,914	2,419	23	1,353	9,935
Renfrew	1,845	1,360	5,993	483	905	19	14,656	14,500
Simcoe South	1,480	1,414	1,950	1,563	3,102	10	250	17,570
Simcoe North	2,076	1,980	7,500	1,056	1,276	22	3,800	15,000
Sudbury	1,700	1,350	3,500	1,052	989		295	10,750
Temiskaming	2,336	2,000	7,383	3,020	1,700	$\frac{2}{6}$	800	13,365
Fort William Port Arthur	1,317	1,423 794	10,445 8,416	1,824 767	1,682 732	2	630 1,848	16,880
Victoria	1,650	1,770	2,850	900	2,040	35	500	12,000
Waterloo	950	1,322	10,799	2,228	2,215	70	389	20,122
Welland	1,673	2,199	5,881	1,719	1,552	36	2,000	20,000
Wellington	2,159	2,127	9,674	336	1,124	21	7,030	17,039
Wentworth	2,654	2,960	14,560	2,865	5,406	31	8,000	25,000
York	3,430	4,157	4,822	1,561	2,618	35	1,225	25,000
Totals	107,979	109,239	482,993	97,366	101,847	1,593	99,357	840,567

That the services of the Agricultural Representative are in strong demand by individual farmers and also by the many organizations of his county is amply substantiated by the number of meetings attended and addressed during the year.

AGRICULTURAL REPRESENTATIVE BRANCH

The fiscal year 1927-28 proved no exception to those preceding it and the ever-increasing demand for the services of the Agricultural Representatives is an indication of the appreciation of the offices located in the fifty-one counties and districts of the Province. Any antagonistic feelings which may have existed in the early days towards departmental work have largely been cast aside and full support is being given by urban as well as rural individuals and organizations.

With the rapid growth of the work, it has been found impossible during the past year or two for the Director of this Branch to give the necessary supervision and assistance to the men in the field. In order to rectify this, a second assistant to the Director in the person of J. E. Whitelock, formerly Agricultural Representative in Peel County, was appointed early in the year.

During the year resignations were received from the following Agricultural Representatives: J. J. E. McCague, of Carleton County; Ray Atkin, of Hastings County, and D. A. Andrew, of Halton County. Transfers enacted were as follows:

A. P. MacVannel, from Prince Edward to Halton County.

F. J. Webster, from South Simcoe to Prince Edward County.

The following are the other appointments made in the fiscal year, 1927-28:

A. McGugan to Peel County.

W. M. Cockburn to Carleton County.

Joseph Wilson to Hastings County.

F. K. B. Stewart to South Simcoe.

The information as below, submitted by the Kent County Agricultural Representative, bears out this statement both from the standpoint of demand and also the number of organizations receiving assistance:

	,		-	
Date	Place	Nature of meeting	Subject	Attend- ance
-				
NT 4	C1	C I I I A	W. D	10
Nov. 1			Winter Programme	10
Nov. 2		Ploughmen's Ass'n		19
Nov. 3	Windsor	Chamber of Commerce	Barley Growing	12
Nov. 5	Chatham	Onion Growers	Co-operative Marketing	17
Nov. 12		Vegetable Growers'		9
Nov. 23			Short Course	17
Nov. 26		Poultry Association		13
Dec. 1	Chatham	Advisory Council		6
Dec. 8		J.F.A	Debate	30
Dec. 9	Chatham	County Council	Report	35
Dec. 10	Wallaceburg	Ont. Beet Growers		50
Dec. 12		J.F.A		15
Dec. 14		Vegetable Growers		14
Dec. 15		J.F.A	Debate	100
Dec. 17		Agricultural Society	Annual Meeting	50
Ian. 9		Organization		12
Ian. 9		J.F.A.		100
Jan. 12		Organization		100
Jan. 14	Chatham	General	Tobacco Grovers	3.000
Jan. 14	Chatham	Pen. Winter Fair	Executive	15
Jan. 16		Ont. Beet Growers		35
Jan. 16		J.F.A.		75
Jan. 18		Agricultural Society		15
Jan. 19	Chatham	Pen. Winter Fair	Executive	16
				16
Jan. 21		Agricultural Society		500
Jan. 24		Organization		
Jan. 26	Chatham	County Council	Report	40

Date	Place	Nature of meeting	Subject	Attend- ance
1 27		Cl C	D	107
Jan. 27	Merlin	Short Course		125
Jan. 30 Feb. 6	Union Hall	J.F.A.		30
Feb. 6	Wheatley	J.F.A	Judge Debate	23 45
Feb. 7	Chatham	Tobacco Growers		10
Feb. 11		Ont. Corn Growers		15
Feb. 13	Morpeth	Short Course	Farm Mechanics	30
Feb. 13	Morpeth	J.F.A		50
Feb. 17	Morpeth		J.F.A. Opportunities	75
Feb. 18		Teachers	Rural School Fairs	15
Feb. 20	Merlin	Educational	Sheep Clubs	35
Feb. 23	Chatham			50
Feb. 23	Merlin	Organization	Pig Club	50
Feb. 25		Organization		_6
Feb. 27		Organization		75
Feb. 28		Educational		30
Feb. 29	Wallaceburg	Educational	Better Seed Campaign	30
Mar. 1		Educational		25
Mar. 1		Educational		50
Mar. 2		Educational		20
Mar. 2		Educational		12
Mar. 3 Mar. 5		Educational		25 30
Mar. 5		Educational		40
Mar. 6		Educational		60
Mar. 7		Educational		20
Mar. 7		Educational		65
Mar. 8	Rushton's	Educational	Better Seed Campaign	45
Mar. 9	Highgate	Educational	Better Seed Campaign.	40
Mar. 9	Dewart	Educational	Better Seed Campaign.	20
Mar. 10		Educational		20
Mar. 12		Organization		4
Mar. 17	Monroe	Educational	Sugar Beet Train	30
Mar. 19	London	Educational	Tobacco Commission	40
Mar. 21		Pen. Winter Fair		30
Mar. 21		Live Stock Ass'n		15
Mar. 23	Windsor	School Fair Trip	Annual Meeting	36
Mar. 28	Merlin	Organization	Sheep Club	16
Apr. 12	Guelph	Educational	Spray Conterence	50
Apr. 19		Educational		30 12
May 7 May 9		Creamery men		30
May 12		Councillors		6
May 15		Committee		16
May 17		Drovers		22
May 24		Women's Institute		500
May 28		Weed Inspectors		22
May 31	Chatham	J.F.A. and J.W.I	Field Day	17
June 6	Chatham	County Council	C.N.E. Exhibit	35
June 11	Merlin	J.F.A	Executive	12
June 12	Chatham	Ploughmen	Annual Meeting	17
July 5	Ridgetown	J.F.A. and J.W.I	Field Day	300
July 9			Executive	16
July 10		Organization		12
Aug. 6		Ploughmen		17
Aug. 7		Organization		13 14
Aug. 11			Executive	11
Aug. 18 Aug. 21		Women's Institute		30
Sept. 12		Ploughmen		16
Oct. 1		Ploughmen		12
Oct. 6			Executive	14
Oct. 15		Ploughmen		15
Oct. 22			Executive	21
Oct. 25			Banquet	175
Oct. 30		Ploughmen		15

SENIOR WORK

LIVE STOCK IMPROVEMENT

The improvement of live stock has been retained as one of the major projects in the counties and districts of the Province. In view of market requirements and also of the fact that no improvement can be on a firm basis if the live stock be not healthy, educational work was carried on in many counties to eliminate tuberculosis in cattle and internal parasites in sheep and swine. The County Live Stock Improvement Associations, working with the Agricultural Representatives, have co-operated to the full with the Provincial Live Stock Branch and Federal Departments in carrying on this work.

That previous live stock work is bearing fruit is borne out by the comments of the Oxford County Agricultural Representative:

"The educational work in live stock carried on by this office with the public school boys in our judging competitions and the short course work in live stock with the senior boys, coupled with the educational work among the adults through the medium of the Live Stock Improvement Association, has completely changed public opinion in this county with regard to the live stock situation.

"Mr. Byron Jenvey, Oxford County Holstein fieldman, states that one of the outstanding features of his year's work was the number of unusually good pure-bred registered bulls that have been placed at the head of grade herds in the county. As an instance of this, he mentioned the case of an owner of a grade herd living six miles below (——) who came to him between Christmas and New Year's and asked him to go with him to purchase a bull. Before they had gone far, Mr. Jenvey inquired of the man what kind of bull he wanted to purchase and at what price so that he would know where to go. The man replied that he was not particular as to price, but wanted a good bull. They found one about three o'clock that afternoon that answered the purpose. On the return trip, Mr. Jenvey, knowing the kind of herd the man had, asked just why he had decided to purchase a bull of that type and the man answered that he had a boy on the stock judging team and he wanted to buy a bull that the boy could not pick any holes in. The man and boy arranged to get the bull that same night and about 11 o'clock that evening he called Mr. Jenvey up to tell him that a number of the boys of the neighbourhood were out in the barn holding a demonstration on the new bull.

"Mr. Jenvey states that although he has sold over \$200,000 worth of cattle during the past two and one-half years, the cattle that are left are of higher quality than before these sales were made. This would indicate that the standard of our cattle is being considerably raised and it is safe to say that the three agencies already mentioned have played an important part."

ERADICATION OF TUBERCULOSIS

Farmers generally throughout the Province are taking increase dinterest in eliminating tuberculosis from their herds of cattle. Not only are individual breeders continuing in increased numbers to apply for accreditation, but in many areas progressive breeders and County Councils are staunch supporters of restricted areas. During the year in Eastern Ontario, in the counties of Leeds, Greenville, Dundas, Stormont, Glengarry, Prescott, Russell, Carleton and Lanark, educational campaigns have been conducted by the Agricultural Representatives in co-operation with the local people and the Ontario Live Stock Branch. Canvassing has been completed in most of the counties, and it is expected that the Health of Animals Branch will commence testing shortly.

Similar work has also been carried on by the Agricultural Representative in Kenora District and the people of the district have declared themselves in favour of the project.

Educational campaigns in favour of restricted areas have also been carried on in the counties of Haldimand, Lincoln, Welland, Wentworth, Oxford and Perth. Owing to local conditions, these campaigns have not been carried to

completion, but when certain adjustments in the regulations are made the general attitude of the cattle owners would indicate a big majority in favour of restricted

The following statistics will indicate the method used in the campaign and the percentage of the cattle breeders in favour where canvassing has been completed:

County	No. of meetings	Attend- ance	Per cent. cattle owners in favour
Dundas. Glengarry. Grenville *Lanark. Leeds. Prescott and Russell. *Carleton.			85 82 77 81 93
Haldimand Lincoln Welland Wentworth Oxford Perth Kenora	4 22 17 24 15 13 6	725 810 915 1,875 2,147 947 364	36 75 59
Totals	202	12,797	

^{*}Canvassing in progress.

Cow Testing

This phase of work has been continued by the Agricultural Representatives in co-operation with the Dairy and Live Stock Branches of the Ontario Department of Agriculture. While there are fewer cows on test than formerly, the service has not only been worth-while, but appreciated by the farmers of the dairy districts participating. As a result of the information, many farmers have materially improved their herds. Interest has been stimulated and many men, after testing one or two years under this policy, have entered their herds under Record of Performance work; others applied for accreditation believing that a healthy herd is the first factor to ensure future success. The tendency towards the establishment of restricted areas prior to undertaking other improvement work has temporarily retarded the progress and development of cow testing.

The statistics submitted by the York County Agricultural Representative are of interest and indicate the value and benefit of this service to the dairy farmer:

COMPARISON OF RETURNS FROM NINE HERDS IN THE TWO YEARS OF TESTING

No.	of cows	Average	lbs. milk	Increase per cow	
		per	cow		
1926	1927	1926	1927		
87	75	8,974	10,127	1,163 lbs.	
				\$28 37 lbs. of milk	
87 cows in	n 1926 prod	uced			
75 cows in	n 1927 prod	uced		759,525	
D.a.				•	
Diffe	rence				

Twelve more cows were fed in 1926 to produce 21,213 pounds more milk-an average of 1,768 pounds per cow.

COMPARISON OF RETURNS FOR HIGH AND LOW HERD

	No. cows	Average lbs. milk	Average test	Pounds Butterfat
Best herd	7	13,083 7,780 5,303	3.3	402.8 259.2

Value of increase at \$2.44 per 100-\$129.39.

In 1926 the value of increase was \$227.04.

So in 1927 the difference between high and low herd is much less, thus illustrating the improvement resulting from the previous year's information.

County	No. herds under test, 1928	No. cows under test 1928
Algoma	18	208
Brant	20	228
Carleton	7	138
Dundas	2	
Durham	10	113
Essex	6	
Frontenac	3	61
Haldimand	3	25
Huron	1	18
Halton	4	57
Norfolk	44	241
Ontario	2	29
Peel	60	705
Perth	20	266
Peterborough	5	74
Simcoe North	5	38
Port Arthur	1	8
Waterloo	11	126
Wentworth		302
York	42	425
Totals	292	3,332

CONTROL OF INTERNAL PARASITES

This project has developed rapidly as a result of the appointment of Dr. L. Stevenson as Provincial Zoologist. Co-operating with Dr. Stevenson, the Agricultural Representatives have organized demonstrations in the treatment of both sheep and swine for the control of internal parasites. These have been very much appreciated by stockmen generally because in a great many cases the application of the treatment has meant profit instead of loss.

STATISTICS, PARASITES

County	Number demons- strations	Number in attend- ance	Animals treated in demon- stration	Estimated total treated in county
Bruce Cochrane Dufferin Durham Grenville Hastings Huron Lennox and Addington Lincoln Middlesex Muskoka and Parry Sound Norfolk Northumberland Perth Rainy River Renfrew Victoria Wellington York	2 1 2 6 20 4 2 5 3 1 1 1 3 2	60 70 40 35 15 86 70 68 25 40 30 20 100 11 15 87 70 80	257 200 25 30 84 330 250 100 25 200 130 3 27 3 50	1,000 500 200 500 500 1,500 400 200 1,000 400 400 600 250 1,000 400 3,000 300
	65	922	1,714	12,550

The following extract from the report of the Lanark County Representative depicts some of the features of this work:

"This phase of work has been most gratifying and it is still further pleasing to observe the number of farmers who are profiting by the experience of others. It is a safe statement to make that over half the flocks of the county to-day are being treated at least once a season for both external and internal parasites. The work has been accomplished through demonstration work entirely.

"Two outstanding examples may be cited in the cases of Hendry Bros., near Carleton Place, whose flock was reclaimed from one not worth anything other than the value of their pelts, to a flock just as good as it had ever been. Tape and stomach worms were the chief causes of loss in this case. At Mr. Stuart Gunn's near Tetlock, lung worms were the chief cause of losses, and his flock has been reclaimed from practically a total wreck and built up to a fairly good flock. Many other cases might be cited, but these two are the most outstanding.

"In this connection too much credit cannot be given for the valuable assistance and advice rendered by Dr. L. Stevenson, who has been most willing to render any help possible and whenever possible. It has been greatly appreciated not only by this office but by our farmers as well."

Co-operating with the sheep promoters of the Dominion Live Stock Branch, the Agricultural Representatives continued to carry on other sheep extension work. Demonstrations in the various phases of sheep husbandry have been held at many points. Méntion should be made of the special two-day marketing courses held in twenty-three counties of the Province. These have been particularly well received by the farmers and have played an important part in creating increased interest in the industry. The policy of installing dipping tanks and conducting demonstrations in dipping has been extended to communities not previously touched. The comments of the Grey County Agricultural Representative are of interest:

"The farmers in the county seem to have taken a greater interest in dipping this year than ever before. Many of the tanks have been used twice and tanks that were never used last year have been brought into service. The number of sheep dipped in each tank has varied all the way from 110 to approximately 750."

The general situation of this project is illustrated by the following statistics:

County	Tanks installed, 1928	Total tanks in county	Sheep dipped in demons- tration	Estimațe sheep dipped in county
Brant	2	7		
Bruce	3	38	95	7.000
Carleton	1	15	460	1,700
Dufferin	-	20		2,600
Dundas		3		400
Durham		23		2,300
Elgin		19	200	6,500
Essex		1	300	
Frontenac		12		2,400
Glengarry		2	45	225
Grenville		11		800
Grey		68	900	28,000
Haldimand		17	800	4,300
Hastings		6	1,500	2,000
Huron		19	1,036	2,500
Halton		5		1,150
Kenora		1	23	175
Kent		12	300	3,000
Lanark	. 2	41	800	12,000
Leeds	. 1	6		350
Lennox and Addington		21		
Lincoln	. 1	6	2,052	2,500
Manitoulin		27		1,600
Middlesex		40	360	2,000
Muskoka and Parry Sound		7	60	3,500
Norfolk		1		
Ontario		24		2,000
Oxford		11		2,000
Peel		7		
Perth		3		
Peterborough		27	200	1,500
Prescott and Russell		7	445	
Prince Edward		1	125	300
Rainy River		16		3,000
Renfrew		23	435	5,645
Simcoe South		15		0.500
Simcoe North		7		2,500
Victoria		29	68	1,928
Waterloo	_	3		200
Welland		1	616	200
Wellington		31	646	6,500
Wentworth		2	215	1,700
York	4	35		2,500
Totals	84	670	11,065	116,773

In co-operation with the Provincial and Federal Live Stock Branches lamb fairs have been held in four counties. The value of these is emphasized in the following comments of the Lanark County Agricultural Representative:

"Lamb fairs have been a great boon to the sheep industry in this county, in fact, they have been the chief factor used in making ram club work effective. The marked improvement in the type of market lambs produced in the county can be traced almost directly to the lamb fairs. The degree of success met with can best be told by the Dominion Government reports from the stock yards. From these records it may be seen that Lanark County stands first amongst all the counties of the Province in the production of high quality market lambs, an honour greatly prized by our farmers."

TABLE OF STATISTICS, LAMB FAIRS

County	Place held	Number of animals entered	Number of lambs shipped to market	Grade of lambs
Lanark Lanark Manitoulin Manitoulin Peterborough Rainy River	MiddlevilleLittle CurrentManitowaningHavelock	325 400 212 251 40 336	195 266 212 251 121 273	52% choice 60% " 62% firsts 55% " 113 No. 1 253 "

SWINE

Despite the general dissatisfaction with the hog market educational work has been continued. In co-operation with the Federal Live Stock Branch special two-day swine marketing courses were held in twenty-four counties. The bacon hog club policy of the Provincial Live Stock Branch has been taken advantage of by the Agricultural Representatives and eighteen clubs organized during the year, making a total of 188 clubs in the Province.

Co-operating with both Provincial and Federal Live Stock Branches, bacon

hog fairs were held in seven counties.

BACON HOG FAIRS

County	Place	Total entries	Total hogs exhibited	Total shipped to market
Durham Grenville Lanark Middlesex Norfolk Oxford Peel	Kemptville. Almonte. Ilderton Simcoe. Woodstock	50 79 64	60 85 130 200 125 51	35 58 97 138 86
Total		379	651	459

POULTRY

The poultry flock is no longer an insignificant side-line on the majority of our Ontario farms. The demonstrations in special short courses organized by the Agricultural Representatives, in co-operation with the Poultry Department, have played an important part in developing the industry. The eggs distributed for School Fair Work have been another important factor. In this regard the comment of the Agricultural Representative for Muskoka and Parry Sound is of interest:

"It is a common experience to hear breeders tell of the unusually good returns secured from pullets hatched from School Fair eggs. Quite frequently a few pullets obtained in this way have been the foundation for an improved flock of farm poultry."

During the past year special three-day poultry courses were held in seven counties. These were much appreciated and the demand is increasing.

Demonstrations and culling schools were again held in co-operation with the Poultry Department, O.A.C. The young men trained at these schools have assisted materially with the culling campaigns conducted throughout the Province. That this service is getting results is substantiated by the following comments of the Oxford County Agricultural Representative:

"The value of systematic culling in removing approximately one-third of the flocks as boarders each year saves a feed bill in the county of more than the annual amount spent by the County Council on the Oxford County roads."

POULTRY CULLING STATISTICS

County	Number of demonstra- tions	Number of birds culled in demonstra- tion	Attendance	Estimated total birds culled in county
Algoma	7	635	155	
Brant		055	133	9,073
Bruce	15	750	336	16,500
Carleton	6	555	109	3,500
Cochrane	7		300	
Oufferin	2	400		2,000
Ourdas	4	600	75	4,000 3,657
Ourham	9	960	148	6,000
Essex	9	300	140	60,000
Frontenac	15	2,044	164	3,000
Glengarry	6	1,352	97	5,000
Grenville				1,200
Grey	. 5	400	30	3,000
laldimand	4	325		3,000
lastings	6	400	150	700
Auron	2	500	20	50,000 10,000
Halton Ke n ora	5	500	153	4,000
Kent	12	2,000	130	30,000
ambton	9	720	189	3,500
anark	10	250	60	10,000
_eeds	5	395	148	2,500
ennox and Addington	7	1,485	75	27,000
incoln	7	1,050	122	13,250
Manitoulin		2.500	275	2,230
MiddleséxMuskoka and Parry Sound	15 4	2,500	275 70	21,300 3,500
Norfolk	4	200	70	4,000
Northumberland				1,000
Oxford				17,167
Peel				10,000
Perth	3			
Peterborough	4	300	92	20,000
Prescott and Russell	3	67	59	900
Prince Edward	5 15	600	65 84	2,000 2,100
Rainy River	13	1,165 1,094	237	5,000
Simcoe South	13	100	25	800
simcoe North	10	100	800	7,000
emiskaming	6	520	96	
Fort William	16	550	65	650
Port Arthur	7	921	51	1,463
/ictoria	11	1,205	199	4,000
Vaterloo	8 5	800 200	140 92	$\frac{4,000}{4,000}$
Wellington	5	320	76	5,000
Wellington	_	975	119	1,950
York	5	1,000	1,030	10,000
Totals	290	27,838	6,036	394,940

FIELD CROP IMPROVEMENT

BETTER SEED CAMPAIGN

This campaign, inaugurated by the Provincial Field Crop Improvement Committee, has achieved splendid results during the past year. Perhaps no project undertaken in the interests of agriculture has met with equal approval and support from the general farming public, the press and urban industry. Much remains to be done, but with interest stirred and information gained, future progress should move steadily onward.

In co-operation with the Provincial committee, the Agricultural Representatives assisted with the campaign by the following methods: distribution of posters and other literature, window displays, circular letters and articles in local press, meetings and demonstrations in halls, barns and field; local arrangements and publicity for the "Better Seed Train," collection of samples of seed grain and small seeds from seed drills of the Province.

The comments of the various Agricultural Representatives are indicative of the results and general feeling towards the project.

Representative, Grenville County:

"The Better Seed Campaign had a good effect over the county. There was an increased use of the two power mills located in the county. There was also an increased use in the home fanning mill."

Representative, Oxford County:

"The presence of the Better Seed Campaign in the county has been responsible for three seed-cleaning centres being established. Each of these plants had a busy season both in spring and fall.

Representative, Waterloo County:

"Five seed-cleaning centres have been established due to the influence exerted by this train."

Representative, Bruce County:

"The interest shown in the Better Seed Train and Better Seed Campaign was most marked. A central seed-cleaning plant was immediately established at Mildmay after the visit of the train, other sections planned to purchase central cleaning machinery at a later date and the importance of cleaner seed was generally recognized."

Representative, Ontario County:

"The fact that even a one-bushel per acre increase in yield on the one hundred and fifty thousand odd acres devoted to coarse grains in Ontario County would mean nearly one hundred thousand dollars extra farm revenue indicated possibilities in such a campaign that should hardly be ignored."

Representative, Perth County:

"Within a month of the visit of the train a large size Clipper machine which had been sitting in a back corner of a co-operative organization elevator was resurrected and placed in operation."

Representative, Kent County:

"This campaign was particularly applicable to Kent, a cash crop county and beneficial results have already been witnessed."

BETTER SEED CAMPAIGN

County	Number of meetings	Attendance	Number of demonstra- tions	Attendance
Algoma. Carleton. Carleton. Cochrane Dufferin. Dundas. Durham Elgin. Essex. Glengarry. Grenville. Haldimand. Huron. Kenora. Kent. Lanark. Leeds. Leeds. Lennox and Addington Lincoln. Norfolk. Northumberland. Ontario. Peel. Perth. Peterborough Renfrew. Simcoe North. Sudbury. Temiskaming. Fort William. Port Arthur Victoria. Waterloo. Welland. Wentworth. York.	5 4 3 7 9 5 5 6 1 1 1 6 4 1 1 5 7 1 2 6 5 4 1 0 6 4 2 8 8 6 8 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	122 135 150 235 1,000 100 327 230 65 50 205 507 25 269 235 335 175 200 110 695 185 400 85 251 222 160 410 237 200 730 510 400		295 75 40 38 100 65 335 175 276 30 58 56 60
Total	190	8,960	49	1,383

WEED CONTROL

In co-operation with the Provincial Weed Inspector, the Dominion Seed Branch and members of the staffs of the Ontario Agricultural College and the Agricultural School at Kemptville and Ridgetown, ninety-one meetings were organized by the Agricultural Representatives. That these resulted in progress is indicated by the following comments:

Agricultural Representative, Grey County:

"A greater amount of work was done in Weed Eradication this year than has ever been done before."

Agricultural Representative, Huron County:

"We have found most municipalities willing to attempt the clean-up of roadsides and wastelands and a marked improvement in the situation was noted."

Agricultural Representative, Dufferin County:

"Inspectors took a keen interest in the meetings held to acquaint them with the provisions of the control act as well as various noxious weeds, their habit of growth and numerous control measures."

Agricultural Representative, Peterborough County:

"During the season we have had an exceptionally large number of weeds to identify and inquiries regarding the control of various bad weeds."

THE CORN BORER SITUATION

The Agricultural Representatives, in co-operation with the county corn-borer inspectors, are carrying on educational campaigns for the control of this menace. Their campaigns are based on the control measures recommended by the Provincial Entomologist. The situation as indicated by the comments given below is greatly improved over the previous year and to a large extent can be attributed to careful clean-up measures.

Agricultural Representative, Kent County:

"The corn acreage almost doubled last year and the borer infestation was reduced thirty to forty per cent."

Agricultural Representative, Essex County:

"The situation in this regard has shown a great deal of improvement over 1927. The corn acreage has doubled over 1927 and we also have the best corn crop since the borer arrived. Yields of 100 baskets per acre are quite common with two reported of 120 baskets per acre and one man reports a yield of 140 baskets. The enforcement of the Act is in the hands of Mr. J. H. Hedrick, and our office lends support in the preparing of reports and distribution of literature and information. Our office is also a clearing house for those seeking and giving information for the better observance of the Corn Borer Act."

SEED DRILL SURVEY

The Provincial and Federal Departments of Agriculture in co-operation conducted a survey of the seed being sown in the spring of 1928. Altogether, 1,898 samples of cereals and small seeds were collected. Practically all of these were gathered by the Agricultural Representatives from the seed drills of the Province. The analyses of these samples were made by the Dominion Seed Branch and to the officials of this Branch is due much of the credit for the completion of the project.

Of the 1,898 samples collected thirty-two per cent. on analysis were rejected on account of weed seed content and an additional four per cent. were rejected on account of low germination. The remainder were divided among the three grades, viz., 1, 2 and 3, with slightly more in grade 3 than in either grades 1 or 2.

That the situation is serious is more clearly evident when we realize that, by sowing even a No. 3 grade of oats at the rate of two and one-half bushels per acre, a farmer might be polluting his fields at the rate of 8,500 weed seeds per acre, one-fifth of this number being noxious. With the small seeds, such as alfalfa or red clover, sown at the rate of fifteen pounds per acre, a number three grade under the Canada Seeds Act permits the sowing of 120,000 weed seeds per acre and of this number 6,000 are primary noxious.

A large number of samples were found to contain weed seeds detrimental to the successful and profitable production of crops. The following statistics show the approximate percentages of samples in regard to content of certain weeds:

Wild Oats. Night-flowering Catchfly Couchgrass. Canada Thistle	22% 21% 17%	Perennial Sow Thistle Bladder Campion. False Flax. Ox-Eye Daisy.	7% 5%
Wild Mustard		•	

The analyses show an astonishingly large number of the cereals to contain weed seeds which should have been removed with the ordinary operation of a reasonably well-equipped fanning mill. Evidence of this is illustrated by the following table taken from the report of the Dominion Seed Branch for Western Ontario:

NUMBER AND	PERCENTAGE	CONTAINING
------------	------------	------------

Kind	Number samples taken	Primary noxious weed seeds		Noxious weed seeds		Wild mustard	Bladder campion	Night- flowering catchfly
Oats. Barley. Mixed Grain. Small Seed. Pea. Flax. Wheat. Buckwheat.	224 78 481 284 3 1 7 1	32 10 82 50 2 	14% 13% 17% 18% 28% 	152 48 356 268 1 5 1	68% 61% 74% 94% 100% 71% 100%	15 6 34 15 1 71 (6%)	10 1 32 15 102 (9%)	17 6 76 166 1 266 (25%)

The information obtained by the Agricultural Representatives would also indicate that well over half of the samples were home-grown. This fact would lead to the conclusion that, in order to ensure the sowing of good seed, further educational work to improve the quality of home-grown seed is at least equally as important as the enforcement of the Canada Seed Act.

Each Agricultural Representative received a report from the Dominion Seed Branch with regard to all samples submitted from his respective county. On receipt of this information the Agricultural Representatives forwarded to individual farmers from whose drills samples of seed were secured the grade of their particular lot, and also general statements on the samples collected in their respective counties. The information secured will be further used in the Better Seed Campaign to be continued in 1929.

SPRAY SERVICE

The spray or orchard service was again extended to the fruit growers in nineteen counties. This continued to be a joint effort on the part of the fruit growers' associations, the Fruit Branch, Vineland Experimental Station, the Entomological, Botanical and Horticultural Departments of the Ontario Agricultural College and the Agricultural Representatives. The Agricultural Representatives were responsible for the service in their respective counties and were assisted by a practical orchardist called a Spray Supervisor, who carried on the field work. Demonstrations in various orchard practices were held in the spring, and this was followed up with timely service letters and visits to the orchards. In a year such as 1928 when atmospheric conditions were most conducive to apple scab, the value of the spray service was brought home in no uncertain manner to the growers of the Province. The comments of the fruit growers on the service are of interest:

Grower, Oxford County:

"In the orchards where the owners followed the instructions of the supervisor, the pack turned out about 90 per cent. clean. In orchards where they did not follow his advice, the returns were about 90 per cent. domestic."

68

Grower, Brant County:

* The spray service is a splendid thing and we surely value all your kindness and information."

"Everything o.k. Supervisor always on the job at right time."

"Spray service was satisfactory and appreciated."

Agricultural Representative, Prince Edward County:

"The production in the County of Prince Edward this year was approximately 42,415 barrels

with a net return to the growers of \$112,000."

'Due to the work of the apple maggot and to apple scab the unsprayed fruit was practically worthless this year. In the majority of cases the growers received \$6.00 per barrel for No. 1 Northern Spys, McIntosh Reds and Snows. These prices are higher than ever obtained before. Apple buyers in this county claim that the spray service is of unlimited value to the fruit grower.

The achievement tables submitted below give some indication of the value of the spray service in a year such as 1928:

Apples Harvested

County	Per cent. No. 1	Per cent. No. 2	Per cent. No. 3	Per cent. clean fruit
Durham Huron Brant Léeds Prince Edward Hastings. Grenville	60 45 60 50 50 65	25 25 20 30 30 20	15 30 20 20 20 20 15	70 90 85 50 95

(This information is not available for the remainder of the counties in the spray service.)

From the Annual Report of the Agricultural Representative from Huron County we submit an orchard report from fourteen growers. The wide degree of variance in the percentage of clean fruit produced by the different growers will be noted. This is a general guide as to the extent to which the spray supervisors' recommendations were followed:

Orchard Identification	Apple	Per cent.		
	No. 1	No. 2	No. 3	clean fruit
1	200 40 75 60	70 35 30 35	70 45 45 35	95 50 80 55
5	100 46 5 5	110 40 25 10	125 29 35	45 80 85 50
9 10 11 11 12	30 30 390 75	40 40 100 45	50 30 85 30	50 50 70 85
13	75 67 1,198	655	100 110 789—2,642	85 30

STATISTICS—SPRAY SERVICE

County	Number of men receiving service	Number of service letters mailed	Average number of visits to each orchard
Brant. Dundas. Durham. Grenville. Grey. Hastings. Huron. Halton. Lambton. Leeds. Middlesex. Norfolk. Northumberland Ontario. Oxford. Peel. Prince Edward. Wentworth.	28 32 80 82 27 15 31 43 66 18 53 320 80 9 54 20 162 29	6 8 14 6 3 8 7 4 6 5 5 5 9 12 7 9 13 5	4 2 3 2 3 2 4 4 5 2 7 2 7 2 7 4 6 3 6 5

EXPERIMENTAL AND DEMONSTRATION WORK

The Agricultural Representatives, in co-operation with other departments and organizations, have, during the past year, carried on among the farmers of their counties numerous demonstrations and experiments in fertilizers; varieties tests of grains, vegetables, small fruits and in control of insect and fungus diseases.

DRAINAGE

The demand for this service has been particularly heavy as a result of the excessive rainfall during the past year. In some sections of Eastern Ontario adequate drainage is one of their biggest problems. In such counties where all soil and crop improvement hinges on this problem, our Agricultural Representatives are undertaking this project as one of their major activities.

Except in cases where a detailed plan of drainage is requested by the farmer, the work is undertaken by the Agricultural Representative who drafts the necessary profile. The larger projects are referred to the Departments of Drainage at the Ontario Agricultural College and Kemptville Agricultural School, who supply the necessary extension men.

FARM LABOUR

In most counties the office of the Agricultural Representative serves as a farm labour bureau. Applications for assistance are received and forwarded to the Department of Colonization and other organizations. Despite the difficulty in

securing sufficient satisfactory farm help at certain seasons of the year, it is a service much appreciated by the farmers.

Advisory Agricultural Councils

The Advisory Agricultural Councils appointed by the County Councils in many counties have rendered valuable assistance to the Agricultural Representatives. Their knowledge of local conditions is invaluable when planning any project. In addition to this, they assist in innumerable ways to carry to a successful completion the many projects of a county agricultural programme.

In regard to the value of these Committees the following comments are of interest:

Representative, Waterloo County:

"The Advisory Agricultural Council throughout the year have rendered valuable assistance to this office. Through their efforts a bull census was taken in the county, our Better Seed Campaign was advanced and our School Fairs and Agricultural Societies' Fairs have received valuable assistance. In connection with our Weed Control Campaign, they assisted the inspectors and considerable of the credit for the popularity of the Corn Borer Act in the county is due to their support. They also assisted this office with our courses in Agriculture; with our Heifer Clubs, in fact, they have given very valuable assistance in every line of work."

FARMERS' EDUCATIONAL TOURS

In many counties the Agricultural Representatives are finding motor tours for parties of farmers of increasing value. These tours varied in length from one to five days and included visits to points of general and agricultural interest. They serve as a means of making new contacts; securing new ideas and obtaining new inspiration with which to attack their problems on their return home.

COUNTY EXHIBITS AT THE CANADIAN NATIONAL EXHIBITION

In 1928 the counties of Simcoe, Durham and Northumberland, Halton, Peel, Kent, Essex, Ontario and York, Wentworth, Brant, Dufferin, Lambton, Norfolk, Grey, Hastings availed themselves of the opportunity to place displays in the Ontario Government Building at the Canadian National Exhibition. In addition, there were two exhibits from Northern Ontario; one representing northwestern Ontario and the other the districts east of and including Algoma.

The Agricultural Representatives, co-operating with local committees and County Councils, planned and prepared their respective exhibits.

In most cases one or two special crops or branches of agriculture were stressed. Innumerable contacts were formed, the advertising value of which cannot be measured in dollars.

Another resulting factor which cannot be overlooked is brought out in the following comment of the Agricultural Representative for Muskoka and Parry Sound:

"An exhibit such as this seems to stir up a feeling of pride in our local people, due to the knowledge that they are represented by something equally as attractive and interesting as those representing other parts of the province."

JUNIOR DEVELOPMENT

RURAL SCHOOL FAIRS

The popularity of this feature of junior extension continues to increase with the years. New educational features are generally added to the programme yearly and these not only retain but increase the interest of the boys and girls, teachers, trustees and parents. Under such features are included inter-school competitions in physical exercises, singing, team competitions in first-aid, live-stock judging, domestic science judging, vegetable and fruit judging, poultry judging, individual competitions in weed naming, stock naming and public speaking. Friendly rivalry and increased interest can only result from such competitions.

The success of school fair work depends not only on the encouragement received by the boys and girls from their parents, but also to a large extent on the interest taken by the teachers and public school inspectors of the province. To the Department of Education, therefore, belongs no small part of the credit for the success that has been attained.

The T. Eaton Co., Limited, again donated a silver trophy to champion pupils of each of the 568 school fairs held in the Province. In addition, suitable book prizes were donated by the same firm to the second and third high pupils at each fair. These special prizes no doubt contributed no small part to the increased interest of the past year.

In 1928 the Ontario Department of Agriculture, through the Agricultural Representatives, distributed to the boys and girls of the Province for school fair purposes the following quantities of seeds, eggs and baby chicks:

POTATOES

Irish cobblers Green Mountains. Dooleys.	842 296 649
Total	1,787
Distributed in five-pound bags to 30,888 pupils.	
Oats	
O.A.C. No. 144 O.A.C. No. 3 Banner Alaska	15 48½
Total	195

BARLEY

Distributed in one-pound lots to 8,193 pupils.

Distributed in three-quarter-pound lots to 8,840 pupils.

WHEAT

	bush.
Marquis	761/4
Goose	16
Kubanka	2
_	0.417
	941/4
D1 11 11 11 11 11 11 11 11 11 11 11 11 1	

Distributed in one-pound lots to 5,655 pupils. Number of pupils receiving registered grain, 22,688 pupils. Number of pupils receiving registered or certified grain or potatoes, 53,576.

The total distribution of supplies was made up of the following:

72

	lots
Potatoes, grain 5	3,576
Beets, carrots, onions, parsnips	3,700
Mangels, turnips	9,100
Corn, field and sweet	4,100
Flowers	2,100
Field peas	320

	Baby chicks	Number dozen eggs
Barred Plymouth Rocks. White Wyandottes. White Leghorns.	9,520 492 1,402	11,138 300 797
Total	11,414	12,235

The growth during the year is depicted in the statistics given below. It is interesting to note the increased number of entries despite the most unfavourable weather conditions existing in September when school fairs were being held:

1928 560
4,859
135,153
162,199
317,371
158,841
204,046
362,887
25

CHAMPIONSHIP SCHOOL FAIRS

In nineteen counties championship fairs were held. At these events the first and second prize-winning exhibits and competitors are brought together and county champions declared. While these events are not to be recommended in all counties, under certain conditions they are serving a useful purpose and stimulating increased interest.

The following extracts from the reports of our Agricultural Representatives are of interest:

CHAMPIONSHIP FAIR, GREY COUNTY

Estimated number in attendance	4,000
Receipts of Agricultural Society	
Amount of prize money paid	333 00
Number of schools in parade (rural)	20
Number of schools in parade (urban)	2
Number of competitors (Boys' Public Speaking Contest)	18
Number of competitors (Girls' Public Speaking Contest)	19
Number of competitors (McPhail Public Speaking Contest)	15
Number of solos (Boys)	18
Number of solos (Girls)	17

Agricultural Representative, Rainy River district:

"The district championship in public speaking and singing were two of the most interesting parts of the school fair work. Since every school fair association is eligible to make an entry in each competition, the interest is district wide. Handsome trophies awarded to the winners, depicts the attitude of public-spirited persons. A crowded hall, listening to a programme given entirely by children, gives expression of public opinion for those engaged in the School Fair Project."

JUNIOR SEED COMPETITION AT THE OTTAWA WINTER FAIR

The Junior Seed Competition, conducted at the Ottawa Winter Fair, resulted in Temiskaming District winning the Senator Hayden Challenge Trophy. This competition is open to the boys and girls of Eastern and Northern Ontario and Western Quebec, who have won first prizes at local school fairs held in 1928. This competition creates a good deal of interest in the territory referred to above and the boys and girls of Temiskaming District achieved no small honour in winning the Senatory Hayden Trophy emblematic of the Championship.

POULTRY BREEDING STATIONS

These flocks, selected by the Agricultural Representatives, continued to be sources of supply for eggs and baby chicks distributed for school fair purposes. They are recognized in their communities and counties as reliable centres from which to secure stock for the improvement of the farm flocks.

Cockerels supplied yearly by the Poultry Department, O.A.C., together with yearly inspections by extension men from the same department have played an important part in developing the general high standard.

The effect of these flocks in raising the general quality and productiveness of Ontario poultry is borne out by the comments of the Agricultural Representative for Lennox and Addington:

"The Poultry Breeding Stations have exerted a wonderful influence on the improvement of poultry in this county. Cockerels raised by public school pupils have been used for flock improvement in every district. The stations have found ready sale for all hatching eggs not required for distribution through schools. One man told me the other day that he bought twenty pullets from a breeding station about one year and a half ago, and in twelve months they laid an average of 238 eggs."

STATISTICS, POULTRY BREEDING STATIONS

County	No. of stations	No. of hens and pullets	No. of cockerels	No. of dozen eggs for school fairs	No. of chicks for school fairs	No. of dozen eggs sold to farmers	No. of cockerels sold to farmers
						700 chicks	
Algoma	7	760	31	412	1.021	470	9
Brant	2 6	400 729	8 31	93 425	1,031	352 264 chicks	67
Carleton	6	666	25	286		224	41
Dufferin	1	100	5	48		25	15
Dundas	3	410	21	163		225	28
Durham	5 7	690 920	31	210		368	7
Elgin Essex	2	375	35 15	588 184	219	410 150	76 25
Frontenac	5	683	69	236		336	39
Glengarry	1	145	5	246		76	2
Grenville	4	480	20	96		290	35
Grey	9	750	33	373			; ;
Haldimand	1 2	230 350	12	138 83	296	30 250	45
Hastings Huron	2	340	13	288		350	
Halton	$\frac{1}{4}$	650	16	136			
Kenora	5	350	12	192		78	16
Kent	3	905	29	444		459	7
Lambton	6_4	869	27	383		800	92
LanarkLeeds	7	325 1,197	14 58	251 224	142	405	41
Lennox and Addington	i	140	8	107		60	30
Lincoln	5	295	13	202		235	6
Manitoulin	8	608	28	273	192	370 chicks	63
Middlesex	7	1,110	62	627	202	801	109
Muskoka and Parry Sound	8 2	489 550	23 6	261 159	62	• • • •	
Norfolk			0				
Ontario	3	997		190		325	
Oxford	33	5,583	305	215			
Peel	4	455	22		3,420	409	42
Perth	$\frac{1}{2}$.	150	10 12	59	68	200	15 11
Peterborough	4	165 407	7	140 89		40 174	37
Prince Edward	3	975	41	212			
Rainy River	10	579	24	480		188	27
Renfrew	6	320	19	264		210	39
Simcoe South	4	500	31	245	260	172	24
Simcoe North	3	608	46	254	360	216 2200 chicks	12
Sudbury	3	205	11	200		2200 CITICKS	12
Temiskaming	2	172	9	138			2
Fort William	2	175	10	111		90	
Port Arthur	2	83	6	70		44	28
Victoria	5	390	22	289		76 2790 chicks	41
Waterloo	3	950	27		2,351	60	
Welland	4	607	19	225			
Wellington	2	525	17	173		210	203
Wentworth	1	105	4	60		135	
York	4	525	17	378		135	
						9654 chicks	
Totals	224	29,992	1,310	10,920	8,343	8,943	1,234

BOYS' AND GIRLS' CLUBS

While this phase of work is more or less in its infancy the results to date have been most noteworthy. To be successful, this type of work necessitates close supervision on the part of the Agricultural Representatives and those sponsoring the project. The service clubs such as the Kiwanis and Rotary have taken a good deal of interest in the Boys' and Girls' Club work, and to them as well as other organizations, the Federal and Provincial live stock branches is due a good deal of credit for their success.

In practically all communities where this work has been undertaken it has resulted in increased interest among the boys and girls and also stimulated the interest of the adults in growing better crops and the improvement of the farm live stock. In this regard the following comments are of interest:

Agricultural Representative, Waterloo County:

"On March 30, 1927, we organized the Wilmot Township Boys' and Girls' Jersey Heifer Club. Thirty-five heifers were bought by the members of this club. The average age of the boys and girls was seventeen. This Club has developed very satisfactorily and has created a great deal of interest in not only good Jerseys, but good live stock throughout Waterloo County. Seeing the advertisement that this club gave the Jersey men, the breeders of other breeds of cattle have become interested and are doing more to promote the advancement of their particular breeds than they were doing previous to the organization of this Club. This Club was instrumental in starting a number of new herds of pure-bred Jersey cattle where poor cattle had been kept before its organization. It has also created a good deal more interest in the home herds of all the boys and girls that are taking part. The boys and girls have become acquainted with better feeding methods, R.O.P. testing and the general care of their animals. The first show for this club was held at the New Hamburg Fall Fair in the fall of 1927. Thirty-three of the thirty-five heifers that were originally placed with the boys and girls competed. There was also a large number of calves on exhibition. This year the show was one of the big attractions at the New Hamburg Fall Fair."

Agricultural Representative, Ontario County:

"During the summer two field meetings were held for the 125 boys comprising the club. Mr. John Tucker took great pains at each meeting to take the boys through the plots and explain the different potato diseases. Another phase of the project was the record on yield, financial statements and fertilizer results.

"Of the seventy-five records returned to this office, the average yield, taking it for granted that the average size of plot was one-eighth acre, was fifteen bags or one hundred and twenty bags to the acre. The yield of the ten highest was 181.6 bags per acre and the highest individual yield was two hundred and seventeen bags per acre.

"Another feature of the project was a Boys' Potato Fair held in Uxbridge, October 30th. Ninety-eight boys exhibited ninety-eight bushels of Dooleys, as well as making entries in other classes of both Dooleys and Cobbiers. Twelve boys made speeches on 'The Potato Situation in Ontario.' Forty-five boys judged four classes of potatoes in a judging competition.

"A boys' exhibit, eighteen feet by twelve feet, was arranged at the Royal Winter Fair which conveyed a message to both growers and consumers. Much favourable comment was heard regarding this exhibit. After the fair the ninety-eight bushels of Dooleys, which had been used in the exhibit, were sold to the T. Eaton Co., Limited, for one dollar per bushel, when potatoes were selling in Uxbridge at 45 cents per bag. The sale of these potatoes at this price helped considerably to drive home the lesson 'that people will pay well for a choice article.'

"On Nov. 21st, ninety-five of the boys comprising the club were taken to Toronto in three large buses and were there entertained to dinner at the King Edward Hotel by the Kiwanis Clubs. Following this they were presented with tickets to the Royal Winter Fair, by Mr. A. P. Westervelt, Manager of the "big show."

STATISTICS, BOYS' AND GIRLS' CLUBS

County	Name of Club .	Membership
arleton		13
ssex		37
	Dent Corn Club	85
rey	Sheep Club	59
[aldimand		10
	Dunnville Sheep Club	15
Iuron	. Maitland Boys' and Girls' Sheep Club	15
	Ashfield Boys' and Girls' Sheep Club	12
lalton	Boys' and Girls' Calf Club	13
enora	Boys' and Girls' Potato Club	17
ent	Kent Corn Club	130
ennox and Addington	Boys' Poultry Club (Rotary)	34
liddlesex	Komoka	7
	Delaware	14
	Sylvan	19
	Appin	9
	Thorndale	11
ntario		125
eterborough	Warsaw Boys' Sheep Club	10
eterborough	Indian River Sheep Club	11
	Peterborough Ayrshire Club	10
rince Edward	Kiwanis Boys' Potato Club	45
Renfrew	Douglas Sheep Club	12
	Eganville Sheep Club	12
imcoe North	Oro Station Sheep Club	11
	Phelpston Sheep Club	9
	Carley Sheep Club	10
	Barrie Junior Fair	28
udbury	Board of Trade Farm Boys' Potato Club	50
ort William	Fort William Young Men's Board of Trade Potato	27
	Slate River Valley Holstein Heifer Club	16
ort Arthur		10
Vaterloo		35
	Galt District Boys' and Girls' Holstein Heifer Club	16
Vellington	. Minto Boys' and Girls' Sheep Club	11
8	Mayboro Boys' and Girls' Sheep Club	12
	Tatala	960
	Totals	900

HOME GARDEN CONTESTS

The Home Garden Contests are conducted chiefly with boys and girls between the ages of twelve and seventeen. Eighteen varieties of seed are distributed to each contestant at a nominal cost of fifty cents. Definite plans for laying out their respective gardens together with suggestions as to cultural methods are also supplied. The gardens are scored in midsummer by the Agricultural Representatives who make suggestions for improvement and award the prizes.

These contests have not only resulted in gaining the interest of the contestants in better gardens, but also have been the means of introducing many previously unfamiliar varieties of vegetable to the counties and districts of the Province.

STATISTICS, HOME GARDEN CONTEST

County	Number contests	Number of boys	Numbe of girls
Iroma	2	26	22
lgoma	2	24	17
rantruce	4	60	51
Oufferin.	2	30	24
	ī	16	18
Oundas Ourham	1	14	8
ssex	4	46	54
rontenac	2	28	22
	1	11	14
dengarry	2	23	22
renvillerev	$\frac{2}{4}$	110	119
[aldimand	2	30	20
astings	3	42	33
[uron	4	62	37
alton	2	20	30
enora.	2	22	28
anark	ī	2	5
eeds	2	28	22
ennox and Addington	1	15	10
incoln	2	32	17
Ianitoulin	2	19	21
1iddlesex	2	28	20
Iuskoka and Parry Sound	2	31	30
Intario	2 2 2 3	51	49
eel		32	23
eterborough	$\frac{2}{2}$	25	25
rescott and Russell	ĩ	13	12
rince Edward	î	16	9
Rainy River	2	20	30
enfrew	3	34	41
imcoe North	2	13	22
emiskaming	2	24	24
ort William	2	21	29
ort Arthur	1	11	14
ictoria	2	30	20
Vaterloo	2	31	19
Velland	2	38	12
Vellington	2 2 2	16	18
Ventworth	3	42	34
Totals	82	1,136	1,025

JUNIOR FARMER ASSOCIATIONS

These organizations continue to serve a splendid purpose in assisting with the development of our rural young people. The aim of the organization is both self-improvement and community betterment and year by year greater evidence is noted that the organization is achieving its purpose.

The organization has a total membership of 4,558 with 166 branches. In eleven counties county organizations have been formed and these are playing an important part in encouraging the planning and carrying on of balanced programmes in their respective branches. That their programmes are many-sided and broad is attested by the following list of activities:

1. Leader Projects.

2. Stock and Seed Judging Competitions.

Ploughing Competitions.
 Public Speaking Contests.

- 5. Debating Leagues.6. Musical Festivals.
- 7. Dramatic Contests. 8. Profit Competitions. 9. Community Projects.
- 10. Athletic Contests and Field Days.11. Social Activities.
- 12. Educational Tours and Excursions.

The comments of the Agricultural Representatives in regard to some of these activities are of interest:

Leader Training, Agricultural Representative, Peel County:

"Eight Junior Farmers coached and entered teams of Juniors in our County Judging Competition. As a result of the work of these eight leaders there were thirty extra boys taking part though another dozen or more received part-time coaching."

Agricultural Representative, Glengarry County:

"In order to train leaders who will be able to carry on work in the community, the Locheil Junior Farmers have started a policy of sending one of their members each year to the Kemptville Agricultural School to receive the necessary training for such work."

Agricultural Representative, Elgin County—(Musical Festival):

"Number of Entries	174
Number of Contestants	131
Attendance	1,300

This is one of the big events of the year and the festival this year exceeded any previous one. The hall was taxed to capacity and the quality of the music was excellent.'

Agricultural Representative, Middlesex County:

"Debating Series—Number of branches competing, 12; number of debaters, 26.

This competition was one of the most successful debating competitions ever held by Middlesex Juniors. An excellent spirit prevailed throughout."

JUNIOR FARMER CONFERENCES

In order that the Junior Farmers might have an opportunity to discuss their problems and benefit from the experience of their fellow Juniors in other counties, four zone one-day conferences were held as follows:

Date	Place	Number of counties sending delegates	Number of
Dec. 11th	Kemptville	9 16 8 8	75 120 55 62

As will be noted from the programme below and which is typical of the one at all four conferences, the majority of those taking part were Junior Farmers.

That these conferences are appreciated is borne out by the following comments of the Agricultural Representative for Renfrew County:

"Fifteen young men from Renfrew attended the 1928 Junior Farmer Conference at Kemptville. This is the largest delegation ever sent from Renfrew. The boys enjoyed the conference immensely and already many of the ideas obtained there have been incorporated in programmes in their home communities.

JUNIOR FARMERS' CONFERENCE

MASSEY HALL, O.A.C., GUELPH

TUESDAY, DECEMBER 11TH, 1928

General Chairman—Laverne Dyment, Wentworth County.

10.00 a.m.-Call to order-Chairman's address.

10.10 a.m.—Short address—R. S. Duncan, Director, Agricultural Representatives Branch, Toronto.

10.20 a.m.—Difficulties being encountered in Junior Farmer Work in my County—Junior

Farmer, York County.

10.30 a.m.—Weaknesses of Junior Farmer Work—John Pawley, Peel County.

10.40 a.m.—Demonstration Executive Meeting by Walkerton Junior Farmers.

11.10 a.m.—Analysis of previous number—W. K. Riddell, Agricultural Representative, Bruce County.

11.20 a.m.—Group Singing—Leader, E. F. Neff.

11.30 a.m.—Lessons gleaned from the 1928 4-H Club Leader Training School, Springfield, Mass.—Murray Allan, Middlesex County.

11.50 a.m.—Discussion.

12.15 p.m.—Joint Lunch—Chairman, Gordon Carroll, Dufferin County.
Address by Dr. G. I. Christie, President, Ontario Agricultural College, Guelph.
1.45 p.m.—A Line of Junior Farmer Work, which, judging from my own experience is worthy of more attention-Gladwyn Crow, Wellington County.

2.00 p.m.—Can Junior Farmers Co-Operate to Advantage with Fall Fair Associations?

Stewart Bell, North Simcoe.

2.10 p.m.—Discussion.

2.15 p.m.—The opportunities which should be met by the Junior Farmers of Ontario—
J. E. Whitelock, Assistant Director Agricultural Representative Branch,
Toronto.

2.45 p.m.—Discussion.
3.15 p.m.—Resolutions.
3.30 p.m.—Adjourn to enable delegates to visit Winter Fair.

JUNIOR INSTITUTES

The activities of this organization are closely related to those of the Junior Farmer Associations. Both organizations are most successful when they work in co-operation. In many communities and counties both organizations meet the same evening. Separate meetings are held for the first hour when subjects of particular interest to respective organizations are discussed. Following this the two organizations unite and carry on a joint educational and social programme.

CHAMPION JUNIORS' TRIP TO CHICAGO

In a number of counties the junior organizations, interested individuals and firms offer free trips to Chicago as championship prizes in their county projects. The party was in charge of Campbell Lamont, Agricultural Representative for Dufferin County, and Miss Florence Eadie, of the Institutes Branch, Toronto, and had the opportunity of attending the International Live Stock Exposition and Boys' and Girls' Club Congress at Chicago. The winning juniors were as follows:

WINNERS FREE TRIP

TO

INTERNATIONAL LIVE STOCK EXPOSITION

AND

BOYS' AND GIRLS' CLUB CONGRESS, CHICAGO, ILL, U.S.A.

December 1-7, 1928

Boys:

Geo. Matthews, Delaware, Middlesex County.
Guy Helsdon, Tillsonburg, R.R. 3, Norfolk County.
Jack McMillan, Brampton R.R. 2, Peel County.
Allison Pinkney, O.A.C. Guelph, Peel County.
W. J. Bellamy, Alliston, R.R. 3, Simcoe South.
Henry Leachman, Puslinch, R.R. 1, Wellington County.
Andrew Leachman, Puslinch, R.R. 1, Wellington County.
Raymond Brown, Jerseyville, Wentworth County.

Girls:

Marjorie McLaren, Ridgetown, R.R. 2, Kent County.
Annie Salder, Lambeth, Middlesex County.
Helen Fenton, St. Williams, Norfolk County.
Mrs. Jack Fraser, Streetsville, Peel County.
Ida Clarke, Brampton, R.R. 2, Peel County.
Mary Dunton, Brampton, R.R. 6, Peel County.
Edythe Irvine, Brampton, R.R. 6, Peel County.
Eloise Gilmore, Everett, R.R. 1, Simcoe South.
Margaret Starkey, Guelph, R.R. 2, Wellington County.
Thelma Nesbit, Troy, Wentworth County.
Mrs. McIntaggart, Freelton, Wentworth County.
Pearl Krick, Stoney Creek, Wentworth County.

JUNIOR FARMERS' PLOUGHING COMPETITION

The contestants in these competitions plough the required amount of land on the home farm. The Department of Agriculture supplement the prize money in the form of a grant raised by the local Junior Farmers' Associations, and also furnish the necessary judges.

As a result of the training received from these competitions, boys have been encouraged to take greater care and interest in the general cultural methods practised on the farm. In this regard the following extract from the Agricultural Representative for Dufferin County is of interest:

"The Home Ploughing Competitions have unquestionably had considerable influence in improving the quality of ploughing done in districts where the contests have been held. According to Jas. McLean, of Richmond Hill, there has been a very noticeable improvement in this respect during recent years in this county."

STATISTICS, HOME PLOUGHING COMPETITIONS

County	Number of classes	Number of con- testants	Total prize money paid
Bruce. Dufferin Elgin. Frontenac Halton Kent Leeds. Muskoka and Parry Sound. Norfolk Perth. Peterborough Rainy River Temiskaming Fort William Victoria. Waterloo York.	8 2 7 1 1 2 3 4 8 1	14 15 16 10 22 15 11 26 9 13 18 11 6 16 9	\$91 50 46 00 62 00 30 00 80 00 28 00 29 00 73 00 30 00 83 00 50 00 49 00 24 00 75 00 50 00 125 00
Totals		267	\$925 50

PROFIT COMPETITIONS

With these competitions, it is necessary for the competitors to keep cost records, and hence the young men gain a fairly accurate idea of the comparative cost of growing certain crops or in producing live stock. Closer study and application result in increased interest on the part of both competitor and parents.

A prize of a two-weeks' course at the Ontario Agricultural College, Guelph, or at the Kemptville Agricultural School affords an opportunity of gaining increased knowledge as a result of the course of study and the contacts with fellow prize-winners from other parts of the Province.

The following competitions were conducted during 1928:

	Number of Competitions	
Acre Profit Competitions with barley	2	9
Acre Profit Competitions with beans	1	6
Acre Profit Competitions with sugar beets	1	4
Acre Profit Competitions with corn	1	4
Acre Profit Competitions with silage	1	5
Acre Profit Competitions with oats	5	25
Acre Profit Competitions with potatoes	4	25
Acre Profit Competitions with tobacco	1 1	6
Acre Profit Competitions with tomatoes	1 1	6
Acre Profit Competitions with wheat	1	6
Baby Beef Competitions) 5	25
Feeding Hogs Competitions	5	14
Garden Club and Canning Competitions	2	54
Farm Accounting Competitions	14	167
	44	356

Acre Profit Competitions.

Competitors showing the highest net profit per acre are awarded the prizes. In order to determine cost of production and profits, the following values are used:—

MAN AND HORSE LABOUR

Man labour to be reckoned at 25 cents per hour. Horse labour to be reckoned at 15 cents per hour.

FERTILIZER

Barnyard manure applied to this crop at \$1 per ton or two-horse load. Barnyard manure applied to previous crop at 50 cents per ton or two-horse load. Commercial fertilizer applied to previous crop at two-thirds of cost price. Add commercial fertilizer applied to previous crop at one-third of this year's cost price.

RENT OF LAND

To be computed on the basis of eight per cent. of the selling value of the land, this to be figured by the Representative and the Junior Farmers' Associations.

	Value of Seed Used in Planting	Value of Product Harvested
Turnips	\$0 80 per lb.	\$0 10 per bu.
Mangels,	0 45 per lb.	0 12 " "
Potatoes	2 00 per bag 2 00 per bu.	0 60 bag (90 lb.
Oats	1 00 " "	1 15 per bu.
Barley	1 25 " "	75 " "
Pea Beans (White)	3 00 " "	3 50 " " (No. 1 pickers)
Marrowfat Beans (Yellow Eye)	3 50 " "	(No. 1 pickers) 3 25 " "
Corn for Silage	1 50 " "	4 50 per ton

The following table gives by counties the winners and the results of each:-

County and Winner	Yield in bushels per acre	Value	Cost of production	Profit
BARLEY				
Kent: L. T. Gilhuly, Merlin	50	\$37 50	\$19 78	\$17 72
Rainy River: Clifford Cain, Devlin	46	34 50	16 05	18 45
BEANS Kent: Gordon Carnie, Morpeth R.R. 1	38	133 00	27 55	105 45
SUGAR BEETS Kent: Thos. Swanton, Merlin, R.R. 1	15.25	106 75	43 28	63 47
CORN Kent: Kenneth Thompson, Staples	101	90 90	23 58	66 32
SILAGE Middlesex: Clarence Birchmore, Belmont, R.R. 2	19.5 tons	87 75	29 84	57 91

County and Winner	Yield in bushels per acre	Value	Cost of production	Profit
Oats				
Kent: Elmer Trudgen, Blenheim, R.R. 2 F. C. Hyatt, Wheatley, R.R. 2	59 44	29 50 22 00	21 43 17 57	8 07 4 43
Kenora: Clifford Lewis, Oxdrift	60	30 00	15 49	14 51
Lincoln: Cyrus E. Lowden, Glanford	75.5	37 75	15 28	22 47
Middlesex: Wm. Trunks, Komoka, R.R. 2 North Simcoe:	47.75	23 88	14 13	9 75
Delbert Brown, Vasey	44	22 00	17 26	4 74
POTATOES				
Dufferin: Ray Marshall, Melancthon, R.R. 1	. 413.3	165 33	86 60	78 73
Kent: Glen Atkinson, Wheatley, R.R. 1	300	120 00	55 12	. 64 88
Rainy River: Clifford Strachan, Devlin Port Arthur:	480	192 00	71 30	120 70
Geo. Elchuk, Murillo	434 383	173 60 153 20	61 72 51 22	111 88 101 98
Товассо				
Kent: Jas. A. McKinley, Ridgetown	1,700 lbs.	289 00	87 90	201 10
Tomatoes .				
Kent: Albert Wellwood, Merlin	477.3	190 93	82 48	108 45
Wheat				
Kent: Calvin Osborne, Ridgetown	42	48 30	18 67	29 63

BABY BEEF COMPETITION

In this competition the contestants had an opportunity of exhibiting their stock at fairs and exhibitions where certain classes were open to these boys only. The basis of award was seventy-five points for quality and finish, twenty points for lowest cost per pound of gain and five points for best kept records. Feed consumed was valued as follows:—

County and Winner	Breed	Date of birth	Weight of steer	Value	Cost feed consumed and initial cost of animal	Net profit	Score
BRUCE Elgin Sherman, Tara, R.R. 5	Grade Shorthorn Grade Durham Grade Shorthorn Shorthorn Aberdeen Angus	Feb. 26 1928 Feb. 27 1928 Jan. 5 1928 Apr. 15 1928 Dec. 18, 1927 Jan. 1	710 770 806 350 740 942	\$90 52 98 18 102 76 44 63 94 35 120 10	55 61 30 19 65 06	\$30 83 57 66 47 15 14 44 29 29 63 82	84.7 85.9 85.4 86.29 90.
J. Kendall See, Malton, R.R. 4		Dec. 10	840	107 10	80 75	26 35	81.4

FEEDING HOGS

The basis of award in this competition was sixty points for highest net profit per cwt. of gain, twenty points for best kept records, twenty points for type, conformation and finish with two points deducted for every five points or fraction thereof under or over standard market weights at shipping point, that is, under 180 pounds or over 230 pounds (country points). In this competition the same feed values were used as in the baby beef competition.

County and Winner	Length of feeding period	Average weight hogs alive when market- ed	Average gain in weight from six weeks of age	Value per hog of gain in weight	Average cost of feed per hog	Average net profit per hog	Average net profit per cwt. gain
BRUCE Elmer Palmer, Dobbinton, R.R. 1	157	207.5	183.5	\$21 47	\$9 37	\$12 10	\$6 59
Raymond Baker, Burpee MIDDLESEX Lorne McIntosh, Lambeth,	184	192.5	164	18 41	9 18	9 23	5 61
R.R. 2	192	213.3	184.3	21 42	12 26	9 16	4 96
Roy Stoltz, Ayr, R.R. 1	219	206	176	20 59	12 37	8 22	4 67

GARDEN AND CANNING CLUB COMPETITIONS

In this competition the award is based on 80 per cent. for garden and 20 per cent. for exhibit.

