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DEPARTMENT
OF
MILITIA AND DEFENCE
OF THE
DOMINION OF CANADA

REPORT
FOR THE YEAR ENDED 30th JUNE, 1894

PRINTED BY ORDER OF PARLIAMENT



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

1895

[No. 19—1895.] Price 10 cents.

To His Excellency the Right Honourable SIR JOHN CAMPBELL HAMILTON-GORDON, EARL OF ABERDEEN ; Viscount Formartine, Baron Haddo, Methlic, Tarves and Kellie, in the Peerage of Scotland ; Viscount Gordon of Aberdeen, County of Aberdeen, in the Peerage of the United Kingdom ; Baronet of Nova Scotia, etc., etc., Governor General of Canada.

MY LORD,—

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 30th June, 1894, which is respectfully submitted.

I have the honour to be,

My Lord,

Your Excellency's most obedient servant,

J. C. PATTERSON,
Minister of Militia and Defence.

DEPARTMENT OF MILITIA AND DEFENCE,
OTTAWA, 21st March, 1895.

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OF THE

DEPARTMENT OF MILITIA AND DEFENCE

Year ended 30th June, 1894.

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PART 1

REPORT

OF THE

DEPUTY MINISTER

DEPARTMENT OF MILITIA AND DEFENCE,

OTTAWA, 6th March, 1895.

The time having arrived for the usual reports to be prepared for Parliament, I have the honour to lay before you the following documents which relate in detail the operations carried on in the different branches of the service, during the last fiscal year ending on the 30th June, 1894.

THE FORCE.

The satisfaction with which the General Officer commanding the Militia speaks of the Force and its progress towards increased efficiency, the value of our Schools of Military Instruction, the success of our Infantry and Artillery Camps, and the praise bestowed by him on the Royal Military College and the admirable topographical work performed by the graduates are pleasing features of his report.

CLOTHING, MILITARY STORES, &c.

The report of the Director of Stores gives a detail of all clothing and Military stores issued to the Force during the year. It also gives a complete return of all Ordnance in possession of the Force and in Dominion store charge as well as small arms, harness and saddlery in charge. A return is also given of all monies collected for rents, ammunition, gunpowder, friction tubes and all other stores issued on repayment during the year.

MAINTENANCE AND REPAIRS.

All works performed during the same period and charged to the care and maintenance of public properties are given in detail in the report of the Acting Architect.

GOVERNMENT CARTRIDGE FACTORY.

It will be seen by the report of the Superintendent of the Government Cartridge Factory, that the Factory has been for a time during the year in a state of transition the effect of which will, I have no doubt, be that the new ammunition .303 will be shortly produced and of as good a quality as the Martini-Henry or the Snider ammunition which have heretofore been manufactured.

In presenting to you these papers, I have much pleasure in testifying to the zeal and alacrity with which all employees in the Department have performed their respective duties.

DEPARTMENT OF MILITIA AND DEFENCE.

FINANCIAL STATEMENT.

The following are the Financial Statements of the Department of Militia and Defence for the Fiscal Year ended 30th June, 1894.

MILITIA EXPENDITURE, 1893-94.		\$	cts.
Pay of Major General and Adjutant General.....		6,600	00
Pay of staff, permanent corps and active militia, including allowances.....		486,261	80
Salaries and wages of civic employees.....		50,000	00
Military properties, works and buildings.....		90,982	93
Warlike and other stores.....		60,373	46
Clothing and necessities.....		73,982	37
Provisions, supplies and remounts.....		172,665	68
Transport and freight.....		68,391	32
Grants in aid of Artillery and Rifle Associations and Bands.....		34,150	00
Miscellaneous and unforeseen contingencies.....		14,986	56
Royal Military College of Canada.....		68,022	22
Dominion Cartridge Factory.....		35,076	56
Military Institute, Toronto—Government grant.....		100	00
Purchase of land for permanent camp, Sussex, N.B.....		7,000	00
Dominion Artillery Association—Government grant.....		900	00
Gratuities to Officers of the Active Militia staff who are placed on the retired list.....		20,473	49
Provision for purchase of modern fire arms.....		16,156	35
Defence of Esquimalt, B.C. :			
Dominion contribution towards capital expenditure for works and buildings.....		53,034	97
Pay of a detachment of Royal Marine Artillery or Royal Engineers.....		25,359	46
Total		1,284,517	17
PENSIONS.			
	No.		
Rebellion, 1885.....	103	20,081	40
Fenian Raids, &c.....	21	3,038	00
Veterans, war of 1812.....	3	210	00
Upper Canada Militia, war of 1812.....	27	2,080	00
Total		25,409	40
REVENUE, 1893-94.			
Casual revenue		80	02
Ammunition.....	\$9,500 12		
Military stores and clothing.....	4,162 64		
Miscellaneous.....	841 58		
Rents.....	5,608 39		
		20,112	73
Royal Military College		22,417	36
Total		42,610	11

I have the honour to be, sir,

Your obedient servant,

C. EUG. PANET, Colonel,

Deputy Minister of Militia and Defence.

APPENDIX No. 1

TO

REPORT OF THE DEPUTY MINISTER

OF

MILITIA AND DEFENCE.

REPORT OF THE DIRECTOR OF STORES, &c.

STORE BRANCH,

OTTAWA, 1st December, 1894.

SIR,—I have the honour to submit the following report regarding the Military Stores and Properties under my charge during the year which ended on the 30th June, 1894.

CLOTHING AND MILITARY STORES.

Canadian manufacturers supplied under contract all the clothing and necessities received for the year. These supplies were carefully inspected by the departmental inspectors and reported to be fully up to the standard fixed by the department.

The issues of clothing for the year were as follows: Cloth, serge and tweed tunics, 9,602; cloth, serge and tweed trousers, 8,651 pairs; cloth riding breeches, 735 pairs; forage caps, 5,686; great coats, 3,906, as shown by the following detailed return:—

ISSUES.

Tunics, Cloth.					Tunics, Serge.					Trousers, Cloth, Pairs.					Trousers, Serge, Prs.					Forage Caps.					Great Coats					Riding Breeches.					Ha'fax Tweed Clothing.																		
379	Cavalry.	1,511	Artillery.	—	Engineers.	4,325	Infantry.	1,096	Rifles.	333	Cavalry.	637	Artillery.	1,030	Infantry.	64	Rifles.	191	Cavalry.	351	Artillery.	492	Infantry.	1,669	Artillery.	4,753	Infantry.	968	Rifles.	315	Cavalry.	1,875	Artillery.	3,469	Infantry.	27	Rifles.	337	Cavalry.	703	Artillery.	2,866	Infantry & Rifles.	539	Cavalry.	196	Artillery.	—	Infantry.	227	Tunics.	247	Trousers.

AMMUNITION.

Free Issues for Practice.

The number of rounds of ammunition issued free to Militia corps for practice during the year was somewhat less than in the preceding one, having been 644,150 rounds of ball and 103,510 rounds of blank, against 684,250 rounds ball and 134,760 rounds blank in 1892-93 (*Vide* Appendix A).

Issues on Repayment.

The issues of ammunition on repayment for the same period were 822,249 rounds, against 693,650 rounds in the previous year, or nearly 130,000 rounds more. A feature of this difference was a decrease of 106,784 rounds in the demand for Snider ball, while there was an increase of 218,221 rounds of Martini-Henry ball; of the latter the issues on repayment last year approached three times those of the year before.

The conclusion to be drawn from these figures is that practice with the Martini-Henry is becoming more general than formerly, irrespective of the impetus given by the Dominion Rifle Association to shooting with that rifle, through its deciding that it shall be exclusively used in competitive firing in the Dominion Rifle Association matches.

The repayment issues were distributed as follows: Snider ball, 447,276 rounds, and blank, 20,000 rounds; Martini-Henry ball, 352,361 rounds; Colts' revolver, 262 rounds; Magazine Lee-Metford, 1,250 rounds; Peabody blank, 100 rounds; and aiming tubes, 1,000, all issued to Militia Corps and Rifle Associations for target practice and prize competitions.

The value of this ammunition, including the price of the powder for the noon gun at Ottawa, amounted to \$9,560.50, against \$10,734.01 for the preceding year, a difference of \$1,173.58, which was mainly caused by the reduction, made early in 1893, of the prices charged for Snider ball and Martini-Henry ball ammunition. (*Vide* Appendix B.)

The regular issues of powder, shot and shell for annual practice and salutes were made to the Field and Garrison Batteries; the issues of gunpowder for these purposes show a considerable falling off—from 21,346 pounds in 1892-93 to 14,254 pounds last year, or 7,092 pounds less. (*Vide* Appendix C.)

The cartridge factory at Quebec has continued to supply all the demands made upon it for the small arm service, and for the Artillery as well; the manufacture for both has given satisfaction.

ORDNANCE.

A return showing the number and description of guns in charge at the various stations is given in Appendix D.

ARMS.

The armourers in those districts where such are employed have been fully occupied in attending to the repairs of arms sent into store from time to time.

HARNES AND SADDLERY.

In his report last year (p. 58), the Inspector of Artillery stated that no provision had been made up to then for general repairs that could only be effected in store; that in consequence whole sets of part worn harness had been from time to time returned into store as unserviceable and replaced by complete new issues, and that several complete sets of such part worn harness were then in store that could be made available for re-issue.

Since that report was written a repairing shop has been established at Toronto and a competent saddler and harness maker employed.

This step has so far proved of great service, much necessary repairing having already been effected both promptly and economically.

The results of this move warrant me in recommending that a second repairing shop be provided at another of the principal stations for the purpose of repairing har-

ness, saddles, accoutrements, &c., and making any new parts that may be required in carrying out such repairs.

In this connection, I may state that a number of saddles is now being manufactured for the department by a Canadian firm, and I have every reason to hope these will prove satisfactory both as to material and workmanship.

The contractors have evinced a most praiseworthy desire to meet the wish of the department that the saddles shall be, if possible, in every respect up to the standard English one adopted as a pattern. When these saddles have passed the usual inspection it is intended to test a number of them alongside those of Imperial make now in use in Canada.

BOARDS OF SURVEY.

Boards of Survey have been held in the different Military Districts as required by Regulations and Orders; the reports show that all the stores in charge of the Superintendents of Stores were duly inspected.

Condemned and obsolete stores were (where recommended by the board) disposed of at sale by public auction in the usual way, and the proceeds of such sales were duly placed to the credit of the Receiver General by deposit receipts.

MILITARY PROPERTIES.

The Officers in charge of military properties in the various districts report them to be in a satisfactory condition.

In former reports I directed attention to the urgent necessity which still exists of having suitable buildings erected for the accommodation of the Military Stores at Toronto, Halifax, N. S., and Victoria, B. C. It is hoped that early steps may be taken in this direction.

The following statement shows the number of tenants and the amounts received on account of rentals of military properties held under lease for the year ending 30th June, 1894; the gross amount received, \$5,608.39, exceeded that for the year 1892-93 by \$1,091.15:—

TENANTS and Rental from 1st July, 1893, to 30th June, 1894.

Number of Tenants.	Station.	Rents Received	Remarks.
		\$ cts.	
1	Chatham.....	1 00	
3	Niagara.....	132 66	
2	Toronto.....	100 00	
19	Kingston.....	353 92	
2	Ottawa.....	2 00	
4	Montreal.....	531 25	
2	Isle aux Noix.....	84 00	
1	St. Johns, Que.....	137 00	
19	Quebec.....	3,384 95	
25	Lévis.....	643 20	
8	New Brunswick.....	176 25	
12	Nova Scotia.....	57 29	
2	Prince Edward Island.....	4 87	
100	Total number of tenants.....		
	Total amount of rents received.....	5,608 39	

DEPOSIT RECEIPTS.

As will be seen below, the amounts received during the year by the Stores Branch on account of ammunition and stores issued on repayment and for rents of military properties was \$20,109.73.

Ammunition.	Military Stores and Clothing.	Miscellaneous.	Rents.	Total amounts.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
9,560 50	4,211 40	729 44	5,608 39	20,109 73

GENERAL REMARKS.

The work in connection with the purchase, receipt and inspection of the clothing and stores required by the department, and with the claims therefor, has been steadily increasing till it has now grown to considerable dimensions.

The number of issues, too, has become larger, many more requisitions being received for action in the Store Branch than formerly. Notwithstanding this, it is satisfactory to report that the system under which the receipts into and issues from store are made has been found to work so well that not a single article is received or issued without being accounted for.

The control and care of stores bring with them much responsibility, and in all the duties pertaining thereto I have had the earnest and hearty assistance of the employees in the branch and the Superintendents of Stores at the different out stations.

I have the honour to be, sir,

Your most obedient servant,

J. MACPHERSON, Lieut.-Colonel,
Director of Stores and Keeper of Militia Properties.

The Deputy Minister of
Militia and Defence,
Ottawa.

[A.] SMALL ARM AMMUNITION issued for Practice from 1st July, 1893, to 30th June, 1894.

Districts.	ROUNDS.	
	Ball.	Blank.
Military District No. 1, London	37,440	14,000
do 2, Toronto	72,700	11,300
do 3, Kingston	28,220	8,250
do 4, Ottawa	22,420	4,520
do 5-6, Montreal	76,660	7,360
do 7, Quebec	149,360	26,000
do 8, St. John, N.B., and Charlottetown, P. E. I.	15,880	.....
do 9, Halifax, N.S.	69,530	14,160
do 10, Winnipeg	18,940	7,420
do 11, Victoria, B.C.	21,000	10,500
Issued to Militia Corps for Rifle League Competitions	132,000	.....
Total	644,150	103,510

J. MACPHERSON, Lt.-Colonel,
Director of Stores and Keeper of Militia Properties.

[B.] SMALL ARM AMMUNITION issued on repayment from 1st July, 1893, to 30th June, 1894.

Military Districts.		Rounds.	Amount.
			8 cts.
Military District No. 1, London	.....	42,020	429 00
do 2, Toronto	.....	213,918	2,234 91
do 3, Kingston	.....	22,850	255 00
do 4, Ottawa	.....	139,065	2,121 60
do 5-6, Montreal	.....	68,300	744 30
do 7, Quebec	.....	53,880	487 80
do 8, St. John, N.B. and Charlottetown, P.E.I.	.....	121,051	1,459 11
do 9, Halifax, N.S.	.....	75,920	902 36
do 10, Winnipeg	.....	38,290	393 67
do 11, Victoria, B.C.	.....	46,955	532 75
Total	.....	822,249	9,560 50

	Rounds.
Snider—Ball	447,276
Blank	20,000
Martini-Henry—Ball	352,361
Revolver—Colt's	262
Aiming tube	1,000
Magazine Rifle	1,250
Peabody—Blank	100
Total	822,249

J. MACPHERSON, Lt.-Colonel,
Director of Stores and Keeper of Militia Properties.

[C.] RETURN of Gunpowder and Friction Tubes issued for Practice and Salutes from 1st July, 1893, to 30th June, 1894.

Military Districts.	Stations.	Corps.	Gun-powder.	Friction Tubes.
No. 1....	London.....	Field Batteries of Artillery.....	Lbs.	No.
No. 2....	Toronto.....		654	900
No. 3....	Kingston.....			
No. 4....	Ottawa.....	Field and Garrison Artillery, Royal Military College and Royal Canadian Artillery.....	1,257½	2,052
Nos. 5 & 6	Montreal.....	Ottawa Field Battery and Salutes.....	455	406
No. 7....	Quebec.....	Field and Garrison Artillery and Salutes.....	568	350
No. 8....	do do do	do do do	5,091½	2,110
No. 9....	St. John, N. B., and Charlottetown, P. E. I.	do do do	768½	471
No. 10....	Halifax, N. S.	Field and Garrison Artillery.....	4,749½	1,100
No. 10....	Winnipeg.	Winnipeg Field Battery and Salutes.....	711	400
Total.....			14,254½	7,789

J. MACPHERSON, Lt.-Colonel,
Director of Stores and Keeper of Militia Properties.

[D.]—RETURN of Ordnance in possession of the Militia

Military District.	STATIONS.	GUNS—FIELD, SIEGE AND GARRISON.																							
		Rifled.												Smooth.											
		Wrought-iron.						Cast-iron convrtd	Bronze.																
		Breech-loading.			Muzzle-loading,															18-pr.	24-pr.				
		6-pr.	12-pr.	20-pr.	40-pr.	7-pr.	9-pr.	64-pr.	7-inch.	9-inch.	64-32-pr.	7-inch, 68-pr.	8-inch, 68-pr.	7-pr.	3-pr.	6-pr.	9-pr.	12-pr, 34 cwt.	12-pr.	38 cwt.	42 cwt.	20 cwt.	48 cwt.	50 cwt.	
5 & 6	Ottawa, Store Charge														2	2									
	Nepean Point																							6	
	Time Gun																1								
	Montreal Field Battery					4																			
	Drill Hall			1						1									1					3	
	Côte St. Luc																								
	Charge of City																								
	Store Charge																2		3					19	
	Granby, Shefford Field Battery					4																			
	St. Johns						4																	1	
7	Quebec Field Battery					4																			
	Citadel:—																								
	King's Bastion									3	1											1	7		
	Mann's do										1														
	Richmond do					1																	1		
	Diamond do					1																			
	Dalhousie do																					1			
	Parade Ground				3					2															
	Field Battery						4																		
	City lines:—																								
8	Upper Casemate																								
	St. Louis Curtain																								
	do Bastion																								
	Ursuline do																								
	St. John's do																							2	
	Tower No. 1																							1	
	do 2																		2					2	
	do 3																		2					2	
	Drill Shed									1														1	
	Nunnery Battery No. 1																		1					2	
	do do 2																						2		
	Montcalm Battery																			2				2	
	Hope Gate do																				4				
	St. Charles do																				1			2	
	Grand do																								
	Assembly do																								
	Prescott Gate do																								
	Wolf's do																								
	Island of Orleans									2														2	
	Levis, No. 1 Fort					1																			
No. 2 do					1																				
No. 3 do					1																				
Quebec, Store Charge						3				1						2			2	8			19		
Grosse Isle																		2		1					
Quebec, Charge of City																									
Newcastle Field Battery						4																			
Woodstock do						4																			
Dorchester Penitentiary						4																	1		
St. John, Store Charge														8	4	6		3	1						

and in Dominion Store charge, &c.—Continued.

