

The following show the comparative averages in certain details, of the Graduates and Cadets who have obtained Commissions in the Regular Army in 1885 :—

	Graduates.	Cadets.
Average age .....	21 $\frac{7}{12}$ years.	19 $\frac{6}{12}$ years.
" height .....	5 ft. 9 $\frac{3}{4}$ in.	5 ft. 9 $\frac{1}{2}$ in.
" chest measrmt. (inspiration) .....	37 inches.	37 $\frac{5}{12}$ inches.
Proportion of marks obtained on full obligatory course in all branches of instruction, from date of joining to date of leaving College.....	.65	.63

The Commissions, and choice of branch of service, were offered both to Graduates and Cadets in strict order of seniority.

*Graduates who declined Commissions in Her Majesty's Regular Army.*

9. The undersigned Graduates of 1885 might have obtained a Commission in the Imperial Army in the branches of the service specified, had they so desired.

Batt. Sergt.-Major Moren...Royal Engineers or Infantry.  
Lance Corp. Macdonald.....Royal Engineers, Royal Artillery, or Infantry.  
Corp. Primrose.....Royal Artillery or Infantry.

*General Conduct and Discipline.*

10. The conduct of the Cadets has been very satisfactory.

*General Results of Examination and Term Work.*

11. The general result of the Examination, and of work executed, has been very satisfactory for all classes, and increased industry and attention to work has been shown by the great majority of Cadets. The examination of the 1st Class in Civil Engineering, and in Chemistry; and also of the 1st and 2nd Classes in Physics, have been unusually good.

In each class, however, there are a few Cadets who, in some particular obligatory subject, or group of kindred subjects, are considerably behind their comrades, although in general ability they may be but little, or at all, inferior. This is no doubt unavoidable, in consequence of the numerous subjects the requirements of the College necessitate being studied, and the high standard in each to which it endeavors to carry the best men.

These facts should be borne in mind both by Instructors and Examiners. Every effort should be made by the former to bring the weaker Cadets up to the mark, and the Examiner should recollect that pressing too hard in any particular subject may, by forcing the weaker Cadets to strive to attain a possibly unnecessary high standard in this subject, compel them to correspondingly neglect some other not less important branch of instruction.

*Examiners' Reports.*

12. The several Examiners report as follows :—

*Surveying and Military Topography.*

1st Class—Only two Cadets, Messrs. Ridout and Von Hugel took up the voluntary course in Practical Astronomy and Geology. Both passed well.

Messrs. Tilley, Ridout, Von Hugel, and Hodgins, are the best topographical draughtsmen.

2nd Class—Has been a hard working class, and made good progress. The best draughtsmen are Messrs. Newcomb, Kennedy, Girouard and Sloggett.

3rd Class—Has made very satisfactory progress under Lieut. Cochrane. The best draughtsmen are Messrs. Hewett, Leader, Davis, Luard and Macdonald.

*French.*

1st Class—Very good. Messrs. Moren, Ridout, Skinner, Almon and Von Hugel have shown much assiduity. Mr. Macdonald is endowed with great talent for the practical part of this subject.

2nd Class—Generally good. Messrs. Girouard, Maxwell, Sloggett, and Smith, did very well. Mr. Sloggett deserves particular credit for the progress he has made, as he knew little or nothing of the French language on joining.

3rd Class—Much improved since last Term, with still plenty of room for further improvement.

Messrs. Gaudet, Morrow, Davis and Leader, are the best.

4th Class—Very good, and still better in prospect.

Messrs. Les-lie, Panet, Hamilton, Joly, Farwell, and Crawford, returned papers which would do credit to many educated French persons. Mr. Knight deserves to be mentioned for good progress.

*Freehand Drawing and Painting.*

1st Class—Mr. Tilley heads the class both for obligatory and voluntary work. Messrs. Hugel, Bremner, Skinner and Ridout have done excellent work, and are entitled to be recommended as "Distinguished."

2nd Class—Messrs. Sloggett, Girouard, Newcomb, Kennedy, Perry and Roe have all made very satisfactory progress, and all the class have qualified.

3rd Class—Messrs. Hewett, Leader and Macdonald have done extremely good work, and the rest, with two exceptions, have made satisfactory progress.

4th Class—Several members of this class are doing very good work, but five have failed to qualify through want of attention.

*Civil Engineering.*

Bearing in view the wide difference in the natural abilities and character of the men before joining the College, it is undoubtedly a fact of great significance to the country, and also the parents, that, after four year's training here, it is possible to say of a whole class that without exception they are promising men.

