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DEPARTMENT
OF
MILITIA AND DEFENCE
FOR THE
DOMINION OF CANADA
REPORT
FOR THE YEAR ENDED DECEMBER
1902

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

PRINTED BY S. E. DAWSON, PRINTER TO THE KING'S MOST
EXCELLENT MAJESTY

1903

To His Excellency the Right Honourable Sir Gilbert John Elliot, Earl of Minto and Viscount Melgund of Melgund, County of Forfar, in the Peerage of the United Kingdom, Baron Minto of Minto, County of Roxburgh, in the Peerage of Great Britain, one of His Majesty's Most Honourable Privy Council, Baronet of Nova Scotia, Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George, &c., &c., Governor General of Canada, &c., &c.

MAY IT PLEASE YOUR EXCELLENCY—

I have the honour to forward to Your Excellency the accompanying Report of the Department of Militia and Defence of the Dominion of Canada for the year ended December 31, 1902, which is submitted.

respectfully
I have the honour to be, My Lord,

Your Excellency's most obedient servant,

F. W. BORDEN,
Minister of Militia and Defence.

DEPARTMENT OF MILITIA AND DEFENCE,
OTTAWA, March 12, 1903.

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PART I
REPORT
OF THE
DEPUTY MINISTER

DEPARTMENT OF MILITIA AND DEFENCE,
OTTAWA, March 10, 1903.

The Honourable Sir F. W. BORDEN, K.C.M.G.,
Minister of Militia and Defence.

SIR,—I have the honour to submit the undermentioned reports in relation to the work of the Department during the year ended June 30, 1902 :—

1. The report of the Accountant showing Financial Statement for the fiscal year ended June 30, 1902. Also a Comparative Statement of Expenditure and Revenue for the nine years beginning with 1893-4.

2. The Report of the Chief Superintendent of Military Stores ; in this Report there are many important suggestions and recommendations.

3. The Report of the Chief Engineer of the Department respecting the work done under the supervision of the Engineer Branch.

4. The Report of the Superintendent of the Dominion Arsenal. In connection therewith it may be stated that arrangements have been completed to increase the annual output of ball ammunition to three times the quantity manufactured yearly heretofore.

5. The Report of the General Officer Commanding the Militia with appendices respecting the Active Militia and the Permanent Force, and the Report of the Commandant of the Royal Military College for the calendar year 1902.

I have the honour to be, sir,
Your obedient servant,

L. F. PINAULT, Colonel,
Deputy Minister of Militia and Defence.

APPENDIX I

TO THE

REPORT OF THE DEPUTY MINISTER

OF

MILITIA AND DEFENCE

DEPARTMENT OF MILITIA AND DEFENCE,

OTTAWA, December 30, 1902.

The Deputy Minister Militia and Defence.

SIR,—I have the honour to submit the statement of expenditure and revenue for the year 1901-2.

I also submit as an appendix a comparative statement of expenditure and revenue for the nine years beginning with 1893-4, this being the first year the appropriations were voted by Parliament under these headings.

I have the honour to be, sir,

Your obedient servant,

J. W. BORDEN,

Accountant.

FINANCIAL Statement for the Year ended June 30, 1902.

VOTES FOR MILITIA SERVICES, 1901-1902.		EXPENDED.	
		\$	cts.
By Statute—			
	Pay of General Officer, Adjutant General and Quartermaster General.....	11,200	00
By Vote—			
	Pay of Staff, Permanent Corps and Active Militia, including allowance	358,754	49
	Halifax Provisional Garrison.....	254,961	73
	Annual Drill of the Militia.....	315,157	96
	" Royal tour.....	214,467	07
	Salaries and wages of civil employees.....	93,956	11
	Military properties, works and buildings.....	268,545	08
	Warlike and other stores.....	99,079	10
	Clothing and necessaries.....	224,805	31
	Provisions, supplies and remounts.....	129,693	78
	Transport and freight.....	39,307	68
	Grants in aid of Artillery and Rifle Associations and Bands and Military Institutes... ..	39,950	00
	Miscellaneous and unforeseen contingencies.....	26,483	67
	Royal Military College of Canada.....	81,912	28
	Monuments—Battlefields of Canada (Eccles Hill).....	400	00
	Dominion Arsenal.....	207,614	37
	Defences, Esquimalt, B.C.....	115,544	91
	Capital Account—Arms, Ammunition and Defences.....	224,735	83
	" Rifle Ranges.....	74,961	60
	Claims for compensation—		
	Lieut.-Col. W. G. Hurdman.....	779	64
	Damages caused by snowslide at Quebec.....	250	00
	W. Lamb.....	90	00
	Lands expropriated for work Pt. Bks., Esquimalt.....	6,887	03
	Widow of J. W. Proctor.....	90	00
	Special Service—South Africa.....	97,310	21
	Coronation Contingent.....	29,972	76
	Medals.....	7,387	91
	Pan-American Exhibition.....	1,899	42
	Total.....	2,914,997	94
	<i>Pensions.</i>		
By Vote—			
	Pensions—Militia, Rebellion, 1885, and general.....	18,316	92
	" " Fenian Raid, &c.....	2,261	06
By Statute—			
	Pensions—Militia, Upper Canada, Rebellion of 1837-38.....	600	00
	Total.....	21,177	98

REVENUE.

	\$	cts.	\$	cts.
Casual.....			1,820	95
Ammunition, Stores and Clothing.....	10,146	71		
Rents.....	4,749	26		
Miscellaneous.....	3,617	44		
Royal Military College.....			18,513	41
			23,229	71
Total.....			43,564	07

Certified correct,
J. W. BORDEN
Accountant.

COMPARATIVE STATEMENT of Expenditure from July 1, 1893, when the Appropriations were first arranged under these headings to June 30, 1902.

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Pay of Headquarters and District Staff	37,569	39,462	39,927	41,353	38,592	39,525	41,769	41,063	44,203
Pay of Permanent Force, including officers, n. c. o. and men attached for instruction	243,205	266,832	246,650	256,476	251,103	225,715	197,655	248,639	270,028
Allowances for care of arms, drill instruction and postage to Active Militia	64,717	57,484	63,525	63,280	77,876	74,556	99,603	70,882	51,746
Annual Drill, including supplies and transport in connection	211,614	282,793	100,637	430,168	299,628	422,553	424,991	454,357	529,525
Salaries and wages of civil employees	51,042	67,833	62,999	67,868	65,420	68,994	70,000	86,495	93,056
Military properties, maintenance	28,065	30,231	31,450	39,101	33,447	34,819	39,980	39,203	47,760
" construction and repairs	62,918	97,126	71,533	73,491	66,453	62,114	118,704	191,858	220,785
" rifle ranges	7,000				14,659	69,949	96,949	76,104	74,961
Warlike and other stores	59,382	51,099	30,994	50,427	46,868	79,084	58,087	85,171	99,079
Clothing and necessaries for Permanent Force and Active Militia	73,982	114,993	55,184	232,167	87,344	193,978	185,079	209,657	124,805
Provisions and supplies for permanent force	146,483	151,614	120,327	115,899	119,911	109,973	117,934	121,790	129,694
Transport and freight	30,350	39,844	37,483	43,998	39,976	44,970	39,863	39,824	39,308
*Grants to rifle associations and bands	35,550	34,675	34,555	39,950	35,000	42,425	36,942	36,035	39,950
Royal Military College	68,022	64,569	62,102	59,616	58,282	65,395	69,230	72,520	81,912
Dominion arsenal	33,077	53,594	38,770	58,492	72,882	84,276	102,952	110,783	207,614
Arms and ammunition	16,156	68,083	1,000,000	745,965	173,740	393,688	161,498	131,551	224,736
Gratuities and compensations	20,473	1,000	2,673	5,158	42,915	28,018	2,574	5,411	1,210
Yukon, expenditure for troops	14,418	25,381	16,012	45,123	99,976	387,763	173,266	14,321	.....
Miscellaneous small votes and contingencies	73,394	127,500	121,892	43,119	44,899	44,670	12,989	38,725	70,122
Defences of Esquimaut					19,342	35,361	28,872	128,140	122,432
†Special service, South Africa							1,427,562	558,811	97,310
Halifax Provisional Garrison							118,265	349,871	254,961
Total	1,284,517	1,574,113	2,136,713	2,413,651	1,688,213	2,500,635	3,624,653	3,106,241	2,926,197
Total of expenditure under last three headings, this being of an Imperial nature	78,394	127,500	121,892	45,119	44,899	44,670	1,558,756	1,036,822	474,703
1812-15	210	110	60	.....	.....	.....	.....	.....	.....
1837-38	2,680	1,800	1,760	1,520	1,480	1,520	840	800	600
Fennan Reid	3,038	2,984	2,892	2,894	2,871	2,583	2,339	2,339	2,261
<i>Pensions Paid.</i>									

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North-west Rebellion	20,081	19,366	19,202	18,864	18,918	18,712	18,571	18,103	18,317
Total	25,409	24,270	23,914	23,278	23,269	22,815	21,750	21,242	21,178
<i>Revenue Received.</i>									
Militia	20,110	20,171	22,835	23,840	21,033	51,429	26,291	25,638	18,513
Casual	80	1,839	1,103	128	401	961	2,120	37,777	1,821
Royal Military College.....	22,417	19,274	19,882	16,523	15,884	21,536	21,464	22,036	23,230
Total	42,607	41,284	43,820	40,491	37,318	73,926	49,875	85,471	43,564

* The distribution of free ammunition began with 1901-2.

+ About \$90,000 of this to be repaid by the Imperial Government, being for Imperial war gratuities and pay issued by the Department.

Certified correct,

J. W. BORDEN,
Accountant.

APPENDIX 2

TO THE

REPORT OF THE DEPUTY MINISTER

OF

MILITIA AND DEFENCE.

REPORT OF THE CHIEF SUPERINTENDENT OF STORES.

The Branch of the Department under my supervision, has, during the past year, proved itself equal to the demands made upon it. I am not aware of any complaints.

The duties of the several out-stations have been satisfactorily performed. I have much pleasure in testifying to the zeal and attention of the Superintendents of Stores and employees generally.

During the first half of the year extra duty was performed in fitting out contingents. In January nearly 1,000 men for the 2nd Regiment, C.M.R. and 10th Field Hospital, and in April and May, the 3rd, 4th, 5th and 6th Regiments, C.M.R. aggregating over 2,000 men for service in South Africa and subsequently the Coronation contingent in the month of June.

The usual issues of Camp Equipment were made. In June to Cavalry and Artillery at Niagara, Deseronto, Kingston and Three Rivers, and in September and October to Artillery and Infantry at Niagara, Deseronto, Three Rivers, St. John, N.B. and Sussex. With reference to issues for camps the following suggestions are offered:—

1. That a regular scale of issues be drawn up which must be adhered to when making demands. Heretofore requisitions have been submitted for articles which were far in excess of possible requirements. Over-issues cause unnecessary expense for freight and cartage, unnecessary wear and tear of material, and extra labour in handling by employees at a time when they have more than enough to do in carrying out ordinary details.

2. That proper arrangements be made for receiving and returning Camp Equipment by the troops on arrival and at breaking up of camp. The custom followed at present, is most unsatisfactory, only leads to irregularities and consequent worry and annoyance to all concerned.

3. That instructions issue that Camp Equipment is only to be used for the purpose for which drawn from store.

A switch or siding on the Intercolonial Railway at the Sussex camp grounds, sufficiently long to accommodate 3 or 4 freight cars, would be of great benefit and save much extra handling of stores. The cost of construction would soon be covered by present cost of cartage and much time would be saved.

If the Artillery continue to occupy the Indian reserve at Deseronto and the Bay of Quinte Railway is extended past the grounds the subject of the preceding paragraph is equally applicable at that place.

The rifles and carbines in possession of the Militia were examined as required and necessary repairs effected. A systematic inspection of arms, annually, is suggested.

Arrangements might be made by the District Officers Commanding in conjunction with the Chief Superintendent of Stores for carrying this into effect.

The Lee-Enfield rifles have been only a few years in the hands of the troops, yet the Armourers report many of them as unserviceable through having the barrels bulged or the grooving injured through improper handling, this should not be the case.

It is reported that too much oil is used on the breech action of rifles—the consequence being that the oil clogs on the striker and impedes its action, resulting in a miss-fire which is attributed to the rifle instead of to the individual. Attention was requested in a former report to the practice of exchanging bolts of rifles. It is again pointed out that they are not interchangeable. If accident occurs it will not be without warning.

The practice of taking rifles to pieces, by officers and others, nominally for instruction, should be prohibited; there is no necessity for the ordinary militiaman taking his rifle to pieces. Parts of the mechanism have already been broken in this way.

There are now over 30,000 .303 rifles and carbines in possession of the Militia and Rifle Associations—it will be easily understood that if these are examined and necessary repairs made the time at the disposal of the small staff of Armourers will be fully occupied.

The new Store building at Ottawa is now occupied, the clothing and other stores having been removed to it from the many places in which they were scattered. Further accommodation is required, not only at Ottawa but in all the other stations for the housing of wagons, carriages, etc. Exposure to extreme changes of temperature causes rapid deterioration. The neglect to furnish proper accommodation for the storage of valuable material, in many cases costing hundreds of dollars, is a penny-wise and pound-foolish policy.

Buildings should also be erected at the several stations for mobilization purposes, in which articles of equipment necessary for service but which it is not desirable to keep in charge of the troops, should be kept in good order under proper supervision. There is also a great necessity for armouries at the several stations where the rifles in store charge could be kept in racks ready for examination or issue as required.

The necessity for providing a suitable rifle for issue to Cadet corps and units in connection with educational establishments must be apparent. The rifles now issued (Martini-Henry) are too heavy and the Lee-Enfield is not suitable for boys.

A statement showing issues of ammunition, free and on repayment, to Rifle Associations during the year 1902 is appended to this report.

Issue of helmets continue to be made to regiments as recommended. Most of the corps wearing them are now supplied.

'A' and 'B' Batteries, R. C. F. A. and the 14th Field Battery have been supplied with Q. F. 12 pr. guns and necessary details. The carriages formerly in charge of the R. C. F. A. are now undergoing alterations previous to re-issue.

The Superintendent of Stores report that the Military properties in the several districts are in fair condition.

D. A. MACDONALD, Colonel,
Chief Supt. of Military Stores.

SESSIONAL PAPER No. 35

STATEMENT showing free issues of Small Arm Ammunition made to Rifle Associations during the year 1902.

Military District.	Name of Association.	Number.
1.	Kingsville.	4,200
1.	Goderich Township.	4,200
7.	Restigouche.	4,000
10.	Rock Lake.	4,900
11.	6th Regt D. of C. Rifles.	64,600
5.	Pt. St. Charles Amateur Athletic Association.	4,000
6.	Frontier Rifle Association.	10,000
10.	Priddis.	3,600
5.	Lake Megantic.	4,000
5.	Duke of York's Canadian Hussars.	4,000
2.	Beaver Valley.	6,200
10.	'C' Squad, C.M.R.	9,800
2.	Nanticoke.	4,800
10.	Elbow River.	4,000
4.	Perth.	11,500
2.	Port Dover.	2,684
2.	12th Regiment.	18,590
1.	Londesborough.	4,100
2.	Hagersville.	4,400
1.	Arthur.	4,000
8.	Marysville.	4,300
1.	Peel and Maryborough.	6,900
4.	'C' Co. 56th Regiment.	8,800
3.	Royal Military College.	11,000
4.	43rd Regiment.	76,400
4.	The Governor General's Foot Guards.	83,600
11.	No. 2 Co., Rocky Mountain Rangers.	8,400
5.	Dudswell.	4,800
1.	No. 7 Co. 32nd Regiment.	8,000
9.	3rd Batt., R. C. R.	145,000
2.	Simcoe.	5,710
11.	1 and 2 Cos., 6th Regiment.	20,000
2.	13th Regiment.	76,400
1.	Court Stanley.	4,300
8.	Stanley Club.	4,000
1.	Innerskip.	4,400
10.	Cochrane.	5,200
10.	Beulah.	6,000
11.	Kettle River.	4,000
2.	St. Joseph's Island.	9,200
1.	Auburn.	4,400
10.	Oak Lake.	4,700
2.	Harbord Street Collegiate Institute.	5,400
2.	Bruce Mines.	3,420
12.	Glenview.	4,500
10.	Fairview.	4,000
3.	East Durham.	7,300
10.	Red Deer.	1,678
10.	Imperial Service Medal.	4,500
11.	1 Co. Rocky Mountain Rangers.	4,680
4.	Carleton Place.	7,340
10.	Innisfail.	6,200
1.	Listowel.	5,000
8.	King Edward.	4,100
10.	Edmonton.	10,000
3.	Avonmore.	4,000
10.	Medicine Hat.	6,000
10.	Nelson.	8,300
2.	Lundy's Lane.	6,000
10.	Revelstoke.	6,100
10.	Elkhorn.	5,500
12.	O'Leary.	6,000
9.	3rd Batt., R. C. R.	47,000
12.	4th Regiment, C. A.	12,000
4.	Strathcona.	9,000
1.	Lambton.	5,500
8.	'C' Squad, 8th Hussars.	8,000
4.	Radford.	9,200

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STATEMENT showing free issues of Small Arm Ammunition made to Rifle Associations
—Continued.