										CARRONADES CAST-IRON.		HOWITZER		MORTARS. CAST-IRON.				REMARKS.						
Bore.												Brnze		10-in.										
Cast-iron.												Cast-iron.												
32-pr.					8-in.																			
32 cwt.	42 cwt.	45 cwt.	56 cwt.	58 cwt.	63 cwt.	56-pr.	54 cwt.	65 cwt.	68-pr., 95 cwt.	18-pr.	24-pr.	32-pr.	68-pr.	12-pr.	24-pr.	5½-inch.	8-inch.	8-inch, 9 cwt.	16 cwt.	18 cwt.	47 or 52 cwt.	13-inch, 36 cwt.	Gatling Machine Guns.	Russian Guns.
.
.	.	.	1	1	1	3
.
.	.	.	2	1	.	.	1	23	.	.	.	3	2	.	.	3	.	.	.	2
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.	1	2	1	.
.	3
.	1
.	2
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.	4	1	4
.	3	3
.	4
.	1
.	1
.	1
.	.	.	2	4	.
.	.	.	17
.	.	.	7	1
.	.	.	4	1
.
.	6
.	5
.	5
14	.	.	1	32	.	1	2	2	.	1	5	1	.	.	.	2
.
.
.	1	2	.	.	1

[D.]—RETURN of Ordnance in possession of the Militia

Military District.	STATIONS.	GUNS—FIELD, SIEGE AND GARRISON.																							
		Rifled.												Smooth											
		Wrought-iron.						Cast-iron [convrtd]						Bronze.											
		Breech-loading.				Muzzle-loading.																18-pr.		24-pr.	
		6-pr.	12-pr.	20-pr.	40-pr.	7-pr.	9-pr.	64-pr.	7-inch.	9-inch.	64-32-pr.	7-inch, 68-pr.	8-inch, 68-pr.	7-pr.	3-pr.	6-pr.	9-pr.	12-pr.	12-pr., 34 cwt.	38 cwt.	42 cwt.	20 cwt.	48 cwt.	50 cwt.	
8	St. John, Fort Dufferin.										5													1	
	Carleton Tower.																							2	
	do Drill Shed.																								
	Fairville																	2							
	Fort Howe.																								
	Red Head.																								
	Partridge Island.																		1						
	Dorchester Battery.																							2	
	Drill Shed.																							2	
	Chatham.																							1	
	St. Andrews.																							1	
	St. George.														2									2	
	Fredericton.														2										
9	Halifax, N.S., Drill Shed.													1											
	Point Pleasant.									4															
	Pictou.									2								2							
	Granville.																	1							
	Digby.									2															
	Lunenburg.																								
	Yarmouth.																								
	Sydney, C.B.						4																		
	Herring Cove.																	1							
	Chester.																								
	Liverpool.																								
10	Winnipeg Field Battery.						4																		
	Store Charge.																								
11	Victoria, B.C.									3															
	Finlayson Point.								1																
	Esquimalt, Macaulay Point.									3															
	Brothers Island.						2			1															
	New Westminster.																								
12	Prince Edward Island—																								
	Victoria Barracks.														2										
	Fort Edward.																								
	Drill Shed.					2				1														2	
	Georgetown.																							2	
	Total.	6	2	1	6	10	83	6	3	1	25	1	1	2	12	13	24	2	18	17	16	15	26	96	

and in Dominion Store charge, &c.—*Concluded.*

										CARRONADES CAST-IRON.				HOWITZER		MORTARS, CAST-IRON.		REMARKS.							
Bore.											Brnze	Cast- iron.	10-in.												
Cast-iron.																									
32-pr.							8-in.																		
32 cwt.	42 cwt.	45 cwt.	56 cwt.	58 cwt.	63 cwt.	56-pr.	54 cwt.	65 cwt.	68-pr., 95 cwt.	18-pr.	24-pr.	32-pr.	68-pr.	12-pr.	24-pr.	5½-inch.	8-inch.	8-inch, 9 cwt.	16 cwt.	18 cwt.	47 or 52 cwt.	13-inch, 36 cwt.	Gatling Machine Guns.	Russian Guns.	
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J. MACPHERSON, Lieut.-Colonel,
Director of Stores and Keeper of Militia Properties.

APPENDIX No. 2

TO

REPORT OF THE DEPUTY MINISTER

OF

MILITIA AND DEFENCE

REPORT OF THE ACTING ARCHITECT—ENGINEER BRANCH

DEPARTMENT OF MILITIA AND DEFENCE,

OTTAWA, 30th June, 1894.

SIR,—I have the honour to transmit the report upon the works and repairs made to the military buildings and fortifications under control of this department from the 30th June, 1893, to 30th June, 1894.

LONDON.

The usual general repairs to the barracks were carried out by the men of the company, and the annual amount of lumber for the necessary repairs has been supplied. Extensive repairs were made to the plumbing and heating apparatus, and six windows in the sergeant's mess were enlarged,

The officers' quarters and all outside woodwork is painted.

A fence was built around the barracks and camp ground.

A building in the town was fitted up for a store building and the stores moved from the barracks into it.

ST. THOMAS.

Two armouries in the drill shed here were fitted up.

THEDFORD.

The drill shed here was put in proper repair.

BRANTFORD.

The new drill shed has been completed and the rifle range repaired.

TORONTO.

New cooking ranges were placed in the officers' mess and men's barracks. The staff sergeant's quarters were underpinned and repaired. The west barracks have been fitted up and put in repair for the accommodation of the cavalry; also the old stables have been repaired throughout.

The outside woodwork of all barracks has been painted. The fence at the store building has been repaired, and the foreman's house painted and raised and a new foundation placed under it.

ST. CATHARINES.

The gas fittings in the drill shed were altered and repaired.

NIAGARA.

Extensive repairs were made to Butler's barracks, and the old store magazine at Fort George was repaired.

BINBROOK.

The drill shed roof was re-shingled and the armouries repaired.

HAMILTON.

A new drain was put to the drill shed and the surface drains around the shed were renewed.

KINGSTON.

The old "Blue Block" in Tête de Pont barracks was repaired. This block has several times been condemned and is a constant source of expense to maintain. A large amount of general repairs has been done by the men of the battery.

The old stables at the Artillery Park were re-shingled and fitted for the use of the officers of the battery. A new rifle range was built on Barriefield Common.

At Fort Henry several of the casemates were refitted and repaired for the use of the stores.

The ordinary general repairs were made at the Royal Military College.

GANANOQUE.

The drill shed at this place was repaired and the armouries were refitted.

OSHAWA.

A new armoury was placed to the drill shed here.

PETERBOROUGH.

A new roof covering was placed on the drill shed and a cedar floor laid.

CARLETON PLACE.

Several repairs were made to the drill shed and armoury.

OTTAWA.

The magazine at Nepean Point was pointed and repaired, and the flag staff here was also repaired. The fence on the north side of the point was rebuilt, having fallen during a heavy gale. New roof covering was placed on the old militia store building. In the new store building the ceilings were repaired and new shelving was put in the camp room.

Large alterations were started in the armouries of the drill shed. The manage was rebuilt and fenced in.

PRESCOTT.

The flagstaff at Fort Wellington, having fallen from old age, was renewed and minor repairs were done in the fort.

MONTREAL.

Several alterations were made in the 5th, 6th and Artillery armouries, and the sanitary arrangements of the shed were remodelled.

Several repairs were made at the rifle range, and also to the store buildings on St. Helen's Island.

ST. JOHNS, P. Q. 1894

The officers' quarters were repaired and painted, and the sergeant-major's quarters were repaired and painted. All the plumbing in the barracks was overhauled and is now in a satisfactory condition.

ISLE AUX NOIX.

The caretaker's quarters at Fort Lennox were repaired.

QUEBEC.

The old military hospital in rear of St. Louis Street was repaired and fitted up for the married men of the battery.

At the cartridge factory the damage caused by the recent fire has been repaired and fire alarms placed here for the better protection of the buildings.

The old cavalry stables on St. Louis Street were altered, on the ground floor, to a gun shed, and the upper portion of this building was fitted up for barrack-rooms, for the use of the field division of "B" battery.

At the Citadel the cells building was remodelled for the purpose of a garrison prison. New W. C's. were placed in the officers' quarters to take the place of the old pit arrangement.

The old stables were converted into and fitted for offices and quartermaster's store, and the offices moved from the hospital building.

Ten casemates were converted and repaired for barrack-rooms.

Extensive repairs were made on the officers' quarters on St. Louis Street, and the officers' quarters generally papered and painted.

The repairing of the Halfmoon battery was completed.

The roof of the riding school was painted and the doors and windows were repaired.

LÉVIS.

The revetments to the ponds in the R. E. camp were renewed and the ponds themselves were cleaned.

Several of the buildings at the camp were repaired and fitted for barrack purposes. The chimneys at No. 2 fort were repaired, as also was most of the flooring.

FREDERICTON.

Officers' quarters were painted and papered, and a new nine-foot range was placed in the cook-house and the cook-house itself altered to receive it.

A large number of general repairs were done by the men of the school with the lumber and hardware supplied.

ST. JOHN, N. B.

The store building was painted and the window frames and sashes repaired. The south gable was cement washed to prevent further damage by weather.

Some new fencing has been put up at Fort Dufferin and the store building there enlarged and sheeted with metal.

WINNIPEG.

The new barrack buildings have been taken over from the Public Works Department and are a great improvement on the old huts.

Hot water heating has been placed in the officers' mess and a stone foundation put under this building.

Extensive repairs have been made to the stables and they have been put in perfect order. The several officers' quarters in the barracks here are in a deplorable condition and quite beyond repair except in the most temporary way, which has been done.

A new cooking range has been fitted up in the new quarters.

Many small alterations have been made to the armouries of the drill shed.

I have the honour to be, sir,

Your obedient servant,

FRED. W. WHITE,

Acting Architect, M. & D.

To the Deputy Minister
Militia and Defence.

APPENDIX No. 3

TO

REPORT OF THE DEPUTY MINISTER

OF

MILITIA AND DEFENCE.

GOVERNMENT CARTRIDGE FACTORY.

QUEBEC, 26th November, 1894.

SIR,—I beg to submit the following report of the principal operations of this manufacturing establishment for the fiscal year ended 30th June, 1894.

A reduction in the usual annual output has taken place, both of small arm and artillery ammunition, in consequence of the limited appropriation allowed to carry on work, and in view of an impending change in the armament of the Militia Force.

As regards S. A. ammunition, mostly Martini-Henry ball cartridges were manufactured, viz., 1,434,560 rds. out of a total of 1,522,560—the balance being 36,000 Snider ball and 52,000 blank, .577"x.45" bore.

The following number of R. M. L. shells were manufactured and issued to the store department:—

64-pr. common	412
" shrapnel	395
9-pr. common	1,367

No 9-pr. shrapnel were finished, but some work on a lot was performed. In addition, quite a number of castings were provided from the foundry for new machinery and repairs during the year.

Towards the end of the last fiscal year, alterations were begun on our cartridge plant, to utilize it in manufacturing blank ammunition for .303" bore rifles and carbines.

This manufacture had to be undertaken as no .303" blank cartridges were in store for use with Martini-Metford rifles.

These alterations made our Snider machinery available for making .303" blank and allowed utilizing in this connection an important quantity of powder and metal strips which remained in store after filling orders for .45" and .577" ball and blank, to date, and which, in view of changes in armament, might have become useless.

This rolled brass blank cartridge for .303" rifle, though not strictly adapted for use in magazine arms is quite serviceable in a single loader, such as the Martini-Metford, even in a magazine rifle, when used as a single loader. There is, therefore, no objection whatever to its adoption for the Militia and it is, at the same time, much more economical than other descriptions of blank .303" made from solid drawn brass cases provided with paper bullet, specially intended for use in magazine rifles.

Towards the end of the fiscal year, instructions were given to procure machinery, for the manufacture, in Canada, of .303" service ball ammunition, latest British Government pattern and loaded with "cordite."

The machinery was ordered on estimates I had obtained from one of the most reliable firms in England, and it is expected that, early in 1895, these machines will have

passed inspection and will have been forwarded to Quebec to soon be under work, producing a very modern and efficient type of ammunition for use in a rifle sighted for the greatest velocity and range obtainable therewith, and at the same time of such weight and general construction as to give the greatest satisfaction.

It is a matter for congratulation, that all the older descriptions of rifle ammunition are now in a fair way of being replaced by .303" Lee-*Metford* cartridges with smokeless powder, giving so much greater range, accuracy and penetration.

In connection with the new machinery ordered, several improvements on previous plants supplied to both government and private establishments abroad were suggested to the manufacturers and adopted by them. These improvements will tend to reduce hand labour to a minimum and make all the machinery automatic. I have also suggested changes in machinery with a view of avoiding loss from scrap metal and especially cupronickel which is expensive. I expect thereby to considerably reduce the cost of .303" ammunition manufactured here.

At an early date, this year, it was brought forward that the reserve of artillery projectiles should be made up to the number, per gun, required by the regulations of the service. This implied a considerable increase in the output of the shell factory worked in connection with this government cartridge factory, unfortunately it was found impossible with the means extant to sufficiently enlarge manufacturing operations here, to meet the demand.

We are now in this part of the works quite stationary, making very little more than enough to supply annual requirements of the militia artillery.

Though all work has been restricted in the shell factory to field artillery ammunition it will take a more than reasonable lapse of time to bring up shell reserves to the required figures. There seems then to be no other alternative but to purchase out of the country, or else, enlarge the shell factory to produce sufficiently to fill up the artillery reserve.

As shells can be produced here as cheap, if not cheaper than they can be imported under present conditions—more so if manufactured in important quantities—I would submit that a manifest advantage exists in the latter alternative, viz., enlarging the shell works sufficiently to make this country entirely self-reliant in this respect. To thus extend our manufacturing capacity would not entail great expense. The shell finishing shop is, even now, too small for our present limited output, it would require to be enlarged. It is so crammed with machinery that when the least accumulation of work takes place, workmen are much hampered. The building could be enlarged to double its present size by rebuilding the front wall further out, replacing the stonework thereof by large windows and raising and enlarging the roof, strengthening also the joists to get additional belt power, utilizing the whole space, so enlarged, exclusively for lathes, drilling and milling machines, the number of which would have to be doubled.

At the same time a larger boiler and engine would have to be got. The present steam power is sufficient to meet all actual demands at the main factory, running, with some management, the cartridge factory, shell shop, foundry and electric light machinery. But nothing more can be added on now, without the risk of breaking down. The steam engine and boiler were intended, at first, to run only the cartridge machinery, and all the shell plant was added to this without a corresponding increase in power. It would be safer to get a new and stronger engine and boiler, properly housed outside of the main factory and connecting the shops by electric power transmissions, instead of line shafts running from one building to another with all their attendant disadvantages.

The manufacture of shells was, when began, quite in the nature of an experiment, in Canada, and the novelty of this kind of work made it advisable to keep this manufacture on a small footing. Now that sufficient experience has been obtained, it may appear that the time has arrived to expand this enterprise if the full benefits to be derived from its maintenance are to be gathered.

The time lost and the obstacles in the way since some years, when order for shells had to be filled in England, need not be recalled. The supply was provided by private manufacturers at their own convenience, so to say, and at high prices. Means are now extant in Canada to provide annual requirements in this respect.

The works only require expansion to become fully efficient.

From year to year as the armament of the Militia Artillery gets more out of date, and even with a new armament, will this factory have increasingly to be depended upon for supplies of artillery projectiles, and it might now be also seriously considered whether in the extension of operations I now advise, the manufacture of fuzes, time and percussion, friction tubes, and other equally essential stores, should not be provided for, as well as for the increase in shell production.

The manufacture of percussion fuzes was begun in a tentative manner at this factory, several years ago, but to produce on a sufficiently large scale requires special machinery, which would have to be procured, as there is nothing of the kind at this factory. In this connection the proposed extension to the shell shop would be useful, as the fuze machinery could be set up in a well lighted upper gallery, under the same supervision as the shells.

With these adjuncts, the shell department, in connection with this factory, could be relied upon to provide ordinary requirements. It is not now sufficiently developed to do so, and if contingencies should arise requiring a sudden increase in output, to meet an emergency, it could not be done.

Even with such extensions as I propose, our manufacturing facilities would remain very far short of meeting emergencies of war, but this establishment so developed as to provide means of manufacturing the more essential and special war material, equipped, as it ought to be, with the most improved machinery and provided with a trained staff of officials, could become a source of valuable information and guidance, if, at any time, it was considered necessary to call upon private manufacturing firms in Canada, to supplement the output of this factory.

There can exist no doubt as to the beneficial effect, in such circumstances, of a trained factory staff assisting with technical advice, based on practical experience, such firms as might be intrusted with government contracts for supplies and exercising, on their manufacturing operations, proper supervision to ensure compliance with the requirements of the service.

In the above would appear to consist a very important object of such an establishment as this Government Factory, which could become a source of information and guidance to private enterprise called upon to increase supplies of war material for certain emergencies.

The beneficial effects of a technical staff, in assisting with their practical experience and in supervising the work of private establishments engaged in contracts of the above nature, are apparent. But in order that such experience be forthcoming when required, the means of developing and increasing it must be provided by varying the description of articles to be produced at this factory, rather than by increasing the production of only a few of the most essential military stores. This policy has no novelty about it elsewhere. In several countries, notably in Great Britain, though arsenals are provided with very extensive plants of machinery for various purposes, still notwithstanding those large accumulated means of production under state control, it is found advisable under certain conditions of supervision, to let out to an extent, contracts to private firms, for the supply of ammunition and other warlike stores, reserving for some natures of material, the performance of finishing processes to Government manufacturing establishments.

But if, on emergent occasions, a similar advantage is to be successfully taken of such private sources of supply as may exist in Canada, in this respect, a judicious expansion of varied means of manufacturing must take place at this factory, more especially in connection with artillery stores.

I have the honour to be, sir,

Your obedient servant,

OSC. PRÉVOST,

Superintendent, G.C.F.

The Deputy Minister of
Militia and Defence,
Ottawa.

PART 2.

REPORT

OF THE

MAJOR GENERAL COMMANDING

To the Honourable
The Minister of Militia and Defence.

SIR,—I have the honour to submit the following report of the Forces under my command.

THE PERMANENT FORCE.

The Royal Regiments, forming the Permanent Force of the Dominion, have maintained a steady progress towards increased efficiency. This progress is to be ascribed mainly to improved organization, which allots to every grade its definite sphere of action, and corresponding responsibility. There is, however, much yet to be done in this direction, which, as I have pointed out in former Reports, can only be accomplished by the more thorough education of Officers in their professional duties.

The practice initiated last year, of sending some Officers, and Non-Commissioned Officers, of these regiments, to England for instruction, has been productive of excellent results. The Dominion is to be congratulated, not only on the manner in which all these Officers, and Non-Commissioned Officers, have taken advantage, of the opportunity afforded them for improvement, but likewise on the ability they have since shown, in communicating, to those around them, the effect of their own experience. In pursuance of the same intention, three Officers this year have been sent to England. It is pleasing further to record, in this connection, that all, who have thus been associated with the Imperial Forces in England, have earned for themselves an excellent reputation, from the Officers under whom they served. I trust that the system will be continued, and that in the coming year, the necessity for the thorough instruction of Non-Commissioned Officers, as well as of Officers, will not be overlooked.

Appendices "A" and "B" deal with the personnel of these Regiments in the same manner as in my former reports. The number of recruits, enlisted during the year, has been greater, and of a better class, than in former years. The returns of Courts-martial show a notable decrease in military crime. It is especially gratifying to note a marked diminution of drunkenness, in many of the units, and of the offences which are the invariable result of such excess. Generally speaking, if these Regiments have not yet attained the full degree of efficiency, which I should wish to see, they constitute nevertheless a very valuable force, of which Canada may feel justly proud.

In view of incorrect statements which have been made, with a certain appearance of authoritative importance, as to the cost to the country of the Permanent Force, as compared with that of the Active Militia, it is my duty to draw your attention to the following facts. As shown by the details of the estimates, submitted to Parliament for the past year, 1893-4, a sum of \$223,000 represents the emoluments of the Permanent Force, in full of all pay and allowances, while the appropriations, which pass directly into the pockets of the Active Militia, in the form of pay and allowances for the same period amount to \$343,800.

SCHOOLS OF MILITARY INSTRUCTION.

1894 The Return of Certificates (Appendix "C"), granted at the Royal Schools of Military Instruction, shows a slight decrease in the total, as compared with the numbers last year, but there is an increase in the number of those certificates, which are granted after a longer and more thorough course of instruction. The decrease in the total is fully explained by the fact that, for ten months of the year reported on, there were no courses of instruction for the Militia at Victoria, B.C. Now, however, a school of instruction has been established, in connection with the Royal Marine Artillery at that station, under Lt.-Col. Rawstorne, R.M.A. In accordance with the suggestion, contained in my Report last year, Schools of Instruction, for Infantry and Artillery of the Active Militia, have likewise been established in connection with the Imperial Forces at Halifax, N.S. Every endeavour is thus being made to bring military instruction within easy reach of all, while, at the same time, not reducing the standard of instruction, requisite for securing a certificate, to too low a level.