Bearing in mind the very few (under 40) marks difference out of a total of 5,600 between Messrs. Skinner, Hugel and Ridout these Cadets are practically equal in place, and having shown marked diligence and energy throughout, merit equal recognition.

I have favorable anticipation of the future success of this class without exception.

*Military Engineering.*

1st Class—Has worked very well, and by diligence those behind hand at commencement of Term have succeeded. None of the class can be recorded as "Distinguished" in consequence of their not having taken up voluntary work.

Good projects have been sent in by Messrs. Ridout, Hugel, Tilley, Moren, and Macdonald; and by Mr. Hodgins on explosives.

Messrs. Hugel and Hodgins accompanied me to Quebec to assist in removal of the ice bridge, and rendered valuable help.

2nd Class—Work of this class very good on the whole. Five Cadets failed to qualify, but only by a few marks. The voluntary work of Mr. Coutlee was particularly good. Messrs. Cartwright, Girouard, Kirkpatrick, Kennedy, Laurie, Newcomb, Sloggett and Yorston have done well. Messrs. Sloggett, Newcomb, Coutlee and Hensley have shown special ability to lay out and superintend practical work.

3rd Class—Has worked fairly well as a whole. Four Cadets have failed to qualify. Cadet Davis is first with good work done. Messrs. Gaudet, Hewett, and Laurie, have done well.

No voluntary work was done by this class.

4th Class—Has made very satisfactory progress. Cadet Heneker first. Mr. Joly's papers were particularly good. Those of Messrs. Bremner, Barker, Farwell and Panet good. Seven have disqualified, 3 badly.



### *Practical Geometry and Engineering Drawing.*

2nd Class—Ten Cadets took up voluntary work in this class, of whom 4 failed to qualify.

Cadets Sloggett, Kennedy and Yorston have done well.

3rd Class—Has worked fairly well, but with only moderate result, 3 have failed to qualify. Cadet Davis is first, and Cadet Clapp deserves mention for marked improvement due to hard work.

4th Class—Very satisfactory. Two Cadets have failed. The work of Cadet Joly is excellent. Cadet Farwell, Knight, Grant and Panet did well. Nineteen took up voluntary work of whom 11 qualified.

### *Mathematics and Mechanics.*

1st Class—No Cadets of this class took up voluntary mathematics, the time available after my appointment as Professor Mathematics (*viz.*, Christmas) being too short to allow of it.

2nd Class—Has worked steadily and well. The class has been under the disadvantage of having to take up in six months the whole of new work for the year. Six cadets took up voluntary work. Messrs. Sloggett, Cartwright, Newman, Yorston and Kirkpatrick have done very well.

3rd Class—This class has applied itself more closely to work lately, but several have attained only the bare minimum. Cadet Clapp has made marked improvement. Two have failed to qualify.

4th Class—There is a great difference in the mathematical abilities of the cadets of this class.

Cadets Joly and Lesslie have attained an extraordinarily high decimal. The voluntary work of this class has been very good, especially Messrs. Joly and Lesslie. Six have failed to qualify.

### *Artillery.*

2nd Class—Did very good work, all have qualified. Messrs. Cartwright, Sloggett and Kirkpatrick have done especially well. Mr. Coutlee has greatly improved.

3rd Class—Not so satisfactory, 4 have failed. Mr. G. Laurie has done remarkably well.

### *English.*

2nd Class—The progress in rhetoric and debating has been most satisfactory, much interest was manifested.

3rd and 4th Classes—The subject being new to the 3rd and 4th classes, I found them both very deficient in elementary English, especially composition. They have now made considerable progress.

I hope to produce some good essayists from among the 4th class.

Cadet Davis of the 3rd, and Joly of the 4th Class, have passed excellent examinations, and Cadet G. Johnston but little less well.

### *Strategy, Tactics, Military Administration and Military Law.*

The term work, and examination, alike of 1st, 2nd, and 3rd Classes, is equally satisfactory.

1st Class.—The papers of Cadet Ridout show great industry and ability, and deserve high commendation. The papers of Cadets Von Hugel and Moren are also very good.

2nd Class—Cadet Kirkpatrick has shown decided talent and the whole class has attained a very good average.

3rd Class—Cadet Van Straubenzee is the best in the class and his papers have been invariably good.

### *Chemistry.*

1st Class—Mr. Ridout is first *facile princeps*. Messrs. Moren, Hugel and Skinner passed very satisfactory examinations in Laboratory work, under Lieutenant Cochrane.