Military District.	Name of Association.	Number.
3	Warsaw	6,000
9	No. 4 Co., 78th Regiment	12,600
8	Moncton	12,000
10	Calgary	4,080
10	90th Regiment	5,760
5	Franc Tireurs	3,340
2	77th Regiment	13,418
10	Griswold	5,300
5	Chemists and Druggists, Montreal	4,000
1	Hickson	4,000
9	Eastern Annapolis	4,700
1	Harriston and Minto	6,100
1	2 and 9 Cos., 30th Regiment	16,000
10	Roberts	3,900
9	Port Greville	4,900
10	Silver Creek	3,600
11	Rossland	6,300
7	6th Regiment, C. A.	12,000
12	Montague	7,600
11	4 Co., R. M. R.	9,000
9	Yarmouth	4,600
2	39th Regiment	12,000
9	Pictou	4,000
12	Cornwall	4,200
9	Sissiboo	4,700
9	Annapolis Royal	4,000
5	Club de Tir, St. Jerome	4,000
10	Fort William	4,500
10	Fort Saskatchewan	5,500
4	Jock No Surrender	4,200
11	Golden	6,000
11	Kettle River Valley	2,000
7	R. C. Garrison Artillery	17,800
2	Queen's Own ex-members	2,277
8	Fredericton	8,000
1	Hespeler	4,400
8	Fort Cumberland	4,200
2	2 Co. 77th Regiment	8,800
10	Strathcona	5,800
10	Penhold	4,500
12	Alberton	8,000
5	65th Regiment	73,400
5	Franklin	4,000
10	13th Field Battery	9,400
12	Charlottetown Engineer Co.	8,000
9	63rd Regiment	20,000
12	North Tryon	8,000
11	New Denver	6,000
12	Montague	1,700
12	'I,' C. M. R.	8,000
1	Auburn	1,600
7	Lévis	6,266
10	Winnipeg	6,000
8	Sackville	8,500
10	Gilbert Plains	4,000
10	Innisfail	1,900
2	7th Field Battery	16,000
1	Thamesford	4,000
11	Kamloops District	4,400
6	Sutton	4,200
10	Kinistino	4,000
11	Slocan	5,500
11	Vancouver	6,300
10	'A,' C. M. R.	9,800
4	Quyon	7,900
8	West Isles	3,216
10	Elbow River	900
7	Kinnear's Mills	4,000

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STATEMENT showing free issues of Small Arm Ammunition made to Rifle Associations
—Concluded.

Military District.	Name of Association.	Number.
12.....	Georgetown.....	4,000
* 1.....	Blyth.....	4,000
12.....	Pownal.....	5,600
6.....	Stanbridge East.....	6,300
2.....	Hamilton Collegiate Institute.....	4,000
4.....	Radford.....	5,000
10.....	Boyne.....	4,000
2.....	York.....	4,000
3.....	16th Regiment.....	6,600
1.....	Londesborough.....	700
2.....	48th Regiment.....	60,000
9.....	Amherst.....	10,500
2.....	Milton.....	4,000
2.....	Humberstone.....	5,784
10.....	Douglass.....	4,300
3.....	Gananoque.....	8,000
2.....	Aurora.....	4,161
3.....	Avonmore.....	800
9.....	Joggin's Mines.....	4,200
1.....	Brussels.....	8,000
9.....	Freeport, Digby.....	4,800
3.....	Morrisburg.....	4,000
4.....	Prescott.....	4,500
10.....	Innisfail.....	1,900
4.....	Gananoque.....	2,200
1.....	No. 7 Co., 30th Regiment.....	8,000
1.....	No. 8 Co., 26th Regiment.....	11,200
12.....	Belfast.....	4,000
1.....	Gordonville.....	4,100
1.....	Palmyra.....	4,400
9.....	69th Regiment.....	10,800
11.....	Trail.....	4,000
6.....	Wellington, Cookshire.....	6,100
5.....	86th Regiment.....	2,000
10.....	Saskatchewan.....	6,500
1.....	32nd Regiment.....	2,000
3.....	Cobourg.....	2,000
11.....	Windermere.....	6,400
		1,630,204

D. A. MACDONALD, Colonel,
Chief Supt. of Stores.

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SMALL ARM Ammunition issued on repayment from July 1, 1901, to June 30, 1902.

Military Districts.		Rounds.	Amount.
			\$ cts.
Military District No.	1—London	128,883	552 75
"	2—Toronto	49,280	753 88
"	3—Kingston	6,550	96 50
"	4—Ottawa	39,057	690 91
"	5 and 6—Montreal	73,800	774 05
"	7—Quebec	19,590	97 85
"	8—St. John, N.B.	30,300	390 20
"	9—Halifax, N.S.	16,280	174 20
"	10—Winnipeg	148,809	1,789 04
"	11—Victoria, B.C.	65,344	964 69
"	12—Charlottetown, P.E.I.	21,039	287 33
Total		598,932	6,571 40

	Rounds.
Lee-Enfield—Ball	341,366
Martini-Henry—Ball	14,186
Snider—Ball	48,550
Lee Enfield—Blank	26,700
Morris Tube	32,000
Revolver—Colt's	650
Gallery—Ball	135,480
	598,932

D. A. MACDONALD, Colonel,
Chief Superintendent of Military Stores.

SMALL ARM Ammunition issued for Practice from July 1, 1901, to June 30, 1902.

Military Districts.		ROUNDS.	
		Ball.	Blank.
Military District No.	1—London	225,760	25,134
"	2—Toronto	717,666	11,870
"	3—Kingston	75,940	5,000
"	4—Ottawa	308,680	5,230
"	5 and 6—Montreal	391,540	38,160
"	7—Quebec	73,980	9,970
"	8—St. John, N.B.	92,570	56,295
"	9—Halifax, N.S.	234,180	46,400
"	10—Winnipeg	239,558	9,180
"	11—Victoria	189,180	
"	12—Charlottetown, P.E.I.	71,396	4,800
Issued to Militia Corps for Rifle League Competition		64,320	
Total		2,684,770	212,039

D. A. MACDONALD, Colonel,
Chief Superintendent of Military Stores.

SESSIONAL PAPER No. 35

RETURN of Gunpowder and Friction Tubes issued for Practice and Salutes from July 1, 1901, to June 30, 1902.

Military Districts.	Stations.	Corps.	Gun-powder.	Friction Tubes.
			Lbs.	No.
No. 1.....	London.....	Field Batteries of Artillery.....	542½	520
No. 2.....	Toronto.....			
No. 3.....	Kingstou.....			
No. 4.....	Ottawa.....	Field and Garrison Artillery, Royal Military	1,689½	2,255
Nos. 5 & 6.	Montreal.....	College and Royal Canadian Artillery.....	858	399
		Field Artillery and Salutes.....	728½	302
No. 7.....	Quebec.....	Field and Garrison Artillery and Salutes.....	2,741	1,345
No. 8.....	St. John, N. B.....	" " " ".....	913	950
No. 10.....	Winnipeg.....	Field Battery and Salutes.....	620½	550
No. 12.....	Charlottetown.....	" " " ".....	1,125	285
Total.....			9,218	6,606

D. A. MACDONALD, Colonel,
Chief Superintendent of Military Stores.

TENANTS AND RENTALS from July 1, 1901, to June 30, 1902.

Number of Tenants.	Station.	Rents Received.
		\$ cts.
1	London, M. D. No. 1.....	161 80
8	{ Toronto } M. D. No. 2.....	541 75
	{ Niagara }	
24	{ Kingston } M. D. Nos. 3 and 4.....	833 33
	{ Ottawa }	
7	Montreal, M. D. Nos. 5 and 6.....	266 00
45	Quebec, M. D. No. 7.....	2,615 59
8	St. John, N. B., M. D. No. 8.....	231 25
13	Halifax, M. D. No. 9.....	93 67
2	Charlottetown, M. D. No. 12.....	5 87
108	Total number of tenants.....	
	Total amount of rents received.....	4,749 26

D. A. MACDONALD, Colonel,
*Chief Superintendent of Military Stores and
 Keeper of Military Properties.*

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DEPOSIT RECEIPTS.

The statement underneath will show the amounts received by the Store Branch for ammunition and stores issued on repayment, as well as for military rents during the fiscal year ending June 30, 1902.

Ammunition.	Military Stores and Clothing.	Miscellaneous.	Rents.	Total amount.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
6,571 40	3,548 57	569 15	4,749 26	15,438 38

STATEMENT of Issues from July 1, 1901, to June 30, 1902.

Tunics, Cloth.		Tunics, Serge.		Trousers, Cloth, Pairs.		Trousers, Serge, Pairs.		Forage and Field Service Caps.				Great Coats and Cloaks.		Pantaloon, Pairs.		Field Hospital and Bearer Company.											
Cavalry.	Artillery.	Cavalry.	Artillery.	Cavalry.	Artillery.	Cavalry.	Artillery.	Service Caps.				Cloaks.	Great Coats.	Cavalry.	Artillery.	Serge Tunics.	Long Trousers.	Service Caps.									
599	462	1,348	1,808	2,646	1,875	11,698	2,869	1,892	439	195	1,610	12,446	2,846	1,802	1,022	117	133	9,557	2,143	1,690	6,242	513	551	132	132	132	
Infantry.	Rifle.	Infantry.	Rifle.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.	Infantry.

D. A. MACDONALD, Colonel,
Chief Superintendent of Military Stores.

APPENDIX 3
OF THE
REPORT OF THE DEPUTY MINISTER
OF
MILITIA AND DEFENCE

REPORT OF THE CHIEF ENGINEER.

OTTAWA, December 17, 1902.

SIR,—I have the honour to submit herewith, my annual report for the year ending June 30, 1902.

MILITARY BUILDINGS.

Reference is made in my report for last year to the system which still exists of having large military buildings constructed by the Department of Public Works, and handed over to this department for maintenance and repairs. It is still urged that the Department of Militia and Defence should construct their own buildings.

RIFLE RANGES.

The construction of rifle ranges generally was continued during the year, and a number of ranges built, a detail of which will be mentioned in this report.

Ranges for use with the reduced charge ammunition were fitted up at Camps of instruction, drill halls and barracks, using the standard Miniature Mantlet.

FORTIFICATION WALLS, QUEBEC.

A large amount of work is required here annually to keep these old walls in repair. This has been carried on as usual this year with much success, and the walls generally have been greatly improved.

GENERAL REPAIRS.

The following works were carried out under the supervision of the Engineer Branch in the several military districts throughout the Dominion, from June 30, 1901 to June 30, 1902.

MILITARY DISTRICT No. 1.

LONDON, ONT.

Wolsley Barracks.—These buildings and quarters generally were kept in repair, the plumbing system improved, new drains laid, and the eave troughs and down pipes renewed.

Drill Hall.—A new drill hall is now under construction here by the Department of Public Works.

CHATHAM, ONT.

Drill Hall.—Alterations and general repairs were made to this building. A central armoury was fitted up for the 24th Regiment and electric light installed.

GODERICH, ONT.

Central Armoury.—A central armoury was fitted up for the 33rd Regiment in a building provided by the city.

Rifle Range.—A survey and plan of a proposed new rifle range were made here.

MILITARY DISTRICT No. 2.

TORONTO.

Stanley Barracks.—General repairs were made in these quarters, and the plumbing put in order. The floors of cavalry stables and interior walls of the riding school were partially renewed.

Store Buildings.—The roofs of the Artillery Store, Block House, Soldiers Barracks and several other quarters were renewed. The storemen's quarters were put in repair, sidewalks renewed, and general repairs made. Various interior alterations were made for the accommodation of the stores. An extension was built at the Foreman of stores' quarters.

Drill Hall.—Alterations were made in several armouries, necessitated by the increased establishment and re-allotment of several corps. General repairs were made to the roof of this building, and an armoury was fitted up for No. 4 Bearer Corps.

Armouries.—An armoury was fitted up for the Toronto Engineer Company in the University.

Armouries were also fitted up in Simcoe street for Nos. 4 and 7 Field Hospital Corps.

Rifle Range.—The long Branch Rifle ranges are now being re-constructed. The following number of targets are being provided for: 6 at 1,000 yards range, 40 at 600 yards, 22 at 500 yards and 20 at 200 yards. One general firing point answers for all ranges except the 1,000 yards, the targets at the different ranges being in echelon.

Review.—The exhibition buildings and grounds at Toronto were fitted up for the accommodation of troops' quarters there during His Royal Highness the Duke of York's visit.

These buildings were entirely stripped of exhibition fittings, arms and accoutrement racks provided and electric light and water supply installed in each. A water service was also laid down on the camp grounds. Stables were fitted up with saddle and harness racks. The race track was levelled, and fences and buildings removed for the review, and the Royal Stand made. At the completion of the review the buildings and grounds were cleaned up and fittings removed.

SESSIONAL PAPER No. 35

AURORA, ONT.

Armoury.—A central armoury was fitted up in the drill hall here for the 12th Regiment.

BRANTFORD, ONT.

Drill Hall.—Small repairs were made to this building.

BARRIE, ONT.

Drill Hall.—Minor repairs were made to this building.

Armoury.—Further fittings were placed in the armoury of the 35th Regiment.

HAMILTON, ONT.

Drill Hall.—This building was kept in repair and fences were rebuilt.

NIAGARA FALLS.

Drill Hall.—General repairs were made to this building. An armoury was fitted up here and plumbing installed.

NIAGARA-ON-THE-LAKE.

Camp Grounds.—The usual camp fittings were supplied here. The camp buildings were put in order, and the rifle ranges for both service and miniature ammunition repaired and supplied with targets, &c.

OWEN SOUND, ONT.

Drill Hall.—Minor repairs were made to this building.

STE. ANNE, ONT.

Drill Hall.—An armoury for 'B' Squadron 2nd Dragoons was fitted up in this building.

WHITBY, ONT.

Armoury.—A central armoury was fitted up for the 34th Regiment in the old Marble Factory, purchased for the purpose.

MILITARY DISTRICT No. 3.

KINGSTON.

Tete de Pont Barracks.—The floors in 'A' Battery stables were renewed and the stables painted. A gymnasium was fitted up for use of the men. New floors were laid in several barrack rooms, and general repairs to all buildings carried out.

'B' Battery Barracks.—A new temporary stable was fitted up in Bagot Street for the Battery horses. A concrete floor was laid in the men's kitchen and wash room, and a new cooking range provided for the former. The plumbing arrangements were also put in order. An artificers' shop and forge were built.

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Drill Hall.—An armoury for the 2nd Field Hospital Corps was fitted up here. The plumbing, lighting and heating systems were repaired.

Store Buildings.—These buildings were repaired generally.

Camp Grounds.—Water pipes were laid in these grounds for annual training.

ROYAL MILITARY COLLEGE.

An electric light plant was installed for these buildings and grounds, which results in a large annual saving.

These buildings and grounds were kept in proper repair, and the cadets' rifle range reconstructed.

Gymnasium.—A new building is now being constructed here by the Department of Public Works for a gymnasium, and quarters for the Staff Adjutant.

Hospital.—The new hospital building was completed by the Department of Public Works.

BROCKVILLE, ONT.

Rifle Range.—A survey and plan of a site for a proposed new rifle range were made here.

MORRISBURG, ONT.

Chrysler Farm Monument.—A chain and post fence was erected around this monument. The guns were painted and gun platforms renewed.

PRESCOTT, ONT.

Fort Wellington.—A central armoury was fitted up for the 56th Regiment in the Block House. The roof of this building was renewed, and chimneys rebuilt. The fences and walls around this fort were repaired generally.

DESERONTO.

Camp Grounds.—The water supply on these grounds was improved.

PEMBROKE, ONT.

Rifle Range.—A survey and plan of a site for a proposed rifle range were made here.

CORNWALL, ONT.

Rifle Range.—This range was put in proper repair.

PETERBOROUGH, ONT.

Drill Hall.—General repairs were made to this building, and arc lights installed on the drill grounds.

A new drill hall is much required here.

PORT HOPE, ONT.

Drill Hall.—A central armoury was fitted up for the 46th Regiment. A new floor was laid in the main hall, and general repairs made.

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OTTAWA BRIGADE.

Rockcliffe Rifle Range.—Further improvements were made on this range. A new competitors building was erected and fitted up with lockers. An Ericsson hot air pump was installed, and water carried into the different buildings. Moving targets were put up, mantlets were built for same, and the main stop butt lengthened by 500 feet. A large portion of rough ground on the range was ploughed, harrowed and seeded down.