STATISTICS

County	Name and Address Contestant		den	Canr Sco	Total	
Middlesex	Doris Logan, London, R.R. 9	94 88 90 85 94 93 90 88 89	75.2 70.4 72.68 75.2 74.4 72 70.4 71.2	90 98 88 100 90 90 100 98 90	% 18 19.6 17.6 20 18 18 20 19.6 18	93.2 90 89.6 88 93.2 92.4 92 90 89.2

COUNTY STOCK JUDGING COMPETITIONS

The county stock judging competitions stimulate interest to a marked degree in good live stock. Being an annual event, the Junior Farmers prepare themselves and look forward with eager anticipation to the occasion when they will vie with one another in friendly rivalry for the coveted honour of being declared "champion live stock judge" of their respective counties.

In addition to the counties listed below, a number of other counties combine their county and royal competitions in one event. The statistics for these counties are included under Royal Judging Competitions.

STATISTICS, COUNTY STOCK JUDGING COMPETITIONS, 1928

County	No. Competitors	Prizes
Brant	22	\$31 50
Bruce	86	25 00 and trophies
Carleton	33	60 00
Dufferin		
Durham		
Elgin		75 00
Haldimand		
Hastings		
Huron		
Kent		
Lanark		
Lennox and Addingt	ton 17	
Lincoln		
Middlesex		
Norfolk		
Oxford		
Peel		
Perth		
Peterborough		
Prince Edward		
Renfrew		
Simcoe South		
Simcoe North		
Fort William		
Port Arthur		
Victoria		
Waterloo		
Wellington		
Wentworth		
York		
- O. R	——	
Total	1,104	

Intercounty Judging Competitions.

The ambition of every young man who becomes at all interested in judging work is to some day make the team representing his county in an intercounty competition. These competitions, therefore, serve as an objective to inspire the Junior Farmer to greater achievements. With interest and ambition comes love of good live stock, followed by the decision to improve that at home. In 1928 three such competitions in live stock judging were held, namely at the Royal Winter Fair, Ottawa Winter Fair and the Provincial Winter Fair, Guelph. In addition an intercounty seed judging competition was also held at Ottawa to stimulate interest among the Junior Farmers in the sowing of good seed and control of weeds.

In all four competitions a county team must consist of three members under twenty-six years of age coached by the Agricultural Representative. The Royal competition is open to county teams from all Provinces in the Dominion. The Guelph competition is open to teams from counties west of and including Durham and Victoria and the competitions at Ottawa include counties from Northumberland and Peterborough east.

The winning teams in 1928 were as follows:-

ROYAL WINTER FAIR-Peel County.

Members of Team—John Pawley, Brampton, R.R. 2.
Arthur McCaugherty, Streetsville.
Allison Pinkney, Cooksville.

Coach-A. McGugan.

GUELPH WINTER FAIR-York County.

Members of Team-Marshall MacMurchy, Maple.

Clark Peters, Weston. Donald Dalziel, Maple.

Coach-M. C. McPhail.

OTTAWA WINTER FAIR.

Live Stock Judging-Prince Edward County.

Members of Team-Sherman Black, Belleville, R.R. 7.

Frank Huff, Bloomfield, R.R. 1.

Harold Munroe, Demorestville, R.R. 3.

Seed Judging-Carleton County.

Members of Team-Algie Wallace, North Gower.

Alfred Kennedy, Dunrobin.

Wilbert Paul, Carp.

Coach, Live Stock Judging-F. J. Webster.

Coach, Seed Judging-W. M. Cockburn.

The county standing and scores at the Royal, Guelph and Ottawa Winter Fairs Intercounty Competitions, are as follows:—

INTERCOUNTY JUDGING COMPETITION, ROYAL WINTER FAIR

NOVEMBER 20TH, 1928

INTERCOUNTY SUMMARY

County	Horses	Beef cattle	Dairy cattle	Sheep	Swine	Total	County standing
Peel	474	542	468	515	551	2,550	1st
Oxford	411	517	430	467	534	2,359	2nd
Simcoe North	455	490	452	433	498	2,328	3rd
Huron	455	493	439	423	509	2,319	4th
Wellington	420	492	413	425	561	2,311	5th
Perth	439	514	461	451	437	2,302	6th
York	357	524	477	407	515	2,280	7th
Durham	436	473	475	395	488	2,267	8th
Middlesex	434	492	399	435	505	2,265	9th
Dufferin	441	489	432	438	461	2,261	10th
Waterloo	370	504	455	410	518	2,257	11th
Grey	363	501	413	461	512	2,250	12th
Carleton	381	507	443	439	476	2,246	13th
Wentworth	402	465	463	379	496	2,205	14th
Bruce	413	489	408	426	468	2,204	15th
Simcoe South	392	492	392	463	450	2,189	16th
Peterborough	385	464	439	442	439	2,169	17th
Prince Edward	398	450	426	391	498	2,163	18th
Renfrew	372	481	454	368	468	2,143	19th
Kent	396	468	383	416	473	2,136	20th
Norfolk	351	477	429	379	488	2,124	21st
Lambton	387	428	429	388	486	2,118	22nd
Lanark	397	426	421	398	451	2,093	23rd
Victoria	317	491	325	433	517	2,083	24th
Hastings	352	493	388	392	457	2,082	25th
Northumberland	326	463	456	402	417	2,064	26th
Elgin	378	428	413	383	453	2,055	27th
Halton	334	398	419	460	434	2,045	28th
Ontario	443	417	399	378	375	2,012	29th
Lennox and Addington	385	422	414	350	440	2,011	30th
Haldimand	318	449	402	403	383	1,955	31st
Leeds	359	416	405	382	380	1,942	32nd

INTERCOUNTY JUDGING COMPETITION ONTARIO PROVINCIAL WINTER FAIR, DECEMBER 10th, 1928

County	Horses	Beef Cattle	Dairy Cattle	Sheep	Swine	Total	County
York. Perth. Wellington. South Simcoe. Bruce. Dufferin. Oxford. Wentworth. Huron. Brant. Peel. Elgin. Lambton. Middlesex. Dufdeth.	511 499 469 459 478 498 486 468 534 442 430 479 497 492 445	482 438 455 363 434 458 359 454 394 392 465 397 359 413	516 484 505 523 536 509 482 486 550 517 516 497 503 540 522	508 535 500 538 450 487 499 466 494 518 505 414 474 496 469	490 541 489 517 494 419 495 445 390 444 529 456 433 411 433	2,507 2,497 2,418 2,400 2,392 2,371 2,319 2,317 2,315 2,312 2,311 2,304 2,301 2,282	1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th 13th 14th
WaterlooLincoln	431	409 335	488 515	481 481	465 444	2,274 2,240	16th 17th

INTERCOUNTY JUDGING COMPETITION—Continued

County	Horses	Beef cattle	Dairy cattle	Sheep	Swine	Total	County
Welland Simcoe North Haldimand Grey Victoria Kent Essex Halton Ontario	413 463 486 477 400 428 435 416 266	333 380 305 341 397 324 376 274 213	510 483 506 492 474 469 464 459 341	501 400 482 472 385 429 411 402 306	455 481 421 406 509 472 405 349 306	2,212 2,207 2,200 2,188 2,165 2,122 2,091 1,900 1,432	18th 19th 20th 21st 22nd 23rd 24th 25th 26th (2 men only)

INTERCOUNTY JUDGING COMPETITION

OTTAWA WINTER FAIR, DECEMBER 8th, 1928

LIVE STOCK JUDGING COMPETITION

County	Horses	Beef	Dairy	Sheep	Swine	Total	County standing
Prince Edward Hastings Carleton Lanark Renfrew Northumberland Peterborough Leeds Prescott and Russell Dundas Frontenac Grenville Lennox and Addington Glengarry	519 498 487 457 468 406 416 380 444 397 381 461 367 412	434 513 511 488 481 485 484 480 447 433 417 384 425 385	449 483 465 476 466 474 476 436 394 400 447 398 386 358	560 532 539 496 533 529 458 523 478 495 493 439 335 392	543 469 483 508 452 490 542 416 429 454 389 424 463 397	2,505 2,495 2,485 2,425 2,400 2,384 2,376 2,235 2,192 2,179 ,2127 2,106 1,976 1,944	1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th 13th

SEED JUDGING COMPETITION

County	Barley	Wheat	Potatoes	Red Clover	Weeds and weed seeds	Total	County standing
Carleton Prince Edward Prescott and Russell Renfrew Leeds Dundas Peterborough Frontenac Lennox and Addington Hastings	265 262 257 262 262 244 240 209 218 240	279 280 256 265 263 250 229 252 237 255	280.5 264 177 247 128 201 181.5 126 158.5 149.5	264 260 254 255 207 233 232 241 218 188	296 212 251 161 191 117 157 185 180 138	1,384.5 1,278 1,195 1,190 1,051 1,045 1,039.5 1,013 1,011.5 970.5	2nd 3rd 4th 5th 6th

INDIVIDUAL JUDGING COMPETITIONS

Large numbers of rural young men continue to be attracted by these competitions conducted at the Central Canada, Canadian National, and Western Fairs. They serve two main purposes in that the competitors increase their knowledge of live stock, crop products, and also they afford them the opportunity of studying the wonderful exhibits at all three exhibitions.

The number of contestants in the various classes, together with prize money paid at all three points in 1928 were as follows:—

Name and date	Classes	Number of prizes	Range of prizes	Total offered	Total con- testants
Canadian National Exhibition, September 5th and 6th, 1928	Heavy Horses	16 16	\$20—\$5 00 20— 5 00		47
Dairy Cattle		16 16	20— 5 00 20— 5 00 20— 5 00	200 00	87 45
	SheepSwine	16 16 16	20— 5 00 20— 5 00 15— 50	200 00	48 48 18
	Poultry	16	15— 50 15— 50		62
Central Canada Exhibi-	Fruits and Vegetables				
tion, August 20th, 1928	Heavy Horses Beef Cattle	9	15— 7 00 15— 7 00		25 19
	Dairy Cattle	9	15— 7 00 15— 7 00		47 28
Western Fair, London,	Swine	9	15— 7 00	99 00	23
	Heavy Horses	6	10— 1 00 10— 1 00	40 00 40 00	31
	Beef Cattle Dairy Cattle	6	10— 1 00	40 00	37
	Sheep Swine	6	10-100 $10-100$	$\frac{40}{40} \frac{00}{00}$	27 30

Total prize money offered at fairs.....\$2,056 50

Immediately following the completion of the judging competitions at the Canadian National Exhibition, the Junior Farmers and Junior Institute competitors, to the number of 506, with their county banners, marched through the grounds led by the pipe band.

The entire party were guests of the Exhibition at dinner and later in the evening were again entertained by the Directors at the evening performance before the grand stand.

GIRLS' HOUSEHOLD SCIENCE JUDGING COMPETITION

At the Inter-County Competition in Household Science Judging, twenty-six counties competed for the C.N.E. trophy. Each of these counties was represented by a team of three young ladies under twenty-six years of age. In addition an individual competition was held and this attracted 125 competitors.

Central Canada Exhibition, Ottawa.

A Household Science Inter-County Judging Competition was inaugurated at Ottawa in 1928. This competition was open to teams of three girls each from

counties in Eastern Ontario, east of and including Northumberland and Peterborough. Eight counties participated for the trophy.

Previous to these competitions training schools are conducted at different points in the majority of the counties under the joint auspices of the Institutes Branch and the Agricultural Representatives.

Western Fair, London.

At the Western Fair, London, an individual Household Science Judging Competition was held on September 11th. This feature attracted thirty-four young ladies from counties in Western Ontario.

The comment of the Agricultural Representative for Lanark County with reference to the Household Science Judging Competition at Ottawa is of interest:—

"This competition gives promise of developing and being just as popular among the girls as the live stock judging has been among the boys, both of which should serve a most valuable purpose. Already the fruits of the boys' competitions are being reaped in the form of decidedly better live stock on the farms of many of the ex-team members. This benefit is not stopping with the members alone as neighbours are seeking the advice of many of these boys in the selection of breeding stock."

THE ROYAL FIVE HUNDRED

The second Junior Farmers' Trip to Toronto brought four hundred and seventy young men as guests of the Ontario Department of Agriculture during the first week of the Royal Agricultural Winter Fair. This party was made up of ten boys from each county in Southern Ontario and five boys from each district in Northern Ontario. The method of selection was by means of a special judging competition known as the "Royal" conducted in each county and district in the Province where an Agricultural Representative is located. The conditions governing the competition were as follows:—

- (a) Contestants shall judge five rings of live stock, five classes of crop products and one of poultry.
- (b) The competition shall be open to all farmers and farmers' sons, living on the farm, between the ages of sixteen and twenty-three on October the 1st, 1928, and who have not previously represented the county as a member of a stock judging team at the Royal Winter Fair or as a member of the "1927 party of 500" or who are not graduates of an agricultural college or school.

The project has the general approval of the public. It is but natural that it should be appreciated by all participants, but in addition it has not only met with the favour of rural parents, but also the support of the urban industry.

The following extract is taken from the annual report of the Agricultural Representative for Rainy River district:—

"No recent project in Junior Work has been of more general interest than that of the" Royal" Judging Competition. Requests from groups of young people for coaching in judging bespeaks a more than passing interest. The 1928 list of competitors showed an increase of 43 per cent. over that of 1927, surely an indication of more general interest. Experiences gained through the local competition and later by the winners at the Royal must necessarily have their effect, and new methods will thrive where the old lay dormant."

STATISTICS, ROYAL JUDGING COMPETITIONS

County	Number of competitors	Number winning trip
Algoma	31	5
Brant	22	10
Bruce	44	10
Carleton	. 35	10
Cochrane	16	5
Dufferin	28	10
Oundas	19	10
Ourham	65	10
Elgin	39	10
Essex	24	10
Frontenac	55	10
Glengarry	36	10
Grenville	23	10
Grey	55	10
Haldimand	41	10
Hastings	13	10
Huron	36	10
Halton	25	10
Kenora	10	5
Kent	38	10
_ambton	46	10
_anark	56	10
_eeds	16	10
Lennox and Addington	35	10
Lincoln	35	10
	14	5
Manitoulin	49	10
Middlesex	22	10
	12	
Norfolk	28	10
Northumberland	42	10
Ontario	32	10
Oxford	68	10
Peel	37	10
Perth		10
Peterborough	23	10
Prescott and Russell	30	10
Prince Edward	28	10
Rainy River	43	5
Renfrew	35	10
Simcoe South	51	10
imcoe North	24	10
budbury	36	5
Cemiskaming	6	5
Fort William	25	5
2-ut Auth	13	5
	33	10
		1.0
Victoria	61	10
Victoria	61 21	10
Victoria. Waterloo. Welland	61 21 21	10 10
Victoria. Waterloo. Welland. Wellington. Wentworth	61 21 21 47	10 10 10
Victoria. Waterloo. Welland. Wellington. Wentworth	61 21 21	10 10
Port Arthur. Victoria. Waterloo. Welland. Wellington. Wentworth	61 21 21 47	10 10 10

The programme for the "Royal Five Hundred" was as follows:—

TUESDAY, NOVEMBER 20TH-REGISTRATION DAY

In charge of J. A. Carroll and J. E. Whitelock, Assistant Directors, Agricultural Representative Branch.

Members of the party will be lodged in the Ford Hotel, corner Bay and Dundas Streets.

Boys will register at the Ford Hotel between the hours of 8.30 a.m. and 6.30 p.m.

6.45 p.m.—Leave Ford Hotel for Hart House.
7.30 p.m.—Dinner, Hart House, University of Toronto, guests of the Ontario Government.
Chairman: Hon. John S. Martin, Minister of Agriculture. Addresses by:

Hon, G. Howard Ferguson, Prime Minister of Ontario.

Hon. Dr. H. J. Cody, Chairman Board of Governors, University of Toronto.

Wednesday, November 21st

7.00 a.m.—Breakfast, Brown's Restaurant, Ford Hotel.

8.20 a.m.—Leave Ford Hotel on special street cars for Union Stock Yards, West Toronto. 9.00 to 12.00 noon—Tours of Union Stock Yards and Packing Plants.

- 12.00 to 1.30 p.m.-Luncheon, guests of the Industrial and Development Council of Canadian Meat Packers.
- 1.45 p.m.—Leave Packing Plants on special street cars for the Massey-Harris Company, Limited, manufacturers of Farm Implements, corner of King Street and Strachan Avenue.

2.15-5.00 p.m.—Tour of plant of the Massey-Harris Company, Limited.

5.15 p.m.—Cafeteria supper—guests of the Massey-Harris Company, Limited.

6.30 p.m.—Group Singing.

7.15 p.m.—Leave for Royal Winter Fair.

- 8.00 p.m.—Guests of the Royal Winter Fair for the Horse Show and Performance in the Coliseum Arena.
- 11.00 p.m.—Leave Royal Winter Fair on special street cars for Ford Hotel.

THURSDAY, NOVEMBER 22ND

7.00 a.m.—Breakfast, Brown's Restaurant, Ford Hotel.

8.15 a.m.—Leave Ford Hotel for tour of Mail Order Departments of the T. Eaton Co., Limited, and the Robert Simpson Company, Limited.

10.00 a.m.—Leave by special street cars for Royal Winter Fair.

10.30 a.m.—Inspection of exhibits and studying the judging of live stock in the Arenas. 11.30 a.m.—Luncheon, Coles Restaurant, Royal Winter Fair.

5.00 p.m.—Assemble outside Main Entrance, Live Stock Building, beside street car loading platform.

5.15 p.m.—Leave Royal Winter Fair by special street cars for the T. Eaton Co., Limited.
5.45 p.m.—Banquet—Guests of the T. Eaton Co., Limited.
8.00 p.m.—Theatre Party, Pantages, 263 Yonge Street. Guests of the T. Eaton Co., Limited.

FRIDAY, NOVEMBER 23RD

7.00 a.m.—Breakfast, Brown's Restaurant, Ford Hotel.

8.00 a.m.—Leave for tour of Parliament Buildings. 9.00 a.m.—Taking of group photograph.

9.15 a.m.—Leave Parliament Buildings by motor coaches for a drive around the city as guests of the City of Toronto.

11.15 a.m.—Arrive Royal Winter Fair.

.11.30 a.m.-Luncheon, Coles Restaurant, Royal Winter Fair.

5.00 p.m.—Assemble outside main entrance, Live Stock Building, beside street car loading platform.
5.15 p.m.—Leave Royal Fair by special street cars for the Robert Simpson Company, Limited.

6.00 p.m.—Banquet—Guests of the Robert Simpson Company, Limited.

SATURDAY, NOVEMBER 24TH

7.00 a.m.—Breakfast, Brown's Restaurant, Ford Hotel. The party will disband.

It was a tired party of four hundred and seventy boys who wound up their three day trip to Toronto on Friday, November 23rd, tired but happy, for the itinerary proved to be an unfailing source of hitherto unknown delightful features.

In addition to having the opportunity of spending a portion of each day at the wonderful Royal Agricultural Winter Fair, the City of Toronto, large industries and other organizations and individuals vied with one another in entertaining the party.

In order to encourage keen observation every boy was urged to participate in an essay contest. The essay was to deal with the features of the trip which most impressed the writer and was to be submitted shortly after the conclusion of the trip. In each County and District book prizes were awarded to the writers of the three best essays. The winning essay from each of the fifty-one Counties and Districts then competed for the ten Provincial awards, each consisting of a two weeks' short course at either the Ontario Agricultural College or Kemptville Agricultural School, with transportation, board and lodging defrayed by the Ontario Department of Agriculture. The names of the winners are as follows:

County	Name and Address of Winner
Lambton	.Frank A. Edwards, Watford, R.R. 4.
Simcoe North	. Mervyn Galbraith, Stayner, R.R. 3.
Vork	Earle Scott, King.
Bruce	.A. L. C. McKinnon, Tiverton, R.R. 3.
Middlesex	. Cameron McTaggart, Glencoe, R.R. 4.
Manitoulin	. Wm. T. McCullough, Tehkummah.
Wellington	. Harold Pridham, Harriston, R.R. 2.
Oxford	. Alex. Muir, Woodstock, R.R. 3.
Northumberland	Percy Honey, Dartford.
Lanark	.W. E. Park, Carleton Place, R.R. 1.

Altogether two hundred and forty-four essays were submitted and if their observations and comments may be used as a criterion, the boys obtained a new vision of city life, new ideas and inspiration for the improvement of their own industry and went home with greater respect for the farm and a more kindly feeling manifested towards urban dwellers. All of these are depicted in the essay submitted by Frank Edwards, of Watford, Lambton County:—

OUR ROYAL WINTER FAIR TRIP

"Truly it had been a hectic day! Each and every one of fifty young men had been striving with all their intelligence in judging contests—contests which were to decide the participants in 'that trip to the Royal.'

As I waited for the results I thought over the events of the day, and I concluded that each one of us had been amply repaid for loss of time that day. Never before had the differences in seeds been appreciated until one had seen good, bad and indifferent all lined up together.

When our County Representative came in and announced my name among the winners, you may imagine my delight. I might say I would have made a *real celebration* if I could then have foreseen the trip.

Any government is far-seeing that undertakes an educational scheme of this type. From it we have caught a new vision. It has given us new energy. And now we are going to show the Government that the expenditure is justified.

Our time was always taken up. No sooner had we registered on Tuesday than it was time to parade to Hart House for the Government banquet. We could hardly be complimented, for instance, on keeping step, but we did make a rather formidable half-mile line-up of jocular fellows. And you should have heard the yells we gave at those banquets. We five hundred huskies could drown the roar of Niagara, I'll wager. And the songs! Don't inquire about the musical part of it. The spirit was there and that's what counted.

On arriving at Hart House we sat down to an appetizing banquet, after each had an introduction to the Premier and Hon. Mr. Martin. The feature of the evening was Mr. Ferguson's talk, which might be entitled, 'Our Duty as Citizens.' In it he showed how it is not only our duty, but to our advantage to aid in everything which is for the general benefit of the community in which we live. He gave us a new angle on citizenship and most of us will remember for a long time the Premier's inspiring message.

Next day we went through the abattoirs. It was an 'eye-opener.' After watching the different processes, I overheard one boy exclaim, 'Me for the farm.'

The impressive feature, perhaps, was the cold storage rooms. In the dressed carcasses one could clearly discern those of quality from those of inferior quality. It gave us the lesson that a quality carcass must necessarily come from a well-finished animal. The better finished steer makes better cuts, brings a better price to the farmer, packer and retailer, and most important

of all, it makes better satisfied customers. In a nut-shell it is co-operation, which is a slogan of the Meat Packers' Association, whose guests we were at luncheon.

Space will not permit of an elongated account of other commercial organizations visited. At the Massey-Harris Company the moulding and drop-forging departments were spectacular. And the simple ways nuts and bolts were turned out of automatic machines made one fear for over-production.

At Simpson's and Eaton's we saw what organization can do. We appreciated the courtesy of these firms in showing us 'inside stuff.' It rounded out our knowledge by giving us an idea of how the other half of the world lives. It brought home the interdependence that exists between country and city.

Each of these firms generously served us a banquet and provided diversified entertainment.

Worthy of special mention is one address given at Eaton's banquet—it was the address of Dr. Christie, President of the O.A.C. He pointed out that real prosperity on the farm depended on individual application of present-day scientific knowledge. He summarized his talk with the following challenging quotation:

'To each is given a bag of tools, A shapeless mass, and a book of rules, And each must build e'er life has flown A stumbling-block or a stepping-stone.'

And now we come to the Royal itself—the farm under roof with acres of cattle, countless flowers, miles of poultry and many other attractions.

It is rumoured by some that many of us regarded this trip as merely a chance to have a good time. These people must never have seen the 'Royal.' We did have a good time, but we got something else; an inspiration to excel in our work. In the next dictionary the 'Royal' will mean the 'Best.'

One can see yet the almost perfect outline and feel the excellent fleshing of that low-set Aberdeen Angus steer which proved Grand Champion.

And the Horse Show! Once seen, never forgotten is the brilliant drill of the Royal Dragoons with its pleasing lighting effect. How graceful were the light-footed jumping horses! And how interesting it was to watch a lady guide the "white horse" which performed many intelligent feats.

Hours could be spent looking at the poultry. And still more hours could be spent looking at modern farm machinery. An inspection of it might save you backaches with a profit in years to come.

And the flower show must be included! Banks upon banks of multi-coloured flowers, beautiful sprays of roses, majestic ferns, made an atmosphere perfumed without an atomizer; a miniature paradise!

Now, after four busy days we were tired and ready for home.

We enjoyed our trip. We even enjoyed the flattery and blarney handed out by many afterdinner speakers. Even in a packing plant one cute fair thing said: 'Where do all you nice-looking boys come from?' That is worth remembering!

But you did not fool us, Mr. City Dweller. We saw both the bright and dark sides of city life. We saw you working in clammy abattoirs, in grimy foundries, and in stuffy offices. During the trip we broadened both our knowledge of Agriculture and our knowledge of city life. We have new ideals now which will give us an impetus for our farm work.

And so we are glad to leave you, Mr. City Dweller—you with your ceaseless noise, your smoky dirt, and your nervous tension. We have gone back to the old farm, out to the fresh air, out where Heaven begins—the Country."

Free Short Courses donated by The Robert Simpson Company, Limited.

Still another feature of the trip was the award of two weeks' short courses to twenty members of the party by the Ropert Simpson Company, Limited.

The Ontario Department of Agriculture was requested to select the young men and an examination paper, based on the trip, was prepared. Two hundred and twenty-one young men tried the examination which was held in the different counties and districts under the supervision of the Agricultural Representatives. In making the final awards the Province was divided into zones to ensure all parts of Ontario being represented.

The fortunate young men, together with the name of the institution they will attend are as follows:—

THE ROBERT SIMPSON COMPANY, LIMITED, AWARDS COURSES AT O.A.C., GUELPH

County Name and Address.	
MiddlesexGeo. Munro, Glanworth.	
Huron G. Reynolds, Seaforth.	
KentGeo. L. Spence, Northwood.	
Norfolk	
Welland Evan Nugent, Welland Junction.	
York	
HaltonStewart Miller, Georgetown.	
Waterloo	
Durham Emery Smith, Cavan, R.R. 1.	
Rainy River	
Algoma	
Parry Sound	
Ontario	
Temiskaming	

COURSES AT KEMPTVILLE

Prince Edward	John Black, Belleville, R.R. 7.
Leeds	Claude McRadey, Lansdowne, R.R. 3.
Renfrew	Harold Gallagher, Douglas.
Prescott and Russell	Leslie H. Cross, L'Orignal.
Peterborough	Gordon Hancock, Peterborough, R.R. 2.
Carleton	W. Raymond Wilson, Kenmore.

Month's Courses in Agriculture and Home Economics.

With the realization that education is an essential factor in successful farming and home-making, rural young people are availing themselves more and more of the opportunity presented through the short courses in Agriculture and Household Science. In 1928, thirty-one month courses and four five-week courses in agriculture were held. The total enrolment was 1,280 with an average of 36.5 per course. In addition to this two three-weeks' courses and eight two-weeks' courses were held with an enrolment of 292 students.

In Home Economics four week's courses were held in thirty counties. The total enrolment was 1.085 with an average of thirty-five per course. In Northern Ontario eleven special two-weeks' courses in Home Economics were held with an average enrolment of 21.5 which embraced a study of foods and cookery, home nursing, sewing and millinery run concurrently with the courses in Agriculture.

The success of these courses depends to a large extent on the interest and support of the local people. That this is being received is indicated by the attendance. In this regard the comment of the Agricultural Representative for Huron County is of interest:

"The whole-hearted way in which the people of Seaforth backed the courses was a very pleasing feature. These were, perhaps, the best courses ever held in the county and the after effects in the form of strong Junior organizations are encouraging."

Three Months' Courses in Agriculture and Home Economics.

Six schools of this type were held in the Province. The three-months' courses not only permit a much more comprehensive study of the technical subjects, but also permit the inclusion of such subjects as music and more time for the study of mathematics, public speaking, English grammar and literature.

The points at which three months' schools were held, together with the attendance at each, are as follows:—

		Agric	ulture	Home Economics		
County	Place	Number on roll	Average attendance	Number on roll	Average attendance	
Bruce. Haldimand. Hastings. Lincoln. Waterloo. Wentworth.	JarvisTrentonBeamsvilleNew Hamburg	56 23 60	26 35 15 39 29 29	56 78 25 42 42 33	24 54 15 25 28 27	
		290 48	173 29	276 46	149 25	

At the conclusion of many of these courses the students and other young people of the community formed Junior Farmer and Junior Institute organizations with the idea of having their community represented in the activities of the county Junior programme.

The lecturers and demonstrators for all household science subjects were supplied by the Institutes Branch of the Ontario Department of Agriculture.

Special Swine Courses at Packing Plants.

In co-operation with the Canadian Swine Breeders' Association, the Industrial and Development Council of Canadian Meat Packers and the Provincial and Federal Live Stock Branches, three such courses were held in 1928.

At these courses the lecturers and demonstrators link up the market demands, illustrated by the suitable carcass with the type of live hog required to produce that carcass.

The comment of the Agricultural Representative for Lanark County on these courses is of interest:—

"These courses have done much to smooth out the rough places between the farmers and the packer. There seems to have been a strong feeling of suspicion among the farmers that the packers were getting the big end of the stock, but after these trips the boys are much more liberal in their views and can see that there are faults on both sides. These courses, too, are putting the bacon hog in a much better light with many of the farmers who feel that they cost more to produce and are not of any more value when produced. The demonstrations prove beyond doubt the superior value of the bacon type over the nondescript hog."

The courses held in 1928 were as follows:

Place	Date	Counties included	Attend- ance
Toronto	Feb. 13, 14, 15	Hastings, Prince Edward, Northumberland, Peterborough, Victoria, Durham, Ontario, York, Peel, Halton, Dufferin, Simcoe North, Simcoe South, Muskoka and Parry Sound Grey, Norfolk, Brant, Haldimand, Welland, Lincoln, Wentworth, Bruce, Huron, Middlesex, Oxford, Wellington, Perth, Waterloo Renfrew, Carleton, Lanark, Leeds, Prescott and	62 84
		Russell, Glengarry, Dundas, Grenville, Frontenac, Lennox and Addington	55
		Total	201

Special Farm Mechanics Courses.

In response to public demand eighteen special one-week courses in Farm Mechanics were inaugurated in 1928. The course of study included lectures and demonstrations in rope splicing, paints, tools, farm implements, concrete, soldering, electricity on the farm, gas engines, tractors and rural sanitation.

The courses were particularly well received and much appreciated at all

points. Courses with the attendance at each were held as follows:

County	Place	Enrolment	Average attendance
Durham Essex Elgin Grey Halton Huron Kent Lambton Lanark Middlesex Northumberland Ontario Peel Prescott and Russell	Orangeville Orono Amherstburg St. Thomas Owen Sound Acton Seaforth Morpeth Petrolia Perth Delaware Warkworth Beaverton Cheltenham Plantagenet Elmvale	23 65 20 60 40 23 42 31 30 6 48 50 60 75	17 50 18 56 22 15 35 25 27 6 35 31 36 55 40
Victoria	Woodville. Fenwick.	50 44 777	38 44 604

CONFERENCES

The twenty-first Annual Conference was held at the Ontario Agricultural College, Guelph, June 25, 26, 27 and 28 inclusive. This annual event continues to add much to the efficiency of the service. Problems encountered during the past year and new projects to be undertaken are considered both in special committees and in open conference.

In order to consider problems confined to counties in special areas, one-day zone conferences were also held as follows: North Bay, March 1st, 1928; Kemptville, April 24th; Brighton, April 25th; Hamilton, April 27th; St. Thomas, May 2nd; Arthur, May 4th.

HOME DEMONSTRATION WORK, PEEL COUNTY

The extent to which the services of the Home Demonstrator are in demand by the women and girls of the county of Peel is partially depicted in the following statistics:—

1	928
Office callers	992
Telephone calls (incoming)	
Letters received (approximately)	
Letters sent	167
Circular letters sent	.007
Bulletins given out	538
Meetings addressed	105
Attendance	
Special Short Courses	

Schools visited	42
Rural Home Visits	
News Articles written	
New organizations	
Half-days in office	
Miles travelled by car	6,300

That the various women's organizations in all parts of the county are availing themselves of the Home Demonstrator's services is still more clearly shown in the following list of meetings addressed during the past year:—

	25
Nov. 1/27 Belfountain Women's Institute Foods and nutrition	
Nov. 2 Erindale Women's Institute. Foods and nutrition	22
Nov. 8 Malton Women's Institute. Foods and nutrition	40
Nov. 9 Cheltenham Women's Institute. Foods and nutrition	30
Nov. 10 Snelgrove Women's Institute. Foods and nutrition	36
Nov. 15 Toronto	700
Nov. 18 Streetsville Women's Institute. Nutrition	15
Nov. 25 Office	15
Dec. 6 Inglewood Women's Institute. Nutrition	24
Dec. 7 Erindale Women's Institute. Nutrition	23
Dec. 8 Snelgrove Women's Institute Nutrition	35
Dec. 9 Streetsville Women's Institute. Nutrition	21
Dec. 13 Malton	55
Dec. 14 Chertenham Women's Institute. Nutrition. Dec. 15 Toronto. Social service. Committee.	14 10
Dec. 19 Elmbank Short Course Community meeting	40
Jan. 27/28 County Brampton and Tulla	40
moreJuniors	115
Feb. 3 Brampton Trinity Short Course Closing Exercises	300
Feb. 7 Clarkson Women's Institute. Judging Cake Contest	52
Feb. 9 Port Credit Women's Institute Foods	95
Feb. 8 Snelgrove Women's Institute Eggs	35
Feb. 10 Mt. Pleasant Young People's Soc. Judging debate	200
Feb. 16 Cooksville J.I. and J.F.A Debates	75
Feb. 18 Court House Central School Fair. Meeting—Prize list	7
Feb. 20 Brampton C.G.I.Ţ Home Economics	14
Feb. 27 Brampton St. Pauls Y.P.S Debate	47
Feb. 28 Brampton C.G.I.T Home Economics	18
Mar. 1 Woodhill	50
Mar. 5 Brampton C.G.I.T Home Economics	15
Mar. 7 Erindale Women's Institutes. Nutrition	50
Mar. 8 Snelgrove Women's Institutes. Nutrition	39
Mar. 13 Toronto C.N.E. Committee Programmes	5 42
	8
Mar. 15 Toronto Social Service Com. Literature	30
Mar. 20 Office	17
Mar. 21 Brampton Brampton Choral	
Club Musical Festival	75
Mar. 21 Cheltenham Women's Institute. Nutrition	22
Mar. 22 Snelgrove Women's Institute. Nutrition	24
Mar. 22 County Trinity Juniors Activities	100
Mar. 27 Brampton Young People's Soc. Homecraft	65
Mar. 23 Streetsville J. J. and J. F. A Debate	75
Mar. 30 Meadowvale Women's Institute. Soups	30
Mar. 30 Elmbank Trinity Juniors Executive	6
Apr. 3 Woodbridge Junior Institute Poultry	24 37
Apr. 4 Erindale Women's Institute Nutrition	
Apr. 5 Toronto Committee meeting. Coaching work	14 17
Apr. 11 Cheltenham Women's Institute. Milk Lesson Apr. 12 Office Choral Committee . Music Festival	8
Apr. 12 Office	22
Apr. 19 Meadowvale Women's Institute. Soups	$\frac{22}{24}$
Apr. 24 Tullamore Junior Institute Public speaking	25
Apr. 28 Victoria Square. Junior Institute. Poultry raising.	30

Date	Place	Nature	Subject	Attendance	
May 2	Erindale	Woman's Institute	Nutrition	27	
May 2 May 4	Belfountain	Women's Institute.		37	
May 9	Cheltenham	Women's Institute.		39	
May 4			Final Debate	50	
May 10	Guelph		Discussion Group	75	
Aay 11	Guelph		Living Rooms	75	
May 11	Guelph		Income Earning	250	
May 12			Public Speaking	250	
May 14	Streetsville	II and IF A	Annual Meeting	30	
lay 15	Guelph	Committee Meeting	Annual Meeting	17	
May 22	Lorne Park		Executive	4	
May 23	Brampton	Choral Club	Concert	36	
May 28	Bantist Ch	Peel W I	Annual Meeting	155	
1ay 30	Brampton	Junior Institute	Home Economics	60	
1ay 30	Streetsville	Choral Club Concert	Closing Exercises	75	
une 2			Individual entries	75	
une 2	Brampton	Musical Festival	General programme	400	
une 9	Ferndale	Field Day	Sports	300	
une 12	Bolton	Junior Institute	Choral work	65	
une 29	Port Credit	Peel S M I Com	Annual Report	10	
une 30			Programme	125	
lug. 10	Toronto	Committee	C.N.E	5	
ug. 14	Office	I I	Ludging practice	16	
lug. 15	Claremont	District W I	Judging practice	70	
lug. 16	Office	County Team	Judging	3	
lug. 17			Results	55	
lug. 20			Practice	8	
lug. 21	Caledon	Indaina	Practice	6	
lug. 21	Choltonham	Indaina	Practice	3	
lug. 24	Office	County Team	Practice	3 3	
lug. 27	Cheltenham	Ludging	Practice	16	
Aug. 28	Office	Ludging Practice	County Team	3	
ept. 5	Toronto	C N F judging	Order	200	
Sept. 6	Toronto	CNE WI tent	Charge	300	
ept. 7	Toronto	Women's Press Club	Home Demonstration	75	
ept.11			First Aid	150	
ept. 12	Inglewood	School Fair	First Aid	100	
ept. 13	Bolton	School Fair	First Aid	75	
ept. 14	Cooksville		First Aid, School Nurse		
ept. 20	Caledon		First Aid	100	
ept.21			First Aid	250	
ept. 24	Office	County I I	Executive	16	
ept. 28	Port Credit	Community Fair	Nutrition	500	
ct. 12	Caledon E	Women's Institute	Canadian poets	30	
ct. 12	Dixie		Interior Decorating	35	
ct. 15		Peel W.L. Exec	Health Campaign	19	
ct. 16			Judging practice	7	
ct. 17			Judging practice	5	
ct. 20	Streetsville	Junior Institute	Judging practice	14	
ct. 20	Brampton	Junior Institute	Judging practice	24	
ct. 24	Cheltenham	Junior Institute	Judging practice	12	
oct. 24	Brampton	Judging competition	Banquet results	125	
Ct. 21	Brampton,	Jaasing competition	Danque resures,		

Total Meetings. 105
Total attendance. 7,297

Included in the above list are seven special courses in Nutrition to as many different organizations. Each of these courses consisted of six lectures and demonstrations. An average attendance of over thirty-one for each of the forty-two classes speaks well for the interest and contacts gained. Two other special courses in Handicrafts with a total of five lectures at the end of the fiscal year are also included.

Junior Institutes.

The fame of Peel Junior Institutes has travelled to all parts of the Province. The credit for the success of these organizations can largely be given to the Home Demonstrator who has served as the organizer and inspirer of the local leaders. At a number of women's and girl's conventions and meetings held during the past year members of the Peel Junior Institute gave demonstrations and addresses on some of their varied activities.

The following table taken from the report of the Home Demonstrator gives a summarized report of the activities of the branch Junior Institutes:—

SUMMARIZED REPORT

Group	Member- ship paid up	Meetings	Addresses	Attend- ance	Receipts	Expendi- tures
County Brampton Bolton Caledon Caledon E Clarkson Trinity Tullamore Streetsville	43 30 28 25 20 44	5 11 6 11 10 7 2 11 4	10 17 13 11 5 2 33 8	481 387 350 160 253 105 165 211 120	\$361 00 348 39 104 23 85 58 42 69 270 38 73 37 80 88 49 67	\$314 41 235 64 44 65 69 78 29 80 190 27 20 02 46 20 40 14

The activities of the county organization will be reflected to some extent by the following list of activities and approximate attendance at each:—

COUNTY ACTIVITIES

Musical festival	00
Girls' public speaking contest	75
Field Day	20
County Judging Contest	
Banquet (judging) (girls)	
Girls' judging, C.N.E.	36
Girls' Garden Club.	
Debating Series with J.F.A	00
Demonstration Tent at Fall Fair	

Special mention should be made of the choral work for whose organization the Home Demonstrator was largely responsible. In this regard the following extract from the Home Demonstrator's annual report is of interest:—

"The Musical Festival was held on the first Saturday in June. At the afternoon session there were fourteen entries in soprano, tenor and bass classes. The evening session brought a capacity house (400) to hear the concert programme given by winners and the violin and choral competitions. Entries were made from Bramptôn, Caledon, Churchville, Cooksville, Huttonville, Norval, Terra Cotta and Tullamore."

GIRLS' GARDEN AND CANNING CLUB

This competition supervised by the Home Demonstrator brought out thirty competitors. Twenty-two girls carried the project through to completion both in regard to the garden, the necessary canning and the exhibits at the county fair.

The awards were based 80 per cent. on garden score and 20 per cent. on canning. The following young ladies receive a two-weeks' short course at Macdonald Institute with transportation, board and lodging defrayed by the Ontario Department of Agriculture:—

Name	Address	Garden Score		Canning Score		Total	
Wilma Boucher	Brampton, R.R. 4	94 93 90 88 89	75.2 74.4 72 70.4 71.2	90 90 100 98 90	% 18 18 20 19.6	93.2 92.4 92 90 89.2	

In addition to the activities already mentioned, the Home Demonstrator assisted with the regular five weeks' course in Home Economics; took charge of the County Household Science Judging Competition which attracted seventy-nine entries; assisted with school fairs and other junior projects.

CO-OPERATION AND MARKETS BRANCH

Co-Operative Organizations

Previous reports of this branch have shown that co-operative organizations among farmers are more widely prevailent than is generally supposed. An endeayour has been made to ascertain the approximate amount of co-operative business in the Province, but this has been found difficult due to the lack of compulsory requirements for return. Indications of the general situation, however, are suggested from the voluntary returns of a number of the co-operative companies. Eliminating the few large concerns, fifty-six firms report a total membership or shareholders of 8,500 or an average of 152 shareholders. Fortynine companies have a total paid up capital of \$256,400, or an average of \$5,230. Forty-two of these smaller companies report a total turnover of \$2,610,244, or an average of \$62.148. The business of these companies ranges all the way from a few hundred dollars to \$250,000 per company. Adding to the above figures the returns of the larger companies, such as the United Farmers' Co-Operative, Ltd., with its 20,000 shareholders and over \$20,000,000 turnover. The Canadian Co-operative Wool Growers handling wool for 4,000 Ontario sheep men; The Ontrio Honey Producers with business amounting to \$590,000; The United Dairymen Co-operative Limited, handling over \$3,500,000 worth of cheese, it is seen that the co-operative business of the Province is impressive. The business of the above firms alone totals over \$26,500,000. The fifty or so small firms reporting as above are only about one-fourth of the number of such co-operatives in the Province, and in addition there is a large number of unincorporated farmers' organizations selling various farm products, buying supplies and carrying on numerous business activities. About one-third of the live stock marketed in the Province is shipped co-operatively. It might be conservatively estimated, therefore, that at least \$50,000,000 of farmers co-operative business in marketing farm produce and in buying supplies is carried on annually in the Province.

As is true with other types of business, not all co-operative companies are successful. One important failure is to be noticed this year. The Canadian Tobacco Growers Co-operative, Ltd., organized in 1920, ceased operations in 1928. Co-operative marketing of tobacco is admittedly a difficult undertaking for growers, due to several factors, chief of which might be mentioned the large amount of capital required. An exceptionally large crop the first year of operation of the company created difficulties which were hard to overcome; a poor quality crop a year ago increased the financial difficulties which eventually forced an assignment. It should be stated, however, that as a result of the operations of the company, the general marketing conditions of Ontario tobacco are greatly improved over those of 1920 and previous years. Many of the growers, both members and non-members of the company, realize benefits of a growers' organization. The company is to be credited with opening the British market for Canadian raw leaf. Previous to 1920, Canada exported only 223,595 lbs. of unmanufactured tobacco, while in 1928 our exports amounted to 6.079,606 lbs.

During the year, the following co-operatives have been incorporated under the Ontario Companies Act:—

Co-operative Trading Association of Sudbury, Ltd., Sudbury. Markdale Farmers' Co-operative, Ltd., Markdale. Ontario Onion Growers' Co-operative, Ltd., Chatham. The Union Co-operative Store of Ansonville, Ltd., Ansonville.

Chatham Co-operative Credits, Ltd., Chatham.

The Ruthven Growers' Co-operative Association, Ltd., Ruthven.

South Essex Growers' Co-operative Exchange, Leamington.

Denfield Co-operative Garage and Electric Co., Ltd., Denfield.

Harrow Fruit and Vegetable Co-operative, Ltd., Harrow.

St. Catharines Co-operative Egg Grading Station, Ltd., St. Catharines.

Exhibitors Co-operative, Ltd., 314 Yonge Street, Toronto.

Burgessville Fruit Growers' Co-operative, Ltd., Burgessville. Norfolk Tobacco Growers' Co-operative Co., Ltd., Tillsonburg.

The latest commodity co-operative marketing organization, the Ontario Onion Growers' Co-operative, Ltd., marketing onions from the three commercial districts of Leamington, Erieau, and Jeannette's Creek, apparently has had a successful year.

THE BRITISH MARKET

The Department took advantage of the farmers' marketing tour to Great Britain and Denmark, organized by the Canadian National Railways. Two representatives of the Ontario Department accompanied the party, and a report of their findings has already been published in a bulletin entitled "Ontario Commodities on the British Market, 1928." Details may be found in that publication and it is here only necessary to refer to one or two facts in regard to this important market for Ontario products.

The two outstanding requirements of this market in regard to all commodities are:—

(1) Quality.(2) Tonnage.

As far as Ontario is concerned, the British market certainly is not a dumping market. The choice of the world's products find their way to this market, and low grade goods from any source stand out as extremely undesirable. Not only is the shipping of low grade likely to result in a loss, but such products colour the reputation of our shipments and demoralize the market for our high class products. Generally speaking, the various commodities which we ship to this market are well received on account of their quality, but extreme care should be exercised by our exporters to maintain a high standard if the market is to be retained.

Of equal importance is the necessity of maintaining the volume of our shipments. Without actually seeing the various important markets over the country, one has difficulty in realizing the magnitude of the consuming power of the British Isles. Food must flow and flow continuously to satisfy its forty-eight million people. The whole machinery of distribution is geared to large and continuous supplies. Trade connections are little disturbed by small and intermittent shipments of any of our products, even if the quality be superior. In considering the British market, therefore a balanced programme of quality and quantity of our exportable farm products is essential.

COMMUNITY HALLS

The establishment of community halls and athletic fields in the rural parts of the Province is assisted through a government grant in conformity with the Community Halls Act of 1920. The number of these establishments in the Province and their usefulness continues to increase from year to year. Each

separate project is inspected and approved by an officer of this branch. Such visits give an opportunity of supplying communities about to undertake the erection of a community hall, the benefit of the experience of other communities where such halls have been established. In all cases a rather high standard is required, and some rural communities are now provided with social centres of great value to the surrounding countryside. To illustrate the wide use made of these halls, and to indicate the part they play in the rural life of the Province, the following list of kinds of meetings held is appended:—Community concerts; church concerts; community dramatic shows; travelling troupe concerts; travelling company dramatic shows; motion picture shows; school fairs; poultry shows; horticultural shows; dances, card parties and similar social affairs; fraternal social banquets; community banquets; sewing circles; agricultural short courses and domestic science courses; teachers' conventions; helping hand club; farmers and other clubs; junior farmers; Junior Institute; Women's Institute meetings, both educational and social; I.O.D.E. meetings; church services, church societies such as mission circle and Epworth League; municipal officers' meetings; political meetings; ratepayers' association meetings; athletic meetings; agricultural meetings and lectures; board of trade; Ploughmen's Associations; Vegetable and Horticultural Society meetings; municipal telephone meetings; literary societies; debates; scout troops and bazaars.

Grants have been paid toward community halls and athletic fields during the year as follows:—

Name	Place	Total cost	Grant
Cheapside Community Hall. Stouffville Community Athletic Field. Waldhof Community Hall. Port Stanley Community Hall. Stirling Community Service Building. North Gwillimbury Twp. Community Hall. Gore Bay Community Hall. Brownsville Community Athletic Field. Lobo Continuation School and Community Hall. Erindale Community Hall.	Stouffville	\$3,142 97 5,585 16 6,117 98 9,868 00 13,485 75 8,800 00 15,327 85 4,383 88 6,548 00 8,013 00	\$785 75 1,396 29 1,529 50 2,000 00 2,000 00 2,000 00 1,095 97 1,637 00 2,000 00

WEED CONTROL ACT

A weed control act has been in the Statute books of the Province for over thirty years. This Act provided that a municipality "may appoint weed inspectors," with the general result that the Act was of practically no benefit in controlling the weed menace. The prevalence of many serious weeds and the economic loss therefrom continued to grow, until some definite action became imperative. The original Act was therefore altered a year ago in the following particulars:—

- 1. The appointment of a Weed Inspector or inspectors was made compulsory in every municipality (city, town, village and township) in the Province.
- 2. The Minister of Agriculture was empowered to appoint and fix the remuneration of an inspector in any municipality failing to appoint; such remuneration to be paid by the municipality.
 - 3. The list of noxious weeds was amended.

- 4. The duty of cutting weeds on roads was placed directly on the road authority, the penalty of non-compliance being the withholding of the road grant from the municipality.
 - 5. Suitable regulations for the better enforcement of the Act were adopted.

Due to the lateness of the season when the amendment came into force, during the first year of the amended Act, no definite action was taken by the government. In the spring of 1928, however, the director of this branch was named to administer the Act and definite steps were taken to acquaint all concerned with the provisions of the Act and its enforcement. The first year's work has been largely one of education, and of enlisting the co-operation of the municipal authorities, weed inspectors, and property owners. In this connection, the following are some of the steps taken:—

- 1. A letter from the Minister went to all municipalities in the Province calling attention to the Act and its requirements, so that no municipality was without full knowledge that the appointment of an inspector was compulsory.
- 2. A series of meetings for the weed inspectors and councillors was held over Old Ontario, arranged in such a way that every weed inspector could attend. At these meetings the Act and regulations and their interpretation were fully discussed and explained. Many special problems of weed inspectors were brought up and a clear understanding arrived at as to enforcing the regulations. Another important phase of these meetings was a full discussion of the weeds named in the Act and methods of control. These meetings brought excellent results, and it is suggested that municipalities require that their weed inspectors attend such meetings in the future.
- 3. The Provincial Highways Department was requested to ask its road engineers over the Province to give particular attention to the cutting of weeds. Other public bodies, such as the railroads and T. & N.O. Commission, also cooperated fully.
- 4. During the season all county and township councils were again notified as to the cutting of weeds on highways.
- 5. Various methods of publicity were used in all sections of the Province to arouse the interest and co-operation of all concerned. These included articles in the local papers by agricultural representatives, editorials, public notices by municipal authorities, weed inspectors' notices, broadcasts on the radio and special weed meetings.
- 6. The provincial officer, in travelling over the Province during the summer, came in personal contact with weed inspectors, reeves and clerks of municipalities, road supervisors, and other officials having some interest in the problem. Through correspondence, also, special problems were met.

The results of the first years' work are very encouraging, and indicate that a real effort is being made to control the situation. It is clearly evident that more weed cutting was practiced in 1928 than for many years previous. An encouraging feature is the fact that from many sources come the request for a more strict enforcement of the Act. More especially in the sow thistle areas, real and well-founded concern is evident in the extensive campaigns being planned against this weed.

The inspectors were requested this year to pay particular attention to (a) fence lines, fence corners, and other waste places, and (b) roadsides. With

regard to the first, we find the inspectors had very little trouble, owners of property generally being very willing to clean up. In many of the towns and villages vacant lots are a weed menace to surrounding farm lands and though these have not been kept as clean as could be desired, yet some municipalities have spent considerable sums in cutting vacant lots and waste places. It is anticipated that the improvement in this regard will be very marked in future.

As to the roads, the results may be summed up as follows:—The provincial roads generally were well kept; the county roads were kept in fair shape; and

the township roads varied all the way from no action to excellent work.

On many roads the cost of cutting weeds is high due to rough, stony and generally dirty roadsides. Reports show that when such roadsides are cleaned up and kept cut for two or three years, the cost of keeping the roadsides clean is brought within a very reasonable amount. The inspectors have been requested to require the road authorities to do a reasonable amount of cleaning up on such roads each year, so that in a few years the Province may be free of this too prevalent source for the spread of weeds.

The results of the enforcement of the Act this year have brought home to the municipalities the necessity of definite and constructive action. A number of municipalities were found making some show of living up to the letter of the law, but were somewhat lax in real accomplishment. It is evident, however, that the educational work carried on has laid the foundation for a more strict compliance with the provisions of the Act, and that the marked improvement shown this year will continue.

AGRICULTURAL DEVELOPMENT BOARD

Another satisfactory year may be reported on behalf of the Agricultural Development Board regarding long and short term loans to farmers. The following comparative statement indicates the steady increase in the volume of loans made by the Board.

	Number of applications passed	Amount of loans passed	Value of security	Number of loans paid out	Amount paid out		
1922 1923 1924 1925 1926 1927 1928	458 953 990 892 1,119 1,275 1,567	\$2,040,605 00 3,729,350 00 3,582,150 00 3,246,680 00 4,028,300 00 5,043,995 00 5,670,025 00	\$4,693,304 00 8,685,166 00 7,871,026 25 7,197,300 00 9,089,008 57 11,298,263 50 13,903,576 17	334 776 819 701 831 1,001	\$1,188,000 00 3,000,000 00 3,200,000 00 2,700,000 00 3,200,000 00 4,100,000 00 5,000,000 00		

The fact that money has been made available to farmers for mortgage purposes at $5\frac{1}{2}$ per cent. has been increasingly appreciated, as reflected in the number of loans applied for, and this results in a great saving to the farmers all over the Province.

Satisfactory collections have been maintained. Less than 1.5 per cent. of payments due for more than a year were outstanding at the close of the last fiscal year, and payments due within the year are being well taken care of, serious losses have been avoided in disposing of the new farms which came into the possession of the Board. The Board has followed the practice of paying over to the borrower or creditors every surplus secured through the sale of any property.

SHORT TERM LOANS

No new associations have been formed. In these associations no new loans were made to six of the associations. During the year principal to the extent of \$37,848.50 was repaid by borrowers of the various associations. In addition to payment of most of the interest, new loans were issued to the total of \$34,775. The total amount of loans outstanding was \$144,393.33 as compared with \$147,466.83 a year ago.

The Board have again submitted a very satisfactory financial statement for the year, the operating surplus for the year being \$109,617.59. The Board has repaid the Provincial Treasurer revenue in excess of all moneys expended since the date of its inception, and at the same time having increased its surplus account from \$113,176.72 to \$193,289.15. It is advisable to build up the surplus account of the Board as the volume of its business increases.

KEMPTVILLE AGRICULTURAL SCHOOL

The Kemptville Agricultural School had its most successful year during the 1927-28 season. The student attendance was greater than in any previous year; the interest in the school farm was maintained; while the increased interest in the institution was manifest in the inquiries of Eastern Ontario farmers and the increased requests for assistance from our staff at public meetings throughout the territory served by the school.

The attendance in the regular classes was as follows:-

Agriculture—Senior Year. Junior Year. Domestic Science.	18 27 17
The attendance at the short courses was as follows:—	
Agriculture	50 45

As in former years, the school was privileged to entertain a number of of organizations and groups. The following paid visits during the past year:—

Name of Ogranization	nber in attendance
Girls' Conference	 85
Junior Farmers' Conference	 50
Junior Farmers' Field Day	
Eastern Ontario Trustees and Ratepayers	 150
Teachers' Association	
Annual Reunion ex-students	 200
Grenville County Community Club	 200

During the year an addition, sufficient to accommodate thirty-two agricultural students, was added to our students' residence. A house located on the campus was altered and remodelled for a member of the staff, while a new dairy barn was erected. Considerable work has been done during the past year in

improving the addition which is being made to the campus.

During the past year, Mr. E. K. Hampson resigned to accept a position with a prominent commercial concern. His work here in field husbandry was greatly appreciated. His place, however, has been now filled by Mr. H. W. Graham, who had formerly been temporarily employed on our staff. The school was also fortunate in securing Mr. G. Collins as instructor in English and economics. There were two resignations from the domestic science staff: Miss M. Thompson, instructor in cooking, who is taking post-graduate work in New York, and Miss Irene Syme, instructor in home nursing and first aid. Both these positions have been satisfactorily filled, Miss M. Langstaff having charge of cooking and dietetics, and Miss M. Perdue instructing in home nursing, first aid, and physiology.

The school held its first auction sale of live stock in September, disposing of one Ayrshire bull calf, four Holstein bull calves, twenty-two bred sows, five young boars, and seven ram lambs. Another sale will be held next year, but probably nearer spring. A very promising Holstein bull was purchased early in the

year.

FIELD HUSBANDRY

Generally speaking, the farm crops were excellent. Soil fertility is being maintained and weeds kept under control by a crop rotation and also by after-harvest cultivation. Many of our most persistent weeds, such as twitch grass, are being reduced by this method. After-harvest cultivation, if carried on

under favourable conditions of heat and dryness, is proving a most effective means of destruction to weeds, and, at the same time, makes it possible to obtain a remunerative crop the same year. The more general use of this practice is advisable.

Barley yields were high, the school harvesting $8\frac{1}{2}$ acres which made an average yield of $61\frac{1}{2}$ bushels per acre of the O.A.C. No. 21 variety. This is proving an exceptionally good variety. In conjunction with the Botany Department, Ontario Agricultural College, experiments were carried out with different treatments for smut. The hot water treatment proved 100 per cent. effective, while the formalin treatment proved fairly so. This experiment will continue this year.

The oat, potato, and root crops gave very satisfactory yields, especially potatoes. Off 3½ acres, 1,300 bushels were harvested of the Irish Cobbler variety. About half of these potatoes were grown for certified seed and they have successfully passed the field inspection.

Sweet clover, as usual, is giving excellent results, being very economical

from the standpoint of production and cost.

The new seedings of alfalfa and sweet clover were showing an excellent stand after their nurse crops were harvested, and gave at that time every indication of good prospects.

Farmers are making good use of the seed cleaning plant, and the amounts of grain cleaned are comparing very favourably with other years in spite of the fact that the number of plants are increasing.

The amounts cleaned and graded at the school establishment, were as follows:—

Cereals	5,695 bushels
Sweet clover	83 tons
Timothy	40 tons
Other small seeds	68 bushels

Two hundred and sixty-six farmers availed themselves of the service offered. A sufficient charge is imposed to cover the cost of the work.

HORTICULTURE

Instruction in horticulture in connection with the school course consists of lectures and practical instruction in pomology, vegetable gardening, and floriculture.

The winter and spring seasons during which the school is in session, precludes the possibility of giving practical instruction in many important phases of orchard and garden practice. Practical work is carried on as far as possible in the small greenhouse. This green house (30' x 15') met the requirements of the earlier and smaller classes, but present conditions are such that the practical work is seriously handicapped by the condition caused by larger classes of students. A second greenhouse similar to the present one, would permit of better and more extensive practical instruction in horticulture, and, at the same time, very materially benefit the practical work in both botany and entomology, which subjects are, at present, a branch of the work of this department.

The spray service initiated a year ago by the agricultural representative of Grenville County and the horticultural department of the school to supply information to fruit growers of the county, was continued and was appreciated by a number of growers. The great variation in weather conditions at the time of apple blossoming, a repetition of conditions experienced the previous spring,

necessitated the application of an extra spray. A promising display of bloom on all varieties developed in the school orchards. Several warm days when the Wealthy were in full boom changed rapidly to cold and wet weather, and this change probably was the cause of a light set of fruit on the later varieties, including MacIntosh and Fameuse. The Wealthy crop was particularly heavy, which necessitated thinning the fruit on nearly all trees of this variety.

During the year a number of lectures on horticultural subjects were given

at short courses and to several societies and organizations.

The general supervision of the forestry nursery is under this department, and the increasing demand for seedling trees for the purposes of reforestation indicates that means must be taken in the near future to establish a nursery on a more extensive scale to meet the demands in this part of the province.

A profound and lasting benefit to agriculture in general will result by encouraging the desire on the part of many farmers to improve the general appearance of their farm homes by the planting of trees and ornamental shrubbery. With this in view, a request was formerly made, and is again repeated, that a small appropriation be made available for assisting those who desire to beautify their farm home surroundings. There are a number of individuals who are most desirous of so doing, but through lack of knowledge of suitable and hardy material to employ, or owing to pressure of spring work, and shortage of labour, have refrained from carrying forward any such scheme.

A small appropriation that would cover the cost of maintaining a limited quantity of suitable material on hand, and pay the services of trained help to do the necessary planting, would permit the development of two or three such farm homes in a definite area, county, or township, that would serve as examples for others to follow as occasion permitted. The money thus spent would be repaid within a reasonable time by the person on whose property the work had been undertaken. There is an urgent need that this line of work be developed, and the services of men familiar with general farm routine and work but possessing besides a reliable knowledge of suitable hard ornamental material, be available to those who required this assistance.

POULTRY

The poultry department experienced a very successful season although the lack of range for growing stock was felt considerably.

Extension work has increased during the last two years until now it is of considerable importance. The department was called upon to furnish a speaker for thirty-seven meetings at which there was a total attendance of 1,664 persons. At these meetings, talks were given on seasonable poultry topics. Poultry culling demonstrations were held on thirty-three farms and 1,715 birds handled.

Another feature of extension work which required considerable time was visiting the farmers who were having trouble. Twenty separate farms were visited in connection with disease and nutritional problems.

FARM MECHANICS -

In connection with the work in the department of farm mechanics, in addition to regular lectures on various phases of the work, the students did practical work by wiring the new 82 ft. poultry house for electricity, each pen being fitted with a separate switch and two lights.

Several range hoppers were also constructed for the poultry plant.

During the year, a new three-legged steel flag pole 80 feet high was constructed and erected by the students. This was set into a concrete base which also serves as a stand for a war trophy. This is a welcome addition to our campus, as heretofore we had no means of displaying a flag.

During the summer the conditions in Eastern Ontario were such that the demand for services in drainage survey and inspection work was very heavy. Over 3,000,000 feet of drains were planned, several farmer organizations were addressed, as well as township councils, in connection with the passing of the Tile Drainage Act by-laws.

APICULTURE

The past year has proven rather discouraging to many beekeepers in this section of the Province, due to the fact that many of the colonies were in a weak condition when weather conditions permitted removal from winter quarters. The colonies were slow in increasing in strength due to wet weather conditions, and were unable to produce light honeys in any large amounts. Many beekeepers didn't extract a pound of light honey.

The school apiary was fairly successful in this respect, as the colonies built up rather quickly, and about 1,200 pounds of light honey were extracted. The apiary consisted of twenty-seven producing colonies from which was taken

3,200 pounds of extracted honey and 300 pounds of comb honey.

During the past year, many inquiries were made regarding bees, and about twenty apiaries were visited and instructions given. Disease is very prevalent in this section, and control measures must be enforced if the disease is to be

prevented from spreading.

The local honey market has not been very active, and the price secured by the beekeeper has only been about ten to twelve cents per pound for light, and eight to ten for dark honeys. This has caused many smaller beekeepers to neglect their apiary work, resulting in a deterioration of the colonies and producing excellent conditions for the development and spread of disease.

WESTERN ONTARIO EXPERIMENTAL FARM

Operation was difficult throughout the year because of marked seasonal fluctuations; the spring was cool and backward with too many heavy rains and thunderstorms; the early summer was wet but the temperatures were reasonably high; the late summer and early fall were dry. During August and September there were several small showers that were of no effect in so far as practical operations were concerned.

While the above is true for the Ridgetown area, there were districts within short distances where the situation was entirely different. Fall wheat suffered for moisture here and west of London sowing was difficult because of excessive

rain.

Frost caught some of the tobacco but generally the damage was light. Rainfall by months during the growing season:—

May	 2.38 "
Tune .	 4.42 "
Inly	 5 73 "
August	 1 27 "
Sentember	 08 "
O-tal-	 2 20 "
October	 2.30
	40.46.11
	19.46 "

A thunderstorm on July 4th, when 2.1 inches fell in a short time, did much damage in this district.

FARM CROPS

The cereal crops were only fair. Part of the wheat suffered from winter killing; this was pronounced on oat and barley stubble whereas on the bean land no damage whatever was noted. However, the wheat was a good sample throughout.

The oats (O.A.C. No. 144) were very heavy and completely flattened by the large rain in July and yielded very poorly. The Banner oats on the gravelly land vielded sixty bushels per acre but stood up well.

The barley was light but a good sample.

The beans were a satisfactory crop. Some were drowned in July and even on the best drained land there was a remarkable difference between the crop immediately over the drains and midway between them.