2nd Class—Has manifested much intelligent interest and gives unusually good notes. Examinations much above ordinary. Mr. Sloggett is first, but closely followed

by Messrs. Yorston, Cartwright, Kennedy, Kirkpatrick, Newcomb, Newman, and Coutlee.

### *Physics.*

It has rarely fallen to my lot to have two good classes at one time under my instruction, but this privilege I have experienced the past session.

The Cadets of the 1st and 2nd Classes have exhibited most commendable enthusiasm and have made very decided progress.

1st Class—The examinations have been most creditable. Mr. Duffus is first in the work of this year, although he could not quite overtake his well-matched rival Mr. Ridout, on the course of two years. He is however only 75 marks behind hand. Messrs. Hugel, Moren and Bremner also deserve special mention for progress. Mr. Skinner has a better knowledge of the subject than his paper shows.

### *Geology.*

1st Class—The whole class took up this voluntary subject. Mr. McDonald pressed his strongest opponent, Mr. Ridout, very hard for first place. Messrs. Von Hugel and Skinner both made good percentages.

### *Particulars of Course of Instruction.*

13. Consequent upon the "B" Battery, R. S. Artillery, having proceeded to North-West Territories for Active Service, and no horses being available to replace those thus employed, the graduates of this year have not had the advantage of the usual full course of instruction in riding.

The weather during the spring has been disadvantageous for outdoor work, and has somewhat curtailed the Surveying course.

The recently instituted Course of English Language and Literature has been carried out throughout the term, and from it beneficial results have already shown themselves in the better form in which the examination papers in the several subjects of instruction have been submitted.

### *Offer by Cadets of Active Service in North-West Territories.*

14. On the outbreak of the rebellion in the North-West the gentlemen Cadets (as a body) offered themselves for Active Service in the field. The offer was forwarded to Headquarters by the Acting Commandant, and although the military requirements of the occasion were not deemed by the higher authorities to be such as to make it advisable to accept it, the feeling which dictated the offer is not the less to be commended, and the fact of its having been made evinces the laudably earnest spirit with which the military Cadets of Canada are inspired. The primary intention of the College is to afford a thorough training for young men in order to qualify them for the positions of officers, and also to give a highly scientific education to those whose after career may fall mainly in civil life; and this first object should be, and is, only departed from in times of pressing danger. History, however, shows that military Cadets of other countries have, in great national emergencies, been called to the front, and that, although they have been of no greater average age than the alumni of Royal Military College of Canada, they have fought in a body as Cadets, not only well, but have gone forward under fire when older troops hesitated or fell back.

### *Performance of Garrison Duty by Cadets.*

15. The regular troops in garrison having proceeded for Active Service to the North-West Territories, and circumstances having rendered it advisable that the College premises and Fort Frederick should not be left unguarded, the Cadets assumed charge of the Fort for a time, and performed regular picquet duty at night during some three months of the term.

### *Graduates Royal Military College Volunteers for Active Service in North-West.*

16. It is gratifying to observe that on the first occasion in which Canada has been engaged in any military operation since the opening of the College, the same military spirit as has been shown by the Cadets of the College has also been exhibi-



ted by those who have gone from it as Graduates. At the outbreak of the rebellion 88 Graduates had passed out of the College. Twenty four of these were in the Imperial Army, and elsewhere abroad, and about 55 were at the moment residing in Canada.

Of these last 13 were in Government employ, and almost all of the remainder were in more or less lucrative employment in civil life.

About 30 graduates volunteered to join, and have been actually present with, different Corps in the force engaged in the field in suppressing the rebellion. Several others offered their services for the front, but in consequence of there not being any vacancies their services could not be accepted.

*Graduates Royal Military College Volunteers for Active Service in Her Majesty's Regular Army.*

17. During the recent threatened complications in Europe, several Graduates (some holding appointments in Canada and others residing temporarily in the United States) although they did not desire to obtain Commissions during ordinary peace times, offered to relinquish their appointments and accept Commissions in Her Majesty's Regular Army, in the event of the Mother Country becoming involved in serious war. The feeling expressed by several was that they considered it their duty to render themselves, in any serious emergency, available for active service either in Canada or elsewhere, in return for the advantages they had obtained from the College.

These facts demonstrate in the most satisfactory and practical manner that the general surroundings, habit of thought, and system of instruction, existing at Royal Military College of Canada, while in no way unfitting young men for success in civil life, tends to develop a loyal and manly military instinct, and to foster among its students strong feelings of patriotism and affection, not only for Canada their birth-place, but also for the British Empire.