Drill Hall.—A new lavatory was fitted up in this building. Alterations and repairs were made in the quarters of the Governor General's Foot Guards, made necessary by damage by fire. The electric wiring was put in proper order in all parts of the building. A temporary stable was erected in Cartier Square, and water supply provided for the camp of the Royal Canadian Dragoons during the visit of His Royal Highness the Duke of York.

Albert Street Offices.—Military offices were fitted up in No. 12 Albert Street, for additional office accommodation for this department.

Store Building.—The new Militia store building was completed by the Department of Public Works, and handed over to this department.

MILITARY DISTRICT No. 5.

MONTREAL.

Drill Hall.—The floors in the armouries on the west side of the main hall were renewed. New fittings for arms, clothing and equipment were constructed and put up in the Garrison Artillery, Prince of Wales Fusiliers and Army Service Corps armouries.

The building was kept in general repair, plumbing and glazing carried out, and the interior of the main hall whitewashed.

Rifle Range.—A competitor's building was erected at Pointe aux Trembles range for the use of all Montreal corps.

Papineau Road Cemetery.—The fence around this old military cemetery was renewed, and the caretaker's quarters repaired generally.

CHAMBLY, QUE.

Fort Chambly.—The old walls of this fort were partly restored. The caretaker's quarters were repaired generally, and the fence around the military cemetery rebuilt.

THREE RIVERS.

Rifle Range.—A rifle range was completed here for twelve targets, and a stop butt constructed, 25 feet high. The camp grounds were improved, and fitted up for the annual camp.

Armoury.—A central Armoury for the 86th Regiment was fitted up in the market hall.

MILITARY DISTRICT No. 6.

ST. JOHNS, QUE.

Barracks.—A portion of the roadway leading to the barracks was macadamized and very much improved. The water service at the married men's quarters was put in good order, and closets installed. The plumbing in all quarters was kept in repair, and several baths installed. The sidewalks were partly renewed. Additional fittings were placed in the hospital. The roofs of the three main blocks require renewal.

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SHERBROOKE, QUE.

Rifle Range.—A new rifle range was constructed here for six targets. The range grounds were well drained, and a wire fence erected around the property.

MILITARY DISTRICT No. 7.

QUEBEC.

Fortification Walls.—The following walls were either repaired or rebuilt:—

The wall at Three Gun Battery was pointed.

A retaining wall on Mountain Hill was repaired.

A large portion of the King's Bastion wall, Citadel, was rebuilt.

The St. John's and Kent Gates were repaired and pointed.

The wall at Dalhousie Bastion, Citadel, was partly rebuilt.

Gun racers on the Seven Gun Battery were taken up and reset.

The wall around 'A' Magazine was partly rebuilt.

A portion of the wall in rear of married men's quarters, St. Louis Street, was rebuilt.

Citadel.—The interior of officers' mess quarters was repaired and improved generally, the drains and water pipes were renewed and general repairs to windows carried out. New iron roof ladders were supplied and placed on several buildings here; several hydrants were renewed. The fences and gates around the shot yard were renewed.

Floors in Casemates No. 17, 29, 30 and 43, No. 2 wash house and hospital were renewed. Officers' quarters generally were put in proper repair. Casemate No. 45 was fitted up temporarily as a gun shed for drill purposes.

A new ceiling was placed in a portion of Casemate No. 27. The floors in the sergeants' mess quarters and in Manns Store were renewed.

Drill Hall.—The interior of the main hall was painted and kalsomined and the exterior walls pointed. A new porch and a wood shed were constructed. Additional cupboards were provided in the Field Battery Armoury, and equipment racks put up in all armouries. The roof was repaired generally.

R. C. R. I. Barracks.—Various alterations were carried out at these barracks, formerly used by Field Artillery, to convert them into Infantry Barracks.

The old hospital stable was fitted up as a guard room. The gun shed was converted into a store room, the barrack rooms were much improved, and arm racks fitted up.

The roofs of the several buildings were repaired, and the officers' stable was put in proper condition.

Store Buildings.—The caretaker's quarters were fitted up generally at the King's Wharf Store, and this building put in good repair generally for the accommodation of military stores.

Quarters were fitted up for the foreman of stores in the Store Building on Citadel Hill.

The Store Buildings on the Citadel Hill were kept in proper repair.

District Office.—This building was repaired generally, and the foundation walls pointed.

Riding School.—Small repairs were made here, and the caretaker's quarters improved.

Preparations for the visit of H. R. H. the Duke of York.—An arch was built on Citadel Hill.

The St. Louis and Kent Gates were fitted up with lights.

Military buildings in St. Louis Street were fitted up with lights, and Royal stands were put up on the review grounds.

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DOMINION ARSENAL.

A large addition to the Shell Factory was built, and the building at the corner of Palace Hill fitted up for the increase of the plant.

An electric lighting plant was installed. A steam boiler plant was placed in the shell factory, and steel tanks provided for same. Shafting was fitted up in the new shell factory, rolling mill and Palace Hill shops. A heavy metal store was provided in a casemate in the main factory. A large flagpole was erected in the Arsenal grounds.

No. 2 Danger building at the Cove Fields was enlarged. The Webster system of heating is being installed at the Arsenal, and all buildings are to be heated by exhaust steam, thereby making a large saving in fuel. A new velocity range for testing ammunition is now being built. New Artillery Workshops and an Iron Foundry are now under construction by the Department of Public Works.

LEVIS, QUE.

The Forts.—General repairs were carried out at Nos. 1, 2 and 3 forts, and portions of the walls pointed. These walls should all be pointed to keep them from going to ruin. The roofs over casemates are in good condition.

Engineer Park.—The buildings and fences on these grounds were repaired generally and put in good order, including the caretaker's quarters.

Rifle Range, Engineers' Park.—The alterations to the old 600 yards rifle range of installing the standard steel target frames, and constructing a concrete markers' mantlet, were completed for twelve targets; and a new 1,000 yards rifle range constructed for two targets of the same construction.

A new wire fence was erected around the latter.

MILITARY DISTRICT No. 8.

FREDERICTON, N.B.

Barracks.—The stone walls around the Officers' barrack square were repaired, new coping put on, and new fences were constructed. A new flagstaff was also erected here. The plumbing at the several barracks was much improved. A new range water-closet was installed for the men. A new lavatory was fitted up in the hospital, and the main sewers extended.

Rifle Range.—A new rifle range is almost completed at St. Marys, near Fredericton, for six targets. The land for this range has been purchased by the Government and well fenced.

ST. JOHN, N.B.

Fort Howe.—The walls around the stone magazine at this fort were repaired, and the water service put in order.

Dorchester Battery.—The roofs of several of the buildings here were renewed.

Fort Dufferin.—Small repairs were made to the buildings at this fort.

Drill Hall.—The roof of this building was partly renewed and put in good repair. New gates and fences were erected at the entrance to the drill hall. An additional Company Armoury for the 62nd Regiment was fitted up.

Store Buildings.—These buildings were kept in proper repair, and the plumbing improved.

Artillery Range.—Targets and fittings for an Artillery range were provided at Fort Dufferin for annual practice

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SUSSEX, N.B.

Rifle Range.—Small repairs were made at this range to fit it for annual practice at Camp.

MILITARY DISTRICT No. 9.

HALIFAX, N.S.

Drill Hall.—Equipment racks were provided for the 1st Regiment C. A. Armoury and general plumbing and glazing carried out.

BEDFORD, N.S.

Rifle Range.—A new wire fence has been constructed around this new range, which is now completed.

NORTH KINGSTON, N.S.

Rifle Range.—Temporary repairs were made to this range, and a plan and survey prepared of a proposed range.

PARRSBORO, N.S.

Rifle Range.—A rifle range was constructed here for the 93rd Regiment and Rifle Club.

SPRINGHILL, N.S.

Drill Hall.—General alterations and repairs were made to this building, and a central armoury fitted up there for the 93rd Regiment.

TRURO, N.S.

Rifle Range.—A small rifle range was constructed here for the local corps.

MILITARY DISTRICT No. 10.

WINNIPEG, MAN.

Fort Osborne Barracks.—The plumbing and heating systems in these buildings were much improved, and general repairs made to all quarters.

Drill Hall.—The roof of this building was strengthened with additional tie rods, and a gun shed partitioned off in the main hall.

PORTAGE LA PRAIRIE.

Rifle Range.—A new rifle range was constructed here.

MILITARY DISTRICT NO. 11,

VICTORIA, B.C.

Drill Hall.—Minor repairs were made to this building.

Rifle Range.—Small repairs were carried out here, to keep this range in proper order.

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NEW WESTMINSTER, B.C.

Drill Hall.—A hot water heating system was installed in this building and small repairs and improvements made.

TRAIL, B.C.

Rifle Range.—A plan and survey were made here for a proposed rifle range.

ESQUIMAULT, B.C.

Camp Grounds.—A water supply was installed on these grounds.

MILITARY DISTRICT No. 12.

CHARLOTTETOWN, P.E.I.

Drill Hall.—The alterations and addition made to this building are nearly completed, with the exception of heating, and flooring the main hall—which are still necessary. Armouries were also fitted up in this drill shed.

Rifle Range.—General repairs were made to the Kensington rifle range.

NORTH TYRONE, P.E.I.

Rifle Range.—A new rifle range was constructed here.

SUMMERSIDE, P.E.I.

Drill Hall.—Electric light was installed in this building.

I have the honour to be, sir,
Yours obedient servant,

G. S. MAUNSELL, Captain,
Asst. Engineer, for Chief Engr. M. and D.

APPENDIX 4

TO THE

REPORT OF THE DEPUTY MINISTER

MILITIA AND DEFENCE

DOMINION ARSENAL, QUEBEC, November 29, 1902.

SIR,—I have the honour to report as follows upon the operations of this establishment for the fiscal year ended June 30, 1902.

CARTRIDGE FACTORY.

In consequence of additional orders received to increase the output to meet the demands of newly formed rifle associations special arrangements were made to accelerate the speed of manufacture. The hours of work were first increased from 48 to 60, and the system of paying for work by the piece was extended to include operations which could not be paid for in this manner on a smaller output, as there was not the minimum of work to be done to enable men to earn fair and regular wages. It is unnecessary to lay any stress on the advantages of paying by piece-work, and our experience in this respect has been entirely satisfactory. An attempt has been made to deal fairly and justly with our workpeople, and judging by the fact that they are contented, earning higher wages, and that the cost of production had not been increased, it may be concluded that the experiment has been a success. It is proposed, working on the same lines, to extend the system in other departments as opportunities occur. Orders have been placed in England for machinery which will double the output of this factory and will easily enable all demands to be met. This machinery is expected to arrive in the spring, and arrangements are being made in the meantime to provide for its speedy installation.

ADDITIONAL CARTRIDGE FACTORY.

It was again advocated last year that an additional Cartridge Factory be erected in the western part of the country, and in this connection reference is invited to explanations submitted in last year's report. Before erecting additional works the fact that our entire requirements are very small should not be overlooked, and experts will agree that it is easier and more economical to operate a large plant than a small one. As it is, with increased orders, we can just manage to keep together an efficient working staff, and if the work be divided between two establishments it will be found that the ratio of fixed charges to cost of production will become prohibitive, and both will suffer from lack of work. Exception to the situation of the arsenal on strategical ground was also

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taken, but this objection was met by the reply given by the Hon. the Minister in the House of Commons, that storage for ammunition at convenient points is the essential requirement.

Improvements to the plant have been made in the system of cleaning and drying ammunition with beneficial results.

The building of the Artillery Workshop on ground occupied by the velocity range has necessitated the removal of this range. The proposal of utilizing an underground passage in the fortifications, emerging on the nun's property adjoining has been authorized, and work will be begun shortly. In this manner we shall have a first-class installation which will enable proofs to be fired, and the carrying out of experiments with accuracy and safety.

I have designed new instruments and methods with a view to reducing the time employed in proving small arm ammunition, and adding to regularity of results. The work done so far is not conclusive, but the results are decidedly promising, and success at no distant date is hoped for. Should these expectations be realized, we shall equal if not excel, the most advanced methods of the present time.

The introduction of gas fuel for annealing cartridge metal is under consideration. The great advantage of this form of fuel lies in the uniformity of results obtained, which are unattainable with coal or coke now employed. It is believed that the cost of operating with gas will be reduced, but, even at a moderate increase in price, the quality of product obtained would justify the expenditure.

By means of a system of microscopic examination of the structure of metals under treatment it is hoped to control the various processes, and reduce to a definite basis what is now left to the judgment of workmen, or done by rule of thumb.

Owing to increase in number of operatives in the danger buildings the available floor space is greatly reduced, and an additional store building for receiving and issuing ammunition is much needed.

A telephone to connect the firing point with targets employed for proof of ammunition at the Cove Fields would save much time and trouble. We are at present dependent on a system of signals which is tedious and uncertain.

During the last match of the Dominion Rifle Association a large amount of English ammunition which had been recapped here was expended; in this connection it may be well to call attention to a peculiar prejudice existing among the competitors. The ammunition in question contained brass cases marked in various ways, those manufactured by the Imperial Government in the Royal Laboratory being marked R.L., whereas the cases produced by other manufacturers bore their respective initials or trade mark. The Imperial Government does not manufacture all its own cases, but buys a quantity from the trade. After being examined these cases are loaded with the same charge of powder and the same bullets as those manufactured in the Royal Laboratory, and should give identical ballistics, irrespective of external marks. That such is the case is proved by records of experiments on file in this office, as well as by the reports received periodically from the War Office. The riflemen claimed that the cases marked R.L. required 2 minutes less elevation and culled the cartridges thus marked in preference to others. To admit this contention is equivalent to saying that the experiments conducted in England and here for several years are erroneous, unless we plead guilty to the charge of having deliberately mixed the ammunition. The latter may be dismissed as the opinion of thoughtless and misinformed persons; as regards the former, it will be observed that ballistics tests are performed with instruments of precision in which the personal error of the operator has been eliminated, whereas on the rifle range variations in eyesight and peculiarities of individuals still remain to be accounted for. It would be well to have on the range at the annual D.R.A. meeting some ammunition of the current year's manufacture in order that competitors may have an opportunity of using it if they desire. This would afford an additional test of our output, and give the riflemen confidence by enabling them to ascertain that requirements are being complied with.

During the year the experiments undertaken to produce a miniature cartridge were brought to a successful termination. Trials began with a full sized cartridge case, containing a reduced charge of powder, and a spherical lead bullet, such as employed in the

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United States. Various kinds of powder, wads, and weights of bullets were employed, but had to be abandoned as the shooting was most inaccurate. I subsequently designed a conical bullet, which combined with a suitable charge and wad, has given satisfactory results. The principal advantage of this cartridge lies in its reduced cost as compared with full sized ammunition. This is attained by reloading the fired case of the ordinary service cartridge, thus saving the cost of manufacturing special cases. For use in connection with this cartridge I designed and had permission to patent a system of miniature targets by means of which, it is claimed, all the conditions obtaining on a full sized range, as regards elevation, effect of wind, and skill required to hit, are accurately reproduced at a reduced range of 25 yards. The adoption of this system is under consideration; it is hoped that it may be of use for the training of young shots, and in localities where full sized ranges are not available.

The manufacture of cannon cartridges has gone on throughout the year, and facilities exist which enable all requirements to be met.

It is expected that during the ensuing year the rolling mill and brass foundry will be put in operation, thus enabling manufacture to be carried on with raw materials available in the country.

It is proposed to increase at an early date the velocity of small arm ammunition, as has been done in England.

SHELL FACTORY,

There being no further demand for cast iron projectiles, beyond those required for practice, the operations of this factory have been limited to the manufacture of a small number of 40 pr. R.B.L. and 5-in. B.L. shells, pending the erection of machinery for manufacture of steel shells, which has been delivered and will be installed as speedily as possible. The work of erecting this machinery was unavoidably postponed, the appropriation granted having been exhausted. The staff of this factory were principally employed in the manufacture and repair of artillery material and stores. The iron foundry has been closed and converted into a brass foundry for use in connection with the rolling mill. A handsome foundry building is in course of erection in St. John's bastion; this building will be sufficient to meet requirements for the casting of iron shells and other castings required for some years to come.

Two boilers 16 ft. x 72-in., have been erected for operation of shell plant, and to supply steam otherwise required in the works. It is expected that during the ensuing year fair progress will be made in the manufacture of 12-pr. B.L. shells, and work will eventually be extended to other natures as required.

ARTILLERY WORKSHOP.

A large and convenient machine shop is in course of erection adjoining the cartridge factory for the accommodation of this new department. In the meantime work received has been carried on in the shell and cartridge factories, and during the fine weather in tents. It is needless to remark that considerable difficulties were encountered in working under these conditions, and the quality of the work produced reflects great credit on Mr. Hammant, the foreman in charge. A complete plant for the equipment of this workshop has been purchased and will be put in operation as soon as the building is available. Care has been taken in the selection of this machinery to ensure its suitability for the manufacture of all classes of war material, irrespective of change of pattern in the latter. Should sufficiently large orders be forthcoming for the manufacture of any particular article special machines might be purchased with advantage; the plant purchased will, however, be found suitable for a wide range of work. The examination of ordnance has been carried out on demand when required. The necessity for a careful and systematic performance of this work has increased with the introduction of smokeless powders. Copies of the history sheets of all ordnance examined are kept in this office to provide for replacement in case of loss of originals kept with guns.