Hay was an excellent crop but the wet weather during the harvest of the first cutting of alfalfa spoiled it to some extent.

Wheat—Red Rock, 4.5 acres—180 bushels; 40 bushels per acre.
Imperial Amber, 4 acres—145 bushels; 36¼ bushels per acre.
Dawson's Golden Chaff, 13 acres—377 bushels; 29 bushels per acre.
Junior No. 6, 12 acres—384 bushels; 32 bushels per acre.
Beans—Michigan Robust, 26 acres—722 bushels; 27 bushels per acre.

The tobacco was a three-quarter crop. Root rot did damage in some places and yellowing effected some. The quality was good and is curing well in the barn. Five acres were grown.

Sufficient corn for silage and experimental purposes only was planted. The borer did some damage but was much less than during 1927.

The potato crop was excellent—two carloads were shipped and approximately 175 bags are in pits.

SEED

The demand for seed is far beyond our supply. Wheat was sold throughout the country from Glencoe to Essex. Oats and barley are in greater demand than in previous years. The beans were sold long before they were threshed and only about one-third of the demand was filled.

SWINE

During the fall of 1927 and the winter of 1927-28 some worm trouble developed in the pigs. All brood sows were treated with Harco capsules, their udders disinfected and were placed in thoroughly disinfected pens, which were put on soil, where pigs had not been previously reared. Without exception no trouble developed. All pens and platforms are disinfected carefully.

Over one hundred spring pigs were reared and did remarkably well. Forty sows were available for sale as breeders and some were disposed of early at \$20 to \$30 each. The demand was satisfactory until the market broke and for six weeks not a single inquiry was received. Between twenty-five and thirty

sows were sold on the market in the regular way

Three breeds, Yorkshires, Berkshires and Tamworths were kept but the Tamworths have been disposed of and more attention will be given to the other two breeds. The lack of demand for Tamworths was responsible for this change.

It will be necessary to have two Berkshire boars as well as two Yorkshires.

POULTRY

With the addition of a new laying house, which will accommodate about 200 birds, it has become possible to make a start along the lines of poultry development. During the season of 1927-28 trap nests were used with all pullets. With the aid of the records of the early season performance of these birds, suitable breeding pens were selected and mated with pedigreed male birds provided by the poultry department of the Ontario Agricultural College. As many eggs were set as possible to secure after strict selection and during the desirable part of the hatching season. Good hatches resulted and a lot of valuable pullets and cockerels were raised. The stock of this year shows very desirable characteristics and will, no doubt, prove invaluable as foundation stock of known parentage for future development work along breeding lines.

A keen demand exists in the spring of the year amongst farmers for the purchase of the Experimental Farm hatching eggs. No sales may be made

from our limited supply until after the end of our own hatching season.

In the fall of 1928 all desirable cockerels worthy to be sent out as breeding stock were bought up comparatively early in the season. In all, ninety-eight were sold for this purpose and many inquiries were received after the supply was exhausted. It would appear that in future the Farm will become a centre for the distribution of poultry breeding stock for the southern Ontario counties.

CATTLE

A carload of steers have been fed each winter so that the roughage might be disposed of and the straw tramped down. Previously the cattle were purchased after November 1st but for the past two years the cattle were very scarce and prices high for very ordinary steers. In September, 1928, a carload of twenty-six were purchased at \$10.50 per cwt. The market has fallen $1\frac{1}{2}$ to 2 cents

per pound, and unless markets change, there will be no profit. However, the quality of the cattle on hand is excellent, which will be of value when they are ready for sale.

PERMANENT IMPROVEMENTS

Very little was undertaken in 1928.

An improved outlet was established for the western portion of the farm during 1927. Instead of carrying the drainage from the Agricultural School, the ridge and the muck lands north through the farm a cutoff outlet 650 feet long was put in, which will give quicker drainage.

The balance of the drain on the easterly side and immediately in front of the barns was cleaned. This was forced under the Drainage Act but was very necessary.

A new top was put on the silo.

The foundation of the house was improved by building in new cement parts and some of the brickwork was chinked.

One movable brooder house and four swine colony houses were built.

A plantation of 125 Black Walnut trees was planted on the small piece of isolated waste land at the northeastern part of the farm, and one of 100 Chinese Chestnut trees around the apiary. Approximately three acres near the driveway were seeded to grass to be used for playgrounds and for parties coming to the Farm in the summer months. Previously these parties went to the town playground and but few looked over the Farm.

GENERAL CONDITIONS

The sugar beet crop was below the average; the wet weather in June and July made it difficult to thin and cultivate and leaf spot and girth gall developed while around Wallaceburg hundreds of acres were completely destroyed. The dry weather in August and September resulted in a drying up of the tops and the small yields generally resulted. The value of thorough drainage, coupled with good farm practices, were demonstrated very clearly in the beet area. Unfavourable weather conditions and low sugar prices will make this season an unsatisfactory one for the producers.

The potato situation has been difficult; the extremely large crop throughout America and the opportunity afforded the Americans to invade our markets with the clean up of their crops make the production of potatoes for the summer markets a hazardous job. Except for the above, the growers are accepting the situation as one of overproduction, which is bound to result in low prices. The general crop was excellent.

The tobacco situation is most difficult. The spirit of speculation is altogether too prevalent in the older growing districts—it is always present in the new. There are too many growers in the spring of each year calculating definite returns and undertaking obligations upon the strength of the forecasts. Burley tobacco is consumed in Canada and evidently there is a surplus, and under such conditions the market is bound to be weak and erratic. Burley growers should reduce the acreage and concentrate on quality. New and careless growers are the greatest sufferers, consequently from them come the most insistent and loudest complaints.

The system of purchase may be open to question but the market values and ease of sale of all agricultural products depend largely upon supply and demand. The Flu tobacco of good quality moved readily at a fair price as did

the Burley grown upon the best Burley soils. The growers of quality dark fired tobacco have not experienced the same difficulty due to an export demand.

Agriculture, upon soils other than those suited to the production of the Flu types, to be successful, must revert to a more balanced production; cash crops are excellent in their place but in such sections their position should be as a strong side line with live stock and general crops holding the major place. Winter dairying would be of inestimable value to large numbers.

Definite efforts were put forth to organize the tobacco growers into a pool for sale purposes but nothing concrete materialized, except that definite information regarding the requirements of the various markets became known to all growers. Under existing circumstances the formation of a pool is far in the future.

Except on very light or well drained lands, beans suffered considerably from the severe thunderstorms during July; some were drowned and, in many cases, they were partially damaged and disease was too prevalent. On the Experimental Farm considerable damage was done even in the best drained field and on the later drained where the land was heavier the beans were destroyed. The very excellent harvest weather compensated many for losses sustained earlier in the season; only a small percentage of the crop had to be either machine or hand picked. The exceptional market and the keen demand has aroused much interest and speculation regarding the crop for 1929 and the demand for seed has kept pace with the situation. As yet no foreign beans are upon the market, which is unusual, and should such offerings be short the prospect for the early market in 1929 should be good because there will be no old stock available.

The movement for corn borer control has been carried on successfully; the co-operation of the growers with the Department has been excellent and the diminishing of the ravages has been sufficient to encourage closer co-operation next year. The corn acreage as compared with 1927 was doubled. Undoubtedly the method employed by the Department, first, in the educational work, and secondly, by endeavouring to meet all objections fairly has made a definite and favourable impression.

EXTENSION

The extension work in tobacco culture during 1928 was undertaken altogether by Mr. White. He attended the short courses at Welland, Wallacetown, Merlin and Raleigh township hall. Meetings were attended at Strathburn, Alvinston and London. During the season trips were made among the new growers in Middlesex and Elgin.

Three and one-half acres of Flue tobacco were grown in Norfolk County upon the Provincial Turkey Farm. Mr. White supervised and assisted with the work except part of the stripping. Many trips were also made upon request.

The vocational school has an attendance of seventy-seven in the three classes. The interest among farmers seems to be increasing and there is every promise of one hundred students when the four-year classes are all in, which will be in the fall of 1929. These students are all drawn from the Ridgetown High School area. A carpenter shop was fitted up in one end of the old barn on the Experimental Farm.

TEN TON OR BETTER TOMATO CLUB

This work was commenced in 1927 in co-operation with Libby, McNeill and Libby of Canada, Limited, at Chatham. The success of the original effort was so satisfactory to both the growers and the company that we determined to make it a still greater success in 1928. In 1927 only twenty (20) per cent. of the contract tomato growers of Libby's signed as club members. In 1928 over seventy-five (75) per cent. of the contract growers became club members.

In all, seven letters containing cultural information were sent out to the growers during the period from just prior to sowing the seed and until the harvest was well under way. Club rules and regulations were very much similar to those of 1927, and in later checking up it was very gratifying to learn of the many good growers who had adhered closely to the suggestions made. Thirty-three (33) per cent. of the club members reached the objective or exceeded it, namely ten tons or better of red, ripe fruit per acre. Numbers of members came close enough to the mark to rank as really high class growers.

It was a significant fact that nearly all of the crops classified as excellent and good came from winning club members. In fact, no ten ton winners had any other rating than good or excellent for their crops.

The sum of \$465.70 was paid out by Libby's to club members as cash bonuses on all deliveries of tomatoes where ten tons per acre or more of good fruit had been brought in. In addition to this cash bonus, additional prizes of fertilizer totalling \$66.00 in value were divided amongst the owners of the three best yielding crops.

First prize was won by a man who grew 7.43 acres and who delivered sufficient tomatoes to make him an average yield of 16.37 tons per acre. This man received a cash bonus on his cro of \$60.82 and in addition gained a prize of \$33.00 worth of fertilizer. His tomatoes gave him a total money return per acre of \$266.46. This figure represents one of the best proportional returns possible from cash crops grown in southern Ontario.

The plan of the Ten Ton or Better Tomato Club was suggested to the head offices of two other of the largest users of tomatoes in southern Ontario, but the companies so approached did not feel inclined to adopt the idea.

The Canadian Canners, Ltd., however, asked the co-operation of the Experimental Farm in connection with the growers supplying tomatoes to eight of their factories located in the counties of Essex and Kent. This co-operation was gladly given and took the form of letters dealing with hotbed making, seed sowing, plant growing and preparation of the field soil. Three timely letters were sent out to each of approximately 375 growers. Our only regret was that, owing to the disinclination of the company to take up the Ten Ton Club project, we could not justify a close follow-up such as has worked so well in other cases.

SUMMARY OF PLANT DISEASE WORK IN RIDGETOWN DISTRICT

A summary of experiments for the control of plant diseases is given below. Some of these experiments were on the Experimental Farm, others in the district where some particular crop was grown.

Wheat Smut. Wheat having a large percentage of stinking smut (bunt) was purchased in Sept. 1927 and treated in the following methods: (1) Dipping

in a formalin solution (1 pint to 40 gallons water) for 5 minutes and covering for 3 to 4 hours. (2) Sprinkling with a formalin solution (1 pint to 40 gallons water) and covering for 3 to 4 hours. (3) Dusting with copper carbonate. (3 oz. per bushel). The plots were examined before harvesting and results as follows:— Formalin dip, no smut; formalin sprinkle, trace; copper carbonate dust, trace; no treatment, 13.5 per cent. smut.

Oat Smut. Two plots of Hulless oats were sown. The oats for one plot were treated with copper carbonate dust and the oats for the other plot were sown untreated. The treated oats had only a trace of smut whereas the untreated had 10.5 per cent. smut.

Beans. An experiment carried on during previous years for the control of mosaic and anthracnose was continued. Three different strains of field beans were grown and these were rogued for mosaic twice during the growing season. The first strain (New York State) had an average of 6 plants per 100 rd. rows. Second (Michigan State) an average of 2.6 plants, and third (Wisconsin State) an average of 1.3 plants, and these were only slightly affected. Just before harvesting the plants (pods) were examined for anthracnose. The first strain had 4.5 per cent., the second 3.5 per cent., and the third 3.8 per cent.

Celery Blight. Three different experiments were started for the purpose of comparing the results of spraying with liquid bordeaux and dusting with Copo dust. After several sprayings two of these experiments were discontinued as no blight developed either on the sprayed or unsprayed. In the third experiment some blight developed before spraying was started. Ten sprayings were given to part of the experiment and twelve dustings to the other part and a third part left as a check. The spraying gave a little better control than the dusting. Plants developed about the same but the stems on the dusted plants were slightly disfigured with blight and hence not as good for market. The plants in the check plot were of little or no value as the plants were small and the stems were badly disfigured with blight.

Onion Smut. The work of the previous year in the Pelee onion marshes was continued to determine the best strength of formalin to use for the control of smut. The solution giving the best results was 1 pint of formalin to 15 gallons of water and used at the rate of 150 gallons per acre. This gave a yield of 328 bushels per acre, whereas on the untreated part the yield was only 45 bushels per acre. Two other solutions gave nearly as good results: 1 pint to 10 gallons and 100 gallons per acre and 1 pint to 15 gallons and 200 gallons per acre. When more than 200 gallons were applied per acre there was a reduction in yield. Semesan was also tried but results rather poor. As the onion crop in southwestern Ontario was very light this year, the yields from all the plots were much below the average.

Potatoes. An experiment was conducted to see the effect of dusting and spraying on late potatoes—3 plots of Dooley potatoes were planted on June 15th. Plot No. 1—five applications of dust were given at intervals of 10 days to two weeks. Plot No. 2—four applications of liquid Bordeaux were given at intervals of ten days to two weeks. Plot No. 3—no spraying or dusting was given except to control potato beetles, calcium arsenate being used. The tops in this lot died down early in the fall with late blight. Plot No. 1 yielded at the rate of 255.5 bushels per acre. Plot No. 2 at the rate of 291.0 bushels per acre and Plot No. 3 at the rate of 194.5 bushels per acre and the potatoes were lacking in uniformity.

Raspberries. Leaf curl, mosaic and anthracnose have become so serious in the growing of raspberries in southwestern Ontario that an effort has been made for the past three years to locate plantations fit for certified stock but so far only one plantation in the district has been suitable for the purpose.

Apple Spraying. During the apple spraying season, circular letters were sent out to the apple growers in Essex and Kent. This work was carried on in connection with the agricultural representatives in these counties. Personal visits were made as often as possible especially to those asking for assistance.

Greenhouse growers were visited from time to time and the diseases of greenhouse crops discussed as well as methods of soil sterilization. Numerous enquiries were received during the season as to the control of certain crop diseases and insects.

The plant disease work in the Ridgetown area has been carefully attended to by D. R. Sands, of the O.A.C. This is an excellent arrangement; it permits the Department of Botany to keep closely in touch with the practical and it gives time for looking after the intensive agriculture in this area.

WEEDS

During 1927 some experiments were undertaken, using refuse oil, salt and pig pasturing for extermination of field bindweed.

The salt killed the plants completely but some stragglers were still growing on the oil plot; one additional application would in all probability have killed all the plants. Pasturing with pigs was successful.

Any of the above methods may be utilized where field bindweed first appears in small patches.

SOY BEAN HAY

Soy beans have been recommended as a suitable catch hay crop as well as for a bean crop.

Experiments and experience have proved Soy beans produce a soft pork which is very objectionable and so long as they are grown for a grain crop they are a menace to the hog industry in southwestern Ontario.

As a hay crop, they will produce an abundance of very excellent and palatable hay, which is relished by horses, cattle and sheep.

The beans on the farm were cut at two stages; first, before any leaves turned yellow but the pods and beans were formed; second, a week later.

Some were bunched and the balance cured in the swath. In both cases the hay cured in beautiful shape.

The difficulty lies in the length of time required to cure the crop. The weather this year was ideal and three weeks were necessary and had a large quantity been placed in a mow, more time would have been required.

Undoubtedly a crop such as was grown for hay would have been excellent as green manure because it is a legume and because of the amount produced per acre.

EARLY CABBAGE, 1928

					_	
Application	Heads Rough Trimmed weight weight weight lbs. Trimmed by the weight per acre application lbs. Trimmed libs. Ibs.		over one application	Nitrate of Soda vs. Sulphate of Ammonia		
Nitrate of Soda: 1 application	30	130	69½	22,425		967
Nitrate of Soda: 2 applications.	30	1451/2	74½	24,038	1,613	-2,097
Nitrate of Soda: 3 applications.	30	169	85½	27,587	5,162	+2.258
Sulphate of Ammonia: 1 application	30	138	72½	23,392		
Sulphate of Ammonia: 2 applications.	30	152	81	26,135	2,743	
Sulphate of Ammonia: 3 applications.	30	1451/2	78½	25,329	1,937	
Nitrogen					Increase over check	
Phosphorus Potash	30	133	70	22,586	+1,452	
Nitrogen Potash	30	133	74½	24,038	+2,904	
Nitrogen Phosphorus	30	134	72	23,221	+2,087	
Nitrogen: 2 applications.	30	1281/2	65½	21,134		

Variety of Cabbage—Golden Acre. Planted out May 4th—harvested July 2nd—plants set in field 18 inches by 36 inches. Nitrate of soda and sulphate of ammonia were applied at equal weights, the rate being 200 pounds per acre. The lots receiving the above two materials received no phosphorus or potash. Acid phosphate 16 per cent. was used at the rate of 800 pounds per acre.

Muriate of potash was used at the rate of 400 pounds per acre.

Nitrogen was supplied in the complete fertilizer through two applications of nitrate of soda

at 200 pounds per acre.

First application of nitrogenous fertilizer was made May 4th, second May 30th, third June 12th. One treatment with corrosive sublimate solution was made.

A VARIETY TEST OF SOME FORCING TOMATOES UNDER GLASS

Variety	Number of fruits	Number of plants	Yield per block		Average size of fruits	P	eld er ant
Grand Rapids—our own selec- tion outdoor grown seed 1927		60	lbs. 257	ozs.	ozs. 2.4	lbs.	ozs.
Edmunds' No. 2	1,807	60	59 248	12 5	2.3	4	9
Rapids	1,045 1,122	26 36	141 165	8	$\begin{array}{c} 2.16 \\ 2.2 \end{array}$	5 4	4 9
Bonny Best	1,392	60	284	0	3.2	4	12

Kondine Red appeared in this test to be the heaviest yielding variety. However, in the same house were grown other lots than those recorded above of Veals X Grand Rapids and of Grand Rapids Forcing, which slightly exceeded the yield per plant, reached by Kondine Red Kondine Red is a very free setting type. Yields, from the above tests, with all varieties, were secured without resort to hand pollination. Tapping the supporting wires was done twice daily throughout the blossoming period.

EFFECT OF PLANTING DISTANCES UPON SIZE AND YIELD OF INDOOR TOMATOES

Row	Number	Number	Yield		Average	Yield	
	of	of	from each		size of	per	
	fruits	plants	block		fruit	plant	
1, 2 and 3	2,498 1,815 2,491	90 60 90	lbs. 392 294 392	ozs. 0 8 10	ozs. 2.5 2.6 2.5	lbs. 4 4 4	ozs. 5 14 6

All plants were set 18 inches apart in the row. In rows 1, 2 and 3 and 6, 7, 8 the rows were spaced twelve inches apart with a twenty-fourinch path between them and the next group on either side. Each plant in this case occupied two square feet of bed space. One-half of the distance between the outside rows to the next group is considered in arriving at this figure.

In rows 4 and 5 there were twelve inches separating the rows while on either side was a twentyfour-inch path. Each plant in this group then occupied 2.25 square feet.

As will be seen from a glance at the table, the average size of the fruit from the rows 4 and 5 was slightly larger than from the plants of the other rows. Also the yield per plant was $8\frac{1}{2}$ ounces greater than the average yield per plant from the other two plots.

OUTDOOR EARLY TOMATOES-1928 A test of certain varieties of tomatoes for early and second early markets.

Variety	Yield per acre July 19—31		Yield p Augus		Total per	Yield acre	Yield per plant July 19—Aug.10		
Avon Early (Steele-Briggs) Fargo*Red River A Viking Earliana (Moore) Canadian (Harris) Avon Early (Dreer) Alpha *Red River B	1bs. 127 170 47 180 202 127 158 255 42	ozs. 9 2 13 12 1 9 13 3 8	lbs. 4,721 8,337 12,474 7,082 5,306 5,732 4,628 2,212 4,977	ozs. 13 10 9 12 12 12 1	lbs. 4,849 8,507 12,522 7,263 5,508 5,859 4,787 2,467 5,019	8 13 11 1 3 9	lbs. 1 3 4 2 2 2 1	ozs. 12½ 2 9½ 10½ 0 2½ 12 15¾ 13½	
Earliana (Harris) Adirondack(Langdon's) Early Stone	170 85 21	2 1 4	6,040 5,721 1,297	9 8 7	6,210 5,806 1,318		2 2	$\begin{bmatrix} 4\frac{1}{2} \\ 2 \\ 7\frac{3}{4} \end{bmatrix}$	

^{*}Red River A. was from seed supplied direct from the originator at North Dakota Agricultural College.

Red River B. was from seed of the variety secured from an American seed house.

Fargo, Red River A. and Viking were all heavy croppers but of large rough fruit, unfit for market. Of these three, all new varieties, Viking was the most at fault. The seasonal conditions at the time of fruit setting were very unfavourable and, no doubt, contributed to a large extent to the extreme roughness of the fruit, However, from the behaviour of other sorts under similar conditions, part of the trouble must have been constitutional.

Red River B. was more uniformly smooth than Red River A.

Avon Early (Dreer) and Alpha were the varieties which produced the uniformly smooth fruit.

Langdon's Earliana of the Earliana strains gave the highest percentage of unmarketable fruit.

OUTDOOR EARLY TOMATOES

Influence of Date of Planting of Seed on Production of Early Fruit

Date on which seed was planted	Yield per July 19	acre from to 30	Yield per August	acre from	Total yield per acre from July 19 to August 15		
February 23 March 1. March 8. March 15. March 22.	478 329 26	ozs. 10 9 11 9	lbs. 16,505 16,441 13,665 9,752 10,613	ozs. 2 5 11 1 8	lbs. 17,068 16,919 13,995 9,778 10,629	ozs. 12 14 6 10 7	

Variety used—Canadian—Experimental Farm selection.

Treatment—All lots given standard treatment in growing the plants and set out in field under similar conditions.

RESULT OF FERTILIZER TEST ON OUTDOOR TOMATOES, 1928

Plot No.	Fertilizer analysis	Yield p July 19		Yield p July 2 Aug	26 to	Yield p Aug. 2	er acre 2 to 8	Yield p Aug. 9	er acre to 15	Total per a	
1 2 3 4 5 6 7 8 9 10 11	0-16-0	62 100 37 87 37 25 100 87	ozs. 8 8 0 8 8 8 0 0	lbs. 31 200 200 475 300 237 175 150 118 312 218 225 56	ozs. 4 0 0 0 0 8 0 12 8 12 0 4	lbs. 4,337 5,875 4,862 5,275 4,375 2,537 4,775 4,000 4,400 4,425 3,262 5,400	0	lbs. 8,462 8,662 9,0112 6,450 6,587 7,312 5,275 7,150 7,650 8,300 5,525	8 0 0 0	lbs. 12,918 14,800 14,175 12,237 11,350 8,250 12,287 10,025 11,218 11,950 12,318 11,825 11,043	ozs. 12 0 0 8 0 0 8 0 0 12 0
Check	No fertilizer	162	8	212	8	5,637	8	6,737	8	12,750	

Sulphate of potash was used instead of muriate of potash in plots 6 and 10.

Fertilizer on plots 11 and 12 applied on equal money value and plots 11 and 13 on equal unit basis.

Remainder of experiment 800 pounds per acre.

On account of prevailing weather conditions after the plants were set out in the field, the first two blossom clusters failed to set much if any fruit. Due to this fact and also to the large amount of rainfall in the early growing season, the plants made excessive growth and the check plots, as well as the fertilized plots, were evidently able to draw upon a plentiful food supply.

The plants in the check plot received no fertilizer whatever. No manure has been used in this field for at least three seasons, but the ground is naturally fertile. It can readily be seen that the fertilizer applications hardly had a fair chance to demonstrate their worth under the conditions which existed.

FACTORY TOMATOES

Variety	No. of plants	Yie pe ple	er	Yield per acre	Tons per acre
Canadian Early Stone Bonny Best John Baer Can. Canners John Baer Michigan Marglobe Marglobe seed sown March 24th Marglobe seed sown April 2nd Marglobe April 9—one transplanting. Marglobe April 9—seed bed	30	lbs. 686 531 559 523 529 359 674 661 747 762	ozs. 10 6 14 1 6 2 5 13 7 6	lbs. 62.276 48.194 50.779 46.441 48.014 32.561 31.244 30.648 34.613 35.300	31.13 24.09 25.38 23.22 24.00 16.28 15.62 15.34 17.30 17.65

Dates of seed sowing-March 24th, 1928.

For all lots except the last three of Marglobe. Date of transplanting in the field: June 4th, 1928.

Dates of harvest period:

Commenced August 22nd, 1928. Finished September 24th, 1928. Number of pickings—8.

Growing the plants:—The seed was sown in flats in the greenhouse and pricked off into 12-inch by 24-inch flats, thirty-five plants to a flat. The second transplanting was made to thirty-two plants per flat. Plants were moved to outdoor frames about June 1st.

The above system applied to all but the Marglobe plots for which the seed was planted April 9th. In this case one lot of seed was sown directly in the soil of a semi-hotbed out-of-doors. The semi-hotbed was constructed of just dry straw (no manure) and soil. The seed was sown in rows and, when the plants were up, they were thinned to stand four inches apart each way.

The other lot of seed sown April 9th was sown indoors and the young seedlings were transplanted 4 inches by 4 inches into the same outdoor bed, as described above. The seed sown directly in the frame-bed was slower in coming up, but by June 14th it was impossible to distinguish between plants of two lots. These plants were much more sturdy and bushy than those grown in the flats and the yields recorded were not unexpected.

Field Culture:—A field of fertile black clay loam, well-drained, was used. The soil was prepared as for a tobacco crop and had been put into excellent tilth. A 4-10-6 fertilizer was used in the hills at the rate of about 500 pounds per acre. The nitrogen used was in the form of sulphate of ammonia and the potash was supplied by sulphate of potash.

Cultivation was frequent and was continued as long as possible without injury to the plant roots being done.

Quality of fruit:—The quality of the fruit in general was good and quite desirable for canning purposes. The one exception to this was that of the variety "Canadian" which produced fruit, a large percentage of which was inclined to be rough. However, enough good fruit is produced and matures early to warrant the use of the variety for part of the planting for a factory crop.

The above test shows very definitely the possibilities in the production of factory tomatoes. Yield and quality can be had provided the soil is good tilth and artificial fertilizer applied. An average of five years will be obtained on this work.

AVAILABLE NITROGEN FERTILIZERS APPLIED TO EARLY POTATOES

An experiment was conducted with early potatoes to attempt to determine the relative values of nitrate of soda and of sulphate of ammonia when applied as side dressings to the growing early potato crop.

The soil in which the experiment was conducted is of a desirable sandy loam type and quite fertile. A crop of rye previously manured was plowed under preceding the potato crop. The standard fertilizer application given all of the Farm's early potato crop was applied with the potato planter at planting time. Planting was done on April 18th.

Nitrate of soda at 250 lbs. per acre, sulphate of ammonia at 250 lbs. per acre were the forms of fertilizer used. The applications were made as side dressings on June 15th. This date was about ten days later than the materials should have been applied. At this time the potato vines all looked strong, healthy and vigorous.

Observations.

Shortly after the applications had been made a difference in colour was plainly visible between all three lots. Each of the treated lots contained six rows, each 124 feet long and each test was in duplicate.

The nitrate of soda plot plants assumed a very dark, deep green colour in foliage.

The sulphate of ammonia plot took a decidedly yellowish shading quite in contrast with its neighbour. The check plot of six rows 124 feet long but not in duplicate, bore a somewhat intermediate colour between the two.

The plot was not harvested until the plants had fully ripened and matured. This was on August 2nd, and the tops were completely dead.

Nitrate of soda at 250 pounds per acre yielded an average for six rows of 12 bags $31\frac{1}{2}$ pounds or 289 bags 23 pounds per acre.

Sulphate of ammonia at 250 pounds per acre yielded an average for six rows of 11 bags 38½ pounds, or 267 bags 58 pounds per acre.

The check plot of six rows yielded 11 bags 7½ pounds, or 259 bags 57 pounds per acre.

It might be mentioned that only the weight of marketable potatoes was recorded. Furthermore the ground used had had an application of rotted manure before spring preparation commenced. Following the planting of the crop rainfall was very plentiful up until the time when the potatoes were fully mature. Favourable growing conditions with a liberal moisture supply made it possible for the check plot to show up to better advantage.

FERTILIZER TEST ON CORN

The use of artificial fertilizer on corn to hasten ripening has been under discussion since late planting has been suggested in order to evade the corn borer.

A 2-12-6 complete fertilizer was used and plantings were made upon three dates.

The amount of hard corn at husking time was the deciding factor.

The results show that from May 25th planting there was but little difference between the amounts of hard or soft corn obtained where 200, 400 or 600 pounds of fertilizer were used but where no fertilizer was used the amount of soft corn was higher.

From June 2nd planting the soft corn increased considerably in all the plots whereas the total yields did not change much. More advantage for the heavy applications of fertilizer was noted.

From June 15th planting the principal difference is the increased soft corn on all plots but the particularly large increase of soft corn on the plots where no fertilizer was used.

Amount of fertilizer applied	Yield p	er plot	Yield	Total vield per	
(pounds)	Hard lbs.	Soft lbs.	Hard lbs.	Soft lbs.	acres, lbs.
100 No fertilizer 100 200 400 600 Check 200 400 600 Check	97 81 103 228½ 229½ 220 206 224 211½ 208½ 187	11½ 12 8 17½ 15 19 25 23 23½ 22 30½	3,880 3,240 4,120 4,570 4,590 4,440 4,120 4,480 4,230 4,170 3,740	460 480 320 350 300 380 500 460 470 440 610	4,340 3,720 4,440 4,820 4,890 4,780 4,620 4,700 4,610 4,350

Planted June 2nd, 1928

100.	182	33½	3,640	670	4,310
200.	185	35	3,700	700	4,400
400.	182	36	3,640	720	4,360
600.	202	30	4,040	600	4,640
Check. 200. 400. 600.	177½	40	3,550	800	4,350
	190	34	3,800	680	4,480
	207	32½	4,140	650	4,790
	211	31	4,220	620	4,840
Check	176½ 158½ 158 175	43 69½ 68½ 62	3,530 3,170 3,160 3,500	1,390 1,370 1,240	4,390 4,560 4,530 4,740
600.	190	59	3,800	1,180	4,980
Check.	117	97	2,340	1,940	4,280
200.	179½	65½	3,590	1,310	4,900
400.	164	67	3,280	1,340	4,620
600.	189	40	3,780	800	4,580
Check.	121	85	2,420	1,700	4,120

RESULT OF FERTILIZER EXPERIMENT ON EARLY POTATOES AT EXPERIMENTAL FARM, RIDGETOWN

Plot No.	Fertilizer analysis	Yield per acre	Increase over check per acre	Value of increase over check per acre	Cost of fertilizer	Return for \$1 spent in fertilizer
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	0-16-0 0-12-4 0-10-4 0-8-4 0-6-4 2-12-4 4-12-4 6-12-4 4-8-4 2-12-0 2-12-2 2-12-6 2-12-8 2-10-4 2-8-4 No fertilizer	bags 161.7 154 163.3 170.3 205.3 227.1 264.4 238 224 207.6 208.4 217.7 216.2 188.2 176.5	28.8 50.6 87.9 61.5 47.5 31.1 31.9 41.2 39.7 11.7	\$21 60 37.95 65.92 46.12 35.62 23.32 23.92 30.90 29.77 8.77	\$6 60 9 45 8 85 8 37 7 83 12 00 13.80 15 75 12 67 11 17 11 62 12 45 12 90 11 47 10 95	\$1 80 2 75 4 18 3 64 3 18 2 00 1 92 2 39 2 59 80

The above test is carried annually to check with work of other years to note the effect of various seasons. A complete fertilizer carrying two per cent. nitrogen has been recommended from the other work.

The nitrogen this year evidently was necessary due to the cold spring.

RESULT OF FERTILIZER EXPERIMENTS ON EARLY POTATOES AT EXPERIMENTAL FARM, RIDGETOWN

To ascertain action of potash on yield. Application in each instance was at the rate of 600 pounds per acre.

Sulphate of Potash was used

Fertilizer analysis	Yield per acre	Increase over check	Value of yield per acre	Value of increase over check		Return for \$1 spent in fertilizer
2-10-4. 2-10-6. 2-10-8. 2-10-10. No fertilizer.	bags 155.5 197.5 186.6 188.2 146.2	bags 9.3 51.3 40.4 42	\$116 62 148 12 139 95 141 15 109 65	\$6 97 38 47 30 30 31 50	\$11 47 11 88 12 33 12 78	\$0 60 3 23 2 45 2 46

RESULT OF FERTILIZER EXPERIMENT ON EARLY POTATOES AT EXPERIMENTAL FARM, RIDGETOWN

To ascertain most economical rate of application per acre.

Rate of application per acre	Yield per acre	Increase over check per acre	Value of yield per acre	Value of increase over check per acre	Cost of fertilizer	Return for \$1 spent in fertilizer
2-10-4 at 200 lbs	bags 180.4 181.2 182.7 165.6 146.2	bags 34.2 35 35.8 36.5 19.4	\$135 30 135 90 136 50 137 02 124 20 109 65	\$25 65 26 25 26 85 27 37 14 55	\$3 82 5 73 7 65 9 56 11 47	\$6 71 4 58 3 50 2 86 1 26

The above experiment requires more work—the results during the past three years agree in that the returns per dollar invested in fertilizer are greatest when 200 pounds per acre are used but the total net returns per acre for 1926 and 1927 were greatest when 600 pounds were used. The results over the three shows very little difference and an average over a larger number of years is necessary before definite statements can be made, because a purchase of fertilizer involving 400 pounds per acre means considerable to the fertilizer industry.

Товассо 1927-1928

Result of topping and suckering experiment on Burley tobacco, 1927.

Method	Weight in lbs. sand leaves	Weight in lbs. good marketable leaf	Weight in lbs. inferior leaf	Total weight in lbs. per acre
Topped and suckered at proper time Topped at proper time. Suckers allowed to get		840	280	1,493
big Topped when plant is in full flower. Suckers allowed to get big	420 373	653 490	303 350	1,376

RESULT OF TOPPING AND SUCKERING EXPERIMENT ON DARK AIR CURED TOBACCO, 1927

Topped and suckered at proper time		933	140	1,586
Topped at proper time. Suckers allowed to get big	420	793	326	1,539
lowed to get big		443	466	1,235

To bacco is one of the crops that require attention at the proper time. Many growers have too large acreages and often the crop is not topped and suckered when it should be. To ascertain the loss, if any, in such cases the work as reported upon was started.

RESULT OF FERTILIZER EXPERIMENT ON DARK AIR CURED TOBACCO, 1927

Plot No.	Fertilizer Analysis	Yield per acre	Increase over check	Value of increase	Cost of fertilizer	Return for \$1 spent in fertilizer
2 3 4 5 6	2-8-6 4-8-6 6-8-6 4-6-6 4-10-6 4-8-4 4-8-8 None	lbs. 1,373 1,629 1,861 1,692 1,822 1,618 1,740 1,668	193 24 154	\$19 30 2 40 15 40	\$15 20 17 60 20 90 17 10 18 40 16 90 18 10	\$0 91 14 83 39

RESULT OF FERTILIZER EXPERIMENT ON WHITE BURLEY TOBACCO 1927-18

4--8--6 applied at rates of 200, 400, 600, 800 and 1,000 pounds per acre. Station Stand-up Burley used.

Plot No.	Rate on application	Yield per acre	Increase over acre	Value of increase	Cost of fertilizer	Return for \$1 spent in fertilizer
2 3 4 5	200	lbs. 1,041 1,087 1,358 1,411 1,431 1,237		\$12 10 17 40 19 40	\$4 40 8 80 13 20 17 60 22 00	\$0 91 98 88

Undoubtedly the very unfavourable season had much to do with the peculiar results. The plots of White Burley corresponding to the dark air cured plots were ruined with the premature yellowing and mosaic.

RESULT OF FERTILIZER TEST ON FALL WHEAT PLANTED SEPTEMBER, 1927

Fertilizer used and amount	Cost of fertilizer per acre	Variety of wheat	Yield per acre	Value of yield per acre
Acid Phosphate at 125 lbs. per acre	\$1 50	Dawson's Golden Chaff	bus. lbs 20 551	
Acid Phosphate at 125 lbs. per acre	\$1 93	Dawson's Golden Chaff	20 24	\$25 51
Acid Phosphate at 125 lbs. per acre	\$1 50	Junior No. 6 New York	28 43	\$35 89
Acid Phosphate at 125 lbs. per acre Ammonium Sulphate at 12 lbs. per acre	\$1 93	Junior No. 6 New York	31 33	\$39 43
2-12-3 commercial mixed at 125 lbs. per acre	\$2 48	Junior No. 6 New York	32 251	\$40 53

Acid Phosphate at 125 lbs. per acre is the usual application on fall wheat.

RESULT OF FERTILIZER EXPERIMENT ON BEANS, EXPERIMENTAL FARM, RIDGETOWN, 1928

Plot No.	Fertilizer analysis	р	eld er ere	over	ease check acre	Value of increase	Cost of fertilizer	Return for \$1 spent in fertilizer
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Check.	0-16-0 0-12-4 0-10-4 0-8-4 0-6-4 2-12-4 4-12-4 6-12-4 4-8-4 4-8-4 2-12-0 2-12-2 2-12-6 2-12-8 2-10-4 2-8-4 No fertilizer	bus. 24 26 25 27 26 25 29 30 28 27 29 27 28 24 26	1bs. 45 15 30 45 15 30 15 0 30 0 15 45 30 45 15	1	1bs. 30 45 15 45 45 0 30 15	\$6 00 12 00 15 00 9 00 3 00 3 00 12 00 6 00 9 00	\$1 10 1 57 1 47 1 39 1 30 2 00 2 30 2 62 2 11 1 86 1 93 2 07 2 13 1 91 1 82	\$4 31 5 21 5 72 4 26 1 61 1 55 5 79 2 81 4 71

The results from fertilizer upon beans have varied so greatly that definite conclusions are impossible. It would, however, seem that a mixed fertilizer carrying two per cent. nitrogen, ten to twelve per cent. phosphoric acid and about four per cent. potash might come near the proper mixture. As in early potatoes, the nitrogen would serve as an insurance against unfavourable weather.

RESULT OF 2-12-2 FERTILIZER TEST ON BEANS AT EXPERIMENTAL FARM, RIDGETOWN

To ascertain most economical rate of application per acre.

Rate of application per acre	Yield per acre		Incre over c per a	heck	Value of yield per acre	increase	Cost of fertilizer	Return for \$1 spent in fertilizer
Lbs. 50	26 1 27 26 1 29 1	lbs. 15 0 15 15 15	bus. 1 2 1 4	lbs. 30 15 30 30	\$105 00 108 00 105 00 117 00 99 00	\$6 00 9 00 6 00 18 00	\$0 97 1 94 2 91 3 88	\$6 19 4 63 2 06 4 63

Note:—It will be noticed that in the "Return for \$1 spent" column, the amounts, whenever any, are fairly large for comparatively small increased yields over checks.

This is accounted for by the fact that bean prices this year were in the neighbourhood of

\$4 per bushel, and figures here were based on that price.

SUGAR BEETS

The previous work proved conclusively that the number of mixtures used might well be reduced; seven mixtures with variations in each ingredient were used. The number of plots were correspondingly increased.

Evidence gathered previously and corroborated this year shows that a mixture carrying 12 per cent. phosphate and 6 per cent. potash gives the best results. Out of twelve plots eleven gave highest with 12 per cent. phosphate and the other 10 per cent. Eight out of the twelve plots favoured 6 per cent. potash, one 8 per cent. and three 4 per cent. One-half of the plots did best with 2 per cent., three with 6 per cent. and three with 4 per cent. The nitrogen factor is so largely under the control of the farmer through the use of clovers and manure that there should be no necessity to increase nitrogen above 2 per cent.

A 2-10-6 is the general commercial mixture used by beet growers. If the phosphate were increased to 12 per cent, the mixture would then correspond with our findings.

In order to test the mixtures on a larger scale than usual acre plots were tested at Chatham with similar results as from the small plots.

Some work was done using sulphate muriate and carbonate of potash. The results are not very enlightening except that several questions arise out of the two tests for future consideration.

All beets in this country are planted in rows 22 inches apart; an earnest endeavour is made by the company to have a beet to every foot in the row. The labor is contracted for by the acre—the less beets there are the more acres can be covered by the labourer. Profits and losses are largely decided by the number of beets per acre; thinning tests were made and according to the result careless thinning costs the producer quite a sum of money.

Discussions have taken place re leaving the large strong plant or the small plant at thinning time—Colorado tests were in favour of the large plant but this year our test favoured the small plant. They were thinned on May 29th and during the afternoon .27 inches of rain fell and on May 30th .15 inches fell.

These were ideal showers to follow thinning of beets and may, perhaps, have had much to do with the result—no wilting whatever took place.

All calculations were made on the basis of \$6.00 sugar.

RESULT OF FERTILIZER EXPERIMENT ON SUGAR BEETS ON THE FARM OF DOMINION SUGAR CO., CHATHAM, 1928

Fertilizer analysis		eld acre	Sugar per cent.	Purity per cent.	Incr ov che	er	Value of increase over check	of fertilizer	Return for \$1 spent in fertilizer	Value of yield per acre	Increas- ed value per acre over check
2-10-2 2-10-4 2-10-6 2-10-10 2-10-6* 2-10-6† No fert	tons 16 15 16 16 17 16 16 15 13	lbs. 1,000 1,500 1,300 100 800 700 1,600	11.9 14.7 13.9 13.4 14.0 13.0 14.0	83.5 85.5 85.1 85.4 85.8 82.4 85.8 83.7 83.7	tons 3 2 3 3 4 4 3 3 1 1	lbs. 900 1,400 1,200 700 600 1,500 1,900	16 20 22 86 18 00 26 10 19 80 22 50	\$7 82 8 07 8 34 8 64 8 96 8 34 7 92 8 34	\$2 64 2 00 2 74 2 08 2 91 2 37 2 84 1 40	\$99 00 94 50 105 72 96 30 104 40 98 10 100 80 90 00 78 30	\$20 70 16 20 27 42 18 00 26 10 19 80 22 50 11 70

^{*}Using sulphate of potash.

RESULT OF FERTILIZER EXPERIMENT ON SUGAR BEETS ON THE FARM OF DOMINION SUGAR CO., CHATHAM, 1928

Fertilizer analysis	Yield per acr	1	Purity per cent.	Increase over check	Value of increase over check per acre	Cost of fertilizer	Return for \$1 spent in fertilizer		Increas- ed value per acre over check
0-16-0 0-12-5 1-13-3 2-10-6 0-0-20* 0-0-20‡ Check	12 1,2 11 4 10 1,3	30 14.2 215 14.9 223 14.6 99 13.9 45 15.4 196 14.0 30 14.0	85.3 84.1 85.0 85.3 86.4 85.3 84.4 84.7	tons lbs. 2 54 1,262 238 1 584 1 1,935 2 69	3 97 71 8 65 11 80	\$3 30 4 88 4 62 5 94 3 75 3 75 3 15	\$2 67 85 11 2 30 3 14 3 87	\$63 22 81 31 70 63 64 19 79 54 75 28 75 69 66 12	\$15 19 4 51 13 42 9 16 9 57

These plots were approximately one acre in area.

[†]Using muriate of potash.

Using carbonate of potash.

The above fertilizers were home mixed and except where otherwise stated, sulphate of potash was used.

Fertilizer applied at rate of 300 pounds per acre. Commercial mixed fertilizer used in each instance.

^{*}Using carbonate of potash.

[†]Using sulphate of potash.

[‡]Using muriate of potash.

RESULT OF FERTILIZER EXPERIMENT ON SUGAR BEETS ON FARM OF DOMINION SUGAR CO., Снатнам, 1928

Fertilizer analysis		eld acre	Sugar per cent.	Purity per cent.	O.	ease er eck	Value of increase over check per acre	Cost of fertilizer	Return for \$1 spent in fertilizer	Value of yield	Increas- ed value per acre over check
0-12-6 2-10-6 2-12-4 2-12-6 2-12-8 4-12-6 No fert	tons 13 12 14 13 11 11 11 10	408 21 524 1,229	13.0 12.7 12.1 13.3 13.5 13.5	81.1 83.6 82.3 82.6 82.7 81.4 82.3 82.5	tons 2 1 3 3 1	lbs. 1,583 1,196 1,699 404 1,830 1,485 745	\$16 75 9 59 23 10 19 21 5 49 4 46	\$5 26 6 25 6 31 6 54 6 76 7 44 8 41	\$3 18 1 53 3 66 2 93 81 60 97	\$79 22 72 06 85 57 81 68 67 96 66 93 70 71 62 47	\$16 75 9 59 23 10 19 21 5 49 4 46 8 24

These plots were approximately one acre in area. Fertilizer applied at rate of 300 pounds per acre. Fertilizers were home mixed and sulphate of potash used in each instance.

Result of Fertilizer Experiment on Sugar Beets on the Farm of Dominion Sugar Co., $_{\rm Chatham}, 1928$

Fer- tilizer analy- sis	Yield per acre	Sugar per cent.	Purity per cent.	Incr ov che	er	Value of increase over check	Cost of	Return for \$1 spent in fertilizer	Value of yield	Increas- ed value per acre over check
1 0-12-6. 2 2-10-6. 3 2-12-4. 4 2-12-6. 5 2-12-8. 6 4-12-6. 7 6-12-6. 8 2-10-6. 9 no fert		13.5 16.8 14.7 15.8 15.4 15.0 14.3	82.0 81.9 87.6 85.8 87.5 85.5 88.2 84.3 85.0	tons 4 1 3 4 1 2 3 3	lbs. 1,300 1,300 900 1,900 1,000 800 1,500 1,500	9 90 25 53 31 43 10 35 16 08 24 37	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$4 33 1 18 3 03 3 60 1 14 1 62 2 17 2 91	\$113 97 86 40 119 88 112 39 98 32 101 50 107 25 101 47 77 77	\$36 20 8 63 42 11 34 62 20 55 23 73 29 48 23 70

RESULT OF FERTILIZER EXEPRIMENT IN SUGAR BEETS ON THE FARM OF JAS, COOPER, ST. ANNE'S ISLAND, 1928

1	Fer- tilizer analy- sis	Yield per acre	Sugar per cent.	Purity per cent.	Increase over check		Value increa over check	se	Cost of fertilizer	Return for \$1 spent in fertilizer	Value of yield per acre	Increas- ed value per acre over check
2 (3 (4 (5 (6 (7 (8 (9 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	0-16-0. 0-12-4. 0-10-4. 0-8-4. 0-6-4. 2-12-4. 4-12-1. 6-12-4. 2-12-0. 2-12-2. 2-12-6. 2-12-8. 2-10-4. 2-8-4. no fert	tons lbs. 9 1,200 7 1,300 9 900 8 1,400 8 1,100 8 1,500 9 1,500 7 400 6 1,200 8 5,00 8 1,100 9 1,500 9 1,500 9 1,500	16.0 15.2 15.7 16.0 15.0 16.0 15.9 16.5 16.5 16.6 16.6 16.8 14.8	83.1 88.5 87.8 82.9 88.2 86.6 86.8 83.1 85.0 84.2 87.2 82.7 84.8 85.9	tons 5 3 5 4 4 1 5 5 3 2 4 4 4 4	lbs. 1,100 1,200 800 1,300 1,300 1,300 1,400 1,100 400 1,000 1,400 1,900	25 2 35 6 31 8 31 5 30 2 39 9 38 5 22 8 16 9 30 6 32 8	0 4 5 5 0 7 33 5 6 6 5 8	\$4 40 6 72 6 32 6 00 5 64 8 42 9 62 10 92 7 45 8 17 8 72 9 02 8 07 7 72	\$8 83 3 75 5 63 5 31 5 58 3 58 4 14 3 53 3 06 2 07 3 51 3 64 5 22 4 10	\$65 20 53 55 62 37 59 59 59 85 56 55 68 25 66 72 52 20 43 89 60 22 62 41 72 15 57 60 28 55	\$36 65 25 00 33 82 31 04 31 30 28 00 39 70 38 17 23 65 15 34 31 67 33 86 43 60 29 05

Result of Fertilizer Experiment on Sugar Beets on the Farm of Beryl Arnold, Chatham Township, 1928

Plot No.	Fer- tilizer analy- sis		eld acre	Sugar per cent.	Purity per cent.	Incr ov che		Valu incre ov che per	ease er eck	Cost of fertilizer	Return for \$1 spent in fertilizer	Value of yield per acre	Increas- ed value per acre over check
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert	10 10 10 11 12 13 13	lbs. 1,000 1,600 1,000 500 600 400 1,300 1,600 1,500	13.3 16.2 14.4 13.7 14.2 15.3 15.1	86.8 87.9 87.3 86.8 82.5 83.3 87.9 87.2 85.7	tons 1 2 3 3 4	lbs. 1,500 100 1,500 1,000 1,100 900 1,800 100	6 5 9 15 21 25	76 30 32 30 30 04 93 52	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$0 67 75 63 1 06 1 69 2 12 2 31 3 34	\$66 67 64 80 74 55 69 75 73 80 80 52 90 77 90 39 66 78	\$7 77 2 97 7 02 13 74 23 99 23 61

RESULT OF FERTILIZER EXPERIMENT ON SUGAR BEETS ON THE FARM OF FRANK BIRD, TUPPERVILLE, R.R. 2

Plot No.	Fer- tilizer analy- sis		ield acre	Sugar per cent.	Purity per cent.		ease er eck	Value incre ove chee	ase	Cost of fertilizer	Retu for spen fertil	\$1 t in	ld	Incr e value acre che	d e per over
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert	7 7 8 9 11 10 9	lbs. 1,200 700 100 500 300 500 400	16.9 15.7 15.6 15.0 15.3	89.5 87.7 86.5 87.2 89.3 85.2 84.5 89.4 87.9	tons 1 1 2 3 5 4 3	lbs. 1,200 700 100 500 300 500 400	10 7 15 20 34 28	05 19 30 47 91	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	1 2 3 2	61 20 85 75 27 51 58 76	 75 29 10 47 81 38 70	9 3 11 14 29 25	19 75 29 10 47 81 38 70

Result of Fertilizer Experiment on Sugar Beets on the Farm of Stanley Clements, Chatham, R.R. 7

Plot No.	Fer- tilizer analy- sis		eld acre	Sugar per cent.	Purity per cent.	Incr ov che	er	Value increa over checl	se	Cost of fertilizer	Return for \$1 spent in fertilizer	Value of yield per acre	Increas- ed value per acre over check
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert	14 13 13 14 15 15	lbs. 1,600 1,100 1,900 1,900 1,400 600 300 1,800 1,000	15.9 15.3 15.3 15.3 15.7 14.9 15.1	83.9 87.5 87.9 85.6 85.2 80.2 80.9 81.1 84.3	tons 1 1 1 1 2	lbs. 600 100 900 900 400 1,600 1,300 800	7 2 2 9 2 9 7 9 12 3 10 6	9 9 9 9 9 9 8 3 54	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$0 27 87 35 34 88 1 24 94 1 98	\$89 70 101 12 92 76 92 76 97 75 104 80 97 71 104 14 91 12	\$10 00 1 64 1 64 6 63 13 68 6 59 13 02

Result of Fertilizer Experiment on Sugar Beets on the Farm of Arthur Davidson, Essex, 1928

Plot No.	Fer- tilizer analy- sis		ield acre	Sugar per cent.	Purity per cent.		ease eer eek	Value of increase over check per acre	Cost of fertilizer	Return for \$1 spent in fertilizer		Increas- ed value per acre over check
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert	tons 15 16 16 17 16 18 16 16 11	lbs. 1,800 1,300 700 200 100 1,300 1,100	15.8 16.2 17.7 16.9 17.9 16.4 18.0	85.8 84.2 86.6 82.1 87.3 80.3 83.7 86.1 87.0	tons 4 5 4 6 4 5	lbs. 700 200 1,600 1,100 1,000 900 1,000 200	35 19 34 08 43 56 33 52 51 27 32 40	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$5 35 4 21 4 04 4 99 3 71 5 16 2 88 5 15	\$137 53 114 88 116 08 134 23 119 57 143 10 115 56 133 20 80 27	\$57 26 34 61 35 81 53 96 39 30 62 83 35 29 52 93

Result of Fertilizer Experiment on Sugar Beets on the Farm of W. J. Easton, Chatham, 1928

Plot No.	Fer- tilizer analy- sis	Yield per acr		Sugar per cent.	Purity per cent.	Incr ov che		Value of increase over check	Cost of fertilizer	Return for \$1 spent in fertilizer	Value of yield per acre	Increas- ed value per acre over check
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert	12 3 16 4 15 14 1,4 18 6 16 1,3 15 6 16 4	100 100 500 300 500	15.0 15.0 16.1 16.6 14.8 15.6 14.7 15.3 14.7	82.6 84.9 86.8 80.9 85.1 85.5 84.7 86.1 85.0	tons 4 3 3 6 4 3 4	lbs. 900 1,000 600 1,200 1,900 1,200 1,000	\$2 92 29 25 23 26 21 90 42 24 33 66 22 86 29 92	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$0 41 3 50 2 76 2 51 4 68 3 39 2 03 3 77	\$78 97 105 30 105 75 107 31 117 12 113 22 97 15 107 73 74 29	\$4 68 31 01 31 46 33 02 42 83 38 93 22 86 33 44

Result of Fertilizer Experiment on Sugar Beets on the Farm of James Hughes, Kent Bridge

Fertilizer analysis		ield acre	Sugar per cent.	Purity per cent.	ov	ease er eck	Value of increase over check per acre	Cost of fertilizer	Return for \$1 spent in fertilizer		Increas- ed value per acre over check
1 0-12-6. 2 2-10-6. 3 2-12-4. 4 2-12-6. 5 2-12-8. 6 4-12-6. 7 6-12-6. 8 2-10-6. 9 no fert	10 11 11 11 9 11 10 10	1bs. 1,300 1,100 200 1,400 1,800 200 400 1,600 1,100	11.6 13.2 13.0 10.8	81.7 80.9 80.8 80.7 81.2 81.4 81.3 78.6 82.3	tons 2 3 2 3 1 2 1 2	lbs. 200 1,100 300 700 1,100 1,300 500	18 00 15 30 18 90 8 10 15 30 9 90	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$1 85 2 15 1 81 2 16 89 1 54 88 1 70	\$66 03 69 30 66 60 70 20 59 40 66 60 61 20 64 80 51 30	\$14 73 18 00 15 30 18 90 8 10 15 30 9 90 13 50

Result of Fertilizer Experiment on Sugar Beets on the Farm of John Kidd, Watford, 1928

Plot No.	Fer- tilizer analy- sis Yield per acre		Sugar per cent.	Purity per cent.	10	ease ver eck	Value of increase over check		Return for \$1 spent in fertilizer		Increas- ed value per acre over check	
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert	tons 13 12 14 14 15 16 15 15 12	lbs. 1,300 1,500 200 800 300 1,300 1,500 1,500	18.0 18.6 16.4 17.8 17.2 19.8	92.0 82.3 88.4 84.7 88.2 85.4 88.3 82.9 89.2	tons 1 2 2 3 4 3 3	lbs. 1,300 1,500 200 800 300 1,300 1,500	\$12 78 6 00 17 43 17 28 24 88 35 34 33 37	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$1 82 71 2 07 1 98 2 75 3 56 2 97 3 55	\$105 78 102 00 117 03 103 68 119 68 126 54 140 17 118 12 97 80	\$7 98 4 20 19 23 5 88 21 88 28 74 42 37 20 32

RESULT OF FERTILIZER EXPERIMENT ON SUGAR BEETS ON THE FARM OF WILFRED ROSZELL, FLETCHER, R.R. 2

Plot No.			Sugar per cent.	Purity per cent.	10	ease er eck	Value of increase over check per acre	Cost of fertilizer	Return for \$1 spent in fertilizer	per acre	Increas- ed value per acre over check	
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert		lbs. 1,200 300 800 200 500 900 1,400 400	16.7 14.5 16.0 14.8 14.3 17.2	88.2 87.5 87.8 86.9 87.0 85.7 89.1 86.5 87.8	tons 2 1 1 1 1 2 1 1	lbs. 800 1,900 400 1,800 1,600 100 500 1,000	14 33 7 50 6 30 11 52 6 45 17 10	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$2 25 1 71 89 72 1 27 65 1 52 1 36	\$83 16 89 30 71 25 77 70 76 80 69 18 94 62 84 24 65 79	\$17 37 23 51 5 46 11 91 11 01 3 39 28 83 18 45

Result of Fertilizer Experiment on Sugar Beets on the Farm of John Workman, Essex, 1928

Plot No.	- 1	tilizer Yield analy- per acre		Sugar per cent.	Purity per cent.	Incr ov che		Value increas over check per acr	se	Cost of	Return for \$1 spent in fertilizer		Increas- éd value per acre over check
2 3 4 5 6 7 8	0-12-6. 2-10-6. 2-12-4. 2-12-6. 2-12-8. 4-12-6. 6-12-6. 2-10-6. no fert	14 15 16 14 15 13 14	lbs. 1,900 500 1,500 1,600 1,400 600 1,600 1,100 800	18.2 18.4 18.4 18.7 18.7 18.6 19.1	85.5 83.4 84.8 84.1 83.7 83.6 85.5 85.6 81.2	tons 2 2 4 5 3 3 2 3	lbs. 1,100 1,700 700 800 600 1,800 800 300	23 00 35 6 44 20 27 5 32 50 19 92	8 7 8 5 6 2	\$7 02 8 34 8 42 8 72 9 02 9 92 11 22 7 92	\$3 01 2 76 4 23 5 07 3 05 3 28 1 77 3 40	\$115 78 115 42 129 15 137 76 122 74 127 75 114 54 124 40 90 06	\$25 72 25 36 39 09 47 70 32 68 37 69 24 48 34 34

No. 21

Distance of Thinning	Yield	Sugar	Value of
	per	percent-	yield
	acre	age	per acre
9 inches apart. 12 " " 15 " " 18 " " 21 " " Large seedling plants left standing. Small seedling plants left standing.	tons 16 772 16 444 15 1,133 14 1,495 13 218 11 940 14 675	15.3 14.9 14.5 15.4 15.6 15.8 14.8	\$108 96 104 63 94 49 98 80 89 14 79 14 91 36

SWINE EXPERIMENT

Pens 1, 2, 3 and 4 represented a test of barley replacing corn in a ration. According to market price, the barley produced one-half of a cent per pound cheaper but it took 2.621 pounds barley as against 2.333 pounds corn for every pound gain.

Pens 5, 6, 7, 8 and 9 were just carried to ascertain production costs.

SWINE EXPERIMENT, 1927-1928

Pen and Breed	No. of pigs	Weight at beginning	Gain	Oats	Oats and Barley	Barley	Corn	Hominy	Tankage	Mangels	Total cost	Cost per cwt.
1 Yorks	9 8 8 8 10 6 10 8 6	lbs. 969 686 691 610 1,069 898 1,401 1,084 974	lbs. 819 856 919 915 749 372 552 428 196	lbs. 665 670 674 675	1,021	2,295	2,373	lbs. 490 585 589 585 140 133 147 140 119	lbs. 2971/2 2761/2 3861/2 2721/2 2081/2 115 88 30	388	\$ 61 04 67 69 78 77 66 88 58 32 28 00 39 93 32 54 16 70	7 23 7 60

Oats \$0.55. Corn \$1.00.

SWINE EXPERIMENT (Summer) 1928

Pen	Weight at beginning		Oats.	Barley	Corn	Hom- iny	Tank- age	Total cost	Cost cwt.
1 None	lbs. 529 571	lbs. 602 626	lbs. 810 750	lbs. 560 425	lbs. 450 510	lbs. 575 625	lbs. 210 165	\$47 81 45 27	\$7 94 7 23

The high cost of feed in the spring of 1928 raised the question of the value of pasture. The above test will be continued for four more seasons. The difference in cost of production was not so great as might be anticipated.

BEEF CATTLE

Commenced to feed Nov. 15, 1927. 25 steers—18,310 lbs. Average, 732.4 lbs. 18,310 lbs. cost \$1,600.00. Sold April 18th, 1928. No. of days on feed—155. 20,888 lbs. at 9½. 3,760 lbs. at 8¾.	\$2,260 329	40 00
24,640 lbs. S.P. C.P.	\$2,589	40
C.P	1,600	00
GainGain weight 6,330 lbs. or 1.63 lbs. per head per day.	\$989	40
FEED CONSUMED		
Silage, 30 tons at \$3.00	\$90	00
Alfalfa hay, 16 tons at \$10.00	160	
Bean straw, 6½ tons at \$4.00.	26	
Soy beans, 2,500 lbs. at 3 cents	117	00
White beans (culls), 1,500 lbs. at 1½		50
Total cost of steers, \$2,090.50. Net gain, \$498.90. Cost per pound gain 7.74 cents.	\$490	50

NEW LISKEARD DEMONSTRATION FARM

The annual report as found in the following pages consists of several tables of results, facts and figures. The data presented have been carefully checked and in some instances have been compared with results of last year.

Unseasonable weather in Temiskaming during the late spring delayed seeding and early prospects were unfavourable, but exceptionally good growing weather later in the summer stimulated rapid growth. Much rain fell again during the normal period of harvesting of forage, grain and root crops. The season demonstrated very forcibly the necessity of farmers producing early maturing crops. The Farm had a splendid demonstration in a field of Alaska well matured and well threshed.

The natural resources of the country in metals and timber products are attracting large financial interests from all parts of America. This interest is doing much to develop the north.

The millions of acres of arable land in the clay belt have also attracted much outside interests which is also gratefully acknowledged by the farmers living in the above mentioned area. The Farm demonstrates the agricultural possibilities for the future and special attention to the needs of the district. The live stock industry, poultry, field, root and vegetable crop work comprises the staple lines of farm activities.

DATES OF FARM OPERATIONS

The dates upon which the more important farm operations commenced for the past year, are as follows:—

Dates of Farm Operations for 1928
First work on land (ploughing)
First work on land (cultivating)
First seeding (cereals)
First planting potatoes
First seeding turnipsJune 15th.
Summer fallowing commencedJune 15th.
Ensilage cut
First cutting alfalfaJuly 25th.
First cutting clover
First cutting mixed hay
First cutting fall wheat
Summer fallowing finished
First cutting cereals
Seeding winter wheat
First digging potatoesOctober 2nd
First digging turnipsOctober 25th.
Ploughing stopped by frost

Seasonal Notes

Farm operations of last spring commenced on May 8th which was eleven days later than in the previous year. This operation was one of plowing. The first cultivation on the land was also later this year by nine days. Total precipitation for the year was 38.57 inches, 13.11 inches more than that of 1927 and 18.1 inches more than that of 1926. Such a heavy precipitation had its effect on the harvesting of all crops. October registered the greatest amount of rainfall for the year with a total of 6.03 inches. July registered the highest in 1927 with a total of 3.87 inches. August 15th and 16th registered the highest temperature for the year, i.e., 86 degrees Fahrenheit. The lowest temperature was registered on February 25th, when it was 52 degrees below zero. The frost free period was 110 days, and the average highest temperature was 62.9 and average lowest 1.54 for 1928.

The following table will be of interest as it gives the total hours of sunshine per year for the past five years and the average per year for the whole of that period.

TOTAL HOURS SUNSHINE

November 1st, 1923 to October 31st, 1924. November 1st, 1924 to October 31st, 1925. November 1st, 1925 to October 31st, 1925.	1 487 8
November 1st, 1925 to October 31st, 1926. November 1st, 1926 to October 31st, 1927. November 1st, 1927 to October 31st, 1928.	1 500 4
Total sunshine for 5 years	7,550.0 1.510.0

WEATHER RECORDS

PRECIPITATION AND TEMPERATURE

Total precipitation for year. Average precipitation for last 5 years. Total precipitation for 7 months ending October 31, 19 Month having greatest precipitation—October. Highest temperature during year—86 degrees. Lowest temperature during year—52 below zero. Average highest temperature. Average lowest temperature. Average monthly temperature. Last frost. First frost. Number of days between. Average frost-free period for 34 years.	J S	28.38 " 6.035 " Aug. 15 and 16. Feb. 25. 62.91 1.54 32.59 une 1st. ept. 18th. 110 days
Number of days between Average frost-free period for 34 years Shortest frost-free period on record—1923 Longest frost-free period on record—1909		110 days 120 " 73 " 157 "

Sunshine

Bright sunshine on	247 days
I otal hours of bright sunshine	1 412 3 hrs
Average hours sunshine per day	3.86 "
Yearly average number of days with bright sunshine (5)	268 days
Month having greatest number of hours of sunshine—August	218.8 hrs.
Month having least number of hours of sunshine—Nov. 1927	33.1 "
Average hours sunshine per day during November, 1927	1.10 "

WEATHER OBSERVATIONS, 1927-1928.