*Opinions expressed of work of Cadets in Civil life.*

18. Regarding the work of Graduates of Royal Military College in civil life, it may not be out of place to here record that it has been publicly remarked by a gentleman connected with the Canadian Pacific Railway, of high position, great practical experience, and of acknowledged status as a scientific man, that graduates of the Royal Military College have gained for themselves a very high reputation for efficiency and reliability in their work, and also for their gentlemanlike and respectful demeanor towards authority.

*Classes of Long Course Officers of Militia for "Tactics," "Military Surveying" and "Military Engineering."*

19. In accordance with Militia Regulations and Orders, 1883, six Officers of Militia joined the Royal Military College for a Course of Instruction in "Tactics," "Military Administration," "Military Surveying" and "Reconnaissance," and "Military Engineering," in order to qualify them for receiving Long Course Certificates and the promotion dependent thereon.

The class was, however, broken up soon after commencing work in consequence of the officers having proceeded to the North-West for active service.

*Class of Officers for Engineer Certificates.*

20. The undernamed Officers went through the course of instruction in Military Engineering at Royal Military College necessary to entitle them to the certificates specified, and having qualified, received the same.

Short Course Certificates, 1st Class, Grade A:—

Captain E. Macdougall, }  
Lieutenant W. A. Weeks, } Charlottetown Engineers.

Several other Officers and men of the Militia Engineers also made application to attend Royal Military College for a Course of Instruction in Military Engineering, as provided for in Militia Regulations. It is greatly to be regretted that owing to some misunderstanding, in no way connected with the College, these Officers and men

were deterred from obtaining the instruction they so much desired, and which they had made special arrangements to undergo.

*Collection of Shells presented to College by Mrs. Barnston and others.*

21. A valuable and interesting collection of shells, &c., &c., has been presented to the College by Mrs. Barnston, of Montreal, through the Geological and Natural History Survey Office, Ottawa, for use of the College.

This handsome presentation, taken together with the large collection of rocks, minerals, fossils, and palaeontological casts, &c., &c., recently obtained from the United States, and a presentation of similar character by Mr. Charles Archibald, of Cape Breton Island, will afford greatly increased facilities for the study of a branch of science in which the College resources have hitherto been limited.

*New Works Completed.*

22. A small Astronomical Observatory has been completed. This will greatly facilitate practical instruction in astronomical work and the use of portable astronomical instruments.

An additional quarter within the College grounds for another member of the Instructional Staff has also been completed. This will meet a much-needed requirement, and effect an economy of lodging allowance.

*Works Necessary.*

23. The fact of several Cadets having obtained Commissions in Her Majesty's Army without having completed the full course of instruction, has, for the immediate moment, postponed the otherwise insurmountable difficulty of insufficient dormitory accommodation.

The causes originating this call having passed, a similar demand on the institution is not likely to recur, and as, consequent on this call the Graduating Classes of 1886 and 1887 will be small, and as, judging from the Matriculating Classes of the last four years (the class of 1885 is the largest to date), those of September, 1886, and September, 1887, may be expected to be considerably greater than the *outgoing* classes of the same years, it is imperative that additional dormitory accommodation be provided. In order that this increased accommodation shall be in readiness for occupation it is essential that it be commenced at once. Had this special demand for officers not occurred, it would have been unadvisable to hold any examination for admission to the College in 1886, as, even by crowding to the utmost, the available rooms would not be sufficient to receive a fair proportion of the candidates.

To drop an examination, or to reject an undue proportion of candidates, in any one year, would be injurious to the working of the College, and certainly discourage future candidates.

A shed for Infantry drill is very much needed, as at present there is no place in which such drill can be carried on during winter or inclement weather.

The present system of heating the East (Dormitory) Building, viz., 2 hot air furnaces and 6 base-burners, continues to be costly, dangerous and inadequate. It is strongly recommended that it be heated with hot water, or that it be effected by utilizing the surplus steam heating power of North (Instructional) Building.

It is also strongly recommended that quarters for two of the Superior Staff, and for two of Subordinate Staff, within the College grounds, be commenced at an early date.

The disadvantage of the greater portion of the Instructional Staff having to reside at a great distance from their work is very apparent, and it is hoped that it will be remedied at an early date. Not only better service, but a very considerable economy would be effected by the provision of quarters.

The provision of a workshop, a bowling alley, and a rifle gallery, for the Cadets is again strongly recommended, in order to furnish the young men with occupation and exercise *within the College grounds* during the long winter months in which they are in residence at the College.

I have the honor to be, Sir, Your obedient servant,

E. O. HEWETT, Col. R. E.,

Commandant, Royal Military College.