The numbers of the Active Militia trained in the year 1893-4 are as follows:—

Performed 12 days' Training.			Performed less than 12 days.		
Officers.	N.C.O. and Men.	Horses.	Officers.	N.C.O. and Men.	Horses.
1,467	17,107	2,308	60	713	11

ACTIVE MILITIA.

The total performing 12 days' training shows an increase, on the preceding year, of 112 Officers, 1,600 Non-Commissioned Officers and men, and 832 horses.

Further details are furnished in Appendices "E" and "F."

The quality of the drill, done by the Rural Militia in Camps of Instruction, has improved, in consequence of the pursuance of a clearly defined system, by which no more is demanded of the men than can be acquired within the very short period allowed for instruction. In consequence of my absence in England last year, I was present only at the Camp of Instruction in No. 9 District. There, however, I had means of judging of the progress which had taken place, since my first inspection of the same Battalions, in 1891. The work that was done at Aldershot, N.S., on the fourth day after the assembly in camp, was distinctly better than that which I had seen previously, at the

conclusion of a twelve days' course. The increased energy, shown by all ranks, was to be attributed to their knowing exactly what was required of them, and to the elimination of many useless practices, upon which, formerly, a great deal of time was wasted. There can be no doubt that, with systematic training, the men of the Rural Militia are capable of acquiring a very considerable proficiency, in military exercises.

I cannot refrain from an expression of regret, that circumstances should have rendered it impossible, to call out any part of the Rural Militia for training during the current financial year. No one appreciates more fully than I, the value of the men of these corps, as an element of the defensive strength of Canada, and though the time allotted for their instruction is inadequate, the assembling of these corps periodically serves to maintain a military spirit in the country, which cannot be too highly valued.

In Appendix "J" I have reproduced the report submitted to you on a Camp of Instruction, held this year at Point Lévis, one of the objects of which was to facilitate the obtaining of certificates of military qualification, by provisionally appointed Officers, and by Non-Commissioned Officers of the Rural Militia. This Camp was inexpensive, for, though extended over six weeks, the cost did not exceed that, usually incurred in each Military District, for a 12 days' Camp of the Active Militia. It cannot fail to be productive of excellent results, in consequence of the training it afforded to the most important elements of a military organization, viz., the Officers and Non-Commissioned Officers.

A similar new departure was made, with a view of obtaining increased efficiency, in the Field Batteries of the Active Militia. The remarks of the Inspector of Artillery, on this subject, are deserving of special attention. Small detachments, consisting of Officers and Non-Commissioned Officers from these Batteries, were assembled at Laprairie, Que., where, attached to "A" Field Battery, Royal Canadian Artillery, they underwent a special training, in connection with the Annual Gun Practice. The effect, that can be produced by the fire of Field Artillery, depends entirely on the system, by which that fire is directed and controlled. Such a system necessitates a more accurate training of Officers, Non-Commissioned Officers, and Gunlayers than has hitherto been given in the Canadian Militia. The success, which attended this Camp, was due mainly to the experience obtained last year by Major Drury, Royal Canadian Artillery, when attached to the Royal Artillery, and likewise to the administrative ability displayed by Lieut.-Col. Wilson, Royal Canadian Artillery, in performing the duties as Commandant of the Camp. The report of the latter officer is appended. (Appendix "K.")

A further development, in the practical training of the Garrison Artillery of Nova Scotia, has been dealt with by the Inspector of Artillery (Appendix "L"). The defence of that province centres in the Imperial fortress of Halifax. It is most necessary, therefore, that the training of the Militia of Nova Scotia should be such, as to fit it to perform the duties allotted to it, in the general scheme of defence, and should be carried out in close connection with the Imperial Garrison.

I beg to draw your attention to my previous reports of 1891, 1892 and 1893, in which I have indicated changes in organization, which would contribute considerably, in my opinion, to the efficiency of the City Militia. These corps, which partake far more of the character of the Volunteer organization in England, than of the Militia as

contemplated by the Canadian Militia Act, would, undoubtedly, if relieved of some of the restrictions of that Act, develop a far higher standard of efficiency, than they have yet attained. I alluded so fully to this subject in my Report of 1891 (page 4), that I consider it hardly necessary to recapitulate what I then brought forward.

SMALL ARMS.

During the past year, 1,000 rifles, on the Martini-Metford principle, have been received, of which 730 have been issued on trial. The reports received show it to be an admirable weapon. It differs, however, in many points, from any weapon which has been hitherto used by the Militia Force, and it will only be after some practice and experience, that the full advantage of it will be realized. The ammunition issued with the rifle has not been satisfactory. This defect, however, will be remedied by the decision, which has been arrived at, to adopt the Cordite ammunition, in use in the Imperial Service, and to manufacture the same at the Dominion Cartridge Factory at Quebec.

Two hundred Martini-Metford carbines have been issued to the Cavalry, with Cordite ammunition, the results proving fully satisfactory. The absence of recoil, of smoke, and of fouling are all that could be desired.

RIFLE RANGES.

The general adoption of a modern rifle will undoubtedly necessitate the closing of many rifle ranges, included in the return of Rifle Ranges (Appendix "I"). The ranges at London, Ont., and Fredericton, N.B., have been altered to meet the new conditions, and a range, suitable for practice up to 1,000 yards, has been secured at Vancouver, B.C. The necessity for rifle ranges, throughout the country, will be felt more and more, and must undoubtedly render necessary special appropriations, to meet this requirement. Musketry practice of the Militia in Canada must, for a long time to come, be almost entirely voluntary, and for this purpose a range should be readily available, for every Company in the rural districts.

CLOTHING AND EQUIPMENT.

As regards the clothing and equipment of the Militia, I commend my former reports, and the remarks in those reports on the system of issue, to your earnest attention. The question is a large one, but it is so intimately connected with the efficiency of the Militia, that I must be excused for again bringing it forward.

BARRACKS.

The barracks at Victoria, B.C., have, since my last report, been handed over to the Imperial authorities, as part of the Canadian contribution towards the defence of that port. They are now occupied by a detachment of Royal Marine Artillery, furnished by the Imperial Government, under the agreement entered into in 1893.

The inadequacy of Barrack accommodation in the Dominion is seriously felt. At present, it is impossible to accommodate more than a very small proportion, of the men of the Active Militia, who annually volunteer to attend the schools of instruction. Upon the higher instruction of Officers and Non-Commissioned Officers of the Active

Militia, in such establishments, depends so materially the efficiency of the whole Force, that I earnestly hope funds may be available, for increasing the accommodation at our various Permanent Military Stations. The Barracks at Kingston, Ont., and at Fredericton, N.B., are neither healthy nor adapted to modern requirements. Some of the old buildings, still in occupation as married quarters, at Fort Osborne, Winnipeg, are likewise in a deplorable condition, and quite unfit for occupation.

THE ROYAL MILITARY COLLEGE.

In the report of the Commandant, of the Royal Military College, will be observed a reference to the employment, of some of the graduates of that establishment in topographical work, connected with this Department. The work done by these gentlemen, under the special supervision of Captain Lee, R.A., and under the direction of the Quarter Master General, has been admirably performed. It will, I believe, prove an undertaking of permanent value to Canada, from the civil, as well as the military point of view. The value of the technical military training, given at the Royal Military College, has been thus proved to be of a character, which in the event of any serious emergency, would be of inestimable value to the Dominion. The practical nature, of the general educational training, has been so frequently enlarged upon by the Commandant, that it needs no more than a word of admiration from me. I would, however, draw attention to the great advantage, that would accrue to the Service were a larger number of graduates, of the Royal Military College, appointed to the Permanent Force of Canada. The want of early military technical training is a deficiency which cannot easily be remedied. A knowledge of drill alone does not make a man an officer, and the scientific knowledge of his profession, which is essential to an officer in the present day, cannot be attained unless his educational acquirements are of a suitable character.

ORGANIZATION AND STAFF.

I have, in former reports, urged the necessity of systematic organization, throughout the Militia Service. Especially is it necessary, that such organization should be directed towards the Staff, upon whose energy, technical knowledge, and practical experience, depends the working of any military machine, whether of the Regular or of the Militia type. I again urge this question upon your careful consideration.

It is impossible for any person, however little acquainted with military matters, to view the events, which are actually occurring, in one of the largest Empires in the world, without realizing that personal bravery, and the riches and resources of a large Empire are powerless, for the defence of a country, unless they have, by organization, been made readily available in time of need. The same events show us how a comparatively small, but highly organized, force can overcome the greatest difficulties, and lay at its feet an Empire, hitherto regarded as unassailable.

From the knowledge I have acquired, in the course of four years of intimate acquaintance with the Canadian Militia, I will venture to assert that no body exists, in which there is a stronger feeling of patriotism and loyalty, than in that which I have the honour to command. The sacrifices made annually, by all ranks, should be a sufficient proof of this fact, even for those who have not had the advantage, that I have

enjoyed, of an intimate personal acquaintance with all ranks. It is in view of the endeavours, so generously made, to safeguard this important part of the Empire, that I can again venture, to urge the adoption of a systematic organization, by which alone can the security of any country be assured.

I have the honour to be, sir,

Your obedient servant,

IVOR HERBERT, Major-General,
Commanding Canadian Militia.

OTTAWA, 3rd December, 1894.

ANNUAL RETURN of Permanent Corps of Active Militia (Non-Commissioned Officers and Men) for the year ending 30th June, 1894.

Name of Corps.	Authorized Establishment.	Strength on June 30, 1893.	Strength on June 30, 1894.	Become Non-effective.							Enrolled.				Composition of present Contingent as to length of service.				Serving with pension from Imperial Government.		
				Discharged by Purchase.	Discharged Unserviceable.	Discharged Invalid.	Discharged—Time expired.	Deserted.	Died.	Transferred.	Total.	Enlisted.	Re-enlisted.	Transferred.	Returned from Detachment.	Total.	Under 1 year.	1 to 2 years.		2 to 3 years.	Over 3 years.
Royal Canadian Dragoons	148	117	145	17	3	5	22	28	1	4	80	87	7	2	12	108	72	26	24	23	1
Royal Canadian Artillery ...	403	350	364	36	13	3	64	64	2	1	183	178	1	2	16	197	146	51	48	119	7
Royal Regiment of Canadian Infantry ...	404	353	395	32	2	6	50	65	3	17	175	172	11	15	19	217	170	68	45	112	13
Total ..	955	820	904	85	18	14	136	157	6	22	438	437	19	19	47	522	388	145	117	254	21
Increase in 1893-94..	.....	.....	84	11	2	3	3	3	.....	18	40	175	.....	13	7	143	177	.....	.....	.....	.....
Decrease in 1893-94.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52	.....	.....	.....	.....	1	47	45	7

M. AYLMER, Lt.-Col.,
Asst. Adjutant General.

(APPENDIX B.)

PERMANENT REGIMENTS.

RETURN of Convictions by Court Martial from 1st July, 1893, to 30th June, 1894.

Corps.		Disgraceful Conduct of a cruel, indecent or unna- tural kind.	Offences against discipline, i.e., insubordination and insubordinate language.	Desertion.	Illegal Absence.	Theft.	Other Offences.	Total.	Total by Corps.	Remarks.
Royal Canadian Dragoons	{ "A" Troop.....		2	1			5	8	33	
	{ "B" Troop.....		2	9	1		13	25		
Royal Regiment of Canadian Artillery	{ "A" Fd. Battery.....		3	9			3	15	53	
	{ "B" Fd. Battery.....									
	{ No. 1 Company.....		5	10	2	1	20	38		
	{ No. 2 Company.....									
Royal Regiment of Canadian Infantry	{ No. 1 Company.....			6			2	8	44	
	{ No. 2 Company.....			6	2		6	14		
	{ No. 3 Company.....		4	3	4		5	16		
	{ No. 4 Company.....			1	2		3	6		
Total Crimes			16	45	11	1	57	130		
Total Crimes, 1892-93.			14	44	20	8	90	176		
Increase.....			2	1						
Decrease					9	7	33	46		

M. AYLMEK, Lt.-Col.,
Asst. Adjutant General.

(APPENDIX C.)

RETURN of Certificates granted to Officers, N. C. Officers and Men of the Active Militia in the year ending 30th June, 1894.

Arm and Station.	Long Course.				Short Course.				Special Course.				Total.	Remarks.
	A.		B.		A.		B.		A.		B.			
	1st.	2nd.	1st.	2nd.	1st.	2nd.	1st.	2nd.	1st.	2nd.	1st.	2nd.		
Cavalry, Toronto.....	1				3	3	2	5	1	+2			17	†Equitation 1.
do Winnipeg					*1		7			*5			13	*Infantry 6.
Artillery, Kingston					2	3	8	3	1				17	
do Quebec.....	1		3		2	2	14	11	4	1			38	At Victoria, B.C.
Infantry, London		1	1		4	3	2	18		8			37	
do Toronto			1		6	14	4	19	8	30			82	
do St. Johns, Que.			3	1	2	5	8	25	5				49	
do Fredericton....					13	7	10	52	3	9			94	
Total.....	2	1	8	1	33	37	55	133	22	55			347	
Increase, 1893-94....		1	2			12	5			9			29	
Decrease, 1893-94....				1	1			6	39		1	1	49	
Net decrease, 1893-94													20	

M. AYLMEY, Lt.-Col.,
Asst. Adjutant General

(APPENDIX D.)

RETURN showing numbers of Officers and Men of the Active Militia trained in the year 1893-94 in District Camps.

Military District.	Authorized Establishment called out.			Received 12 Days' Training.			Received under 12 Days' Training.			Untrained.		
	Officers.	N. C. O.'s and Men.	Horses.	Officers.	N. C. O.'s and Men.	Horses.	Officers.	N. C. O.'s and Men.	Horses.	Officers.	N. C. O.'s and Men.	Horses.
No. I	167	1,781	281	125	1,350	250	3	45	.....	39	386	31
II	182	1,871	292	118	1,468	272	14	10	....	50	393	20
III	138	1,418	416	90	991	376	7	99	1	41	328	39
IV	87	871	41	50	603	40	4	16	.....	33	252	1
V	132	1,328	246	84	952	204	2	20	. . .	46	356	42
VI	74	717	222	55	511	208	.....	17	.. . .	19	189	14
VII	133	1,332	48	99	1,012	46	.....	.....	.....	34	320	2
VIII. . .	101	1,109	360	92	1,043	353	.....	2	.....	9	64	7
IX	119	1,257	55	106	1,219	52	2	32	1	11	6	2
X .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
XI .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	1,133	11,684	1,961	819	9,149	1,801	32	241	2	282	2,294	158

M. AYLMER, Lt.-Col.,
Asst. Adjutant General.

(APPENDIX E.)

RETURN showing the numbers of Officers and Men of the Active Militia trained in the year 1893-94 at Local Headquarters.

Military District.	Authorized Establishment called out.			Received 12 Days' Training.			Received under 12 Days' Training.			Untrained.		
	Officers.	N. C. O.'s and Men.	Horses.	Officers.	N. C. O.'s and Men.	Horses.	Officers.	N. C. O.'s and Men.	Horses.	Officers.	N. C. O.'s and Men.	Horses.
No. I.....	44	420	7	25	241	7	7	71	...	12	108	.....
II.....	191	2,011	223	157	1,897	207	1	34	4	33	80	12
III.....	78	798	12	54	794	10	6	40	2	18	6	.....
IV.....	34	452	71	26	309	67	2	51	3	6	92	1
V.....	173	1,608	20	116	1,389	20	11	150	.....	36	69	.....
VI.....	18	168	3	15	140	.....	.....	15	.....	3	13	3
VII.....	78	787	93	56	778	85	.....	.....	.....	22	9	8
VIII.....	76	756	4	64	692	4	1	56	.....	11	8	.....
IX.....	102	1,230	37	91	1,090	36	.....	49	.....	10	97	1
X.....	41	444	71	31	439	71	.....	.....	.....	10	5	.....
XI.....	21	210	...	13	189	.....	.....	6	.....	8	15	.....
Total...	856	8,884	541	648	7,958	507	28	472	9	169	502	25

M. AYLMER, Lt.-Col.,
Asst. Adjutant General.

(APPENDIX F.)

RETURN, by Districts, showing numbers present at Inspection, 1893-94.

Military District.	Establishment.		Numbers present at Inspection.					Wanted to complete.	
	Officers.	N. C. O.'s and Men.	Officers.	N. C. O.'s and Men.				Officers.	N. C. O.'s and Men.
				Staff and other Sergeants.	Bandsmen, Buglers, &c.	Corporals and Privates.	Total.		
No. I	211	2,201	153	192	164	1,424	1,680	58	521
II	373	3,882	276	332	510	2,781	3,623	97	259
III	216	2,216	158	171	162	1,501	1,834	58	382
IV	121	1,323	82	100	88	728	916	39	407
V	289	2,863	203	271	370	1,805	2,446	86	417
VI	72	706	54	55	30	397	482	18	224
VII	237	2,371	173	182	135	1,697	2,014	64	357
VIII	179	1,865	150	153	140	1,478	1,771	29	94
IX	221	2,487	190	168	174	1,951	2,293	31	194
X	41	444	31	35	34	367	436	10	8
XI	34	536	12	15	1	175	191	22	345

M. AYLMER, Lt.-Col.,
Asst. Adjutant General.

(APPENDIX G.)

MILITIA TRAINING, 1893-94.

RETURN showing the strength of Units of Active Militia in District Camps.

Military District.	Place.	Date of Assembly.	Corps.	Strength.	
				Officers.	N.-C. O. and Men.
		1893.			
I.....	London, Ont.....	June 19..	1st Hussars	15	157
	do	do 19..	London Field Battery	5	65
	do	do 19..	26th Battalion.....	23	258
	do	do 19..	28th do	24	194
	do	do 19..	30th do	24	379
	do	do 19..	33rd do	25	207
			Total	116	1,260
II.....	Niagara, Ont.....	June 13..	2nd Dragoons.....	20	207
	do	do 12..	Hamilton Field Battery.....	4	73
	do	do 12..	Toronto do	4	69
	do	do 13..	19th Battalion.....	17	194
	do	do 13..	20th do	18	190
	do	do 13..	31st do	24	294
	do	do 13..	39th do	26	291
	do	do 13..	44th do	18	160
			Total	131	1,478
III.....	Kingston, Ont.....	June 27..	4th Hussars.....	16	161
	do	do 27..	16th Battalion.....	21	149
	do	do 27..	47th do	18	169
	do	do 13..	3rd Prince of Wales Canadian Dragoons	16	164
	do	do 13..	Kingston Field Battery.....	5	52
	do	do 13..	45th Battalion.....	20	258
			Total	96	953
IV.....	Kingston, Ont.....	June 13..	Gananoque Field Battery.....	5	55
	do	do 27..	41st Battalion.....	15	104
	do	do 13..	42nd do	17	228
	do	do 13..	59th do	20	226
			Total	57	613
V.....	Laprairie, Que....	June 27..	6th D. of C. R. C. Dragoons.....	13	135
	do	do 27..	Montreal Field Battery.....	3	52
	do	do 27..	11th Battalion.....	24	274
	do	do 27..	50th do	11	126
	do	do 27..	51st do	12	89
	do	do 27..	85th do	18	243
			Total	81	919

RETURN showing the strength of Units of Active Militia in District Camps—*Con.*

Military District.	Place.	Date of Assembly.	Corps.	Strength.	
				Officers.	N.-C. O. and Men.
		1893.			
VI.....	Compton, Que	June 20..	5th Dragoons	21	199
	Laprairie, Que	do 20..	Shefford Field Battery	5	50
	St. Johns, Que	do 20..	84th Battalion	16	88
			Total	42	337
VII.....	Levis, Que	July 3..	Quebec Field Battery	6	66
	do	do 3..	17th Battalion	24	222
	do	do 3..	81st do	17	149
	do	do 3..	87th do	23	204
	do	do 3..	88th do	19	226
	do	do 3..	92nd do	10	145
	St. Johns, Que	June 27..	55th do	18	224
			Total	117	1,236
VIII.....	Sussex, N.B.	June 26..	8th Princess Louise New Bruns- wick Hussars	27	290
	do	do 26..	Newcastle Field Battery	5	74
	do	do 26..	Woodstock do	5	73
	do	do 26..	67th Battalion	27	358
	do	do 26..	71st do	25	255
	Charlottetown, P.E.I.	July 10..	Prince Edward Island Battalion Garrison Artillery	16	202
			Total	105	1,252
IX.....	Aldershot, N.S.	Sept. 5..	King's Canadian Hussars	2	39
	do	do 5..	68th Battalion	28	374
	do	do 5..	69th do	34	370
	do	do 5..	75th do	20	242
	do	do 5..	93rd do	20	211
			Total	104	1,236

M. AYLMEER, Lt.-Colonel,
Asst. Adjutant General.

(APPENDIX H.)