		Ter	nperature			Sunshine			
Month	Highest	Date	Lowest	Date	Average		Hours of sunshine		
November, 1927 December, 1927 January, 1928 February March April May June July August September October	60 41 36 33 47 64 77 80 83 86 75	12 8 & 29 7 & 13 13 24 30 20 13 7 & 16 & 24 15 & 16	-3 -24 -38 -52 -30 -8 26.5 32 38 36 26 15	28 24 30 25 6 16 14 1 30 25 24 30	26.51 12.6 6.16 4.18 17.27 29.4 48.8 57.78 64.27 31.55 49.9 42.7	10 13 12 19 26 25 23 26 24 26 24	33.1 41.1 64.3 91.6 123.8 188.4 166.9 160.8 156.8 218.8 111.3 55.4		

PRECIPITATION

Month	Rain		Sn	ow	Total as Rain		
	Days rain fell	Inches	Days snow fell	Inches	Days	Inches	Average for 34 years
November, 1927. December, 1927. January, 1928. February. March. April. May. June. July. August. September. October.	8 5 4 5 8 16 18 22 15 20 18	1.06 T.05 17 2.27 2.803 4.607 4.780 2.775 5.13 6.02	11 11 20 15 16 9		17 13 20 15 20 14 16 18 22 15 20 22	2.81 1.85 1.42 1.9 1.07 3.39 2.803 4.607 4.780 2.775 5.13 6.035	2.13 1.42 .96 1.29 1.26 1.81 2.68 2.86 3.66 2.78 3.35 2.91

DIRECTION OF WIND

. By Twelve-Hour Periods

Month	N	N-W	W	S-W	S	S-E	E	N-E	Prevailing direction
November, 1927 December, 1927 January, 1928 February March April May June July August September October	4 7 1 0 1 9 1 1 0 0 0 0 7	25 23 32 30 38 22 29 26 25 18 24	7 3 4 2 6 2 1 0 0 0 4 6	5 9 10 3 1 9 9 6 16 20 19	5 0 2 0 3 3 3 0 0 0 0 1 7	11 13 8 18 11 12 11 12 8 16 6 5	2 2 1 2 1 0 2 0 0 0 1 1	1 4 3 3 2 5 4 13 12 8 3	N.W. N.W. N.W. N.W. N.W. N.W. N.W. N.W.

Animal Husbandry

Holsteins. The addition of the new Holstein bull to the herd seems to have had the desired effect. The few heifers sired by him have better lines and decidedly more quality than those left by the previous sire. They should give a good account of themselves in their milking periods as they are out of high testing dams. The sire, Springbank Snow Majesty, is out of a 4.2 per cent. dam and traces back to Dekol Plus Segis Dixie on his sire's side.

Shorthorns. Special mention should be made of the records of Lady Cruickshank the 4th which cover a period of three years at twice a day milking; 1926, 10,639 pounds; 1927, 10,037 pounds; 1928, 13,754 pounds.

A very splendid crop of calves sired by the new Shorthorn bull, Ranger, have been added to the herd. The bull calves are looked upon as promising breeders for the future and are all spoken for soon after birth.

The Herd. The herd passed another clear test for T.B. during September without a single reactor. During November, 1927, the Farm lost one of the triplet heifers (Academy Mary Sylvia) from indigestion and was very unfortunate in losing two remaining triplets in February, 1928, with subcutaneous hemorrhagic septicemia. The entire herd was inoculated at that time for hemorrhagic septicemia and again in December, 1928.

Twice a day milking was featured at all times with no forced feeding. The farm-grown feeds were used as the major portion of the ration and only small amounts of molasses, oilcake meal and bran were purchased. All cows of milking age are entered in the R.O.P. and tests were made by disinterested parties. The following tables of facts and figures are considered very satisfactory.

Attention is drawn to the average production and butter fat test.

HERD RECORDS FOR 1928

Name of Cow	Age at beginning of lacata- tion period	Date of freshening	No. of days in period	Total lbs. milk produced
(Holstein) Academy Mary Sylvia Academy Nellie Dekol Academy Pauline Echo Academy Pontiac Echo Bessie Dutchland Schuiling Daisy Artis Dutchland. Faforit Hartog Johanna Francy Johanna Hartog Johanna Butter Lass Dekol Lady Snowflake of Temiskaming Valentine Segis Keyes Hartog Johanna Pontiac Echo	3 years 3 " 3 " 4 " 4 " 4 " 4 " 5 " 2 "	May 2/27 May 30/27 June 2/27 May 23/27 Mar. 22/27 Nov. 26/27 Mar. 28/27 Apr. 13/27 Apr. 5/27 Nov. 15/26 June 11/27 Mar. 8/28	194 232 340 283 207 370 347 268 248 392 331 266	6,866 7,561 10,824 9,835 7,105 12,207 11,637 7,869 6,814 13,039 12,375 5,000
Totals	41 years 3.4 "		3,478 289	111,132 9,261
(Shorthorn) Lady Cruickshank 4th. Lady Refiner 2nd. Nellie Cruickshank. Lady Peer. Rosebud Patricia.	9 years 3 " 5 " 2 "	May 26/27 Dec. 8/27 May 5/27 Oct. 10/27 Oct. 8/26	464 266 221 263 640	13,754 5,403 2,593 3,541 11,569
Totals	22 years 4.5 "		1,854 370	36,860 7,372
Totals for whole herd	63 years 3.7 "		5,332 313	147,992 8,705

Note:—Bessie Dutchland Schuiling was sold before she completed her lactation period.

Name of Cow	Daily average yield of milk	Average per cent. fat	Value of whole milk at 10c per per quart	Number pounds of butter fat
(Holstein) Academy Mary Sylvia. Academy Nellie Dekol. Academy Pauline Echo. Academy Pontiac Echo. Bessie Dutchland Schuiling. Daisy Artis Dutchland. Faforit Hartog Johanna. Francy Johanna Hartog. Johanna Butter Lass Dekol. Lady Snowflake of Temiskaming. Valentine Segis Keyes. Hartog Johanna Pontiac Echo.	35.39	3.8	\$274 64	260.90
	32.59	3.7	302 44	279.75
	31.83	3.9	432 96	422.13
	34.75	3.6	393 40	354.06
	34.32	3.6	284 20	255.78
	32.99	3.8	488 20	463.86
	33.53	4.1	465 48	477.11
	29.36	4.2	314 76	330.49
	27.47	4.0	272 56	272.56
	33.26	3.7	521 56	482.44
	37.38	3.4	495 00	420.75
	18.79	3.9	200 00	195.00
Totals	381.66	45.7	\$4,445 28	4,214.83
	31.80	3.8	362 44	351.23
(Shorthorn) Lady Cruickshank 4th Lady Refiner 2nd Nellie Cruickshank Lady Peer Rosebud Patricia	29.64	4.4	\$550 16	605.17
	20.31	4.7	216 12	253.94
	11.73	4.1	103 72	106.31
	13.46	4.2	141 64	148.72
	18.07	4.7	462 78	543.76
Totals Averages Totals for whole herd Averages for whole herd	93.21	22.1	\$1,474 42	1,657.90
	18.64	4.4	294 88	331.58
	474.87	67.8	5,919 70	5,872.73
	27.93	3.9	348 21	345.45

LIST OF HOLSTEINS-January 1st, 1929

FEMALES:

- 9 two-year-old heifers.
- 5 one-year-old heifers.
- 2 four-year-old cows.
- 5 mature cows.
- 2 calves.

MALES:

1 two-year-old bull.

LIST OF SHORTHORNS-January 1st, 1929

FEMALES:

- 1 one-year-old heifer.
- 2 two-year-old heifers.
- 3 four-year-old cows.
- 2 mature cows.
- 2 calves.

MALES:

1 two-year-old bull.

Bull Service. As the Farm is particularly desirous of maintaining the health of the herd, farmers are not encouraged to bring their cows to the herd sires for services although they are not denied the privilege. A few farmers, however, living adjacent to the Farm, made use of this service.

Sheep. The flock at present consists of one ram, twenty-seven bred ewes and nine ewe lambs, all of which are pure bred Shropshires. A number of typy ram lambs with good conformation are being kept over for sale, as shearling rams to farmers desiring same.

From the twenty-four ewes bred in the fall of 1927, thirty-eight lambs were born, seven of which later died leaving a total of thirty-one. From this number thirteen ewe lambs were raised.

The flock has been drenched three times during the year for intestinal parasites with noticeable results. There was plenty of nutritious pasture in the fall of 1927. The ewes, therefore, went into winter quarters in good condition. Iodized salt was given the ewes after they were bred to guard against the development of goitre in the spring lamb crop.

Sheep Register. By having such a complete register, or tab on the flock, the standard may be raised to the type, quality and weight desired for the breed. No ewes are bred at the Farm as lambs. The following table is a copy of the register and gives complete information regarding the flock.

LIST OF BREEDING EWES 1928-1929

Private number	Regis- tered number	Age	Number of lambs	Private number of ewe lambs	Private number of ram lambs
26-53. 24-19. 26-69. 24-25. 26-55. 26-49. 24-17. 25-47. 23-15. 26-25. 25-11. 23-1. 25-15. 23-5. 26-15. 26-37. 23-20.	51,404 44,835 51,417 44,838 51,405 51,402 44,952 44,834 51,401 39,548 51,384 48,216 39,538 48,221 39,541 51,378 51,378 51,391 28,406	2 4 2 4 2 2 4 4 2 5 3 5 3 5 7	2 2 1 1 2 1 1 1 1 2 2 2 2 2 2 2 2	28-3 28-5 28-7 28-9 28-11 28-13 (1) dead 28-15	28-2 28-4 28-8 28-6 28-10 28-12 28-14 28-16 28-18 28-20 28-22 28-22 28-24 28-30 28-34 28-36
23–3	44,827 39,558	5	2 2	28–19 28–21	28-28
26-77. 26-43. 26-3. 23-3.	51,423 51,397 51,364 39,542	2 2 2 5	1 1 1 3	28-23 28-25 28-27 dead	28-32

EWE LAMBS SELECTED TO KEEP OVER IN FARM STOCK

Private number	Registered number	Age	Remarks
26-25.	51,384	2	
27-14.	55,799	1	
27-22.	55,882	1	
27-2.	55,787	1	
27-10.	55,794	1	
27-20.	55,804	1	

CANADIAN CO-OPERATIVE WOOL GROWERS, LTD.

Comments. The pasture was very luxuriant in fall of 1927. Sheep grew a healthy fleece with plenty yoke and quality. The average weight of forty-two fleeces was 8.69 pounds. The weight of fleeces this year averages 1.39 pounds more than that of 1927.

Grade	19	27	19	28
	Price	Price	Pounds	Price
Medium staple	282	\$0 28 25 05	347 18	35 07
Sacks, twine, freight and selling charges	335	\$83 04 12 51	365	\$122 71 \$13 45
Net proceeds		\$70 53		\$109 26

A rebate of 83 cents from selling charges 1927 was returned this year.

Club Work. The Farm distributed three flocks of sheep to three junior farmers in the district last fall. This makes a total of nine flocks now out. The surplus from the flock is profitably utilized in this way as it interests boys in sheep work. Each flock consists of three bred ewes and two unbred lambs. The quality and type of the ewes and lambs given out are considered very good.

Horses. Three teams are kept on the Farm at the present time. A Percheron team consisting of a young gelding and a young mare, was purchased in the spring. They are good workers and have proven satisfactory.

The summer months, being so wet, was hard on the horses. There was much mud and soft soil to work on. Consequently the horses are in poorer condition than usual. They were kept busy during the winter months of 1927-28 hauling gravel for the Farm. The two old teams are showing their age and will have to be replaced before long.

Hogs. Three litters were raised and disposed of for breeding and meat purposes. The herd consists of two, two-year-old breeding sows and a boar. There is still lack of accommodation for going into the hog business more extensively.

Poultry (Barred Rocks). The new poultry house is giving good satisfaction, but proper accommodation is lacking for giving anything like justice to this department. A number of good cockerels have been disposed of this fall to farmers of the district and three cockerels of good type were purchased from the Kemptville Agricultural School.

FIELD HUSBANDRY

Hay Crops. The hay crop consists of eighty acres, made up of twenty acres of mixed hay, twenty acres of alfalfa and forty acres of red clover. Of the latter, sixteen acres were used for silage. One-third of the alfalfa spoiled as a result of rain. No second cut of alfalfa was made as conditions at the time were responsible for having the field plowed. A total of seventy acres were seeded down last spring to constitute the hay acreages for the coming year, including mixed, red clover and alfalfa.

Pasture. Pasture was obtained from cleared land and while there was an abundance of moisture, the grass lacked substance. The meadows being very wet at all times, were badly tramped.

Rape. Five acres had been planned for rape but the prolonged wet spell prohibited work on the land until haying. It was then not required as the sheep had the use of the aftermath from meadows, which was luxuriant and abundant.

Silage. Two silos 13 ft. x 30 ft. were filled from sixteen acres of red clover. Much water was added to the ensilage as the clover had grown coarse and was a little too fibrous. It makes splendid feed for the live stock and there will be sufficient to last until pasture is available.

Roots. Turnips were a fair crop, while potatoes were almost a failure. The latter were sown previously to heavy rains and those not drowned out then, rotted badly before harvest or after digging.

Corn gave a fair crop of ears for table use.

Grain Crops. The grain acreage was comprised of eighty acres of oats, ten acres of O.A.C. No. 21 barley and five acres of Potter peas and twenty acres of fall wheat.

The oats were comprised of equal acreages of Banner and Alaska varieties and at least twenty acres of the Alaska were completely drowned out. The peas suffered likewise and the remaining oats hardly averaged twenty bushels to the acre.

Fall wheat seemed to smother out in places. This was due to the condition of the field as some ice had formed in several spots and remained until melting away in the spring. As a consequence, the wheat had an uneven stand. One-third of the field was in fact not more than one-half a crop. Despite this and the very wet harvest, the twenty acres threshed 480 bushels. Twenty acres (summer fallowed) were sown to fall wheat August 29th. A good stand was observed before late fall.

Seventy acres were seeded down with the spring grains, using the following mixture:—

Timothy Red Clover Alsike Alfalfa													3	"	"	"	
Total												1	6	"	66	66	

EXPERIMENTAL WORK

VARIETY TEST WITH SPRING WHEAT Date of Seeding—May 15th, 1928

Variety	Date of ripening	Number of days ripening	Yield of grain per acre
Marquis	Sept. 11th	120	10.0 bush.
Garnet	Aug. 25th	103	21.6 "
Ruby	Aug. 28th	106	11.6 "
Early Red Fife	Sept. 5th	114	18.3 "
Early Red Fife (Ottawa)	Sept. 7th	116	16.6 "
Marquis (Thomas)	Sept. 8th	117	23.3 "
Reward	Aug. 25th	103	18.3 "
O.A.C. No. 85	Sept. 1st	110	23.3 "
Quality	Aug. 25th	103	18.3 "
Emmer	Sept. 12th	121	45.0 "
Kota (Steele Briggs)	Sept. 8th	103	5.8 "

VARIETY TEST WITH BARLEY Date of Seeding—May 17th, 1928

Variety	Date of ripening	Number of days ripening	Yield of grain per acre
Charlottetown No. 80. O.A.C. No. 21. Himalayan.	Aug. 25th	115 101 112	43.7 bush. 47.8 " 36.6 "
Guy Mayle. Black Hull Chinese. Manchurian.	Aug. 25th Aug. 25th	115 101 101 104	16.6 " 36.6 " 58.3 " 54.1 "

VARIETY TEST WITH OATS

Date of Seeding-May 17th, 1928

Variety	Date of ripening	Number of days ripening	Yield of grain per acre
Victory. Assalman O.A.C. No. 144 Banner Abundance (Ottawa). Abundance. O.A.C. No. 72 O.A.C. No. 3 O.A.C. (Guelph) Alaska. Sparkler Black Joanette. Liberty	Sept. 12th Sept. 10th Sept. 13th Sept. 13th Sept. 12th Sept. 12th Sept. 8th Aug. 27th Aug. 25th Sept. 8th Sept. 8th	119 119 117 120 120 119 115 94 103 101 104 115	32.3 bush. 52.9 " 82.3 " 50.0 " 41.1 " 38.2 " 58.8 " 61.7 " 32.3 " 50.0 " 44.1 " 41.1 " 47.0 "

VARIETY TEST WITH PEAS IN MUCK SOIL

Date of Seeding-May 16th, 1928

Variety	Date of ripening	Number of days ripening	Yield of peas per acre
MacKay Early Britain Early Raymond Potter Golden Vine O.A.C. No. 181 Zippinaw Chancellor Canadian Beauty Temiskaming Thomas Laxton White Wonder (Guelph)	Sept. 6th Aug. 29th Sept. 5th Sept. 5th Aug. 29th Sept. 5th Aug. 28th Aug. 30th	125 114 106 113 113 106 113 105 107 116 99	18.3 bush. 15.0 " 21.6 " 25.0 " 11.6 " 21.6 " 10.0 " 13.3 " 11.6 " 13.3 " 11.6 "

VARIETY TEST WITH PEAS ON CLAY SOIL

Date of Seeding-May 21st and 23rd

Variety	Date of ripening	Number of days ripening	Yield of peas per acre
MacKay. Early Britain. Early Raymond. Potter Golden Vine. O.A.C. No. 181 Zippinaw. Chancellor Canadian Beauty. Temiskaming Thomas Laxton. Spanish.	Aug. 22nd Aug. 25th Aug. 27th Aug. 25th Aug. 27th Aug. 25th Aug. 30th Aug. 30th	99 100 94 97 99 97 97 95 100 100 92 98	7.5 bush. 6.6. " 5.0 " 8.3 " 50 " 10.0 " 5.8 " 5.0 " 8.3 " 6.6 " 3.3 " 5.0 "

ENSILAGE MIXTURES

Dates of Seeding-May 19th and 29th

Mixture	Date of ripening	Number of days ripening	Yield of tons per acre
Oats and Peas (O.A.C. No. 72 and Potter)		94 86 124	9.4 tons. 10.0 " 24.0 "

PLOTS OF GRAIN MIXTURES

Date of Seeding-May 18th, 1928

Mixture	Date of ripening	Number of days ripening	Yield per acre
Oats and Wheat (Alaska and Garnet)	Aug. 28th Sept. 6th	103 112	900 lbs. 1,500 "
Oats and Peas (O.A.C. No. 72 and O.A.C. No. 181) Oats, Barley and Peas (O.A.C. No. 72, O.A.C. No. 21,	Sept. 12th	118	1,300 "
Early Raymond)	Sept. 6th	112	1,900 "
O.A.C. No. 181)		112	1,500 "
Oats and Barley (O.A.C. No. 3, O.A.C. No. 21)	Aug. 28th	103	1,500 "
Oats and Barley (Alaska and O.A.C. No. 21)	Aug. 28th	103	1,000 "
Oats and Wheat (O.A.C. No. 3 and Garnet)	Aug. 25th	100	1,600 "
Oats and Wheat (Banner and Marquis)	Aug. 30th	105	800 "

COMMENTS

Experimental Work with Cereals. Work of an experimental nature is regarded as being very important in this district. A limited amount of plot work was carried on with the testing of varieties of cereals for crop yields, date

of maturity, strength of straw and general suitability to the district. Proper facilities for threshing the products from these plots interferes to some extent with proper application to the work. It was hoped in 1927 that the necessary machinery required to carry on with would be available for 1928. It was not obtained, however, but will likely be had to handle the 1929 plot work.

The results obtained this year are not at all gratifying, in fact, are misleading. The early maturing varieties of grain were mostly ruined by the over activities of sparrows. The later plots were beaten down with heavy and continuous rain and as a result of this, much did not mature evenly and could not be harvested normally as the grain was spoiled with dirt. That portion harvested was damp and as no machine was available for threshing, the grain was beaten or rubbed from the straw. The foregoing tables have given the details regarding varieties, dates of seeding, dates of cutting and yields per acre.

EXPERIMENTAL WORK WITH ROOTS AND VEGETABLES

FERTILIZER EXPERIMENT WITH TURNIPS

Plot No.	Fertilizer mixture	Yield per plot pounds	Yield per acre bushels
A	0-16-0	510	408
A. A. Check.		515 500 270	414 400 216
B	0-16-0 0-12-5	575 485	460 388
B. Check.	2-12-6	490 335	392 268

FERTILIZER EXPERIMENT WITH POTATOES

Size of plot: 1/100th of an acre. Rows 175 feet long; 30 inches apart.

Plot No.	Fertilizer mixture	Yield per plot pounds	Yield per acre bushels
1. Check. 2. Check. 3. Check. 4. Check. 5. Check. 6. Check. 7. Check.	0-12-4 0-12-6 0-12-8 2-12-4 2-12-6 4-12-6	49 62 28 48 58 39 75 55 51 15 18 9 86	81.6 103.3 46.6 80.0 96.6 65.0 125.0 91.6 85.0 25.0 30.0 114.3 100.0
8 Check	3-10-5	55 35	91.6 58.3

Comments. Turnips again were the most important root crop on the Farm. The yield per acre was not as high as that of 1927 but was quite satisfactory. Several fertilizer experiments were carried on again this year in co-operation with the Chemistry Department, O.A.C., Guelph. The results are not very satisfactory as weather conditions interfered to such an extent, that the experiments are not considered to be of much interest to northern agriculture. The fertilizer experiments with Alaska oats were of interest for a time but final results did not prove anything. Sparrows and adverse weather disturbed the plots. Yield tests with corn, buckwheat, potatoes, beets, carrots, parsnips, spinach, mangels, turnips, onions, cabbage, cauliflower, tomatoes, flax and numerous other crops were carried on but results as to yield per acre could not be ascertained. The production of corn for a field crop is not recommended and is a very catchy crop even with the early varieties for table use.

Farm Beautification. The practicability of farm beautification was realized last year and definite plans were made to beautify the roadways and grounds around the farm for this year.

Stoning and gravelling of the barnyard, lanes and roadways in front of buildings and elsewhere were started last winter and will be continued this

coming year.

A sign "Ontario Department of Agriculture. Demonstration Farm" was erected this year and is in plain view to the traffic of the Ferguson Highway. Twenty-four Manitoba maples were planted on May 23rd. They have done very well to date.

Fencing. As time goes on, the Farm is erecting the necessary fencing. On May 23rd, 250 rods were erected with an additional 220 rods put up in October, making a total of 470 rods of new fencing this year.

Bush Fruits. Small fruits consisting of red and black currants, gooseberries, raspberries and strawberries did very well this year. The demonstration work while limited was greater than that of 1927 and has proven that such crops can be grown quite successfully in this section. Three crab apple trees bore fruit, although set out very recently.

In strawberries, the Senator Dunlop and Williams varieties have proven most satisfactory. The Dunlop variety ripened July 10th and picking continued until August 7th, Williams from July 10th to July 24th. The Sunbeam variety of raspberries yielded heavier than the Herbert this year and picking

continued from August 12th to September 12th.

SUMMARY

In summarizing the work of the Farm for the year special attention is drawn to the successful results obtained from the sheep flock, the sheep club work, and the dairy herd. Taking all conditions into consideration, the Farm may well look on the past with pride, the present with satisfaction and the future with hope. The results of the past year were not too encouraging as Northern Ontario endured the hardships of exceptionally heavy and continuous rainfall. As a result of this clover seed did not mature to any appreciable extent and much cut clover was spoilt before it could be harvested. The production of seed would approximately be around 10 or 12 per cent. of that for last year. The potato crop was a complete failure in many sections as weather conditions interfering very much at the time of growth and previous to harvesting resulted in many acres of potatoes rotting in the ground.

In live stock development much interest is taken in attempting to gradually improve the type of sheep and dairy cattle. The Farm has assisted in meeting the demand for pure bred stock including bulls, rams and ewes. Several good cockerels have been disposed of to poultrymen of the district. The Farm's feeding methods have been adopted or studied by several farmers.

The information revealed from the fertilizer experiments is not considered as entirely satisfactory. Extreme weather conditions would play too big a part in the results. With turnips, there was a noticeable differences in yield between fertilized and check plots. In potatoes results would indicate that

nitrogen added to the soil in some form gives good results.

The variety test with peas indicated that while peas matured from one to three weeks earlier on clay soil the yield was higher from the muck soil. This experiment was also altered by birds and much rain.

Ontario Department of Agriculture

ANNUAL REPORT

OF THE

STATISTICS BRANCH 1928

PART I.—AGRICULTURAL STATISTICS
PART II.—CHATTEL MORTGAGES

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Ontario Department of Agriculture Statistics Branch

PART I—AGRICULTURAL STATISTICS

THE WEATHER

TEMPERATURE.—The following table gives the temperature of the Province for each month during the last five years, together with the mean annual temperature, also the mean temperature for the six months, April-September, practically the growing season, together with the average for the five years, 1924-1928, and the forty-seven years, 1882-1928.

Months	1928	1927	1926	1925	1924	1924- 1928	1882- 1928
January. February. March. April. May. June. July. August. September. October. November. December. Annual mean. Mean for six months April-September.	20.4 18.8 26.6 38.9 52.5 60.6 68.3 68.4 55.8 49.5 36.8 28.6	\$17.8 23.2 33.4 42.2 51.9 59.5 66.9 62.6 61.7 51.1 37.8 24.7 44.4 57.5	\$19.6 17.2 22.0 34.8 51.1 58.5 66.5 66.3 57.4 45.8 33.9 20.7 41.2	14.1 23.9 31.5 44.2 49.1 65.3 65.4 66.9 59.5 39.9 34.1 22.3 43.0 58.4	61.6 61.6 65.6 64.5 55.6 49.9 36.1 18.6 41.9	\$\ \begin{array}{c} 17.8 \\ 19.8 \\ 28.5 \\ 40.2 \\ 50.6 \\ 61.1 \\ 66.6 \\ 65.7 \\ 58.0 \\ 47.2 \\ 35.7 \\ 23.0 \end{array}\$	17.9 17.1 27.5 41.7 53.5 63.3 67.2 65.8 59.2 47.5 35.3 23.6 43.3

The mean temperature for 1928 was 43.5 degrees, or 0.9 degrees lower than the preceding year, and 0.2 degree above the normal of the forty-seven years, 1882-1928.

The mean of the six growing months, April-September, was 57.4, or 0.1 degree below the preceding year, and 1.1 degrees colder than the forty-seven-year normal. Eight months were above and four below normal, ranging from 5.0 degrees above in December, to 3.4 degrees below in September.

SUNSHINE.—In the following the averages of sunshine are derived from the records of the weather stations at Woodstock, Toronto, Lindsay, Kingston and Ottawa.

Months	Sun above horizon	1928	1927	1926	1925	1924	1924- 1928	1882- 1928
January. February. March April. May June July August. September. October. November. December. For year. For six months April-September.	302.5 369.9 406.4 461.1 465.7 470.9 434.5 376.3 340.2 286.9 274.3	hrs. 63.2 112.1 139.8 166.4 215.7 206.9 258.1 258.4 172.7 127.9 68.8 70.2 1,860.2	hrs. 84.8 77.1 145.4 215.2 160.7 279.4 256.3 250.5 192.3 163.9 51.9 59.4 1,936.9	hrs. 55.5 94.4 166.4 178.5 262.6 249.4 282.1 187.1 137.1 112.1 60.5 66.3 1,852.0	hrs. 81.5 86.4 128.7 225.1 189.4 268.3 251.6 274.4 136.3 116.6 90.2 58.6 1,907.1	hrs. 66.0 125.5 134.4 183.3 192.0 241.8 289.4 252.0 157.3 204.9 91.2 59.6 1,997.4 1,315.8	hrs. 70.2 99.1 142.9 193.7 204.1 249.2 267.5 244.5 159.1 145.1 72.5 62.8 1,910.7	hrs. 77.3 103.7 145.4 182.2 213.2 248.2 268.0 240.9 183.5 138.7 77.3 62.6 1,941.0

The year 1928 had 1,860.2 hours of sunshine, 80.8 hours less than the average for the last forty-seven years. The six growing months, April-September, had 1,278.2 hours, or 57.8 hours less than average. Four months were above and eight below normal. August had the greatest departure above with 17.5 hours and June the greatest below normal with 41.3 hours.

PRECIPITATION.—The fall of both rain and snow for the five winter months, including November, 1927, and March, 1928, is given in the following table for five years, together with the average for the forty-seven years, 1882-1928. Ten inches of snow is equivalent to one inch of rain.

Months	1928	1927	1926	1925	1924	1924- 1928	1882- 1928
November, 1927: Rain	in. 3.85 8.3	in. 3.14 13.8	in. 2.52 5.3	in. 0.96 6.2	in. 2.16 4.2	in. 2.53 7.6	in. 1.99 7.4
Rain. Snow. January, 1928: Rain. Snow.	17.4	0.26 17.1 0.34 13.9	0.66 13.8 0.54 17.4	0.94 13.8 0.03 18.4	2.04 8.6 1.61 24.0	1.08 14.1 0.60 18.6	1.26 15.3 0.85 18.8
February, 1928: Rain Snow March, 1928: Rain	0.74 12.1 0.84	0.26 19.0 0.99	0.54 16.0 0.82	1.56 10.0 1.67	0.09 20.9 0.58	0.64 15.6 0.98	0.72 15.7
Snow Five months: Rain Snow	7.44 74.9	5.9 4.99 69.7	18.0 5.08 70.5	5.16 59.8	5.4 6.48 63.1	5.83 67.4	6.01 68.0

The total amount of rainfall for the five months was 7.44 inches, or 1.43 inch above the average of the forty-seven years, 1882-1928.

The total amount of snowfall was 74.9 inches, or 6.9 inches above normal. The rainfall for the six months, April-September, comprising what is regarded as the growing season for most crops, is given in the following table covering the last five years, 1924-1928, and the normal for the forty-seven years, 1882-1928.

Months	. 1928	1927	1926	1925	1924	1924- 1928	1882- 1928
April May June July August September Total for six months.	in. 1.97 1.71 3.94 4.28 3.66 3.27	in. 1.19 3.92 2.94 4.36 1.94 2.33	in. 1.53 1.47 3.28 2.72 4.10 4.12	in. 1.18 1.53 3.52 3.48 1.77 4.11 15.59	in. 2.05 3.52 2.37 3.47 2.78 4.11 18.30	in. 1.58 2.43 3.21 3.66 2.85 3.59	in. 1.84 2.74 2.83 2.89 2.69 2.73

The rainfall for the six months, April-September, was 18.83 inches, or a little more than two inches more than the preceding year, and in comparison with the forty-seven years 3.10 inches greater. Five months were above and one below the average. May with 1.03 inch below, and July with 1.39 above, had the greatest departures during the growing season.

STATISTICS OF FARM CROPS, 1928

Field Crops	Acres	Production	Bushels per	Market V	Value
			acre	Total	Per acre
Fall wheat Spring Wheat Oats Barley Peas	693,660 109,805 2,659,980 615,433 109,887	bush. 16,766,408 2,181,855 93,461,068 19,944,133 1,892,588	bush. 24.2 19.9 35.1 32.4 17.2	\$ 20,456,753 2,599,815 51,912,665 14,790,285 2,892,490	\$ c. 29.49 23.68 19.52 24.03 26.32
Beans	50,953 66,307 271,243 7,964 110,192	873,427 1,131,172 5,692,376 67,441 6,921,850	17.1 17.1 21.0 8.5 62.8	3,343,825 1,076,724 4,638,578 141,111 4,714,511	65.63 16.24 17.10 17.72 42.78
Potatoes. Carrots. Mangels. Turnips. Sugar Beets.	181,241 2,002 33,567 71,791 45,294	19,791,851 '317,998 14,738,443 34,323,412 15,215,990	109.2 159.0 439.0 478.0 336.0	11,052,928 63,600 2,947,689 6,864,682 2,757,898	60.98 31.77 87.82 95.62 60.89
Mixed Grains	905,693	33,691,418 Tons 2,685,727	37.2 Tons 8.97	23,420,648	25.86
Hay and Clover Alfalfa Alsike Sweet Clover	2,811,076 743,230 155,867 413,468	4,455,615 1,730,135 235,325 924,608	1.59 2.33 1.51 2.24	50,026,378 20,020,248 2,457,119 7,067,707	17.80 26.94 15.76 17.09
Totals: 1928	10,357,960 10,305,045			244,445,136 256,627,042	23.60 24.90

The acreages devoted to other crops in 1928 were as follows:—Orchards, 207,003; strawberries, 7,773; vineyards, 8,855; other small fruits, 12,733; summer fallow, 211,015; pasture (cleared), 3,000,172.

TOBACCO.—It is estimated that 33,977 acres were grown in tobacco in 1928, yielding 35,585,848 pounds, or 1,047 per acre. Of this, Essex had 13,876 acres, 15,069,336 pounds, or 1,086 per acre, and Kent had 14,725 acres, 15,593,775 pounds, or 1,059 per acre.

Rape.—The estimate for 1928 was 17,469 acres, of which 6,092 are in Wellington, 2,942 in Grey, and 2,529 in Dufferin.

SPRING SOWING AND VEGETATION

The April Bulletin referred to the mildness of winter. The cover of snow was uneven. In eastern counties and in the north the snow fall was unusually heavy. "In places four feet of snow lay on the ground at the beginning of April." The Bulletin further stated: "The early planted wheat when it appeared from beneath the snow looked very fine, giving promise as a bumper crop with favourable weather conditions." A blizzard on April 8th "ushered in cold windy days delaying spring somewhat later than in 1927." The acreage seeded had "substantially increased." It was noted that "high price of seed had its effect and from several districts complaints were heard of the quality of seed available." The larger acreage had an excellent start. But the May Bulletin emphasized "decidedly backward spring in Eastern Ontario." Farmers estimated "operations to be from ten to twenty days late." Reports from all along the St. Lawrence indicated "seeding fairly well accomplished under exceptionally delayed conditions." Concerning western sections of the Province, reports were better. "The seed bed was in good condition and no noticeable diminution of acreage in any class, seeding being active from May 10 to the finish of operations." It was observed that "barley had an increased proportion of the acreage sown." The green grain reported in May by several correspondents, "had a promising appearance." The late season "meant more buckwheat." It was also noted by correspondents that, "it was not possible everywhere to get enough seed and in some sections oats took the lead on resown land." No injury was reported in the Bulletins from worms or insects.

THE GRAIN CROPS

Fall Wheat.—The April Bulletin recorded "fall conditions generally favourable; only in spots was fall ploughing delayed." It was pointed out that, "the soil was in better condition and had been better ploughed and worked than the preceding year. A great deal of the fall wheat was sown early and the seed bed well prepared. Some of the late sown wheat, on the other hand, on indifferently prepared land suffered considerable killing out. Estimates of winter killing in the reports varied from 10 to 50 per cent. A rough estimate was one-third late sown fall wheat —Only where fall wheat showed lack of covering were there indications of winter injury to early sown fields. A burst of warm weather at the opening of April caused the snow to disappear quickly and involved heavy flooding in some parts, especially east and north." Little heaving was reported. Sandy soil gave the best account of the mild winter. Cold drying winds set in for a spell up to May 15th. On the 19th came "a general downpour of warm rain that brought on vegetation with a rush." It was noted that "weeks of night frosts and drying days had worked a great

deal of harm to fall wheat, reports varying from 25 per cent. to 75 per cent. In such conditions exceptional experiences found place on the record. Fields that came through uninjured "made a fine recovery." But the fall wheat of 1928 was reckoned "not better than half a normal crop, although it had been but little injured by winter conditions." Following the good rain of the 19th May the weather turned again cool and dry. "All over those counties from Essex to Lennox, where the limit of the fall wheat land occurs, the killed out fields were worked over and replanted with spring grain, barley for the most part being drilled in where the land was not ploughed up." The September Bulletin, however, noted that growers had cause for satisfaction at harvesting. All the crop that came through ripened well with favourable weather and as the season advanced to the harvest improvement in the fields was everywhere in There was very little insect injury, apart from scattered references to the midge. The chief cause of injury had been the recurrence of frosts in spring. In the December Bulletin it was stated "in the western counties fall wheat ranked in quality from second standard to average.

The New Fall Wheat.—The December Bulletin reported the new fall wheat crop in mid-November very similar to the conditions at the same stage in 1927. The mild temperatures stretched out to the 20th without severe frost or snow anywhere, and though the ground was dry and lumpy, more than average acreage had been prepared and sown. Seeding began soon after mid-September and continued with favourable weather till the farmers had all their plans carried out, as late as November 17th. In the western sections of the Province the operations were, as usual, finished about the last week in October, the average seeding time coming between the 5th and 10th of October. Dawson's Golden Chaff, O.A.C. 104, Niagara Red, Michigan Amber were mentioned among the favourite varieties. There was slight increase, if any, in the acreage sown.

Spring Wheat.—There was a low acreage of this crop compared with the average over a period of years. Ninety per cent. of an average crop was attained in but few places and grain was not as plump, generally speaking, as in the preceding year; also a good deal sprouted during harvesting. Lennox and Addington made the most favourable report of spring wheat harvesting. In Frontenac, the crop was a fair average, but farther east the harvest was low as to quality and quantity, the grain having been late, sown in backward spring weather. In some low land the grain was practically lost. Renfrew had a good looking crop, though spoiled considerably by wet weather. It did not thresh out as well as it looked when standing. In Nipissing and Timiskaming the quality was fair, but almost ruined by continuous rain.

OATS.—The crop was harvested from July 25th to August 12th. Good grain was threshed even when the straw had been badly lodged. Generally the grain was bright and straw good. In the central counties fair weather was experienced for cutting from August 1st to the middle of the month. Through Eastern Ontario fields in places were badly beaten down. The damage suffered there or elsewhere was from an unusually wet season.

Barley.—Fine fields were a feature of the harvest all over the Province. The yield as a general estimate was 35 bushels and the date of harvesting the third week of July. Grain was uniformly good and straw bright, though the weather had turned hot at ripening time with thunderstorms that incurred heavy lodging in places. Where grown in Northern Ontario the yield was satisfactory estimated as high as 45 bushels.

RyE.—What was grown promised a fair harvest, looking ready to cut about July 1, though harvesting ran to August 10th. In the wet harvest period some rye was drawn in damp condition to the barns, though conditions generally were fair and the sample good.

PEAS.—Peas were not a good crop. The season was too wet and cutting was late. The heavy rain did not allow maturing except on extra good land well drained. Canning peas in Oxford suffered by the excessive rain; the harvest was disappointing. The crop did fairly in Prince Edward.

BUCKWHEAT.—More land was sown to buckwheat, but the crop suffered from the character of the weather. The harvesting period was an improvement on the preceding year.

BEANS.—Both in regard to sample and weather for harvesting reports were excellent. The acreage sown was not large. The wet weather of the early summer gave weeds an unusual start and called for heavy work in the fields.

Corn.—Correspondents were not prepared to closely estimate the year's damage by corn borer. Late planting, slow growth in the early stage, and the weather conditions of the early part of the year had to be taken into account. The corn acreage was about double that of the previous year and 10 per cent. to 15 per cent. represented the damage done by the borer. Damage from one cause or another was more noticeable in land not well drained because there had been much wet, cold weather in the early growing season. Production seems to be getting back to an average crop in many districts where the borer has given less evidence of its presence than for a number of years. In the average corn area the borer was distinctly not as bad as in recent years. Some think that the excessive rain of the growing season operated against the borer. The weather of late July and August brought on the crop well.

Tobacco.—Heavy rain storms about August 10th scalded some of the tobacco in Essex, but the general condition of the crop was earlier than usual. The growth had been heavy owing to abundant moisture and warm weather all over the tobacco growing area. On drained land the quality was above average notwithstanding wet weather. Black and flue cured were excellent and burley very good. Rain and wind did not cause more than 10 per cent. injury. The acreage was not larger than average, but production better.

HAV AND CLOVER.—Alfalfa and all clovers fared much the same. In the east and north districts, where the cover of snow remained till the middle of April, clovers came through very well. The spring conditions were especially severe on old seeding of alfalfa. Alfalfa that came through looked very good towards the end of May, but many ploughed up both clover and alfalfa.

RED CLOVER.—Red clover was severely injured by the spring conditions on low lands.

ALSIKE.—This crop was hurt more than any other. On low land it looked worse than in the previous experience of most districts.

SWEET CLOVER.—Though injured like other crops by spring conditions, sweet clover took the place of alsike to a considerable degree.

CLOVER SEED.—The early condition of the clover crop for seed promised well enough, but not nearly so much was saved as anticipated. The first crop of alfalfa had little seed and the second seemed better filled. The wet weather diminished seed. All clovers were alike in this respect, except sweet clover which in many places gave abundant yield. A correspondent said 75 per cent.

of the clover crop failed for seed in all classes. The midge was of. In Halton, all clovers were poor for seed. In Peel Count well but had little seed.

The midge was not complained In Peel County the crop looked

POTATOES AND FIELD ROOTS

POTATOES.—Potatoes were a fair crop. Growing of tubers on large scale over a township is going out, and the method of small scale growing makes for greater inequality of varieties and quality in consignments coming on the market. Weather conditions of the 1928 season as in 1927, affected the quality of the crop, which was harvested in time. The early potatoes were the most satisfactory; in the western counties, exceptionally good, free from scab and disease. In Kent the yield, size and quality were all up to average. An Elgin County correspondent reported a wonderful yield for the acreage planted and very little affected by rot. Norfolk growers had the best returns in years. From Welland the report was equally good, no injury from rot, rain or drouth. In Middlesex, the crop was poor on clay land under the heavy rains of June. Rot was noticed in various central counties, and its presence more complained of after storage. A Waterloo County report was of good crop rather badly damaged by rot from heavy rains. In York County districts, producing large quantities, rot was reported as high as 10 per cent. on some soils. On high land the yield and size of tubers were up to average, both in early and late varieties. Brock, in north Ontario, reported an extra good crop and more shipping out than last year. In Prince Edward County some blight appeared and considerable rot. Carleton County experienced a good deal of rot, whilst a report from Renfrew said 50 per cent, of the crop was not fit for storage. The later varieties disclosed more liability to rot. In the northern country most uneven conditions were found.

Turnips.—Turnip growers had as good returns as in 1927. Uninjured and taken inside in fair time except off low land. Huron County reported an extra large production repaying the attention given them. Bruce had a bumper crop that called for late harvesting in some places, but the season remained open and all were got in before the cold weather came. In Middlesex the crop was secured for winter in good condition, large and of good quality. There seems to be a tendency to increase the quantity of this crop in the cattle feeding sections. Turnips are being grown more also as a cash crop. Better results are claimed from the use of scuffler and hoe until the turnips are of good size.

Mangels.—Mangels which generally speaking are grown in Ontario for grower's own use did well. On clay soils the crop does poorly. Lifting was attended to in good time as a rule and all harvested in excellent condition. In Bruce and Grey the crop was fair, though a few reports mentioned excessive rain as the cause of a below average yield. Farmers with silos of capacity neglect roots on account of scarcity of farm labour.

CARROTS.—The carrot crop was better attended to and the weather generally favoured it on suitable soils. There was more than average production in Brant and in Peel, production was up to the average mark. Where grown in York County, the crop was good.

Sugar Beets.—An average to light tonnage, high in saccharine. Shipping was attended to in good time and under very fair conditions. In the beet growing sections all operations connected with the crop were completed com-

paratively early. The Agricultural Representative in Essex, described the product as of high percentage in sugar. In Kent, all beets were taken care of early, the harvesting period being excellent from weather standpoint.

MISCELLANEOUS FEATURES

FLAX.—The quantity of flax raised would not appear to have increased. Some little flax is grown in Huron County and there it was lodged by the heavy rains and was hard to handle. Little of the crop is grown in Bruce. Waterloo County grows a quantity, and there, as elsewhere, damage was reported from excessive moisture.

CORN COMES BACK.—The crop ripened very well. Borer injury was noticeably less. All parts of the Province reported much better corn than in 1927. The crop has come back.

FALL PLOUGHING.—The fall at times was almost ideal for ploughing and 80 per cent, to 100 per cent, of operations in the field were finished in the western and central counties. Some localities made a late start, but progress was quite rapid as the fall advanced. One feature of the season was the continuation of mild temperatures into the last quarter of November, which allowed eastern farmers whose fall work in other respects pushed early ploughing aside to take it up without disadvantage later on. An Elgin County report said farmers were finished there by November 14th. Tractors were used to about the same extent as in 1927. In Goderich Township, Huron County, 85 per cent. of anticipated acreage had been finished before the middle of November. In Simcoe County, high and dry land had all been ploughed, but low farms were backward, leaving a lot of ploughing to be done. In Middlesex, the work was all well on, with much the same report from Oxford, Brant, Perth, and Welling-From Eastern Ontario, the majority of reports were in effect that farmers were well on with operations, not much later than the middle of November with acreage above average. A Grenville County report was: "Ploughing completed." In Renfrew, earlier fall ploughing has been retarded by rain, but later progress made up for this by November 15th. The north and west had exceptional rain and in some places the farmers could not get on the land. Nipissing reported less than 25 per cent. of work on the land done.

Threshing and Marketing.—Early threshed wheat was hardly up to average, but was rapidly marketed. A large quantity of the 1928 wheat was put into pool elevators. Little of other grains were sold early. Sale of beans was active and marketable crop quickly done with. Not more than normal percentage of grain remained in the farmer's hands. This portion went into barns in good time. A good deal of the barley grown will be held for feed. More farmers than in past years have tried out barley as a proposition with good results. Buyers are plentiful. A Peterborough County correspondent attributes to sprouting in fall wheat the fact that much of the crop has been left to be threshed after the freeze up. In Northern Ontario, threshing of portion of harvested crop cut was delayed by weather conditions. All grain grown there is used locally. Heavy loss by rains reported.

FARM IMPROVEMENTS.—No exceptional note was made of farm improvements in 1928, beyond a steady increase of under-draining, which is active all over the Province. Very little fencing and not much building reported. In Kent, some new barns are being constructed by tobacco growers. The let-up

on building is attributed to prices of materials and labour. In whatever building has been undertaken, better materials are favoured. A Lambton report which is characteristic of the western counties, allows 1928 the distinction of being the record year in that section for under-drainage. It is suggested by more than one correspondent that the unusual rainfall of several summers past has concentrated the attention of farmers on tile drainage. In Middlesex, more drainage work would have been undertaken if there were more machines available. In Oxford, a correspondent expresses the opinion from personal observation that fencing and farm building are hardly keeping up with the regular processes of deterioration. Farmers who cannot secure necessary labour, allow repair jobs to stand over. In different sections of the Province, activity is noted in rural hydro extension. In the dairying sections east and west, new milk houses are being provided as a feature of the general movement for greater milk production. This activity is being stimulated by emulation for better care of milk.

FRUIT

APPLES.—In Elgin the best varieties were few. There was poor set and harvest below average. In Norfolk a short yield, though heavy blossoms of spring had given good promise. Correspondents remark that the Spy did not blossom. All winter varieties scarce. Baldwins a fair crop. Except where well cared for the yield fell short of the preceding year which was lean in respect to culinary varieties. In Welland the agricultural representative reported a fair crop, but scab prevalent. Apples not plentiful in Huron or Lincoln and light in Halton and the Georgian Bay orchards. Few reports of average yield received from Durham and Northumberland. In Prince Edward poor set and attack of pests in a wet season left conditions for only one-third of the average crop.

PLUMS.—A fair crop and in some orchards light. Elgin County fairly good and Norfolk below average. Haldimand had a heavy yield and Welland, generally speaking, light. Huron produced a medium to good crop, and Lincoln medium, of good quality. Accounts did not vary much in other fruit-growing centres. Halton half the usual crop and Peel a light yield.

Pears.—A fairly good crop with only 10 per cent. scab. Elgin reported average yield, and some Norfolk orchards heavy. Lincoln County orchards produced pears of fine quality, after late blossoming though the crop was not a large one. In Halton also the quantity was below average but quality good.

PEACHES.—Only a fair crop. Elgin orchards produced average quantity where grown, and Norfolk a light crop of good quality. Welland said peach moth was numerous and the yield fair. In Lincoln 75 per cent. of an average crop was estimated with no sign of moth in early varieties and prospects of a good crop for late varieties.

CHERRIES.—Cherries only medium in yield. Many trees showed yellow leaf. The product appeared in seasonable time on the market.

Grapes.—Where grown in Elgin grapes a fair crop to better than average. In Welland yield was abundant and quality good. The agricultural representative estimated injury of whatever kind not over 20 per cent. and fruit all in all excellent. In Lincoln the crop was good, but there were some signs of rot and mildew.

STRAWBERRIES.—A light yield generally. The crop was fair to good in Elgin and Norfolk and short to light in Welland, Lincoln, Peel and Halton.

Many plants had been winter killed in the chief growing counties as well as in other districts.

RASPBERRIES.—An abundant yield in every section of the Province found a good market. Blueberries light.

LIVE STOCK

Pasture held as long as in 1927, and with the exception of moderate frosts in September and November of short duration, fall conditions were most favourable. A Bruce County correspondent described pastures as still abundant in the middle of November. In most sections of the Province they had not dried up during the summer. Cattle rather scarce following a period of active market demand both for beef and dairy lines. Sheep, though reported to be on the increase, still far behind the ability of the farms to maintain flocks. A correspondent in western Ontario, estimates ten sheep to 1,000 acres. Hogs are scarce, doubtless as the result of price levels of the former season, but there was in face of this condition a decline from the improvement noted earlier in the summer. Hog cholera made its appearance in Essex. The agricultural representative for the county estimated that 6,000 had been killed. The trouble was reported as effectively checked. Milk cows were scarce. A correspondent in Kent reported beef cattle for winter feeding hard to obtain. There is not more than the usual number of any class of live stock on hand. Horses are not much lower in number. Cows and heifers in feeding sections are being sold to go to districts with markets for milk. Generally speaking, the quality of all live stock has marked an improvement. The number of feeders coming in from the west appears to be normal.

DAIRYING.—Dairy herds of the Province are changing in correspondence with the steady increase in demand for cream and whole milk. Butter making is on the increase in some sections, but in others, farmers sell the cream or milk and purchase butter. Holsteins are most in favour, but grade Durhams are found to be good milk producers and good stock. The flow of milk in the season under review is said to have made a high record, mainly on account of the condition of the pastures. A Grey County correspondent reports that trucks from seven factories gather cream in the farther townships and many ship as far as Toronto. Butter was a better price throughout the entire year, in some sections of western Ontario, milk, was shipped so close to the volume of production that there was not enough local butter to supply the community. Neither butter nor cheese is made in some localities, whole milk representing the entire dairy industry. This leads a correspondent in Essex, to say: "Our dairy industry is in its infancy." Several correspondents in Essex County, as well as Kent, note that the grade Shorthorns supplies the bulk of the milk in that section. In Bruce, the producers rely on cream supply and are favouring Herefords. A report from Middlesex emphasizes the increasing sale of cream as a factor diminishing dairy butter production.

POULTRY.—Poultry accounts kept on the farm are not in line with the increase of flocks. The farm flock is not kept upon a strictly expense basis, but the opinion expressed in reports aside from expense statements, is to the effect that there is fair profit in the industry. The agricultural representative in Essex says the farm flock is one of the most profitable of farm lines. An average report off the farm direct is: "Poultry is a profitable sideline." The loss and annovance occasioned by chicken thieves increases in spite of the

volumes of complaint directed to it. The thieves are showing expert knowledge of heavy breeds. Prices fair throughout the year, both for poultry and eggs. The weather was not hard and pullets developed very well in the open. All classes looked well when put into winter quarters a little later than usual. At farm auctions, poultry was an active feature. The general improvement in poultry keeping extends to pure-bred flocks, to scientifically constructed poultry houses, culling and feeding. One farmer says poultry are now receiving more methodical attention than any other class of stock and it is only from lack of attention that loss of reasonable profit can arise. Plymouth Rocks, Rhode Island Reds, lead with Leghorns next in order.

FODDER SUPPLIES

There was ample rough feed in the barns of Ontario for the live stock and at least the usual quantities of hay, mixed grains and oats for sale. In the corn section, the improved crop has been a factor of importance. On all this account, there is a natural tendency to stock up with feeders. Alfalfa hay plentiful. Silos as a rule are full. When the cattle come off the pasture they are in fine condition. Concentrates being bought; very little buying of fodder or grain supplies. There will be an increased number of cattle to finish. A Brant correspondent says a large quantity of turnips are being exported to United States. Turnips for sale in Waterloo. In Prince Edward straw sold to the paper mills at Trenton at \$30 a ton. The supply of roughage ample; sufficient feed for all live stock throughout northern and northwestern sections.

LABOUR AND WAGES

The farm labour problem has for some years been developing definite regional features. These have, in the main, been created by the local character of production. Not only demand but also rates of wages and nature of contract are affected by local conditions. It means of course, that producers must meet local circumstances. But the supply of labour suffers from an increasing percentage of the unskilled sort. There are two outstanding difficulties in the situation that seems to be making for a deadlock. In the first place, the supply of labour is inadequate and in the second, the farmer feels his financial inability to increase the pay. Where special crops are grown, the supply of labour offered, although unskilled, is more readily absorbed. It is a slower process to adapt the unskilled man to the tasks of mixed farming. Wages are going up in tobacco and bean-growing sections. In the busy season help must be had. Foreign labour is more adaptable to the needs of the specialist than for general farming, because it is required only in summer months. Scandanavians have been employed in greater number and are found to be good workers. On the other hand, in counties where mixed farming is the mainstay, the farmers will go without help even in the busy season, rather than meet the rates of wages demanded by the few labourers available, no matter how inexperienced. No domestic help is obtainable anywhere. Both foreign and English-speaking immigrant women are absorbed in the labour market of the cities. An increasing effect of the scarcity of domestic help on the average Ontario farm is the tendency to buy food for the family after the example of city dwellers. Few suggestions looking to better conditions come from the farmers who take the position, that wages are at the top and that prices for all products must advance before experienced farm help can be commanded in anything like adequate supply.

TEMPERATURE, 1928

TABLE I.—Showing for each month the highest, lowest, mean daily range, and mean temperature at the principal stations in Ontario for 1928; also the annual mean for each station.

at the principal sta	tions in	Ontari	0 101 19	20; aisc	the an	nuar in	ean for	each sta	ation.	
Months	Southampton	Chatham	· London	Woodstock	· Vineland	· Toronto	·Lindsay	Beatrice	Ottawa	MontrealRiver
January:						i			0	
HighestLowestDaily rangeMonthly mean	$ \begin{array}{c c} & 40.5 \\ & 5.2 \\ & 11.8 \\ & 22.3 \end{array} $	52.0 1.0 11.7 25.5	$ \begin{array}{r} 44.0 \\ -18.0 \\ 11.9 \\ 23.1 \end{array} $	45.3 -17.2 11.3 21.8	$ \begin{array}{r} 45.0 \\ -6.0 \\ 12.4 \\ 26.5 \end{array} $	44.0 1.2 11.4 25.2	$ \begin{array}{r} 39.1 \\ -19.8 \\ 16.8 \\ 18.1 \end{array} $	38.0 23.0 18.7 15.2	$ \begin{array}{r} 39.0 \\ -16.5 \\ 17.8 \\ 20.2 \end{array} $	38.0 -37.0 29.5 6.2
February:	40.0	== 0	45.0	42.0	40.0	40 =	20.2	25 0		
Highest	40.0	57.0	45.0	42.0	48.0	42.5	38.3	37.0	40.5	34.0
Lowest	10.0	2.0	-2.0	3.5	2.0	-4.2	-15.1	-27.0	-19.0	-42.0
Daily range	14.5	15.8	14.3	12.1	13.9	13.4	20.3	23.4	20.0	37.0
Monthly mean	20.2	27.3	23.6	21.5	26.4	24.1	16.7	12.8	14.4	2.0
March:										
Highest	54.0	74.0	71.0	63.3	70.0	71.0	56.4	49.0	52.0	54.0
Lowest	- 8.4	9.0	2.0	4.0	8.0	9.0	-5.8	21.0	-5.0	31.0
Daily range	13.6	18.1	16.8	13.4	16.1	14.0	17.0	18.0	15.9	27.8
Monthly mean	24.9	33.9	29.8	28.0	32.3	30.6	23.9	21.0	25.0	16.5
April:			-,	-0.0	02.0	00.0	20.7	21.0	20.0	10.0
Highest	72.5	74.0	73.0	72.5	80.0	71.5	70.7	68.0	75.0	62.0
Lowest	15.2	23.0	19.0	20.0	23.0	22.6	12.1	1.0	14.5	-9.0
Daily range	16.3	20.0	19.3	17.0	18.8	16.5	20.4	21.4	17.1	27.3
Monthly mean	36.8	44.2	41.8	40.1	43.7	41.6	38.6		36.6	30.7
May:	00.0	11.2	11.0	10.1	10.7	11.0	00.0	00.0	00.0	30.7
Highest	81.0	85.0	85.0	81.8	86.0	82.4	88.0	82.0	82.0	79.0
Lowest	25.6	31.0	28.0	29.0	32.0	33.0	28.0	22.0	32.0	23.0
Daily range	18.5	26.1	25.2	22.1	21.7	19.9	26.5	25.1	20.8	27.7
	47.7		54.1							
Monthly mean	41.1	57.2	34.1	52.6	54.0	54.1	54.2	49.1	54.5	47.5
June:	84.2	83.0	82.0	80.0	89.0	00.0	85.6	92.0	01.0	* 01.0
Highest	35.3		34.0			80.9		82.0	84.0	84.0
Lowest	21.8	40.0		35.0	40.0	38.5	32.0	31.0	41.0	30.0
Daily range		18.5	18.6	18.6	19.2	18.0	22.6		20.1	30.6
Monthly mean	58.4	63.4	61.7	60.8	61.5	61.5	60.8	58.9	62.3	56.5
July:	89.2	02.0	01.0	05.0	02.0	00.0	02.2	00.0	00.0	00.0
Highest		92.0	91.0	85.0	93.0	90.0	92.2	89.0	89.0	89.0
Lowest	46.2	51.0	48.0	48.0	52.0	52.0	45.0	40.0	50.5	36.0
Daily range	18.0	21.1	20.7	17.1	17.6	19.0	22.6	22.0	19.3	28.5
Monthly mean	65.6	72.7	70.3	67.6	71.8	69.9	67.8	65.0	69.7	62.8
August:	0	0.2		0	04.0	00.0	00.4			
Highest	85.5	93.0	90.0	85.0	91.0	89.8	88.1	84.0	92.0	90.0
Lowest	45.2	48.0	44.0	47.0	48.0	51.7	46.2	39.0	50.7	34.0
Daily range	18.1	23.0	22.8	18.3	17.9	19.2	22.2	22.8	20.7	32.0
Monthly mean	66.1	73.7	70.1	67.9	71.8	70.5	67.7	64.2	70.3	61.4
September:	04.0		07.0	0.4.2	0 11 0	00 0	=0.6		00.0	
Highest	81.2	89.0	87.0	81.3	87.0	80.2	78.6	73.0	80.0	76.0
Lowest	33.9	32.0	31.0	33.5	34.0	33.0	30.5		33.0	25.0
Daily range	18.4	22.2	21.5	16.7	18.7	17.8	20.3	20.4	18.3	24.3
Monthly mean	55.7	61.2	57.4	55.5	60.4	57.7	54.7	51.1	55.7	48.5
October:	70.0	7.0	77.6	7.4	(72.0	F 4 2	50.4	5 0 4	H 2 4
Highest	79.8	76.9	76.4	74.4	77.6	73.9	74.3	72.4	72.4	73.1
Lowest	24.1	23.0	27.0	20.0	25.0	23.2	17.5	11.0	19.0	13.0
Daily range	16.5	18.8	17.7	14.6	16.6	16.0	19.6	17.6	19.2	19.0
Monthly mean	50.1	55.6	50.9	50.8	53.5	50.8	48.3	45.5	48.1	41.8
November:	(0.0							- 0		
Highest	60.3	70.0	66.0	64.8	66.0	65.0	63.7	58.0	64.5	53.0
Lowest	16.7	20.0	15.0	14.0	20.0	16.0	6.0	[-3.0]	12.5	-4.0
Daily range	11.2	12.2	10.5	8.7	11.7	11.0	14.4	14.2	13.1	16.2
Monthly mean	38.1	42.0	39.2	38.6	42.7	39.7	34.3	31.7	34.2	28.6
December:	4.		40.0				4.4	11.0	4.5	4.0
Highest	44.2	54.0	48.0	46.3	50.0	46.6	44.6	41.0	45.5	41.0
Lowest	4.2	8.0	3.0	1.5	9.0	13.4	-0.2	-7.0	-4.0	-13.0
Daily range	9.7	13.6	10.5	9.1	10.4	9.3	13.2	13.9	13.2	17.9
Monthly mean	30.2	33.0	29.8	29.6	34.2	32.8	27.0	24.3	25.0	20.6
Annual mean	43.0	49.1	46.0	44.5	48.2	46.5	42.6	39.5	46.0	35.3

AVERAGE TEMPERATURE FOR FORTY-SEVEN YEARS

Table II.—Showing for each month the monthly average for the highest, lowest, mean daily range and mean temperature at the principal stations in Ontario, derived from the forty-seven years, 1882-1928; also the annual mean at each station for the same period.

years, 1002-1920, a	iso the	ammuai	mean a	t cacii a	station	ioi the	same p	eriod.		
Months	Southampton	Chatham	London	· Woodstock	Vineland	Toronto	Lindsay	Beatrice	Ottawa	MontrealRiver
January:						·	Ŭ [,	١	0
Highest	44.0	46.1	45.8	45.3	49.0	45.1	41.2	40.6	40.2	37.9
Lowest	- 7.6	- 7.7	-9.7	-10.7	- 5.1	- 7.2	-20.4	-27.4	-21.5	-34.2
Daily range	14.5	12.4	15.1	15.6	14.5	14.5	18.1	20.6	17.8	24.4
Monthly mean	20.7	22.0	21.4	20.1	24.5	22.4	15.7	13.9	11.4	6.3
					- 2.00	~	20.7	10.7		0.0
February:										
Highest	43.5	48.7	46.3	45.1	47.6	44.9	41.6	41.7	40.1	40.9
Lowest	-11.4	-7.9	-9.9	-10.4	5.6	— 6.7	-17.6	26.6	-20.1	-34.0
Daily range	16.6	14.0	16.5	16.3	15.2	15.1	19.6	22.1	18.9	24.6
Monthly mean	18.9	21.4	20.6	-19.4	23.0	21.5	15.6	13.6	12.7	8.9
March:		1	i							
Highest	54.9	60.0	59.9	57.2	60.4	57.1	53.2	51.5	50.2	51.7
Lowest	- 2.7	1.4	0.4	0.0	5.7	4.4	-6.5			
Lowest								12.8	-7.6	-22.7
Daily range	16.8	15.4	17.7	16.7	15.2	14.6	18.9	20.9	17.6	25.4
Monthly mean	27.1	30.8	30.2	28.4	32.5	30.2	25.8	23.7	24.7	20.4
April:	1	1						1	1	
Highest	72.5	77.2	76.3	74.3	76.8	71.3	73.9	71.0	73.7	72.4
Trighest										
Lowest	15.7	18.9	18.3	17.5	20.5	20.8	13.9	10.0	15.2	4.9
Daily range	17.6	18.6	20.8	19.8	17.5	16.9	21.1	21.2	19.4	24.3
Monthly mean	40.2	44.1	43.4	42.2	44.0	42.7	41.4	39.1	41.2	37.8
May:	2 - 1 -									07.0
High sat	79.5	83.4	83.3	80.5	04 2	00 4	92.0	20 7	92.0	0.4.4
Highest					84.3	80.4	82.9	80.7	82.9	84.1
Lowest	28.3	29.6	29.2	29.1	32.8	32.0	27.7	26.1	31.0	19.6
Daily range	18.5	21.3	23.2	21.7	20.3	19.3	24.1	23.2	22.0	26.3
Monthly mean	51.1	55.4	55.1	53.4	54.3	53.8	53.7	51.8	54.8	51.2
June:	31.1	00.1	33.1	30.1	31.0	30.0	50.7	31.0	34.0	31.2
	0.5 1	00 1	90 2	06 5	01.1	07 0	00.0	06 =	00 4	00 0
Highest	85.1	89.4	89.3	86.5	91.1	87.8	88.9	86.5	88.1	90.0
Lowest	37.3	38.5	38.0	38.3	41.1	42.0	37.9	35.5	41.6	33.3
Daily range	20.0	22.0	23.6	22.2	21.4	20.4	24.8	24.4	21.6	27.6
Monthly mean	60.3	65.1	64.8	63.2	65.0	64.0	63.4	61.8	64.5	61.3
	00.3	03.1	04.0	03.2	03.0	04.0	03.4	01.0	04.3	01.3
July:										
Highest	87.4	93.0	92.7	89.4	92.6	91.3	91.7	89.4	91.0	91.9
Lowest	43.9	44.7	44.2	44.5	48.1	48.8	43.5	42.1	48.2	40.0
Daily range	20.0	22.2	23.4	22.4	21.3	20.3	24.7	23.4	20.8	26.0
Monthly mean	66.1	69.8	69.4	67.6	70.9	69.2	67.8	66.3	68.9	65.4
	00.1	09.0	07.4	07.0	10.9	09.2	07.0	00.3	00.9	03.4
August:	0.7		0.4.0	00.0			0000			
Highest	85.9	91.1	91.0	88.2	92.7	89.0	89.8	87.5	88.9	88.4
Lowest	41.9	43.2	41.1	41.7	45.6	46.6	40.5	37.8	44.0	36.7
Daily range	18.2	21.4	23.7	23.1	21.0	21.7	24.3	23.2	20.9	25.3
Monthly mean	64.5	67.7	66.8	65.1	68.8	66.2	65.4	63.9	66.1	62.3
	04.3	07.7	00.0	05.1	00.0	00.2	03.4	03.9	00.1	04.3
September:										
Highest	84.0	88.0	87.1	84.6	89.2	85.4	85.4	82.8	84.4	83.2
Lowest	34.5	34.9	32.3	32.4	36.1	36.7	31.6	30.2	33.4	28.9
Daily range	18.1	20.0	22.4	21.3	20.4	18.7	22.8	21.6	20.4	23.5
Monthly mean	59.0	61.8	60.7	59.0	62.4	60.5	58.3	57.2	58.3	
O total	39.0	01.0	00.7	39.0	02.4	00.5	30.3	31.2	30.3	55.0
October:										
Highest	74.6	76.9	76.4	74.4	77.6	73.9	74.3	72.4	72.4	73.1
Lowest	26.0	26.1	24.4	24.2	26.5	27.2	21.6	21.0	24.4	17.9
Daily range	16.0	17.4	20.1	18.8	18.7	16.5	19.9	18.9	17.6	19.7
Monthly moon						10.0		15.6		12.7
Monthly mean	48.2	50.0	48.5	47.3	50.6	48.8	46.3	45.6	46.1	43.0
November:										
Highest	61.1	63.3	62.1	61.2	65.0	60.7	59.5	58.4	58.4	55.2
Lowest	14.8	15.0	13.7	12.6	17.8	16.0	6.9	6.2	7.7	- 1.0
Daily range	13.2	12.5	14.5	14.3	14.0	12.7	15.1	14.6	12.5	15.1
Monthly mean	36.8	37.8	36.9	35.7	39.5	37.7	33.8	33.0	32.8	29.1
December:				1						
Highest	49.2	50.0	52.5	49 2	53.5	49.0	45.7	44.7	43.1	43.2
Lowest	0.8	0.8	- 1.5	-2.6	- 0.4	0.1	-12.5	-15.2	-14.4	-24.8
Daily range	12.4	10.8	13.2	13.2	12.7	12.5	15.8	17.1	14.7	19.4
Monthly mean	26.7	27.0	26.5	25.1	29.0	27.5	21.4	20.3	18.0	14.0
		46.1	45.4	43.9	47.0	45.4	12.4			37.9
Annual meanl	43.3	40.1	40.4	せい・カー	71.01	4J.4	12.1	40.9	41.7	37.9

RAIN AND SNOW

Table III.—Summary of the total fall of rain and snow and the number of days on which rain and snow fell in Ontario during 1928, at stations reporting the whole year, and the average of the Province.