APPENDIX A, TO REPORT OF ROYAL  
RETURN of Gentlemen Cadets who

Regimental Number.	Rank.	Names (in alphabetical order).	Province (belonging to).	Relative position of the Graduates as determined from date of joining to date of leaving the																
				In each Subject of Instruction.																
				Mathematics and Mechanics.	Fortification and Military Engineering.	Theory and Construction of Artillery.	Military History, Strategy and Tactics ; Military Administration and Law.	Military Topography, Reconnaissance and Civil Surveying.	Practical Geometry and Engineering Drawing.	French.	German.	Chemistry.	Physics.	English.	Geology and Mineralogy.	Freehand Drawing and Painting.	Civil Engineering.	Architecture.	Drills and Military Exercises.	
131	Co. S.-M. ....	Almon, C. F. ....	Nova Scotia	8	11	8	7	11	10	5	3	11	10	4	6	8	9	2		
119	Sergeant. ....	Bremner, A. P. ....	do ...	7	8	7	5	7	8	8	2	9	5	6	8	3	6	5		
125	Lance Corpl	Duffus, E. J. ....	do ...	5	10	11	8	10	7	6	...	8	2	11	7	11	8	10		
133	Sergeant ....	Hodgins, C. R. ....	Ontario. ....	11	7	6	11	4	5	7	...	7	9	10	11	6	10	3		
124	Lance Corpl	Macdonald, A. C. ....	Nova Scotia	9	9	10	4	9	11	9	1	4	8	2	2	9	4	11		
130	Batt. S.-M. ..	Moren, J. A. ....	do ...	1	4	4	3	3	4	1	...	2	4	1	5	7	...	1		
126	Corporal ....	Primrose, P. C. H. ....	do ...	10	3	9	6	5	9	10	4	10	11	9	10	10	7	...		
123	Co. S.-M. ....	Ridout, D. H. ....	Ontario. ....	2	1	1	1	1	3	2	...	1	1	3	1	2	3	...		
127	Corporal ....	Skinner, T. C. ....	do	4	5	2	10	6	1	3	...	3	7	7	4	5	1	...		
122	Co. S.-M. ....	Tilley, W. F. ....	do	6	6	5	9	8	6	11	...	6	6	8	9	1	5	...		
129	Co. S.-M. ....	VonHugel, N. G. ....	do	3	2	3	2	2	2	4	...	5	3	5	3	4	2	...		

MILITARY COLLEGE OF CANADA.  
Graduated during the Year 1885.

by Marks obtained R.M. College.		Award on Graduating.	
In Combined Subjects.		"Diploma," or "Diploma with Honors."	Subjects for which entitled to record of "Distinguished" on Diploma.
Conduct.	Total Marks obtained.		
2 2	32804	8 Diploma.....	1. French. 2. N.-C. Officers' Discipline. 3. Drills and Military Exercises.
5 5	35598	5 do .....	1. Freehand Drawing and Painting. 2. French.
8 11	31847	10 do .....	1. Physics. 2. French.
10 6	32036	9 do .....	1. French. 2. Drills and Military Exercises.
7 9	32807	7 do .....	1. Geology. 2. Civil Engineering.
1 1	46858	3 do with Honors	1. Mathematics and Mechanics. 2. Practical Geometry and Engineering Drawing. 3. Theory and Construction of Artillery. 4. French. 5. Chemistry. 6. Architecture. 7. N.-C. Officers' Discipline. 8. Drills and Military Exercises.
4 10	29712	11 do .....	Nil.
6 4	51550	1 do with Honors	1. Mathematics and Mechanics. 2. Practical Geometry and Engineering Drawing. 3. Theory and Construction of Artillery. 4. Strategy, Tactics, Military Administration and Military Law. 5. Surveying and Military Topogra- phy. 6. Physics. 7. Freehand Drawing and Painting. 8. French. 9. Chemistry. 10. Geology. 11. Civil En- gineering.
11 8	42434	4 do .....	1. Mathematics and Mechanics. 2. Practical Geometry and Engineering Drawing. 3. Theory and Construction of Artillery. 4. Freehand Drawing and Painting. 5. French. 6. Civil Engineering.
9 7	34984	6 do .....	1. Freehand Drawing and Painting.
3 3	48912	2 do with Honors	1. Mathematics and Mechanics. 2. Practical Geometry and Engineering Drawing. 3. Theory and Construction of Artillery. 4. Surveying and Military Topography. 5. Freehand Drawing and Painting. 6. French. 7. Civil Engineering. 8. N.-C. Officers' Discipline. 9. Drills and Military Exercises.