RETURN of Musketry in District Camps, 1893-94.

Military District and Site of Camp.	Corps.	Corps figure of merit.	Rank and Name of Best Shot.	Score.	Remarks.
No. 1 London.	1st Hussars.....	18·62	Trooper H. Kellet.....	55	Best shot in camp.
	26th Battalion.....	25·67	Colour Sergeant Allen.....	71	
	28th do.....	30·02	{ Colour Sergt. Marchant.. } Sergeant Follis.....	69	Equal.
	30th do.....	25·86	Sergeant Sanders.....	63	
	33rd do.....	27·43	Sergeant Corrick.....	62	
No. 2 Niagara.	2nd Dragoons.....		Trooper C. Secord.....	47	
	19th Battalion.....		Private W. Singer.....	50	
	20th do.....		Sergeant Armstrong.....	51	
	31st do.....		Sergeant Beemer.....	48	
	39th do.....		Private T. Haywood.....	52	Best shot in camp.
Nos. 3 and 4 Kingston.	44th do.....		Colour Sergeant Greenwood..	45	
	3rd Dragoons.....				
	4th Hussars.....				
	16th Battalion.....				
	41st do.....				
No. 5 Laprairie.	42nd do.....				
	45th do.....				
	47th do.....				
	59th do.....				
	6th Duke of Con- naught's Hussars....	40·21	Corporal Stuart.....	61	Best shot in camp.
No. 6 St. John's.	11th Battalion.....	29·00	Sergeant Major Bromby.....	68	
	50th do.....	29·89	Sergeant I. McCracken.....	64	
	51st do.....	35·59	Private A. McNaughton ..	67	
	85th do.....	16·33	Private S. Beaudoin.....	56	
	5th Dragoons.....	30· ³ / ₂			
No. 7 Levis.	55th Battalion.....	27·88	Bandsman Paradis.....	69	Best shot in camp.
	84th do.....	10·32	Private Lajeunesse.....	57	
	17th do.....	5·39	Sergeant Major Richard ..	62	Serg. Maj. Richard and Pte. Huot tie for best shot in camp; 62 each.
	81st do.....	5·27	Private Lacasse.....	52	
	87th do.....	5·44	Private Huot.....	62	
No. 8 Sussex, N B.	88th do.....	5·14	Private Julien.....	54	
	92nd do.....	5·37	Sergeant Larachel.....	55	
	8th Hussars.....	16·39	Sergeant W. Parler.....	62	
	67th Battalion.....	20·59	Sergeant P. Appleby.....	77	
	71st do.....	26·28	Corporal H. Gregory.....	77	Best shot in camp.
No. 9 Aldershot.	King's Troop Hussars.	46·89	Trooper C. F. Miller.....	64	
	68th Battalion.....	29·06	Sergeant Carry.....	70	
	69th do.....	35·37	Sergeant Miller.....	72	
	75th do.....	35·40	Private Veno.....	70	
	93rd do.....	41·12	Sergeant Baird.....	72	

M. AYLMEER, Lt.-Colonel,
Asst. Adjutant General.

(APPENDIX

List of Rifle Ranges

Military District.	Locality.	Corps by whom used.	Greatest Range in use under existing circumstances.	Approximate length and breadth of Range Ground.	Number of Targets available at various distances.	Extent of ground behind the Butts, comprised in the Range Ground.
No. I.	London.	7th Batt. and Rifle Association.	600 yards.	980 x 100 yds	4 targets, 200 and 300 yds.; 5 targets, 400 to 600 yds.	100 yards..
do ..	do	No. 1 R.D., R.R.C.I. & Troops in Camp.	1,000 do	1,000 x 200 yds.	8 at all distances.	30 do ..
do ..	Windsor	21st Batt., Nos. 1 and 5 Cos.	600 do	1,000 x 50 yds	2 do	None.....
do ..	Leamington	21st Batt., No. 2 Co.	800 do	800 x 20 yds.	3 do	.....
do ..	Essex	do No. 3 Co.	900 do	900 x 80 yds.	3 do	.....
do ..	Woodstock.....	22nd Batt., Nos. 1 and 6 Cos.	600 do	600 x 100 yds	2 do	.....
do ..	Embro	22nd Batt., No. 2 Co.	600 do	600 x 200 yds	1 do	.....
do ..	Princeton.....	do No. 3 Co.	600 do	600 x 40 yds.	2 do	.....
do ..	Norwich.....	do No. 5 Co.	500 do	500 x 100 yds	1 do	.....
do ..	Thamesford.....	do No. 8 Co.	500 do	500 x 300 yds	1 do	.....
do ..	Sarnia....	27th Batt., No. 1 Co.	600 do	600 x 50 yds.	5 do	None
do ..	Thedford	do No. 2 Co.	600 do	.....	2 do	do
do ..	Hespeler.....	29th Batt., No. 5 Co. and Hespeler Rifle Association.	1,000 do	1,200 x 200 yds.	4 at 200 yds., 2 at 400 and 600 yds., 1 at 600 to 1,000 yds.	150 yards..
do ..	Berlin.....	29th Batt., No. 1 and 6 Cos., and Berlin Rifle Association.	500 do	500 x 100 yds	4 at 200 yds., 1 at 400 and 500 yds.	50 do ..
do ..	Guelph.....	1st Brigade Field Art. and 30th Batt.	600 do	1,000 x 700 yds.	4 at all distances.	350 do ..
do ..	Seaforth.....	33rd Batt.....	600 do	900 x 75 yds.	4 do	75 do ..
do ..	Clinton	do	600 do	650 x 25 yds.	2 do	50 do ..
No. II.	Brantford	38th Batt.....	600 do	900 x 100 yds	4 up to 500 yds., 2 at 600 yds.	None.....
do ..	Georgetown	20th Batt., Nos. 2, 3 and 6 Cos.	600 do	600 x 100 yds	1 at all distances.	do
do ..	Hamilton.....	13th Batt.	1,000 do	1,100 x 35 yds	7 up to 600 yds.; 2, 700 to 1,000 yds.	75 yards..
do ..	Milton	20th Batt., Nos. 1, 4 5 and 7 Cos.	600 do	700 x 50 yds.	2 each, 100 to 600 yds.	60 do ..
do ..	Niagara	Troops in Camp....	600 do	650 x 250 yds	3 up to 300 yds., 6, 400 to 600 yds.	30 do ..
do ..	Owen Sound.....	31st Batt.....	700 do	800 x 200 yds	3 to 300 yds.; 2, 400 to 600 yds.	100 do ..
do ..	Simcoe.....	39th Batt.....	900 do	1,100 x 50 yds	1 at all distances.	50 do ..
do ..	Toronto	"A" Troop, R.C.D., No. 2 R.D., R.R.C.I., G. G. Body Guard, Toronto Field Battery, 2nd Batt. Q. O. R., 10th Batt. R. Grens., 48th Highlanders.	1,000 do	1,000 x 300 yds.	12 at 200 yds.; 10, 300 to 600 yds.; 4, 700 to 1,000 yds.	.....

I.)

by Military Districts.

Nature of country behind Butts, whether unused, or occupied and requiring to be closed when firing is going on.	Whether ever reported unsafe.	By whom is Range owned, Government or Private Property.	If Rented, Amount of Rent, and by whom paid.	Direction of Range from Firing Point to Butts.
Hill 45 ft. high; occupied; need not be closed.	No	Private; leased to Western Rifle Association.	\$65 per annum; Western Rifle Association.	W.
High steep cliff; occupied; need not be closed.	do	Private.....	\$160 per annum; Government.	S.
Level land, has hand clearing; must be closed for firing.	do	do	\$18 per annum; 21st Batt. and Windsor Rifle As.	S.E.
Lake Erie	do	do	\$15 per annum; captain of company.	S.
Farm land; closed for firing.	do	do	\$20 per annum; Government.	N.E.
Rapidly rising ground; occupied; closed for firing.	do	do	No rent	N.W.
Bank 100 ft. high	do	do	do	S.E.
Level.....	do	do	do	E.
Bank 30 ft. high; country occupied; closed for firing.	do	do	do	S.W.
Rising ground; occupied; closed for firing.	do	do	do	W.
Occupied; must be closed for firing.	No complaint, but is dangerous.	do	\$25 per annum; Capt. McKenzie.	N.E.
Farm land; not closed for firing.	No	do	No rent	N.
Hill; farm land; not closed for firing.	do	do	\$25 per annum; Hespeler Rifle Association.	N.
Pasture land; not closed for firing.	do	do	\$10 for season; Berlin Rifle Association.	N.N.W.
Cultivated; notice given to owner before practice.	do	do leased to Guelph Rifle Association.	\$35 per annum; Government.	S.
Gravel hill, used occasionally, then closed for firing.	do	Private.....	\$20 per annum; 33rd Batt. Rifle Association.	E.N.E.
River bank	do	do	No rent	W.
Grand River opposite bank 80 ft. high.	do	do	Nominal rent.....	S.S.W.
High ground; farm land; not closed for firing.	do	do	\$11 per annum; 20th Batt. Rifle Association.	N. by W.
Mountain ridge; farm land; closed for firing.	Complaints have been made.	do	Victoria Rifle Club allow free use of range to the battalion.	N.
Rocky precipice, 75 yds. in rear; not closed for firing.	No	do	Milton Rifle Club and 20th Battalion.	S. W.
Lake Ontario.....	do	Government.....	.....	N.
Rising ground; cultivated; closed for firing.	No; but only safe for Snider.	Partly private, partly Government.	\$30 per annum; Government.	N.
Wooded, hilly ground; not closed for firing.	No	Private.....	\$15 per annum; 39th Batt. Rifle Association.	S.E.
Lake Ontario.....	do	Government..	.....	S.

LIST of Rifle Ranges

Military District.	Locality.	Corps by whom used.	Greatest Range in use under existing circumstances.	Approximate length and breadth of Range Ground.	Number of Targets available at various distances.	Extent of ground behind the Butts, comprised in the Range Ground.
No. II.	York.....	37th Batt.....	800 yards.	800 x 30 yds.	2 at all distances.	.....
do	Collingwood.....	No. 2 Co., 35th Batt.	600 do	600 x 50 yds.	1.....	Unlimited
do	Thornbury.....	No. 7 Co., 31st Batt.	500 do	500 x 100 yds.	1.....	40 yards..
No. III	Barriefield.....	R. M. C., "A" Batt., R. C. A., 14th Batt. and Troops in Camp.	600 do	800 x 200 yds.	6 at all ranges up to 600 yds.	200 yards.
do	Campbellford.....	3 Companies 40th Batt.	630 do	1,000 x 50 y.	2 do	None
do	Bowmanville.....	Right Wing, 45th Batt.	600 do	Length 1,200 yds.; width 100 yds.	2 at each distance up to 600 yards.	do
do	Lindsay.....	Left Wing, 45th Batt.	600 do	700 x 22 yds.	2 at each distance	.....
do	Peterborough.....	57th Batt., "C" Troop 3rd Dragoons and Durham Fd. Batt.	800 do	800 x 50 yds.	4 do	None
do	Port Hope.....	46th Batt., Durham Field Battery.	600 do	900 x 200 yds.	4 do	300 yards.
do	Cobourg.....	40th Batt. and Cobourg Art. Co.	800 do	800 x 33 yds.	4 do	None
do	Hastings.....	No. 9 Compy. 40th Batt.	600 do	1,900 x 300 y.	There is room for 6 targets up to 600 yds., only 1 is provided.	1,200 yds..
No. IV.	Ottawa (Rideau Rifle Range).....	P. L. D. Guards, O. F. Battery, G. G. Ft. Gds. and 43rd Batt.	900 do	600 x 220 yds and 900 x 60 yds.	2 each at 800 and 900 y.; 41 at all others up to 600 yds.	200 yards.
do	Prescott.....	"D" Troop, 4th Hussars, Nos. 1, 2 and 6 Cos., 56th Batt.	600 do	750 x 100 yds	4 at all distances	50 do
do	Brockville.....	Part of 41st and 42nd Batts.	800 do	800 x 50 yds.	4 do	.....
do	Perth.....	No. 3 Co., 42nd Batt.	600 do	600 x 100 yds	1 do	.....
do	Renfrew.....	No. 5 Co. do	1,100 do	1,100 x 100 y.	2 do	None
do	Pembroke.....	No. 6 Co. do	900 do	1,500 x 50 y.	1 do	100 yards.
do	Carleton Place.....	No. 5 Co., 41st Batt.	600 do	1,760 x 1,300 yds.	2 do	.....
do	Metcalfe.....	No. 7 Co., 56th Batt.	600 do	900 x 800 yds	3 do	.....
do	Spencerville.....	No. 6 Co. do	400 do	1,000 y. long	2 do	100 acres of bush.
do	Kemptville.....	No. 4 Co. do	600 do	600 x 100 yds	1 do	.....
do	Gananoque.....	Gananoque Field Battery and No. 2 Co., 41st Batt.	600 do	1,320 x 800 y.	2 do	.....
do	Cornwall.....	59th Batt.....	600 do	800 x 50 yds.	3 do	.....
No. V.	Côte St. Luc.....	6th Cav., M.F. Bat'y, M. Gar. Art., 1st, 3rd, 5th, 6th, 65th and 85th Batts.	900 do	1,860 x 224 y.	20 targets 100 to 600 yards; 2 from 700 to 900 yds.	About 750 x 198 yds. behind 1st class Butt and 1,150 x 224 yds. behind others.

by Military Districts—*Continued.*

Nature of Country behind Butts, whether unused or occupied and requiring to be closed when firing is going on.	Whether ever reported unsafe.	By whom is Range owned, Government or Private Property.	If Rented, Amount of Rent, and by whom paid.	Direction of Range from Firing Point to Butts.
Rising ground; cultivated...	Complaint made once about 10 years ago.	Private.....	\$15 per annum by Gov- ernment; \$7.50 by bat- talion.	E.
Nottawasaga Bay.....	No.....	do	Nominal rent.....	E. by S.
Georgian Bay.	do	do	do	S.E.
Falling, used as pasture be- yond the 500 yards men- tioned.	No	Government.....	.....	E.
Hill 40 to 50 feet high imme- diately behind butts; un- occupied.	do	Private.....	Rented by 40th Batt....	S.
Hill in rear of butts; unoc- cupied.	do	Private property...	Rent \$40 per annum; Government.	S. S. E. and S. W.
Large abutment in rear; river Scugog about 1,000 yards.	do	Township of Ops...	Free of rent.....	N. W.
Steep hill; unoccupied.....	do	Private property...	\$45 per annum; Govern- ment.	E.
Lake Ontario.....	do	do	\$20 per annum; Govern- ment.	S. E.
do	do	do	\$15 per annum; Cobourg Rifle Association.	S.
Hill 45 feet high, heavily tim- bered butt; beyond which is a river nearly a mile wide.	do	do	No rent.....	N.
Fairly level arable and grazing ground; closed for firing.	do	do	\$500 per annum; Govern- ment.	S. S. E.
Sand ridges and undulating pasture; closed for firing.	do	do	\$50 per annum; Govern- ment.	N. W.
Stony and wooded; occupied.	do	do	do	N.
Marsh and bush.....	do	do	\$10 paid by Perth Rifle Association.	N.
Hill 75 feet high	do	do	No rent	N. E.
Wooded hills and river.....	do	do	\$12 per annum; Capt. Irving.	E.
High butt; bush at back; not used.	do	Clergy lands.....	\$25 per annum; Carleton Rifle Association.	W.
Swamp; not closed when firing	do	Private property...	No rent.....	N.
Solid bush do ..	do	do	do	N.
Thick bush do ..	do	do	do	N. E.
High hill.	do	do	\$25 per annum; Ganano- que R. A.	N.
Farm land; not closed; thick bush behind butts.	do	do	\$50 per annum; Govern- ment.	N. W.
Bush; unoccupied; not neces- sary to close the bush when firing is going on.	do	do	Leased by Government for 15 years at \$900 per annum.	W.

LIST of Rifle Ranges

Military District.	Locality.	Corps by whom used.	Greatest Range in use under existing circumstances.	Approximate length and breadth of Range Ground.	Number of Targets available at various distances.	Extent of ground behind the Butts, comprised in the Range Ground.
No. V.	Laprairie.....	Troops in Camp....	600 yards.	1,000 x 500 y.	4 at all distances	50 to 100 y.
do ..	Three Rivers.....	86th Batt.....	600 do	600 x 50 yds.	2 do	None
No. VI.	Sherbrooke.....	53rd Batt.....	600 do	600 x 50 yds.	2 at each distance	About 50 y
do	St. Johns, Que.....	No. 3 R.D., R.R.C.I.	600 do	750 x 50 yds.	1 butt; no more targets.	150 yards.
do	do	No. 3 R.D., R.R.C.I. and for District Camp.	600 yards flat, could have 900 to 1,000 from barracks.	750 x 50 yds.	2 butts; 4 targets in line.	100 yards.
do	Richmond	54th Batt.....	600 yards.	750 x 150 yds	3 up to 200 yds., 2 to 600 yds.	About 150 yds.
do	Clarenceville	60th Batt., No. 4 Tp., 6th Cavalry.	800 do	1,000 x 200 y.	4 from 100 to 600 yds.	.....
do	Waterloo.....	79th Batt.....	600 do	600 x 200 yds	2 from 100 to 600 yds.	.....
do	Sweetsburg.....	Shefford Fd. Battery, 52nd Batt.	600 do	1,200 x 800 y.	2 from 100 to 600 yds.	400 yds...
do	Cookshire.....	5th Dragoons and 58th Batt.	600 do	700 x 250 yds	3 from 100 to 600 yds.	100 do ..
do	Sutton.....	No. 5 Troop, 5th Dragoons, 52nd Batt.	600 do	800 x 350 yds	2 from 100 to 600 yds.	200 do
do	Compton	Troops in Camp....	600 do	600 x 100 yds	5 from 100 to 600 yds.	.....
No. VII	Lévis	R. C. Artillery, Q. O. Can. Hussars, Lévis G. A. 8th, 9th and 17th Batts.	600 do	600 x 58 yds. average.	12 targets.....	.....
do	Beauport Flats.....	Q. O. Can. Hussars, 8th, 9th and 87th Batts.	600 do	.....	2 at each distance	Tidal b'ch water s'vl miles. 200 yds.
do	Inverness Corner....	55th Batt. and Megantic Rifle Ass'n.	600 do	800 x 50 yds.	4 targets .....	.....
do	Ste. Geneviève.....	70th Batt. and Champlain Rifle Ass'n.	600 do	600 x 120 yds	5 do	None.....
do	Rivière du Loup (en bas).....	89th Batt. and Témiscouata Rifle Ass'n.	600 do	800 x 60 yds.	5 do	200 yds...
do	Rimouski.....	89th Batt. and Rimouski Rifle Ass'n.	600 do	1,000 x 72 y.	2 do	200 yds...
do	Ancienne Lorette....	87th Batt. and Co. Quebec Rifle Ass'n.	600 do	600 yards...	2 do	.....
do	Somerset, P.Q.....	No. 5 Co., 55th Batt., and Rifle Ass'n.	600 do	600 do	2 do	.....
No. VIII	Fredericton	No. 4 R.D., R.R.C.I. and 71st Batt.	700 do	800 x 30 yds.	3 at each distance	100 yds...
do	St. John, N.B	N.B. Batt. Gar. Art., 6 2nd Batt., St. John Rifle Co.	600 do	700 x 100 yds	4 do do	None.....
do	Sussex	All Militia Corps in District.	600 do	1,000 x 100 y.	12 do do	400 yds...
do	Woodstock	Woodstock Fd. By., Brighton Engineers and 67th Batt.	700 do	800 x 200 yds	2 do do	None.....

by Military Districts—Continued.