	Rai	n	Snov	w		Rai	n	Snov	w
Stations	Inches	Days	Inches	Days	Stations	Inches	Days	Inches	Days
Algoma: Biscotasing Kapuskasing	29.90 24.40	80	49.1 80.6	37	Oxford: Woodstock Parry Sound:	31.30		55.3	57
Michipicoten Steep Hill Falls BRANT:	34.14	97 82	75.0 106.4	60 40		39.92 30.73 36.40		148.5 120.5 128.5	67 53 67
Brantford Paris Bruce:	28.63 32.33	125 114	29.1 38.3	31 24	PEEL:	26.78	80	93.0	33
Southampton Walkerton	35.67 38.78	134 99	102.3 157.0		StratfordPETERBOROUGH:	31.54		88.3	43
Wiarton CARLETON: Ottawa	33.42	100 123	98.0	54 67	Lakefield Peterborough	34.09 26.80 27.56	119 82 111	112.5 75.8 81.4	45 30 42
Dundas: Morrisburg Durham:	33.66	94	91.5	45	PRINCE EDWARD: Bloomfield RAINY RIVER:	28.40	91	28.8	29
Orono ELGIN: St. Thomas	28.81	104 102	36.7 25.6	29 17	Emo. Fort Frances Kenora.	21.37 21.64 19.96	71 64 38	54.5 42.4 47.5	21 20 24
Essex: Harrow	14.86	82	30.6	22	Mine Centre Sioux Lookout	24.67 16.55	90 63	47.7 41.9	42 23
Leamington Windsor FRONTENAC:	25.59 22.81	76 79	13.0	20	Clontarf Pembroke	21.46 27.09		107.5 78.1	36 39
Kingston Grey: Eugenia	32.36	122 65	30.5 85.5	28	SIMCOE:	19.08 31.39	94 59	81.4 35.7	31 23
HALTON: Georgetown HASTINGS:	32.34	81	31.9	33	Orillia	30.23 35.38		129.5 133.8	64 53
Belleville Queensboro Trenton	29.04 30.18 29.96	113	31.4 86.0 55.4	25	Chapleau	31.96 30.29 24.95 24.98	98 92 80 98	72.2 97.3 89.9 67.6	41 35 41 50
Brucefield Ridgecrest Kent:	31.86 33.82		48.5 53.1	26 34	Thunder Bay: Kakabeka Falls	20.78 22.17	94 84	39.0 29.5	25 32
Chatham Leeds:	24.53	74	21.0		Port Arthur Savanne Schreiber	19.11 22.09	62 82	40.2 38.5	34 27
Brockville Lincoln: St. Catharines		100	26.5	26	Victoria: Fenelon Falls Lindsay	27.08 25.61	124 92	115.3 105.3	59 63
Vineland MANITOULIN: Providence Bay	29.73		30.4 73.4		Waterloo: Kitchener	24.15	83	61.3	38
MIDDLESEX: London	33.76	126	99.0	58	Welland WELLINGTON:	28.39		33.0	32
LucanMuskoka: Beatrice	32.34		95.5 13.90		WENTWORTH:	28.40 25.82		58.5 28.1	26 15
Nipissing: Iroquois Falls	28.44	106	83.7	63	York: Agincourt	27.65	107	37.5	36
Montreal River New Liskeard North Bay	$ \begin{array}{ c c c c c } 30.06 \\ 29.25 \\ 33.13 \end{array} $	99 112	65.5 79.9	57 54		32.00	129	33.5	51
Rutherglen Norfolk: Simcoe	28.61 31.06	103	139.5	51	Average for the Province: 1928	27.75 26.02	94 87	70.3 66.3	37 34
Northumberland: Healy Falls	1				1926	25.89	81	95.4	48

RAIN AND SNOW

Table IV.—Monthly summary of inches of rain and snow in precipitation in the several districts in Ontario in 1928, also the average derived from the forty-seven years, 1882-1928.

Months	West South		North North		Centre		East North		Th Prov	
	Rain	Snow	Rain	Snow	Rain	Snow	Rain	Snow	Rain	Snow
1928	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
January	0.73	20.1	0.05	17.4	0.65	20.0	0.53	20.1	0.49	19.4
February	0.97	11.2	0.02	9.3	1.00	13.3	0.97	14.5	0.74	12.1
March	0.88	17.0	0.24	14.5	0.99	19.0	1.23	20.4	0.84	17.7
April	1.97	3.6	1.07	11.9	2.43	5.3	2.39	3.8	1.97	6.1
May	1.94		1.59	.02	1.36		1.95		1.71	0.1
June	4.22		4.28		4.46		2.79		3.94	
July	4.34		4.16		4.61		4.03			
August	2.64		4.06		3.85		4.08		3.66	
September	2.67	S	3.72	0.7	3.83	S	2.87		3.27	0.2
October	3.63	0.7	4.05	0.7	4.44	0.2	4.24	S	4.09	0.4
November	3.03	6.5	0,89	5.0	2.88	7.0	2.46	5.2	2.31	5.9
December	1.08	6.3	0.21	8.1	0.93	22.3	0.91	6.1	0.74	10.7
The year	28.10	65.4	24.34	67.8	31.43	87.1	28.45	70.1	28.04	72.6
1882–1928										
January	1.09	16.2	0.56	22.8	0.97	16.7	0.87	19.7	0.87	18.8
February	1.07	13.8	0.36	18.3	0.84	14.3	0.60	16.7	0.72	15.7
March	1.40	8.7	0.84	13.0	1.29	9.8	1.15	11.5	1.17	10.7
April	2.11	2.1	1.52	4.4	2.04	2.9	1.73	3.8	1.82	3.3
May	3.06	0.1	2.47	0.2	2.76	S	2.66	0.1	2.74	0.1
June	2.95		2.74		2.81		2.82		2.83	
July	2.79		3.00		2.91		2.88		2.89	
August	2.78		2.84		2.47	7	2.66		2.69	
September	2.74	S	3.07	S	2.49	S	2.62	S	2.73	S
October	2.73	0.8	2.82	2.3	2.59	0.6	2.56	1.0	2.67	1.2
November	2.30	5.3	1.71	11.9	2.05	5.1	1.94	7.2	2.00	7.4
December	1.90	14.2	0.74	20.4	1.18	8 12.1	1.08	14.0	1.24	15.2
The year	. 26.98	61.2	22.67	93.3	24.40	61.5	23.57	74.0	24.37	72.4

SUNSHINE

Table V.—Monthly summary of bright sunshine at the principal stations in Ontario for 1928, showing the number of hours the sun was above the horizon, the hours of registered sunshine, the total for the year, and the average derived from the forty-seven years, 1882-1928.

	ove	tock	0	λ	on	E.	Ave	erage of stations	five
Months	Sun above horizon	Woodstock	Toronto	Lindsay	Kingston	Ottawa	1928	1927	1882- 1928
1928	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
January	285.7	53.8	79.3	55.6	57.2	70.1	63.2	84.8	
February	302.5	105.6	119.6	101.7	119.7	114.1	112.1	77.1	
March	369.9	127.9	162.6	112.4	147.2	148.7	139.8	145.4	
April	406.4	171.0	195.6	150.4	176.6	138.3	166.4	215.2	
May	461.1	254.9	236.2	169.5	221.8	196.3	215.7	160.7	
June	465.7	197.9	221.1	195.1	206.0	214.6	206.9	279.4	
July	470.9	273.1	272.3	215.9	260.8	268.4	258.1	256.3	
August	434.5	260.6	280.9	224.9	262.3	263.2	258.4	250.5	
September	376.3	177.7	209.4	146.9	167.4	162.2	172.7	192.3	
October	340.2	133.3	149.9	97.2	141.0	118.2	127.9	163.9	
November	286.9	57.1	68.2	44.5	87.8	86.2	68.8	51.9	
December	274.3	61.4	75.6	64.6	82.1	67.5	70.2	59.4	
The year	4,474.4	1,874.3	2,070.7	1,578.7	1,929.9	1,847.8	1,860.2	1,936.9	
1882–1928									
January		66.1	78.3	74.4	78.8	88.8			77.3
February		90.7	106.8	99.2	109.5	112.3			103.7
March		127.5	154.7	143.8	146.9	154.4			145.4
April		170.1	189.9	178.1	181.4	191.6			182.2
May		213.1	224.7	205.1	209.6	213.4			213.2
June		252.7	263.5	234.3	249.7	240.8			248.2
July		276.0	284.7	248.3	270.8	260.2			268.0
August		236.1	253.4	223.9	247.9	243.2			240.9
September		176.2	205.2	179.1	182.2	174.8			183.5
October		145.8	153.1	127.3	134.1	133.2			138.7
November		75.0	82.3	68.3	79.0	81.8			77.3
December		55.5	65.6	56.3	68.3	67.1			62.6
The year		1,884.8	2,062.2	1,838.2	1,958.2	1,961.6			1,941.0

RURAL AREA ASSESSED

Table VI.—Showing by County Municipalities the rural area of Ontario as returned by Municipal Assessors for 1928 to the Bureau of Municipal Affairs.

Counties and	Acres (of Assesse	ED LAND	Acı	res Clea	RED	Per
Districts	Resident	Non- resident	Total	Resident	Non- resident	Total	cent.
Algoma	277,904	56,589	334,493	63,610	2,928	66,538	19.89
Brant	215,711	15	215,726	179,367	15	179,382	83.15
Bruce	926,456		934,311	583,601		583,601	62.46
Carleton	552,768 122,554	11,581	564,349	378,876	7,119	385,995	68.40 12.21
Cochrane	355,896	· '	172,047 355,896	16,700 285,367		21,014 285,367	80.18
Dundas	236,198		236,198	187,166		187,166	79.24
Durham	366,254		369,571	308,941	1,864	310,805	84.10
Elgin	436,433		436,523	366,466		366,556	83.97
Essex	414,861	6	414,867	374,566		374,572	90.29
Frontenac	620,426		686,612	233,319		250,447	36.48
Glengarry	287,638		288,563	201,271	590	201,861	69.95
Grenville	269,017	3,086	272,103	186,849		187,149	68.78
Grey	1,064,382	678 4,307	1,065,060	700,952		701,043	65.82
Haldimand Haliburton	277,675 538,346		281,982 583,531	244,426		247,279 51,585	87.69 8.84
Halton	216,070		224,545	45,774 169,639		172,517	76.83
Hastings	1,003,390		1,090,615	418,342		423,738	
Huron	788,625		798,815	669,579		679,153	
Kenora	76,358		90,466	8,676		9,879	
Kent	560,738	6,704	567,442	491,352	5,428	496,780	
Lambton	661,405		661,811	542,564		542,564	
Lanark	662,980		673,319	340,219		344,033	
Leeds	467,282		470,703	272,617		273,440	
Lennox & Addington	427,390		434,067	254,388		254,997	
Lincoln	188,450 $262,770$		189,554 346,950	164,185		165,161 50,448	1
Middlesex	743,060		756,668	48,855 668,333		674,323	
Muskoka	531,627	37,616	569,243	70,971	1,917	72,888	1
Nipissing	287,667		305,721	65,278		68,153	
Norfolk	390,181	5,500	395,681	280,814	3,276	284,090	
Northumberland	434,897	1,757	436,654	361,045	34	361,079	
Ontario	505,135		506,675	386,069		386,074	
Oxford	468,874		471,476	402,314	1,881	404,195	
Parry Sound	545,503		639,554	87,120		91,879	
Peel	287,828 512,183		287,889 519,148	261,915		263,034	
Peterborough	561,595		582,819	454,172 258,060		458,061 266,032	1
Prescott	289,165		291,650	220,732		222,036	
Prince Edward	234,232		234,886	197,722		197,722	I
Rainy River	274,298	95,242	369,540	46,906		53,937	
Renfrew	1,030,874	55,713	1,086,587	390,251		404,456	37.22
Russell	247,715		250,810	168,920	11	168,931	
Simcoe	943,431		957,895	685,080	- ,	694,549	
Stormont	245,847		248,347	166,001		166,501	
Sudbury	288,334		402,556	68,422		78,103	
Thunder Bay	430,785 237,618		473,407 303,428	44,313		49,178	$\begin{vmatrix} 10.39 \\ 23.99 \end{vmatrix}$
Timiskaming	589,156		598,481	65,180 $292,295$		72,801 295,445	
Waterloo	305,137	1,157	306,294	254,236			
Welland	219,553		222,636	181,317		183,740	82.53
Wellington	622,883		627,596			510,526	
Wentworth	268,241		268,241	212,040		212,040	
York	530,865	952	531,817	444,057		444,466	83.57
The Province:	24 204 55	4 404 455	27 107 510				
1928	24,304,661		25,405,818			15,152,439	
1927	24,325,197 24,307,909			14,957,087		15,137,202	
1940	24,301,909	1,044,104	25,352,073	14,954,355	161,027	15,115,382	59.62

Note.—Statistics regarding non-resident lands which should include unoccupied lands assessable are not satisfactory, as many assessors do not make any distinction on their rolls.

FALL WHEAT AND SPRING WHEAT

Table VII.—Showing by County Municipalities of Ontario the area, produce and market value of Fall Wheat and Spring Wheat for the year 1928, together with the comparative totals for the Province for 1927.

Counties and		Fall W	heat			Spring W	/heat	
Districts	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market value
Algoma Brant. Bruce. Carleton. Cochrane Dufferin. Dundas. Durham. Elgin. Essex Frontenac. Glengarry. Grenville. Grey. Haldimand. Haliburton. Hastings. Huron. Kenora. Kent. Lambton. Lanark. Leeds. Lennox & Add'gton Lincoln. Manitoulin. Middlesex. Muskoka Nipissing Norfolk. Northumberland. Ontario. Oxford. Parry Sound. Peel. Perth. Peterborough Prescott.	330 14,592 29,605 267 42 2,277 90 11,290 25,858 38,725 172 186 58 25,798 25,798 36,435 4,148 34,089 902 11,706 128 50,575 23 33 22,126 11,658 15,790 28,818 15,790 28,818 12,790 28,818 12,832 12,832 12,832 12,832 12,832 12,832 12,832 12,832 12,832 12,832	7,788 345,830 778,612 4,646 840 55,103 1,890 273,218 550,775 952,635 3,784 3,348 1,044 704,285 344,563 720 199,910 94,989 893,132 240 1,578,626 866,778 6,042 8,830 18,852 180,272 2,816 1,208,743 414 260 469,071 272,797 423,172 734,859 180 319,217 587,070 345,181 1,098	23.64.221.0 24.221.0 24.221.0 24.221.0 18.0 27.3 118.0 22.3.7 22.9 26.2 22.6 22.8 20.0 24.7 22.6 22.8 20.0 23.7 22.0 23.9 20.0 23.9 20.0 23.9 20.0 23.9 20.0 23.9 20.0 23.9 20.0 23.9 20.0 23.9 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20	\$ 9,735 423,296 949,907 5,575 1,050 68,383 2,363 330,047 663,133 4,605 4,185 1,253 857,819 433,116 864 246,489 114,937 1,094,087 1,094,087 1,061,803 7,250 11,126 622,434 222,456 3,379 1,498,841 518 325 571,328 335,268 517,116 887,710 225 396,787 728,554 417,324 1,373	1,014 1711 1,249 5,117 113 1,509 1,759 4,455 325 1,620 1,719 2,927 787 3,368 1,572 1,302 2,437 4,081 1,234 2,037 277 760 898 2,037 277 760 898 207 416 238 4,407 3,496 171 273 3,496 171 273 3,496 2,276	21,700 3,403 24,980 96,711 2,486 32,293 36,235 82,418 6,500 32,400 33,005 47,417 16,291 71,065 29,082 2,856 28,845 26,170 52,152 1,175 102,690 18,973 90,190 25,791 42,777 5,263 16,264 19,038 4,181 9,110 4,760 87,259 74,814 3,625 5,733 64,575 10,057 10,057 10,057	21.4 19.9 22.0 18.9 22.0 20.0 20.0 20.0 20.0 16.2 22.1 16.2 20.7 21.1 18.5 20.1 19.2 21.4 22.1 22.1 21.4 22.1 21.4 22.1 21.4 22.1 21.4 22.1 21.4 22.1 21.4 22.1 21.4 21.4	\$ 26,040 4,084 29,551 115,666 2,859 38,622 43,120 97,253 7,963 38,102 39,276 56,900 19,223 84,852 35,655 3,427 34,614 31,011 62,009 1,351 119,839 22,768 108,228 31,981 51,418 6,447 19,192 22,711 55,172 10,750 5,950 103,751 87,607 4,259 6,880 77,877 12,179 47,971 55,193
Prince Edward Rainy River Renfrew Russell Simcoe Stormont Sudbury Thunder Bay Timiskaming Victoria Waterloo Welland Wellington Wentworth York The Province:	3,551 5 339 110 69,365 125 29 40 25 12,306 23,420 19,409 10,880 11,531 34,150	6,305 1,980 1,761,871 2,713 580 880 595 307,650 620,630 324,130 300,288 244,457 877,655	23.5 18.6 18.0 25.4 21.7 20.0 22.0 23.8 25.0 26.5 16.7 27.6 21.2 25.7	1,056	682 437, 23,078 2,464 1,614 860 1,134 687, 1,831 2,517, 125,347 2,995 571 5,228	13,094 9,658 410,788 42,134 31,796 17,372 24,268 15,664 42,479 48,326 2,650 6,558 67,987 12,162 119,198	22.1 17.8 17.1 19.7 20.2 21.4 22.8 23.2 19.2 21.2 18.9 22.7 21.3	14,914 11,686 486,784 50,561 38,441 20,673 29,122 18,014 52,037 56,058 3,167 7,981 80,633 14,716 143,276
1928 1927	693,660 751,377	16,766,408 19,447,536	24.2 25.9	20,456,753 24,254,806	109,805 119,580	2,181,855 2,408,055		2,599,815 2,939,777

OATS AND BARLEY

TABLE VIII.—Showing by County Municipalities of Ontario the area, produce and market value of Oats and Barley for the year 1928, together with the comparative totals for the Province for 1927.

Counties and		Oats	3			Barle	У	-
Districts	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market value
Algoma	9,425	337,415	35.8	\$ 217,970	2,910	96,321	33 1	\$ 80,910
Brant	31,552	1,224,218		646,387	5,953	202,997	34 1	147,782
Bruce	102,165	3,718,806		2,030,468	22,199	730,347	32.9	544,109
Carleton	78,516			1,369,790	17,888	454,355		363,484
Cochrane	2,566	72,618		47,928	554	12,908	23.3	10,326
Dufferin	55,856	1,804,149	32.3	938,157	21,415	719,544		504,400
Dundas	21,173	656,363		435,825	5,998	165,545		148,991
Durham	44,377	1,437,815		789,360	10,282	311,545		236,774
Elgin	58,209	2,153,733		1,167,323	7,861 23,276	271,991		197,465
Essex	85,513 34.042	3,420,520 1,154,024		1,730,783 632,405	3,508	847,246 98,224		593,072 75,829
Glengarry	40,498	882,856		595,045	8,237	168,859		151,973
Grenville	29,674	961,438		624,935	3,334	102,687		86,052
Grey	131,233	4,632,525		2,455,238	34,463	1,126,940		813,651
Haldimand	45,832	1,457,458		741,846	5,608	155,902		116,459
Haliburton	7,530	231,924		138,227	959	23,687		20,134
Halton	29,574	1,132,684		611,649	8,318	308,598		236,077
Hastings	84,919 117,642	2,819,311 4,635,095		1,640,839	16,835 32,628	476,431 $1,128,929$		370,663
Huron	1,531	76,550		2,414,884 45,930	605	21,175		798,153 15,88 1
Kent	77,523	3,147,434		1,567,422	31,704	1,090,618		754,708
Lambton	98,192	3,387,624		1,734,463	18,346	594,410		416,087
Lanark	42,114	1,452,933		897,913	7,838	253,167		204,053
Leeds	47,468	1,680,367		1,019,983	3,762	120,008	31.9	99,367
Lennox & Add'gton		1,483,562		851,565	7,869	229,775		185,199
Lincoln	28,784	1,111,062		595,529	2,462	77,553		59,716
Manitoulin	5,089 115,140	178,115 4,087,470		109,541	2,138	72,264		60,702
Middlesex Muskoka	11.600	381,640		2,137,747 246,921	17,023 888	571,973 25,663		414,108 21,377
Nipissing	13,101	374,689		225,563	2,760	67,896		56,557
Norfolk	43,269	1,419,223		762,123	3,122	90,226		66,857
Northumberland	66,298	2,247,502		1,317,036	11,496	347,179	30.2	260,037
Ontario	62,226	2,252,581		1,234,414	21,804	760,960		552,457
Oxford	68,270	2,607,914		1,450,000	10,818	372,139		275,011
Parry Sound	16,632	530,561		342,212	2,789	83,670		72,040
Peel	43,840 92,547	1,670,304 3,507,531		906,975 1,953,695	14,135 27,317	455,147 997,071		334,533
Peterborough	52,528	1,717,666		1,025,447	9,932	318,817		717,891 251,228
Prescott	47,072	1,322,723		843,897	9,499	246,974		238,083
Prince Edward	26,226	902,174		491,685	10,011	290,319		220,642
Rainy River	7,179	274,956		173,772	2,375	70,538		54,596
Renfrew	70,864	2,175,525		1,255,278	12,282	362,319		270,290
Russell	34,504	1,028,219 4,789,276		678,625	5,292	138,650		124,785
Simcoe	129,091 29,240	970,768		2,562,263 630,999	45,705 4,062	1,480,842		1,073,610
Sudbury	11,470	340,659		216,318	3,238	105,612 97,140		86,707 78,975
Thunder Bay	4,029	155,117		96,017	3,240	105,948		83,487
Timiskaming	12,119	342,968		215,041	3,797	93,786		78,124
Victoria	52,825	1,653,423		912,689	17,309	522,732	30.2	370,094
Waterloo	49,920	1,946,880		1,146,712	8,249	307,688	37.3	225,228
Welland	29,256	909,862	31.1	507,703	2,129	58,760	27.6	45,128
Wellington	94,740	3,524,328 1,702,592	30.4	1,931,332	28,044	978,736 196,133		713,499
Wentworth	43,213 78,405			907,482 1,689,314	5,685 25,482	935,189		142,393 670,531
The Province:	10,103	0,120,000	37.7	1,009,014	20,102	200,109	00.1	070,551
1928		93,461,068		51,912,665	615,433	19,944,133	32.4	14,790,285
1927		101,913,746		58,438,236		17,238,125	33.5	13,382,864

PEAS AND BEANS

TABLE 1X.—Showing by County Municipalities of Ontario the area, produce and market value of Peas and Beans for the year 1928, together with the comparative totals for the Province for 1927.

Counties and		Peas				Beans	5	
Districts	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market value
Alcomo	1.026	24 624	21.0	\$ 37,921	55	5.50	10.0	\$ 1,650
Algoma	1,026 537	24,624 10,740		14,606	514	9,252		1,650 36,360
Brant Bruce	8,232	133,358		197,370	63		10.0	2,205
Carleton	1,335	20,025		32,040	338	4,563		16,701
Cochrane	29		13.3	579				10,701
Dufferin	2,198	39,124		53,991	14	210	15.0	630
Dundas	68	1,054		1,581	66		12.5	2,888
Durham	8,639	132,177	15.3	200,909	384	4,608	12.0	13,824
Elgin	1,065	19,383	18.2	29,075	10,384	200,411	19.3	769,578
Essex	1,592	25,472		34,387	898	12,572	14.0	40,859
Frontenac	257	4,009		6,334	113	1,356		4,339
Glengarry	215	3,225		5,160	173	1,730		5,986
Grenville	102	1,469		2,204	77		10.2	2,598
Grey	6,572	115,010		166,765	63		10.0	2,205
Haldimand	440 133	7,788 2,461		11,916	88	1,408		5,041
Haliburton Halton	313	6,010		4,036 9,015	5 34		$13.0 \\ 15.0$	234 1,785
Hastings	1,144	19,791		30,478	332	3,984		14,422
Huron	6,474	97,110		152,463	11,360	148,816		577,406
Kenora	8		20.0	240	11,000	110,010		377,100
Kent	1,707	29,360		42,278	18,107	354,897	19.6	1,387,647
Lambton	2,602	46,055		71,846	1,148	22,960		90,003
Lanark	612	11,689		21,157	398	5,970		18,806
Leeds	62	1,178	19.0	1,767	110	1,562	14.2	5,592
Lennox & Add'gton	968	15,488	16.0	22,148	120	1,944		6,998
Lincoln	205	3,239		4,891	185	2,775		10,406
Manitoulin	1,674	38,000		56,620	16		8.0	384
Middlesex	2,712	46,375		62,143	2,120	36,888		142,757
Muskoka	265	4,717		8,019	14		12.0	504
Nipissing	414	6,334		10,008	920	15,419	8.0	168
Norfolk Northumberland	1,632	29,376 63,925		36,720	829 404	6,060		53,350 20,725
Ontario	3,946 3,040	68,400		88,856 $106,704$	53		16.0	2,544
Oxford	1,236	22,001		31,901	276	4,416		15,633
Parry Sound	811	12,976		22,708	11		10.0	330
Peel	643	11,381		16,844	40		15.0	2,100
Perth	2,666	48,521		67,929	123	1,845		6,458
Peterborough	3,102	52,114	16.8	77,129	76		12.0	3,420
Prescott	166	2,523		4,037	153	1,989		6,226
Prince Edward	3,938	68,915		108,197	210	3,213	15.3	9,639
Rainy River	26		20.0	832		4.000	15.0	45.250
Renfrew	15,463	235,038		444,222	286	4,290		15,358
Russell	7.520	1,571		2,514	75	1,125 1,450		4,219 5,075
Simcoe	7,520 84	148,144 1,260		210,364 1,890	145 70		11.0	2,564
Stormont	1,396	27,920		47,185	29		10.0	870
Thunder Bay	344	7,224	21 0	13,003	3		10.0	90
Timiskaming	1,180	20,414		35,725	9	72	8.0	216
Victoria	3,672	67,198	18.3	100,125	60	600	10.0	2,100
Waterloo	892	17,126		23,291	48	720	15.0	2,520
Welland	93	1,432	15.4	1,790	648	5,249	8.1	17,059
Wellington	3,263	58,734	18.0	76,354	75	1,200		4,200
Wentworth	344	5,951	17.3	8,629	89	1,086		4,073
York	2,733	54,113	19.8	73,594	55	880	16.0	3,080
The Province:		4 000 #00	4 17 0	0.000 400	50.053	072 407	17 1	2 242 005
1928	109,887	1,892,588	17.2	2,892,490	50,953	873,427		3,343,825
1927	105,662	2,035,687	19.3	3,049,924	47,156	725,011	13.4	1,700,257
	_			1			1	

RYE AND BUCKWHEAT

Table X.—Showing by County Municipalities of Ontario the area, produce and market value of Rye and Buckwheat for the year 1928, together with the comparative totals for the Province for 1927.

Brant 4,816 89,096 18.5 85,532 5,398 105,801 19.6 14 Carleton 350 5,600 16.0 5,600 7,342 132,156 18.0 118 Cochrane 13 208 16.0 187 Dufferin 1,967 36,193 18.4 36,193 3,337 72,079 21.6 55 Durham 5,942 83,782 4.1 83,782 4.1 83,782 9,740 222,072 22.8 17,77 Elgin 1,547 26,608 17.2 24,666 6,662 157,889 23.7 12.8 Essex 404 7,676 19.0 7,676 3,054 65,356 21.4 42,280 20.0 Geny 140 2,660 19.0 7,676 3,054 65,356 21.4 42,280 20.0 Grenville 83 1,270 15.3 1,270 6,261 142,751 22.8 126 Grey 140 2,660 19.0 2,394 8,125 184,438 22.7 144 Haliburton 144 2,549 17.7 2,378 558 13,950 25.0 12 Halton 67 1,273 19.0 1,273 2,187 43,740 20.0 36 Hastings 2,434 42,108 7.3 41,266 9,258 180,531 19.5 150 Kent 1,390 26,688 19.2 25,620 23,98 53,	
Algoma	
Brant 4,816 89,096 18.5 85,532 5,398 105,801 9.6 14 Bruce 106 1,664 15.7 1,498 7,931 179,241 22.6 14 Carleton 350 5,600 16.0 5,600 7,342 132,156 18.0 118 Cochrane 13 208 16.0 187	470
Bruce. 106 1,664 15.7 1,498 7,931 179,241 22.6 14 Carleton. 350 5,600 16.0 5,600 7,342 132,156 18.0 118 Cochrane. 13 208 16.0 187 Dufferin. 1,967 36,193 18.4 36,193 33,337 72,079 21.6 78 Durham. 5,942 83,782 14.1 83,782 9,740 222,072 22.8 177 Elgin. 1,547 26,608 17.2 24,666 6662 157,889 23.7 18 Essex 404 7,676 19.0 7,676 3,054 65,356 21.4 42 Frontenac. 343 6,860 20.0 7,546 2,114 42,280 20.0 3 Glengarry	1,172
Carleton 350 5,600 16.0 5,600 7,342 132,156 18.0 118 Cochrane 13 208 16.0 187 1.56 18.0 118 Durferin 1,967 36,193 18.4 36,193 3,337 72,079 21.6 55 Durham 5,942 83,782 14.1 83,782 9,740 222,072 22.8 172 Elgin 1,547 26,608 17.2 24,666 6,662 157,889 23.7 122 Essex 404 7,676 19.0 7,676 3,054 65,356 21.4 42.280 20.0 3 Genegarry 3,165 55,071 17.4 52 Grenville 83 1,270 15.3 1,270 6,261 142,751 22.8 12 Haldimand 7 119 17.0 112 3,438 63,259 18.4 4 Halton 67 1,273 19.0 1,273 2,187 43,740 20.0 3 Haldiburtoh 144 2,549 17.7 2,378 558	780
Cochrane 13 208 16.0 187	3,015
Dufferin 1,967 36,193 18.4 36,193 3,337 72,07921.6 55 Durham 5,942 83,782 14.1 83,782 9,740 222,072 22.8 173 Elgin 1,547 26,608 17.2 24,666 6,662 157,889 23.7 121 Essex 404 7,676 19.0 7,676 3,054 65,356 21.4 44 Frontenac 343 6,860 20.0 7,546 2,114 42,280 20.0 33 Glengarry 3,165 55,071 17.4 55 Grenville 83 1,270 15.3 1,270 6,261 142,751 22.8 128 Grey 140 2,660 19.0 2,394 8,125 184,438 22.7 144 Haliburton 144 2,549 17.7 2,378 558 13,950 25.0 12 Halton 67 1,273 19.0 1,273 3,438 63,259 184 51 Huron 137 2,411 17.6 2,179 1,736	,,010
Dundas 5 90 18.0 90 4,421 91.515 20.7 88 Durham 5,942 83,782 14.1 83,782 22,072 22.28 177 26,668 17.2 24,666 6,662 157,889 23.7 127 Elgin 1,547 26,668 17.2 24,666 6,662 157,889 23.7 127 42,280 20.0 3 Essex 404 7,676 19.0 7,676 3,054 65,356 21.4 44 2,280 20.0 3 Glengarry 3,165 55,071 17.4 55 67,311 42,280 20.0 3 Grenville 83 1,270 15.3 1,270 6,261 142,751 22.8 128 Grey 140 2,660 19.0 2,394 8,125 184,438 22.7 144 Haldimand 7 119 17.0 112 3,438 63,259 18.4 53 Halton 67 1,273 19.0 1,273 218 58 13,950 25.0 12 Halton 67 1,273 19.0 1,273 218 43 44,3740 20.0 3 Hastings 2,434 42,108 17.3 41,266 9,258 180,531 19.5 150 Kenora 5 8517.0 77 3 60 20.0 Kent <td>3,240</td>	3,240
Elgin	5,939
Essex. 404 7,676 19.0 7,676 3,054 65,356 21.4 44 44 44,280 20.0 3.054 65,356 21.4 44 44,280 20.0 3.055 55,071 17.4 17.4 17.	5,215
Frontenac 343 6,860 20.0 7,546 2,114 42,280 20.0 33 33 34 31,650 55,071 17.4 33,165 55,071 17.4 33,165 55,071 17.4 33,165 55,071 17.4 33,165 55,071 17.4 34,080 34,	7,416 $3,625$
Glengarry Grenville 83 1,270 15.3 1,270 6,261 142,751 22.8 142 Haldimand 7 119 17.0 112 3,438 63,259 18.4 51 Haliburton 144 2,549 17.7 2,378 558 13,950 25.0 14,741 25.2 Haliburton 67 1,273 19.0 1,273 2,187 43,740 20.0 34 Hastings 2,434 42,108 17.3 41,266 9,258 Huron 137 2,411 17.6 2,170 11,736 267,581 22.8 215 Kenora 5 85 17.0 77 70 30 6020.0 Kent 1,390 26,688 19.2 25,620 2,398 53,475 22.3 38 Lambton 151 2,567 17.0 2,464 1,224 26,316 21.5 19. Lanark 635 9,017 14.2 8,413 5,797 117,679 20.3 98 Leeds 127 1,918 15.1 1,918 4,764 97,662 20.5 86 Lennox & Add'gton 291 5,762 19.8 6,338 6,242 138,572 22.2 116 Manitoulin 90 1,440 16.0 1,440 379 Middlesex 588 10,584 18.0 9,526 Muskoka 42 798 19.0 798 503 10,965 21.8 81 Norfolk 9,296 141,299 15.2 130,278 114,498 125 184,438 22.7 144 16.7 105,919 16,910 378,784 22.4 305,311,5 12.4 17.5 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 305,312,15 20 96 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 305,321,5 22 Peel 860 17,200 20.0 18,75 114,76 128,70 118,822 129 129 120,90 141,299 15.2 130,278 11,441 16.7 105,919 16,910 378,784 22.4 305,321,5 20 118,822 22.0 95 Muskoka 42 78,810 798 10,965 21.8 82 Parry Sound 82 1,394 17.0 1,394 1,426 1,394 1,408 290,213 20.6 20.6 118,812 129 110 117,60 117,736 117,730 117,730 117,670 117,730 117,670 117,730 117,670 117,730 117,670 117,730 117,670 117,730 117,670 117,730 117,730 117,670 117,730 117,670 117,730 117,670 117,670 117,730 117,670 117,670 117,730 117,670 117,730 117,670 117,60 120,00 117,60 117,60 117,730 117,60 117,730 117,730 117,670 117,670 117,670 117,730 117,670 117,670 117,670 117,60 117,730 117,730 117,730 117,770 117,770 117,670 117,770 117,770 117,770 117,770 117,770 117,770 117,770 117,770	5,023 $5,346$
Grenville 83 1,270 15.3 1,270 6,261 142,751 22.8 128 Grey 140 2,660 19.0 2,394 8,125 184,438 22.7 144 144 2,549 17.7 2,378 558 13,950 25.0 12 Haldimand 7 119 17.0 112 3,438 63,259 18.4 51 144 53,29 18.4 51 Halton 67 1,273 19.0 1,273 2,187 43,740 20.0 33 43,740 20.0 34 Hastings 2,434 42,108 17.3 41,266 9,258 180,531 19.5 19.5 150 19.5 150 Huron 137 2,411 17.6 2,170 11,736 267,581 22.8 215 25 85 17.0 77 3 60 20.0 60 20.0 Kenora 5 85 17.0 77 3 60 20.0 60 20.0 77 3 60 20.0 60 20.0 Kent 1,390 26,688 19.2 25,620 2,398 53,475 22.3 3475 22.3 345 22.3 15 Lambton 151 2,567 17.0 2,464 1,224 26,316 21.5 19 14 14 17,679 20.3 99 14 Leeds 127 1,918 15.1 1,918 4,764 7,622 20.5 48 1,17,679 20.3 39 1,272 2,444 24,44 24,44 2	2,868
Grey	3,476
Haldimand 7 11917.0 123 3,438 63,25918.4 55 Haliburton 144 2,54917.7 2,378 558 13,950 25.0 12 Halton 67 1,273 19.0 1,273 2,187 43,740 20.0 36 Hastings 2,434 42,108 17.3 41,266 9,258 180,531 19.5 150 Kenora 5 85 17.0 77 3 60 20.0 60 20.0 Kent 1,390 26,688 19.2 25,620 2,398 53,475 22.3 38 Lambton 151 2,567 17.0 2,464 1,224 26,316 21.5 19 Lanark 635 9,017 14.2 8,413 5,797 117,679 20.3 99 Leeds 127 1,918 15.1 1,918 4,764 97,662 20.5 80 Lennox & Add'gton 291 5,762 19.8 6,338 6,242 138,572 22.2 116 Lincoln 72 1,346 18.7 1,279 678 13,153 19.4 11 <td>,337</td>	,337
Halton. 67 1,273 19.0 1,273 2,187 43,740 20.0 36 36 36 36 37 36 36 36	,366
Hastings	2,276
Huron. 137 2,411 17.6 2,170 11,736 267,581 22.8 215 Kenora. 5 85 17.0 77 3 60 20.0 20.0 Kent. 1,390 26,688 19.2 25,620 2,398 53,475 22.3 38 Lambton. 151 2,567 17.0 2,464 1,224 26,316 21.5 19 Lanark. 635 9,017 14.2 8,413 5,797 117,679 20.3 99 Leeds. 127 1,918 15.1 1,918 4,764 97,662 20.5 80 Lennox & Add'gton 291 5,762 19.8 6,338 6,242 138,572 22.2 110 Lincoln. 72 1,346 18.7 1,279 678 13,153 19.4 11 Manitoulin. 90 1,440 16.0 1,440 379 8,490 22.4 7 Middlesex. 588 10,584 18.0 9,526 5,401 118,822 22.0 95 Muskoka. 42 798 19.0 798 503 10,965 21.8 10,965	5,742
Kenora 5 85 17.0 77 3 60 20.0 Kent 1,390 26,688 19.2 25,620 2,398 53,475 22.3 38 Lambton 151 2,567 17.0 2,464 1,224 26,316 21.5 19 Lanark 635 9,017 14.2 8,413 5,797 117,679 20.3 99 Leeds 127 1,918 15.1 1,918 4,764 97,662 20.5 80 Lennox & Add'gton Lincoln 291 5,762 19.8 6,338 6,242 138,572 22.2 116 Mincoln 72 1,346 18.7 1,279 678 13,153 19.4 11 Manitoulin 90 1,440 16.0 1,440 379 8,490 22.2 116 Midlesex 588 10,584 18.0 9,526 5,401 118,822 22.4 7 Muskoka 42	5,403
Kent 1,390 26,688 19.2 25,620 2,398 53,475 22.3 38 Lambton 151 2,567 17.0 2,464 1,224 26,316 21.5 19 Lanark 635 9,017 14.2 8,413 5,797 117,679 20.3 99 Leeds 127 1,918 15.1 1,918 4,764 97,662 20.5 80 Lennox & Add'gton 291 5,762 19.8 6,338 6,242 138,572 22.2 116 Lincoln 72 1,346 18.7 1,279 678 13,153 19.4 11 Manitoulin 90 1,440 16.0 1,440 379 8,490 22.4 70 Middlesex 588 10,584 18.0 9,526 5,401 118,822 22.0 95 98 Muskoka 42 798 19.0 798 503 10,965 21.8 8 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 33 Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 17.4 17.5 33 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 Oxford 1,875 28,500 15.2 25,650 7,920 172,656 21.8 38 Par	48
Lambton 151 2,567 17.0 2,464 1,224 26,316 21.5 19 Lanark 635 9,017 14.2 8,413 5,797 117,679 20.3 99 Leeds 127 1,918 15.1 1,918 15.1 1,918 4,764 97,662 20.5 86 Lennox & Add'gton 291 5,762 19.8 6,338 6,242 138,572 22.2 116 Lincoln 72 1,346 18.7 1,279 678 13,153 19.4 11 Manitoulin 90 1,440 16.0 1,440 379 8,490 22.4 7 Middlesex 588 10,584 18.0 9,526 5,401 118,822 22.0 95 93 Muskoka 42 798 19.0 798 503 10,965 21.8 8 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 33 Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 174 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 Ontario 4,272 76,042 17.8 76,042 14,088 290,213 20.6 228 Oxford 1,875 28,500 15.2 25,650 7,920 172,656 21.8 138 Peel 860 17,200 20.0 16,409 1,	3,555
Lanark 635 9,01714.2 8,413 5,797 117,679 20.3 99 Leeds 127 1,918 15.1 1,918 4,764 97,662 20.5 80 Lennox & Add'gton 291 5,762 19.8 6,338 6,242 138,572 22.2 110 Lincoln 72 1,346 18.7 1,279 678 13,153 19.4 11 Manitoulin 90 1,440 16.0 1,440 379 8,490 22.4 70 Middlesex 588 10,584 18.0 9,526 5,401 118,822 22.0 95 Muskoka 42 798 19.0 798 503 10,965 21.8 10,965 21.8 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 3 Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 174 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 Ontario 4,272 76,042 17.8 76,042 14,088 290,213 20.6 228 Oxford 1,875 28,500 15.2 25,650 7,920 172,656 21.8 138 Parry Sound 82 1,394 17.0 1,394 142 3,053 21.5 224,548 144 24,549 144 24,549 144 24,549 144	,737
Leeds 127 1,918 15.1 1,918 4,764 97,662 20.5 80 Lennox & Add'gton 291 5,762 19.8 6,338 6,242 138,572 22.2 110 Lincoln 72 1,346 18.7 1,279 678 13,153 19.4 11 Manitoulin 90 1,440 16.0 1,440 379 8,490 22.4 70 Middlesex 588 10,584 18.0 9,526 5,401 118,822 22.0 95 Muskoka 42 798 19.0 798 503 10,965 21.8 30 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 3 Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 174 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 Oxford 1,875 28,500 15.2 25,650 7,920 172,656 21.8 138	,203
Lincoln 72 1,346 18.7 1,279 678 13,153 19.4 11 Manitoulin 90 1,440 16.0 1,440 379 8,490 22.4 78 Middlesex 588 10,584 18.0 9,526 5,401 118,822 22.0 98 Muskoka 42 798 19.0 798 503 10,965 21.8 8 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 3 Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 17 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 Ontario 4,272 76,042 17.8 76,042 14,088 290,213 20.6 228 Oxford 1,875 28,500 15.2 25,650 7,920 172,656 21.8 138 138 Parry Sound 82 1,394 17.0 13,394 142 3,053 21.5 22 128 Peel 860 17,200 20.0 16,409 1,855 34,132 18.4 27 27 Peterborough 1,405 25,571 18.2 24,548 6,612 38,191 20.9 112 120.5 122 <td>0,571</td>	0,571
Manitoulin 90 1,440 16.0 1,440 379 5.26 8,490 22.4 77 7,574 18.8 Middlesex 588 10,584 18.0 9,526 5,401 118,822 22.0 95 32.0 Muskoka 42 798 19.0 798 503 503 10,965 21.8 10,965 21.8 10,965 21.8 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 33.0 11,144 216,194 19.4 174 Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 174 174 174 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 20.6 22.8 22.0 22.6 2	0,955
Middlesex 588 10,584 18.0 9,526 5,401 118,822 22.0 95 Muskoka 42 798 19.0 798 503 10,965 21.8 8 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 3 Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 17.5 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 Ontario 4,272 76,042 17.8 76,042 14,088 290,213 20.6 228 Oxford 1,875 28,500 15.2 25,650 7,920 172,656 21.8 138 Parry Sound 82 1,394 17.0 1,394 142 3,053 21.5 2 Peel 860 17,200 20.0 16,409 1,855 34,132 18.4 27 Perth 128 2,240 17.5 2,152 151 20.5 122.5 152,151 20.5 122 Peterborough 1,405 25,571 18.2 24,548 6,612 138,191 20.9 111	,180 .318
Muskoka 42 798 19.0 798 503 4,199 254 4,445 17.5 10,965 21.8 21.8 4,495 17.5 8 Nipissing 221 4,199 19.0 4,199 254 4,445 17.5 3.3 4,445 17.5 4,445 17	,533
Nipissing 221 4,199 19.0 4,199 254 11,144 216,194 17.5 17.5 10,071	,958
Norfolk 9,296 141,299 15.2 130,278 11,144 216,194 19.4 177 Northumberland 6,733 112,441 16.7 105,919 16,910 378,784 22.4 303 Oxford 1,875 28,500 15.2 25,650 7,920 172,656 21.8 138 Parry Sound 82 1,394 17.0 1,394 142 3,053 21.5 22 Peel 860 17,200 20.0 16,409 1,855 34,132 18.4 27 Perth 128 2,240 17.5 2,128 7,422 152,151 20.5 122 Prescott 46 736 16.0 736 16.0 736 2,210 34,697 15.7 31 Prince Edward 3,341 54,458 16.3 51,572 10,831 233,950 21.6 181 Rainy River 49 980 20.0 882 18 360 20.0 77,574 18.4 61 Russell 33 528 16.0 475 15,974 365,805 22.9 296 296 Simcoe 6487 115,469 17.8 106,231 15,	,778
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Oxford. 1,875 28,500 15.2 25,650 7,920 172,656 21.8 138 Parry Sound. 82 1,394 17.0 1,394 142 3,053 21.5 2 Peel. 860 17,200 20.0 16,409 1,855 34,132 18.4 27 Perth. 128 2,240 17.5 2,128 7,422 152,151 20.5 120.5 Peterborough. 1,405 25,571 18.2 24,548 6,612 138,191 20.9 111 Prescott. 46 736 16.0 736 2,210 34,697 15.7 31 Prince Edward. 3,341 54,458 16.3 51,572 10,831 233,950 21.6 181 Rainy River. 49 980 20.0 882 18 360 20.0 181 Renfrew. 4,265 75,064 17.6 66,957 4,216 77,574 18.4 61 Russell. 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6,487 115,469 17.8 106,231 15,974 365,805 22.9 296	,785
Parry Sound. 82 1,394 17.0 1,394 142 3,053 21.5 2 Peel. 860 17,200 20.0 16,409 1,855 34,132 18.4 27 Perth. 128 2,240 17.5 2,128 7,422 152,151 20.5 128.2 Peterborough 1,405 25,571 18.2 24,548 6,612 138,191 20.9 111 Prescott. 46 736 16.0 736 2,210 34,697 15.7 31 Prince Edward 3,341 54,458 16.3 51,572 10,831 233,950 21.6 181 Rainy River 49 980 20.0 882 18 360 20.0 Renfrew 4,265 75,064 17.6 66,957 4,216 77,574 18.4 Russell 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6,487 115,469 17.8 106,231 15,974 365,805 22.9 296	
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Perth. 128 2,240 17.5 2,128 7,422 152,151 20.5 122 Peterborough. 1,405 25,571 18.2 24,548 6,612 138,191 20.9 111 Prescott. 46 736 16.0 736 2,210 34,697 15.7 31 Prince Edward. 3,341 54,458 16.3 51,572 10,831 233,950 21.6 181 Rainy River. 49 980 20.0 882 18 360 20.0 Renfrew. 4,265 75,064 17.6 66,957 4,216 77,574 18.4 61 Russell. 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6,487 115,469 17.8 106,231 15,974 365,805 22.9 296	,920
Peterborough 1,405 25,571 18.2 24,548 6,612 138,191 20.9 111 Prescott 46 736 16.0 736 2,210 34,697 15.7 31 Prince Edward 3,341 54,458 16.3 51,572 10,831 233,950 21.6 181 Rainy River 49 980 20.0 882 18 360 20.0 882 18 360 20.0 Renfrew 4,265 75,064 17.6 66,957 4,216 77,574 18.4 61 Russell 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6,487 115,469 17.8 106,231 15,974 365,805 22.9 296	,025
Prince Edward 3,341 54,458 16.3 51,572 10,831 233,950 21.6 181 Rainy River 49 980 20.0 882 18 360 20.0 Renfrew 4,265 75,064 17.6 66,957 4,216 77,574 18.4 61 Russell 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6,487 115,469 17.8 106,231 15,974 365,805 22.9 296	,106
Rainy River 49 980 20.0 882 18 360 20.0 Renfrew 4,265 75,064 17.6 66,957 4,216 77,574 18.4 61 Russell 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6,487 115,469 17.8 106,231 15,974 365,805 22.9 296	,227
Renfrew 4,265 75,064 17.6 66,957 4,216 77,574 18.4 61 Russell 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6.487 115,469 17.8 106,231 15,974 365,805 22.9 29.6	
Russell 33 528 16.0 475 1,977 46,657 23.6 44 Simcoe 6.487 115,469 17.8 106,231 15,974 365,805 22.9 296	317
Simcoe	,324
	,668
Stormont	,394
	,476
Thunder Bay 64 1,280 20.0 1,254 51 1,020 20.0	867
	,315 ,752
Victoria 508 8,636 17.0 8,291 9,581 207,908 21.7 161 Waterloo 1,135 24,403 21.5 22,866 3,055 48,575 15.9 38	,617
Welland	,690
Wellington. 241 5,109 21.2 4,905 11,500 213,900 18.6 169	,623
Wentworth 838 16,173 19.3 15,526 4,363 76,353 17.5 62	,609
York	,324
The Province: 1928 66,307 1,131,172 17.1 1,076,724 271,243 5,692,376 21.0 4,638	579
1928 66,307 1,131,172 17.1 1,076,724 271,243 5,692,376 21.0 4,638 1927 72,323 1,289,058 17.8 1,228,421 249,210 5,892,510 23.6 4,593	
1,20,000 1,20,000 1,10 1,20,121 21,210 0,002,010 4.10 1,000	

FLAX AND MIXED GRAINS

Table XI.—Showing by County Municipalities of Ontario the area, produce and market value of Flax and Mixed Grains for the year 1928, together with the comparative totals for the Province for 1927.

Counties and		Flax				Mixed G	rains	
Districts	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market value
Algoma	36	216	6.0	\$ 324	2,269	85,314	37.6	\$ 67,057
Algoma	69	483		966	13,297	538,529		358,122
Bruce	934	9,340		20,828	31,741	1,196,636		842,432
Carleton	28	168		252	12,486	344,614		258,461
Cochrane	8	. 48	6.0	72	172	5,160		3,870
Dufferin	19	114	6.0	228	21,479	786,131		518,846
Dundas	20	120	6.0	180	18,223	586,781		465,904
Durham	9	54	6.0	108	31,739	1,041,039		695,414
Elgin	10	60		120	17,793	692,148		479,659
Essex	13 14	78 84	6.0	156 168	19,260 4,936	805,068 172,760		520,879 120,932
Frontenac	14	04	0.0	100	3,325	69,825		59,351
Glengarry Grenville	4	24	6.0	36	5,293	172,023		136,586
Grey	439	4,171	9.5	9,385	42,325	1,549,095		1,099,857
Haldimand	11	88	8.0	176	11,806	381,334	32.3	266,171
Haliburton	15	90	1	135	523	16,736	32.0	13,054
Halton	19	114		228	10,954	456,782	$\frac{41.7}{22.7}$	322,945
Hastings	22	132		198	14,298	467,545		345,983
Huron	2,625	19,425	7.4	42,735	55,251 54	2,232,140 2,160		1,497,766 1,404
Kenora	15	120	8.0	240	27,142	1,091,108		751,773
Kent Lambton	187	1,309	1 1	2,618	30,832	1,035,955		685,802
Lanark	192	1,152	6.0	1,728	12,014	397,663		308,189
Leeds	18	108		162	8,278	304,630		236,088
Lennox & Add'gton	43	301	7.0	452	8,950	313,250	35.0	225,853
Lincoln	8	48		96	3,898	148,514		107,673
Manitoulin	10	90	9.0	135	2,282	81,467		65,174
Middlesex	185	1,850		3,700	28,184	1,034,353	30.1	661,986
Muskoka	4	24	6.0	36. 120	598 840	19,555 23,016		16,133 18,022
Nipissing	10 19	80 114		228	5,916	203,510		135,131
Norfolk Northumberland	46	322		644	22,457	756,801		476,785
Ontario	47		10.0	940	46,084	1,760,409		1,214,682
Oxford	225	1,575		3,150	43,753	1,798,248		1,276,756
Parry Sound	10	60	6.0	90	721	24,514	34.0	21,768
Peel	44	308		616	16,787	649,657		459,307
Perth	369			8,303	46,261	1,785,675		1,249,973
Peterborough	82	656		984	6,710 1,838	226,798 52,567		167,377 43,788
Prescott	40			360 432	8,329	276,523		190,801
Prince Edward Rainy River	36 368			5,989	235	8,766		5,917
Renfrew	161	1,449		2,681	5,913	177,390	30.0	124,705
Russell	52			468	6,690	200,700	30.0	160,560
Simcoe	184			2,208	38,546	1,418,493	36.8	1,001,456
Stormont	3	18		27	8,506	255,180		191,385
Sudbury	51			459		24,030		20,185
Thunder Bay	6			54	1,233	49,320	20.0	32,058
Timiskaming	50	300	$\begin{vmatrix} 6.0 \\ 7.0 \end{vmatrix}$	1 002		30,390 709,850	32.0	24,312 489,797
Victoria	104		10.0		21,576 39,081	1,660,943	42.5	1,142,729
Waterloo Welland	272		7.0			70,710		50,840
Wellington	657		12.0			2,669,114		
Wentworth	18		7.0			839,623	36.7	554,151
York	141		10.0			1,990,876		1,363,750
The Province:					00 = 600	22 (04 110	25 0	22 420 640
1928	7,964							23,420,648
1927	7,080	68,173	9.6	121,004	799,333	31,918,944	39.9	22,882,169
	J.			1				

CORN

TABLE XII.—Showing by County Municipalities of Ontario the area, produce, and market value of Corn for husking and for fodder for the year 1928, together with the comparative totals for the Province for 1927.