A battery of 6-pr. R.B.L. guns for the Royal Military College was overhauled and converted to resemble as far as possible the 12-pr. B.L. equipment. The lightness of this equipment renders it particularly suitable for the use of the Cadets. With a few minor exceptions, which are being rectified, it has been reported that this work is satisfactory.

An estimate has been submitted for the conversion of 12-pr. B.L. equipment to quick firing, on the system adopted by the Imperial Government, which it is hoped may meet with approval. It is expected that we shall be in a position to begin work when funds are available.

An experimental elevating gear for the 40-pr. R.B.L. gun has been designed, with a view to increasing rapidity of laying; its adoption is under consideration.

Aiming rifles manufactured for 6-pr. Hotchkiss guns have been found satisfactory. These rifles differ from the Imperial service pattern in the bore, which is .303 in., thus enabling the ordinary rifle or gallery cartridges to be used in place of Martini-Henry ammunition which is no longer manufactured and would have to be specially imported.

The question of designing a field gun sleigh suitable for winter service is under consideration; it is hoped that before long a satisfactory pattern can be recommended.

MAINTENANCE AND REPAIRS.

The amount voted under this head is being almost entirely absorbed in the construction of foundations and furnaces connected with the new shell plant and rolling mill, as well as in modifications to the heating system, leaving but very little for repairs properly called. Repairs are thus limited to what is absolutely necessary to make good ordinary wear and tear, the work being done by our own men. The system of authorizing expenditure of a fixed amount for minor repairs has proved most satisfactory and beneficial, besides avoiding considerable correspondence with head-quarters on trivial matters.

GENERAL.

The electric lighting plant has been completely rebuilt, the old installation put in about 20 years ago being inadequate. A 25-kilowatt generator direct connected to a suitable steam engine has been placed in the power-house; a switch-board fitted with all necessary accessories for distributing and regulating the current has been installed, and the whole plant is giving satisfaction. This plant will be capable of lighting all new buildings and additions made to the arsenal.

Extensive alterations to the heating system are projected, it being proposed to install the Webster system of low pressure steam heating. This will enable exhaust steam to be circulated to the most distant portions of our buildings, and provide heat at minimum cost. Owing to the peculiar and scattered position of the buildings this could not be done with an ordinary gravity system, and would necessitate the expense of employing live steam.

A private system of telephone communicating with various parts of the works was put in five years ago, which has been of the greatest advantage in saving of time; the first cost was small, and the maintenance has been limited to renewing batteries once. This outlay has been repaid many times over in the conveniences and facilities afforded, and it is proposed to submit an estimate for similarly connecting the new departments which have since been added.

The following is a list of machinery purchased during the year:—

1 grindstone; 1 slotting machine; 1 cartridge annealing furnace; 1 cartridge drier; 1 friezing machine; 1 automatic saw sharpener; 1 automatic knife grinder; 1 rotary shearing machine; 1 gas annealing furnace, and 2 sensitive drills.

With the extension of the works has arisen the necessity for additional storage, and a proposition for provision of the required accommodation will be submitted. It would be economical in making arrangements, for performance of work and purchase of materials, if returns showing the probable requirements of the department for the ensuing fiscal year could be prepared in advance. The present method of small orders

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at uncertain times does not lend itself to operating under the most favourable conditions. It is proposed to make some important modifications in the arrangement of the plant which are expected to add greatly to its efficiency. It has hitherto been the custom for each factory to make its own tools, gauges, and to execute repairs or alterations required to machinery. Under the new arrangement all additions, repairs or alterations to machinery will be made in the Artillery Workshop, where suitable tools will be available and men will be kept as far as possible for this class of work. For the manufacture of tools and gauges a Tool Room will be established as is done in up-to-date works; the special machines required will be placed in this department, and a staff of machinists will be employed exclusively in tool-making. This proposition does not involve any additional outlay, being merely a re-arrangement of the plant; on the contrary, by specialising, the men will become more expert, and cost of manufacture will be reduced accordingly. Considerable changes and improvements have been made in the system of keeping books and accounting for stores, which it is hoped may contribute to economy and efficiency.

In the manufacture of warlike stores of all kinds, great importance is attached to similarity of pattern, and interchangeability of component parts. Work may be made to a 'sealed pattern,' or from drawings; under the former system a pattern room is required wherein all approved patterns are kept for reference. The disadvantages of this system are many; the numerous patterns required increase with great rapidity, and the pattern room assumes alarming proportions; the pattern itself is probably not to mean manufacturing dimensions, and the dimensions taken therefrom vary with each individual. This is the system which circumstances have compelled us to follow in many instances. The only way in which interchangeability of parts can be obtained, is by means of figured drawings, indicating the toleration allowed in each dimension. Drawings can be kept in a very small space, and are available for instant reference.

I was given an opportunity of visiting England last winter, for the purpose of obtaining information concerning the new work we are undertaking, and to ascertain progress made in manufacture already established. Without periodical visits to other works and plants it is impossible to keep up with the times. During my absence the duties of superintendent were performed by Capt. Panet in a satisfactory manner.

The following is a statement of ammunition, &c., manufactured during the year.

STORES MANUFACTURED.

Cartridges, filled B.L. 12-pr., 12 7-16 oz. cordite	2,970
Cartridges, S.B. empty, silk cloth, 24-pr., 3 lbs.	4,000
Shells, R.M.L. empty, shrapnel, 64-pr., Mark VIII.	1,011
Cartridges, S. A. Dummy, Drill, Magazine Rifle	1,000
Cartridges, empty, B.L. silk cloth, 12-pr., 6 cwt. 1¼ lb.	2,500
Pins, tent, wood, small.	12,000
Cartridges, S.A. ball, .303" cordite, II.	2,065,800
" " " R.L. re-capped.	4,121,700
" " " Gallery Practice, I.	415,100
" " " blank, .303" black powder, III.	500,000
" B.L. empty, 5" Howitzer, 3 lbs. blank.	750
" filled, B.L. 5" Howitzer, 11 7-16 oz. cordite, II.	1,000
Shells, B.L. empty, common, 5" Howitzer, iron, II.	1,116
Shells, R.B.L. empty, common, 40-pr.	252

I have the honour to be, sir,
Your obedient servant,

F. M. GAUDET, Major,
Superintendent of the Dominion Arsenal.

To the Deputy of
The Honourable, the Minister of Militia and Defence.

PART II

REPORT

OF THE

GENERAL OFFICER COMMANDING

The Honourable
The Minister of Militia and Defence,
Ottawa.

SIR,—I have the honour to forward a Narrative of events connected with the Canadian Militia for the year ending December 31, 1902.

With this report I have the honour also to forward another special report to which I have given a great deal of thought, and which contains a broad scheme for the improvement of the Militia. If the proposals contained in it are carried out, they will in my opinion conduce to the greater efficiency of the Militia.

For convenience of reference the Contents of this Report are placed under the following subheads :—

1. Command of the Militia.
2. Headquarters and District Staff.
3. Establishments.
4. Coronation Contingent.
5. Annual training.
6. Improvement in training and enrolment.
7. Material.
8. City Corps.
9. Railway transport of horses.
10. Schools of Instruction.
11. Staff Course.
12. 3rd Battalion, R.C.R.
13. South African Contingents.
14. Army Service Corps.
15. School of Musketry.
16. Rifle Ranges.
17. Rifle Associations.
18. Royal Military College.
19. Army Medical Services.
20. Artillery.
21. Gunnery Practice.
22. Cavalry Training.
23. General Training Instructions.

24. Stationary Defence.
25. Cadet Corps.
26. Headquarters Staff.

Appendix 'A'—Annual Report of the Commandant of the Royal Military College.

Appendix 'B'—Report of the Officer commanding the Coronation Contingent.

Appendix 'C'—Report of the Officer commanding the Coronation Detachment.

Appendix 'D'—Annual Return of Permanent Corps of Active Militia (Non-commissioned Officers and men) for the year ending December 31, 1902.

Appendix 'E'—List of certificates issued to Officers, Non-commissioned Officers and men of the Active Militia during the year ended December 31, 1902.

Appendix 'F'—Return of Field Batteries, C.A., which performed annual drill during the year 1902, showing type of Gun used, and Gun ammunition expended at practice.

Appendix 'G'—Results of Field Artillery Battery Service and competitive practice at Deseronto, 1902.

Appendix 'H'(a)—Results of Garrison Artillery, Q.F., Gun practice at St. John, N.B., 6-pr. Hotchkiss.

Appendix 'H'(b)—Results of Garrison Artillery, Q.F., Gun practice at St. John, N.B., 12-pr. cwt. A.

Appendix 'H'(c)—Results of Garrison Artillery Company Service and competitive practice at Deseronto, 1902.

Appendix 'J'—Return of Garrison Artillery Units, C.A., which performed annual drill during the year 1902, showing type of Gun used, and Gun ammunition expended at practice.

Appendix 'K'(a)—Return showing number of Officers, Non-commissioned Officers, men and horses trained during the year 1902, at local Headquarters.

Appendix 'K'(b)—Return showing the number of Officers, Non-commissioned Officers, men and horses trained during the year 1902, in district camps.

(1).—COMMAND OF THE MILITIA.

Major-General O'Grady-Haly, C.B., D.S.O., having been granted leave of absence from June 14, with permission to travel abroad, pending the expiration of his period of command, the duties of command devolved upon Colonel the Right Hon. Lord Aylmer, Adjutant-General, until the command was taken over by me towards the end of July.

(2).—HEADQUARTERS AND DISTRICT STAFFS.

Major and Brevet Lieut.-Colonel R. W. Rutherford, R.C.G.A., was appointed Assistant Adjutant-General for Artillery.

Lieut.-Colonel W. E. Hodgins, Reserve of Officers, was appointed to the command of the Ottawa Brigade from April 1, 1902, *vice* Colonel Cotton, Q.M.G., who resigned the appointment.

Lieutenant and Brevet Captain F. D. Lafferty, R.C.F.A., was appointed District Staff Adjutant, M.D. No. 5.

Lieut.-Colonel G. R. White, commanding the 3rd Battalion, R.C.R., garrisoning Halifax, was appointed District Officer Commanding M.D. No. 8, *vice* Lieut.-Colonel B. H. Vidal, appointed Deputy Adjutant-General at Headquarters.

Lieut.-Colonel White took over the command on the disbandment of the 3rd Battalion, R.C.R.

Major and temporary Lieut.-Colonel J. S. Dunbar, 8th 'Royal Rifles,' from the temporary command of M.D. No. 8, was appointed District Staff Adjutant, M.D. No. 7, from June 1, 1902.

Major J. Galloway, jr., 14th 'Prince of Wales' Own Rifles,' was appointed District Staff Adjutant, M.D. No. 2, from June 1, 1902.

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(3).—ESTABLISHMENTS.

I have proposed that in future the Regimental establishments of the Active Militia shall be at war strength, each unit containing in addition within itself the germ of a Reserve. These proposals have met with your general approval, and I am now drawing up the establishments which when complete I will submit to you.

(4).—CORONATION CONTINGENT.

The sending of a military contingent to represent the Canadian forces at the Coronation of His Majesty King Edward VII., in response to an invitation from His Majesty's Government, was one of the most interesting events that occurred in connection with the Canadian Militia during the year.

Twenty-two officers and 580 non-commissioned officers and men, or a total force of 602 of all ranks, were invited. Owing to 300 of the 580 non-commissioned officers and men being mounted, it was not possible to give the same scale of representation to all corps, but with the exception of two corps, which were in a disorganized state, every corps was given representation according to a scale carefully worked out and prepared.

Unfortunately, owing to the postponement of the Coronation, the Contingent did not take part therein, but as a small detachment of it returned to England, to form part of the King's Colonial Escort, the Canadian Militia was privileged to be represented at the Coronation.

I attach to this report as Appendices B and C, the reports from Lieut.-Colonel H. M. Pellatt, who commanded the Coronation Contingent, and Lieut.-Colonel R. E. W. Turner, V.C., D.S.O., who commanded the King's Colonial Escort, where detailed information respecting the composition and experiences of the Contingent and the Detachment will be found.

(5).—ANNUAL TRAINING.

The Cavalry and Field Artillery were trained during the year in Divisional and Brigade Camps on much the same lines as in former years. This training took place in June, as usual.

Shortly after my arrival I arranged three camps of instruction at Sussex, Three Rivers and Niagara-on-the-Lake, for the officers and non-commissioned officers of the Rural Militia Infantry Battalions.

These camps of instruction covered a total period of 25 days, the whole of which I devoted to the personal supervision of the training, visiting each camp in turn.

As men who have only nine working days in the year to learn their duties as soldiers and non-commissioned officers cannot afford to spend any of that time on ceremonial, I arranged that instruction should be entirely devoted to practical work.

The officers and men under instruction worked with great zeal and intelligence, and though the system was in many cases quite new to them, they picked it up very quickly, and the tactical exercises engaged in towards the end of the training were useful in showing to all ranks how much they had still to learn before they could be considered efficient soldiers, let alone non-commissioned officers qualified to instruct and lead others.

Owing to the fact that the work at these camps was largely novel, I collected an Instructional Staff who accompanied me to each camp in rotation. This staff dealt with Tactics, Field Engineering, Musketry, Intelligence, Reconnaissance, and the movements of Infantry, &c., and worked on a regular system laid down beforehand.

Much credit is due to certain officers of the Permanent Corps who with Major Hewett and Captain Symons of the Royal Military College formed the Instructional Staff at these camps. The two officers I have last named lent me invaluable assistance, and, I fear, thereby added to their own labours on their return to the college. Every officer and man who was present at the camps can testify how much of their success was due to the ability, tact and energy of the members of the Instructional Staff.

No service ammunition was fired at these camps owing to the impossibility of obtaining a sufficiently large target accommodation. A course of preliminary practice with Gallery ammunition was substituted. It was found possible by greatly increasing the miniature target accommodation to put each corps through one satisfactory practice with miniature ammunition.

In addition, one officer and one non-commissioned officer from each regiment were put through a ten days' musketry course, equivalent to the regular trained soldiers' course, which each soldier in the Imperial army undergoes each year, as part of his annual training. The officers who had obtained certificates at the School of Musketry were utilized as Musketry Instructors and gave most efficient service.

(6).—IMPROVEMENT IN TRAINING AND ENROLMENT.

Observation at these camps has shown me that the Canadian soldier takes the greatest interest in anything which his intelligence proves to him is of real practical benefit. Therefore, I propose in future to leave out marches past and ceremonial, and instead to convert the camps practically into schools of instruction for fitting the soldier to take the field, with not one item in the programme that does not make for fighting efficiency.

Though the Rural Militia contains a large proportion of earnest, self-sacrificing officers and men, it does not satisfy the requirements of a national defence force. Nominally it is a body of men who engage to serve for a period of three years. As a matter of fact it consists and always has consisted of a number of regiments which are almost recruited afresh every time they are called out for training. Large numbers of entirely raw men enlist before the particular training and are perhaps never seen afterwards, no real effort being made to compel them to fulfil their engagement, owing to powers of compulsion being quite inadequate for the purpose. Consequently it is impossible to carry instruction beyond the most elementary stages. Such a system is unduly expensive and ineffective from a military point of view. So small is the rate of pay, and so unsatisfactory have been the conditions of training, that the best men do not enter the Militia as they might. From this it follows that the non-commissioned officers also are to a large extent insufficiently qualified for their posts, nor can they command ready obedience from the soldier when, as in many cases, they are quite ignorant of the veridiments of their duties. Numbers of men go out to camp as non-commissioned officers without any previous training whatever, and the proportion of these men who are new to the rank on such occasions shows clearly that there is a want of continuity in the personnel of the units. For example, at Niagara-on-the-Lake this year, out of 1,054 non-commissioned officers there were no less than 440 who put on the stripes for the first time. Such a force certainly does not provide the trained frame-work needed to make a citizen army efficient in time of war.

As with some of the non-commissioned officers, so it is with some of the officers. Many have evidently not studied their profession sufficiently to act as the leaders and instructors of their non-commissioned officers and men. I make some suggestions, later, on this matter.

Self-instruction by means of books, lectures to their men in well-appointed comfortable armouries (when these are provided) during the winter, and thoroughly practical work in the summer months will, joined with the excellent spirit which pervades the officer class of the Canadian Militia, soon, I anticipate, produce the required result.

(7).—MATERIAL.

There is a great deficiency of all kinds of military stores and material essential for active service. This deficiency should be made good in time of peace.

It is absolutely necessary that the regulation allowance of every article of equipment required for mobilization of companies should be at company headquarters, for regimental mobilization at regimental headquarters.