Nature of Country behind Butts, whether unused, or occupied and requiring to be closed when firing is going on.	Whether ever reported unsafe.	By whom is Range owned, Government or Private Property.	If Rented, Amount of Rent, and by whom paid.	Direction of Range from Firing Point to Butts.
Public road from village; closed and turned while firing; Laprairie Bay.	No.	Private property. .	No rent.	N. W.
St. Lawrence River; not closed.	do	do	do	S.
Side of hill; wooded; not occupied.	do	Private.	\$25 per annum; Government.	W.
Flat, with light bush behind the butt.	Reported unsafe, Jan. 1, 1891; disused.	do	\$50 per annum; Government.	E. to W.
High bush.	Protested by L. Huot, before present lease.	do	\$100 per annum, paid by the Town of St. Johns; leased for 5 years, June 21, 1892.	E. to W.
Hilly; wooded; closed while firing.	No.	do	Rent free.	N. W.
Swampy; wooded; ground occupied as pasture sometimes, but so far has never required to be closed.	do	do	do	E. S. E.
Mostly wooded; requires to be closed.	do	do	do	N.
High hill; crowned with timber; not closed.	do	do	do	N.
Hilly; lightly wooded; unoccupied during firing.	do	do	\$5 to \$10; paid by Rifle Association.	N. E.
High hill; timber land; unused.	do	do	Rent free.	E.
Wood; unoccupied.	do	do	Rent of camping ground covers rent of range.	W.
Hilly.	do	Government. ....	.....	S. S. E.
Tidal beach and water when tide is high.	do	Private.	No rent charged.	S. W.
Woods, and clearance, occupied.	do	do	\$4 per annum; Megantic Rifle Association.	W.
Wooded; unoccupied.	do	do	\$8 per annum; Champlain Rifle Association.	S. W.
Hilly; about 150 ft.; wooded; unoccupied.	do	do	\$7 per annum; Association	N. W.
Hilly; 60 ft. wooded; not closed.	do	do	\$10 do do	S. E.
Hill behind butts 60 ft. high, 100 y. from targets; wooded.	do	do	\$15 do do	N.
Woods; occupied for hay.	do	do	Entrance fee by members of Association.	W.
Rough and hilly; unused.	Not since stop-but built.	do	\$62 per annum; Government.	S. W.
Steep hill thickly wooded; not closed.	No.	do	\$250 per annum; Government.	W.
Bush; unused; not closed. .	do	do	N. B. Prov. Rifle Association pays \$100 per annum and charges Government \$25 per annum.	S.
A very high hill; unoccupied; not closed.	do	do	\$30 per annum; Government.	E.

List of Rifle Ranges

Military District.	Locality.	Corps by whom used.	Greatest Range in use under existing circumstances.	Approximate length and breadth of Range Ground.	Number of Targets available at various distances.	Extent of ground behind the Butts, comprised in the Range Ground.
No. VIII	Baker Brook.....	No. 7 Co., 67th Batt.	600 yards.	600 x 200 yds	2 at each distance	200 yds...
do	St. Stephen.....	No. 6 Co., 71st Batt.	600 do	650 x 137 yds	2 do do	.....
do	Moncton.....	74th Batt.....	600 do	700 x 150 yds	5 do do	30 do ..
do	Chatham.....	No. 2 Co., 73rd Batt.	600 do	700 x 50 yds.	2 do do	.....
do	Charlottetown, P. E. Island.	P. E. I. Gar. Art., Charlett'n Engineer Co. and 82nd Batt.	600 do	700 x 200 yds	4 do do	None.....
do	Little York, P.E.I.	No. 4 Co., 82nd Batt.	600 do	900 x 650 yds	2 do do	300 yds...
do	Fortune Cove, P.E.I.	No. 7 Co., 82nd Batt.	600 do	600 x 200 yds	2 do do	.....
No. IX.	Bedford, N.S.	Hal. Gar. Art., 63rd 68th Batt. & P.R.A.	900 do	2,000 x 450 y.	18 targets....	About 1,200 yds.
do	Aldershot, N.S.....	Troops in Camp....	700 do	Not fixed, say 1,600 x 200 yards.	8 do	About 1,000 yds.
do	Paradise West, Annapolis Co., N.S.	6 Cos. 69th Batt	600 do	1,000 x 40 yds	3 do	Nil
do	Kentville, Kings Co., N.S.	69th Batt. and Kings Co. Hussars.	600 do	900 x 200 yds.	10 do	do
do	Canning, Kings Co., N.S.	Nos. 2 and 6 Cos. 68th Batt.	600 do	1,000 x 400 y.	6 do	do
do	Pictou, N.S.....	Pictou Co. of Gar. Artillery.	600 do	800 x 150 yds	2 do	do
do	Bear River, Digby Co., N.S.	3 Cos. of 69th Batt..	600 do	600 x 40 yds.	2 do	do
do	Wilmot, Annapolis Co., N.S.	72nd Batt	600 do	1,000 x 100 y.	2 do	20 yds....
do	Digby, N.S.....	Digby Gar. Artillery	600 do	600 x 100 yds	1 do	Nil
do	Truro.....	78th Batt.....	600 do	800 x 200 yds	2 do	20 to 40 yds
do	Windsor	No. 4 Co., 78th Batt.	600 do	1,000 x 200 y.	2 do .....	.....
do	Millbrook.	No. 5 do ..	600 do	No return ..	1 do ....	.....
do	Mount Thom.....	No. 6 do ..	600 do	do ..	1 do .....	.....
do	West River.....	No. 7 do ..	600 do	do ..	1 do .....	.....
do	Amherst.....	93rd Batt. and County Rifle Ass'n.	600 do	700 x 400 yds	3 do	100 yds.
do	Spring Hill Mines ..	No. 2 Co., 93rd Batt.	600 do	700 x 25 yds.	1 do	None.....
do	Mapleton	No. 4 do ..	600 do	600 x 25 yds.	1 do	50 yds....
do	Martin's River....	No. 5 Co., 75th Batt.	600 do	900 x 20 yds.	1 do	200 yards.
do	Mahone Bay.....	Co. Gar. Artillery...	600 do	700 x 250 yds	4 do	100 yds...
No. X.	Winnipeg.	90th Batt.	900 do	2 miles by 88 yards.	8 tar. up to 600; 1 do 900.	About 1½ miles.
do	Port Arthur	96th Batt.	1,000 do	1,000 x 20 yds	2 targets.....	None.....
do	Portage la Prairie..	"B" Troop, Man. Dragoons.	About 800 yards.	1,000 x 200 y.	2 at all ranges up to 800 yds.	About 200 yds.
do	Brandon	Co. of Infantry.....	900 yards.	1,250 x 20 y..	2 targets....	About 200 yds.
do	Virden.	"A" Troop Man. Dragoons.	800 do	850 x 33 yds.	2 targets at each range.	.....
No. XI.	Goldstream, B.C....	B.C. Batt. Gar. Art. and B.C. Rifle Ass.	600 do	1,000 x 150 y.	7 targets.....	None.....
do	Glover Point.....	B. C. Batt. Gar. Art.	600 do	1,000 yards.	4 do	The sea ..

by Military Districts—*Concluded.*

Nature of Country behind Butts, whether unused, or occupied and requiring to be closed when firing is going on.	Whether ever reported unsafe.	By whom is Range owned, Government, or Private Property.	If Rented, Amount of Rent, and by whom paid.	Direction of Range from Firing Point to Butts.
Wooded	No	Private	\$10 per annum; Govern- ment.	N. W.
Wood land; unoccupied; not closed.	do	do	\$5 by County Rifle Asso- ciation; \$20 per annum by Government.	N. E.
Wooded; unused; not closed.	do	do	\$20 per annum	N.
Thin woods and barrens; un- occupied.	do	do	\$24 do	S.
Inlet of river; not closed....	do	do	\$150 per annum; Govern- ment.	N. E.
Wooded swamp; steep hill 400 yds. across swamp; unused.	do	do	No rent	E.
Wooded	do	do	\$20 per annum; Govern- ment.	N. E.
Hilly; thinly wooded; un- occupied.	do	Government .....	.....	N. N. W.
Level swamp; unused; only required to be closed in cranberry season.	do	Private property...	\$12 per annum; Govern- ment.	E. S. E.
Hill high behind butts; pas- ture; closed.	do	do	Leased by Government for \$200 for 25 years.	S. E.
100 feet hill behind butts; un- occupied.	do	do	King's Co. Rifle Ass'n. pays \$13 per annum.	Due S.
Hill 75 feet behind butts; un- occupied; not closed.	do	do	\$10 per annum; Canning Rifle Association.	Due E.
Unoccupied; heavy bush; not closed.	do	do	No rent	N.
High ground; heavily wood- ed; not closed.	do	do	do	S. W.
Sand hill; not required to be closed during practice.	do	do	do	S. W.
High sand bank; not required to be closed during practice.	do	do	do	W.
High bank; not closed	do	Part Prov. Gov. part private property.	do	E.
do do	do	Private property...	do	N. W.
Wooded hill	do	do	do	S. W.
do	do	do	do	E.
do	do	do	do	E.
Small trees; closed when firing.	do	do	do	E.
Heavy wooded land; not closed	do	do	do	N.
do do ..	do	do	do	E.
Wood land; not closed	do	do	do	N. W.
High hill; pasture; closed ..	do	do	do	N. N. W.
Flat; fence on each side range; not closed.	do	Winnipeg R. Range Company.	90th Battalion pays \$100 per annum for 3 targets.	W.
Forest; high hill about 1½ miles; not closed.	do	Private property...	Rent free	N.
Plain; not closed for firing..	do	do	do	E.
Hill 100 feet high..	do	do	do	N.
Ravine with high bank on far side and 1 mile cultivated.	do	do	do	W.
Hill; rough ground of no use; not occupied; not closed when firing.	do	do	\$50 per annum; B. C. E. Rifle Association.	E.
No danger except to boats....	do	do	do	S.

(APPENDIX J.)

REPORT ON THE CAMP OF INSTRUCTION AT LÉVIS.

To the Honourable

The Minister of Militia and Defence.

SIR,—

1. I have the honour to submit the following report on the Camp of Instruction, recently held at Point Lévis, Quebec.

2. I think it desirable to preface my remarks, by mentioning the objects which I had in view, when I submitted for your approval a scheme, which constitutes an entirely new departure, in the system of instruction of the Militia.

These objects were—

1st. To provide a means, whereby a larger number of Officers, Non-Commissioned Officers and men of the Active Militia, than can be ordinarily accommodated in the barracks at my disposal, could acquire a sound and practical training, in the subjects where-in they are required to pass an examination, before attaining to commissioned rank in the Militia Service.

2nd. To introduce, into the hitherto scattered units of the Royal Regiment of Canadian Infantry, an uniform system of drill, and regimental administration.

3rd. To provide practical instruction in tactics, for all ranks of the Permanent Force, whereby they should acquire, not merely the forms of drill, but learn by practical experience the true application, and the reason for, such forms.

3. Recognizing that the imitative faculty, which is inherent in every human being, may be largely utilized in instruction, and that the force, exercised on men's minds by example, is considerable, I was inclined to believe, that the close affiliation, of a considerable number of men of the Active Militia, with a thoroughly organized permanent Battalion, must infallibly be productive of good results on the former.

4. My expectations, based upon these considerations were fully realized. It was impossible to one who carefully followed, as I did, every detail of the instruction, not to observe that there was, constantly at work, a desire, on the part of the attached men of the Active Militia, to emulate, and imitate, the military bearing and regularity of their comrades of the Permanent Force.

5. There were present in Camp 162 Officers, Non-Commissioned Officers and privates from various Battalions, of the Active Militia throughout the Dominion, who had volunteered to go to Camp, for the purpose of obtaining instruction. The undefinable influence of emulation made itself felt, in another manner, by the fact that men from the provinces of Quebec, Ontario and New Brunswick, found themselves side by side, competing to maintain the credit, of their respective corps and province. The result was most satisfactory. Of the above number 96 took certificates of various classes.

6. The system adopted for their instruction was as follows. Two companies of about 80 men each were formed, each under the command of a selected officer of the Royal Regiment of Canadian Infantry, who was assisted in his duties by Non-Commissioned Officers of the same Regiment. Thenceforth these two Companies were known, and existed, as No. 5 and No. 6 Company, respectively, of the Royal Regiment of Canadian Infantry. They paraded with the Regiment, from the very first day, in order that the object lesson should be constantly before their eyes, and everything was done to make the men feel, that they were placed on an absolute equality, with their more thoroughly trained comrades. Realizing the influence, which externals have upon men's minds, I caused all the attached men, of whatever rank, to be clothed in new regulation serge clothing, thus giving them an appearance perfectly in harmony with that of the men of the Royal Regiment. It would have been impossible to expect men clothed in old, ill-fitting uniforms, of various colours and forms, to feel themselves on a footing of equality, with men differently arrayed. In the first days of the course, the most promising men were promoted to non-commissioned rank, and placed in charge of the sections of their

companies, under the superintendence of the Non-Commissioned Officers of the Royal Regiment. In this capacity, they performed all the duties, devolving upon Non-Commissioned Officers in a regularly organized company, and were gradually relieved of supervision, as they acquired a knowledge of their duties.

7. It is unnecessary for me, in a report of this kind, to enter into every detail of the course of six weeks' training. It is sufficient to say, that the aim was to make the instruction thoroughly practical, both in the administrative system of a regiment, and in drill. Being, as it were, absorbed into a regular military organization, the men unconsciously became impregnated, with the order and regularity existing therein, and learnt their duties, because those duties were a part of the daily life surrounding them. In like manner, in addition to their own elementary drill-training, they were able, by their constant close connection with the Permanent unit, to form an idea of the nature of the higher tactical training, that is given to soldiers. Towards the close of the period of instruction, a short course of musketry was gone through, with the new Martini-Metford rifle. Thus all the attached men acquired an intimate acquaintance with the weapon, with which they will eventually be armed.

8. After some experience, in different countries, of what can be done in the instruction of young soldiers, I can confidently assert, that I have rarely seen better results produced in the time allotted. I attribute this mainly to the fact, that the men had their heart in the work. They had come to learn, and they did their best, to take advantage of the opportunity afforded to them. The same results, however, could not have been obtained, even with the good-will of all concerned, had it not been for two essential conditions, viz. :—

1st. With very few exceptions, all the men from the Active Militia were quartered in permanent buildings. Thus the lax discipline, which results from placing untrained men under canvas, was avoided, and the men had more of the comfort, to which they are accustomed in their homes. The men were well housed, well fed, and led a healthy life, in which there was plenty of work, varied with a reasonable amount of social and other enjoyment.

2nd. The Officers and Non-Commissioned Officers, specially selected for the command and instruction, of the attached companies, showed themselves fully qualified for their work. I cannot speak in too high terms of the patience and care exhibited by Lt.-Col. Smith, and Captains Hemming and Wadmore, as well as by the Non-Commissioned Officers of the Royal Regiment of Canadian Infantry, in every detail of their duties. They abundantly proved the immense value, of a permanent regimental organization, which can train Officers and Non-Commissioned Officers for the performance, in so admirable a manner, of a very difficult duty.

9. The training, of the Royal Regiment of Canadian Infantry itself, was an important feature of the Camp at Levis. On its first arrival in Camp, though each company was, no doubt, trained and organized according to the standard of its commander, it was very apparent, that, inasmuch as those standards varied from one another, so also did the degree of efficiency of the companies vary. It was necessary to assimilate their instruction, and to infuse into all ranks a definite idea, as to the standard of efficiency which must be aimed at. The systems of administration, in the different companies, varied considerably, for the Officers, responsible for them, had not been themselves trained in the school of a regiment, and, therefore, could not, from mere theoretical study, evolve, each one, the same model of administration. By degrees, in the course of six weeks, the four companies were moulded into a more homogeneous whole. The less efficient, being removed from their habitual surroundings, and brought into contact with other companies, could not fail to become conscious of their shortcomings, in a way that could not be brought home to them, in their separate stations. Being all for a time under one control, and under constant supervision, the misinterpretation of orders which, from various causes, is liable to occur in widely scattered stations, became impossible. All ranks were thus brought under an uniform system of administration, the principles of which, being now engrafted in the regimental system, will form a basis for the uniform instruction of the Active Militia in administrative duties. The beneficial result, which must accrue, to the bulk of the Militia throughout the Dominion, can hardly be

over-estimated, since it is evident, that where formerly a Permanent Company maintained a low standard of efficiency, the instruction of the Active Militia, for which that Company furnished a school, would bear the impress of its inferior standard.

10. I do not propose to enter upon a detailed account, of the tactical instruction, of the Royal Regiment of Canadian Infantry. It was of the character, which marks the modern system of military instruction, in Her Majesty's Army. Broadly speaking, it consisted of a graduated series of tactical problems, which had to be solved by the Officers in the field, under conditions assimilated, as nearly as possible, to those of active service. All ranks showed the keenest interest in this training, which was entirely new to them. The ideas on military training, which have been handed down traditionally in Canada, are those of a bygone age, antecedent even to the introduction of the breech-loader, and though the more recent changes, in certain forms of drill, have been adopted, the tactical requirements, on which these changes are based, have been ignored. It is only by the practical exemplification of tactical problems, that Officers, and Non-Commissioned Officers can be taught their duty, as leaders of tactical units. By practical instruction alone, can they be brought to realize the importance of those details, in the daily routine of a soldier's life, which, for want of proper knowledge, they are apt to regard as mere forms, and to carry out in a perfunctory manner.

11. For the purpose of a practical training of the character I have indicated, it was necessary to have available, a considerable extent of government ground, presenting various natural features, suitable for the illustration of a variety of tactical problems. This condition was admirably fulfilled at Lévis, and the important strategic position of Quebec, being ever present, introduced an element of realism, which added largely to the interest of the instruction.