Algoma	Counties and		Corn for H	luskin	ıg		Corn fo	or Silo	
Algoma		Acres				Acres			
Brant. 1,765 124,962/70.8 85,474 7,630 66,991 8.78 270/35.2 Carleton 842 21,050/25.0 14,735 14,691 146,010 10.00 612,612 Cochrane.	Algoma	1 14	1 100	25.0		100			
Bruce							1,074		0,001
Carleton 842 21,050 25.0 14,735 14,691 14,091 10.00 612,615 Cochrane 0 0.016rin 63 2,520 40.0 1,512 541 3,922 7,25 16,355 Durham 1,019 50,950 0 38,203 12,901 43,512 7,25 16,355 Belgin 9,468 585,122 18,407,830 14,890 120,568 8.50 527,777 74,848 8.13 7,25 178,666 527,777 74,444 4,44,631 7,25 77,277 178,666 76,77 30,465 23,834 2,550 18,531 7,25 77,27 77,2	Bruce		12,480	40.0		4.255			
Cochrane 63 2,520 40.0 1,512 541 3,922 7.25 10,355 Dundas 1,390 55,600 40.0 38,201 12,091 103,620 8.57 432,090 Durham 1,019 50,950 50.0 38,213 5,494 43,512 7.92 181,448 Elgin 9,468 585,122 61.8 407,830 126,565 8.50 527,776 Essex 29,473 2,016,337,47 1,494,900 5,270 42,848 8.13 178,666 Frontenac 677 2,016,337,47 1,494,900 5,270 42,848 8.13 178,666 Glengarry 682 13,640,20.0 10,462 5,73 44,634 7.78 77,27 186,122 Grenville 1,211 54,090,44 3 1,487 6,134 48,483 10,00 91,952 Haliburton 100 3,000,30 1,800 325 2,275 7.00 9,487 Hastings 1,317 52,680 10.0	Carleton	842							
Dundas 1,390 55,000 40.0 38,202 12,091 103,620 8.57 432,099 Elgin 9,468 585,122 61.8 407,830 14,890 126,565 8.50 527,776 Essex 29,473 2,201,633 74.7 1,494,909 5,270 42,845 8.13 178,666 Frontenac 677 30,463 45.0 23,854 2,556 18,531 72.5 77,277 Glengarry 682 13,640 20.0 10,462 5,737 44,634 7.78 77,277 Grey 311 12,440 40.0 7,464 4,843 48,430 10.00 201,955 Haliburton 100 3,000 30.0 1,800 325 2,275 7.00 9,485 Hastings 1,317 52,680 40.0 38,035 4,489 3,668 7.50 10,174 Hastings 1,317 52,680 40.0 32,435 4,980 4,919 8.59 74,800 Kenora 7,527 1,216,374 69.4 79,941 9,009				l::·:					
Durham 1,019 50,950 (50.0) 38,213 5,494 43,512 7.92 181,425 Essex 29,473 2,201,633 (74.7) 1,494,909 5,270 126,505 8,277,772 Frontenac 677 30,463 (45.0) 23,854 2,556 18,531 7.23 77,273 Glengarry 682 13,640 (20.0) 10,462 5,737 44,634 7.78 18,531 7.23 77,273 Grey 311 1,2440 (40.0) 7,464 4,843 56,005 9,14 33,793 Haliburton 100 3,000 (30.0) 1,800 325 2,275 7.00 9,488 Hastings 1,317 52,680 (40.0) 38,035 4,489 33,668 7.50 101,544 Huron 704 35,200 (50.0) 20,112 4,480 41,919 8,59 174,802 Kenora 17,527 1,216,374 (69.4) 797,914 9,009 68,108 7.56 284,016 Lambton 7,440 520,800 (70.0)									10,000
Elgin 9,468 585,122 61.8 407,830 14,890 126,565 8.50 527,776 Essex 29,473 2,201,633 74.7 1,494,909 5,270 42,848 8.13 17.86 67.07 Frontenac 67.3 0,465 45.0 23,854 2,556 18,531 7.25 776,276 Glengarry 682 13,640 20.0 10,462 5,437 44,634 7.78 186,124 Grenville 1,221 54,090 44.3 41,487 6,134 56,005 9.14 233,799 Grey 311 12,440 40.0 7,464 4,843 48,430 10.00 201,955 Haldiburton 100 3,000 30.0 1,800 325 2,275 7.00 9,487 Haldiburton 100 3,000 30.0 1,800 325 2,275 7.00 9,487 Halton 330 14,850 45.0 10,870 3,874 Hastings 1,317 52,680 40.0 38,035 4,489 33,668 7.50 110,396 Harton 704 52,080 70.0 21,120 4,880 41,919 8.59 1748,800 Kenora 2 4,020.0 79,941 9,009 68,108 7.56 Elemon 7,440 520,800 70.0 324,458 10,110 71,882 7.11 299,748 Lambton 7,440 520,800 70.0 80,873 8,499 74,536 8.77 3016,136 Leenso X Add'gton 1,382 85,684 02.0 80,873 8,499 74,536 8.77 316,136 Leenso X Add'gton 1,382 85,684 02.0 80,873 8,499 74,536 8.77 316,136 Lennox & Add'gton 1,382 85,684 02.0 9 91.2 194 Manitoulin 47 940 20.0 470 40,20.0 470 Muskoka 76 1,520 20.0 91.2 194 Muskoka									432,095
Essex. 29,473 2,201,633,747 1,494,999 5,270 42,845 8,13 173,607 Glengarry. 682 13,640,200 10,462 5,73,7 44,634 7.78 186,122 Grenville. 1,221 54,090,443 41,487 6,134 50,065 9,14 233,79 Haldimand. 1,089 65,340,600 47,437 3,743 29,195 7.80 121,744 Halton. 330 14,850,450 10,870 3,874 38,740 1000 161,544 Hastings. 1,317 52,680,400 38,335 4,889 33,668 7.50 7.00 9,48 Hatron. 7.04 35,200,500 21,120 4,880 41,919 8.59 161,544 Hastings. 1,7527 1,216,374/694 797,941 9,009 68,108 7.50 74,80 Kent. 17,527 1,216,374/694 797,941 9,009 68,108 7.55 284,010 Lamark. 933 37,320-40									
Frontenac	Essex								,,
Grenville 1,221 54,090 44,3 41,487 61,34 50,063 9,14 233,791	Frontenac						, -		
Grey. 311 12,440140.0 7,464 4,843 48,43010.00 201/955 Haldimand 1,089 65,34060.0 47,437 3,743 29,195 7,80 121/745 Halton 300 3,000 30.0 1,800 325 2,275 7,00 9,487 Halton 330 14,85045.0 10,870 3,874 38,740 11.00 10.10 161,544 Hardin 704 52,68040.0 38,035 4,489 33,668 7,50 174,802 Kenora 2 402.0 20 1 7,700 77.00 28,411 19,099 68,108 7,56 284,010 Lamark 933 37,32040.0 324,458 10,110 71,882 7,71 202 284,010 Lennox & Add'gton 1,382 85,6840.0 60,236 3,677 33,711 10,010 Lennox & Add'gton 1,382 85,6840.0 60,236 3,677 33,718 9,77 140,604 Maintolin 47	Glengarry								186,124
Haldimand									233,791
Haliburton 100 3,000 30.0 1,800 325 2,275 7.00 9,487 Halton 330 14,850 45.0 10,870 3,874 38,740 10.0 161,544 1435195 1.317 52,680 40.0 38,035 4,489 33,668 7.50 140,399 140,00 2.0 1 7,70.0 140,399 174,802 2.0 1 7,70.0 1140,399 174,802 2.0 1 7,70.0 1140,399 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 7,70.0 174,802 2.0 1 1 7,70.0 174,802 2.0 1 1 7,70.0 1 1,70.0									
Halton. 330									1 - 1, 10
Hastings 1,317 52,680 40.0 38,035 4,489 33,668 7,50 140,390 Kenora 2 4020.0 20 1 7,700 7,000 22 Kent 17,527 1,216,374 69.4 797,941 9,009 68,108 7,56 284,016 Lambton 7,440 520,800 70.0 324,458 10,110 71,882 7,51 299,748 Lamark 933 37,320 40.0 26,124 6,892 75,812 11.00 316,133 Leeds 2,079 103,950 50.0 80,873 8,499 74,536 8.77 310,815 Lennox & Add'gton 1,382 85,684 0.2 60,236 3,67 33,718 9.17 140,604 Lincoln 4,356 266,023 61,38 3,489 74,536 8.77 310,815 Maitodlesex 4,356 267,023 61,33 181,570 21,457 196,792 9.18 820,623 Nortolk 8,650 8,650 893,390	Halton		1 .						
Huron					38,035	4,489			-01,010
Kent. 17,527 1,216,374 69.4 797,941 9,009 68,108 7.56 284,010 Lambton 7,440 \$20,800 70.0 324,458 10,110 71,882 7.11 299,748 Lanark 933 37,320 40.0 26,124 6,892 74,536 8.77 310,815 Leenox & Add'gton 1,382 85,684 02.0 60,236 3,677 33,718 9.17 140,604 Lincoln 2,340 106,236 45.4 77,871 4,983 3,4881 7.00 145,454 Manitoulin 47 940 20.0 470 362 3,385 9.35 14,115 Middlesex 4,550 267,023 0.3 181,576 21,437 196,792 9.18 820,623 Norfolk 8,650 593,390 0.0 1,250 87 548 6.30 2,285 Norfolk 8,650 593,390 0.0 15,600 8,275 76,709 9.27 319,877 Oxford 1,700		704	/		, ,		41,919		174,802
Lambton 7,440 520,800 70.0 324,458 10,110 71,882 7.11 299,748 Lanark 933 37,320 40.0 26,124 6,892 75,812 11.00 316,136 Leeds 2,079 103,950 50.0 80,873 8,499 74,536 8,77 310,818 Lennox & Add'gton 1,382 85,684 02.0 60,236 3,677 33,718 9.17 140,604 Lincoln 2,340 100,236 45.4 77,871 4,983 34,881 7.00 145,458 Manitoulin 47 940 20.0 470 362 3,385 9.35 141,115 Middlesex 4,350 267,023 61.3 181,576 21,437 196,792 9.18 820,623 Nuskoka 76 1,520 20.0 912 194 1,533 7.90 6,333 Norfolk 8,650 593,390 08.0 430,801 7,393 56,483 7.64 235,534 Northumberland 1,544 69,480 45.0 52,110 6,733 60		17 527					7		29
Lanark 933 37,320 40.0 26,124 6,892 75,812 11.00 310,136 Leeds 2,079 103,950 50.0 80,873 8,499 74,536 8.77 310,815 Lennox & Add'gton 1,382 85,684 02.0 60,236 3,677 33,718 9.17 140,604 Lincoln 2,340 106,236 45.4 77,871 4,983 34,881 7.00 145,454 Manitoulin 47 940 20.0 470 362 3,385 9.35 14,115 114,115 Middlesex 4,350 267,023 01.3 181,570 21,437 196,792 9.18 820,623 80,623 33,380 9.35 14,115 Nipissing 125 2,500 20.0 1,250 87 548 6.30 2,285 87 548 6.30 2,285 Norfolk 8,650 593,390 68.0 430,801 7,393 50,483 7.64 235,534 Northumberland 1,544 69,480 45.0 52,110 6,733 60,058 8.92 250,442 Ontario 480 24,000 50.0 59,160 22,305 226,619 10.16 945,001 Peel 699 27,900 40.0 19,572 4,235 32,482 7.67 315,450 45,001 Peel 699 27,900 40.0 19,572 4,235 32,482 7.67 315,450 45,001 Perscott 1,012 32,384 33.0 23,384 32.0 23,310 7,154 31,509 7.20 214,793 116,435 45,400 12,400 12,400 12,400 12,400 12,400 12,400 12,400 12,400									
Leeds. 2,079 103,950 50.0 80,873 8,499 74,536 8.77 310,815 Lennox & Add'gton 1,382 85,684 02.0 60,236 3,677 33,718 9.17 140,604 Lincoln 2,340 106,236 45.4 77,871 4,983 34,881 7.00 145,454 Manitoulin 47 940 20.0 470 362 13,385 9.35 14,115 Middlesex 4,356 267,023 61.3 181,576 21,437 196,792 9.18 820,623 Muskoka 76 1,520 20.0 9.12 194 1,533 7.90 6,393 Nipissing 125 2,500 20.0 1,250 87 548 6.30 2,228 Northumberland 1,544 69,480 45.0 52,110 6,733 60,058 8.92 250,442 Oxford 1,700 85,000 50.0 59,160 22,305 226,619 10.16 945,001 Perth 167 6,680 40.0 19,572 <td>Lanark</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Lanark								
Lennox & Add'gton 1,382 85,684 02.0 60,236 3,677 33,718 9,17 140,604 Lincoln 2,340 106,236 45.4 77,871 4,983 34,881 7.00 34,881 7.00 145,454 145									
Lincoln								9.17	140,604
Middlesex 4,356 267,025 ol. 3 181,576 21,437 196,792 ol. 8 9.18 ol. 820,623 Muskoka 76 1,520 20.0 912 ol. 8 194 ol. 33 7.90 6,303 ol. 2,285 Norfolk 8,650 ol. 593,390 08.0 430,801 ol. 7,393 ol. 6,483 7.64 235,534 Northumberland 1,544 ol. 69,480 45.0 52,110 ol. 6,733 ol. 60,58 ol. 8.92 ol. 6,619 ol. 16 60,058 ol. 8.275 ol. 6,619 ol. 16 60,058 ol. 8.92 ol. 250,442 Ontario 480 ol. 60,000 50.0 ol. 65,000 50.0 ol. 60,000 sl. 60,000 ol. 0 59,160 ol. 22,305 ol. 6,619 ol. 16 549 ol. 0 69,500 ol. 6,619 ol. 16 945,001 ol. 6 549 ol. 0 9.27 ol. 40,000 ol. 19,572 ol. 4,235 ol. 32,482 ol. 6,619 ol. 16 945,001 ol. 6 945,00						1 ' 1	1		145,454
Muskoka 76 1,520 20.0 912 194 1,533 7.90 6,393 Nipissing 125 2,500 20.0 1,250 87 548 6.30 2,288 Norfolk 8,650 593,390 08.6 430,801 7,393 56,483 7.64 235,534 Northumberland 1,544 69,480 45.0 52,110 6,733 60,058 8.92 250,442 Ontario 480 24,000 50.0 15,600 8,275 76,709 9.27 319,877 Oxford 1,700 85,000 50.0 59,160 22,305 226,619 0.16 549 9.00 2,289 Peel 699 27,960 40.0 20.0 4,235 32,482 7.67 315,450 22.89 Peeth									14,115
Nipissing. 125 2,500 20.0 1,250 87 548 6.30 2,285 Norfolk. 8,650 593,390 08.6 430,801 7,393 50,483 7.64 235,534 Northumberland. 1,544 69,480 45.0 52,110 6,733 60,058 8.92 250,442 Ontario. 480 24,000 50.0 15,600 8,275 76,709 9.27 319,877 Oxford. 1,700 85,000 50.0 59,160 22,305 226,619 10.16 945,001 Parry Sound. 20 400 20.0 240 61 549 9.00 2,289 Peel. 699 27,960 40.0 19,572 4,235 32,482 7.67 135,450 Perth. 167 6,680 40.0 4,670 8,584 87,643 10.21 365,471 Peterborough 116 3,480 30.0 2,290 4,974 42,776 8.60 178,376 Prescott. 1,012 32,384 32.0 23,310 7,154 51,509 7.20 214,793 Prince Edward 1,915 117,581 61.4 77,016 3,521 27,922 7.93 116,435 Rainy River 55 440 8.00 1,835 Renfrew. 322 9,982 31.0 5,989 2,600 25,350 9.75 105,710 Russell. 273 8,190 30.0 5,733 5,828 64,108 11.00 267,330 Simcoe. 1,015 40,600 40.0 26,796 5,348 49,202 9.20 205,172 Stormont. 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 Stormont. 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 Stormont. 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 Stormont. 185 4000 40.0 20 51 408 8.00 1,701 Thunder Bay 14 280 20.0 40 2 12 6.00 50 40 2 12 6.00 50 40 2 12 6.00 50 40 2 12 6.00 50 40 2 12 6.00 50 40 2 12 6.00 50 40 2 12 6.00 50 40 40 2 12 6.00 50 40 40 2 12 6.00 50 40 40 2 12 6.00 50 40 40 2 12 6.00 50 40 40 2 12 6.00 50 40 40 40 40 40 40 40 40 40 40 40 40 40	Muskoka								
Norfolk 8,650 593,390 08.6 430,801 7,393 56,483 7.64 235,534 Northumberland 1,544 69,480 45.0 52,110 6,733 60,058 8.92 250,442 Ontario 480 24,000 50.0 15,600 8,275 76,709 9.27 319,877 Oxford 1,700 85,000 50.0 59,160 22,305 226,619 10.16 945,001 Parry Sound 20 400 20.0 240 61 549 9.00 2,289 Peel 699 27,960 40.0 19,572 4,235 32,482 7.67 135,450 Perth 167 6,680 40.0 4,676 8,584 87,643 10.21 365,471 Peterborough 116 3,480 30.0 2,290 4,974 42,776 8.60 178,376 Prescott 1,012 32,384 32.0 23,310 7,154 51,509 7.20 214,793 Prince Edward 1,915 117,581 61.4 77,010									
Northumberland.	Norfolk	8,650							
Ontario 480 24,000 50.0 15,600 8,275 76,709 9.27 319,877 Oxford 1,700 85,000 50.0 59,160 22,305 226,619 10.16 945,001 Parry Sound 20 400 20.0 2400 61 549 9.00 2,289 Peel 699 27,960 40.0 19,572 4,235 32,482 7.67 135,450 Perth 167 6,680 40.0 4,670 8,584 87,643 10.21 365,471 Peterborough 116 3,480 30.0 2,290 4,974 42,776 8.60 178,376 Prescott 1,012 32,384 32.0 23,310 7,154 51,509 7.20 214,793 Prince Edward 1,915 117,581 61.4 77,016 3,521 27,922 7.93 116,435 Rainy River 55 440 8.00 1,835 8,828 64,108 11.00 267,330 Simcoe 1,015 40,600 40 26,796 <	Northumberland						60,058	8.92	
Parry Sound 20 400 20.0 240 61 549 9.00 22,889 135,450 Peel 699 27,960 40.0 19,572 4,235 32,482 7.67 135,450 135,450 Perth 167 6,680 40.0 4,676 8,584 87,643 10.21 365,471 3480 30.0 2,290 4,974 42,776 8.60 178,376 365,471 Peterborough 116 3,480 30.0 2,290 4,974 42,776 8.60 178,376 178,376 860 178,376 Prescott 1,012 32,384 32.0 23,310 7,154 51,509 7.20 214,793 116,435 116,435 Rainy River 55 440 8.00 25,350 9.75 105,710 163,355 164,435 Russell 273 8,190 30.0 5,733 5,828 64,108 11.00 267,330 267,330 Simcoe 1,015 40,600 40.0 26,796 5,348 49,202 9.20 205,172 Stormont 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 Sudbury 22 440 20.0 20 51 408 8.00 1,701 Thunder Bay 14 280 20.0 40 2 12 6.00 50 Victoria 107 3,210 30.0 2,247 4,813 49,526 10.29 206,523 Waterloo 185 9,805 53.0 6,471 7,948 92,276 11.61 384,791 Welland 2,396 95,840 40.0 63,542 4,800 27,888 5.81 1	Ontario								319,877
Peel 699 27,900 40.0 19,572 4,235 32,482 7.67 135,450 Perth 167 6,680 40.0 4,676 8,584 87,643 10.21 365,471 Peterborough 116 3,480 30.0 2,290 4,974 42,776 8.60 178,376 Prescott 1,012 32,384 32.0 23,310 7,154 51,509 7.20 214,793 Prince Edward 1,915 117,581 61.4 77,016 3,521 27,922 7.93 116,435 Rainy River 55 440 8.00 1,635 Russell 273 8,190 30.0 5,733 5,828 64,108 11.00 267,330 Simcoe 1,015 40,600 40.0 26,796 5,348 49,202 9.20 205,172 Stormont 661 18,508 8.0 12,641 6,399 44,793 7.00	Parry Sound					1 1			
Perth 167 6,680 40.0 4,676 8,584 87,043 10.21 365,471 Peterborough 116 3,480 30.0 2,290 4,974 42,776 8.60 178,376 Prescott 1,012 32,384 32.0 23,316 7,154 51,509 7.20 214,793 Prince Edward 1,915 117,581 61.4 77,010 3,521 27,922 7.93 116,435 Rainy River 55 440 8.00 1,835 12,412 1,835 Renfrew 322 9,982 31.0 5,989 2,600 25,350 9.75 105,710 Russell 273 8,190 30.0 5,733 5,828 64,108 11.00 267,330 Simcoe 1,015 40,600 40.0 26,796 5,348 49,202 9.20 205,172 Stormont 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
Peterborough 116 3,480 30.0 2,290 4,974 42,776 8.60 178,376 Prescott 1,012 32,384 32.0 23,310 7,154 51,509 7.20 214,793 Prince Edward 1,915 117,581 61.4 77,016 3,521 27,922 7.93 116,435 Rainy River <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
Prescott. 1,012 32,384 32.0 23,310 7,154 51,509 7.20 214,793 Prince Edward. 1,915 117,581 61.4 77,016 3,521 27,922 7.93 116,435 Rainy River. .	Peterborough	116	3,480	30.0					
Rainy River	Prescott					7,154			214,793
Renfrew. 322 9,982 31.0 5,989 2,600 25,350 9.75 105,710 Russell. 273 8,190 30.0 5,733 5,828 64,108 11.00 267,330 Simcoe. 1,015 40,600 40.0 26,796 5,348 49,202 9.20 205,172 Stormont. 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 Sudbury. 22 440 20.0 220 51 408 8.00 1,701 Thunder Bay. 14 280 20.0 140 4 28 7.00 117 Timiskaming. 4 80 20.0 40 2 12 6.00 50 Victoria. 107 3,210 30.0 2,247 4,813 49,526 10.29 206,523 4,800 27,888 5.81 116,293 4,930 27,888 5.81 116,293 4,930 27,888 5.81 116,293 4,930 27,888 5.81 116,293 4,930 27,888 5.81 116,293 4,930 2,685,727 8,91 5,514 4,900 2,930 2,685,727 8,97 1,948 2,940		1,915	117,581	61.4	77,016				116,435
Russell. 273 8,190 30.0 5,733 5,828 64,108 11.00 267,330 Simcoe. 1,015 40,600 40.0 26,790 5,348 49,202 9.20 205,172 Stormont. 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 Sudbury. 22 440 20.0 220 140 4 28 7.00 117 Thunder Bay. 14 280 20.0 40 2 12 6.00 50 Victoria. 107 3,210 30.0 2,247 4,813 49,526 10.29 206,523 Waterloo. 185 9,805 53.0 6,471 7,948 92,276 11.61 384,791 Welland. 2,396 95,840 40.0 63,542 4,800 27,888 5.81 116,293 Wellington. 291 11,640 40.0 8,148 5,215 54,080 10.37 225,514 Work. 464 25,520 55.0 17,864 8,627 91,878 10.65 383,131 The Province: 1928 110,192 6		322	0.082	31 0	5.090				
Simcoe 1,015 40,600 40.0 26,790 5,348 49,202 9.20 205,172 Stormont 661 18,508 28.0 12,641 6,399 44,793 7.00 186,787 Sudbury 22 440 20.0 220 51 408 8.00 1,701 Thunder Bay 14 280 20.0 140 4 28 7.00 117 Timiskaming 4 80 20.0 40 2 12 6.00 50 Victoria 107 3,210 30.0 2,247 4,813 49,526 10.29 206,523 Waterloo 185 9,805 53.0 6,471 7,948 92,276 11.61 384,791 Welland 2,396 95,840 40.0 63,542 4,800 27,888 5.81 116,293 Wellington 291 11,640 40.0 8,148 5,215 54,080 10.37 225,514 York 464 25,520 55.0 17,864 8,627									
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Waterloo 185 9,805 53.0 6,471 7,948 92,276 11.61 384,791 Welland 2,396 95,840 40.0 63,542 4,800 27,888 5.81 116,293 Wellington 291 11,640 40.0 8,148 5,215 54,080 10.37 225,514 Wentworth 1,021 57,891 56.7 36,008 7,502 77,271 10.30 322,220 York 464 25,520 55.0 17,864 8,627 91,878 10.65 383,131 The Province: 110,192 6,921,850 62.8 4,714,511 299,307 2,685,727 8.97 11,199,482		107	3 210						
Welland. 2,396 95,840 40.0 63,542 4,800 27,888 5.81 116,293 Wellington. 291 11,640 40.0 8,148 5,215 54,080 10.37 225,514 Wentworth. 1,021 57,891 56.7 36,008 7,502 77,271 10.30 322,220 York. 464 25,520 55.0 17,864 8,627 91,878 10.65 383,131 The Province: 1928 110,192 6,921,850 62.8 4,714,511 299,307 2,685,727 8.97 11,199,482	Waterloo								
Wellington 291 11,640 40.0 8,148 5,215 54,080 10.37 225,514 Wentworth 1,021 57,891 56.7 36,008 7,502 77,271 10.30 322,220 York 464 25,520 55.0 17,864 8,627 91,878 10.65 383,131 The Province: 1928 110,192 6,921,850 62.8 4,714,511 299,307 2,685,727 8.97 11,199,482	Welland		95,840	40.0			27,888	5.81	
Wentworth 1,021 57,891 56.7 36,008 7,502 77,271 10.30 322,220 York 464 25,520 55.0 17,864 8,627 91,878 10.65 383,131 The Province: 1928 110,192 6,921,850 62.8 4,714,511 299,307 2,685,727 8.97 11,199,482	Wellington	291	11,640	40.0	8,148	5,215	54,080	10.37	225,514
The Province: 1928 110,192 6,921,850 62.8 4,714,511 299,307 2,685,727 8.97 11,199,482			57,891	56.7					322,220
1928 110,192 6,921,850 62.8 4,714,511 299,307 2,685,727 8.97 11,199,482		404	25,520	55.0	17,864	8,627	91,878	10.65	383,131
1007 100 (00) 5 110 010 50 100 100 100 100 100 100 10		110.192	6,921,850	62.8	4.714.511	299.307	2.685 727	8 97	11 100 482
			5,449,213	53.1					

POTATOES AND TURNIPS

Table XIII.—Showing by County Municipalities of Ontario the area, produce and market value of Potatoes and Turnips for the year 1928, together with the comparative totals for the Province for 1927.

Counties and		Pota	atoes			Turni	ps	
Districts	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per	Market value
Algoma	1,204	173,376	144 0	\$ 114,602	316	87,532	277	\$ 17,506
Brant	3,120	375,336		213,942	2,383			227,815
Bruce	4,019	346,438		224,145	2,571	1,198,086		239,617
Carleton	5,508	424,667	77.1	286,226	746	231,260		46,252
Cochrane	269	25,098		22,588	54	12,150		2,430
Dufferin	8,709	920,541		281,686		1,180,062	1	236,012
Dundas	1,294	102,355		67,554	63	18,900		3,780
Durham	4,886	593,160		284,124	1,839	825,711	449	165,142
Elgin	3,542	448,771		232,015	173	57,609		11,522
Essex	4,728	777,283		404,964	92	27,600		5,520
Frontenac	2,740	210,706		134,641	112	28,000		5,600
Glengarry	2,168	155,662	71.8	106,317	170	59,500		11,900
Grenville	2,725	231,625		157,042	185	55,500		11,100
Grey	6,055	484,400		305,656	3,383	1,380,264		276,053
Haldimand	1,070	105,181		65,107	58	14,500		2,900
Haliburton	545	71,559		54,385	90	29,250		5,850
Halton	1,950	206,115		104,706	1,493	880,870		176,174
Hastings	5,086	561,494		380,131	701	259,370		51,874
Huron	3,812	349,179		209,507	3,070	1,449,040		289,808
Kenora	164	19,483		13,852	17	3,740	220	748
Kent	5,366	889,683	165.8	437,724	49	17,248	352	3,450
Lambton	3,579	309,941	86.6	165,199	227	54,934	242	10,987
Lanark	2,738	313,227		227,090	485	151,805	313	30,361
Leeds	2,754	282,836		182,712	413	142,072	344	28,414
Lennox & Add'gton	2,915	274,593		182,604	98	27,342	279	5,468
Llncoln	1,411	149,566		103,500	108	29,268	271	5,854
Manitoulin	487	70,810	145.4	39,229	161	36,225	225	7,245
Middlesex	7,358	770,383		396,747	1,195	553,285	463	110,657
Muskoka	1,068	119,509	111.9	78,159	411	138,507	337	27,701
Nipissing	1,589	146,983	92.5	100,977	310	84,630	273	16,926
Norfolk	4,308	614,752	142.7	319,671	493	197,200	400	39,440
Northumberland	4,323	450,457	104.2	267,571	2,061	999,585	485	199,917
Ontario	6,521	714,702	109.6	328,048	6,828	3,919,272	574	783,854
Oxford	2,511	270,937	107.9	161,208	4,609	2,157,012	468	431,402
Parry Sound	1,328	157,235		102,989	405	135,675	335	27,135
Peel	4,551	377,278		170,530	953	285,900	300	57,180
Perth	2,668	291,879		191,181	3,035	1,663,180	548	332,636
Peterborough	2,481	267,948		177,114	1,506	652,098	433	130,420
Prescott	2,148	227,688		153,234	151	30,200	200	6,040
Prince Edward	1,551	204,887		136,250	95	21,280	224	4,256
Rainy River	843	132,267		90,074	119	39,151	329	7,830
Renfrew	4,497	325,133		231,170	324	117,936	364	23,587
Russell	1,658	184,701		123,196	124	144,160	340	28,832
Simcoe	13,914	1,655,766		702,045	4,681	2,190,708	468	438,142
Stormont	1,624	89,320		61,363	73	18,250	250	3,650
Sudbury	1,936	311,696		212,265	282	61,758	219	12,352 23,763
Thunder Bay	2,074	301,974		234,030	316	118,816	376	
Timiskaming	1,041 1,952	66,208		56,608	205	52,890	258	10,578
Victoria	3,287	228,579 413,176		124,347 249,971	2,747 4,047	1,043,860 2,306,790	380 570	208,772 461,358
Walland	2,007	164,173					343	
Welland	5,920	668,368		115,578 340,199	51 8,132	17,493 4,667,768	574	3,499 933,554
Wentworth	6,339	690,317		434,900	1,714	846,716	494	169,343
York	8,900	1,072,450		492,255	5,353	2,462,380	460	492,476
The Province:	0,700	1,072,400	120.5	472,233	3,033	2, 102,000	100	1,2,110
1928	181,241	19,791,851	109 2	11,052,928	71,791	34,323,412	478	6,864,682
1927	159,871	15,495,307		13,662,224	68,479	29,452,281	430	5,448,672
		3,2-0,301)	,,	00,710			-,,

MANGELS AND SUGAR BEETS

Table XIV.—Showing by County Municipalities of Ontario the area, produce and market value of Mangels and Sugar Beets for the year 1928, together with the comparative totals for the Province for 1927.

Counties and		Mange	els		· ·	Sugar B	eets	
Districts	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market value
Algoma	21	5,880	280	\$ 1,176	27	2.700	100	\$
Brant	892	404,076		80,815	21	2,700 7,350	100 350	489
Bruce	1,510	650,810		130,162	88	15,400		1,332
Carleton	290	65,250		13,050	115	17,250		2,791 3,126
Cochrane	3	720		144	1	100		18
Dufferin	280	119,000		23,800	120	36,000		6,525
Dundas	42	10,500	250	2,100	64	9,600		1,740
Durham	1,045	407,550		81,510	26	7,800	300	1,414
Elgin	338	164,944		32,989	343	120,050	350	21,759
Essex	516	206,400		41,280	8,065	3,008,245		545,244
Frontenac	41	12,300		2,460	68	13,600		2,465
Glengarry	111	33,300		6,660	23	3,450		625
Grenville	1 660	12,831		2,566	28	4,676		848
Grey Haldimand	1,660 205	682,260		136,452	122	30,500		5,528
Haliburton	203	87,125 8,100		17,425	52	13,000		2,356
Halton	800	416,000		1,620 83,200	8 22	1,200		217
Hastings	180	69,480		13,896	148	6,600 29,600	300 200	1,196
Huron	2,377	957,931	403	191,586	22	4,400	200	5,365 798
Kenora	_,,		100	171,000	2	300	150	54
Kent	407	207,163	509	41,433	27,727	9,399,453	339	1,703,650
Lambton	690	255,300		51,060	5,913	1,821,204	308	330,093
Lanark	139	41,700		8,340	31	7,378	238	1,337
Leeds	89	34,888	392	6,978	109	29,975	275	5,433
Lennox & Add gton	72	20,232	281	4,046	39	7,722	198	1,400
Lincoln	196			14,308	117	35,100	300	6,362
Manitoulin	61	12,200		2,440	10	2,000	200	363
Middlesex	1,290	576,630		115,326	674	218,376	324	39,581
Muskoka	38	13,680		2,736	15	3,750	250	680
Nipissing	45 238	10,530		2,106	17	1,700	100	308
Norfolk Northumberland	798	116,620 347,130	490 435	23,324	88	35,200	400	6,380
Ontario	2,076	1,108,584	534	69,426 221,717	68	20,400	300	3,698
Oxford	2,065	1,009,785	489	201,957	100	30,000	300	5,438
Parry Sound	42	12,600	300	2,520	34	6,800	200	1,233
Peel	461	138,300	300	27,660	61	15,250	250	2,764
Perth	2,684	1,382,260	515	276,452	20	6,000	300	1,088
Peterborough	393	155,235	395	31,047	12	1,800	150	326
Prescott	26	5,200	200	1,040	28	4,200	150	761
Prince Edward	64	16,576	259	3,315	23	4,025	175	730
Rainy River	22	8,250	375	1,650	13	2,925	225	530
Renfrew	170	61,710	363	12,342	101	25,250	250	4,576
Russell	131	34,453	263	6,891	36	3,600	100	653
SimcoeStormont	1,938	813,960	420	162,792	291	97,776	336	17,722
Sudbury	41 40	10,660	260 200	2,132	28	6,160	220	1,117
Thunder Bay	23	8,000 8,809	383	1,600	10	1,000	100	181
Timiskaming	19	4,750	250	1,762 950	10	900 1,000	150 100	163 181
Victoria	701	225,722	322	45,144	35	5,250	150	952
Waterloo	2,205	1,062,810	482	212,562	26	7,800	300	1,414
Welland	113	39,550	350	7,910	49	15,925	325	2,886
Wellington	2,119	998,049	471	199,610	56	16,800	300	3,045
Wentworth	934	415,630	445	83,126	103	25,750	250	4,667
York	2,860	1,195,480	418	239,096	79	23,700	300	4,296
The Province:	22 77	44 500	4.00				201	
1928	33,567	14,738,443	439	2,947,689	45,294	15,215,990	336	2,757,898
1927	34,665	13,494,700	389	2,496,520	38,503	13,453,691	349	2,606,653
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ALSIKE AND SWEET CLOVER

Table XV.—Showing by County Municipalities of Ontario the area, produce and market value of Alsike and Sweet Clover for the year 1928, together with the comparative totals for the Province for 1927.

Counties and		Alsike	2			Sweet Cl	over	
Districts	Acres	Tons	Per acre	Market value	Acres	Tons	Per acre	Market value
Algoma	726	1,104		\$ 13,853	428		1.75	\$ 7,579
Brant	451 2,759	4,001	1.62	7,538 37,530	7,076 19,839	18,044 36,504		131,828 258,569
Carleton	1,986	2,780		36,570	6,141	13,817		125,833
Cochrane	665		1.40	12,247	230	460	2.00	4,655
Dufferin	3,337	4,739		47,954	9,590	19,180		126,154
Dundas Durham	334 5,140	7,093	1.40	5,683 76,296	2,401 15,708	5,066 30,474		37,576 240,526
Elgin	1,142	1,941		18,659	13,687	36,818		266,009
Essex	1,185	1,896	1.60	22,543	10,083	26,821		262,445
Frontenac	1,417	2,267		21,403	1,692	3,384		23,970
Glengarry	167 487		$\begin{bmatrix} 1.62 \\ 1.78 \end{bmatrix}$	3,291	1,064	2,394		21,802
Grenville Grey	3,920	5,331		10,387 53,944	4,204 21,626	10,930 42,819		95,891 290,301
Haldimand	17,162	21,967		202,056	4,423	9,598		69,637
Haliburton	77		1.25	1,069	203	406	2.00	3,287
Halton	2,307	3,184		35,441	2,762	5,248		42,484
Hastings Huron	4,513 2,246	6,724 3,167		72,327 28,490	11,003 29,148	21,676 61,502		175,472 437,504
Kenora	1,173	1,466		18,795	44		1.75	779
Kent	3,426	5,961		54,287	8,099	21,381	2.64	151,448
Lambton	2,388	3,391		32,598	21,532	55,983	2.60	396,544
Lanark	2,421 804	4,309	1.78	47,963	5,423	13,558	2.50	109,755
Leeds Lennox & Add'gton	1,062	1,859		16,473 18,925	3,028 4,844	7,570 7,944		65,877 62,620
Lincoln	1,386	1,774	1.28	21,326	1,762	3,594		32,731
Manitoulin	766	935	1.22	10,407	1,152	2,304	2.00	16,320
Middlesex	3,270	5,363		60,563	25,452	62,103		483,255
Muskoka Nipissing	762 125	1,044	1.65	12,941 2,501	23 132		$\begin{bmatrix} 2.00 \\ 2.00 \end{bmatrix}$	465 2,671
Norfolk	3,324	5,119		52,835	7,549	18,042	2.39	130,900
Northumberland	3,858	7,292		71,943	18,727	40.825	2.18	326,769
Ontario	6,509	11,846		125,863	12,375	25,988	2.10	218,005
Oxford	848 367	1,459	$1.72 \\ 1.62$	14,867 7,527	10,653	24,395		172,797
Parry Sound	8,135	11,064		111,957	5,922	158 13,265		1,599 109,665
Perth	1,200	1,968		17,544	18,056	42,432		304,852
Peterborough	3,656	5,009		64,422	9,400	19,740		179,774
Prescott	1,712	2,636		28,568	730	1,825		18,467
Prince Edward Rainy River	1,813 892	3,136 1,222		30,147 13,602	7,427	16,042 387		118,013 3,916
Renfrew	2,243	3,746	1.67	40,331	2,980	6.377	2.14	54,850
Russell	644	966	1.50	9,775	1,290	2,580	2.00	20,886
Simcoe	22,270	35,855		386,037	26,993	62,084		460,491
Stormont	789 289	1,215 462		14,754 5,797	1,293	2,483 678		20,100 6,861
Thunder Bay	227	420	1.85	5,363	340	700		7,083
Timiskaming	3,883	6.756	1.74	83,746	245	490		4,958
Victoria	12,131	16,498	1.36	173,454	9,333	19,599	2.10	178,490
Waterloo	553	957	1.73	10,652	11,902	28,089	2.36	235,345
Wellington	1,653 1,408	2,132 2,112	1.50	21,099 17,460	1,892 17,761	4,503 38,186	2.15	36,453 251,163
Wentworth	859	1,417	1.65	16,633	3,290	38,186 7,008	2.13	63,823
York	9,000	14,130	1.57	128,683	11,872	28,018	2.36	198,460
The Province:	155 967			2 457 110	112 169	024 609	24	7 067 707
1928 1927	155,867 176,870	235,325 290,345	1 64	2,457,119 2,991,247	413,468 400,296	924,608 2 927,342 2	2.32	7,067,707 7,075,797
	,.,.,	270,010		w,>>1,&11	100,270	2.,012		.,,

ALFALFA AND HAY AND CLOVER

Table XVI.—Showing by County Municipalities of Ontario the area, produce and market value of Alfalfa, Hay and Clover for the year 1928, together with the comparative totals for the Province for 1927.

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Counties and		Alfalf	а			Hay and (Clove	r		
Districts	Acres	Tons	Per	Market	Acres	Tons	Per	Market		
	rieres	10115	acre	value	110100	10115	acre	value		
Algoma	482	030	1.93	\$ 12,681	26,360	35,586	1 25	\$ 540 143		
Brant	12,553	31,131				45,509		540,142 475,242		
Bruce	46,780	98,238				166,169				
Carelton	8,075	19,703			102,329	161,680		1,881,446		
Cochrane	53		2.00			12,490		176,941		
Dufferin	7,532	15,441				84,829		831,775		
Dundas Durham	3,195 8,627	6,007 21,999				81,929 60,679		1,044,589 743,567		
Elgin	23,744	57,460				80,678		816,381		
Essex	26,047	68,764				44,880				
Frontenac	5,143	11,572				125,605		1,249,390		
Glengarry	3,203	6,854				85,321		1,066,253		
Grenville	3,771 62,156	9,616 133,014		119,136 1,383,655		81,136 195,553		955,662 1,909,542		
Haldimand	25,747	61,278				67,950		641,518		
Haliburton	140		2.00			18,586				
Halton	13,620	30,781		412,235	26,512	41,889		519,246		
Hastings	21,436	51,446				141,547		1,594,165		
Huron	38,927 42	84,861	$\begin{bmatrix} 2.18 \\ 2.25 \end{bmatrix}$	878,618 1,295		$\frac{146,112}{4,947}$	1.01	1,403,104		
Kenora	36,010	91,826	$\begin{bmatrix} 2.25 \\ 2.55 \end{bmatrix}$	924,794		51,891		65,076 483,603		
Lambton	44,363	104,253		1,098,689		87,067		881,031		
Lanark	9,488	23,056	2.43	262,068	76,911	148,438	1.93	1,634,224		
Leeds	6,663	17,191				121,756		1,355,254		
Lennox & Add'gton	11,840	27,824 28,825		329,814		100,262		971,940		
Lincoln	11,670 2,093	4,584		408,780 50,587		48,847 23,113		590,173 236,219		
Middlesex	40,255	95,807		1,144,988		130,042		1,425,114		
Muskoka	130	293	2.25	3,995		45,635		637,257		
Nipissing	33		2.25	865		39,311		519,114		
Norfolk Northumberland	12,545	31,864	2.54	367,771	43,734	70,849		764,955		
Ontario	12,834 15,572	29,262 37,840	2.20	349,710 497,558		80,724 89.188		892,813 1,136,239		
Oxford	24,291	53,197	2.19	633,683		108,685		1,152,573		
Parry Sound	229	515	2.251	7,524		54,027		710,709		
Peel	30,748	70,105		851,480		56,697		720,014		
Perth Peterborough	13,859	33,816	2.44	375,150		146,197		1,479,367		
Prescott	8,786 1,288	21,086 3,065	2 38	272,947 36,570	42,936 71,240	64,404 99,024		853,732 1,162,347		
Prince Edward	6,911	15,757	2.28	169,588		63,899		653,707		
Rainy River	1,087	2,120	1.95	26,327	23,485	28,887	1.23	314,815		
Renfrew	6,784	16,553	$\frac{2.44}{2.32}$	184,120		172,347		1,785,835		
Russell	2,597 30,286	6,025 70,869	2.32	70,420 797,946		77,157		936,902		
Stormont	1,477	2,718	1 84	37,063	93,551 50,187	147,811 65,745		1,678,174 864,856		
Sudbury	456	912	2.001	12,436		40,481		607,477		
Thunder Bay	927	1,937	2.09	28,300	21,171	33,662	1.59	496,973		
Timiskaming	404		2.25	12,395	25,144	43,248		590,796		
Victoria	7,460	17,083	2.29			70,036		997,133		
Waterloo	11,754 6,224	30,090 13,693	2.20	365,173 171,914	41,588 50,207	83,176 66,273	1.32	958,649 705,489		
Wellington	18,449	40,772	2.21	414,989		166,132	1.64	1,555,008		
Wentworth	13,447	27,835	2.07	366,003	37,867	56,422	1.49	703,962		
York	40,997	98,803	2.41	1,257,780	52,663	91,107	1.73	1,240,893		
The Province: 1928	743,230	1,730,135	2 22	20,020,248	2 811 076	4,455,615	1 50	50,026,378		
1927	806,397	1,865,868		21,915,225		4,914,515	1.73	54,161,232		
	,	-,555,550			, ,	-,,		-,,		

CARROTS-ALL FIELD CROPS

Table XVII.—Showing by County Municipalities of Ontario the area, produce and market value of Carrots and all Field Crops enumerated in Tables VII to XVII for the year 1928, together with the comparative totals for the Province for 1927.

Districts	Counties and		Carr	ots		All	Field Crops	
Algoma		Acres	Bushels			Acres	Value	
Braut.	Algoma	43	5,375	125		47,254	**	\$ c. 24.65
Carleton 104 10,400 100 2,080 264,494 5,580,985 27,719 33,11 Dufferin 12 1,800 150 360 200,176 3,959,018 19,21 Durham 15 2,250 150 100 129,205 2,924,67 22,44 Durham 15 2,250 150 450 210,841 4,694,212 22 Egin 31 6,200 200 1,240 249,400 64,92,281 26,01 Essex 102 22,950 225 4,590 286,630 8,535,113 29,78 Fronteac 56 8,400 150 1,680 139,234 2,885,946 18,18 Glengary 58 8,700 150 1,740 133,333 2,245,675 18,15 Grenville 28 4,200 150 1,410 480,480 10,209,191 12,12 Haldimand 16 3,200 200 640 184,924 3,578,737								26.56
Cochrane 19 1,900 100 380 12,407 287,719 23,15 Dufferin 12 1,800 150 360 200,176 3,959,918 19,75 Dundas 5 500 100 100 129,205 2,902,467 22,42 22,46 Durham 15 2,230 150 1,240 249,460 6,489,281 26,01 Esex 102 22,950 225 4,590 286,630 8,533,113 29,78 Frontenac 56 8,400 150 1,680 139,254 2,588,046 18,56 Glengarry 58 8,700 150 18,14 133,936 2,430,763 18,15 Grey 38 5,700 150 11,140 480,408 10,209,191 21,25 Grey 38 5,700 150 1,140 480,408 10,209,191 21,25 Haldimand 16 3,200 200 640 184,924 3,578,737								
Durflerin								
Durham								19.78
Elgin								22.46
Essex								
Frontenac 56			22,950					
Grenville 28 4,200 150 840 115,847 2,631,383 22,71 Haldimand 16 3,200 200 640 184,924 3,578,737 19,38 Haldimand 16 3,200 200 640 184,924 3,578,737 19,38 Haltion 13 1,950 150 390 114,860 30,048,305 26,54 Hastings 75 11,250 150 280 27,4375 5,856,339 21,33 Kenora 3 300 100 60 7,324 165,927 22,66 Kent 41 10,250 250 2,050 366,618 11,406,509 31,26 Leads 20 25,800 200 1,60 67,224 165,927 22,66 Leeds 29 5,800 200 1,60 167,215 3,40 3,40,40 82,82 2,60 3,40 3,43,40 8,42 2,23 3,66 3,42 3,73,47 77,73 </td <td>8.0</td> <td></td> <td></td> <td>150</td> <td>1,680</td> <td>139,254</td> <td>2,585,046</td> <td>18.56</td>	8.0			150	1,680	139,254	2,585,046	18.56
Grey 38 5,700 150 1,140 480,408 10,209,191 21,22 Haldimand 16 3,200 200 640 184,924 3,578,737 19,33 Halton 13 1,950 150 20 25,911 487,854 18,83 Halton 13 1,950 150 20 2,511 487,854 18,83 Harton 16 2,400 150 2,250 274,375 55,856,339 21,33 Huron 16 2,400 150 480 450,334 10,492,893 23,36 Kenora 3 300 100 60 7,324 165,927 22,250 Lamark 56 8,400 150 1,680 179,463 4,340,018 24,18 Leeds 29 5,800 200 1,160 167,215 3,743,472 22,39 Lenox and Addington 26 4,108 158 822 160,213 3,267,839 20,44 <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>18.19</td></tr<>								18.19
Haldimand							2,631,383	
Halburton 26 2,600 100 520 25,911 487,854 18.83 Halton 13 1,950 150 390 114,866 3,048,305 26.54 Hastings 75 11,250 150 2,250 274,375 5,856,339 21,33 Huron 16 2,400 150 480 450,334 165,927 22.66 Kent 41 10,250 250 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 366,618 11,460,509 31,22 22.60 2,050 2								
Hastings			2,600		520	25,911		18.83
Huron. 16								26.54
Kenora 3 300 100 60 7,324 165,927 22.66 Kent 41 10,250 250 2,050 366,618 11,460,509 31.26 Lambton 44 7,700 175 1,540 340,435 7,699,538 22.62 Lanark 56 8,400 150 1,680 179,463 4,340,018 24.18 Leeds 29 5,800 200 1,160 167,215 3,743,472 22.39 Lenox and Addington 26 4,108 158 822 160,213 3,267,839 20.40 Lincoln 36 9,000 250 1,800 105,289 2,427,832 23.06 Manitoulin 13 1,300 100 260 35,497 701,540 19.76 Midlesex 45 7,875 175 1,575 403,764 9,829,058 24.33 Misoka 26 3,900 150 780 46,329 1,080,455 23.32								
Kent. 41 10,250 250 2,050 366,618 11,460,509 31,26 Lambton 44 7,700 175 1,540 340,435 7,699,538 22,69 28,000 150 1,680 179,463 4,340,018 24,182 18 Leeds 29 5,800 200 1,160 167,215 3,743,472 22,39 Lennox and Addington 26 4,108 158 822 160,213 3,267,839 20,42 Lincoln 36 9,000 250 1,800 105,289 2,427,832 23,00 Manitoulin 13 1,300 100 260 35,497 701,540 19,76 Middlesex. 45 7,875 175 1,575 403,764 9,829,058 24,33 Nipissing 38 3,800 100 760 47,279 979,253 20,71 Norfolk 34 6,800 200 1,360 185,947 4,309,837 23,32 Norfolk								
Lanark		41				366,618	11,460,509	31.26
Leeds. 29 5,800 200 1,160 167,215 3,743,472 22.39 Lennox and Addington 26 4,108 158 8.22 160,213 3,267,839 20.40 Lincoln 36 9,000 250 1,800 105,289 2,427,832 23.06 Maintoulin 13 1,300 100 260 35,497 701,540 19.76 Middlesex 45 7,875 175 1,575 403,764 9,829,058 24.38 Nuskoka 26 3,900 150 780 46,329 1,080,455 23.32 Nipissing 38 3,800 100 760 47,279 979,253 20.71 Northumberland 29 4,350 150 780 244,854 5,498,075 22.45 Ontario 48 9,600 200 1,360 185,947 4,309,837 23.18 Northumberland 29 4,350 150 780 244,854 5,498,075								22.62
Lennox and Addington 26							, ,	
Lincoln. 36 9,000 250 1,800 105,289 2,427,832 23.06 Manitoulin 13 1,300 100 260 35,497 701,540 19.76 Middlesex 45 7,875 175 1,575 403,764 9,829,058 24.38 Muskoka 26 3,900 150 780 46,329 1,080,455 23.32 Nipissing 38 3,800 100 760 47,279 979,253 20.71 Norfolk. 34 6,800 200 1,360 185,947 4,309,837 23.18 Northumberland 29 4,350 150 870 244,854 5,498,075 22.45 Ontario 48 9,600 200 1,920 287,877 7,670,165 26.64 Oxford 20 3,900 150 780 293,188 7,887,924 26.90 Parry Sound 38 5,700 150 1,140 57,640 1,335,147 23.1								20.40
Middlesex. 45 7,875 175 1,575 403,764 9,829,058 24,34 Muskoka 26 3,900 150 780 46,329 1,080,455 23,32 20,71 Norfolk 34 6,800 200 1,360 185,947 4,309,837 23,18 Northumberland 29 4,350 150 870 244,854 5,498,075 22,45 Ontario 48 9,600 200 1,920 287,877 7,670,165 26,64 Oxford 20 3,900 150 780 293,188 7,887,924 26,90 Parry Sound 38 5,700 150 1,140 57,640 1,335,147 23,16 Peel 187 28,050 150 5,610 187,689 4,451,250 23,72 Perth 12 1,800 150 360 335,231 8,217,912 24,51 Peterborough 32 3,200 100 640 169,656 4,017,	Lincoln					105,289	2,427,832	23.06
Muskoka 26 3,900 150 780 46,329 1,080,455 23.32 Nipissing 38 3,800 100 760 47,279 979,253 20.71 Norfolk 34 6,800 200 1,360 185,947 4,309,837 23.18 Northumberland 29 4,350 150 870 244,854 5,498,075 22.45 Ontario 48 9,600 200 1,920 287,877 7,670,165 26.64 Oxford 26 3,900 150 780 293,188 7,887,924 26.90 Parry Sound 38 5,700 150 1,140 57,640 1,335,147 23.16 Peel 187 28,050 150 5,610 187,689 4,451,250 23.72 Perth 12 1,800 150 360 335,231 8,217,912 24.51 Peterborough 32 3,200 100 640 169,656 4,017,622 23.68 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>19.76</td>								19.76
Nipissing 38 3,800 100 760 47,279 979,253 20.71 Norfolk 34 6,800 200 1,360 185,947 4,309,837 23.18 Northumberland 29 4,350 150 870 244,854 5,498,075 22.43 Ontario 48 9,600 200 1,920 287,877 7,670,165 26.64 Oxford 26 3,900 150 780 293,188 7,887,924 26.90 Parry Sound 38 5,700 150 1,140 57,640 1,335,147 23.16 Peel 187 28,050 150 5,610 187,689 4,451,250 23.16 Perth 12 1,800 150 360 335,231 8,217,912 24.51 Peterborough 32 3,200 100 640 169,656 4,017,622 23.68 Prescott 45 4,500 100 90 148,895 2,870,956 19.28 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Norfolk. 34 6,800 200 1,360 185,947 4,309,837 23,18 Northumberland. 29 4,350 150 870 244,854 5,498,075 22,45 Ontario. 48 9,600 200 1,920 287,877 7,670,165 26,64 Oxford. 26 3,900 150 780 293,188 7,887,924 26,90 Parry Sound. 38 5,700 150 1,140 57,640 1,335,147 23,16 Peel. 187 28,050 150 5,610 187,689 4,451,250 23,72 Perth. 12 1,800 150 360 335,231 8,217,912 24,51 Perth. 12 1,800 150 640 169,656 4,017,622 23,68 Prescott. 45 4,500 100 900 148,895 2,870,956 19,28 Prince Edward 15 2,250 150 450 130,427 2,667,306 <								20.71
Ontario 48 9,600 200 1,920 287,877 7,670,165 26.64 64.64 Oxford 26 3,900 150 780 293,188 7,887,924 26.90 187 28,050 150 1,140 57,640 1,335,147 23.16 23.12 28,050 150 5,610 187,689 4,451,250 23.72 23.72 28.050 150 5,610 187,689 4,451,250 23.72 23.72 29.01 20.01 360 335,231 8,217,912 24.51 24.51 24.51 25.01 20.02 30.00 30.00 335,231 8,217,912 24.51 24.51 24.51 25.01 20.00 30.00 335,231 8,217,912 24.51 24.51 25.01 20.00 360 335,231 8,217,912 24.51 24.51 25.01 20.02 26.55 4.017,622 23.68 27.09,956 19.28 28.70,956 19.28 27.09,956 19.28 27.09,956 19.28 27.09,956 19.28	Norfolk							23.18
Oxford. 26 3,900 150 780 293,188 7,887,924 26,90 Parry Sound 38 5,700 150 1,140 57,640 1,335,147 23,16 Peel. 187 28,050 150 5,610 187,689 4,451,250 23,72 Perth. 12 1,800 150 360 335,231 8,217,912 24,51 Peterborough 32 3,200 100 640 169,656 4,017,622 23,68 Prescott 45 4,500 100 900 148,895 2,870,956 19,28 Prince Edward 15 2,250 150 450 130,427 2,667,306 20,48 Rainy River 3 450 150 90 37,432 714,806 19,10 Renfrew 62 9,300 150 1,860 255,434 5,185,650 20,30 Russell 37 3,700 100 740 117,424 2,540,265 21,63 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Parry Sound 38 5,700 150 1,140 57,640 1,335,147 23.16 Peel 187 28,050 150 5,610 187,689 4,451,250 23.72 Perth 12 1,800 150 360 335,231 8,217,912 24.51 Peterborough 32 3,200 100 640 169,656 4,017,622 23.68 Prescott 45 4,500 100 900 148,895 2,870,956 19.28 Prince Edward 15 2,250 150 450 130,427 2,667,306 20.45 Rainy River 3 450 150 90 37,432 714,806 19.28 Renfrew 62 9,300 150 1,860 255,434 5,185,650 20.35 Russell 37 3,700 100 740 117,424 2,540,265 21.63 Simcoe 65 13,000 200 2,600 514,983 12,332,525 23.95 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Perth 12 1,800 150 360 335,231 8,217,912 24.51 Peterborough 32 3,200 100 640 169,656 4,017,622 23.68 Prescott 45 4,500 100 900 148,895 2,870,956 19.28 Prince Edward 15 2,250 150 450 130,427 2,667,306 20.45 Rainy River 3 450 150 90 37,432 714,806 19.10 Renfrew 62 9,300 150 1,860 255,434 5,185,650 20.30 Russell 37 3,700 100 740 117,424 2,540,265 21.63 Simcoe 65 13,000 200 2,600 514,983 12,332,525 23.95 Stormont 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury 48 4,800 100 960 34,831 1,044,554 29.99								23.16
Peterborough 32 3,200 100 640 169,656 4,017,622 23.68 Prescott 45 4,500 100 900 148,895 2,870,956 19.28 Prince Edward 15 2,250 150 450 130,427 2,667,306 20.45 Rainy River 3 450 150 90 37,432 714,806 19.10 Renfrew 62 9,300 150 1,860 255,434 5,185,650 20.30 Russell 37 3,700 100 740 117,424 2,540,265 21.63 Simcoe 65 13,000 200 2,600 514,983 12,332,525 23.95 Stormont 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury 48 4,800 150 960 34,831 1,044,554 29.99 Timiskaming 30 3,000 100 600 51,763 1,268,973 24.52 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>23.72</td>								23.72
Prescott 45 4,500 100 900 148,895 2,870,956 19.28 Prince Edward 15 2,250 150 450 130,427 2,667,306 20.45 Rainy River 3 450 150 90 37,432 714,806 20.45 Renfrew 62 9,300 150 1,860 255,434 5,185,650 20.30 Russell 37 3,700 100 740 117,424 2,540,265 21.63 Simcoe 65 13,000 200 2,600 514,983 12,332,525 23.95 Stormont 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury 48 4,800 100 960 51,763 1,268,973 24.52 Thunder Bay 32 4,800 150 960 34,831 1,044,554 29.99 Timiskaming 30 3,000 100 600 51,127 1,171,042 22.86								
Prince Edward 15 2,250 150 450 130,427 2,667,306 20.45 Rainy River 3 450 150 90 37,432 714,806 19.10 Renfrew 62 9,300 150 1,860 255,434 5,185,650 20.30 Russell 37 3,700 100 740 117,424 2,540,265 21.63 Simcoe 65 13,000 200 2,600 514,983 12,332,525 23.95 Stormont 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury 48 4,800 100 960 51,763 1,268,973 24.52 Timiskaming 30 3,000 150 960 34,831 1,044,554 29.99 Timiskaming 30 3,000 100 600 51,127 1,171,042 22.86 Victoria 8 1,200 150 240 211,242 4,637,732 21,95								19.28
Renfrew. 62 9,300 150 1,860 255,434 5,185,650 20.30 Russell. 37 3,700 100 740 117,424 2,540,265 21,63 Simcoe. 65 13,000 200 2,600 514,983 12,332,525 23.95 Stormont. 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury. 48 4,800 100 960 51,763 1,268,973 24.52 Thunder Bay. 32 4,800 150 960 34,831 1,044,554 29.99 Timiskaming. 30 3,000 100 600 51,127 1,171,042 22.86 Victoria. 8 1,200 150 240 211,242 4,637,732 21.95 Welland. 16 3,200 200 640 120,843 2,318,586 18.28 Wellington. 45 11,250 250 2,250 380,835 9,190,356 <t< td=""><td></td><td></td><td>2,250</td><td></td><td></td><td></td><td></td><td>20.45</td></t<>			2,250					20.45
Russell 37 3,700 100 740 117,424 2,540,265 21.63 Simcoe 65 13,000 200 2,600 514,983 12,332,525 23.95 Stormont 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury 48 4,800 100 960 51,763 1,268,973 24,52 Thunder Bay 32 4,800 150 960 34,831 1,044,554 29.99 Timiskaming 30 3,000 100 600 51,127 1,171,042 22.86 Victoria 8 1,200 150 240 211,242 4,637,732 21.95 Waterloo 4 600 150 120 209,696 6,253,411 29.82 Welland 16 3,200 200 640 126,843 2,318,586 18.28 Wellington 45 11,250 250 2,250 380,835 9,190,356 24.13								
Simcoe 65 13,000 200 2,600 514,983 12,332,525 23.95 Stormont 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury 48 4,800 100 960 51,763 1,268,973 24.52 Thunder Bay 32 4,800 150 960 34,831 1,044,554 29.99 Timiskaming 30 3,000 100 600 51,127 1,171,042 22.86 Victoria 8 1,200 150 240 211,242 4,637,732 21.95 Wetland 16 3,200 200 640 126,843 2,318,586 18.28 Wellington 45 11,250 250 2,250 380,835 9,190,356 24.13 York 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
Stormont 28 3,640 130 728 109,186 2,208,129 20.22 Sudbury 48 4,800 100 960 51,763 1,268,973 24.52 Thunder Bay 32 4,800 150 960 34,831 1,044,554 29.99 Timiskaming 30 3,000 100 600 51,127 1,171,042 22.86 Victoria 8 1,200 150 240 211,242 4,637,732 21.95 Waterloo 4 600 150 120 209,696 6,253,411 29.82 Welland 16 3,200 200 640 126,843 2,318,586 18.28 Wellington 45 11,250 250 2,250 380,835 9,190,356 24.13 York 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 244								23.95
Thunder Bay 32 4,800 150 960 34,831 1,044,554 29.99 Timiskaming 30 3,000 100 600 51,127 1,171,042 22.86 Victoria 8 1,200 150 240 211,242 4,637,732 21.95 Waterloo 4 600 150 120 209,696 6.253,411 29.82 Welland 16 3,200 200 640 126,843 2,318,586 18.28 Wellington 45 11,250 250 2,250 380,835 9,190,356 24.13 Work 22 3,300 150 660 162,628 4,213,080 25.91 York 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 244,445,136 23.60	Stormont							20.22
Timiskaming 30 3,000 100 600 51,127 1,171,042 22.86 Victoria 8 1,200 150 240 211,242 4,637,732 21.95 Waterloo 4 600 150 120 209,696 6,253,411 29.82 Welland 16 3,200 200 640 126,843 2,318,586 18.28 Wellington 45 11,250 250 2,250 380,835 9,190,356 24.13 Wentworth 22 3,300 150 660 162,628 4,213,080 25.91 York 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 244,445,136 23.60								
Victoria. 8 1,200 150 240 211,242 4,637,732 21.95 Waterloo. 4 600 150 120 209,696 6,253,411 29.82 Welland. 16 3,200 200 640 126,843 2,318,586 18,28 Wellington. 45 11,250 250 2,250 380,835 9,190,356 24.13 Wentworth. 22 3,300 150 660 162,628 4,213,080 25.91 York. 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 244,445,136 23.60								
Waterloo 4 600 150 120 209,696 6,253,411 29.82 Welland 16 3,200 200 640 126,843 2,318,586 18,28 Wellington 45 11,250 250 2,250 380,835 9,190,356 24,13 Wentworth 22 3,300 150 660 162,628 4,213,080 25.91 York 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 244,445,136 23.60	Victoria	8	1,200	150	240	211,242	4,637,732	21.95
Wellington 45 11,250 250 2,250 380,835 9,190,356 24.13 Wentworth 22 3,300 150 660 162,628 4,213,080 25.91 York 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 244,445,136 23.60	Waterloo		600			209,696	6,253,411	29.82
Wentworth 22 3,300 150 660 162,628 4,213,080 25.91 York 70 14,000 200 2,800 350,451 9,734,520 27.78 The Province: 1928 2,002 317,998 159 63,600 10,357,960 244,445,136 23.60							2,318,380 9 190 356	
York								25.91
1928	York							27.78
		2.002	317.000	150	62 600	10.357.060	211 415 126	22 60
25,000,000								
						.,,		

PASTURE, FALLOW, ORCHARD, SMALL FRUITS

Table XVIII.—Showing by County Municipalities the area in Cleared Pasture, Summer Fallow, Orchards and Small Fruits in 1928, together with totals for the Province for the past five years; also, the number of silos in each county in 1928.

Counties and Districts	Cleared pasture	Summer fallow	Orchard	Small fruits	Total	Number of silos
	Acres	Acres	Acres	Acres	Acres	
Algoma	10,068		311	123	11,429	35
Brant	23,420	2,297	3,780	550	30,047	997
Bruce	134,618	13,777	6,794	384	155,573	879
Carleton	88,014		1,687	419	92,002	1,513
Cochrane	2,062	17	2	4	2,085	
Dufferin	55,843	4,344	2,187	140	62,514	131
Dundas	41,008		1,570	250	43,092	1,099
Durham	58,837	5,781	6,824	291	71,733	752
Elgin	73,407	3,807	6,819	917	84,950	1,427
Essex	35,692	1,819	5,231	1,188	43,930	406
Frontenac	78,174	245	1,040	244	79,703	415
Glengarry	47,497	242	902	94	48,735	665
Grenville	47,469		1,315	311	49,284	552
Grey	143,258		9,007	465	165,293	1,163
Haldimand	33,892	9,703	4,298	227	48,120	560
Haliburton,	13,958	323	127	40	14,448	5
Halton	28,467	3,603	5,217	809	38,096	626
Hastings	104,965 149,096	2,506 8,593	4,620	533	112,624	598
Huron	766	213	10,877	456 11	169,022 991	1,375
Kenora	72,681	2,623	4,890	776	80,970	760
Lambton	139,652	5,324	10,206	845	156,027	1,490
Lanark	113,329	1,317	1,249	177	116,072	1,187
Leeds	80,741	254	1,216	346	82,557	1,148
Lennox and Addington	70,360		1,798	413	74,338	315
Lincoln	19,476	4,747	12,884	6,788	43,895	640
Manitoulin	9,404	112	191	22	9,729	102
Middlesex	190,789		11,157	1,086	210,528	2,366
Muskoka	17,088	192	122	73	17,475	36
Nipissing	12,210	172	36	89	12,507	19
Norfolk	41,098	6,465	8,326	1,496	57,385	1,082
Northumberland	68,381	3,015	10,072	591	82,059	829
Ontario	62,842	4,433	5,048	423	72,746	1,473
Oxford	71,287	2,568	7,297	472	81,624	2,619
Parry Sound	20,094	699	118	109	21,020	24
Peel	45,000		5,152	1,380	56,202	825
Perth	84,358		5,458	285	99,031	1,260
Peterborough	60,544 55,659	4,824 6	1,555 868	218 155	67,141 56,688	568
Prince Edward	42,646	894	7,110	297	50,000	645 265
Rainy River	5,780		7,110	21	6,067	11
Renfrew	90,244	1,405	710	241	92,600	632
Russell	38,198	90	482	110	38,880	660
Simcoe	91,778	32,532	7,669	813	132,792	1,250
Stormont	41,922	38	1,088	204	43,252	755
Sudbury	9,869	195	22	43	10,129	13
Thunder Bay	4,206	257	34	53	4,550	31
Timiskaming	7,595	270	61	25	7,951	10
Victoria	56,409	3,154	1,621	174	61,358	728
Waterloo	26,615	4,626	4,140	321	35,702	1,430
Welland	25,240	7,888	5,435	1,560	40,123	645
Wellington	80,433	7,561	5,097	337	93,428	1,040
Wentworth	24,182	5,404	5,860	1,385	36,831	1,198
York The Province:	49,551	13,732	7,416	577	71,276	1,855
1928	3,000,172	211,015	207,003	*29,361	3,447,551	41,115
1927	3,012,786	212,906	207,003	*29,301	3,466,095	39,996
1926	3,077,424	189,488	215,779	*28,491	3,511,182	38,171
1925	3,193,941	162,649	223,343	*27,890	3,607,823	37,836
1924	3,317,532		229,708	27,315	3,754,082	37,218
*I - 1 - 1 7 772	-4 - 1	and 9 055		1 . 400/	1 7 02	.,=10

^{*}Including 7,773 acres in strawberries, and 8,855 in vineyards in 1928, and 7,336 acres in strawberries and 7,905 in vineyards in 1927, and 7,274 in strawberries and 7,545 in vineyards in 1926, and 7,185 in strawberries and 6,558 in vineyards in 1925.

MARKET PRICES

Table XIX.—The following table shows by Counties the average prices of agricultural products for 1928, together with the average prices for 1927.

Counties and Districts	Fall Wheat, per bush.	Spring Wheat per bush.	Oats, per bush.	Barley, per bush.	Peas, per bush.	Beans, per bush.	Rye, per bush.	Buckwheat, per bush.	Corn (in ear) per bush.	Hay, per ton	Potatoes, per bush.
Essex. Frontenac. Glengarry. Grenville. Grey. Haldimand. Haliburton. Halton. Hastings. Huron. Kenora. Kent. Lambton. Lanark. Leeds. Lennox and Addington. Lincoln. Manitoulin. Middlesex. Muskoka. Nipissing. Norfolk. Northumberland. Ontario. Oxford. Parry Sound. Peel. Perth. Peterborough. Prescott. Prince Edward. Rainy River. Renfrew. Russell. Simcoe. Stormont.	120.0 1 122.5 1 120.0 1 125.0 1 125.0 1 125.0 1 112.8 1 121.8 1 123.3 1 123.7 1 123.7 1	120.0 118.3 119.0 119.0 119.0 119.0 118.0 119.0 118.0 120.0 120.0 118.0 120.	cts. 64.6 52.8 54.6 66.0 52.0 66.4 54.9 50.6 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 66.0 55.3 55.3 66.0 55.3 55.3 55.3 55.3 55.3 55.3 55.3 55	72.8 74.5 80.0 70.1 90.0 77.2 90.0 83.8 83.2 74.7 75.0 80.0 76.5 77.5 69.2 80.0 80.0 76.5 77.5 69.2 80.0 80.0 77.2 85.0 76.5 87.0 80.0 77.2 80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0 70.0 80.0 70.0 80.0 70.0 80.0 70.0 70.0 80.0 70.0 70.0 70.0 80.0 70.0 70.0 70.0 70.0 80.0 70.0	cts. 154.0 136.0 148.0 150.0	3.00 3.50 3.50 3.84 3.25 3.31 3.50	100.0 110.0 110.0 90.0 94.0 93.3 100.0 96.0 96.0 96.0 95.0 100.0 100.0 95.4 95.0 96.0 90.0 100.0 92.2 94.2 100.0 95.4 95.0 96.0 90.0 100.0 95.4 96.0 90.0 100.0 95.4 96.0 96.0 97.0 98.0 99.0 100.0 99.0 99.0 100.0 99.0 99.0 100.0 99.0 90.	cts. 90.0 80.4 79.1 89.3 80.8 95.0 78.9 80.7 74.4 83.6 96.0 99.0 90.0 93.8 84.0 84.3 84.3 84.4 85.0 84.3 86.2 86.2 86.2 87.7 88.5	68.4 60.0 70.0 70.0 75.0 69.7 76.0 60.0 77.8 70.0 62.3 70.0 62.3 70.0 63.0 64.0 65.0 60.0 70.0 65.0 66.0 66.0 65.0 66.0	11.64 14.17	cts. 66.1 57.0 64.7 67.4 90.6 66.0 90.6 66.0 47.9 752.1 63.9 66.0 67.1 67.0 67.1 67.0 67.1 67.0 67.1 67.0 67.0 67.0 67.0 67.0 67.0 67.0 67.0
1921	124./	22.1	37.3	77.0	147.0	2.33	75.5		00.0		

HORSES ON HAND

Table XX.—Showing by County Municipalities the number and value of Horses on hand, June 15th, 1928, together with the totals for the Province for the past five years.