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Though there appears to be almost a sufficient stock of camp equipment for the existing units at their present strength, there is certainly no reserve available for the large force which would have to be placed in the field in time of war.

Carts—There are no small arm ammunition carts or military water carts. The number of properly constructed ambulance wagons is very far short of the number required for mobilizing even the peace establishment of the Militia. This would inevitably cause the greatest suffering to the Canadian forces if they had to engage in a war.

(8).—CITY CORPS.

The city regiments, under the present organization, would as a whole be the easiest to mobilize, but even they cannot in any sense be said to approach a state of readiness to take the field. They labour under the greatest difficulties and disadvantages. They all suffer from want of field training, owing to the fact that they get practically no camp experience. The allowances for instruction are too small; so, in the most efficient of the Corps much of the necessary expense has to be undertaken by the officers and men instead of by the public. This unfair expense causes the loss of many good officers to the country. Many corps suffer from want of proper accommodation in the way of Armouries, &c. Deficiencies of this kind have either to be made up by private effort or the corps must suffer.

(9).—RAILWAY TRANSPORT OF HORSES.

When travelling about, visiting the camps, I was disagreeably impressed with the treatment sometimes accorded to horses on the railways. The precautions taken to prevent concussion when shunting horses do not appear to be adequate. Complaints have reached me from various sources on this subject. As horses belonging to the Militia are constantly moving by rail, I consider the subject one of importance to the Militia generally, and suggest that some measures might be taken in conjunction with the railway companies with respect to the matter.

(10).—SCHOOLS OF INSTRUCTION.

The courses at the Royal Schools of Military Instruction have been conducted without interruption during the year. A number of the officers of the Permanent Corps having been detailed for service in South Africa, it was necessary to attach a number of officers for duty.

The only Provisional School during the year was one held at Vancouver, B.C., for Infantry Officers and N. C. Officers.

I have also arranged for special evening instruction at two or three centres at which I considered it desirable.

A feature of this year's instruction was a five weeks' Special Quick Firing Course at the R. C. G. A. for officers and petty officers of the Fishery Protection Service.

(11).—STAFF COURSE.

A Course of Instruction in Staff duties was held at the Royal Military College, Kingston, commencing February 10 and ending May 23, 1902. Twelve officers were authorized to undergo the course, but only six completed it.

(12).—3RD BATTALION, R.C.R.

The 3rd Battalion R.C.R., organized in March, 1900, to replace temporarily the 1st Battalion, Prince of Wales' Regiment (Royal Canadians), in garrisoning Halifax, N.S., was relieved by the 5th Battalion, Royal Garrison Regiment, towards the end of September, and was thereupon disbanded.

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Such of the non-commissioned officers and soldiers as would enlist in the Permanent Corps were allowed to reckon their service in the 3rd Battalion R.C.R., towards pay and pension, and a considerable number, though not as many as were required to complete the strength of the various units, took advantage of the offer.

The organization of this Battalion at the time of the Empire's danger enabled His Majesty's Government to place another regiment in the field, and the service to the state was as important as if the battalion had proceeded to South Africa.

The following despatch was received from the Right Hon. the Secretary of State for the Colonies, and published in orders for general information.

'Secretary of State for War desires to convey his appreciation of valuable assistance rendered by Canadian Government in maintaining battalion at Halifax. He has much pleasure in testifying to the good behaviour of the battalion.'

The General Officer commanding His Majesty's regular troops in Canada, also expressed his thorough appreciation of the services of the battalion, upon the occasion of the disbandment.

(13).—SOUTH AFRICAN CONTINGENTS.

The organization, equipment, and despatch of contingents to South Africa, and their service in the field during 1902, have been dealt with in a supplementary report now being issued. An unusual amount of work was thrown upon the Militia Department by the going out and returning of these contingents.

(14).—ARMY SERVICE CORPS.

This branch of the service has been started this year. Of the four skeleton companies authorized, two are now complete and another is in process of organization. Lieut.-Colonel Biggar and two non-commissioned officers were sent to Aldershot where they were given every advantage by the authorities to gain information on Army Service Corps work.

Since his return to Canada, Lieut.-Colonel Biggar has conducted a six weeks' course of instruction at Montreal with the company there, with satisfactory results. This is to be followed by a similar course at Kingston and at the headquarters of the other company.

(15).—SCHOOL OF MUSKETRY.

Courses of Instruction were held during the months of July and August at the Rockcliffe Rifle Range. The number of officers and non-commissioned officers taking the course totalled sixty, this being double the number that attended the same term of the previous year. Of these 31 officers and 22 non-commissioned officers obtained certificates.

Officers who are already in possession of a first class certificate and are good practical rifle shots will in future be given the option of taking a special course of ten days at the end of each term, passing the same examinations as the regular class.

Instead of holding a fall course, the staff of the School of Musketry was transferred to the camps of instruction, proceeding to each in turn.

Under the able and energetic command of Lieut.-Colonel Cartwright, the inspector of musketry and commandant of the School of Musketry, great progress has been made in the past year in extending and popularizing the knowledge of rifle shooting throughout Canada. The history of the new rifle clubs shews a steady growth, and the value of the work done by the School of Musketry, not in the teaching of shooting, but in the *teaching of instructors in shooting* can hardly be over-estimated even though its work is as yet on a small scale.

The School of Musketry at present occupies the pavilion at Rockcliffe Rifle Range, which was built on the range by the D. R. A. with government assistance, for the accommodation of their competitors. Additions have been made in order to make this building suitable for the combined purposes of a musketry school and competitors'

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building. In addition another large building constructed by the government for the D. R. A. will give ample accommodation for lecturing purposes.

The water supply is not good. A proper water supply is very much needed at Rockcliffe, if the Musketry School is to be permanently established at Ottawa.

(16).—RIFLE RANGES.

Government rifle ranges have been completed and opened during the year at:—Pointe aux Trembles, (Montreal), Bedford, N.S., Sherbrooke, Que., Fredericton, N.B., and St John, N.B.

Large additions have been made to the existing rifle range accommodation at Lévis, Que., Toronto, Ont., and at Rockcliffe, Ont. Private ranges have also been constructed and assistance given towards their maintenance. In some instances, notably Richmond, Ont., the owners of large unused areas have given leases of their land for nominal sums, conditional on the land being used for rifle range purposes only. This spirit is much to be commended, and is of the greatest assistance to the department. The main difficulty in selecting these ranges is in procuring a suitable background, the portion actually used for rifle practice being in the case of a 1,000 yard range a matter of less than 50 acres, while the back portion usually covers about 200 acres. If some good use could be found for this latter portion of the range, the procuring of suitable rifle ranges would be comparatively easy. It is suggested that something might be done in the way of utilizing this ground for forestry purposes, as the damage done by stray bullets would be practically nil.

(17).—RIFLE ASSOCIATIONS.

The Dominion Rifle Association has been granted additional assistance to enable it to enlarge its accommodation at Rockcliffe. Extensions have been added to the stop butts and other work carried out.

The Provincial Associations have been doing good work, particularly the Ontario Rifle Association, the attendance at its matches being only slightly smaller than those of the D.R.A. An addition to the list has been made this year by adding the Territorial Rifle Association, with headquarters at Calgary. This association has shown great enterprise in its efforts to provide rifle range accommodation for itself, and by holding a most successful prize meeting extending over several days.

(18.) ROYAL MILITARY COLLEGE.

I am glad to see from Colonel Reade's Report (Appendix A.) that the Royal Military College is keeping up and improving its very high standard of efficiency.

Conduct, drill, work, discipline and physical training are all reported on favourably, and the numbers of the Gentlemen Cadets show a slight increase. I am very glad to learn that a great advance has been made in the standard of signalling at the College, and that another victory has been won over Sandhurst with the rifle.

(19).—ARMY MEDICAL DEPARTMENT.

This department under the direction of Colonel Neilson, has been doing admirable work. I cannot speak too highly of the devotion to duty that leads its members to undertake this work, many of them at heavy financial loss to themselves, as every day which they take from their private practices to devote it to hard work in camp is a direct loss to themselves financially, however much the country may gain. The least the country can do is to make the hospitals as efficient as possible and in every respect worthy of the officers and men who man them.

The present establishment of all ranks is complete, forming a total of 72 officers qualified in accordance with G.O. 19 of 1900. In addition there is a list of 25 second lieutenants supernumerary, several of whom have qualified and are waiting for vacancies.

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Four additional District Principal Medical Officers have been appointed, making a total of eight districts provided with medical administrative officers.

Army Medical Corps.—All the organized units of this corps, with the exception of Field Hospital No. 6, underwent training.

Militia Nursing Service.—Sixteen Militia Nursing Sisters have at different times been despatched to South Africa during the war. They performed very meritorious services in connection with the Army Hospitals.

(20.)—ARTILLERY.

I have received your approval to the following recommendations put forward at various times:—

Increased pay and higher ranks for Sergeant Instructors of the permanent force.

The appointment of Gunnery Instructors in the Royal School of Artillery.

The trial of various patterns of harness with a view to the adoption of a simpler pattern for the Canadian service than that in use at present.

A small quota of R. A. reservists for the Royal Canadian Artillery.

Equipment for three Garrison Companies with 4.7" Q.F. guns on travelling carriages.

Two 1 pr. Q.F. guns (Pom-Poms) for experiment as to their suitability for the Canadian service.

Search-lights for night Q.F. practice.

Different types of machine guns for experimental purposes with a view to ascertaining the most suitable type for Canada.

The commencement of the conversion of the present 12 pr. B.L. Field Gun equipment to Q. F. pattern.

I have recommended the sending of two officers and four non-commissioned officers of the R.C.A. to England for instruction at the School of Gunnery. These officers and men have been sent.

(21.)—GUNNERY PRACTICE.

A new departure was made this year in allowing some of the Garrison Artillery units to carry out practice with light Q.F. guns at St. John, N.B.

I visited this practice camp in company with Lieut.-Colonel Rutherford, Assistant Adjutant General for Artillery, and was satisfied with the way in which the work was carried on there.

The following were the units which carried out practice:—

R. C. G. A.

3rd Regt. C. A.

4th Regt. C. A.

A good deal of interruption was caused by fog and wet weather, consequently many of the detachments were pressed for time in which to get through this instruction and practice.

The average speed of the towed targets, about 8 miles an hour, was perhaps fast enough for a beginning, but it is essential that a much higher rate must be obtained to make this practice effective. 1-inch aiming rifles are also much needed to afford the necessary preliminary instruction in sight setting and judging overs and unders, but the most essential thing of all is more time for training. Each detachment should have at least three days instruction before practice.

The average figure of merit obtained at this practice was very low, but allowance must be made for the fact that the guns were new to the old detachments, as well as the system of firing which requires perhaps more thorough training than any other kind of artillery practice.

The results of this practice are given in Appendix G. I visited the Field Artillery practice camp at Deseronto, accompanied by the Assistant Adjutant General for Artillery.

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The following units carried out their practice at this camp.

' A ' Battery, R. C. F. A.
 ' B ' " " "
 2nd Ottawa Field Battery.
 3rd Montreal " "
 4th Hamilton " "
 5th Kingston " "
 7th St. Catherine's Field Battery.
 8th Gananoque " "
 9th Toronto " "
 10th Woodstock " "
 11th Field Battery, 1st Brigade Division.
 13th Winnipeg Field Battery.
 16th Field Battery, 1st Brigade Division.

The average time for coming into action this year was slightly longer than last, owing principally to the more difficult long range target, which was also the cause of the small number of hits at that range. The laying tests led to a marked improvement in uniformity in the laying.

The practice was carried out under certain tactical ideas which gave some of the junior officers of the Batteries an opportunity of carrying out the duties of battery commanders. It is to be regretted, however, that the limited fire area at Deseronto does not admit of much variation in these tactical lessons. The standard of instruction imparted was much improved by the addition of a Gunnery Instructor to the Instructional Staff. 5" B.L. howitzer practice over a land range was a new feature and a step in the right direction, though the fire effect was not good. The average fire effect with 12 pr. B.L. guns was 83·13 as compared with 57·95 in 1901.

The instruction carried on at this camp was of a very satisfactory nature:

The results of the practice are given in Appendix H.

The annual training and gun practice of the 1st and 5th Regiments C.A. were carried out under the supervision of the C.R.A.'s at Halifax and Victoria respectively. The 2nd Division 1st Regt. was mobilized for training at the Citadel, Halifax, in June, and carried out its practice at the termination of the training with 20 pr. R.B.L. guns, having first had some preliminary practice from the 12 pr. Q.F. gun fitted with '303" Elswick aiming rifle. The Division also had some practice with 1" aiming tube ammunition from 4·7" Q.F. guns fitted with automatic sights, with excellent results. The gun layers were, however, reported to need more instruction.

The practice of the First Division was carried out in September and October with 1-inch aiming rifles and automatic sights, and with two 9-pr. R.M.L. guns, and here again the gun layers were reported to need more training, and the dial numbers also. On the whole, however, the practice was reported satisfactory.

The 5th Regiment C.A. practised with 13-prs. R.M.L. fired 31 rounds in the first series and 29 rounds in the second series, making 60 in all.

Wood time fuses were used, Some T. and P. fuses are suggested for next year's practice.

Drill was good. Practice was very fair.

The 25 rounds with 6-inch B.L. from three groups were also fired. Figure of merit, .119.

Rate of fire very slow, principally due to D.R.F. and dial No.'s, but the practice was considered satisfactory.

Appendices F and J show the nature and amount of ammunition expended by the Field and Garrison Artillery at practice.

A few batteries are well off in respect of armouries, gun sheds, &c., but the majority are not.

The need of more accommodation is greatly felt at the following places:—St. John, N.B., Woodstock, N.B., Montreal (for Garrison Artillery), Toronto and Hamilton.

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As Artillery equipment is very costly, it would be a saving to the country if proper storehouse accommodation were provided. What is needed at each place is sufficient room for the storage of the complete equipment of each unit for mobilization purposes. One of the most important requirements for the Garrison Artillery is the construction of a suitable building at the Royal School of Artillery, Quebec, for instructional purposes. This should provide accommodation for drilling on all the different types of gun used by the Garrison Artillery, range and position finders, lecture rooms for classes in gunnery, material, electricity, laboratory duties, &c.

(22.)—CAVALRY TRAINING.

I have issued a memorandum on the training of the Mounted Troops of Canada, and also a new syllabus of instruction. I have assimilated the equipment and training of all branches of Mounted troops, making the rifle the weapon for all regiments, so that they now differ from one another in name only. I have recommended such alterations of their clothing and equipment as will enable them to act efficiently on foot. I am also preparing new instructions for their training.

(23.)—GENERAL TRAINING INSTRUCTIONS.

I am preparing instructions for the Militia on their training, dealing in particular with Musketry, Field Engineering and Field work generally.

(24.)—STATIONARY DEFENCE.

I have made careful inspections of various places which require fixed defences.

(25.)—CADET CORPS.

This branch of the national defence system might easily be of the greatest value to the country, but from various causes it is at present of little account.

The results of the present system compare very unfavourably with what has been achieved in Australasia.

The whole Cadet Corps question requires to be considered and reorganized on workable lines, as the youth of the country are splendid material now lying waste from the military point of view.

Arrangements should be made to furnish every Cadet Corps of a certain strength with proper instruction.

(26.)—HEADQUARTERS STAFF.

I wish to place on record my appreciation of the valuable work done by the Headquarters Staff in connection with the Contingents which Canada furnished to the Mother Country. The continuous labour done by the Staff in conjunction with the Civil Branch is not as well known to the people as was the work done by the troops in the field, but it is deserving of warm recognition and praise.

I have the honour to be, sir,
Your obedient servant,

DUNDONALD, Major General,
Commanding the Canadian Militia.

OTTAWA, December 31, 1902.

APPENDIX A.

KINGSTON, Ont., December 31, 1902.

To the General Officer Commanding Militia,
President of the Royal Military College of Canada.

SIR,—I have the honour to forward my report on the R. M. College for the year ending December 31, 1902.

STRENGTH.

1. At the beginning of the year the strength was 84 Gentlemen Cadets. During the year there has been a decrease of 28 Gentlemen Cadets, viz. :—

Commissions in 3rd Regt. Canadian Mounted Rifles,	2.	} Graduated June, 1902.
" Imperial Forces	6	
" Permanent Force	2	
" Reserve of Officers	9	
Withdrawn	9	

and an increase of 33 Gentlemen Cadets (admitted Sept., 1902), leaving a present strength of 89 Gentlemen Cadets.

HEALTH.

2. General health excellent, except during the last three months, when three cases of typhoid fever occurred. Investigation has traced this outbreak to the College water supply: temporary means have been taken to obviate its defects; the whole question of a new water supply for the College is now engaging the attention of the Militia Department.

CONDUCT AND DISCIPLINE.

3. The Conduct and Discipline of the Gentlemen Cadets has been good.

EXAMINATIONS.

4. The yearly Examinations have given satisfactory results; and the Gentlemen Cadets who graduated attained a good standard. Improvement too is shown in French, Chemistry and Physics.