12. Valuable practical experience of another kind, was offered to those of the Permanent Force, who attended the camp at Lévis, and to the Officers commanding the dépôts of the Royal Regiment of Canadian Infantry, by a study of the arrangements for the concentration of the various units. These arrangements were most carefully worked out, in great detail, by Col. Lake, Quarter Master-General, and were of such a nature, as to afford to the officers who studied them, an idea of the careful work which is required from an Officer of the General Staff of the Army.

13. The highest praise is due to Lt-Col. Otter, for the tact which he displayed, in endeavouring gradually to remove the many imperfections, which were observed in the regiment temporarily placed under his command, while at the same time giving encouragement to all ranks. He was assisted by a zealous adjutant in Capt. McDougall, an indefatigable Quartermaster in Capt. Denison, and by a first rate Sergeant-Major.

14. I cannot close this report without a word of acknowledgment of the assistance given by Lt-Col. Duchesnay, D.A.G., No. 7 District, by Lt-Col. Forrest, Superintendent of Stores, and by all the Officers of the Royal Canadian Artillery, quartered at Quebec. They all, in their various spheres, did their utmost, to contribute to the comfort, and social enjoyment, of all ranks.

15. Personally, I must express myself well satisfied, not because I consider that the highest point of efficiency has been attained, but because a very considerable step has been made, towards a fair degree of efficiency. I appreciate the zeal that was displayed by all ranks, the desire they showed for improvement, and I feel that they returned to the regular duty of their several stations, with their minds enlarged to the really wide scope of their military duties. I earnestly hope that the system so successfully begun, may be continued year by year.

I have the honour to be, sir,

Your obedient servant,

IVOR HERBERT, Major General,
Commanding Canadian Militia.

OTTAWA, 30th October, 1894.

(APPENDIX K.)

From Lieut.-Col. J. F. Wilson, R. C. Artillery, to the Inspector of Artillery.

FIELD ARTILLERY PRACTICE,

CITADEL, QUEBEC, 20th November, 1894.

SIR,—1. I have the honour to report that, in accordance with G. O. (69), dated 11th August, 1894, I proceeded to Montreal on the 11th September, en route to Laprairie, to take over command of the Artillery practice camp. I was accompanied by Captain O. E. Pelletier, R.C.A.

2. At 7.30 a.m., on 12th September, I met the advance party of "A" Field Battery, R. C. A., at the Bonaventure Station, Montreal. Strength of party, 1 N. C. Officer, 6 gunners. With this party I proceeded to Laprairie at 12 o'clock mid-day on 12th September, and pitched the camp on the ground previously selected by the Inspector of Artillery.

3. "A" Field Battery, R.C.A., under Major C. W. Drury, R.C.A., strength, 60 Officers, N. C. O's. and men, and 33 horses, reported at Laprairie at 6.30 o'clock a.m. on the 13th September.

4. Surgeon-Major F. W. Campbell, R. R. C. I., reported at Laprairie at 12.30 o'clock p.m. on the 13th September, and assumed medical charge of the camp.

5. A draft from the R. C. A., Quebec, strength, 1 N. C. Officer, 12 gunners, 1 trumpeter, reported at Laprairie at 2.30 p.m. on the 16th September.

6. The Secretary of the D. A. A. reported at Laprairie at 9.30 o'clock a.m. on 17th September. This officer attended the gun practice as the statistical officer for the Dominion Artillery Association.

7. The gun practice began at 9 o'clock on the morning of the 17th September, under the direction of Major C. W. Drury, R.C.A., as Umpire-in-Chief, assisted by Capt. C. H. Ogilvie, R.C.A., and Lieut. H. E. Burstall, R.C.A.

8. Detachments from Field Batteries arrived, fired and departed, as follows :—

Detachment.	Arrived.	Fired.	Departed.
Montreal	17th Sept., 7.10 a.m.	Sept. 18. . . .	18th Sept., 5.45 p.m.
Quebec	17th do 12 noon. . .	do 19. . . .	19th do 3 p.m.
Shefford	18th do 8 a.m. . . .	do 19. . . .	19th do 6.45 p.m.
Welland Canal	18th do 12 noon. . .	do 20. . . .	20th do 3.30 p.m.
London	19th do 7.30 a.m. . .	do 20. . . .	20th do 6.40 p.m.
Ottawa	19th do 5.30 p.m. . .	do 21. . . .	21st do 2.30 p.m.
Durham	20th do 7.30 a.m. . .	do 21. . . .	21st do 3 p.m.
1st Brigade	21st do 12 noon. . .	do 22. . . .	22nd do 3.30 p.m.
Toronto	21st do 3.30 p.m. . .	do 24. . . .	24th do 3.15 p.m.
Hamilton	21st do 3.30 p.m. . .	do 24. . . .	24th do 3.15 p.m.
Gananoque	24th do 7.30 a.m. . .	do 25. . . .	25th do 3.30 p.m.
Kingston	24th do 7.30 a.m. . .	do 25. . . .	25th do 3.30 p.m.

The report on the gun practice, from the Umpire-in-Chief, is forwarded herewith.

9. The detachment from the London Field Battery was disqualified by the Umpire-in-Chief, whose report on this matter has already been forwarded under separate cover.

10. The conduct of the troops in camp was excellent.

11. The health of the troops and horses was excellent. No casualties of any kind occurred.

12. The draft from the R. C. A., Quebec, under Captain O. C. Pelletier, R.C.A., left Laprairie at 3.30 p.m., on the 26th September and returned to Quebec.

13. "A" Field Battery, R. C. A., under Major C. W. Drury, R. C. A., left Laprairie at 6.30 p.m. on the 26th September and returned to Kingston.

14. The N. C. officers composing the staff of the camp were insufficient in number in proportion to the work to be performed. The N. C. Officer acting as Q. M. Sergeant had charge of the supply and issue of all ammunition, and had charge of and was responsible for all rations issued to the troops and horses. The number of detachments arriving and departing daily entailed very close attention to the issue of rations. The daily routine work of the Q. M. Sergeant in camp was, in consequence, not carried out as it should have been. The want of an Orderly Room Clerk was experienced.

15. I was obliged to ask for an additional number of N. C. O's. and men, than had been allowed, as I found it was impossible to supply the necessary daily details with the men at my disposal. It was to supply this requirement that the draft was sent from R. C. A., Quebec.

16. The guns, limbers and two wagons, for the artillery practice, were supplied from the Montreal Field Battery. Several advantages would result from the Permanent Unit being, on future occasions, furnished with its own material, and if the number of guns was increased to six some delay would be obviated, as while one detachment was carrying on its gun practice in the field, another detachment, waiting in camp, might be examined in gun laying and fuze boring. This arrangement would entail the services of one additional Officer and one additional N. C. Officer.

17. The rates charged by the Richelieu and Ontario Navigation Company for transporting guns, horses, &c., were excessive, and the ferry service was uncertain and unsatisfactory owing to constant fogs on the river, lowness of water and prevailing high winds.

18. The camp equipment was supplied from Military District No. 5. The stores supplied were of good material, and I heard no complaints. The tents, manufacture of 1885, and in use for the first time, stood the test of two severe rainstorms without admitting any water. The stores were returned in good order and there were no deficiencies.

19. The rations supplied by the different contractors were satisfactory in every detail.

20. Of the projectiles used at gun practice, the common shells were manufactured at the cartridge factory, Quebec; the shrapnel were the zinc studded projectiles (1872) imported from England.

21. The ground was suitable, so far as the practice of "ranging" was concerned, offering facilities for long water ranges, and land ranges of shorter distances. The disadvantages of the place, as connected with the particular requirements of the camp itself, were that all the water for the troops had to be drawn from the river in barrels; the ground is of a hard clay soil, which does not shed the water.

22. The order of dress of the troops on parade was not uniform. In many cases the badges of rank worn were incorrect, and the tracing lace and braiding of jackets not in accordance with regulations. It might be deemed worthy of consideration to give an extra credit, added to points for gun practice, for the general turn-out of a detachment on parade.

23. Owing to the numerous annual autumn fairs being held at this season of the year throughout the country, it would be advisable, if possible, to hold this camp of instruction at an earlier date.

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

J. F. WILSON,
Major and Lieut.-Col., R.C.A.,
Camp Commandant.

(APPENDIX

RESULTS of Battery service and Competitive practice

Battery.	Officer Commanding.	Number of Series.	Time from Action to				Rate of fire per Round.	Rate of Ordinary fire.	Range in Yards.
			1st Gun.	1st Shrapnel.	Ordinary Fire.	End of Series.			
Welland Canal...	Lt.-Col. Frank King..	I	1 10	9 00	11 20	16 51	50.5	17.5	1950
		II	1 30	9 02	18 23	19 01	1 03.4	13	1325
		III	2 06	8 00	11 45	14 20	47.7	16.57	1125
Toronto	Major Mead	I	2 05	8 45	11 40	13 40	41	12	2000
		II	1 20	7 30	10 30	13 15	44.2	19	1350
		III	2 30	7 30	10 05	12 30	41.7	19	1200
Ottawa	Major Bliss	I	1 30	7 45	16 34	17 40	53	12	1900
		II	45	7 08	13 34	15 05	50.3	14	1250
		III	55	7 25	11 25	13 20	45	15	.....
Hamilton	Lt.-Col. Van Wagner..	I	2 55	10 40	16 40	18 25	55.3	20	1975
		II	1 50	8 25	15 00	16 50	56.1	12	1300
		III	1 50	6 35	9 40	11 00	36.7	19	1150
Quebec	Major Boulanger	I	1 48	9 15	15 20	18 03	54.2	.....	1950
		II	1 22	7 18	11 10	14 45	49.2	29.7	1300
		III	1 55	7 41	10 30	13 15	44.2	21.4	1150
Montreal	Major Hon. J. S. Hall, jun	I	1 24	6 00	.....	20 00	1 00	.....	2200
		II	1 40	7 15	10 00	.....	.....	.....	1200
		III	50	6 00	12 00	14 00	46.7	.....	1050
Shefford	Lt.-Col. Amyrauld...	I	1 28	8 50	13 36	18 30	55.5	25.6	1950
		II	2 05	7 30	12 00	16 25	54.7	25	1225
		III	1 27	7 09	16 58	17 47	59.3	15	1075
Gananoque	Lt.-Col. McKenzie	I	1 40	9 29	10 50	16 45	50.2	20	2275
		II	1 30	9 40	18 20	19 00	1 33	20	1275
		III	1 50	8 30	12 50	14 40	48.9	14	1175
Kingston	Major Drennan	I	2 30	14 15	17 15	19 40	59	17	2100
		II	1 15	5 30	9 30	11 40	38.9	23	1300
		III	1 30	6 00	9 15	11 15	37.5	15	1150
Durham	Lt.-Col. McLean	I	1 50	7 15	9 20	16 40	50	18	1925
		II	1 28	7 45	12 48	16 40	55.5	27	1250
		III	1 45	6 05	12 14	14 35	48.6	14	1075
No. 2, 1st Brigade	Major Davidson	I	2 29	13 55	25 45	27 40	1 23	25	2075
		II	1 35	7 35	.....	15 35	51.9	.....	1150
		III	2 25	7 45	11 50	14 00	46.7	25	1125
No. 1, 1st Brigade	Lt.-Col. Nicoll	I	1 40	8 00	15 04	16 55	50.7	14	1950
		II	1 10	9 10	14 58	17 20	57.8	18	1200
		III	1 30	6 15	8 50	12 30	41.7	22	1125
London	Lt.-Col. Peters	I	.....	.....	.....	.....	.....	.....	.....
Average Time	{	I	1 52.5 ₁₂	9 25.3 ₁₂	14 51.5 ₁₂	19 14.1 ₁₂	.....	.....	.....
		II	1 18.3 ₁₂	7 49.1 ₁₂	12 44.1 ₁₂	15 57.1 ₁₂	.....	.....	.....
		III	1 42.3 ₁₂	7 04.7 ₁₂	11 26.3 ₁₂	12 36.3 ₁₂	.....	.....	.....

K—Inclosure.)

at Laprairie, Quebec, from 17th to 25th September, 1894.

No. of Rounds fired.		Target.	Effect.		Average No. of		Credits for Hits.			*50 p.c. Allowance.	Fire Discipline.		*Total Credits.	Remarks.
Ranging Com. Shell.	Shrapnel.		Total Hits.	Men Hit.	Hits per Shell.	Men Hit per Shell.	1st Series.	2nd Series.	3rd Series.		Points lost for errors, &c.	*Credits Awarded.		
8	12	No. 1 Series—4 barrels representing 4 guns advancing. 4 dummy guns in action and 4 dummies as No. 1. 45 dummies in line representing a company of infantry.	7	...	.87	...	...	...	...	...	7	...	...
6	12		20	...	1.11	...	...	...	...	...	5	...	...
6	12		42	20	2.33	1.11	14	40	84	69	6	82	151	
8	12		3	...	.15	...	...	...	...	...	7	...	...
6	12		7	1	.39	...	...	...	...	...	7	...	...
6	12		43	19	2.39	1.06	6	14	*87	53.5	2	84	137.5	*1 dummy knocked down
8	12		2	...	.10	...	...	...	...	...	4	...	...
6	12		19	1	1.05	...	...	...	...	...	8	...	...
6	12		24	15	1.33	.83	4	38	48	45	7	81	126	
8	12		1	...	.05	...	...	...	...	...	18	...	...
6	12		29	2	1.61	...	...	...	...	...	11	...	...
6	12		24	11	1.33	.61	2	58	*50	55	9	62	117	*2 dummies do
8	12		1	...	.05	...	...	...	...	...	17	...	...
6	12		13	2	.72	...	...	...	...	...	12	...	...
6	12		38	21	2.11	1.17	2	26	76	52	9	62	114	
8	12		...	...	...	...	...	...	...	...	9	...	...
6	12		8	1	.44	...	...	...	...	...	7	...	...
3	12		25	7	1.60	.47	...	16	50	33	10	74	107	
8	12		...	...	...	...	...	...	...	...	8	...	...
6	12		2	...	.11	...	...	...	...	...	4	...	...
6	12		15	13	.83	.72	...	4	30	17	5	83	100	
8	12		1	...	.05	...	...	...	...	...	11	...	...
6	12		13	1	.72	...	...	...	...	...	13	...	...
6	12		13	16	1.67	.89	2	26	*26	27.5	4	72	99.5	*1 dummy down.
8	12		2	...	.10	...	...	...	...	...	15	...	...
6	12		7	1	.39	...	...	...	...	...	7	...	...
6	12		15	11	.83	.61	4	14	30	24	5	73	97	
8	12		4	...	.20	...	...	...	...	...	14	...	...
6	12		7	1	.39	...	...	...	...	...	9	...	...
6	12		5	3	.28	.17	8	14	*10	18	7	70	88	*4 dummies down.
8	12		...	...	...	...	...	...	...	...	13	...	...
6	12		5	2	.28	...	...	...	...	...	9	...	...
6	12		9	7	.50	.39	...	10	18	14	12	66	80	
8	12		2	...	.10	...	...	...	...	...	13	...	...
6	12		1	1	.05	...	...	...	...	...	15	...	...
3	12		6	6	.33	.28	4	2	12	9	7	65	74	
...	
...	
...	

J. F. WILSON, Major and Lt.-Col., R.C.A.,
Camp Commandant, Laprairie.

*From Major C. W. Drury, R.C.A., Umpire-in-Chief Field Artillery Practice, Laprairie,
to Lieut.-Col. J. F. Wilson, R.C.A., Commanding Field
Artillery Practice Camp, Laprairie.*

KINGSTON, 14th January, 1895.

SIR,—As umpire-in-chief, I have the honour to submit the following report upon the Field Artillery Practice held at Laprairie in September last.

Objects of the Practice.

The object of the practice at Laprairie was to obtain effective fire from the field batteries of the Active Militia, and to test the capabilities of the several officers in command, while providing instruction for all ranks by daily criticism of the work performed by them.

Fire Discipline.

The first condition for effective fire is "fire discipline." Fire discipline has been defined as "that condition of training and discipline which gives the commander complete control of the fire of the battery under all the changing circumstances of battle."

The control of fire is dependent on the Commanding Officer, and before a battery can produce the maximum effect of fire, it must be perfectly drilled and disciplined, or, in other words, the ordinary training of the soldier is the foundation, on which fire discipline, and the consequent fire effect, must be built up. The results of the recent practice showed that the batteries which obtained most credits for fire discipline, as a rule, secured the highest proportion of hits. Consequently, the success of a battery at the targets greatly depends upon the power of the commander to direct its fire.

Time.

Time is a most important factor in determining the effect produced by a battery in action.

I would suggest that every Commanding Officer make a careful study and comparison of the several records of time taken at the Laprairie practice.

The average time for twelve batteries taken for each series, taken from the word "action" to "first gun," was as follows: 1st series, $1' 52\frac{5}{8}"$; 2nd, $1' 18\frac{1}{2}"$; 3rd, $1' 42\frac{3}{4}"$. This was very fair for muzzle-loading guns, but as the conditions and view of the targets were the same for all, the variation between the maximum and minimum in each series seems altogether too great.

The serious consequences which might occur from a battery being silent after the guns are brought into action is a matter that cannot be too forcibly impressed upon all ranks.

The "deliberate method" of coming into action gives ample time for preparation; therefore, there is no excuse for delay in firing the first gun.

The firing in both natures of fire was slow. Unnecessary delays, for various reasons, occurred when changing from common to shrapnel. In no case did a battery approach the time limits allowed for the series, *i.e.*, two rounds per minute. It was deemed advisable not to enforce the penalty in the time limit rule this year, owing to the conditions of the practice being so new to all; next year, however, I would recommend its being rigidly observed and the battery deprived of any rounds it may not have fired within the time allowed.

Occupation of Position.

It is much to be regretted that the nature of the ground did not permit of testing the capacity of the several Commanding Officers in reconnoitring and selecting positions or in the choice of method of coming into action; since the uniformity of Laprairie Common was such that it precluded the possibility of such test. The umpires, therefore, besides pointing out the general alignment of the battery, directed that the

"deliberate method" should be followed in the first and second series and the "direct" in the third. In connection with this subject I would remark that the employment of the "deliberate method" under the conditions existing at Laprairie, in the second series, is hardly in accordance with the spirit of the instructions. As the target was plainly visible and the range comparatively short, there was nothing to be gained by adopting the "deliberate method," yet for the sake of instruction and for testing of the knowledge of the Commanding Officers in this method, it proved useful.

Series III. "The Direct Method."

Although it was evident that one or two Commanding Officers thoroughly understood what was required, the situation was not grasped by the section commanders and gun layers, clearly demonstrating the want of training in their duties.

Ranging.

The ranging with common shell was good, but in most cases the corrections for "fuze finding" with shrapnel were quite wrong. As a rule, the ranging at the infantry target was very slow. This was especially the case when "fuze finding." When a battery is exposed to infantry fire it is evident that the rate of fire of a battery must be the highest possible, if an effect is to be produced.

A frequent cause of delay was that battery commanders waited to see the result of the first pair of shrapnel before giving out the next length of fuze, whereas it would have been quite within the instructions to give out a length for each section, one of which at the short range would, no doubt, have been correct.

Observation of Fire.

Observation of fire is a matter requiring anxious thought and long practice. Its difficulties are not always appreciated by those who criticize the fire effects of artillery.

The observation of fire was not particularly good; commanders did not make use of observers to assist them. In many cases, section commanders were noticed watching the results of the shots, consequently neglecting the supervision of their detachments.

Concentration and Distribution of Fire.

In series II. the target was "Artillery" placed at short range.