E. O. HEWETT, Col. R.E.,  
Commandant, Royal Military College.



## APPENDIX No. II.

## REPORT OF THE DIRECTOR OF STORES, &amp;c.

DEPARTMENT OF MILITIA AND DEFENCE,  
STORE BRANCH, OTTAWA, 31st December, 1885.

SIR,—I have the honor to submit the following report of the operations of this Branch of the Department, under my charge, for the past year:—

*Militia Clothing.*

The clothing this year, as in the year previous, was supplied under contract by Canadian manufacturers, with exception of the Infantry scarlet tunics, which have been furnished by contractors in England.

It being desirable to secure the manufacture of the scarlet tunics in Canada, samples of scarlet cloth, satisfactory to the Department, have been submitted by a Canadian manufacturer, and it is proposed to contract for next year's supply in this country. The whole of the clothing required for the Militia will then be obtained entirely within the Dominion.

Contracts were entered into, during the year, with Canadian manufacturers, for a supply of blankets and tents; also, for necessaries and store supplies required for the Schools of Cavalry, Artillery and Infantry.

The clothing and other stores, after due inspection, proved satisfactory, and in accordance with contract.

The aggregate issues for the year have been:—11,523 cloth and serge tunics, 16,832 pairs of cloth and serge trousers, 7,946 forage caps, and 8,542 great coats.

The following statement will show the detailed issues of clothing during the year, which are largely in excess of those of the previous year, in consequence of the special service during the North-West troubles.

## ISSUES.

Tunics, Cloth.					Tunics, Serge.				Trousers, Cloth, Pairs.			Trousers, Serge, Pairs.			Forage Caps.				Great Coats.		
Cavalry.	Artillery.	Engineers.	Infantry.	Rifles.	Cavalry.	Artillery.	Infantry.	Rifles.	Cavalry.	Artillery.	Infantry.	Artillery.	Infantry.	Rifles.	Cavalry.	Artillery.	Infantry.	Rifles.	Cavalry.	Artillery.	Infantry and Rifles.
415	1223	81	5106	2882	...	941	872	...	650	884	475	1411	9341	4071	470	1783	3545	2148	521	1294	6727

*Ammunition.*

The practice ammunition issued to the Force during the year was 350,059 rounds of ball and 177,290 rounds of blank. (*Vide* Appendix "A.")

Issues on repayment for the year were 595,848 rounds of Snider ball and 39,496 rounds of Martini-Henri rifle ammunition, being a total of 635,344 rounds, to Rifle Associations and Militia Corps, for rifle practice; for which deposit receipts, credited to the Receiver-General, amounted to \$10,913.34 including the value of powder and friction tubes supplied for the Noon Gun at Ottawa, &c. (*Vide* Appendix "B.")

The annual supply of gunpowder, friction tubes, shot and shell, has been issued to Field and Garrison Batteries of Artillery, for practice and salutes. (*Vide* Appendix "C.")

The Cartridge Factory at Quebec has fully met the demand for small-arm ammunition—ball and blank—for the year, besides adding to the reserve supply in store charge.

To meet the possible demands for service in the North-West, a large supply of Martini Henri Ammunition was received from England, this is now stored at Kingston and Quebec.

The Hamilton Powder Company continues to supply the gunpowder required, shot and shell being obtained from England.

*Ordnance.*

A return showing the description, number and nature of Ordnance in charge, with the various localities where situated, will be found in Appendix "D."

*Arms.*

During the troubles in the North-West 10,000 Martini-Henri rifles were received from England. These are now in store charge.

The Armourers at the several Military Stations are kept constantly employed in repairing the arms sent in from Corps for repairs.

An Armourer at London and one at Winnipeg, also an Assistant Armourer at Toronto, are much needed, owing to the large number of arms requiring repairs, consequent upon the service in the North-West.

*Boards of Survey.*

The usual Boards of Survey on Militia Stores in charge were held in the several Military Districts, as required by Regulations and Orders, and the reports therefrom were satisfactory.

*Camp Losses and Deficiencies.*

The same arrangements were adopted as in the past two years for the delivery and receipt of Camp equipment required for Camps during this year. In many cases losses and deficiencies have taken place, and where claims were not adjusted at the breaking up of Camps, steps are being taken to procure the amounts charged for such losses from Commanding Officers of Corps. The percentage of these losses, however, has been much less, when compared with that of other years.

*Militia Properties.*

The condition of the stores and buildings, and other property in charge, is satisfactory.