I regret however to report a certain number of failures to qualify for class promotion. These occurred chiefly in the 3rd Class; and in Mathematics and French; and are, in my opinion, in great part due to insufficient grounding, previous to entering the College. For the percentage of marks required for entrance is so low, that if candidates pass by mere cramming, they find to their cost on joining the College that they cannot take advantage of the instruction, or keep up to the required standard.

At the next entrance examination, Freehand Drawing will be added as a voluntary subject.

DRILLS AND EXERCISES.

5. In drill and gymnastics, a good standard has been maintained. In Signalling great improvement has taken place.

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The rifle shooting has been good, the R. M. C. of Canada again defeating the R. M. C., Sandhurst, in their annual match; and more attention has been paid to shooting at moving objects, snap shooting and judging distances.

The revolver shooting shows improvement.

The gun drill is good, but the annual practice was, to some extent, marred by its having to be performed on a water range with 6-pr. R. B. L. These little guns, handy though they be for drill purposes, are unsuited for practice under service conditions, especially as there are no time fuzes for them. I therefore recommend that in future the annual practice be done by 12-pr. B. L., at some artillery range (say Deseronto) where the Gentlemen Cadets, under their own Cadet N. C. O., could fire under the same conditions as a field battery of the active militia.

The Gentlemen Cadet Battalion went into camp for a few days in June near Kingston, where they carried out all the routine of camp duties, cooking, &c. The result was very satisfactory, but I hope that another time authority may be granted for a camp to be formed for a week, at a place like Deseronto, where infantry field firing, tactics, and the gun practice suggested above, could be carried out.

RIDING.

6. I again draw attention to the inadequacy of the riding instruction. Recent war has brought home forcibly the necessity of a soldier being able to shoot, ride, and take care of horses; and valuable as such knowledge is to a regular officer, still more is it necessary for those officers who, without the advantage of much further military training, will, on emergency, be called on to serve in the Canadian local forces.

When Kingston Cadets hold their own so well in other branches of instruction, it is sad to compare their standard of riding with that attained at West Point, U.S.A., where equitation is taught during three years of a four years' course, and the graduates are turned out finished horsemen.

I therefore recommend that riding be taught to the Gentlemen Cadets during their second and third years, the course being more complete, and opportunity being given for horseback reconnaissance and mounted infantry work. If this entails a larger staff of horses and men, it might be possible to utilize the same also for the instruction of officers attending long and staff courses at the R.M.C., and the whole might be under the supervision of the Inspector of Cavalry.

ROYAL MILITARY COLLEGE AND THE LOCAL FORCES.

7. It is to be regretted that so few graduates enter the local forces, on leaving the College.

As to the permanent force, this may be accounted for by the fact that this force has to compete with the civil professions, which offer numerous attractions to well educated young men in a thriving progressive country.

Of course, in the U.S.A., similar conditions prevail and appear to be met; for no difficulty exists in getting sufficient officers for the U.S. Army from West Point Military Academy. It must be remembered, however, that at West Point the education is practically free, and it may be a question whether to obtain more R.M.C. graduates for the permanent force, it might not be advisable to remit their College fees.

But with regard to the active militia, I feel there can be no two opinions as to the advisability of graduates serving in that force for several years, immediately on leaving the College, and before passing into the reserve of officers.

Such service would not hinder their following civil callings, whilst by it they would have the great advantage of continuing their military education in the subaltern ranks, where they could study the training and become acquainted with the conditions of service of the force they would have to officer in case of war.

I would, therefore, suggest that the R.M.C. Regulations be altered so that all Gentlemen Cadets entering the College in and after 1903 be obliged to serve for three years in the active militia, immediately on graduating, should they not receive commissions in the Imperial or permanent forces.

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VISIT TO M'GILL UNIVERSITY.

8. By the courtesy of the Dean, the 1st class again visited McGill University, and witnessed many interesting experiments and tests of materials in the workshops.

RECONNAISSANCE SURVEY.

9. During the midsummer vacation a party of ten Gentlemen Cadets, Sergt. Browne, R.M.C. Staff, with Capt. Bogart, 14th Regt., and Lt. Anderson, R.O., the whole under the superintendence of Capt. Symons, R.E., were engaged in reconnaissance work in Ontario.

Capt. Symons rendered an excellent report on the work done, and on the strategical and technical considerations involved in the district reconnoitred.

The mapping done will also be of use from an Intelligence point of view, provided it is reduced to a convenient scale, and that means exist for issuing it at once when needed in sufficient quantities.

OFFICERS' LONG COURSE.

10. A long course for officers was held from February till May; three completed the course and obtained 1st Class certificates.

In this course a greater proportion of time was devoted to military topography and reconnaissance, with satisfactory results.

STAFF COURSE.

11. A Staff Course for officers of the active militia was held from February till May. The results are contained in my confidential report to the Adjutant General, dated May 31, 1902.

MILITIA INSTRUCTION CAMPS.

12. During September the services of Major Hewett, R. W. Kent Regt., and Capt. Symons R. E., of the R. M. C. Staff, were placed at the disposal of the General Officer Commanding the militia, in connection with the militia instruction camps.

NEW BUILDINGS, ETC.

13. A new hospital has been built.

A new gymnasium, and married quarters for the staff adjutant, have been commenced.

Through the generosity of a public subscription, a billiard table has been presented to the College.

I would again draw attention to the lack of covered space for recreation in winter and bad weather; and would strongly urge the erection of a wooden covered rink and two wooden squash racquet courts.

COMMISSIONS.

14. During the year the following gentlemen obtained commissions:—

3rd. Regt. Canadian Mounted Rifles, A. H. Tett and V. B. Patterson; Royal Engineers, D. K. Edgar; Royal Artillery, W. Weatherbe; Infantry, J. B. Uniacke, Indian Staff Corps, A. H. Gwyn, W. C. Reid and S. C. Biggs; Canadian Permanent Artillery, E. de B. Panet and G. T. Jennings.

DIPLOMAS OF GRADUATION.

15. Diplomas of Graduation have been awarded to the following Gentlemen Cadets of the 1st Class ; the first six named being with "Honours" :—

D. K. Edgar, A. A. Blanchard, A. H. Gwyn, M. L. Gordon, W. C. Reid, J. S. Leitch, E. de B. Panet, F. E. Healy, H. J. Deyell, S. C. Biggs, W. Weatherbe, J. B. Uniacke, G. T. Jennings, G. H. Cassels, N. L. Tooker, J. G. B. Coyne and V. J. Kent.

ANNUAL PRIZES.

16. The College prizes have been awarded as follows :—

Governor General's Medals for the highest aggregate of marks during the entire course,—D. K. Edgar, gold medal ; A. A. Blanchard, silver medal ; A. H. Gwyn, bronze medal.

Class prizes for the highest number of marks in each class :— D. K. Edgar, 1st class prize ; W. G. Tyrrell, 2nd class prize and F. H. Peters, 3rd class prize.

Conduct, drills and exercises, prize, sword of honour, D. K. Edgar.

Subject prizes, for the highest marks in the several subjects :—In the 1st class, D. K. Edgar received the prizes for Military Engineering, Military Surveying, Military Drills and Exercises, Civil Surveying, Science and Civil Engineering ; H. J. Deyell received the prize for conduct.

In the 2nd class, W. G. Tyrrell received the prize for Mathematics, W. E. Stephenson the prize for Geometrical Drawing, F. T. Lucas the prize for Tactics, Military Administration and Law : H. L. Trotter the prize for French, and M. V. Plummer the prize for English.

Dominion Artillery Association's prizes :—D. K. Edgar and R. R. Carr-Harris.

Commandant's Musketry prize, young soldiers' course :—F. H. Peters.

Boxing prizes :—Heavy weights, G. B. Wright ; middle weights, N. W. C. Hoyles and light weights, E. de B. Panet.

I have the honour to be, sir,
Your obedient servant,

RAYMOND READE, Lt.-Col.
Commandant R. M. College.

APPENDIX B

Colonel, the Right Honourable Lord Aylmer,
Adjutant General,
Ottawa, Ont.

SIR,—As commanding officer of the Canadian Coronation Contingent, I have the honour to make the following report:—

On Saturday, May 31, I arrived at the camp which had been established at Lévis, where I found Lt.-Col. Turner, V.C., D.S.O., in charge.

Wet weather was almost continuous during our stay in this camp, interfering very much with our drill, but organization and equipment were steadily carried on.

As to the former, I found it quite impossible to treat the whole force as a regiment, the same words of command being inapplicable for mounted and unmounted men. In consequence the field artillery, cavalry, mounted police and mounted rifles were treated as one unit, under command of Lt.-Col. Turner, with Major Panet as adjutant, while the garrison artillery, infantry, rifles, army medical corps and army service corps made up a second unit under command of Lt.-Col. Thompson, with Capt. Benyon as adjutant, the two units being known as the right and left wings respectively.

This enabled me to act as brigadier, with Major Mason as acting brigade major.

The formation worked out satisfactorily, and was retained throughout, with a slight change in the staff, Major Panet taking the post of brigade major, Capt. Benyon going as adjutant to the right wing, and Major Mason taking that post with the left wing.

As to the equipment, our difficulties were very much greater. Many of the men joined with but part of the necessary kit, and very many more with uniforms quite unsuited, by reason of previous wear, for use on such a trip as this, which was wholly the fault of the officers of their respective corps.

A word of hearty appreciation is due to Lt.-Col. Vien, 6th Quebec and Lévis regiment of garrison artillery, who, as camp quarter-master at Lévis, was unfailing in his attention and courtesy, adding very much indeed to our comfort while under his care, while Major Fages did all in his power as camp brigade major to assist us.

On Thursday morning, June 5, we were inspected by the general officer commanding, Major General O'Grady Haly, very minutely, and thereafter addressed by him in words complimentary and encouraging.

On the afternoon of Friday, June 6, the contingent crossed over to Quebec, and was again inspected by the major general before a very large crowd of people on the Esplanade, after which a march past was given. It was on this afternoon that the Daughters of the Empire, headed by their president, Mrs. Nordheimer, of Toronto, and a number of delegates from that city and from Quebec, presented to the contingent a silk flag, a trophy highly prized by all the officers and men.

Next day about 6 p.m. we embarked on the *Parisian* at Quebec, as did also His Excellency the Governor General, but owing to the weather he refrained from inspecting the contingent, as had been at first arranged.

The passage across the Atlantic was devoid of storms and ice, and the health of the contingent excellent, a number of cases of sea-sickness being practically the only trouble.

We arrived at Liverpool on Monday, June 16, where a great reception was given to us by the immense number of craft of all sorts on the river and in the docks. Here a telegram from the War Office stopped our disembarkation, and held us on board over night, to the great disappointment, not only of our own men, but also to the citizens of Liverpool, who had prepared a royal welcome for us.

Next morning we marched from the Alan Line Steamship Co.'s docks, where the *Parisian* had taken up her berth, to a tramway which carried us into the heart of the city, and thence through the streets, accompanied by the fine band of the Liverpool police force, to the station of the Great Northern Railway, where two special trains were in waiting to carry us to London.

Our reception along the line of march was very hearty, and gave to all a foretaste of that welcome which was ours wherever we went in England.

Our route to London was made somewhat circuitous through a desire on the part of our hosts, to show us the beautiful scenery in the mountainous region from which Manchester draws its water supply, and we were amply repaid for the few extra hours on the train, which this entailed.

About 3 o'clock p.m. we reached Wood Green, our detraining point, where we were met by Major General Cook, our future camp commandant and accorded a most cordial reception.

Our quarters at Alexandra Park were most comfortably furnished; the men were accommodated in squads of from ten to sixty per tent and each was floored and supplied with a camp bed, mattress, and blankets per man.

The messes for both officers and men were served very comfortably in Alexandra Palace itself, and in quality and cleanliness were excellent.

The treatment accorded us throughout our stay by Major General Cook, Col. Penton, his chief staff officer and his staff in general, was kindly and courteous in the extreme, and I feel bound to say, in view of the unfortunate controversy on this subject, which has arisen in the Canadian press, that any slight misunderstandings which may have occurred, were entirely with junior officers, and were no more important than those little squabbles which occasionally take place between the hot headed officers of the Canadian militia in our own camps of instruction.

While not wishing to deal at length with newspaper reports, I think it only justice to our English friends as hosts, and to ourselves as Canadian guests, to deny flatly and emphatically, the story that on the night of the military tattoo at Alexandra Palace one of the galleries was placarded with a notice to the effect that no colonial officer was to be admitted there. The fact was that the crowds at this function were enormous, reaching nearly one hundred thousand, and entirely beyond the expectation of the park authorities, civilians all, who had it in hand. In consequence people thrust themselves in everywhere, and a sentry had to be posted at the door of General Cook's quarters, with instructions to allow none but his staff and his guests to pass in. This was the slight foundation on which the report must have been founded, and so far from colonial officers being excluded, I know that I myself, and several Canadian officers, and a number of our individual guests were kindly welcomed on the very balcony in question.

Our first inspection took place on Wednesday, June 18, His Royal Highness the Duke of Connaught, inspecting officer, and passed off very satisfactorily, His Highness complimenting the Canadians on their fine physique and soldierly bearing, and making numerous inquiries from the men, in passing along the ranks, as to their respective regiments, treatment since arrival in England, &c., &c.

After his minute inspection we marched past in fours, all officers falling out on passing the saluting point, and after the parade, being presented according to seniority.

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On this memorable occasion we participated with all our fellow soldiers from the various parts of the Empire, who were stationed at Alexandra Park, who paraded in the following numbers, and from the following places:—

	EUROPEAN RACES.		NATIVE RACES.	
	Officers.	Men.	Officers.	Men.
Malta.....	3	41		
Straits Settlement.....	4	49	1	56
Natal.....	4	97		
Cyprus.....	1	12		
B. S. A. Police.....	2	25		
Ceylon.....	3	50		58
Cape Colony.....	3	138		
New Zealand.....	6	108		30
Australasians.....	7	128		
Gold Coast Volunteers.....	1	5		
North Nigeria.....	1	1		29
South Nigeria.....	1	1		42
Gold Coast.....	1	1		23
King's African Rifles.....	2	1	1	24
Sierra Leone & Gambia.....	1			22
Lagos.....	1			23
Sierra Leone, Imperial.....	1			26
Bermuda.....	1	5		16
British North Borneo.....	2			22
Jamaica Militia.....	1			35
West India Regiment.....	1			31
Trinidad.....	2	27		18
Fiji.....	1			20
Chinese Regiment.....	1	1		14
Hong Kong Detachment.....	2	45	1	29

Our own strength on this parade was 26 officers and 603 men, in all 629, as against 788 of European birth or descent, from the other parts of the Empire, or very nearly as many as all the rest put together—more than four times as many as from Australia, Cape Colony or New Zealand, respectively, and almost twice as many as those representing these three other great colonies combined.

Our next inspection was by the Commander-in-Chief, Field Marshal Lord Roberts, and took place on Tuesday, June 24. This was not quite so minute in character as was our first inspection, and was carried out on exactly similar lines, including the march past, and presentation of officers to the inspecting General. His Royal Highness the Duke of Connaught accompanied Lord Roberts, thus a second time honouring us with his presence, and showing an unabated interest in the men.

It was on this occasion that the contingent was inspected and addressed by the Honourable Sir Frederick W. Borden, K.C.M.G., Minister of Militia and Defence, on their private parade grounds, after the general review.

On the 25th Lord Dundonald minutely inspected the men at their quarters, and expressed his satisfaction with the representatives of the Militia which he was so soon to command.

On Saturday June 21, the Right Wing was provided with field guns and horses, and settled down to parade work as Field Artillery, Cavalry, &c., according to its composition. The guns and horses after each parade were taken over and cared for by British regulars, our own men thus escaping an immense amount of work, for which thoughtful and kindly provision all felt very grateful to the War Office. It was a matter of regret that on no formal parade or inspection while in England did our Artillery appear with guns, or our Cavalry with horses, and while all looked well on foot, the appearance of a miniature army complete in every branch was thus entirely lost.

In addition to the two parades above touched on, we had no more formal inspections at Alexandra Park, but each day the contingent paraded in the morning with a view to the preservation of discipline and organization.

No man was detained in camp unless for guard, after 12 o'clock noon, and the men were not required to return from London before the midnight train. In a word, every liberty, consistent with keeping the men well in hand, was granted, and the privileges were fully respected, as drunkenness and absence from parades without leave were offences almost unknown. So marked was the sobriety of the men, and that under the very trying conditions of a hospitality all but excessive, that it called forth remarks of strong encomium from the officers of the Camp Commandant's Staff.

As to restriction to camp limits, only one exception applies to the above remarks. On the afternoon of Tuesday, June 24, the news of the serious operation that day performed upon His Majesty, came as a sad surprise to all, and with it an order that no officer or man was to leave limits until further orders. This was rescinded next day.