Counties and	Stallions,	Mares,	Geldings,	Colts and Fillies,	Total	Horses
Districts	2 yrs. old and over	2 yrs. old and over	2 yrs. old and over	under 2 years	Number	Value
			4.000		0.000	\$
Algoma	30	1,515	1,086	195	2,826	348,594
Brant	24	4,046	3,787	513	8,370	888,145
Bruce	83	11,545	7,770	2,101	21,499	2,388,721
Carleton	89	8,068	6,142	1,569	15,868	1,874,524
Cochrane	12	391	174	49	626	88,885
Dufferin	53	5,595	4,233	1,015	10,896	1,187,996
Dundas	38	4,382	3,695	678	8,793	899,514
Durham	48	6,692	5,027	939	12,706	1,396,249
Elgin	55	7,773	6,116	1,111	15,055	1,599,513
Essex	147	8,644	6,212	1,382	16,385	1,897,631
Frontenac	60	4,437	3,316	722	8,535	835,651
Glengarry	76	4,287	2,716	882	7,961	877,147
Grenville	34	3,408	2,755	531	6,728	689,010
Grey	136	13,306	9,813	2,259	25,514	2,742,199
Haldimand	38	4,998	4,000	810	9,846	1,045,970
Haliburton	17	801	597	100	1,515	171,588
Halton	24	3,373	2,893	384	6,674	766,925
Hastings	79	8,414	7,190	1,025	16,708	1,802,038
Huron	111	14,196	9,875	2,828	27,010	3,034,758
Kenora	8	. 157	234	7	406	53,297
Kent	158	10,941	8,749	1,719	21,567	2,557,501
Lambton	92	10,758	7,335	2,392	20,577	2,327,108
Lanark	60	5,372	4,217	890	10,539	1,118,911
Leeds	47	5,226	4,411	674	10,358	1,041,251
Lennox and Addington	46	4,763	4,285	879	9,973	991,432
Lincoln	55	3,532	2,897	259	6,743	738,084
Manitoulin	13	1,010	867	177	2,067	227,649
Middlesex	172	14,207	10,277	2,861	27,517	2,949,312
Muskoka	22	1,542	1,235	148	2,947	359,799
Nipissing	70	1,298	862	120	2,350	302,704
Norfolk	78	6,205	5,341	767	12,391	1,263,422
Northumberland	71	7,551	6,431	941	14,994	1,614,126
Ontario	63	8,992	6,837	1,209	17,101	1,877,844
Oxford	78	9,340	7,655	1,260	18,333	2,022,975
Parry Sound	37	1,717	1,486	207	3,447	423,675
Peel	42	5,460	4,049	1,081	10,632	1,141,100
Perth	66	10.522	7,538	1,965	20,091	2,192,315
Peterborough	56	5,218	3,983	758	10,015	1,132,350
Prescott	81	3,960	2,457	590	7,088	795,788
Prince Edward	22	3,936	3,305	400	7,663	799,177
Rainy River	19	997	969	98	2,083	254,521
Renfrew	127	7,162	4,826	1,317	13,432	1,611,534
Russell	100	3,845	2,207	831	6,983	763,191
Simcoe	127	14,895	11,568 2,773	2,249	28,839	3,319,725 701,104
Stormont	$\frac{46}{62}$	3,565		456	6,840	
Sudbury	40	$^{1,404}_{770}$	780 810	136	2,382	316,760
Thunder Bay	28			48	1,668	207,600 360,171
Timiskaming		1,266	1,095	109	2,498	
Victoria	48 59	6,255	4,656 5,250	915	11,874 12,891	1,314,672 1,339,349
Waterloo	54	6,500		1,082		806,105
Wellington	96	3,863 11,234	3,216 8,448	320 1,882	7,453 21,660	2,302,558
Wellington	55	4,946			9,700	1.034.294
Wentworth	36		4,204 8,669	1 495		2,288,890
York	30	10,518	0,009	1,409	20,632	2,200,090
The Province:	3,388	314,798	241,319	49,744	609,249	67,085,352
1928						66,724,527
1927 1926	3,568 3,515	320,990 328,924	246,639	45,939	617,136	68,22
1925		335,469	251,958 259,247	45,262	629,659 644 138	69 '
1924	3,512 3,671	344,370	266,560	45,910 49,274	644,138 663,875	09
1744	5,071	344,370	200,500	49,414	005,075	

CATTLE AND

TABLE XXI.—Showing by County Municipalities the number and value of Cattle on

TABLE A.	VI.—Snow	ing by Cou	nty Munici	panties the	number and	value of	Cattle on
Counties and Districts	Bulls for breeding	Cows for milk purposes	Cows for beef purposes	Yearlings for milk purposes	Yearlings for beef purposes	Calves	All other Cattle
M	200	6 272	202	1 511	1 650	2 1 2 3	720
Algoma	280	6,373	292	1,511	1,658	3,432	738
Brant	820 1,485	15,675 36,497	550 3,075	$\frac{4,054}{6,107}$	1,896 19,558	5,982 26,965	579
Bruce	2.347	48,499		10,445	5,382	17,107	14,418 5,223
Cochrane	130	1,076		305	42	582	63
Dufferin	630	15,670		2,654	8,369	11,038	4,523
Dundas	1,896	32,952	193	6,308	99	7,504	711
Durham	835	18,387	1,963	4,132	7,138	10,866	5,047
Elgin	1,580	30,880		7,099	4,094	11,837	4,731
Essex	757	20,461	1,026	4,560	1,121	5,744	582
Frontenac	1,851	29,613		5,716	2,170	11,702	1,180
Glengarry	2,121	33,150		6,557 5,318	328 114	7,736 6,018	604 618
Grenville	1,389 1,606	20,784 43,413		6,770	22,697	30,233	15,821
Haldimand	728	16,207	536	4.008	2,856	7,476	1,190
Haliburton	211	3,812	147	552	1,241	2,799	505
Halton	722	13,761	1,197	3,140	2,681	6,040	1,684
Hastings	2,908	47,232	1,589	9,982	2,531	18,686	2,185
Huron	1,668	39,331	3,643	6,929	19,484	27,197	15,719
Kenora	45	502	13	149	31	255	13
Kent	743	20,477	2,872	4,170	5,569	10,536	5,670
Lambton	1,061	32,303	2,841	· 5,423 7,064	$14,072 \\ 8,719$	21,531	12,997
Lanark	1,574 2,349	29,646 38,883		8,466		17,678 11,632	1,266
Leeds Lennox & Addington	1,460	26,652	827	5,123	1,894	9,951	1,012
Lincoln	413	10,373		2,312	685	3,361	259
Manitoulin	203	4,034		630	2,273	3,062	1,108
Middlesex	2,279	53,055	3,739	10,854	15,187	26,727	16,257
Muskoka	358	7,009		1,547	1,376	3,957	893
Nipissing	795	7,717	425	1,879	1,112	4,389	606
Norfolk	931	20,550		5,169	884	6,418	1,037
Northumberland	1,499 1,340	28,311 29,133		6,908 5,964	4,552 10,364	12,457 16,372	2,329 5,013
Ontario	2,465	47,938		10,359	3,841	14,885	3,147
Oxford	349	8,092		1,912	2,589	5,455	1,552
Peel	923	20,480		4,868	2,820	7,227	2,383
Perth	1,778	37,208		8,853	10,083	20,195	5,901
Peterborough	1,095	23,424	1,164	5,103	5,147	11,939	2.675
Prescott	1,923	30,714		6,295	389	8,519	615
Prince Edward	954	16,545		3,309		5,036	187
Rainy River	212	3,805		1,030		2,064	180
Renfrew	2,486 1,578	32,727 26,241	3,559 517	7,113 6,009	9,663 1,021	21,002 7,337	5,891 815
Russell	1,855	44,073		9,316		25,387	9.098
Stormont	1,721	29,847		5,026		5,782	587
Sudbury	700	6,999		1,751	741	3,920	302
Thunder Bay	147	4,364		1,030		1,504	36
Timiskaming	392	4,872	404	1,463	1,205	3,159	167
Victoria						13,735	6,824
Waterloo		20,863	636			10,324	1,314
Welland		12,578	432	2,712 5,198		3,835 21,253	396 6,818
Wellington Wentworth	0.00	30,863 18,128				5,857	814
York		37,766		8,547		11,081	2,735
The Province:	1,020	3.,.00	1,510	-,-1,			.,
1928		*1,261,384	70,139	264,624		576,766	183,333
1927		*1,294,840			271,435	557,706	185,656
1926		*1,280,436					216,109
1nd925		*1,232,679					287,385
19224			100,982	271,755	306,463	592,408	371,329
1927 ····ing dual	puri ose co	ows.					

SHEEP ON HAND

hand, June 15th, 1928, together with the totals for the Province for the past five years.

Tota	l Cattle		Sh	eep and L	ambs		
Number	Value	Ewes	1 year	Under		heep and mbs	Counties and Districts
Number	Value	breeding	over	1 year	Number		
	\$					\$	
14,284 29,556	614,089 1,629,600		681 590	4,464 5,611	9,304 11,282		
108,105	5,095,127	22,793	2,984	24,052	49,829	563,937	Brant Bruce
91,258	4,366,136		1,178			265,247	
2,228	102,725	79	53	117	249	2,667	Cochrane
44,301			2,276				
49,663		1,631	172 2,412				
48,368 61,517	3,269,688		1,096	13,731 10,802	29,098 22,810	361,474 259,138	
34,251			1,580	9,287	19,059	192,761	
53,378	2,265,352	8,103	1,069		17,539	170,618	
51,214	2,612,929	2,091	757	2,400	5,248	54,131	Glengarry
34,629		4,150	487	4,268			
124,283 33,001			3,566 808	35,726 7,363			
9,267			376	2,533	5,324		
29,225			666	6,521	13,479	158,064	
85,113	3,524,054	17,509	2,126		37,319	364,723	Hastings
113,971	5,398,762		1,801	14,867	30,176	354,707	Huron
1,008	41,721	60	1 275	53 8,047	17.052	1,346	Kenora
50,037 90,228			1,375 2,165	16,904	17,053 35,407	186,397 411,041	
73,767	2,997,977	18,339	2,170	18,178	38,687		
63,799	3,135,776		895	6,035	12,961	146,134	Leeds
46,919	2,166,123	7,913	1,116	7,980	17,009		Lennox and Addington
17,782		4,009	442	4,121	8,572	97,303	Lincoln
11,524 128,098			633 3,294	7,806 13,955	15,754 30,243		Manitoulin
15,494	608,950	3,744	576	3,664	7,984	77,223	Middlesex Muskoka
16,923	578,098	3,695	696	3,968	8,359		Nipissing
35,519	1,834,156	4,026	729	4,179	8,934	88,654	Norfolk
57,889	2,809,097	8,385	2,015	7,915	18,315		Northumberland
70,930		19,089	3,157 777	18,750 4,509	40,996		Ontario
84,393 20,341	4,960,122 767,505	4,322 7,573	982	7,890	9,608 16,445	117,028 156,019	Oxford Parry Sound
39,656	2,347,669	6,125	912	6,748	13,785	155,289	Peel
85,948	4,190,425	3,833	753	4,774	9,360	111,271	Perth
50,547	2,169,373	6,433	1,296	6,768	14,497	155,940	Peterborough
49,120 26,970	2,302,501 1,468,163	2,025	639 692	2,481 5,350	5,145		Prescott
8,162	314,804	5,241 2,026	177	2,227	11,283 4,430	43,006	Prince Edward Rainy River
82,441	2,900,078	29,408	4,668	30,500	64,576		Renfrew
43,518	2,047,499	2,873	492	2,809	6,174	57,691	Russell
109,990	4,921,134	25,549	3,937	27,487	56,973	627,488	Simcoe
43,562	2,214,291	929	216	981	2,126		Stormont
14,860 7,313	544,535 364,157	1,775 280	717 46	2,283 275	4,775 601	42,885 5,576	Sudbury Thunder Bay
11.662	504.565	2,789	415	2,771	5,975	62,928	Timiskaming
57,847	2,441,146	13,433	1,998	13,661	29,092	325,043	Victoria
43,700	2,246,037	2,280	353	2,627	5,260	58,774	Waterloo
21,450	1,163,937	2,795	351	2,959	6,105	63,986	Welland
83,890 32,344	4,035,720 1,866,289	16,866 3,610	2,843	18,927 3,664	38,636	483,600	Wellington
66,810	3,841,649	14,700	506 1,562	15,518	7,780 31,780	89,037 380,996	Wentworth York
55,510		,,, 00		10,010	02,100	000,220	The Province:
2,682,053	128,937,680	461,137	68,292			11,209,872	1928
2,709,954	117,162,152	431,307	63,622	461,338		10,433,761	1927
2,757,799 2,809,373	115,386,214 115,844,069	408,077 406,894	52,050 43,653	426,356 417,979	886,483 868,526		1926
2,809,373		440,3		429,899		7,081,500	1923
	210,010,000	440,3	100	120,000	0,2,2,7	.,001,000	

SWINE ON HAND

Table XXII.—Showing by County Municipalities the number and value of Swine on hand, June 15th, 1928, together with the totals for the Province for the past five years.

Counties and	Brood	Other	Swine	Total	Swine
Districts	Sows	Six mos. and over	Under six mos.	Number	Value
Algonia	498	399	3,164	4,061	\$ 44,246
Brant	2,375	2.188	17,531	22,094	244,983
Bruce	6,449	7,095	47,681	61,225	716,595
Carleton	4,163	1,888	28,953	35,004	371,166
Cochrane	90	64	595	749	8,147
Dufferin	3,903	5,520	28,800	38,223	442,371
Durham	2,508 3,380	2,952 4,486	18,614 24,810	24,074 32,676	246,721 373,393
Elgin	5,415	7,840	40,182	53,437	568,661
Essex	8,705	16,009	57,223	81,937	846,720
Frontenac	2,324	2,181	15,165	19,670	198,327
Glengarry	2,402	2,537	17,729	22,668	237,053
Grenville	1,630	1,375	12,097	15,102	152,303
Grey	8,379	10.061	61,182	79,622	929,057
HaldimandHaliburton	2,620 . 311	2,220 246	18,689 1,827	23,529 2,384	256,552 25,332
Halton	1,925	2,551	14,866	19,342	220,874
Hastings	5,887	6,083	43,272	55,242	558,054
Huron	8,950	10,564	66,631	86,145	971,792
Kenora	66	19	368	453	4,824
Kent	10,328	19,836	71,981	102,145	1,046,969
LambtonLanark	7,112 2,571	10,129	54,620	71,861	756,129
Leeds	2,561	2,110 2,565	18,341 18,271	23,022 23,397	224,888 228,860
Lennox and Addington	2,504	1,791	17,780	22,075	216,172
Lincoln	1,403	1.152	9,752	12,307	133,991
Manitoulin	486	397	3,202	4,085	34,172
Middlesex	7,767	7,320	58,450	73,537	761,939
Muskoka	398	284	2,407	3,089	32,689
Nipissing	780 3,173	634 3,882	4,579 23,225	5,993 30,280	62,454 299,841
Northumberland	4,631	3,331	34,523	42,485	453,618
Ontario	6,098	8,924	42,908	57,930	667,346
Oxford	6,697	7,650	50,671	65,018	705,250
Parry Sound	620	460	4,216	5,296	57,662
Peel	2,454	2,735	19,278	24,467	268,149
Perth	8,174	9,145	60,814	78,133	881,923
Peterborough	2,682 2,118	1,987 2,319	18,964 15,423	23,633 19,860	251,758 215,383
Prince Edward	2,338	1,434	15,425	19,611	205,455
Rainy River	318	235	1,808	2,361	26,499
Renfrew	3,558	2,936	23,009	29,503	276,810
Russell	2,296	1,834	15,284	19,414	184,381
Simcoe	9,595	11,968	67,375	88,938	994,217
StormontSudbury	2,422 826	2,375	17,109 4,328	21,906 5,727	220,005
Thunder Bay	311	573 171	2,040	2,522	62,875 28,260
Timiskaming	664	533	3,809	5,006	55,077
Victoria	3,204	4,189	23,480	30,873	335,205
Waterloo	5,608	7,493	38,549	51,650	577,836
Welland	1,734	1,561	11,049	14,344	166,524
Wellington	8,624	10,165	63,923	82,712	935,855
Wentworth	2,901 7,054	2,948	21,462	27,311	298,898
York	1,034	9,243	49,113	65,410	724,529
1928	195,990	230,587	1,406,961	1,833,538	19,808,890
1927	207,052	260,803	1,415,322	1,883,177	24,159,535
1926	199,637	264,639	1,271,079	1,735,355	24,525,126
1925	190,210	323,449	1,164,936	1,678,595	24,424,238
1924	199,860	1,60	8,043	1,807,903	16,201,699

POULTRY ON HAND

Table XXIII.—Showing by County Municipalities the number and value of Poultry on hand, June 15th, 1928, together with the totals for the Province for the past five years.

Counties and				Other	Total l	Poultry
Districts	Turkeys	Geese	Ducks	Fowls	Number	Value
Algoma Brant Bruce. Carleton Cochrane Dufferin Dundas. Durham Elgin Essex. Frontenac Glengarry Grenville Grey Haldimand Haliburton Halton. Hastings Huron Kenora Kent Lambton Lanark Leeds. Lennox and Addington Lincoln Manitoulin Middlesex Muskoka Nipissing Norfolk Northumberland Ontario Oxford Parry Sound Peel Perth Peterborough Prescott Prince Edward Rainy River Renfrew Russell	3,006 2,140 23,777 14,525 264 2,798 12,602 2,729 13,079 13,629 33,899 17,775 10,565 15,573 12,621 2,136 2,604 14,729 7,999 376 14,567 36,203 15,243 24,690 9,659 6,711 10,022 35,179 1,448 8,318 6,788 5,780 1,993 1,689 5,255 2,430 13,556 11,266 7,389 3,566 11,266 7,389 3,556 11,266 15,689 1,798	Geese 1,654 6,686 22,141 21,051 104 18,532 9,785 13,973 13,276 23,366 3,842 3,011 4,7,022 31,161 7,721 1,037 9,894 12,900 25,738 66 19,855 28,571 5,153 5,484 4,818 4,928 1,751 28,626 944 1,374 5,444 10,342 20,422 12,836 2,642 16,015 21,119 9,660 6,125 3,068 1,081 12,420 9,304 32,844	1,090 6,763 22,456 16,435 48 7,714 7,115 10,137 13,806 31,575 5,358 6,563 5,707 26,452 10,297 488 5,459 31,365 119 33,905 31,306 5,085 7,830 6,604 7,063 7,10 33,312 982 982 980 10,677 10,176 16,075 16,433 1,085 10,410 20,666 5,885 3,172 5,911 7000 4,946 5,474 21,413			1
Simcoe. Stormont Sudbury. Thunder Bay Timiskaming Victoria Waterloo Welland Wellington	15,450 9,231 784 993 1,487 8,499 290 2,221 2,349	32,844 3,845 1,115 1,052 1,800 13,924 7,293 4,260 27,945 6,745	4,089 365 622 1,610 7,148 7,033 10,470 14,149	535,608 258,364 50,443 58,494 53,330 279,542 342,810 282,243 502,060 269,984	705,315 275,529 52,707 61,161 58,227 309,113 357,426 299,194 546,503 288,185	459,336 172,110 32,939 36,536 41,021 198,118 204,485 186,205 341,505 185,837
Wentworth. York The Province: 1928 1927 1926 1925 1924	2,894 5,495 496,202 496,164 469,981 480,612 484,575	590,415 594,593 567,151 555,720 520,390	8,562 25,511 557,150 578,721 544,130 558,742 559,199	18,059,809 17,378,567 16,111,738 16,183,507 15,187.181	19,703,576 19,048,045 17,693,000 17,778,581 16,751,345	12,452,203 12,333,645 12,400,985 13,527,454 13,446,621

No. 22

FARM PROPERTY, IMPLEMENTS AND LIVE STOCK

Table XXIV.—Showing by County Municipalities of Ontario the value of farm lands, buildings, implements and live stock for 1928, together with the totals for the Province for 1927.

Counties and Districts	Land	Buildings	Implements	Live Stock on hand	Total
	\$	\$	\$	\$	\$
Algoma	4,440,122	1,859,726	803,526	1,149,108	8,252,482
Brant	12,169,007	7,488,844	2,269,246	3,060,568	24,987,665
Bruce	33,172,158	18,059,679	5,413,713	9,190,804	65,836,354
Carleton	28,554,374	14,046,699	4,763,441	7,184,612	54,549,126
Cochrane	1,689,979	401,001	217,373	209,751	2,518,104
Dufferin	13,804,093	8,890,232	2,512,117	4,220,422	29,426,864
Dundas	11,898,935	6,994,745	2,707,412	4,127,651	25,728,743
Durham	15,306,358	9,661,211	3,078,460	4,655,991	32,702,020
Elgin	25,137,202	13,903,383	4,381,235	6,063,678	49,485,498
Essex	41,124,865 10,264,024	18,905,962 4,999,674	6,007,781 1,947,341	5,366,515	71,405,123
Frontenac	12,641,719	6,613,169	2,454,451	3,634,914	20,845,953
Glengarry	7,991,402	4,980,808	1,872,926	3,937,321 2,852,248	25,646,660 17,697,384
Grenville	36,046,161	22,063,810	6,549,312	10,490,844	75,150,127
Haldimand	13,743,288	8,607,018	2,826,651	3,437,325	28,614,282
Haliburton	2,212,903	681,994	360,829	589,017	3,844,743
Halton	13,699,348	8,165,181	2,411,937	2,941,459	27,217,925
Hastings	19,635,707	10,659,227	4,234,815	6,540,480	41,070,229
Huron	36,515,851	22,322,665	7,129,914	10,352,583	76,321,013
Kenora	622,835	255,117	126,640	107,855	1,112,447
Kent	47,403,826	20,822,184	7,403,365	6,807,320	82,436,695
Lambton	35,274,012	16,952,368	6,071,769	8,438,287	66,736,436
Lanark	12,667,022	6,113,253	2,564,823	4,978,511	26,323,609
Leeds	14,346,475	7,314,439	2,578,597	4,758,395	28,997,906
Lennox and Addington.	11,392,751	6,132,265	2,393,253	3,742,324	23,660,593
Lincoln	16,625,520	8,863,887	2,541,141	2,156,019	30,186,567
Manitoulin	2,977,127	1,061,811	429,355	904,190	5,372,483
Middlesex	44,654,680	24,936,286	7,517,531	11,325,084	88,433,581
Muskoka	4,617,250	1,925,785	811,740	1,127,790	8,482,565
Nipissing	4,196,036	1,602,195	853,990	1,048,868	7,701,089
Norfolk	16,818,234	9,231,354	3,270,984	3,768,194	33,088,766
Northumberland	16,436,951	10,146,282	3,589,125	5,365,335	35,537,693
Ontario	23,039,488	13,900,564 17,894,473	4,416,430	6,844,719	48,201,201
Oxford	27,120,027 4,496,332	1,991,135	5,727,482 895,984	8,216,432 1,454,220	58,958,414
Peel	20,110,528	11,817,374	3,397,094	4,142,080	8,837,671 39,467,076
Perth	27,202,002	19,667,329	5,678,010	7,777,743	60,325,084
Peterborough	14,569,851	7,609,396	2,363,533	3,883,774	28,426,554
Prescott	14,918,106	6,786,378	2,469,064	3,498,534	27,672,082
Prince Edward	9,012,523	5,636,796	2,378,477	2,736,485	19,764,281
Rainy River	3,829,858	1,180,577	584,574	675,852	6,270,861
Renfrew	18,352,127	8,199,496	3,873,616	5,609,797	36,035,036
Russell	11,913,938	5,557,092	2,003,793	3,167,671	22,642,494
Simcoe	40,823,880	23,346,021	7,474,305	10,321,900	81,966,106
Stormont	9,783,534	5,981,421	2,367,228	3,328,021	21,460,204
Sudbury	5,364,778	1,758,877	949,708	999,994	9,073,357
Thunder Bay	4,031,852	1,460,233	638,201	642,129	6,772,415
Timiskaming	5,824,150	1,703,207	986,370	1,023,762	9,537,489
Victoria	16,518,129	8,073,368	2,859,219	4,614,184	32,064,900
Waterloo	17,687,896	12,519,372	3,306,205	4,426,481	37,939,954
Wellington	13,891,854	8,470,893	2,642,001	2,386,757	27,391,505
Wellington	27,905,045 17,805,129	20,518,132 9,741,925	5,215,646 3,194,222	8,099,238	61,738,061 34,215,631
Wentworth	38,030,164	19,732,958	5,665,304	3,474,355 7,636,406	71,064,832
York The Province:	30,030,104	19,132,938	3,003,304	7,030,400	71,004,032
1928	940,311,406	518,209,271	171,181,259	239,493,997	1,869,195,933
1927	906,811,595	506,981,024	168,842,552	230,813,620	1,813,448,791
	300,011,030	000,701,024	100,012,002	200,010,020	2,010,110,771



Comparative Farm Statistics for Forty-seven Years—1882 to 1928

FALL WHEAT AND SPRING WHEAT

The following table gives the area, produce and market value of fall wheat and spring wheat for the years 1882 to 1928, together with the annual average for the various periods of ten years, and the average for the forty-seven years.

		Fall Wh	ieat			Spring W	heat	
Years	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market Value
1898. 1897. 1896. 1895. 1894. 1893. 1892. 1891. 1890. 1888. 1888. 1887. 1886. 1885. 1884. 1883. 1882.	693,660 751,377 807,015 747,101 722,366 717,307 813,935 621,420 762,371 619,494 362,616 585,946 704,867 811,185 685,692 646,533 759,888 837,492 743,473 663,375 679,642 676,164 787,287 796,213 605,458 665,028 748,592 911,587 1,048,182 950,222 876,955 743,199 778,992 911,948,182 950,222 849,956 720,101 822,115 826,537 897,743 886,402 875,136 864,740 1,097,210 1,188,520	16,766,408 19,447,536 20,988,030 22,764,736 21,396,621 16,599,067 17,792,958 13,667,879 18,492,013 15,051,703 7,054,845 13,384,207 14,942,050 24,737,011 14,333,548 15,945,717 15,939,885 17,926,586 19,837,172 15,967,653 16,430,476 15,545,491 18,841,774 17,933,961 9,160,623 17,242,763 20,233,669 15,943,229 23,369,737 14,449,621 15,512,106 17,545,248 20,492,497 21,872,488 14,267,383 13,001,865 13,830,787 14,440,611 18,071,142 21,478,281 20,717,631 11,656,957 31,255,202	25.9 (26.0) (30.5) (27.2) (27.	\$ 20,456,753 24,254,806 26,262,506 30,420,639 28,646,679 15,976,322 18,616,746 15,096,980 35,759,610 35,698,096 14,877,794 28,078,738 24,099,591 24,023,286 15,641,232 13,550,459 13,795,968 15,519,411 17,172,678 16,335,950 14,649,061 14,410,670 13,321,134 13,719,480 9,041,535,12,949,315 14,305,204 10,538,474 15,517,505 9,631,365 17,460,147 18,758,656 10,705,693 9,809,610 9,081,658 10,509,604 14,488,195 20,800,736 11,493,648 14,162,726 11,321,439 13,300,361 17,504,799 16,677,693 12,239,805 31,567,754	109,805 119,580 115,497 113,338 101,401 111,601 124,206 152,904 267,367 144,305 162,142 118,607 116,581 123,080 133,711 129,319 135,161 142,124 144,514 171,745 190,116 225,027 248,518 303,115 358,048 376,905 398,726 389,205 323,305 255,361 223,957 230,016 239,957 230,016 239,957 230,016 239,957 230,016 367,850 484,821 577,465 799,463 721,647 586,410 586,817	2,181,855 2,408,055 2,166,054 2,440,635 1,948,853 1,937,937 2,099,503 1,907,459 4,480,472 5,646,544 8,186,191 3,679,516 2,213,961 3,439,949 2,169,425 2,068,951 2,302,339 2,223,567 2,197,716 2,473,651 3,267,000 3,582,627 3,471,103 4,650,707 6,048,024 5,498,751 6,940,333 7,041,317 6,873,785 4,868,101 3,519,322 3,472,543 3,367,854 4,186,063 8,290,395 10,711,538 7,683,905 5,697,707 6,453,559 5,633,117 9,518,553 9,129,881 14,609,661 9,7666,999	20.118.8 21.5.2 17.4416.9 12.5.8 16.8623.3 20.115.3 21.15.3 11.7.7 17.2.3 16.5.5 17.10 11.8.8 15.4 11.7.7 17.7.7 11.3.8 15.5.5 14.6 11.2.7 21.0 12.8 14.3 15.5 11.6 12.7 21.0 12.8 14.6 16.5 16.5 16.5 16.5 17.1 11.5 11.6 11.6 11.6 11.6 11.6 11.6 11	\$ 2,599,815 2,939,777 2,708,690 3,245,576 2,669,773 1,865,540 2,207,565 2,087,264 8,237,182 13,603,841 17,076,203 7,716,693 3,591,681 3,392,996 2,340,520 1,818,652 2,072,266 2,081,580 2,229,999 2,237,189 1,996,230 2,137,234 2,250,963 2,229,999 2,237,189 1,996,230 2,137,234 2,250,963 2,229,999 2,237,189 1,996,230 2,137,234 2,250,963 2,481,682,476 4,756,659 3,826,327 2,484,641 2,423,835 1,869,159 2,486,521 2,423,835 1,869,159 7,015,405 5,019,680 6,408,384 4,393,831 6,900,951 7,358,684 11,892,264 10,406,887 10,245,959
Annual Averages: 1922–1928 1912–1921 1902–1911 1892–1901 1882–1891 1882–1928	750,394 656,001 720,272 930,794 902,846 794,721	19,393,622 15,264,886 16,912,017 18,668,313 18,059,235 17,548,933	23.3 23.5 20.1 20.0		113,633 198,052 182,335 356,355 563,547 293,581	2,168,984 3,609,481 3,269,976 5,405,846 8,882,998 4,826,934	18.2 17.9 15.2 15.8	2,605,248 6,193,730 2,655,591 3,650,840 7,959,306 4,741,094

OATS AND BARLEY

The following table gives the area, produce and market value of Oats and Barley for the years 1882 to 1928, together with the annual averages for the various periods of ten years and the average for the forty-seven years.

Years		Oats				Barle	У	
1 cars			Per	Market	.		Per	Market
	Acres	Bushels	acre	value	Acres	Bushels	acre	value
				\$				\$
1928	2,659,980	93,461,068	35.1	51,912,665	615,433	19,944,133		14,790,285
	2,689,295	101,913,746	37.9	58,438,236	514,802	17,238,125	[33.5]	13,382,864
1926	2,831,735	95,722,130 118,100,471	11 6	49,615,846 53,404,626	449,095 436,383	14,447,174 14,917,247	34.2	9,823,171 10,160,463
1924	2.891.990	114,249,129	39.5	61,899,999	439,177	14,570,403	33 2	11,970,808
1923	2,967,417	103,485,442	34.9	46,937,124	452,490	13,523,349	29.9	8,487,609
	3,034,090	[116,033,569	[38.2]	50,450,114	433,922	13,971,811	32.2	8,561,782
1921	3,094,958	72,575,191	23.4	36,555,194	462,176	10,149,353	22.0	6,665,865
1920	2,880,053	129,171,312	20. 3	75,159,913	484,328	16,660,350	34.4	15,631,613
1919 1918	2,674,341	78,388,018 131,752,601	145 1	76,572,899 98,798,745	569,183 660,404	13,133,757 24,247,673	36 7	19,146,902 25,112,912
1917	12.763.355	1111.232.817	10.3	86,640,057	551,298	18,387,741	33.4	23,112,912
1916 1915	2,689,762	71,297,528	26.5	47,066,428	527.886	12,388,969		12,621,940
1915	2,871,755	120,217,952	41.9	47,452,121	552,318	19,893,129	36.0	11,130,811
1914	2,776,883	103,564,322		51,232,043	579,473	18,096,754	31.2	11,640,790
1913	2,099,459	98,426,902 98,444,807		36,342,489 38,005,016	623,658	18,255,958	29.3	10,136,759
1912	2,601,733	84,829,232		37,494,695	647,382 616,977	19,232,275 16,248,129		11,296,962 12,000,154
1915 1914 1913 1912 1911 1910 1909 1908 1907 1906 1905 1905	2.757.933	102,084,924	37.0	35,698,964	626,144	19,103,107		9,930,410
1909	2,695,585	90,235,579	33.5	35,612,676	695,262	18,776,777	27.0	10,286,328
1908	2,774,259	96,626,419		38,987,985	734,029	20,888,569	28.5	10,943,788
1907	2,932,509	83,524,301		40,759,859	766,891	21,718,332		12,900,689
1900	2,710,711	108,341,455 105,563,572	39.9	36,836,095	756,163 772,633	25,253,011 24,265,394	33.4	11,363,855
1904	2,000,410	103,303,372	120 2	35,469,360 33,002,022	772,434	24,203,394		10,409,854 10,736,140
1903	2,638,665	109.874.053	11.6	32,193,097	709,839	24,378,817	34.3	10,263,482
1903. 1902. 1901.	2,500,758	106,431,439	12.6	37,038,141	661,622	21,890,602	33.1	9,872,661
1901	2,408,264	78,334,490	32.5	28,357,085	637,201	16,761,076	26.3	7,542,484
1900	2,398,834	89,693,327	37.4	23,768,732	577,810	16,909,751	29.3	6,577,893
1899 1898 1897 1896 1895	2,303,118	89,897,724 86,858,293	36.0	24,901,670 22,409,440	490,374 438,784	14,830,891	30.2	5,858,202
1897	2,370,300	86,318,128	35.5	19,507,897	451,515	12,663,668 12,021,779	26.6	4,812,194 3,245,880
1896	2,425,107	82,979,992	34.2	16,595,998	462,792	12,669,744		4,003,639
1895	2,373,309	84,697,566	35.7	24,646,992	478,046	12,090,507	25.3	4,884,565
1894	2,342,766	70,172,516	30.0	21,613,135	486,261	10,980,404		4,447,064
1894	1,936,644	58,584,529	30.3	19,450,064	467,315 499,225	9,806,088		3,932,241
1891	1 840 636	64,758,053 75,009,542		19,945,480 27,378,483	499,225 553,166	12,274,318 16,141,904		5,069,293 7,925,675
1890	1,882,366	52,768,207	28.0	21,687,734	701,326	15,600,169		7,831,285
1889	1.923.444	1 64.346.301	33.5	19,625,622	875,286	23,386,388	26.7	10,290,011
1888 1887 1886	1,849,868	65,466,911	35.4	26,514,099	895.432	23,366,569	26.1	14,043,308
1887	1,682,463	49,848,101		17,247,443	767,346	17,134,830	22.3	9,715,448
1885	1,621,901	58,665,608	36.2	18,772,995	735,778	19,512,278 16,533,587	26.5	10,009,799
1885 1884	1 481 828	55,229,742 57,696,304	38 0	17,397,369 19,097,476	597,873 700,472	19,119,041	27.1	9,126,540
1883	1,418,309	54,573,609		20,737,971	757,156	18,414,337	24 3	10,247,806 10,496,172
1883 1882	1,387,487	50,501,701		21,715,731	848,617	24,284,407	28.6	15,784,865
Americal Assessment	1		1			, ,		
1922-1928 1912-1921 1902-1911 1892-1901 1882-1891 1882-1928	2,844,560	106,137,936	37.3	53,236,944	477,329	15,516,035		11,025,283
1912-1921	2,797,077	08 068 443	36.5	59,382,491	565,811 711,199	17,044,596		14,650,272
1892-1911	2 291 902	79 229 462	34 6	36,309,289 22,119,649	498,932	21,709,056 13,100,823		10,870,736 5,037,346
1882-1891	1,663,205	58,410,603	35.1	21,017,492	743,245	19,349,351		10,547,091
					607,089		1-0.0	

PEAS AND BEANS

The following table gives the area, produce and market value of Peas and Beans for the years 1882 to 1928, together with the annual average for the various periods of ten years, and the average for the forty-seven years.

		Peas				Beans		
Years								
1	Acres	Bushels	Per acre	Market value	Acres		Per	Market value
10.28	109,887	1,892,588	17 2	\$ 2,892,490	50,953	873,427 1	7 1	3,343,825
1928	105,662	2,035,687	19.3	3,049,924	47,156	725,011		1,700,257
1926	97,865	1,880,301	19.2	2,831,588	51,721	819,166 1	5.8	1,913,221
1925	133,434	2,607,287	19.5	3,532,258	61,080	1,154,317 1	8.9	2,431,446
1924	130,989	2,456,164		3,712,042	52,047	856,860 1		1,958,602
1923	117,409	2,030,850	17.3	2,940,685	41,127 39,999	633,713 1	5.4	1,538,701
1922	105,544	2,076,965 1,441,095	19.7	2,914,720	26,509	622,781 1. 427,531 1	6 1	1,579,549 1,005,057
1921	105,964 109,187	2,209,523	20.2	2,205,423 4,270,938	22,744	380,499	6 7	1,003,037
1919	127,253	1,816,517	14.3	4,794,268	22,920	288,480 1		1,154,081
1918	113,862	2.381.937	20.9	5,184,332	100,082	1,387,834 1.	3.9	6,230,007
1917	90,322	1,512,567	16.7	4,855,888	110,680	1,078,510	9.7	7,446,626
1916	95,542	1,243,979		2,618,754	53,999	583,105 10		3,183,086
1915	126,943	2,043,049 2,609,585		3,302,641	62,863	882,819 14 835,895 10	6.3	2,745,105 1,787,432
1914	177,856 177,303	3,108,263		3,565,974 3,127,551	51,149 66,639	1,021,243 1.	5 3	1,738,900
1912	221,524	3,667,005	16.6	4,047,354	69,703	1,182,132		2,280,173
1911	304,491	4,462,182	14.7	4,380,883	51,508	898,212 1		1,711,089
1910	403,414	6.016.003	14.9	4,856,986	49,778	892,927 1	7.9	1,386,798
1909	381,609	7,613,656	20.0	6,437,685	45,029	826,344 1	8.4	1,334,325
1908	396,642	7,401,336		6,121,449	46,477	783,757 10		1,160,103
1907	340,977	7,365,036 7,388,987	18 0	5,744,728 5,216,625	47,562 51,272	790,269 10 950,312 13	0.0	1,201,209 1,320,934
1906 1905	410,356 374,518	7,100,021		4,636,314	50,543	846,443 10	6.7	1,117,305
1904	339,260	6,629,866	19.5	4,176,816	50,892	912,849 1	7.9	1.113.676
1903	407,133	8,924,650	21.9	5,738,550	53,039	978,246 18	8.4	1,379,327
1902	532,639	7,664,679		5.441.922	53,964	670,633 12	2.4	905,355
1901	602,724	10,089,173		6,588,230	53,688	824,122 1	5.4	1,030,153
1900	661,592 743,139	14,058,198 15,140,790		8,027,231 8,675,673	44,053 40,485	820,373 18 651,009 10		817,912 703,090
1899 1898	865,951	13,521,263		7,058,099	45,220	759,657 10	6.8	531,760
1897	896.735	13,867,093		5,838,046	50,591	981,340 19		639,834
1896	829,601	17,493,148		7,696,985	68,369	1,197,535 17	7.5	819,114
1895	799,963	15,568,103		8,531,320	72,747	1,494,179 20	0.5	1,414,988
1894	785,007	14,022,888	17.9	7,516,268	59,281	827,514 14	4.0	913,575
1893	738,741 774,732	14,168,955 14,494,430	18 7	7,651,236 8,551,714	48,858 33,249	664,310 13 535,931 16	6 1	783,886 529,500
1892 1891	752,453	18,323,459		11,690,367	41,451	769,600 18		816,546
1890	781,206	15,389,313		9,279,756	39,456	761,341 19	9.3	978,323
1889	708,068	13,509,237	19.1	7,524,645	21,830	371.893 17	7.0L	471.188
1888	696,653	14,269,863	20.5	9,332,490	22,700	534,526 23 275,975 13	3.5	607,756
1887	726,756	12,173,332		6,804,892	20,275	275,975 13	5.6	270,180
1886	703,936 646,081	16,043,734 14,006,192		8,439,004 8,123,591	21,072 24,651	482,072 22 496,564 20	0 1	403,494 397,251
1885 1884	570,928	13,691,607		8,817,395	24,878	592,044 23	3.8	698,612
1883	542,771	10,673,723		7,578,343	25.9071.	,		
1882	560,770	11,006,115		8,144,525	19,787	409,910 20	0.7	807,523
Annual Averages:	111 225	0.400.075	40 5	0.404.04	40.45	010 100 1		2.066.515
1922–1928	114,399	2,139,977		3,124,815	49,155	812,182 16		2,066,515
1912–1921 1902–1911	134,576 389,104	2,203,352 7,056,642		3,797,312 5,275,196	58,729 50,006	806,805 13 854,999 17	7.1	2,866,760 1,263,012
1892–1901	769,819	14,242,404		7,613,480	51,654	875,597 17	7.0	818,381
1882–1891	668,962	13,908,658		8,573,501	26,201	469,393 17	7.9	545,087
1882-1928	434,583	8,278,519		5,839,757	47,021	760,707 16	6.2	1,476,553

RYE AND BUCKWHEAT

The following table gives the area, produce and market value of Rye and Buckwheat for the years 1882 to 1928, together with the annual average for the various periods of ten years and the average for the forty-seven years.

Years		Rye				Buckwl	ckwheat		
rears	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market value	
				\$				\$	
.928	66,307	1,131,172		1,076,724	271,243	5,692,376	21.0	4,638,578	
.927	72,323	1,289,058		1,228,421	249,210	5,892,510	23.6	4,593,204	
.926	86,355	1,501,390		1,309,840	234,870	4,975,192	21.2	3,830,695	
.925	98,652	1,784,625	18.1	1,553,529	257,932	5,579,109	21.6	4,086,236	
924	126,641	2,299,545	18.2	2,471,369	240,552	6,449,496	26.8	5,593,465	
923	123,354	2,011,325		1,481,691	230,276	5,012,010	21.8	3,670,511	
1922	152,709	2,500,354		1,959,112	197,812 147,944	4,266,215 3,354,201	21.0	3,137,448	
921	122,868	1,775,599		1,467,086	147,944			2,482,999	
920	133,090	2,349,880	15.	3,336,240	143,204	3,190,478	22.3	3,367,161	
919	140,072	2,219,042 1,812,909	15.0	3,531,031	178,569 223,662	4,071,959 4,597,990	22.8	5,727,413	
918	112,726 133,077	2,222,325		2,750,561 3,614,591	153,457			6,207,986	
917	148,738	2,354,410		2,797,290	229,205	2,992,391 3,261,888	14 2	4,278,256	
916	173,736	3,210,512		2,532,051	193,497	4,278,366	22 1	3,555,699 3,057,398	
1914	138,913	2 315 532	16.7	1,965,522	177 227	4,273,300	24.0	3,041,564	
1913	118,429	2,315,532 1,979,775	16 7	1,310,306	177,227 228,279	4,012,418		2,549,398	
1912	105,949	1,839,675	17 4	1,287,208	205,893	5,414,796		2,950,001	
911	98,652	1,562,971	15.8	1,326,510	189,039	3,852,231	20.4	2,324,992	
1910	95,397	1,620,333		1,024,787	194,913	4,693,881	24 1	2,346,387	
1909	94,661	1,573,921		1,060,566	176,630	4,280,790	24 2	2 284 440	
1908	87,908	1,453,616		1,012,953	140,605	3,323,668		2,284,440 1,799,890	
1907	67,158	1,039,021		721,081	113,039	2,546,468		1,461,673	
906	79,870	1.327.582	16.6	808,497	106,444	1,792,903	16.8	887,487	
905	79,870 101,292	1,714,951	16.9	974,092	101,591	2,199,652	21.7	1,099,826	
904	130,702	2,001,826	15.3	1,153,052	100,608	2.066.234	20.5	1,004,190	
903	179,277	2,970,768	16.6	1,443,793	95,487	2,049,169	21.5	907,782	
902	189,318	3,509,332	18.5	1,772,213	93,324	1,911,683	20.5	917,608	
901	158,236	2,545,268	16.1	1,254,817	88,266	1,757,071	19.9	850,422	
900	142,213	2,357,635		1,143,453	102,570	1,874,261	18.3	819,052	
899	137,824	2,284,846	16.6	1,142,423	132,082	2,203,299		1,002,501	
898	165,089 187,785	2,673,234	16.2	1,162,857	150,394	2,373,645		906,732	
897	187,785	3,382,005		1,275,016	151,669	3,464,186		1,039,256	
896	148,680	2,230,873		816,500	145,606	2,603,669	[17.9]	794,119	
895	120,350	1,900,117		866,453	135,262	2,791,749	20.6	1,027,364	
894	90,144	1,386,606		612,880	145,268	2,534,335		993,459	
893	68,486	994,771		472,516	133,828	2,380,456	17.8	995,03	
892	73,073	1,132,504	15.5	631,937	125,104	2,521,214	20.2	1,063,952	
891	67,865	1,134,630		820,337	107,879	2,608,142		1,150,19	
890	103,061	1,563,345 1,431,679	15.2	823,883 728,725	90,111 56,398	2,053,720		883,100	
889	90,106 84,087	1,431,079	15.9	770 772		1,272,578		502,668	
888 887	68 362	1,295,302 894,887		779,772	57,528	1,222,283 1,025,353	16 0	602,585 461,409	
886	68,362 67,779	1,106,462		442,969 577,573	64,143 70,792	1,678,708	23 7	565,725	
1885	78,293	1,271,506		701,871	61,776	1,530,675	24 8	600,024	
1884	103,416	1,648,259		984,010	65,836	1,484,570		593,828	
1883	188,111	3,012,240		2,018,201	67,802	1,401,570	122.3	370,020	
1882	185,276	3,473,799		2,223,231	50,035	1,262,973	25 2	505,189	
Annual Averages:	200,210	0,1.0,777		2,220,201	00,000	-,202,770	-0.2	000,100	
1922-1928	103,763	1,788,210	17.2	1,582,955	240,271	5,409,558	22.5	4,221,448	
1912-1921	132,760	2,207,966	16.6		188,094	3,942,591	21.0	3,721,788	
1902-1911	112,424	1,877,432	16.7	2,459,189 1,129,754	131,168	2,871,668	21.9	1,503,428	
1892-1901	129,188	2,088,786		937,885	131,005	2,450,389	118.7	949,189	
	100'000			1 010 057	60,220	1 412 000	20 4		
1882-1891	103,636	1,683,211	[10.2]	1,010,057	69,230	1,413,900	20.4	586,472	

FLAX AND MIXED GRAINS.

The following table gives the area, produce and market value of Flax and Mixed Grains for the years 1907 to 1928, together with the average for the various periods and for the whole term of years.

Years		Flax				Mixed G	rains	
Icars	Acres	Bushels	Per acre	Market value	Acres	Bushels	Per acre	Market value
1928. 1927. 1926. 1925. 1924. 1923. 1922. 1921. 1920. 1919. 1918. 1917. 1916. 1915. 1914. 1914. 1913. 1912. 1911. 1910. 1910. 1910.	5,880 5,334 6,025 7,431 9,125 12,128 12,021 11,253	67,441 68,173 75,736 123,134 77,801 68,684 48,662 66,748 224,893 129,461 196,221	9.6 9.8 12.6 11.8 10.2 10.7 8.9 10.7 9.4 12.3	121,004 148,149 262,386 162,590 140,376 106,046 130,995 515,983 670,608 *1,224,783	905,693 799,333 770,981 681,624 645,622 648,934 552,399 618,289 581,689 628,761 619,389 515,593 485,986 475,738 456,631 414,517 448,402 486,112 497,936 474,530 456,049	31,918,944 28,577,629 28,246,057 26,403,332 23,880,889 21,270,479 16,188,510 25,712,447 19,735,287 27,462,374	39.9 37.1 41.4 40.9 36.8 38.5 26.2 41.4 41.3 39.0 27.4 40.9 36.5 36.5 36.5 36.5 36.5	22,882,169 18,697,998 16,559,729 18,231,508 14,290,315 11,882,085 10,579,352 20,556,442 26,403,773 28,253,556 20,876,501 12,485,065 10,602,271 10,074,687 7,953,111
1907	9,296 7,212 9,940 10,652	75,662	10.5	154,523	443,100 714,941 524,500 471,545 573,059	14,202,511 27,726,964 19,031,019 15,772,739 21,052,847	38.8 36.3 33.4	7,811,381 17,994,922 15,645,948 8,674,687

^{*}Including seed of fibre variety commandeered and shipped to Ireland to the value of \$930,769. No estimates of yields of flax were made previous to 1918. The average for the eleven years, 1918–1928, was 9,883 acres, yielding 104,269 bushels, valued at \$329,457.

Tobacco.

The following table gives the estimated area and production of Tobacco for the years 1922 to 1928, together with the annual average for this period. Like all special crops, these figures are useful only for comparative purposes.

Years	Acres	Pounds	Per acre
1928. 1927. 1926. 1925. 1924. 1923. 1922.	33,977 34,555 19,992 12,719 12,399 8,630 9,189	35,585,848 39,520,986 25,557,724 15,315,935 14,525,471 10,797,228 10,031,870	1,047 1,144 1,278 1,204 1,172 1,251 1,202
Annual averages: 1922–1928	18,780	21,762,152	1,159

HUSKING CORN AND SILO CORN

The following table gives the area, produce and market value of *Corn (for husking and for silo) for the years 1892 to 1928, together with the annual averages for the various periods of ten years and the average for the thirty-seven years.

					1					
Years		Corn for H	uskin	g		Corn fo.	r Silo			
	Acres	Bushels	Per	Market	Acres	Tons,	Per	Market		
						green	acic	value		
1928 1927 1926 1925 1925 1924 1923 1922 1921 1920 1919 1918 1917 1916 1915 1914 1913 1912 1911 1910 1909 1908 1907 1906 1905 1904	Acres 110,192 102,626 179,325 207,767 263,615 285,335 265,018 250,684 243,909 221,004 195,310 258,935 258,332 309,773 301,251 308,350 320,519 299,690 338,573 289,456 295,005 329,882	6,921,850 5,449,213 10,329,439 14,604,467 16,711,996 19,292,244 18,459,363 20,313,661 19,372,277 15,152,475 13,015,072 11,513,512 12,711,702 21,760,496 23,232,360 22,214,014 21,969,468 21,913,290 24,900,386 22,619,690 23,601,122 21,899,466 23,988,682 20,922,919	acre 62.8 53.1 157.6 670.3 667.6 69.7 81.0 79.4 49.2 780.2 770.1 77.7 70.1 78.8 864.7 870.9 70.9 70.9	value	Acres 299,307 326,964 367,772 373,133 403,060 409,628 438,819 438,343 449,176 399,549 380,946 511,329 439,411 443,736 418,105 388,138 377,982 335,935 326,627 288,346 233,753 200,354 180,796 184,784	2,685,727 2,490,660 3,497,071 3,614,233 3,977,017 3,651,102 4,413,191 5,015,082 4,668,054 4,013,946 3,944,313 4,587,176 3,276,185 4,874,377 4,751,223 4,059,345 3,969,597 3,764,227 3,788,364 3,374,655 2,729,265 2,029,547 2,149,413 2,284,812	8.97 7.62 9.51, 9.69 9.87, 8.91 10.06 11.44 10.39 10.05 10.35 8.97 7.46 10.46 10.50 11.21 11.60 11.70 11.68 10.13 11.89 12.36	value \$ 11,199,482 10,012,453 15,736,820 15,360,490 17,896,577 14,604,408 17,652,764 25,075,410 23,340,270 20,069,730 17,749,409 18,348,704 10,647,610 12,185,943 11,878,058 10,148,363 9,923,93 9,410,568 7,576,728 6,749,310 5,458,530 4,059,094 4,298,826 4,569,624		
1904 1903 1902 1901 1900	329,882 378,924 371,959 323,923 330,772	29,287,888 20,512,194	77.3 55.1 76.7	7,570,476 10,807,230 8,327,951 9,438,480 8,588,659	193,115 209,727 209,859 197,932 179,798	2,023,340 2,564,400 2,611,334 2,359,514 2,147,532	12.23 12.44 11.92	4,046,680 5,128,800 5,222,668 4,719,028 4,295,064		
1899 1898 1897 1896 1895	333,590 330,748 335,030 317,667 302,929	21,673,234 23,442,593	65.0 70.9 73.6 75.8	4,291,300 4,711,961 4,858,808 4,717,987 5,609,297	171,935 189,948 209,005 178,962 149,899	1,697,755 2,128,073 2,669,822 1,948,780 1,775,654	9.87 11.20 12.77 10.89	3,395,510 4,256,146 5,339,644 3,897,560		
1894	267,348 217,294 181,463	16,275,352 14,072,961 11,229,498	60.9 64.8 61.9	4,247,867 3,729,335 2,953,358	149,899 111,361 95,865 91,403	1,773,034 1,049,765 1,049,524 948,907	9.43 10.95	3,551,308 2,099,530 2,099,048 1,897,814		
1922-1928 1912-1921 1902-1911 1892-1901 1892-1928	201,983 262,989 325,515 294,076 276,748	18,126,041 22,988,755 21,218,057	68.9 70.6 72.2	7,435,072 11,287,114 8,780,681 5,314,705 8,266,771	374,098 424,672 236,330 157,611 292,022	3,475,572 4,315,930 2,731,936 1,777,533 3,042,783	10.16 11.56 11.28	14,637,571 15,936,749 5,652,083 3,555,065 9,564,918		

^{*}The combined average area for corn for the ten years 1882-1891 was 195,878 acres, the average value of the produce for the same period being \$3,704,614. The combined average for corn for the forty-seven years, 1882-1928, is 489,431 acres, the average value of the produce for the same period being \$14,825,928.

POTATOES AND TURNIPS

The following table gives the area, produce and market value of Potatoes and Turnips for the years 1882 to 1928, together with the annual averages for the various periods of ten years and the average for the forty-seven years.

17.		Potato	oes		Turnips					
Years	Acres	Bushels	Per	Market value	Acres	Bushels	Per acre	Market value		
1928 1927 1926 1925 1924 1923 1922 1921 1920 1919 1918 1917 1916 1915 1914 1913 1912 1911 1910 1909 1908 1907 1906 1907 1906 1905 1904 1903 1902 1904 1903 1904 1903 1902 1901 1908 1889 1898 1897 1896 1895 1894 1895 1894 1895 1896 1895 1896 1895 1894 1896 1895 1896 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1897 1896 1898 1898 1897 1896 1898 1898 1897 1896 1898 1898 1898 1897 1896 1898 1898 1898 1897 1896 1898 1898 1898 1897 1896 1898 1888 1889 1888 1889 1888 1889 1888 1889 1888 1889 1888 1889 1888 1889 1888	181,241 159,871 153,468 163,790 169,145 164,682 172,858 164,096 157,509 157,286 166,203 146,481 139,523 173,934 167,591 159,661 158,888 162,457 168,454 169,946 136,064 132,530 133,819 139,011 144,733 154,155 163,754 169,946 169,333 154,155 169,946 169,333 154,155 169,946 169,333 175,253 142,601 145,703 160,218 158,094 145,812 153,094 145,812 153,094 145,812 153,741 168,757 166,823	19,791,851 15,495,307 16,496,290 15,714,786 24,966,530 19,131,980 20,349,541 15,400,142 23,961,709 15,144,921 19,375,947 18,291,735 7,408,429 13,267,023 26,717,587 19,024,115 21,346,394 13,918,698 21,927,804 24,645,283 18,517,642 20,057,675 15,020,299 14,366,049 15,479,122 16,676,447 12,942,502 18,116,637 21,476,437 2	109.2 96.9 107.5 95.9 147.6 116.2 117.7 93.8 152.1 96.3 116.6 124.9 53.1 176.3 159.4 119.2 134.3 85.7 130.2 110.4 110.9 113.2 110.4 115.7 120.0 89.4 117.5 117.5 118.5 117.5 11	\$ 11,052,928 13,662,224 18,627,71 21,513,125 13,355,441 14,306,447 10,385,525 13,589,599 23,776,530 25,026,467 19,238,431 22,530,291 9,684,215 10,805,026 11,747,332 12,114,656 13,604,052 11,722,539 10,798,597 8,989,452 8,874,201 11,693,625 8,874,201 11,693,625 8,784,71 5,605,351 6,538,144 6,332,154 6,424,218 5,582,035 5,936,959 6,075,748 5,099,929 6,194,066 7,842,219 7,779,575 6,531,766 7,060,733 6,705,784 7,189,548 8,668,460 11,018,548 11,796,573	71,791 68,479 71,500 73,318 70,110 65,193 67,635 70,715 80,588 85,312 85,449 93,034 91,670 97,451 95,371 97,572 101,529 100,593 108,360 113,400 120,920 123,011 132,512 135,348 133,207 134,469 136,725 145,909 156,583 153,440 151,601 149,336 148,234 151,806 147,657 136,604 129,627 126,075 111,055 111,103 113,188 105,322 98,931 102,303 104,199 98,429 98,429 98,429 98,429	34,323,412 29,452,281 23,204,013 28,015,466 32,547,607 27,099,910 29,923,524 40,141,406 28,740,526 42,190,382 39,989,561 46,336,708 41,889,891 46,598,851 46,336,708 41,205,605 57,060,151 57,654,086 64,861,703 64,121,121,121,131,131,131,131,131,131,131	478 430 325 382 464 416 442 343 498 337 494 430	\$ 6,864,682 5,448,672 4,640,803 5,042,784 5,533,093 5,419,982 5,984,706 6,673,025 11,038,887 7,903,645 10,547,596 7,997,911 3,369,478 4,659,885 4,633,671 4,188,989 4,121,019 4,820,561 5,706,015 5,706,015 5,706,015 5,765,409 6,486,170 6,931,634 7,174,020 6,828,747 5,933,040 5,807,839 6,472,788 6,829,715 6,981,481 6,349,670 6,169,449 5,697,535 6,354,164 6,885,345 4,704,056 3,702,126 4,764,024 3,141,346 4,706,105 4,113,774 4,440,636 2,987,933 3,535,933		
1882	160,700 166,436 159,117 153,092 164,451 155,449	18,849,469 17,993,800 17,355,152 18,304,638 18,840,683 18,231,681	113.3 113.1 113.4 111.3 121.2	14,700,494 16,211,660 8,928,246 6,150,629 8,476,165 10,650.435	69,718 89,869 123,855 147,080 104,943	29,223,745 38,378,214 54,987,697 63,424,431 42,981,280 46,857,073	419 427 444 431 410 428	5,562,103 6,596,924 5,498,770 6,342,443 4,298,128 5,665,902		

MANGELS AND SUGAR BEETS

The following table gives the area, produce and market value of Mangels for the years 1882 to 1928, and of Sugar Beets for the years 1907 to 1928, together with the annual average for the various periods of ten years and the average for the full period.

Vacas		Mange	els		Sugar Beets					
Years	• 1		Per	Market			Per	Market		
	Acres	Bushels	acre	value	Acres	Bushels	acre	value		
				S				S		
1928	33,567	14,738,443	439	2,947,689	45,294	15,215,990	336	2,757,898		
1927	34,665	13,494,700	389	2,496,520	38,503	13,453,691	349	2,606,653		
1926	34,009	13,548,484	398	2,709,697	41,594	18,831,084	453	3,766,217		
1925	35,385	14,881,069	421	2,678,592	37,718	16,686,713	442	3,003,608		
1924	35,958	15,616,128	434	2,654,742	36,080	13,346,456	370	2,272,570		
1923	35,118	14,865,791	423	2,973,158	22,450	8,647,615	385	1,729,523 1,523,246		
1922	35,274 31,225	16,366,353 11,909,854	464 381	3,273,271 3,275,210	20,725 28,367	7,616,281 10,712,975	367 378	2,946,068		
1921	36,450	17,909,034	471	4,722,930	26,307	16,497,067	455	4,536,693		
1919	35,010	17,174,290 13,409,270	383	3,687,549	36,288 24,500	9,586,495	391	2,636,286		
1918	40,714	18,244,453	448	4,561,113	22,894	9,398,141	411	2,349,535		
1917	49.148	19,492,626	397	3,898,525	22,039	6,781,113	308	1,356,223		
1916	49,148 42,793	9,756,015	228	1,365,842	22,482	6,023,938	268	843,351		
1915	50,799	25,356,323	498	2,028,506	22,890	8,644,281	378	1,080,535		
1914	50,663	25,439,520	502	2,035,162	18,534	7,466,819	403	933,352		
1913	54,568	21,935,847	402	1,754,868	19,083	6,389,177	335	798,647		
1912	60,103	27,671,114		2,213,689	21,054	7,819,066	371	977,383		
1911	64,855	28,126,313		2,250,105	24,664	8,941,659	363	1,117,707		
1910	68,966	34,686,137	503	2,774,891	26,879	11,238,577	418	1,348,629		
1909	70,488 67,937	28,928,347	410	2,314,267	19,812	7,001,565	353	840,188		
1908	68 644	29,870,966		2,389,677 2,420,825	17,453	7,004,748		840,570 988,445		
1907 1906	68,644 69,352	30,260,315 32,863,192		2,629,055	16,851	8,237,044				
1905	69,035	33,216,930		2,657,354						
1904	71,344	33,595,440		2 687 635						
1903	80,918	41,768,239	516	3,341,459						
1902	76.553	39,140,924		3,131,274						
1901	61,095	29,683,324		2,374,666						
1900	54,543	24,728,525		1,978,282						
1899	53,401	20,898,387	391	1,671,871						
1898	47,923	21,957,564		1,756,605						
1897	41,175	18,103,387		1,448,271						
1896	36,101	16,849,401 15,961,502	467	1,347,952						
1895	34,383			1,276,920						
1894	27,670 21,519	11,532,127 8,582,568	399	922,570 686,605						
1892	22,026	10,350,474	470	828,038						
1891	22,961	11,779,448								
1890	25,953	11,594,518		927,561						
1889	21,211	7,223,478								
1888	21.459	10,020,659	467							
1887	17,924	5,695,761		455,661						
1886	18,170	8,787,743		703,019						
1885	16,435	7,660,729								
1884	18,341	8,655,184								
1883	17,219 15,792	6,252,015								
Annual Averages:	13,192	7,711,420	488	616,913						
1922–1928	34,854	14,787,281	424	2,819,096	34,623	13,399,690	387	2,522,816		
1912–1921	45,147	19,038,931		2,954,339	23,813	8,931,907	375	1,845,807		
1902-1911	70,809	33,245,680		2,659,654	*21,132	*8,484,719	*402	*1,027,108		
1892-1901	39.984	17.864.726	447	1,429,178	21,102	0,101,11				
1882-1891	19,546	8,538,096	437	683,048						
1002-1091										

^{*1907-11.}

ALFALFA AND HAY AND CLOVER

The following table gives the area, produce and market value of Alfalfa for the years 1912 to 1928 and of Hay and Clover for the years 1882 to 1928, together with the annual average for the various periods of ten years and the average for the whole period.

		Alfalf			Hay and Cl	lover		
Years						Truy und C	10 101	
	Acres	Tons	Per acre	Market value	Acres	Tons	Per acre	Market value
1928 1927 1926	743,230 806,397 748,473	1,730,135 1,865,868 1,850,392	$\frac{2.31}{2.47}$	\$ 20,020,248 21,915,225 25,889,781	†2,832,813 †2,889,143	4,455,615 4,914,515 4,248,048	$1.73 \\ 1.47$	\$ 50,026,378 54,161,232 54,154,454
1925	550,645 381,258 299,610 221,326 177,205	1,397,462 1,067,717 788,431 629,135 456,378	2.63 2.84 2.58	19,306,047 12,252,536 8,915,438 7,439,403 8,023,795	†3,022,507 3,545,856 3,596,484 3,575,662 3,551,655	4,181,206 5,615,238 5,799,422 5,568,459 3,954,166	1.58 1.61 1.56 1.11	50,738,655 61,283,373 64,069,155 66,964,036 76,193,216
1920	162,820 146,790 144,010 189,109 177,565	399,581 314,419 328,971 462,956 460,788	2.14 2.28 2.45 2.60	10,172,434 7,293,462 6,579,420 5,460,205 4,822,622	3,533,740 3,508,266 3,470,036 3,358,579 3,294,419	5,588,804 4,596,854 6,156,340 6,739,259	1.59 1.32 1.83 2.05	109,036,159 126,750,915 83,344,591 72,705,998 71,503,879
1915	165,284 163,685 167,707 189,959	428,739 372,759 380,606 460,201	2.59 2.28 2.27 2.42	6,044,599 5,195,667 5,090,267 5,542,772	3,066,468 3,251,799 3,261,139 3,177,410 3,301,468	3,825,024 3,469,795 3,543,957 4,760,512 4,238,362	1.25 1.07 1.09 1.50 1.28	55,660,170 50,721,713 46,212,298 55,906,657 55,767,671
1910					3,204,021 3,228,445 3,253,141 3,289,552 3,069,917	5,492,653 3,885,145 4,635,287 3,891,863 4,684,625	1.71 1.20 1.42 1.18	54,407,105 49,754,078 47,696,579 58,806,050 42,630,087
1905 1904 1903 1902					3,020,365 2,926,207 2,783,565 2,646,202 2,557,263	5,847,494 5,259,189 4,336,562 4,955,438 4,632,317	1.94 1.80 1.56 1.87	45,142,654 41,915,736 34,432,302 40,386,820 37,012,213
1900					2,526,566 2,505,422 2,453,503 2,341,488 2,426,711	3,133,045 3,498,705 4,399,063 3,811,518 2,260,240	1.24 1.40 1.79 1.63	26,568,222 27,010,003 27,362,172 27,366,699 21,879,123
1895 1894 1893 1892					2,537,674 2,576,943 2,766,894 2,515,367 2,549,975	1,849,914 3,575,200 4,963,557 4,384,838	.73 1.39 1.79	22,753,942 27,028,512 37,921,575 35,955,672 28,498,224
1889					2,462,002 2,386,223 2,292,638 2,280,643 2,295,151	4,305,915 3,728,313	1.75 1.56 .88 1.36	34,232,024 37,208,564 33,570,674 35,947,748 29,016,182
1886					2,295,151 2,268,091 2,193,369 2,350,969 1,825,890	3,252,155 3,044,912 4,115,535 2,090,626	1.43 1.39 1.75	32,033,727 29,109,359 37,122,126 24,125,824
Annual Averages 1922-1928 1912-1921 1902-1911 1892-1901	168,413		2.41	6,422,524	3,256,434 3,347,351 *3,072,288 *2,520,783	5,119,213 4,709,381 4,722,662 3,650,840	1.41	58,771,026 74,803,560 47,093,908 29,085,813
1882-1891 1882-1928					*2,290,495 2,863,462	3,102,733 4,183,801	.46	32,086,445 47,491,373

^{*}Including Alfalfa. †Exclusive of Alsike and Sweet Clover, previously included.