*Tenants and Rental.*

The following statement shows the number of tenants at the several Stations, the amounts received for rents of Militia properties for the current year, and the arrears due on the 31st December, 1885:—

Number of Tenants.	Station.	Rent Received.	Arrears.	Remarks.
		\$ cts.	\$ cts.	
1	Winnipeg, Man .....	1 00		
1	Chatham, Ont.....	1 00		
2	Niagara do .....	28 00	60 00	
2	Toronto do .....	140 00	20 00	
23	Kingston do .....	436 54	93 50	
3	Ottawa do .....	3 00		
2	La Prairie, Que.....	26 00		
4	Montreal do .....	285 00	0 75	
2	Ile aux Noix, Que.....	104 00		
23	Quebec do .....	3,414 43	144 50	
31	Lévis do .....	778 75	303 00	
8	New Brunswick .....	437 00	10 00	
15	Nova Scotia.....	248 94	5 00	
2	Prince Edward Island .....	10 74		
119	Total rents received, 1885. ....	5,914 40		
	Total arrears, 1885.....		636 75	

*Deposit Receipts.*

The amount received by the Store Branch for stores and ammunition issued on repayment, and for rents collected on Militia property during the year, is shown in the following statement:—

Ammunition.		Clothing.		Arms and Accoun- trements.	Deficien- cies.	Rents.	Miscel- laneous.	Total Amount.
Rounds.	Amount.	Officers.	Men.					
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
636,494	10,913 34	15 00	310 58	96 53	129 40	5,941 40	2,652 39	20,058 64

*The North-West Campaign.*

With reference to the North-West campaign, full information regarding the work then performed by the Store Branch is given by me in a special report.

The success with which the Store Branch met the strain put upon it during that period is a matter deserving special notice.

For some time the employees in the Stores at Ottawa, and at many of the stations in Military Districts, were called upon to work day and night, in receiving and issuing clothing, necessaries, supplies, and warlike stores required for service in the North-West.

The cheerfulness and promptitude with which the pressing and important duty was performed are worthy of the highest commendation.

I cannot close this report without referring to the efficient services rendered by the staff of the Store Branch at Headquarters, who spared no effort to afford me every assistance possible, and also to the valuable aid given me by the Superintendents of Stores of Military Districts, in the discharge of their duties.

I have the honor to be, Sir,

Your most obedient servant,

J. MACPHERSON, Lieut. Col.,

Director of Stores and Keeper of Military Properties.

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



[A.]

## S. A. AMMUNITION issued for Practice during the Year 1885.

Date.	Corps and Station.	Rounds.	
		Ball.	Blank.
1885.	<i>Military District No. 1, London.</i>		
May 18.....	Captain Moscrip, No. 3 Company, 28th Battalion.....		840
do 18.....	Captain Hamilton 4 do 28th do .....		840
June 24.....	Captain Loveys 2 do 22nd do .....		380
do 29.....	Lt.-Col. McKnight, Commanding 28th Battalion .....		2,000
do 29.....	Captain Forrester, No. 4 Company, 33rd Battalion .....	400	
	Camp Quartermaster, Camp London.....	33,600	33,600
	Less—Returned by Camp Quartermaster.....	34,000	37,660
	Total Issues.....	34,000	33,660
1885.	<i>Military District No. 2, Toronto.</i>		
May 4.....	Captain McMurrich, Toronto Garrison Artillery.....	840	840
do 6.....	Lt.-Col. Skinner, Commanding 13th Battalion .....	6,720	
June 13.....	Lt.-Col. Gray do Toronto Field Battery.....	500	
do 13.....	Major Van Wagner do Hamilton do .....	1,500	1,500
Aug. 8.....	Lt.-Col. Gray do Toronto do .....	980	
do 20.....	Lt.-Col. Grasett do 10th Royal Grenadiers.....	6,720	1,300
do 21.....	Captain Ray do Port Arthur Rifle Company. ....	840	840
Sept. 15.....	Lt.-Col. Jones do 38th Battalion .....	5,040	5,040
do 15.....	Brigade Camp, Niagara.....	44,960	44,960
Dec. 7.....	Lt.-Col. Miller, Commanding Queen's Own Rifles.....	3,000	3,000
do 15.....	Lt.-Col. Otter do "C" Company, I.S.C.....	2,000	
		73,100	57,480
	Less—Returned by Camp Quartermaster, Niagara.....	5,500	12,300
	do 36th Battalion.....	700	5,740
	Total Returned.....	6,200	18,040
	Total Issues.....	66,900	39,440
1885.	<i>Military District No. 3, Kingston.</i>		
Mar. 26.....	Lt.-Col. Montizambert, Commanding "B" Battery, R.S.A.....	5,000	
April 4.....	Lt.-Col. Kerr do 14th Battalion.....	15,000	
June 9.....	Colonel Hewitt, Royal Military College.....		2,000
do 9.....	Captain H Wood, Commanding No. 3 Company, 46th Battalion .....		800
do 23.....	Lt.-Col. Montizambert do "B" Battery, R.S.A.....	5,000	
do 23.....	Lt.-Col. Cubitt do 45th Battalion .....		2,000
July 17.....	Lt.-Col. Benson do 46th do .....		900
Sept. 1.....	Camp Quartermaster, Camp Kingston.....	24,040	13,120
	Total .....	49,040	18,820
	Less—Returned by 14th Battalion.....	6,500	
	Total issues.....	42,540	18,820