Lt.-Col. Turner, V.C., D.S.O., was selected to command the King's Colonial Escort, a force of fifty mounted men drawn from all the colonies, on June 26, a signal honour much appreciated by his fellow Canadians.

On learning that the Coronation was indefinitely postponed, and that no procession or pageant of any kind through London's streets was to take place, immediate steps were taken to give both officers and men a chance of visiting relatives and friends, an opportunity taken advantage of by more than a quarter of our total strength. The time allowed was three days, the Saturday, Sunday and Monday following the operation on His Majesty.

On Monday, June 30, special trains carried all those wishing to go from Wood Green to Southampton, where the troops embarked on Royal Mail Steamer *Bavarian*, of the Allan Line, and were taken for a lengthy cruise around the great fleet, which for the purpose of the Coronation Review had been mobilized at Spithead. Manned by 28,981 officers and men, the 113 ships of war, which included 21 battleships and 10 first class cruisers, made up the greatest assemblage of sea power in the world's history.

As the *Bavarian* passed each craft, rousing cheers were exchanged between the blue-jackets and our own men, never flagging throughout the miles we had to travel in inspecting the four great lines.

A very pleasant incident was the receipt of a hearty message of good-will from Capt. John Dennison of the Niobe to his fellow Canadians. As we realized that this officer from our Dominion commanded a splendid first class cruiser of 11,000 tons displacement, and a complement of 690 men, we felt that not in the army alone, but also in the senior service, the Navy, Canadians are taking their place with credit beside their British brethren.

The accommodation on the trains and on the *Bavarian* could not have been excelled, and this coupled with the bright clear weather, which we enjoyed until night-fall, together with the magnificent display made this decidedly the best day's outing enjoyed by the contingent.

On Tuesday July 1 the whole force quartered at Alexandra Palace was reviewed by His Royal Highness the Prince of Wales, on the Horse Guards Parade, in presence of Her Majesty Queen Alexandra, the Princess of Wales and a very large number of distinguished spectators, including numerous foreign military attaches.

The parade was under command of His Royal Highness the Duke of Connaught, and ended with a march past in fours. Here again the Cavalry and Field Artillery, while looking extremely smart, were somewhat at a disadvantage for the want of horses and guns. This was the last inspection participated in by the Canadians.

On the morning of the 3rd, pursuant to orders, we fell in at 8.30, and as we left our quarters nothing could have exceeded the heartiness of our send-off at the hands of our camp comrades, who coming from their tents to the last man lined our route and cheered us to the echo.

Throughout our stay the feeling of good fellowship between our officers and men and those of the other contingents was cordial in the extreme, and forms one of the best memories of the trip.

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Before entraining at Wood Green Major General Cook took leave of us in a few well chosen words, expressing the honour he felt in having commanded so fine a body of men, and his appreciation of the discipline and soldierly conduct of all ranks. He was warmly cheered in return.

On arriving in Liverpool late in the afternoon we marched from the train through an immense concourse of spectators to the City Hall, where all were sumptuously entertained by the Lord Mayor. His Worship specially requested that the Bugle Band of the Queen's Own Rifles should march past at the head of the contingent, as he was pleased to say that its good name had preceded it, and that the citizens of Liverpool were most anxious to hear its music. His request was granted. From the City Hall to our ship, the Royal Mail Steamer *Tunisian*, the streets were once more lined by cheering thousands, and nowhere in England did we receive so royal a welcome as in this great sea-port.

As when outward bound we experienced no rough weather, and the general health, excepting the usual percentage of seasickness, was excellent.

We had left eleven officers and eighty men on leave in England, and on arrival in Quebec about 120 more departed, leaving the remainder to go up the St. Lawrence to Montreal where the *Tunisian* arrived at 8 p.m.

At Montreal all our baggage was handled by the Army Service Corps under command of Lieut. Bond, and that in a manner which reflected the utmost credit on him and on his men. Nowhere were our belongings carried so quickly and so carefully as at this point, without confusion and without the loss of a single article entrusted to them.

The troop train from Montreal arrived in Toronto about 8 o'clock on Sunday morning, where the small remnant of the contingent broke up, those for more distant points receiving individually their transport requisitions.

In conclusion, a few words as to the conduct of the officers and men of the Canadian Coronation Contingent. From the former I received the most cordial support, and each and all showed continuous care for the comfort of the men. Throughout they had their respective commands well in hand, and no better officers could have been found to uphold the credit of the country which had so honored them as her representatives.

The non-commissioned officers were unsparing in their efforts to promote the efficiency of the corps, and to them too is due in no small measure the creditable showing made.

As for the men they lived up to their representative positions as picked men of the Canadian Militia. Their discipline throughout was excellent, except in the case of a very small number, who being summarily dealt with were speedily reduced to order. Among 657 men, however carefully chosen, a few objectionable characters are bound to creep in. Our good fortune was in the extreme smallness of their number.

On behalf of all ranks I wish to express hearty appreciation for the extreme kindness with which the Hon. Sir Frederick W. Borden, K.C.M.G., Minister of Militia and Defence met all our representations, and for the promptness with which he acceded to our wishes whenever possible.

I have the honour to be, sir,
Your obedient servant,

HENRY M. PELLATT, *Lt.-Col.*
Commanding Canadian Coronation Contingent.

APPENDIX C.

QUEBEC, August 19, 1902.

SIR,—I have the honour to submit the following report in connection with the Canadian Coronation Contingent. In compliance with orders received from headquarters that the details for the King's Colonial Escort were to return to England to take part in the ceremonies in connection with the Coronation; the following embarked on the ss. *Pretorian*, Montreal for Liverpool on July 25, 1902:

Lieut.-Col. R. E. W. Turner, V.C., D.S.O., Q.O.C. Hussars,
 - Regt. Sgt.-Major J. Widgery, R.C.D.,
 Sgt. Inst. T. LeBlond, R.C.D.,
 Sqr. Q.M. Sgt. W. Rhoades, R.C.D.,
 S.-Sergt.-Major A. Skinner, R.C.D.,
 Sgt. G. Hudson, R.C.D.,
 Sgt. H. Fuller, R.C.D.,
 Sgt. H. Baldwin, R.C.D.,
 Sqr. Sgt.-Major J. Page, C.M.R.,
 Sgt. H. S. Square, C.M.R.,
 Regt. Sgt.-Major H. S. Knight, N.W.M.P.,
 Sgt. A. Richardson, V.C., N.W.M.P.,
 Pte. F. D. Burkholder, G.G.B.G.,
 Sgt. H. A. Collins, P.L.D.G.

The passage to Liverpool was uneventful; the Messrs. Allan had granted first-class messing to the three warrant officers, and full run of the second cabin for the N.C. O's and men.

On our arrival at Liverpool on August 5, we were met by the disembarkation officers, who had arranged for a special car; we arrived at the Alexandra Palace Camp at 7 p.m. and were at once assigned quarters under canvas in the Palace Grounds, and reported my arrival same evening to the C.S.O. for colonial troops, one officer, thirteen N.C.O's and men.

On August 6, took over the horses required for our use; I wish to say all fatigues and care of horses were performed by men detailed from the regular forces, and also took under my command all Canadians in camp, on leave from first contingent for discipline at the request of the G.O.C., Alexandra Palace Camp. The following orders were issued by the G.O.C. on the 7th inst. for the parade August 9, 1902.

A royal escort of eight officers and fifty N.C.O's and men will be furnished by the mounted troops and will be composed as follows:—

	Officers.	N.C. O's and men.
Canada	1	13
Australia	1	11
New Zealand	1	9
Cape Colony	1	7
Natal	1	4
Ceylon	1	1
Straits Settlement	1	1
B.S.A. Police and Rho. Vols	1	2
Cyprus		1
Trinidad		1
	8	50

2-3 EDWARD VII., A. 1903

The royal escort will parade in review order under command of Lieut.-Col. R. E. W. Turner, V.C., D.S.O., Canada.

August 9.—In compliance with above orders we marched off at 7.45 a.m. and I reported to the senior officer of the Sovereign's Escort, Royal Horse Guards, at 10.30 a.m. at Buckingham Palace. The position of the colonial escort was in front of the Indian escort, which preceded the 2nd Troop of the Royal Horse Guards Escort. After the ceremony we returned to Alexandra Palace Camp by route march at 5.30 p.m.

August 10.—Voluntary church parade.

August 11.—Paraded in Buckingham Palace Gardens at 4 p.m.; troops were presented with the Coronation medals by H.R.H. the Prince of Wales, and afterwards addressed by His Majesty the King. The troops returned to Alexandra Palace Camp, by way of Victoria Station.

August 12 to 14.—Granted leave to N.C.O's and men desirous of visiting their friends.

August 14.—Left Alexandra Palace Camp at 8 a.m.; reached Liverpool about 2 p. m., and embarked on board ss. *Corinthian* for Montreal. One officer, 25 N.C.O's and men.

The Allan Company again granted full use of the second cabin to the contingent. Arrived at Montreal on the 24th inst.

The G.O.C. Colonial Troops, complimented me when leaving on the behaviour and appearance of the Canadians.

On our return trip the pay-sheet were completed, and the men handed their transport requisitions on arrival at Montreal.

I have the honour to be, sir,
Your obedient servant,

R. E. W. TURNER, Maj. and Bt. Lt.-Col.,
Commanding Detachment Canadian Coronation Contingent.

SESSIONAL PAPER No. 35

APPENDIX D.

ANNUAL RETURN of Permanent Corps of Active Militia (Non-commissioned Officers and Men) for the year ending Dec. 31, 1902.

Name of Corps.	Authorized Establishment.	Strength on Dec. 31, 1901.	Strength on Dec. 31, 1902.	Become Non-effective.								Enrolled.				Composition of present Contingents as to length of Service.				Serving with Pension from Imperial Government.
				Discharged by Pursue.	Discharged Unsuccessful.	Discharged Invalid.	Discharged—Time Expired.	Deserted.	Died.	Discharged in South Africa.	Transferred.	Total.	Enlisted.	Re-enlisted.	Transferred.	Returned from Desertion.	Total.	Under 1 Year.	1 to 2 Years.		2 to 3 Years.	Over 3 Years.
Royal Canadian Dragoons	100	82	94	9	2	.....	9	18	.....	38	45	2	.....	3	50	37	15	12	30	1
A Squadron Canadian Mtd Rifles.	54	47	48	2	6	2	4	21	.....	38	39	.....	.....	.....	39	22	6	8	12	.....
Royal Canadian Field Artillery...	234	163	183	10	8	3	16	75	10	123	121	5	1	16	143	69	23	24	67	.....
" Garrison Artillery	209	156	175	4	3	.....	15	32	.....	55	72	.....	1	74	38	17	33	87	.....
No. 1 Co. Royal Canadian Regt...	78	69	70	5	1	1	3	15	1	29	23	.....	2	5	30	16	10	21	23	.....
" 2 " " "	100	83	85	5	4	.....	2	25	.....	38	30	3	3	4	40	29	12	18	26	.....
" 3 " " "	60	59	61	4	3	2	2	17	.....	30	19	7	3	3	32	20	10	10	21	.....
" 4 " " "	67	70	60	3	2	1	5	9	.....	23	9	1	1	2	13	8	9	17	26	.....
" 5 " " "	80	49	59	1	1	1	10	10	.....	24	28	.....	4	34	26	26	6	9	18	.....
Total	982	778	835	43	30	10	66	222	4	398	386	18	15	36	455	265	108	152	310	1

AYLMER, Colonel,
Adjutant General.

APPENDIX F.

RETURN of Field Batteries, C.A., which performed Annual Drill during the Year 1902, showing type of gun used, and gun ammunition expended at practice.

Battery.	TYPE OF GUN.				Remarks.
	B.L., 12-pr.6 cwt.		R.M.L., 9-pr. 8 cwt.		
	Shell, Shrapnel.	Shot, case.	Shells.		
			Common.	Shrapnel.	
R. C. F. A.....	{ 'A' Battery	125	12		
	{ 'B' "	116	12		
1st Bde. Division ...	{ 11th Guelph.....	73	10	14	24
	{ 16th "	89	12	14	31
2nd Bde. Division...	{ 4th Hamilton.....	132	19		
	{ 7th St. Catharines	136	9		
	{ 9th Toronto	150	14		
*1st 'Quebec'					
2nd 'Ottawa'		148	12		
3rd 'Montreal'		172	8		
5th 'Kingston'		125	8		
*6th 'London'					
8th 'Gananoque'		116			
10th 'Woodstock'		99	12		
*12th 'Newcastle'					
13th 'Winnipeg'		89	7	6	42
*14th 'Midland'					
15th 'Shefford'				16	24
Total.....		1,570	185	50	121

* Did not practice.

AYLMER, Colonel,
Adjutant General

Field Artillery with B. L. 12 pr. 6 cwt. Guns.

APPEN

Results of Battery Service and Competitive Practice at

SERIES.	TIME FROM ACTION TO				Rate of Ord. Fire.	Range yds.	NO. OF ROUNDS FIRED.		
	1st Gun.	1st Time Shrap.	Ord. Fire.	End of Series.			Per- cussion Shrap.	Time Shrap.	Case.
	" "	" "	" "	" "	"				
'A' Battery, R.C.F.A.	I	0 47	6 31	10 56	15 20	.....	8	30	.....
	II	1 00	5 02	6 08	14 39	.....	6	42	.....
	III	0 48	7 00	8 10	15 00	.....	8	31	.....
				Cavalry	Target.				
'B' Battery, R.C.F.A.	I	0 35	4 06	9 21	15 30	15 3,325	6	32	.....
	II	1 45	3 37	5 49	15 10	15 2,250	6	32	.....
	III	0 51	4 13	5 31	15 00	15 1,475	5	35	.....
				Cavalry	Target.				
2nd 'Ottawa' Field Battery.....	I	1 38	13 05	14 32	15 00	15 3,300	12	9	.....
	II	1 41	6 34	7 44	16 00	15 2,300	7	35	.....
	III	1 10	.....	8 10	14 30	15 1,050	8	29	.....
				Cavalry	Target.				
3rd 'Montreal' Field Battery.....	I	1 25	5 49	7 10	15 00	15 3,200	6	36	.....
	II	1 27	.....	5 12	15 00	15 2,250	6	41	.....
	III	1 17	.....	4 12	15 00	15 1,450	6	29	.....
				Cavalry	Target.				
4th 'Hamilton' Field Battery.....	I	1 16	10 01	11 37	15 20	..... 3,350	8	16	.....
	II	1 37	9 56	11 35	15 05	..... 2,250	8	19	.....
	III	2 17	.....	6 16	14 37	..... 1,350	5	28	.....
				Cavalry	Target.				
5th 'Kingston' Field Battery.....	I	1 49	.....	.....	15 30	..... 3,300	14	.....	.....
	II	1 35	.....	5 40	16 00	15 2,100	6	28	.....
	III	2 44	.....	6 04	15 00	15 1,550	4	25	.....
				Cavalry	Target.				
7th 'St. Catharines' Field Battery.....	I	0 30	10 20	11 33	15 00	15 3,300	9	15	.....
	II	0 30	6 10	7 05	15 00	15 2,350	6	26
	III	1 25	8 17	9 11	14 45	15 1,650	8	24
				Cavalry	Target.				

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DIX G.

Deseronto, 1902.—Time Allowance for Series I, II, III.

EFFECT.		No. of D.'s fired at.	Hits per Shell.	Men hit per Shell.	MARKS FOR HITS.		FIRE DISCIPLINE.		TOTAL MARKS.
Hits.	Men.				Pos- sible.	Gained.	Lost.	Full Marks 100. Gained.	
3	3*	41	.....	.....	164	14	2	.....	*2 down.
.....	48*	48	.....	.....	96	96	3	.....	*17 demolished.
132	44	45	.....	.....	90	88	2	.....
5	4	.....	8	.....	40	20	.....	.....
					390	218	7	93	+50% of score=202.
45	25*	41	.....	.....	164	102	2	.....	*2 down.
245	48	48	.....	.....	96	96	3	.....
168	45	45	.....	.....	90	90	2	.....
7	5	8	.....	.....	40	25	.....	.....
					390	313	7	93	+50% of score=249.5.
8	6*	.....	.....	.....	164	26	4	.....	*2 down.
136	42	.....	.....	.....	96	84	6	.....
29	18	.....	.....	.....	90	36	1	.....
10	7	.....	.....	.....	40	35	.....	.....
					390	181	11	89	+50% of Score=179.5.
52	5	.....	.....	.....	164	20	4	.....
99	41	.....	.....	.....	96	82	6	.....
328	45	.....	.....	.....	90	90	2	.....
8	4	.....	.....	.....	40	20	.....	.....
					390	212	12	88	+50% of score=194.
1	1	41	.....	.....	164	4	10	.....
241	37	48	.....	.....	96	74	9	.....
152	43*	45	.....	.....	90	87	11	.....	*1 down.
7	3	8	.....	.....	40	15	.....	.....
					390	180	30	70	+50% of score=160.
.....		41	.....	.....	164	.....	5	.....
37	19	48	1.98	0.55	96	38	3	.....
252	42	45	8.69	1.55	90	85	6	.....
9	6	8	1.12	0.75	40	30	.....	.....
					390	153	14	86	+50% of score=162.5.
20	11	41	0.83	.....	164	44	19	.....
148	46	48	4.62	1.43	96	92	13	.....
302	44	45	9.44	1.37	90	88	8	.....
4	3	8	0.44	0.33	40	15	.....	.....
					390	239	40	60	+50% of score=179.5.