In series III. it represented an attack of infantry.

As a rule, concentrated fire was maintained throughout the practice at both these targets.

Only one Commander thought of distributing his fire. So marked was the concentration that in one instance in series III., during "ranging," several dummies were knocked down in the centre of the line of infantry, but the fire was maintained at the gap, leaving the dummies on the flanks untouched.

A study of clause III., page 97, Field Artillery Drill, respecting distribution, would be desirable.

Suggestions.

It is to be hoped that the practice of next year will include a series to fire from behind cover. This is now a most important feature of artillery warfare. It could be admirably carried out at Laprairie by using the railway embankment as cover.

I would also recommend that a longer period be allowed for the camp. The pressure of work this year was too great for the time allotted to it.

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

C. W. DRURY, Major, R. C. A.,
Umpire-in-Chief.

(APPENDIX L.)

From the Assistant Adjutant General for Artillery to the Major General Commanding Canadian Militia.

SIR,—I have the honour to submit herewith the inspection reports of the Field Batteries, Battalions and Companies of Artillery which have performed their annual drill for 1893-94, and further to report as follows, viz. :—

FIELD ARTILLERY.

The following batteries assembled for training in camp at the places and on the dates specified :—

Military District.	Battery.	Place.	Date.
			1894.
No. I.	London	London	June 12.
	1st Brigade (2 batteries).....	Berlin	Sept. 17.
No. II.	Hamilton	Hamilton	June 5.
	Toronto	Toronto	do 5.
	Welland Canal	St. Catharines	do 12.
No. III.	Durham	Port Hope	June 12.
	Kingston	Kingston	do 12.
No. IV.	Gananoque	Gananoque	June 12.
	Ottawa	Ottawa	do 12.
No. V.	Montreal	Montreal	June 23.
No. VI.	Shefford	Granby	Aug. 27.
No. VII.	Quebec	Point Lévis.	July 2.
No. VIII.	Newcastle	Newcastle	Aug. 7.
	Woodstock	Woodstock	July 3.
No. IX.	Sydney	Sydney	July 17.
No. X.	Winnipeg	Winnipeg	June 18.

2. The modern system of Field Artillery* training involves the unaided handling of a battery in action by its own officers, and the technical administration of its fire by the Officer Commanding, who is responsible for the carrying out of those principles involved in the Fire Discipline of the unit.

In order to carry the above system into effect, and with a view to bringing the Field Batteries of the Canadian Militia into accordance with the above stated requirements of modern tactics, the following special instruction was authorized:—

3. Classes for the instruction of the Officers Commanding Field Batteries in Ontario and Quebec were formed, as provided in General Orders 26, 1894, under Major Drury, R.C.A., at the Tête de Pont Barracks, Kingston. The courses of instruction were from the 29th May to 1st June, and from the 7th to 10th August.

With the same object in view, an extra day's drill was allowed to the Field Batteries in Manitoba, New Brunswick and Nova Scotia, and an Officer of the R. C. A. was detailed to act as an instructor to each during their annual drill.

The Kingston and Quebec Field Batteries were attached during their annual drill to "A" and "B" Field Batteries, R. C. A., respectively, for discipline, instruction and subsistence.

The practice of bringing Field Batteries of the Active Militia into this close connection with Permanent Units has been found of great advantage.

4. *Range Finding*.—Instructional practice in this system formed part of the annual training of all except the London and 1st Brigade Field Batteries, for which no safe range was available. The practice was carried out under the superintendence of the Inspecting Officer and in accordance with Imperial regulations. Owing, however, to the insufficient number of horses allowed to Field Batteries, practical instruction in the system of supplying ammunition from wagons had to be omitted.

5. *Annual Gun Practice*.—Detachments from the thirteen Field Batteries in Ontario and Quebec carried out their annual competitive gun practice in camp at La-prairie, near Montreal, in accordance with General Orders 69, 1894.

The Officers, N. C. Officers and men were attached to "A" Battery, R. C. A., for discipline, instruction and subsistence. A special syllabus of instruction based upon the Rules for Practice, as carried out by the Royal Artillery at Okehampton, was issued. The competition included fuze boring, gun laying, fire discipline and gun practice; the latter was carried out at three targets, representing artillery at distant and medium ranges, and infantry at close range.

Each detachment remained in camp for two days.

The following table shows the strength and composition of each detachment:—

Batteries.	Major.	Captains.	Lieutenants.	Staff-Ser- geant.	Sergeant.	N. C. O.'s or Gunners.
Montreal	1	1	1	2	3	1
Quebec	1	1	1	1	3	2
Shefford	1	1	2	...	3	1
Welland Canal	1	...	...	2	3	1
London	1	...	1	2	...	4
Ottawa	1	1	2	2	4	...
Durham	1	...	...	2	3	1
1st Battalion. { No. 1	1	...	2	...	4	2
{ No. 2	1	...	1	...	3	3
Hamilton	1	1	...	1	1	4
Toronto	1	1	1	2	3	1
Kingston	1	...	2	1	2	3
Gananoque	1	...	1	2	2	2

6. The reports of Lieut.-Col. Wilson and Major Drury, R. C. A., who were in charge of the camp and practice respectively have been forwarded to you.

7. It will be noted that only two Officers and six N. C. Officers of each battery were authorized to attend this instructional camp, the service of the guns, &c., being undertaken by "A" Battery, and the efficiency of the former only was tested. The practical training of a battery in field manœuvres, choice and occupation of a position and range finding must therefore be accomplished during its annual drill, and to ensure efficiency it

is very evident that not only should the Officers and N. C. Officers receive a practical training by being attached for a course of instruction to a permanent Battery of Field Artillery, but that recruits should receive their preliminary instruction by attendance at voluntary drills before going into camp.

8. Gun practice was carried out at local headquarters by the Winnipeg, Sydney, Newcastle and Woodstock Field Batteries during their annual drill. No marks were allotted for fire discipline, the hits on the targets only being noted and credits awarded according to the "Rules for Marking," published for the Canadian Artillery, 1893. No relative standard can, therefore, be established between the results obtained by these batteries and by those which fired at Laprairie.

GARRISON ARTILLERY.

9. All the Battalions and Companies called out for training for 1894-95 performed their drill at local headquarters.

10. The annual drill and gun practice of the Garrison Artillery in Military District, No. 9, Nova Scotia, was arranged for with a view to insuring a more thorough and practical training than has hitherto been found possible. The modern system of artillery defence, involving a suitable division of duties among the *personnel* of a fortress, and a perfect artillery organization and fire control, can evidently only be effectively taught by actual training in the works, and with the guns to which the troops would be detailed on mobilization.

11. Arrangements were accordingly made, with the concurrence of the General Officer Commanding Her Majesty's Forces in British North America, for the formation of a camp of instruction for the Militia Garrison Artillery at Ives Point, MacNab's Island, Halifax. The camp was under the command of the Inspector of Artillery, who was assisted by an instructional staff of one Officer and four N. C. Officers from the Royal Artillery.

From the 20th to the 31st August the camp was attended by detachments from the four companies of the Halifax Battalion, with an average daily strength, exclusive of staff, of six Officers and sixty N. C. Officers and men. From the 3rd to the 9th September the camp was attended by detachments of two Officers and twenty N. C. Officers from the Digby, Yarmouth, Mahone Bay and Pictou Companies respectively.

12. The routine of instruction was as follows, viz.: Early morning parade, squad and marching drills under Company Officers, morning and afternoon parade, gun drill, gun laying, group drill and fort manning details under instructors. All officers were instructed in the use of the Depression Range Finder.

The gun drills, &c., were carried on with the guns of the armament of Ives Point Fort, which is in close proximity to the camp.

13. *Practice.*—This was carried out, under authority from the General Officer Commanding Her Majesty's Forces, from two 9-inch guns mounted on the defences at York Redoubt, and was under the general superintendence of the Officer Commanding the Royal Artillery.

Each detachment, after having gone through three days' preliminary instruction, fired from five to eight rounds plugged shell, at a target towed by a steamer at from five to six knots an hour, and at ranges varying from 1,850 to 2,500 yards.

The organization of the tactical unit, in this case represented by a group of two guns, was completed by the officers and men under instruction, and the duties of fire commander, group officer, range finders and ammunition supply officer were taken in rotation by the officers on duty with their detachments.

In so far as regards direction and elevation, the practice was extremely good, but the time taken was somewhat slow, owing to the inexperience of the officers in ascertaining and predicting ranges.

There was no competition in connection with this practice, but should a similar instructional camp be authorized in 1895, it will be desirable to introduce the element of competition into the practice.

14. The annual gun practice of company detachments from the Garrison Artillery in Military Districts 3, 7 and 8 was carried out in accordance with General Order 53, 22nd June, 1894.

The competitions at the Island of Orleans, Quebec, Fort Dufferin, St. John, and Charlottetown, Prince Edward Island, were under the superintendence of the Inspecting Officers and in accordance with the modern system of drill.

The results of fire were marked in accordance with the rules for practice for Canadian Artillery, 1893.

I forward herewith a summarized statement of the scores made by detachments of Field and Garrison Artillery at the several localities where gun practice was carried out.

15. *Material*.—There have been no changes in field artillery material during the year, the stores and equipments have been maintained in a serviceable condition. No arrangements have yet been made for repair in store of part worn harness and saddlery.

The Garrison Artillery material at Quebec has been increased by the receipt on loan from the Imperial Government, for instructional purposes, of one 9-inch 12-ton R. M. L. gun and one 6-in. B. L. gun, both guns being complete with carriages and mountings. The guns have been mounted in the Drill Shed, Quebec.

A 40-pounder R. B. L. gun, with carriage and wagon, was transferred from Kingston to Quebec.

The issue of the stores necessary to complete "A" and "B" Batteries, R. C. A., on mobilization is being proceeded with.

Ammunition.—The ammunition reserve for the armaments of Quebec and Kingston is reported to be complete and in a serviceable condition.

The supply of 9-pr. R. M. L. ammunition from the cartridge factory, Quebec, has not been sufficient to meet the annual expenditure of shrapnel shell; therefore it has been necessary to draw on the small reserve existing. 20,000 shrapnel shell and 3,600 common shell are required to complete the necessary reserve of projectiles for the Field Artillery.

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

D. T. IRWIN, Lieut.-Col.,
Assistant Adjutant General for Artillery.

(Inclosure I in Report of Acting Adjutant General for Artillery.)

RESULT OF ANNUAL GUN PRACTICE.

FIELD ARTILLERY—CLASS I.

Field Battery detachment at Laprairie Camp.

Battery.	Number of Rounds.	Fire Discipline	Result of Fire.	Total.	Remarks.
Welland Canal.....	26 common shell, 36 shrapnel shell, in three series at different ranges.	82	69	151	1st prize, Dom. Art. Association.
Toronto.....		84	53·5	137·5	2nd do do
Ottawa.....		81	45	126	3rd do do
Hamilton.....		62	55	117	Credits awarded in accordance with special syllabus of instruction.
Quebec.....		62	52	114	
Montreal.....		74	33	107	
Shefford.....		83	17	100	
Gananoque.....		72	27·5	99·5	
Kingston.....		73	24	97	
Durham.....		70	18	88	
1st Brigade.. { No. 1.....	26 common shell, 36 shrapnel shell, in three series at different ranges.	66	14	80	
London..... { No. 2.....		65	9	74	

CLASS II.

Field Batteries at Local Headquarters.

Battery.	Number of Rounds.	Results of Fire.	Remarks.
Woodstock.....	32 common shell, 16 shrapnel shell at 2 targets and different ranges.	321	1st prize, Dominion Artillery Association.
Sydney.....		207	2nd do do
Winnipeg.....		189	Credits awarded in accordance with Rules for Practice, 1893.
Newcastle.....		187	

GARRISON ARTILLERY—CLASS I.

Company detachments at York Redoubt, Halifax.

Detachments.	Range.	Number of Rounds	Results of Fire.	Remarks.
	Yds.	9-in. R.M.L.		
Halifax Batt., No. 1. { No. 1.....	1750 to 2050	6	66	2 9-in. R.M.L. guns, moving targets. Results of fire awarded in accordance with Imperial regulations. No competition in connection with this practice.
do No. 2. { No. 2.....	1850 to 2450	3	66	
do No. 1. { No. 1.....	1850 to 2100	8	87·5	
do No. 2. { No. 2.....	1750 to 2050	6	83·3	
do No. 3. { No. 1.....	1800 to 2000	8	75	
do No. 2. { No. 2.....	1800 to 2000	8	87·5	
do No. 4. { No. 1.....	1850 to 2150	8	87·5	
do No. 2. { No. 2.....	1850 to 2450	3	66	
Digby Company.....	1750 to 2150	5	100	
Yarmouth Company.....	1750 to 2150	5	90	
Mahone Bay Company.....	1750 to 2150	5	60	
Pictou Company.....	1750 to 2150	5	80	

CLASS II.

Company detachments at Isle of Orleans, Quebec.

Detachments.	Range.	Number of Rounds.	Results of Fire.		Remarks.
			64-pr.	40-pr.	
Montreal Batt., No. 1	2,250 yds., 64-pr., 40-pr., R.M.L.	12 common shell, 3 shrapnel shell, 64-pr., R.M.L., 9 common shell, 40-pr., R.B.L.	52	40	1st prize, 64-pr. 2nd prize, 40-pr.
do 2.			56	37	
do 3.			65	47	
Quebec			24	6	
Lévis			55	38	1st prize, 40-pr.
Cobourg Company			71	44	
			38	48	
			45	39	
			33	34	
			64	45	
			64	46	2nd prize, 64-pr.

Rules for Practice, 1893. Land Ranges.

Company detachments at Charlottetown, P.E.I.

Company.	Range.	Number of Rounds.	Results of Fire.	Remarks.
P. E. I. Batt. {No. 1..} {No. 2..}	1,550 yds..	{12 common shell, 3 shrapnel shell, 40-pr., R.B.L.}	82 56	Credits awarded in accordance with Rules for Practice, 1893. Land ranges.

Company detachments at Fort Dufferin, St. John.

Company.	Range.	Number of Rounds.	Number of Fire.	Remarks.
New Brunswick Batt.— No. 1. No. 2. No. 3. No. 4. No. 5.	1,800 to 2,100 yards.	12 common shell, 3 shrapnel shell, 64-pr. R.M.L.	31.5 22. 5 23. 32.	Credits awarded in accordance with Rules for Practice, 1893. Sea ranges.

D. T. IRWIN, Lieut.-Col.,
Asst. Adjt. General for Artillery.

(APPENDIX M.)

REPORT ON THE ROYAL MILITARY COLLEGE OF CANADA FOR THE
YEAR 1893-94.

ROYAL MILITARY COLLEGE,

KINGSTON, 29th September, 1894.

The President
Royal Military College
of Canada.

SIR,—I have the honour to transmit herewith a report on the work of the Royal Military College for the term 1893-94.

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

D. R. CAMERON,
Commandant.

The progress made in studies has been highly satisfactory.

At the close of June, 1893, a comparison of the marks gained in each class with the marks gained in the preceding year by the same classes, showed that in all but the 4th class—the last joined—there had been decided improvement.

The falling off in the 4th class was attributable to—or at least attributed to—deficiency of average attainments on joining the college.

The same cause appears to be operative still with the members of that class.

On the other hand, all the other classes have increased their scores by very large numbers of marks—not merely in excess of what was accomplished in 1891-92, but in excess of the far higher marks gained in 1892-93.

Years.	1st Class.	2nd Class.	3rd Class.	4th Class.
1893-94.....	18,307	15,177	8,240	4,315
1892-93.....	15,203	10,685	9,260	3,693
Difference.....	+3,104	+4,492	--1,020	+622

Comparing the work of the graduating class of this year with the work of the graduating class of last year, it is found that the average for the whole four years' course is largely in favour of this year's graduates.

The class of 1894 gained an average of 41,618, that of 1893 gained 37,915.

During the fourteen years in which the college has passed graduates—on only two occasions, one in 1882 and the other in 1892—has a graduate succeeded in gaining more marks than, this year, are taken by Sergt. Geo. F. Folger Osborne and by Sergt. Vernon Lemuel Beer.

It has been very gratifying to the professors, graduates, and present students of the Royal Military College, that His Excellency the Governor General—when recently in Kingston—was pleased to remark in appreciative terms, on the reputation for efficient and important work gained by the college.

Expressing regret that he could not at that time visit the institution, His Excellency intimated his intention to do so later on, and, since then, has graciously presented a gold medal, a silver and a bronze medal for the most distinguished eligible graduates of this year, with authority for announcing that similar evidence of His Excellency's most highly valued interest in our work will be annually repeated during his term of office.

As a fresh indication of growing appreciation of the value of the College curriculum—it gives me great satisfaction to state that the Law Society of Upper Canada now accept the passing of our obligatory and voluntary entrance examinations and the college course first year examinations—as equivalent to law students' matriculation.

Again, the experiment made by the Department of Marine and Fisheries in employing graduates of the Royal Military College, has, I am glad to believe, proved very satisfactory up to the present time, and promises to be of the greatest advantage to the college. It is for those who have secured the appointments to remember their Alma Mater, and that her interests are in their keeping.

Our congratulations upon the success which has hitherto attended them may be all the more heartily given, for the department with which they are connected is reputed to be most strictly supervised and intolerant of inefficiency.

The General Officer commanding the Militia has decided to employ a professor of the college and a large number of this year's graduates during the vacation, in modernizing the military topography of the country.

I need hardly say that all connected with the college hail with delight this mark of the General Officer's appreciation of the capabilities of our graduates; and, while warmly congratulating those selected for the work, we feel assured they will do their utmost in return for the opportunities thus given to them to prove their worth and to increase the reputation of their college.

There is all but an unanimous opinion amongst the parents of Royal Military College graduates, that the result of the education and training here has been very highly satisfactory.

Amongst the graduates themselves, too, there is an ever growing appreciation of the advantage they have had in passing through our course of studies, and from the exceptional social organization of our college life. Homing here together for four years at an age when character is assuming its permanent form, the students imperceptibly subject one another to the mastering influence of honourable ambition, and high principles, and form lasting and intimate friendships upon which depend social happiness. In no institution at which the attendants are merely class room-mates, or called together for some frolic or game, is a comparable result attainable.

Yet those who present themselves for admission to the Royal Military College are insignificantly few in number; very many fewer than is desirable, and very many fewer than can be accounted for otherwise than by a general absence of knowledge of the education and training imparted here.

Of this education and training, Lord Derby, speaking last year with the experience of a British Public school boy, an university man, a military officer, a Secretary of State for War and a Governor General of Canada, stated his opinion to be that for preparation for civil life and for military life they—the education and training—were not excelled in any British or Continental School.

It is true that the number of students who can be received here is very small, but it does not adequately meet the aims of this National College, to attract merely enough competitors to ensure securing a sufficiency of candidates to occupy all available accommodation.

The aim is to prepare men for the public service, and the selection of these should not be limited to a group of thirty or forty candidates, for the larger the number of competitors the higher will be the average standard of ability and attainments in those selected.

Before dismissing the subject of class work, it is desirable to note that in addition to every endeavour being made by the professors generally to keep up with the rapid advance being made in these days in all lines of thought, and to steady and marked progress in our mathematical course, special attention is being paid to recent development in the study of electricity, the importance of which in the future progress of the world it would be difficult to over-estimate. Even now it would be almost as unreasonable to imagine civilization without electricity as to attempt to realize civilization without mechanism.