STATISTICS OF FARM CROPS CARROTS AND ALL FIELD CROPS

The following table gives the area, produce and market value of Carrots and of all Field Crops for the years 1882 to 1928, together with the annual average for the various periods of ten years and the average for the whole period.

		Car	rots		All	Field Crops	Value				
Years											
	Acres	Bushels	Per	Market	Δ.	37.1					
	Acres	Dusileis	acre	value	Acres	Value	acre				
				s		\$	\$ 6				
1928	2,002	317,998	159	63,600	10,357,960		23.60				
1927	1,743	286,863	165	53,070	10,305,045	256,627,042					
1926	1,672	253,966	152	50,793	10,434,401	257,686,886					
1925	1,835	325,478	177	58,586	10,364,317						
1924 1923	2,128 1,780	402,446 285,270	189 160	68,416	10,264,614	264,370,642	25.76				
1922	2,124	472,643	223	57,054 94,529	10,296,961 10,258,613	219,114,500	21.28				
1921	2.217	410,501	185	112,888	10,238,013						
1920	2,217 2,706	674,101	249	185.378	10.108.272						
1919	2.706	605,803	224	166,596	9,915,884						
1918	2,706	689,557	255	172,389	9.992.825	363,909,778					
1917	2,920	758,292	260	151,658	9,718,259	333,353,438	34.30				
1916	2,391	331,124	138	46,357	9,548,876	223,748,948					
1915 1914	2,439 2,448	686,232 766,170	281 313	85,779 95,771	9,762,951		21.58				
1913	2,400	592,016	247	74,002	9,621,444 9,541,537						
1912	2,742	747,207	273	93,401	9,574,474						
1911	3,207	815,129	254	101,891	9,718,741	179.974.358					
1910	3,551	1,049,348	296	131,169	9,725,684	175,115,742					
1909	3,506	1,001,653	286	125,207	9,578,323	167,966,577	17.54				
1908	4,080 4,530	1,120,145	275	140,018	9,621,683	164,077,282	17.05				
1907 1906	4,980	1,585,500 1,598,698	350 321	198,187 199,837	9,750,615						
1905	5,509	1,846,659	335	230,832	8,962,925 8,897,898						
1904	6,634	2,022,945	305	252,868	8,673,525						
1903	7,805	2,612,778	335	326,597	8,731,405	136,657,807					
1902	8,625	3,227,161	374	403,395	8,677,988	146,421,171					
1901	9,221 10,320	3,199,967	347	399,996	8,667,512	128,325,648	14.81				
1900 1899	11,891	3,469,123 3,674,035	336 309	433,640	8,794,953	114,758,761	13.05				
1898	12,418	4,313,861	347	459,254 539,233	8,753,926 8,835,272						
1897	12,025	4,433,628	369	554,204	8,701,705		12.31				
1896	12,333	4.618.441	374	577,305	8,511,444	88.900.135	10.44				
1895	13,002	4,581,373	352	572,672	8,321,173	99,655,895					
1894	11,186	3,716,140	332	464,518	8,227,153	94,055,392					
1893	9,288 9,941	2,971,450 3,827,361	320 385	371,431	8,054,612	101,886,557					
1891	9,858	3,814,016	387	478,420 476,752	8,080,206 7,834,213	110,562,493					
1890	11,977	4,210,542	352	526,318	7,834,213	114 382 305					
1889	11,261	3,431,959	305	428,995	7,758,583	106,500,799	13.73				
1888	11,524	3,898,584	338	487,323	7,616,350	124,244,503	16.31				
1887	9,110	2,105,686	231	263,210	7,429,084	99,583,524	13.40				
1886 1885	9,267 9,024	3,478,751	375	434,844	7,403,281	104,001,865	14.05				
	10,987	3,462,319 4,197,200	384 382	432,790	7,350,443	110,068,586	14.97				
1883	11,270	3,984,436	354	524,650 498,055	7,203,958 7,542,623	120,615,798 114,754,141	16.74 15.21				
1882	9,955	4,009,975	403	501,247			19.22				
				,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	200,707,000	27.44				
Annual Averages:	1.000	2240=2	45								
1922–1928 1912–1921	1,898	334,952	176	63,721	10,325,987		23.89				
1902–1911	2,568	626,100 1,688,002	322	118,422	*9,785,960 *	267,211,002	27.31				
1892–1901	5,243 11,163	3,880,538	348	211,000 485,068			16.98				
1882-1891	10,243	3,659,347	351	457,417	7,517,606		12.49 15.48				
1882–1928	6,537	2,146,479	328	280,109	8,991,581		19.38				
*Including Flax, 1918-	-1921.				, ,,1	, -, [

^{*}Including Flax, 1918-1921. No statistics of "mixed grains" were taken previous to 1907, when an acreage of 443,100 was estimated.

RATIOS OF AREAS UNDER CROP

The following table shows the number of acres under the various crops per 1,000 acres of cleared land for the years 1882 to 1928, together with the averages for the various periods of ten years and for the whole term of years.

									,				
Year	Fall Wheat	Spring Wheat	Barley	Oats	Peas	Beans	Rye	Buckwheat	Corn	Potatoes	*Roots	Hay and Clover	Mixed Grains
1928 1927 1926 1925 1924 1923 1922 1921 1920 1919 1918 1917 1916 1915 1914 1913 1912 1911 1910 1909 1908 1907 1909 1908 1907 1908 1907 1908 1907 1908 1907 1908 1907 1908 1907 1908 1907 1908 1908 1907 1908 1907 1908 1908 1907 1908 1908 1907 1908 1909 1908 1909 1908 1909 1908 1909 1908 1909 1908 1909 1908 1909 1908 1909 1909 1908 1909 1908 1909 1909 1908 1909 1909 1909 1908 1909 1909 1909 1909 1909 1900 1899 1900	51.0 41.6 24.5 39.8 47.9 55.5 547.0 44.5 52.6 58.2 51.9 46.5 47.9 55.8 57.2 48.8 57.2 48.8 57.2 48.8 57.2 59.8 69.2 59.8 60.4 80.7 73.9 69.2 59.8 80.6 72.0 61.6 73.2 80.8 80.5 10.6 10.6	7.9 7.6 6.7 7.4 8.3 31.2 4.4 2.23 8.8 11.1 18.1 1.8 8.0 9.0 9.5 1.11 10.2 2.13 6.6 6.6 6.7 2.2 2.3 8.8 3.3 3.4 4.3 3.3 2.5 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.3 8.0 9.5 1.3 4.3 3.3 3.4 6.6 5.5 7.7 7.5 1.3 4.4 3.5 5.2 8.8 7.2 9.4 1.3 0.0 2.5 0.9 9.5 5.7 7.5 1.3 4.5 0.5 0.9 9.5 5.5 0.6 7.2 2.5 0.5 5.6 6.7 2.2 2.8 0.9 9.5 1.3 4.5 0.5 0.9 9.5 1.3 4.5 0.5 0.9 9.5 1.3 4.5 0.5 0.9 9.5 1.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	3 ± .0 7 29 .7 7 229 .1 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	180.1 187.7 192.5 196.3 207.7 192.6 191.5 192.2 193.4 184.3 179.3 180.3 182.9 189.3 180.6 151.5 167.6 161.5 167.6 163.6 151.5 148.3 142.2 138.0	21. 2 228. 2 24. 1. 1 229. 1 26. 9 49. 8 39. 2 44. 9 49. 8 65. 5 66. 6 66. 8 66. 5 66. 6 66. 4 66. 5 66. 6 67. 0 61. 7 61. 6 65. 4 65. 5 55. 5 66. 6 66. 5 66. 6 6	4.3.5.6.6.5.2.3.3.4.6.6.6.3.3.1.4.9.9.9.3.3.3.4.9.9.9.3.3.3.4.9.9.9.3.3.3.4.9.9.9.3.3.3.4.9.9.9.3.3.3.4.9.9.9.3.3.3.4.9.9.9.9	4.8.7.6.6.6.6.8.2.2.10.2.2.8.2.9.4.4.9.5.7.3.3.1.11.8.8.2.9.4.4.5.7.3.3.1.11.8.7.7.3.6.6.1.7.7.3.6.2.2.7.9.8.11.7.7.3.6.11.7.7.3.6.2.2.7.9.8.18.2.9.8.0.10.1.4.6.0.10.1.4.11.7.7.3.6.1.1.1.7.7.3.6.1.1.1.1.7.7.3.6.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	16.5 15.5 115.9 16.3 13.2 19.9 12.0 12.0 12.1 15.1 11.5 13.2 12.1 11.5 11.1 11.5 11.1 11.5 11.5 11	28.4 36.2 36.2 344.2 446.9 9446.3 38.9 9446.3 341.7 51.5 51.5 51.5 51.5 51.5 51.5 51.5 5	10.6 10.2 11.2 11.2 11.5 11.0 9.5 11.9 9.5 11.9 9.5 11.0 9.5 11.2 11.3	9.588.848.80.49.90.311.44.59.111.50.311.45.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.91.111.50.311.34.45.9	185.5 187.1 191.1 234.7 235.1 238.9 238.9 238.9 236.5 247.1 249.9 236.2 249.9 236.2 233.0 224.0 236.2 233.0 221.0 236.2 233.0 211.9 204.0 192.3 193.0 191.1 188.8 182.2 191.5 204.2 209.6 209.7 20	52.8 51.0 45.1 42.8 43.1 36.8 41.2 42.2 41.9 35.0 33.1 32.5 31.3 23.5 31.3 32.5 31.3 32.5 31.3 32.5 31.3 32.5 31.3 32.5 31.3 32.5 33.1

^{*}Mangels, turnips, carrots and sugar beets. †1907-1911. ‡1907-1928.

STATISTICS OF FARM CROPS MARKET PRICES

The following table gives the average Market Prices of Agricultural products for the years 1882 to 1928, together with the averages for the various periods of ten years, and for the whole term of years.

term of ye	ars.										
Years	Fall Wheat per bush.	Spring Wheat per bush.	Oats per bush.	Barley per bush.	Peas per bush.	Beans per bush.	Rye per bush.	Buckwheat per bush.	Corn (in ear) per bush.	Hay per ton.	Potatoes per bush.
1928 1927 1926 1925 1924 1923 1922 1921 1920 1919 1918 1917 1916 1915 1914 1913 1912 1911 1910 1909 1908 1907 1906 1905 1907 1906 1905 1904 1900 1908 1907 1908 1907 1908 1909 1908 1907 1908 1909 1908 1909 1908 1908 1907 1908 1909 1908 1908 1909 1908 1909 1908 1909 1908 1909 1908 1909 1908 1909 1908 1909 1900 1900 1809 1899 1898 1897 1899 1898 1899 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1889 1888 1887 1889 1888 1887 1888 1887 1888 1888 1887 1888	cents 122.0 124.7 125.1 133.6 133.9 96.2 104.6 110.5 193.4 237.2 210.9 209.8 161.3 97.1 109.1 85.0 86.6 102.3 89.2 7 70.7 76.5 98.7 75.1 70.7 66.1 66.4 66.7 69.4 78.2 71.0 69.3 55.0 69.3 55.0 69.3 55.0 69.3 55.0 69.3 60.6 60.4 78.2 71.0 60.1 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3		49.5 36.9 38.6 44.2 35.0 39.5 40.3 48.8 34.0 33.6 32.3 34.8 36.2 26.5 27.7 25.8 22.6 20.0 29.1 30.8 33.2 30.8 33.2 30.8 31.5 40.5 31.5 31.5 31.6 32.3 33.6 48.8 33.0 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 29.3 33.6 33.6 33.6 33.6 33.6 33.6 33.6 3	Cents 74.2 77.6 68.0 68.1 82.2 62.8 61.3 65.7 93.8 145.8 103.6 125.7 53.9 52.0 64.3 55.5 58.7 73.9 52.0 42.9 43.7 42.1 45.0 38.9 39.5 4.8 40.1 41.3 49.1 50.2 51.3 57.0 65.0	71.0 74.0		95.2 95.3 87.2 95.3 87.2 87.1 107.5 73.7 78.4 82.6 142.0 159.1 151.7 162.6 18.8 78.9 84.9 63.2 67.4 69.4 69.4 69.4 69.5 49.5 55.8 72.3 55.2 55.2 55.2 55.2 55.2 56.0 64.0 64.0	40.0	40.0	\$ c. 11.23 11.02 12.75 11.61 10.91 11.05 12.03 19.27 24.25 22.68 18.13 11.81 10.60 14.51 10.60 14.51 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.77 11.75 12.81 10.25 15.11 9.91 12.81 10.25 15.11 9.91 11.81 10.25 15.11 9.91 11.81 10.25 10.2	cents 55.8 88.2 112.9 136.9 53.5 74.8 51.0 99.2 165.2 99.3 123.2 130.1 81.4 44.0 63.7 63.7 63.7 63.7 64.2 49.2 36.5 47.9 58.3 53.8 46.0 50.7 44.1 32.8 44.1 32.8 44.1 32.8 44.1 32.8 45.5 31.7 62.8 44.0 62.0 64.0
1922-1928 1912-1921 1902-1911 1892-1901 1882-1891 1882-1928	121.3 144.5 83.6 67.8 90.0 98.9		36.7 27.9 34.3	71.1 86.0 50.1 38.5 54.5 59.5	146.0 172.3 74.8 53.5 61.6 70.5	2.54 2.35 1.48 .93 1.16 1.94	88.5 111.4 60.2 44.9 60.0 72.9	78.0 94.4 52.4 38.7 41.5 67.2	56.7 62.3 38.2 25.0 *42.8	11.48 15.88 9.97 7.97 10.34 11.35	78.0 90.1 51.4 33.6 45.0 58.4

^{*}Average for 37 years, 1892-1928.

STATISTICS OF LIVE STOCK

NUMBER OF LIVE STOCK ON HAND

The following tables give the number of horses, cattle, sheep, swine and poultry on hand in June of each year for the forty-seven years 1882-1928.

Years	Horses	Cattle	Sheep	Swine	Poultry
	No.	No.	No.	No.	No.
928	609,249	2,682,053	1,014,106	1,833,538	19,703,576
927	617,136	2,709,954	956,267	1,883,177	19,048,045
926	629,659	2,757,799	886,483	1,735,355	17,693,000
925	644.138	2,809,373	868,526	1,678,595	17,778,581
924	663,875	2,917,302	870,279	1,807,903	16,751,345
923	673,371	2,838,087	907,673	1,734,734	15,203,384
922	685,852	2,836,181	986,617	1,553,434	13,964,31
921	694,237	2,890,113	1,081,828	1,563,807	11,458,200
920	704.640	2,881,827	1,129,084	1,614,356	11,005,645
919	719,569	2,927,191	1,101,740	1.695.487	11,705,809
918	732,977	2,867,722	972.341	1,656,386	12,281,105
917	765,873	2,827,609	956,986	1,664,639	13,606,292
916	775,732	2,734,767	908,066	1,735,254	14,377,844
	779,131	2,674,746	908,000	1,769,295	14,273,09
915		2,604,628			
914	774,544		922,375	1,770,533	14,175,214
913	751,726	2,628,845	996,155	1,618,734	13,511,38
912	742,139	2,624,780	1,021,848	1,702,652	13,024,98
911	737,916	2,593,205	1,040,245	1,744,983	12,942,29
910	724,384	2,567,128	1,065,101	1,561,042	12,460,78
909	728,308	2,668,584	1,130,667	1,551,187	12,086,580
908	726,471	2,824,859	1,143,898	1,818,763	12,285,61.
907	725,666	2,926,236	1,106,083	2,049,666	13,428,07
.906	688,147	2,963,618	1,304,809	1,819,778	10,254,82
905	672,781	2,889,503	1,324,153	1,906,460	9,738,493
904	655,554	2,776,304	1,455,482	2,008,984	9,412,683
903	639,581	2,674,261	1,642,627	1,977,386	9,683,57
902	626,106	2,562,584	1,715,513	1,684,635	9,762,80
901	620,343	2,507,620	1,761,799	1,491,885	9,745,23
900	617,309	2,429,330	1,797,213	1,771,641	9,541,24
899	615,524	2,318,355	1,772,604	1,971,070	9,344,02
898	611,241	2,215,943	1,677,014	1,640,787	9,084,27
897	813,670	2,182,326	1,690,350	1,284,963	8,435,34
896	624.749	2,181,958	1,849,348	1,269,631	7,734,16
895	647,696	2,150,103	2,022,735	1,299,072	7,752,84
894	674,777	2,099,301	2,015,805	1,142,133	7,552,66
893	685,187	2.057.882	1,935,938	1.012.022	7,114,43
892	688,814	2.029,140	1,850,473	996,974	7,078,97
891	678,459	1,978,815	1,693,751	1,156,316	7,006,09
890	659,636	1.894,712	1,339,695	1,140,559	6,854,86
889	618,795	1,891,899	1,344,180	835,469	6,304,29
888	596,218	1,928,638	1,349,044	819,079	6,164,11
887	575,361	1,948,264	1,396,161	832,817	6,438,36
	569,649	2,018,173	1,610,949	860.1 5	6,968,91
886				822,262	6,336,80
885	558,809	1,976,480	1,755,605		
1884	535,953	1,925,670	1,890,733	916,158	6,237,60
1883	560,133	1,828,613	1,868,784	906,727	5,847,34
1882	503,604	1,586.312	1,915,303	850,226	5,352,12

VALUE OF LIVE STOCK ON HAND

The following table gives the value of horses, cattle, sheep, swine and poultry on hand in June of each year for the forty-seven years 1882-1928, except for the ten years 1882-1891 when farm live stock was valued in bulk.

Years	Horses	Cattle	Sheep	Swine	Poultry	Total
	s	S	S	S	S	S
1928	67,085,352	128,937,680	11,209,872	19,808,890	12,452,203	239,493,997
1927	66,724,527	117,162,152	10,433,761	24,159,535	12,333,645	231,145,720
1926	68,239,756	115,386,214	9,688,685	24,525,126	12,400,985	230,240,766
1925	69,787,791	115,844,069	9,576,722	24,424,238	13,527,454	233,160,274
1924	72,617,565	113,046,599	7,081,500	16,201,699	13,446,621	222,393,984
1923	74,542,351	109,467,066	6,597,087	19.018.668	12,401,083	222,026,255
1922	74,535,855	103,899,416	6,612,959	16,550,636	12,241,252	213,840,118
1921	75,680,750	103,861,565	8,207,564	19,205,488	11,168,318	218,123,685
1920	89,606,594	176,897,490	16,191,741	32,253,804	11,787,708	326,737,337
1919	92,823,683	184,041,594	18,128,240	33,263,051	11,351,364	339,607,932
	95,710,928	172,259,261	15,690,055	31,140,181	9,307,051	324,107,476
1918	99,439,558	150,309,828	9,946,030	21,464,366	8,517,195	289,676,977
1917	101,434,391	128,324,526	7,386,710	18,790,755	7,933,157	263,869,539
1916	107,982,037	115,363,336	6,403,907	17,562,726	7,670,326	254,982,332
1915	112,576,793	106,635,148	6,155,451	17,951,258	7,551,428	250,870,078
1914 1913	113,240,047	95,759,022	6,242,672	15,393,192	6,956,952	237,591,883
1912	109,000,214	90,403,902	6,181,595	14,141,908	6,121,323	225,848,94
1911	103,373,206	84,634,962	6,213,021	14,5 93,917	5,905,318	214,720,424
	92,757,431	76,872,723	6,127,018	13,265,834	5,393,031	194,416,03
1910 19 0 9	87,682,689	75,247,197	6,262,493	11,144,135	4,411,386	184,747,900
1908	85,847,391	77,255,267	6,336,265	12,135,979	4,439,854	186,014,750
1907	85,041,144	79,485,780	5,928,325	14,174,502	4,854,381	189,484,132
1906	79,814,953	80,303,276	6,721,119	12,770,708	3,697,338	183,307,394
1905	73,911,177	76,764,482	6,191,774	12,770,708	3,335,660	172,483,760
1904	68,138,228	72,821,003	6,425,100	12,921,743	3,077,029	163,383,10,
1903	61,811,456	69,289,924	7,228,498	13,023,743	2,973,646	154,327,26
1902	55,173,637	63,517,342	7,634,284	11,262,265	2,957,286	140.544.81
1901	50,038,465	59,527,119	7,772,793	9,298,712	2,859,172	129,496,26
1900	46,916,999	56,320,810	7,711,496	9,598,153	2,727,363	123,274,82
1899	42,713,557	52,938,500	7,315,729	10,180,338	2,658,321	115,806,44.
1898	38,659,896	47,286,254	6,499,695	8,720,242	2,578,136	103,744,22.
1897	36,111,805	42,683,557	6,003,194	6,533,210	2,318,038	93,649,804
1896	37,185,692	44,383,638	6,652,202	6,505,227	2,130,807	96,857,56
1895	40,283,754	46,708,017	7,708,442	7,101,211	2,156,623	103,958,04
1894	46,245,614	47,577,587	8,606,671	6,909,262	2,208,518	111,547,65
1893	50,527,472	47,718,025	9,016,118	6,622,129	2,187,158	116,070,90
1892	55,812,920	45,548,475	8,569,557			117,501,49.
1891		10,010,175	0,307,337	0,410,000	2,001,100	108,721,07
1890						104,086,62
1889						105,731,288
1888						102,839,235
1887						104,406,65
1886						107,208,933
1885						100,690,080
1884						103,106,829
1883						100,082,365
1882						80,540,720
						00,010,12

The values for several classes of horses on hand June 15th, 1928, were as follows:—Stallions, \$1,094,323; mares, \$36,006,032; geldings, \$26,793,951; colts and fillies, \$3,191,046.

The values for the several classes of cattle on hand were as follows:—Bulls, \$4,323,751; cows for milk purposes, \$86,185,574; cows for beef purposes, \$4,382,818; yearlings for milk purposes, \$8,673,752; yearlings for beef purposes, \$8,496,777; calves, \$8,074,844; all other cattle, \$8,800,164.

The values for sheep and lambs on hand were:—Ewes, for breeding, \$6,156,918; one year old and over, \$941,780; under one year, \$4,111,174.

The values for broad sows, \$6,369,674; six months old and over, \$4,003,182; under six months, \$9,436,034.

The values for the several classes of poultry on hand were as follows:—Turkeys, six months old and over, \$366,352; under six months, \$404,685; geese, six months old and over, \$371,492; under six months, \$369,051; ducks, six months old and over, \$116,325; under six months, \$180,534; other fowls, six months old and over, \$7,799,751; under six months, \$2,844,013.

VALUES PER HEAD OF LIVE STOCK AND POULTRY ON HAND FOR THE YEARS 1892 TO 1928

	Horses		ttle	Sheep	Swine	Poultry all	
Years	All Ages	Milch Cows	Other Cattle	and Lambs	all Ages	Kinds	
1928. 1927. 1926. 1925. 1924. 1923. 1922. 1921. 1920. 1919. 1918. 1917. 1916. 1915. 1914. 1913. 1912. 1911. 1910. 1909. 1909. 1908. 1907. 1906. 1905. 1904. 1903. 1907. 1906. 1905. 1904. 1903. 1907. 1906. 1905. 1904. 1903. 1907. 1906. 1908. 1907. 1908. 1909. 1908. 1907. 1909. 1908. 1907. 1909. 1908. 1907. 1908. 1909. 1908. 1907. 1908. 1909. 1908. 1909. 1908. 1909. 1908. 1909. 1908. 1909. 1908. 1909. 1908. 1909. 1908. 1909. 1908.	74	\$ c. 68 33 60 92 59 14 58 55 55 41 55 24 52 68 51 56 85 85 84 88 71 83 55 76 35 60 83 57 01 50 56 47 82 45 31 40 76 38 19 36 90 36 43 35 99 35 06 34 70 34 15 32 96 31 74 31 01 30 31 28 28 26 13 27 60 29 74 31 02 31 63 29 95	\$ c 30 09 27 05 26 84 27 70 25 14 24 25 24 27 44 67 44 67 45 52 39 55 34 91 32 18 30 81 27 29 25 61 24 07 22 43 21 15 21 62 21 29 20 84 20 58 19 46 18 57 17 93 17 98 14 58 15 08 17 78 17 69	\$ c. 11 05 10 91 10 93 11 03 8 14 7 27 6 70 7 59 14 34 16 45 16 14 10 39 8 13 7 05 6 67 6 27 6 605 5 97 5 75 5 54 5 54 5 36 5 15 4 68 4 41 4 42 4 41 4 29 4 13 3 88 3 55 3 60 3 81 4 27 4 66 4 63	\$ c. 10 80 12 83 14 13 14 55 8 96 10 96 10 65 12 28 19 98 19 62 18 80 12 89 10 83 9 93 10 14 9 51 8 31 8 36 8 50 7 18 6 67 6 92 7 02 6 44 6 43 6 59 6 69 6 23 5 42 5 16 5 31 5 08 5 12 5 47 6 05 6 54 5 50	\$ c. 63 65 70 76 80 82 88 97 1 07 97 76 63 55 54 53 51 47 446 43 37 36 36 36 34 33 31 30 29 29 28 28 27 28 28 29 31 30	

The values per head of the various classes on hand June 15th, 1928, were as follows:-

Horses: Stallions, \$323; mares, \$114.38; geldings, \$111.03; colt and fillies, \$64.15.

Cattle: Bulls, \$67.33; cows for beef purposes, \$62.49; yearlings for milk purposes, \$32.78; yearlings for beef purposes, \$32.48; calves, \$14.00; all other cattle, \$48.00.

Sheep and lambs: Ewes for breeding, \$13.35; one year old and over, \$13.79; under one year, \$8.48.

Swine: Brood sows, \$32.50.; six months old and over, \$17.36; under six months, \$6.71.

Poultry: Turkeys, six months old and over, \$4.07; under six months, \$1.00; geese, six months old and over, \$2.56; under six months, 83 cents; ducks, six months old and over, \$1.21; under six months, 39 cents; all other fowls, six months old and over, 97 cents; under six months, 28 cents.

VALUE OF FARM PROPERTY

LAND, BUILDINGS, IMPLEMENTS AND LIVE STOCK.

The following table gives the estimated values of farm land, farm buildings, implements (including vehicles) and live stock on hand on June 15th, for the years 1882 to 1928.

Years	Land	Buildings	Implements	Live Stock on hand	Total
	\$	\$	\$	\$	\$
1928	940,311,406	518,209,271	171,181,259	239,493,997	1,869,195,933
1927	906,811,595	506,981,024	168,842,552	230,813,620	1,813,448,791
1926	876,177,637	493,551,144	164,478,485	230,240,766	1,764,448,032
1925	879,212,498	490,027,751	164,188,030	233,160,274	1,766,588,553
1924	885,348,351	484,539,016	164,021,854	222,393,984	1,756,303,205
1923	904,659,633	480,260,117	163,033,141	222,026,255	1,769,979,146
1922	880,896,544	479,451,680	163,830,154	213,840,118	1,738,018,496
1921	851,300,059	484,188,897	159,913,871	218,123,685	1,713,526,512
1920	861,116,234	467,010,867	153,780,378	326,737,337	1,808,644,816
1919	848,767,153	426,649,086	137,310,618	339,607,932	1,752,334,789
1918	819,164,298	380,244,830	109,896,874	324,107,476	1,633,413,528
1917	807,426,986	370,384,055	104,581,053	289,676,977	1,572,069,071
1916	794,676,866	357,313,850	98,020,295	263,869,539	1,513,880,550
1915	794,393,564	352,628,031	95,049,350	254,982,332	1,497,053,277
1914	790,538,706	347,348,643	91,703,876	250,870,078	1,480,461,303
1913	782,993,853	345,303,335	89,702,273	237,591,885	1,455,591,346
1912	758,729,268	335,141,520	86,231,210	225,848,942	1,405,950,940
1911	723,902,419	317,876,963	84,969,426	214,720,424	1,341,469,232
1910	700,905,425	306,517,941	81,570,981	194,416,037	1,283,410,384
1909	680,789,629	297,690,826	77,790,754	184,747,900	1,241,019,109
1908	671,531,018	288,180,121	74,485,730	186,014,756	1,220,211,625
1907	674,505,427	284,672,238	72,910,875	189,484,132	1,221,572,672
1906	661,199,920	273,414,187	71,197,619	183,307,394	1,189,119,120
1905	649,201,364	264,384,514	68,629,546	172,483,760	1,154,699,184
1904	640,544,541	257,995,484	65,992,210	163,383,103	1,127,915,338
1903	620,869,475	247,629,153	63,996,190	154,327,267	1,086,822,085
1902	604,860,063	237,289,668	62,199,787	140,544,814	1,044,894,332
1901	585,354,294	226,575,228	59,897,513	129,496,261	1,001,323,296
1900	574,727,610	219,488,370	57,324,130	123,274,821	974,814,931
1899	563,271,777	213,440,281	54,994,857	115,806,445	947,513,360
1898	556,246,569	210,054,396	52,977,232	103,744,223	923,022,420
1897	554,054,552	206,090,159	51,299,098	93,649,804	905,093,613
1896	557,468,270	205,235,429	50,730,358	96,857,566	910,291,623
1895	572,938,472	204,148,670	50,944,385	103,958,047	931,989,574
1894	587,246,117	201,071,566	51,530,172	111,547,652	954,395,507
1893	602,664,361	200,189,888	51,435,919	116,070,902	970,361,070
1892	615,828,471	195,644,258	51,003,020	117,501,495	979,977,244
1891	621,245,223	191,268,327	50,651,442	108,721,076	971,886,068
1890	622,886,000	193,438,826	50,515,583	104,086,626	970,927,035
1889	632,329,433	192,464,237	51,685,706	105,731,288	982,210,664
1888	640,480,801 636,883,755	188,293,226	49,754,832	102,839,235	981,368,094
1887	648,009,828	184,753,507 183,748,212	49,248,297	104,406,655	975,292,214
1886 1885	626,422,024	182,477,905	50,530,936 48,569,725	107,208,935	989,497,911
1884	625,478,707	173,386,925	47,830,710	100,690,086 103,106,828	958,159,740
1883	654,793,025	163,030,675	43,522,530	103,100,828	949,803,170
1882	632,342,500	132,712,575	37,029,815	80,540,720	961,428,595
	002,012,000	104,114,313	31,049,013	00,340,720	882,625,610

PART II—CHATTEL MORTGAGES

Table showing by County Municipalities of Ontario the total number and amount of Chattel mortgages on record and undischarged on December 31st, for the years 1926, 1927 and 1928, together with totals for the Province for all occupations as well as for "farmers" as far as given in the records.

Counties and Districts	19	928	19	927	1926	
	No.	Amount	No.	Amount	No.	Amount
11	153	\$ 220,021	149	\$ 506	147	\$ 227.007
Algoma	257	339,021	202	323,506	178	337,997
Brant	174	150,721	188	144,805		166,497
Bruce	553	223,050 565,025	366	214,380 508,028	183 343	197,556
Carleton	242	320,420	357	374,586	263	618,448
Cochrane	73	104,315	76	99,063	63	268,610 64,726
	242	289,425	242	262,648	216	267,365
Elgin Essex	1.218	847,607	426	454,222	351	417,557
Frontenac	207	247,718	182	166,871	223	251,196
Grey	207	223,093	235	281,497	260	322,847
Haldimand	122	106,988	95	108,731	101	85,561
Haliburton	31	17,546	21	18,339	18	9,773
Halton	83	136,584	63	94,883	75	130,553
Hastings	335	473,615	345	437,129	312	514,195
Huron	151	169,235	123	154,750	143	166,125
Kenora	65	163,906	41	86,659	39	205,316
Kent	324	422,798	324	571,311	272	455,960
Lambton	173	235,561	151	235,294	166	322,791
Lanark	118	123,484	120	112,124	122	113,992
Leeds and Grenville	247	294,158	253	271,158	265	275,427
Lennox and Addington	116	302,048	113	297,615	113	298,698
Lincoln	167	197,007	147	221,116	137	237,864
Manitoulin	72	48,203	85	52,286	96	86,752
Middlesex	725	481,571	253	266,062	276	294,392
Muskoka	95	197,655	103	127,803	109	198,246
Nipissing	229	246,078	298	436,050	318	532,144
Norfolk	157	219,216	163	258,352	160	161,244
Northumberland and Durham	257	377,486	291	343,174	276	307,884
Ontario	237	250,553	165	206,594	164	198,307
Oxford	166	305,178	166	333,587	136	276,499
Parry Sound	172	163,039	169	163,831	167	150,283 92,225
Peel	61 170	80,220 214,959	59 160	87,064 201,366	75 142	152,495
Perth	160		153	173,901	152	181,315
Peterborough Prescott and Russell	279	133,428 318,556	254	306,898	223	226,817
Prince Edward	131	123,706	155	152,809	125	136,992
Rainy River	97	83,764	103		106	100,813
Renfrew	203	336,675	223	378,250	215	353,001
Simcoe	387	360,064	369		371	380,703
Stormont, Dundas & Glengarry	304	430,652	360		317	486,268
Sudbury	321	556,175	374		369	487,719
Thunder Bay	155	345,247	148		147	224,895
Timiskaming	203	431,903	331	315,431	349	267,280
Victoria	81	81,904	72	78,194	70	76,698
Waterloo	242	341,319	189		202	394,797
Welland	214	265,973	223	275,482	149	141,152
Wellington	185	227,417	177	223,472	178	288,617
Wentworth	729	851,204	448		443	1,671,458
York	3,489	2,817,333	2,242	1,880,238	1,544	1,762,091
Total:			4		46.01	4 11 2 6 2 4 4 4
	14,779	16,242,803	11,952	14,687,154	10,869	15,360,141
All occupations					1 2/1	4 1 ((= 40
All occupations	4,388 5,362	4,712,507 3,517,391	4,524	4,264,052	4,566 2,362	4,166,540 2,641,607

^{*}A number of these may be "farmers." One clerk reports that the solicitors in his district have not given the occupation of a single mortgagor, nearly every clerk reports a number of instruments as unclassified as to occupation. Certain finance corporations have adopted the practice of filing chattel mortgages instead of liens on automobiles. This is noticeable in Essex County where 733 of such instruments were filed in 1928 (included in unclassified).

Twenty-seventh Annual Report

OF THE

Temiskaming and Northern Ontario Railway Commission

ONTARIO GOVERNMENT RAILWAY

Hon. G. Howard Ferguson, Premier

For the Year Ending October 31st

1928

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO





To His Honour W. D. Ross, Esq.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present to Your Honour the Annual Report of the Temiskaming and Northern Ontario Railway Commission for the twelve months ended October 31st, 1928.

Respectfully submitted.

(Sgd.) G. HOWARD FERGUSON,

Prime Minister.

TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION

GEO. W. LEE	Chairman, North Bay
LTCOL, L. T. MARTIN	Vice-Chairman, Ottawa
COL. J. I. McLAREN	Commissioner, Hamilton
W. H. MAUNDSecreta	ry-Treasurer, North Bay

TEMISKAMING AND NORTHERN ONTARIO RAILWAY

I am privileged to record the termination of another year's successful operation of the Temiskaming and Northern Ontario Railway—one of the best in the history of the road—and to state that from present indications this condition promises to continue in 1929, due to the general prosperity of the country as a whole, and the gradual increasing expansion of the many business undertakings in that part of Northern Ontario tributary to and served by the railway.

The increase in revenue due to added traffic and economy in operation during the period is very encouraging considering the unfavourable weather conditions experienced during the winter months and the autumn of this year. During the latter period the abnormally heavy rainfall throughout the farming districts between North Bay and Cochrane resulted in severe loss to the farming community and settlers over a large area. In this connection a comprehensive measure of relief is now being considered by the Provincial Government in the form of public work to meet the exigencies of the occasion, and the T. & N.O. Railway is lending its assistance to this end by the purchase of railway ties from settlers along the right-of-way to the full extent of present and immediate future requirements.

The general increase of the railroad from a few miles in 1902 to approximately 600 miles of combined trackage in 1928, with a capital investment exceeding \$37,000,000—including the subsidiary the Nipissing Central Railway—shows the enormous increase in development and requirements of the territory served.

* * * * *

It is generally acknowledged that the functions of successful railroad operation comprise adequate service at reasonable cost, with sufficient facilities to meet the increasing needs of the commerce of the country served, and a policy of construction and extension in advance of settlement in order to provide for increasing development and expansion.

This has been the aim and determination of Commission for years past, and has proved eminently successful in Northern Ontario, which is constantly

opening up and advancing in many lines of endeavour.

In the meantime, transportation rates have been maintained at as low a cost as any railway in the Dominion.

The mining industry goes marching on; to-day's market valuation of the mines of the northland is 880 million dollars. Five years ago it was 260 million dollars and ten years ago 120 million dollars. Ten years is a short time in the life of an industry, and it is anticipated that the mineral output of the Province for 1928 will approximate 100 million dollars, of which sixty-nine millions will represent the metals. This includes the gold output of Northern Ontario estimated at thirty million dollars. The majority of the mines in Porcupine area continue to operate at normal capacity with probable increased output in the near future.

The mining area of Kirkland Lake has shown a wonderful increase in production during current year, averaging for two of the leading mines an increase of fifty per cent.

Dividend disbursement of the precious metals mines will probably aggregate \$12,600,000 for 1928, distributed Porcupine area \$7,000,000 and Kirkland Lake \$5,600,000—with dividends of over fifty-six million dollars paid to date.

Within a period of twenty-five years, the dividends declared and paid by the precious metals industry within the territory served by the T. & N.O. Railway—including 1928—will aggregate 185 million dollars.

* * * * *

The completion of the extension of the Temiskaming and Northern Ontario Railway—through its subsidiary the Nipissing Central Railway—in 1927 and the full operating service in current year from Cheminis into Rouyn, Quebec, has contributed largely to the further development and expansion of the mining operations of this copper-gold district, and new properties have been explored and opened up in consequence. A great deal of renewed activity is reported in adjoining fields including Desmoloizes Township in the north and Malartic Township in the east.

In October, 1928, a further extension of the line from Rouyn townsite to Noranda townsite was completed and opened for traffic, so that now the requirements in passenger and freight service of these two important points are fully

served, adding materially to the facilities of the area.

During 1928 the extension of the main line north of Cochrane was completed

for a further thirty miles and opened for local traffic.

From various sections of this part of the North, rumours have persisted for some time regarding the discovery of coal deposits indicated by out-croppings. This especially applies to the areas contingent to the Mattagami and Abitibi rivers. Announcement is made that these deposits are now undergoing their first large scale test at the Testing Laboratories of the Dominion Department of Mines at Ottawa. Samples were secured by Dr. W. J. Dyer, provincial geologist, at a point near Blacksmith's Rapids on the Abitibi. A full report will no doubt be soon forthcoming from the provincial authorities at Toronto as to physical properties, commercial values and best method of utilization, et al. Should these deposits be found over a considerable area, the discovery will be of primary importance to Northern Ontario and the Province generally.

In addition, it has been demonstrated that on the Moose river—fifteen miles north of Blacksmith Rapids—there are large deposits of gypsum of fine quality which outcrops for several miles along the Moose and nearby rivers, evidently underlying many square miles of territory. These deposits are in-

accessible at present, being about forty miles from rail-head.

The clays of the Moose river basin are said to be the best in the Province. The high grade clay deposits discovered along the Mattagami and Missinabi rivers are probably the most important, being suitable for the manufacture of china, earthenware goods—sewer pipe and other vitrified products—especially fire brick, floor tiling, etc.

Certain geological formations in the Moose river basin are noted by Dr. Dyer as being similar to those in southwestern Ontario, New York, Ohio, Indiana and other oil-bearing states, indicating the possibility of oil and gas within

this section.

* * * * * *

In February of this year Commission were successful in floating a bond issue for \$6,000,000, instalment debertures, in New York and Toronto, at a price of \$96.632, a basis of 4.21 per cent. These were issued under authority of Section 27 of the T. & N.O. Railway Act, Revised Statutes, chapter 53, under which Commission are authorized to borrow moneys from time to time for

railroad construction purposes, rolling stock, etc.; also for similar purposes to finance its subsidiary, the Nipissing Central Railway.

These bonds bear the guarantee of the Provincial Government as to principal

and interest.

These bonds brought the highest price yet realized for borrowing under such guarantee in many years, and this reflects highly upon the nature of the security behind the issue.

* * * * * *

Due to the policy of increased branch line construction and main line extension, the mining, farming, lumber and general industries served have been brought into close proximity with the financial and business centres of Canada and the United States. All-steel trains of most modern construction and operation maintain a daily service over the entire system to meet the requirements of the travelling public to the fullest extent; and the consequent ease and comfort of travel have materially contributed to the general prosperity of the territory served.

With the expressed hope and belief that the advancement of Northern Ontario will continue as widely in all lines of endeavour as heretofore, the Temiskaming and Northern Ontario Railway stands prepared, as always, to continue its policy of extension and expansion, whenever necessary, to meet the growing

needs of the territory and Province generally.

I am pleased to record that the results of operation of the Temiskaming and Northern Ontario Railway during the fiscal year 1928 have been very successful, showing increased gross revenue in all departments.

Compared with 1927, the accounts are as follows:

Revenue—Transportation	1928 \$4,993,274 01 345,984 07	1927 \$4,857,760 91 294,770 82
Increase, 1928 (3.62 per cent.)	\$5,339,258 08	\$5,152,531 73 186,726 35
Expenditure—OperatingOther Expenditures	\$3,822,252 91 313,875 71	\$3,735,496 13 205,455 18
Increase, 1928 (4.95 per cent.)	\$4,136,128 62	\$3,940,951 31 195,177 31
Net Earnings	\$1,203,129 46 8,450 96	\$1,211,580 42

The gross revenue from all sources in 1928 shows a gain of \$186,726.35 (3.62 per cent.) as compared with 1927, and gross expenditures an increase of \$195,177.31 (4.95 per cent.), resulting in a decreased net revenue of \$8,450.96 (0.7 per cent.), as compared with preceding fiscal year.

The reduction in net revenue is directly attributable to certain extraordinary expenses and charges arising in current year which had no counterpart

in 1927.

Due to the unprecedented heavy snowfall during winter months, with quick break-up and resulting floods in the spring, accompanied by excessive rainfall at that time and in autumn months, expenditures amounting to \$77,392.42 were incurred in necessary bridge repairs, culvert replacement, rock slide removal and washout replacements at many points on main line and branches.

A further disbursement was that of interest charges maturing on Com-

mission's Debenture Bond Issue, amounting to \$51,559.65.

Schedule wage increases involved an additional amount of \$36,334.25, while a donation to the Research Foundation Fund amounted to \$10,000 and the necessary work on the property deeded by the Commission to the City of North Bay and known as "Lee Park" accounted for the sum of \$6,834.09—a total disbursement approximating \$182,000 over and above the ordinary charges.

During the past year insurance against loss by fire has been carried in the

sum of \$3,418,350.

In conclusion, I am pleased to record that the railway is in excellent financial and physical condition.

GEO. W. LEE, Chairman.

North Bay, Ont.

AUDITORS' REPORT

EDWARDS, MORGAN & COMPANY TORONTO, ONTARIO

December 22nd, 1928.

GEORGE W. LEE, Esq.,
Chairman, Temiskaming and Northern Ontario
Railway Commission,
North Bay, Ontario.

Dear Sir:

Acting under instructions from the Commissioners, we have conducted an audit of the Treasurer's accounts for the year ending October 31st, 1928, and have satisfied ourselves that all receipts have been properly accounted for, and that satisfactory vouchers are on hand to cover disbursements. We have checked the balances in the hands of the Treasurer and find them to be in agreement with the accounts as shown by the general ledger.

The accounts of the Treasurer are in good order and well kept. All information asked for has been cheerfully given. We also wish to acknowledge the courtesies of the Commission and its employees at all times.

Yours very truly,

(Sgd.) EDWARDS, MORGAN & COMPANY

TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION

Mileage operated at the close of the fiscal year was as follows:

Main Line:	Miles	Miles
MAIN LINE: North Bay to Cochrane Cochrane to Island Falls Junction	252.29 43.00	295.29
Branch Lines: Lorrain Branch. Elk Lake Branch. Charlton Branch. Iroquois Falls Branch. Porcupine Branch.	17.00 28.50 7.60 7.00 33.11	93 21
OTHER TRACKS: Yard Tracks and Sidings. Liskeard Spur. Mattagami Rivef Spur. Kerr Lake Spur. Double Track.	106.99 1.12 2.96 1.25 1.70	93.21
Private Sidings Operated by Railway: Private Siding Agreement Owned by Private Companies	18.83	114.02
Total Mileage Operated		522.19
SIDINGS OPERATED BY PRIVATE COMPANIES: Private Siding Agreement		7.12
LEASED TO NIPISSING CENTRAL RAILWAY: Main Track. Sidings.	5.85 1.14	6.99
Total Mileage		536.30

PURCHASING AND STORES DEPARTMENT

Statement of Purchases and Issues, Fiscal Year, 1927-1928

Stock	19	27	1928		
Shop Soft Coal. Hard Coal. Oil and Waste. Stationery. Rail. Tie. Ice.	Purchases \$762,965 08 585,730 96 17,715 47 30,591 86 32,029 52 353,835 37 168,973 87 10,606 64	Issues \$799,552 92 604,804 45 19,215 43 30,463 71 31,153 68 303,179 00 237,536 68 12,057 20	Purchases \$612,649 80 632,550 32 24,164 95 34,191 40 34,293 05 173,668 60 176,622 87 10,886 87	Issues \$608,061 46 649,599 51 21,991 20 31,626 85 34,077 03 245,414 80 153,197 26 9,946 95	
	\$1,962,448 77	\$2,037,963 07	\$1,699,027 86	\$1,753,915 06	
Total Purchases			\$1,699,027 86 1,753,915 06		
	\$4,000,411 84		\$3,452,942 92		

GENERAL BALANCE SHEET, OCTOBER 31st, 1928

			(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
Property Owned: Cost of Road\$27,565	\$27,569,306,33		Liabilities	\$30,207,934 92
:		\$32,668,426 77	Long Term Debt: Funded Debt Unmatured	00 000,000,9
	\$380,665 10 237,291 38 10,305 52		car Service	0000
	27,808 83 310,195 36 40,920 75 812,183 32 49,249 76 295 76		\$1,009,579 73	1,500,543 53
Deferred Assets: Pension Department Unadjusted Debits: Surveys. Insurance Premiums paid in Advance. Treasurer's Advance.	\$37,816 08 1,628 25 250 00	1,868,915 84	33.17	,010,862 90 298,476 42
	1,207 35	242,927 68		
		\$39,521,229 24	\$39,	\$39,521,229 24
		Profit a	Profit and Loss	
Profit and Loss on Retired Road and Equipment. Townsites. Doubtful Accounts. Unclaimed Wages. Paid Treasurer of Ontario. Balance Carried Forward.		\$182,000 00 1,345 55 1,442 15 595 20 1,300,000 00 298,476 42	By Balance—October 31st, 1927	\$580,718 91 1,203,129 46 10.95
		\$1,783,859 32	81	\$1,783,859 32

COMPARATIVE STATEMENT OF EARNINGS, EXPENDITURES AND RESULT OF OPERATION, NOVEMBER 1st, 1926, TO OCTOBER 31st, 1928

Revenue	Nov. 1st, 1927, to Oct. 31st, 1928	Nov. 1st, 1926, to Oct. 31st, 1927
Transportation	\$ c.	\$ c.
101. Freight	. 3,437,452 26	3,336,174 25
102. Passenger. 103. Excess baggage.		1,248,100 25 11,688 85
105. Parlour and chair car	. 3,017 95	3,195 45
106. Mail		56,311 95 177,552 22
109. Milk.	. 184,861 56 . 1,946 25	1,920 83
110. Switching	. 14.787 77	18,954 51
111. Special Service Train	565 77	2,675 00 1,187 60
Total	4,993,274 01	4,857,760 91
INCIDENTAL		
131. Dining and buffet	44,382 45	40,235 70
133. Station, train and boat privileges	24,171 00 2,742 94	24,171 00
135. Storage—freight. 136. Storage—baggage.	779 35	2,305 96 859 90
137. Demurrage	9,013 61	8,173 00
138. Telegraph and telephone	237,894 47 20,937 75	193,992 30 20,943 05
143. Miscellaneous.	6,062 50	4,089 91
Total	345,984 07	294,770 82
JOINT FACILITY		
152. Joint facility—Dr	203 97	403 42
Total	203 97	403 42
Total Revenue	5,339,054 11	5,152,128 31
Expenditures		
Maintenance of way and structures	916,619 47	919,374 22
Maintenance of equipment	763,884 66 32,449 69	785,843 79 27,960 52
Transportation	1,770,146 53	1,690,827 38
Miscellaneous operations	135,529 43	120,507 16
GeneralTransportation for investment—Cr	211,082 76 7,459 63	195,823 35 4,840 29
Total Operating Expenses.	3,822,252 91	3,735,496 13
Balance	1,516,801 20	1,416,632 18
Ore royalties	Dr. 4,853 21	Dr. 4,305 45
Hire of freight cars	Dr. 210,902 89	Dr. 192,219 92
Rent—locomotives	13,211 17	11,302 78
Rent—passenger-train cars	7,924 99 14,537 83	2,989 62 18,159 08
Joint facility rent income	29,789 81	25,051 72
Joint facility rents	Dr. 4,175 50 2,554 15	Dr. 4,137 48 6,129 96
Interest and exchange	Dr. 37,461 67	Dr. 68,329 77
Interest—funded debt	Dr. 119,989 42	
Amortization of discount—funded debt	Dr. 4,439 95 132 95	307 70
Total	Dr. 313,671 74	Dr. 205,051 76
Net Result	1,203,129 46	1,211,580 42

	Maintenance of Way and	Structures	
		Nov. 1st, 1927, to Oct. 31st, 1928	Nov. 1st, 1926, to Oct. 31st, 1927
201. 202. 208. 212. 214. 216. 218. 220. 221. 223. 225.	Superintendence. Roadway maintenance. Bridges, trestles and culverts. Ties. Rails. Other track material. Ballast. Track-laying and surfacing. Right-of-way fences. Snow and sand fences and snowsheds. Crossings and signs.	117,971 31 59,778 14 108,339 32 127,790 49 48,785 01 245 88 209,149 51 2,627 44	\$ c. 30,826 17 106,187 27 25,305 30 123,878 94 133,935 40 44,280 53 19,459 51 247,848 40 5,561 17
227. 229. 231. 233. 235. 247. 249.	Station and office buildings. Roadway buildings. Water stations Fuel stations. Shops and engine houses. Telegraph and telephone lines. Signals and interlockers.	33,798 07 4,971 09 13,220 75 1,969 18 21,203 54 10,203 19	43,834 17 6,077 92 8,206 79 2,615 66 20,478 31 11,626 01 46
253. 257. 259. 261. 265. 269. 271. 272.	Power plant buildings. Power transmission systems. Power distribution systems. Power line poles and fixtures. Miscellaneous structures. Roadway machines. Small tools and supplies. Removing snow, ice and sand.	229 53 53 50 114 70 10,275 77 12,449 62 107,793 34	318 08 110 48 775 29 27 00 21 88 9,191 75 10,463 62 75,948 38
273. 274. 275. 276. 277. 278.	Assessments for public improvements. Injuries to persons. Insurance. Stationery and printing. Other expenses. Maintaining joint tracks, yards and other facilities—Dr.	7,841 83 6,421 58 1,485 44 568 95	4,544 93 6,480 62 1,779 98 1,202 85
279. 280. 280.	Maintaining joint tracks, yards and other facilities—Cr	27,700 29 350,933 85 350,933 85	28,224 47 428,735 66 428,735 66
	Total	916,619 47 ment	919,374 22 Nov. 1st. 1926, to

	Traffic		
	Time	Nov. 1st, 1927, to Oct. 31st, 1928	Nov. 1st, 1926, to Oct. 31st, 1927
351.	Superintendence	\$ c. 13,456 38	\$ c. 13,351 00
352.	Outside agencies	4,596 04	2,280 73
353. 354.	Advertising		7,709 64
356.	Traffic associations		1,261 50 30 00
358.	Stationery and printing		3,327 65
	Total	32,449 69	27,960 52
	TRANSPORTATION		
		Nov. 1st, 1927, to	Nov. 1st, 1926, to
		Oct. 31st, 1928	Oct. 31st, 1927
371.	Superintendence	\$ c. 28,678 35	\$ c. 28,821 26
372.	Dispatching trains.		24,540 00
373.	Station employees		304,658 80
374.	Weighing, inspection and demurrage bureaus	1,085 10	1,064 02
376.	Station supplies and expenses	37,672 52	35,755 51
377. 378.	Yardmasters and yard clerks		46,796 98 63,042 03
379.	Yard switch and signal tenders.		3,682 39
380.	Yard enginemen	43,149 22	41,237 57
382.	Fuel for yard locomotives		50,004 47
385. 386.	Water for yard locomotivesLubricants for yard locomotives	1,684 78 427 69	1,591 53 402 91
387.	Other supplies for yard locomotives		351 05
388.	Enginehouse expenses—yard		25,170 91
389.	Yard supplies and expenses	1,494 51	1,523 39
390. 391.	Operating joint yards and terminals—Dr		2,464 00
391.	Operating joint yards and terminals—Cr Train enginemen		131,198 50 237,771 53
394.	Fuel for train locomotives		437,770 53
396.	Train power purchased		30 68
397.	Water for train locomotives	27,652 42	27,554 98
398. 399.	Lubricants for train locomotives Other supplies for train locomotives	6,059 09 5,323 47	5,995 92 5,149 14
400.	Enginehouse expenses—train		80,833 84
401.	Trainmen	281,637 82	277,348 10
402.	Train supplies and expenses		81,782 98
405. 410.	Crossing protection		1,355 09 17,873 5 4
411.	Other expenses.	77 63	Cr. 57 62
413.	Operating joint tracks and facilities—Cr	300 00	300 00
414.	Insurance	2,764 47	2,848 83
415. 416.	Clearing wrecks.	10,775 55 461 28	2,410 78 293 94
417.	Damage to live stock on right-of-way		379 41
418.	Loss and damage—freight		3,324 90
419.	Loss and damage—baggage	90 00	8 13
420.	Injuries to persons	12,053 28	8,544 36
	Total	1,770,146 53	1,690,827 38
	Missalianeaus Ones	tions	
	Miscellaneous Opera		No. 1-4 1027
		Nov. 1st, 1927, to Oct. 31st, 1928	Nov. 1st, 1926, to Oct. 31st, 1927
1.1.1	Dining and huffet service	\$ c.	\$ c.
441. 447.	Dining and buffet service	45,002 27 9,838 28	42,469 10 10,141 43
448.	Commercial telegraph—operation	31,877 72	27,629 24
449.	Commercial telephone—maintenance	12,032 53	10,230 21
450.	Commercial telephone—operation	. 36,778 63	30,037 18
	Total	135,529 43	120,507 16

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	General			
		Nov. 1st, 1927,	to	Nov. 1st, 1926, to
		Oct. 31st, 192	8	Oct. 31st, 1927
		\$	C.	\$ c.
451.	Salaries and expenses of general officers	58,743	31	58,277 63
452.	Salaries and expenses of clerks and attendants	105,013	92	105,179 29
453.	General office supplies and expenses	4,947	28	4,390 87
454.	Law expenses.	4,808	00	4,815 00
455.	Insurance	136	50	244 99
457.	Pensions	12,004	89	12,000 00
458.		6,137	67	5,740 20
460.	Other expenses	19,888	71	5,942 69
462.	General joint facilities—Cr	597	52	767 32
	Total	211,082	76	195,823 35

NIPISSING CENTRAL RAILWAY COMPANY

Mileage Operated at the Close of the Fiscal Year 1928

	Electric Lines		
Owned by Company:		Miles	Miles
Main track	• • • • • • • • • • • • • • • • • • • •	4.92	
Sidings	••••	1.79	
I I C TD O NI	O D 1		6.71
Leased from T. & N.		7 05	
		5.85	
Sidings		1.13	6 00
			6.98
			13.69
	Steam Lines		13.09
Main track, Swastika	to Noranda, Que	59.74	
Sidings and yard track	ks	9.41	
D			69.15
Private sidings under	siding agreement	1.28	
Private sidings private	ely owned	0.35	
			1.63
			70.78
			10.78
	Electric lines		
	Steam lines		
	——		
	Total84.47 miles		
	The state of the s		

NIPISSING CENTRAL RAILWAY COMPANY

PURCHASING AND STORES DEPARTMENT

Statement of Purchases and Issues, Fiscal Year, 1927-1928

Stocks	1927		1928		
Various stocks	Purchases \$8,736 47	Issues \$192,705 47	Purchases \$10,201 08	Issues \$9,341 77	
Total purchases	\$8,736 47 192,705 47		\$10,201 08 9,341 77		
	\$201,441 94		\$19,542 85		

NIPISSING CENTRAL RAILWAY General Balance Sheet, October 31st, 1928

Assets		Liabilities	
Cost of equipment	\$2 371 065 11	Capital Stock. \$159,00 T. & N.O. Railway—advance. 2,417,1.	\$159,000 00 2,417,132 40
Current Assets: Cash	11 CON 11		259,658 10
Unadjusted Debits: Insurance premiums paid in advance	41 54		
Other Assets: Franchise	387,851 01		
(d)	\$2,835,790 50	\$2,835,790 50	,790 50
	Profit a	Profit and Loss	
To balance, October 31st, 1927 Profit and loss on retired road and equipment Result operation for fiscal year ended October 31st, 1928. Steam lines—deficit \$49,121 06 Electric lines—deficit	\$292,785 79 14,826 88 80,454 09	Townsites \$2. By balance, October 31st, 1928 387,8	\$216 75 387,850 01
	\$388,066 76	\$388,00	\$388,066 76

COMPARATIVE STATEMENT OF EARNINGS AND EXPENDITURES, AND RESULT OF OPERATION, NOVEMBER 1st, 1926, TO OCTOBER 31st, 1928

STEAM LINES

REVENUE TRANSPORTATION 101. Freight. 102. Passenger 103. Excess baggage. 106. Mail 109. Milk. 110. Switching 111. Special service train. Total.	Nov. 1st, 1927, to Oct. 31st, 1928 \$ c. 114,286 89 87,077 54 802 80 1,431 32 263 28 259 89 	Nov. 1st, 1926, to Oct. 31st, 1927 \$ c. 60,689 21 35,248 15 200 60 621 28 119 52 75 00 96,953 76
INCIDENTAL 135. Storage, freight	1,371 17 241 55 2,832 00 2,078 35 784 95 7,308 02 211,429 74	435 80 44 05 1,821 77 720 60 63 00 3,085 22 100,038 98
EXPENDITURES Maintenance of way and structures. Maintenance of Equipment. Traffic. Transportation. General. Transportation for Investment—Cr. Total Operating Expenses. BALANCE.	58,131 92 20,424 06 493 46 143,173 15 103 06 255 24 222,070 41 Dr. 10,640 67	26,109 37 8,629 96 36 40 79,591 14 71 56 17 80 114,420 63 Dr. 14,381 65
OTHER INCOME Hire of freight cars. Rent, locomotives. Rent, passenger train cars. Miscellaneous rents. Miscellaneous income. Total. NET RESULT.	Dr. 33,678 05 Dr. 2,729 15 Dr. 1,961 19 Dr. 120 00 8 00 Dr. 38,480 39 Dr. 49,121 06	Dr. 19,063 45 Dr. 1,295 80 Dr. 3,692 69 Dr. 120 00 5 00 Dr. 24,166 94 Dr. 38,548 59

COMPARATIVE STATEMENT OF EARNINGS AND EXPENDITURES, AND RESULT OF OPERATION, NOVEMBER 1st, 1926, TO OCTOBER 31st, 1928

ELECTRIC LINES

ELECTRIC LINES	3		
RECEIPTS			
1.—Revenue from Transportation—	Nov. 1st, 1927, to Oct. 31st, 1928	Nov. 1st, 1926, to Oct. 31st, 1927	
101. Passenger revenue	53,070 22	59,237 98	
102. Baggage revenue	951 60	1,407 25	
103. Parlor, sleeping, dining and special car revenue 108. Switching revenue	42 00 5,138 35	237 00 5,047 03	
Total	59,202 17	65,929 26	
11.—REVENUE FROM OTHER RAILWAY OPERATIONS-			
110. Station and car privileges	500 00	500 00	
113. Demurrage	435 00 563 00	1,078 00 601 00	
119. Miscellaneous	21 21	51 15	
Total	1,519 21	2,230 15	
Total Revenue	60,721 38	68,159 41	
Total Nevenue		00,107 11	
EXPENDITURES			
I. Way and structures	22,603 35	10,753 60	
II. Equipment	19,528 81	17,410 37	
III. Power	15,592 96 23,468 06	15,582 15 24,222 75	
IV. Conducting transportation	4,803 53	2,964 30	
Total Operating Expenses	85,996 71	70,933 17	
BALANCE	Dr. 25,275 33	Dr. 2,773 76	
Deductions from Income—			
Interest	3,503 55	8,274 61	
Rent for leased road	2,554 15	6,129 96	
Total	6,057 70	14,404 57	
Net Result	Dr. 31,333 03	Dr. 17,178 33	
Way and Structures			
	Nov. 1st, 1927, to	Nov. 1st, 1926, to	
	Oct. 31st, 1928	Oct .31st, 1927	
	\$ c.	\$ C.	
1. Superintendence of way and structures		178 84 186 90	
2. Ballast	143 40 4,070 25	1,210 11	
4. Rails	1,562 27	587 59	
5. Rail fastenings and joints	107 33	104 83	
6. Special work	47 88	47 88	
8. Track and roadway labour	6,920 90	4,530 90 111 78	
Miscellaneous track and roadway expenses Paving		111 76	
12. Removal of snow and ice.		2,797 03	
15. Bridges, trestles and culverts	709 58	71 04	
16. Crossings, fences and signs		200 23 67 92	
18. Telephone and telegraph lines		5 86	
22. Distribution system		519 15	
24. Buildings, fixtures and grounds	400 04	133 54	
Total	22,603 35	10,753 60	

Equipment

29. 30. 32. 33. 34. 36. 37. 41.	Superintendence of equipment Passenger and combination cars. Service equipment Electric equipment of cars. Locomotives. Shop equipment. Shop expenses. Equipment retired.	167 55 2,763 38 1,520 24 50 02 8 45 11,496 62	Nov. 1st, 1926, to Oct. 31st, 1927 \$ c. 518 87 3,440 88 127 23 1,946 17 134 92 4 35 20 45 11,217 50
45. 47. 48. 57. 59.	Superintendence of power. Power plant equipment. Substation equipment. Substation employees. Power purchased. Total.	12 12 108 11 2,776 73 12,456 00	Nov. 1st, 1926, to Oct. 31st, 1927 \$ c. 240 00 138 23 2,804 92 12,399 00 15,582 15
	Conducting Transpor	Nov. 1st, 1927, to Oct. 31st, 1928	Nov. 1st, 1926, to Oct. 31st, 1927

		Nov. 1st, 1927, to Oct. 31st, 1928	
63.	Superintendence of transportation	1.042 05	1,086 45
64.	Passenger conductors, motormen and trainmen		14,477 65
65.	Freight and express conductors, motormen and		11,177
	trainmen		4,224 60
66.	Miscellaneous car service employees		
	Miscellaneous car service expenses	1,101 72	1,249 68
69.	Station expenses	539 03	692 79
70.	Carhouse employees	1,739 23	1,529 31
71.	Carhouse expenses	372 17	738 13
78.	Other transportation expenses		224 14
	Total	23,468 06	24,222 75

General and Miscellaneous

84. 85. 86. 89. 92. 93. 94.	Salaries and expenses of general officers Salaries and expenses of general office clerks General office supplies and expenses. Law expenses	Nov. 1st, 1927, to Oct. 31st, 1928 \$ c. 4 00 872 31 96 12 1,868 36 52 00 425 73 490 79 293 32 600 00 100 90	\$ c. 4 00 840 00 125 20 2 00 373 60 530 45 303 05 600 00 186 00
	Total	4,803 53	2,964 30







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