Field Artillery with B. L. 12 pr. 6 cwt. Guns.

APPEN

RESULTS of Battery Service and Competitive Practice at Deseronto,

SERIES.	TIME FROM ACTION TO					Rate of Ord. Fire.	Range yds.	NO. OF ROUNDS FIRED.		
	1st Gun.	1st Time Shrap.	Ord. Fire.	End of Series.	Per-cussion Shrap.			Time Shrap.	Case.	
8th 'Gananoque' Field Battery.....	I	2 09	6 51	13 50	15 05	15	3,350	6	24	.....
	II	2 32	9 15	10 00	15 02	15	2,450	8	30	.....
	III	.....	.....	Disqualified...	.....	.....	.....	.....	.....	.....
9th 'Toronto' Field Battery.....	I	4 15	13 25	14 59	15 00	15	3,275	7	11	.....
	II	1 25	6 15	8 25	15 06	15	2,250	4	35	.....
	III	2 06	5 55		15 00	15	1,475	6	39	.....
				Cavalry Target..						14
10th 'Woodstock' Field Battery.....	I	2 07	8 49	10 26	15 00	15	3,350	6	24	.....
	II	1 35	5 36	6 40	12 00	15	2,250	8	26	.....
	III	1 36	7 50	11 26	15 00	15	1,350	6	29	.....
				Cavalry Target..						12
11th Field Battery, 1st Bde. Div.....	I	1 02	3 10	.....	15 45	.....	3,200	6	13	.....
	II	.....	.....	.....	15 00	.....	1,150	6	29	.....
	III	2 55	12 58	.....	15 30	.....	1,525	10	9	.....
				Cavalry Target..						10
13th 'Winnipeg' Field Battery.....	I	1 35	9 40	11 22	15 25	.....	3,300	8	20	.....
	II	1 12	9 22	11 18	15 35	.....	2,175	7	21	.....
	III	2 41	7 02	9 51	16 02	.....	1,550	6	27	.....
				Cavalry Target..						7
16th Field Battery, 1st Bde. Div.....	I	2 47	11 32	14 30	15 00	15	3,450	11	11	.....
	II	1 43	2 32	4 13	15 00	15	2,300	5	28	.....
	III	1 47	6 08	7 50	15 00	15	1,350	7	27	.....
				Cavalry Target..						12

SESSIONAL PAPER No. 35

DIX G.—*Concluded.*

1902.—Time Allowance for Series I, II, III—*Concluded.*

EFFECT.		No. of D.'s fired at.	Hits per Shell.	Men hit per Shell.	MARKS FOR HITS.		FIRE DISCIPLINE.		TOTAL MARKS.
Hits.	Men.				Possible.	Gained.	Lost.	Full Marks. 100. Gained.	
171	46								
1	1	41	0·05	0·05	164	4	11		
294	48*	48			96	96	4		*47 down. 14 demolished.
192	45*	45			90	90	2		*2 down.
		8			40				
					390	190	17	83	+50% of score=178.
4	1*				164	7	15		*3 down.
71	31				96	62	13		
255	45				90	90	16		
11	7				40	35			
					390	194	44	56	+50% of score=153.
2	2	41	0·10	0·10	164	8	18		
68	33	48	2·00	0·97	96	66	19		
11	8	45	0·57	0·42	90	16	12		
7	5	8			40	25			
					390	115	49	51	+50% of score=108·5.
					164		12		
110	40	48			96	80	9		
206	38	45			90	76	13		
	5	8			40	25			
					390	181	34	66	+50% of score=156·5.
		41			164		8		
273	46	48	8·27	1·39	96	92	4		
199	45	45*	5·85	1·32	90	90	3		*5 down.
15	7	8			40	35			
					390	217	15	85	+50% of score=193·5.

AYLMER,
Colonel,
Adjutant General.

Garrison Artillery, Q. F. Gun Practice.

APPEN

Results of Service and Competitive Practice with Light Quick Firing

Unit.	Number of Series.	G. G. C.	Height of Work.	Average Range, in Yards.	Possible Hits per Gun per Minute.
R.C.G.A.—			Ft.		
No. 1 Company	I	Lieut. G. S. Wilkie	90	1,300	14
" 1 "	II	"	90	1,400	14
" 2 "	I	Lt.-Col. J. A. Fages	90	1,300	14
" 2 "	II	"	90	1,400	14
3rd Regt. C.A.—					
No. 1 Company	I	Lt. W. H. Harrison	90	1,500	14
" 1 "	II	"	90	1,400	14
" 2 "	I	"	90	1,300	14
" 2 "	II	"	90	1,500	14
" 3 "	I	Capt. Foster	90	1,600	14
" 3 "	II	"	90	1,400	14
" 4 "	I	Lieut. Emerson	90	1,800	14
" 4 "	II	"	90	1,500	14
4th Regt. C.A.—					
No. 1 Company	I	Capt. Bartlett	90	1,300	14
" 1 "	II	"	90	1,600	14
" 2 "	I	Lieut. Sprague	90	1,700	14
" 2 "	II	"	90	1,400	14
" 3 "	I	Lieut. Donohoe	90	1,300	14
" 3 "	II	"	90	1,600	14
" 4 "	I	Lieut. McIsaac	90	1,300	14
" 4 "	II	"	90	1,500	14

SESSIONAL PAPER No. 35

DIX H. (A.)

(6 and 12-pr.) Guns.—At St. John, N.B. 6-pr. Hotchkiss.

Time of Series.	Hits Obtained.	Hits per Gun per Minute Obtained.	Number of Rounds Fired.	Deductions for Bad Fire, Discipline, and Penalties.	Figure of Merit.	Average.	Remarks.
1 40	5	1.5	20	Nil.	.107		
2	4	1.0	20	Nil.	.071	.089	
1 45	7	2.0	20	Nil.	.142		
2	7	1.75	20	Nil.	.125	.133	
2	1	.25	18	.005	.012		
1 41	0	0	20	.005	0	.006	
1 43	4	1.11	20	.005	.075		
1 54	1	.26	20	.005	.013	.044	
2	2	.5	20	.02	.015		
2	4	1.0	20	Nil.	.071	.043	
2	0	0	20	Nil.	0		
1 35	0	0	20	.02	0	0	
1 40	3	.90	20	.002	.062		
1 37	1	.31	20	.003	.019	.040	
2	4	1.0	20	.003	.068		
1 42	0	0	20	Nil.	0	.034	
1 30	3	1.0	20	.015	.056		
1 22	1	.36	20	.015	.01	.028	
1 22	4	1.47	20	Nil.	.015		
1 32	3	.98	20	.02	.05	.055	

Garrison Artillery, Q. F. Gun Practice.

APPEN

Results of Service and Competitive Practice with Light Quick Firing

Unit.	Number of Series.	G. G. C.	Height of Work.	Average Range, in Yards.	Possible Hits per Gun per Minute.
R.C.G.A.—			Ft.		
No. 1 Company.....	I	Capt. Ogilvie	90	1,300	11·5
" 1 "	II	"	90	1,500	11·5
" 2 "	I	Capt. Bengon	90	1,700	11·5
" 2 "	II	"	90	1,700	11·5
3rd Regt. C.A.—					
No. 1 Company.....	I	Lieut. Robinson	90	1,300	11·5
" 1 "	II	"	90	1,400	11·5
" 2 "	I	Lieut. Drake	90	1,600	11·5
" 2 "	II	"	90	1,500	11·5
" 3 "	I	Lieut. Porter.....	90	1,400	11·5
" 3 "	II	"	90	1,500	11·5
" 4 "	I	Lieut. Emerson.....	90	1,200	11·5
" 4 "	II	"	90	1,600	11·5
4th Regt. C.A.—					
No. 1 Company.....	I	Lieut. Leigh.....	80	1,600	11·5
" 1 "	II	"	90	1,550	11·5
" 2 "	I	Lieut. Drake	90	1,700	11·5
" 2 "	II	"	90	1,400	11·5
" 3 "	I	Capt. Johnstone.....	90	1,600	11·5
" 3 "	II	"	90	1,400	11·5
" 4 "	I	Capt. Leslie	90	1,600	11·5
" 4 "	II	"	90	1,250	11·5

SESSIONAL PAPER No. 35

DIX H. (B.)

(6 and 12-pr.) Guns.—At St. John, N.B. 12-pr., 12 cwt. A.

Time of Series.	Hits Obtained.	Hits per Gun per Minute Obtained.	Number of Rounds Fired.	Deductions for Bad Fire, Discipline, and Penalties.	Figure of Merit.	Average.	Remarks.
1 50	7	1·91	20	Nil.	·166		
2	1	·25	20	Nil.	·021	·093	
2	5	1·25	20	Nil.	·108		
2	5	1·25	19	Nil.	·108	·108	
2	3	·75	9	·02	·045		
2	3	·75	10	·015	·05	·025	
2	1	·25	20	Nil.	·021		
2	2	·5	16	Nil.	·044	·032	
2	1	·25	5	·01	·011		
2	1	·25	10	Nil.	·021	·016	
2	4	1·0	11	·05	·037		
2	4	1·0	19.	·05	·037	·037	
2	1	·25	18	Nil.	·021		
1 54	1	·26	20	Nil.	·022	·021	
2	5	1·2	20	·003	·101		
2	0	·0	7	Nil.	·0	·050	
2	0	·0	11	·05	·0		
1 59	4	1·01	20	·01	·077	·037	
1 53	6	1·59	20	Nil.	·138		
1 50	2	·54	20	·002	·745	·091	

APPENDIX H (c).

GARRISON Artillery 5-inch B.L. Howitzer Results of Company Service and Competitive Practice at Deseronto, 1902.—Time Allowance for Series I, II.

SERIES.	TIME FROM ACTION TO						Rate of Ord. Fire.	No. of Rounds Fired, Common Shell.	EFFECT.		MARKS FOR HITS.		FIRE DISCIPLINE.		TOTAL MARKS.
	1st Gun.	Ord. Fire.		End of Series.		Rectangle.			Guns Hit.	Possible.	Gains %.	Lost.	Full Marks 100. Gained.		
	'	"	'	"	'	"									
R. C. G. A., No. 1 Company	I	2	35	8	00	14	00	15	24	14	....	96	56	2	50% of score = 128.
	II	3	07	9	40	16	12	15	24	2	....	96	8	2	
												192	64	4 96+	
R. C. G. A., No. 2 Company	I	3	22	8	51	16	09	....	24	3	....	96	12	1	50% of score = 104.
	II	2	36	7	00	14	17	....	24	1	....	96	4	3	
												192	16	4 96+	
2nd Regt. C. A., No. 1 Company	I	2	44	10	00	14	41	....	25	11	....	100	44	50	50% of score = 56.
	II	3	10	8	15	15	00	....	26	....	....	104	....	16	
												204	44	66 34+	
2nd Regt. C. A., No. 2 Company	I	3	29	8	58	14	35	15	25	5	1	100	25	19	50% of score = 74.5.
	II	2	55	7	07	14	30	15	29	....	....	116	....	19	
												216	25	38 62+	
6th Regt. C. A., Nos. 1 and 2 Companies	I	7	00	10	23	15	00	15	20	12	....	80	48	25	50% of score = 71.
	II	3	25	....	14	15	....	19	....	....	....	76	....	28	
												156	48	53 47+	
6th Regt. C. A., Nos. 3 and 4 Companies	I	6	23	11	53	15	35	....	14	5	....	56	20	18	50% of score = 72.
	II	3	42	....	15	30	....	14	1	....	....	56	4	22	
												112	24	40 60+	
Cobourg Company	I	3	50	....	15	23	....	10	....	....	....	40	....	10	50% of score = 79.
	II	6	27	....	15	35	....	7	3	....	....	28	12	17	
												68	12	27 73+	

AYLMER,
Colonel,
Adjutant-General.

SESSIONAL PAPER No. 35

APPENDIX J.

RETURN of Garrison Artillery Units C. A. which performed Annual Drill during the year 1902, showing type of gun used, and gun ammunition expended at gun practice.

Corps.	TYPE OF GUN.										Remarks.
	B. L.		Q. F.		R. B. L.		R. M. L.		Cartridges, Aiming Rifle, 1" Electric.		
	6" Gun.	5" Howitzer.	12-Pr. 12 Cwt.	6-Pr. Hotchkiss	20-Pr.	9" Gun.	13-Pr.				
	Shot, Palliser.	Shell, Common, Iron.	Shell, Common.	Shell, Common.	Shells, Common.	Shot, Palliser.	Shells, Common.	Shrapnel.			
R. C. G. A. (No. 1 Company		48	54	56							
" (No. 2		48	51	56							
1st Regiment C. A. (1st Division.					48	16	32			376	
" (2nd		105								500	
2nd Regiment C. A.											
3rd			137	221							
4th			181	224							
5th		32						17	43	500	
6th		67									
Cobourge Company		17									
Total	32	285	423	557	48	16	32	17	43	1,376	

AYLMER, Colonel, Adjutant General.

APPENDIX K (a).

RETURN showing the number of Officers, N. C. Officers, Men and Horses trained during the Year 1902 at Local Headquarters.

Military District	Authorized Establishment called out.			Received 12 days training.			Received under 12 days training.			Untrained.		
	Officers.	N. C. Officers and Men.	Horses.	Officers.	N. C. Officers and Men.	Horses.	Officers.	N. C. Officers and Men.	Horses.	Officers.	N. C. Officers and Men.	Horses.
No. 1.....	89	872	14	82	872	3	.....	.....	.....	7	.....	11
2.....	210	2,768	27	149	2,374	23	18	267	.....	43	127	4
3 & 4.....	103	1,029	16	83	968	12	.....	16	.....	20	45	4
5.....	148	1,870	124	132	1,800	115	.....	19	.....	16	51	9
6.....	36	388	7	34	373	6	.....	.....	.....	2	15	1
7.....	92	1,020	93	68	985	89	.....	.....	.....	24	35	4
8.....	64	789	58	51	710	58	.....	40	.....	13	39	.....
9.....	85	1,287	12	65	792	11	11	289	.....	9	206	1
10.....	26	266	4	19	245	.....	4	19	.....	3	2	4
11.....	64	871	7	46	643	.....	1	118	.....	17	110	7
12.....	12	221	.....	9	184	.....	2	7	.....	1	30	.....
Ottawa Brigade.	72	835	89	61	739	80	87	11	9	9
Total.....	1,001	12,216	451	799	10,685	397	36	862	166	669	54

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APPENDIX K (b)—*Concluded.*

RETURN showing the number of Officers, N. C. Officers, Men and Horses trained during the Year 1902, in District Camps.

Military District	Authorized Establishment called out.			Received 12 days training.			Received under 12 days training.			Untrained.		
	Officers.	N. C. Officers and Men.	Horses.	Officers.	N. C. Officers and Men.	Horses.	Officers.	N. C. Officers and Men.	Horses.	Officers.	N. C. Officers and Men.	Horses.
No. 1.....	290	3,170	461	125	934	306	2	.....	1	163	2,236	154
2.....	427	4,680	970	197	1,498	685	.....	.....	.....	230	3,182	285
3 and 4....	332	3,646	834	162	1,235	617	.....	10	.....	170	2,401	217
5.....	160	1,770	390	80	708	368	.....	.....	.....	80	1,062	22
6.....	81	852	62	35	244	60	.....	.....	.....	46	608	2
7.....	189	2,048	74	72	507	66	.....	.....	.....	117	1,541	8
8.....	149	1,602	391	75	623	341	.....	.....	.....	74	979	50
9.....	207	2,296	107	90	633	90	.....	12	.....	117	1,651	17
10.....	15	248	209	11	234	192	.....	.....	.....	4	14	17
11.....	No Rural Corps.			.....	.....	.....	.....	.....	.....	.....	.....	.....
12.....	49	513	60	28	242	51	1	6	3	20	265	6
Ottawa Brigade.	6	95	50	6	74	50	.....	3	.....	.....	18	.....
Total.....	1,905	20,902	3,608	881	6,932	2,826	3	31	4	1,021	13,957	778

SUMMARY.

District Camp..	1,905	20,920	3,608	881	6,932	2,826	3	31	4	1,021	13,957	778
Local Head-quarters.....	1,001	12,216	451	799	10,685	397	36	862	.....	166	669	54
Total.....	2,906	33,136	4,059	1,670	17,617	3,223	39	893	4	1,187	14,626	832

AYLMER, Colonel,
Adjutant General.