The correlation of electric, mechanical, and chemical forces, with their application to railways, navigation, manufactures, lighting, transmission of thought and other innumerable purposes in man's service, is so wide a field that here no more can be done than to impart such a theoretical and practical knowledge of the principles governing these relations as may put our graduates in a position to easily pursue special lines of study with success.

Our professor, however, now devotes special attention to what concerns the transmission of power by electricity, electric lighting, telegraphy and telephoning. That the professor's pupils have the advantage of having put before them advanced modern views in these subjects may be gathered from the circumstance that a part of the course of their instruction has found its way, in the form of a strikingly lucid article on Electrolysis, into the columns of the last issue of the *Electrician*, the leading British periodical devoted to electricity.

The physical condition of the cadets is all that could be desired and affords satisfactory evidence of the healthful character of the conditions of their living here. There has been no case of serious illness, nor of serious injury during the term.

The graduating class, 15 in number, increased $412\frac{1}{2}$ lbs. in weight during their residence here, making the average increase $27\frac{1}{2}$ lbs.

The average increase in height has been $2\frac{1}{4}$ inches; and the average increase in chest measurement, $2\frac{1}{2}$ inches.

No prize is assigned to this important department in college training. I may therefore here mention that had a prize been available it would have been won by a most distinguished competitor for he has added to his chest girth, $5\frac{3}{4}$ inches, to his weight 69 lbs., and to his stature, $8\frac{1}{4}$ inches.

It is noteworthy that while the highest classman lost most weight, $11\frac{1}{4}$ lbs. during the final examination, only 3 lbs. were wasted in the efforts of the junior graduate.

It is my pleasant duty to direct attention to the remarkably high opinion formed by all the professors of the college, of the application and conduct of the present 1st class since they have joined the college.

Now the seniors, they will have still more influence than they have hitherto had, and I look forward to their stay with us during the current session as promising a most happy result.

I congratulate very warmly the gentlemen of the class who are now about to receive their diplomas of graduation, and it will afford me a double pleasure to hear of their success in the future, the pleasure due to personal regard and the satisfaction of feeling that they do credit to their College.

I am specially indebted to them for the beneficial effect of their influence in promoting and maintaining a manly view of the requirements of discipline and of the just supremacy of the sense of duty.

The remarkably distinguished position taken by Sergeants Osborne and Beer is a source of pride to all of us; their own satisfaction at their success cannot exceed ours at the promise they give of adding to the reputation of the Royal Military College of Canada.

To Battalion Sergeant-Major Heneker is due my special recognition of his uniform exemplary conduct, his important share in maintaining discipline, and his marked firmness and tact in support of authority.

He has earned the esteem of all, cadets and professors, and, parting with him with regret, we wish him every success.

Annexed to these remarks will be found a list of names of cadets brought under my notice, by the professors, for the special aptitude and application they displayed.

To these gentlemen is due, in the largest measure, recognition of merits which have served to secure a satisfactory average of progress during the past term.

The discharge of their duties by the gentlemen on the College Staff continues to be marked by zeal in the interests of the institution.

The subordinate Military Staff, and the subordinate Civil Staff deserve approbation for meritorious application to the tasks assigned to them.

Appended to this report are :

- A. List of cadets specially noted for aptitude and application.
- B. Annual class prize list.
- C. " subject prize list.
- D. Subject prize list for the entire course.
- E. Aberdeen medalists.
- F. Diploma Pass List.
- G. Diploma Honour List.
- H. List of cadets recommended for commissions in H.M. Regular Forces.

D. R. CAMERON,
Commandant,
Royal Military College.

30th June, 1894.

(A.)

List of gentlemen cadets deserving mention for special aptitude and application in various subjects.

Mathematics.

4th Class.—Gentleman Cadet W. Anderson.

"	"	C. Doucet.
"	"	W. Moore.
"	"	F. Harris.
"	"	J. A. Cantlie.
"	"	J. Bogart.
"	"	R. Cassels.
"	"	F. Courtney.
"	"	G. Brown.

Hard workers.

3rd Class.—Gentleman Cadet H. M. Kirkpatrick.

"	"	A. S. Evans.
"	"	F. Gordon.
"	"	W. Cantlie.
"	"	D. Weatherbe.
"	"	A. Russel.

2nd Class.—This class individually and collectively have shown the highest attainments within the professor's experience here.

Corporal G. S. Wilkes.	}	Have displayed quite unusual capacity for success in scientific departments of learning.
Gentleman Cadet G. Cory.		
Corporal N. Ridout		
" G. Inksetter.		
" G. Frith.	}	Abilities scarcely inferior.
" J. Osborne.		
" R. J. F. Hayter.		
Gentleman Cadet A. Brown.		

- 1st Class.—Sergeant V. L. Beer. } The professor cannot express too
 “ G. Osborne. } highly his appreciation of the abil-
 “ H. B. Muckleston. } ities possessed by these gentlemen
 and hopes that when they leave their Alma Mater they will do
 justice to their intellects which have so brilliantly shown them-
 selves in their first efforts here.
 Sergeant F. Osler.
 “ H. D. L. Gordon.
 “ J. D. Doull.

Military Engineering.

Very Satisfactory.

- 4th Class.—Gentleman Cadet C. Doucet.
 “ “ F. Harris.
 “ “ F. Armstrong.
 “ “ J. Stairs.
 “ “ J. Bogart.
 “ “ H. Syer.
 “ “ G. Brown.

- 3rd Class.—Satisfactory latterly.
 Gentleman Cadet C. Stephens.
 “ “ W. Cantlie.
 “ “ G. Hardie.

- 2nd Class.—Worked extremely well.
 Corporal G. Wilkes.
 “ N. Ridout.
 “ R. Hayter.
 “ G. Frith.

- 1st Class.—Satisfactory.
 Sergeant V. L. Beer. } The high marks gained by these gentlemen
 “ G. Osborne. } have not been exceeded in recent years.
 “ F. Osler.
 Com. Sergt. Major R. McGee,
 Sergeant J. Doull.

Practical Geometry and Engineering Drawing.

- 4th Class.—Very satisfactory.
 Gentleman Cadet C. Doucet.
 “ “ G. Brown.
 “ “ J. Stairs.
 “ “ F. Armstrong.
 “ “ J. Bogart.
 “ “ F. Harris.
 “ “ H. Syer.

- 3rd Class.—Fair.
 Gentleman Cadet C. Stephen.
 “ “ A. Evans.
 “ “ F. Leach.
 “ “ G. Hardie.
 “ “ W. Cantlie.
 “ “ G. Kirkpatrick.
 “ “ F. Gordon.

2nd Class.—All the class but one have passed with distinction.

Corporal G. Firth.
 “ R. Hayter.
 “ G. Wilkes.
 “ G. Inksetter.
 Gentleman Cadet G. Cory.
 Corporal W. J. Osborne.
 “ Ridout.

Artillery—Theoretical.

3rd Class.—Gentleman Cadet F. M. Lockhart Gordon.

“ “ A. S. Evans.
 “ “ Charles C. Wood.
 “ “ Darcy Weatherbe.

2nd Class.—Entirely satisfactory. All the classes have attained to distinction.

Corporal Ross J. F. Hayter.
 “ George Sidney Wilkes.

Artillery—Practical.

3rd Class.—Gentleman Cadet F. Delamere Lafferty.

“ “ C. C. Wood.
 “ “ C. M. Stephen.
 “ “ Guy Hamilton Kirkpatrick.
 “ “ H. N. Cantlie.

2nd Class.—Gentleman Cadet E. P. Brown.

Corporal George S. Wilkes.
 “ G. R. Frith.
 “ George Gordon Inksetter.
 Gentleman Cadet George Norton Cory.

Military Law.

3rd Class.—Gentleman Cadet Guy Hamilton Kirkpatrick.

“ “ C. C. Wood.
 “ “ F. M. Lockhart Gordon.

Peace Administration.

3rd Class.—Gentleman Cadet F. M. L. Gordon.

“ “ G. H. Kirkpatrick.
 “ “ A. S. Evans.
 “ “ C. C. Wood.
 “ “ J. C. Holden.
 “ “ D. Weatherbe.

Strategy and Tactics.

3rd Class.—Very satisfactory.

Gentleman Cadet A. S. Evans.
 “ “ C. C. Wood.
 “ “ W. Cantlie.

2nd Class.—All the class unusually excellent.

Corporal G. R. Frith.

“ G. S. Wilkes.

“ R. J. F. Hayter.

Gentleman Cadet G. N. Cory.

Corporal N. S. Ridout.

“ G. A. Inksetter.

“ J. W. Osborne.

Gentleman Cadet E. P. Brown.

1st Class.—Very satisfactory in all respects.

Sergeant V. L. Beer.

Com. Sergeant-Major R. E. Tyrwhitt.

Sergeant G. Osborne.

War Administration.

1st Class.—Sergeant V. L. Beer.

“ G. Osborne.

“ J. Doull.

Com. Sergeant-Major R. E. Tyrwhitt.

Reconnaissance.

2nd Class.—Satisfactory.

Corporal G. N. Cory.

“ G. Frith.

1st Class.—Satisfactory.

Sergeant V. L. Beer.

“ G. Osborne.

Batt. Sergeant-Major F. C. Heneker.

Surveying and Military Topography.

3rd Class.—Gentleman Cadet G. H. Kirkpatrick, gained over 80 per cent of full marks.

Gentleman Cadet F. Leach.

“ “ A. S. Evans.

2nd Class.—This class has been uniformly able and diligent.

Corporal G. N. Cory, exceptionally meritorious.

“ S. Wilkes.

1st Class.—Very satisfactory.

—Sergeant G. Osborne.

“ V. Beer.

Com. Sergt.-Major R. E. Tyrwhitt.

Batt. Sergt.-Major F. C. Heneker.

Sergeant P. Thacker.

“ H. B. Muckleston.

French.

4th Class.—Gentlemen Cadet C. Doucet.

“ “ W. Anderson.

“ “ F. Armstrong.

3rd Class.—Gentleman Cadet A. S. Evans.

“ “ G. H. Kirkpatrick.

2nd Class.—This class is one of the best that has ever joined the College.

1st Class.—Corporal A. G. T. Lefevre.

Sergeant V. L. Beer.

“ J. D. Doull.

Batt. Sergt.-Major F. C. Heneker.

Sergeant G. Osborne.

English Literature.

Average much higher than formerly.

4th Class.—Very good.

Gentleman Cadet	C. Doucet.
"	" W. Moore.
"	" J. Bogart.
"	" C. Harris.
"	" J. Stairs.
"	" H. Syer.
"	" F. Armstrong.

3rd Class.—Gentleman Cadet	A. S. Evans.
"	" G. H. Kirkpatrick.
"	" F. M. L. Gordon.
"	" W. H. N. Cantlie.
"	" G. E. Hardie.
"	" A. C. Caldwell.

2nd Class.—This class is exceptionally intelligent and industrious.
Corporal R. J. F. Hayter.

" J. Osborne.

1st Class.—Sergeant F. B. Osler.

" J. D. Doull.

Com. Sergt.-Major R. E. Tyrwhitt.

Sergeant V. L. Beer.

Chemistry.

2nd Class.—This is an eminently hard working class.

Gentleman Cadet G. N. Cory.

" " E. P. Brown.

Corporal R. J. F. Hayter.

1st Class.—Satisfactory.

Sergeant G. F. H. Osborne.

" V. L. Beer.

Physics.

2nd Class.—The class is of exceptional merit.

Corporal G. A. Inksetter.

" R. J. F. Hayter.

" G. R. Frith.

1st Class.—Very Good,

Sergeant G. E. F. Osborne.

" H. B. Muckleston.

Geology and Mineralogy.

1st Class.—All of the class have qualified, a result not previously attained.

Sergeant F. B. Osler.

" G. F. H. Osborne.

" G. H. R. Harris.

Freehand Drawing and Painting.

4th Class.—Very Satisfactory.

Gentleman Cadet C. Doucet.

" " J. Bogart.

" " C. Harris.

" " J. Stairs.

3rd. Class.—Very satisfactory.

Gentleman Cadet C. M. Stephen.
 “ “ R. C. F. Alexander.
 “ “ A. S. Evans.

2nd Class.—Satisfactory.

Gentleman Cadet E. P. Brown.
 Corporal R. J. F. Hayter.
 “ J. W. Osborne.
 “ N. S. Ridout.
 “ G. R. Frith.

1st Class.—Sergeant V. L. Beer.

“ G. F. H. Osborne.
 Com. Sergeant-Major R. H. B. Magee.

Civil Engineering.

1st Class.—Unprecedented as uniform hard workers.

Sergt. G. F. H. Osborne.	} Are practically equal in engineering capacity and capable of distinguishing themselves in the profession.
“ F. B. Osler.	
“ V. L. Beer.	} Have shown great application, quickness of apprehension and firmness. Batt. Sergt.-Major Heneker in particular has shown qualities of perseverance which are sure to command high appreciation in any profession.
“ F. N. Gibbs.	
“ H. B. Muckleston.	
Batt. Sergt.-Major F. C. Heneker.	

Drills and Exercises.

Batt. Sergt.-Major F. C. Heneker.
 Sergt. V. L. Beer.
 “ H. B. Muckleston.
 Com. Sergt.-Major R. W. Brigstock.
 “ “ R. H. B. Magee.
 Sergeant F. B. Osler.
 “ G. H. Osborne.
 Com. Sergt.-Major J. E. Beatty.
 Sergeant H. D. L. Gordon.
 Corporal F. N. Gibbs.

GENERAL PRIZE LIST.

ROYAL MILITARY COLLEGE, JUNE, 1894.

Annual Class Prizes.—Highest Proficiency.—Appendix B.

4th Class.—Gentleman Cadet Louis Claud de Brigny Doucet, St. Louis College, Montreal.
 3rd “ “ “ Guy Hamilton Kirkpatrick, Upper Canada College, Toronto.
 2nd “ Corporal Geo. Sidney Wilkes, Trinity College School, Port Hope
 1st “ Sergt. Geo. Fred. Folger Osborne, Collegiate Institute, Kingston.

Annual Subject Prizes.—Appendix C.

Dominion Artillery Association Prizes—

3rd Class—Artillery, Theoretical. . . Gentleman Cadet F. M. L. Gordon, Toronto Church School.

2nd “ “ “ . . . Corporal George Sidney Wilkes, Trinity College School, Port Hope.

Ontario Artillery Association Cup—

3rd Class—Artillery Practice. Gentleman Cadet F. Delanore Lafferty, private tuition.

Subject Prizes.—Entire Course.—Appendix D.

Mathematics and Mechanics. Sergeant George Fred. Folger Osborne, Collegiate Institute, Kingston.

Practical Geometry and Engineering

Drawing. Corporal Gilbert Robertson Frith, Upper Canada College.

Military Engineering. Sergeant Vernon Lemuel Beer, Prince of Wales College, Charlottetown, P. E. I.

Surveying and Military Topography. . . Sergeant Fred. Folger Osborne, Collegiate Institute, Kingston.

Reconnaissance. Sergeant Vernon Lemuel Beer, Prince of Wales College, Charlottetown, P. E. I.

Artillery (theory and construction

of). Corpl. Ross J. Finnis Hayter, Upper Canada College.

Military History, Strategy, Tactics,

Military Administration and Law. . . Sergeant Vernon Lemuel Beer, Prince of Wales College, Charlottetown, P. E. I.

French. Sergeant Vernon Lemuel Beer, Prince of Wales College, Charlottetown, P. E. I.

English. Sergeant Vernon Lemuel Beer, Prince of Wales College, Charlottetown, P. E. I.

Chemistry. Sergeant Fred. Folger Osborne, Collegiate Institute, Kingston.

Physics. Sergeant Fred. Folger Osborne, Collegiate Institute, Kingston.

Geology and Mineralogy. Sergeant Featherston Britton Osler, Upper Canada College.

Freehand Drawing and Painting. . . Sergeant Vernon Lemuel Beer, Prince of Wales College, Charlottetown, P. E. I.

Civil Engineering. Sergeant Fred. Folger Osborne, Collegiate Institute, Kingston.

Drill and Exercise and N. C. O.

Drill Instruction (combined). . . . Batt. S. M. Fred. Christian Heneker, Bishop's College School, Lennoxville.

Conduct and N. C. O. Discipline. . . Batt. S. M. Fred. Christian Heneker, Bishop's College School, Lennoxville.

The “Aberdeen” Medals.—Appendix E.

(For the highest aggregate of marks for the whole course.)

Gold Medal.—Sergt. Geo. Fred Folger Osborne, Collegiate Institute, Kingston, Ont.

Silver Medal.—Sergt. Vernon Lemuel Beer, Prince of Wales College, Charlottetown, P. E. I.

Bronze Medal.—Sergt. Hugh Burritt Muckleston, Trinity College School, Port Hope, Ont.

Diplomas.—Pass List.—Appendix F.

NAMES.	DISTINGUISHED IN
Sergt. Percival Edward Thacker.	Civil Engineering.
“ George Henry Ronald Harris.	Geology and Mineralogy.
Co. Sergt. Major James Edward Beatty.	Civil Engineering, Drills and Exercises.
Corporal Alfred G. Tully Le Fevre.	Civil Engineering.
“ Frank Nicholson Gibbs.	Civil Engineering.
Co. Sergt. Major Robert Whish Briggs- tocke.	Drill and Exercises.
Batt. Sergt. Major Frederick Christian Heneker.	Civil Engineering, Drills and Exercises.
Co. Sergt. Major Robert Henry Boyd Ma- gee.	Civil Engineering, Drills and Exercises.
Co. Sergt. Major Richard Edmund Tyr- whitt.	Theory and construction of Artillery, Mil- itary History, Strategy, Tactics, Military Administration and Law, Civil Eng.
Sergt. John Doull Doull.	French and Civil Engineering.
Sergt. Harry Duncan Lockhart Gordon.	Civil Engineering, Drills and Exercises.
Sergt. Featherston Britton Osler.	Military Engineering, Theory and construc- tion of Artillery, Geology and Mineral- ogy, Civil Engineering, Drills and Exer- cises.
Sergt. Hugh Burritt Muckleston.	Mathematics and Mechanics, Theory and Construction of Artillery, Civil Engineer- ing, Drills and Exercises.

Diplomas.—Honour List.—Appendix G.

NAMES.	DISTINGUISHED IN
Sergeant Vernon Lemuel Beer.	Mathematics and Mechanics, Military Engineering, Theory and Construction of Artillery, Military History, Strategy, Tactics, Military Administration and Law, Military Topography, Reconnaissance and Civil Surveying, Practical Ge- ometry, and Engineering Drawing, French and English, Freehand Drawing and Painting, Chemistry, Civil Engineer- ing, Drills and Exercises, N. C. Officer's Discipline.
Sergeant George Frederick Folger Osborne.	Mathematics and Mechanics, Military En- gineering, Theory and Construction of Artillery, Military History, Strategy, Tactics, Military Administration and Law, Military Topography, Reconnaissance and Civil Surveying, Practical Ge- ometry and Engineering Drawing, Chem- istry, Geology and Mineralogy, Civil Engineering, Drills and Exercises.

Recommended for Commissions in H. M. Regular Forces.—Appendix H.

Sergeant George Fred. Folger Osborne, Collegiate Institute, }
Kingston. } Royal Engineers.

Sergeant Vernon Lemuel Beer, Prince of Wales College, }
Charlottetown, P. E. I. } Royal Artillery.

Sergeant John Doull Doull, Arnold School, Halifax. }
Co. Sergt. Major Robert Henry Boyd Magee, Trinity Col- }
lege School, Port Hope. } Infantry.
Batt. Sergt. Major Frederick Christian Heneker, Bishop's }
College School, Lennoxville. }