## S. A. Ammunition issued for Practice during the Year 1885—Continued.

Date.	Corps and Station.	Rounds.	
		Ball.	Blank.
1885.	<i>Military District No. 4, Ottawa.</i>		
Mar. 21.....	Lieut. Huntington, Commanding Prescott Garrison Battery. ....	840	840
June 18.....	Captain Adams do 56th Battalion .....	840	840
Oct. 3.....	Major Todd do No. 1 Company, G.G.F.F.....	840	
do 16.....	Lt.-Col. Ross do G.G.F.F.....	4,200	
Sept. 1.....	Camp Quartermaster, Brockville .....	19,260	19,200
		25,980	20,940
	Less—Returned by Camp Quartermaster, Brockville .....	4,320	15,480
	Total issues.....	21,660	5,460
1885.	<i>Military Districts Nos. 5 and 6, Montreal.</i>		
May 24.....	Captain Brush, Commanding No. 4 Troop Cavalry .....	1,000	
do 26.....	Lt.-Col. Cushing do 11th Battalion .....	6,720	
do 26.....	do Bond do Prince of Wales Rifles.....	5,040	
June 24.....	Captain Harkom do No. 3 Company, 54th Battalion .....	5,040	500
July 4.....	Lt.-Col. Caverhill do 5th Royal Scots.....	3,360	
do 8.....	do Helton do 53rd Battalion.....	840	
do 9.....	do Kennedy do Montreal Engineers.....	5,040	
Sept. 12.....	do Crawford do 3rd Battalion.....	30,560	30,560
do 12.....	Camp Quartermaster, Camp St. John .....	24,000	24,000
do 18.....	do do Laprairie .....	500	
do 25.....	Lt.-Col. Oswald, Commanding Montreal Brigade G. A. ....	2,760	
Nov. 20.....	do Brousseau do 85th Battalion .....	5,040	
	do Gardner do 6th Fusiliers.....		
		89,900	55,060
	Less—Returned by Camp Quartermaster, St. John .....	13,400	30,560
	do do Laprairie.....	7,141	24,000
	do 3rd Battalion Victoria Rifles.....		8,200
		20,541	62,760
	Receipts over Issues.....		7,700
	Total Issues.....	69,359	
1885.	<i>Military District No. 7, Quebec.</i>		
Mar. 28.....	Lt.-Col. Scott, Commanding 8th Royal Rifles.....	5,040	
Aug. 25.....	do Duchesnay, D.A.G., annual allowance, No. 7 M.D.....	30,240	30,240
		35,280	30,240
	Less—Returned by Lt.-Col. Duchesnay, D.A.G.....	15,000	32,820
			2,580
	Receipts over Issues .....		
	Total Issues .....	20,280	



## S. A. Ammunition issued for Practice during the Year 1885—Continued.

Date.	Corps and Station.	Rounds.	
		Ball.	Blank.
1885. <i>Military District No. 8, St. John, N.B.</i>			
May 23.....	Lt.-Col. Maunsell, Commanding I. S. Corps, Fredericton.....	8,720	6,000
June 15.....	do Blaine do 62nd Battalion.....	5,040	.....
Aug. 23.....	do Maunsell do I. S. Corps, Fredericton.....	7,000	2,000
Sept. 7.....	do Armstrong do N.B. Brigade G. A.....	3,500	.....
do 14.....	do Domville do 8th Cavalry.....	3,140	3,140
do 22.....	Captain Hartt do St. John Rifle Company.....	640	640
do 22.....	Lt.-Col. McCully, Camp Quartermaster.....	12,000	12,000
		40,040	23,780
Less—Returned by Lt.-Col. Gillespie.....			830
Total Issues.....		40,040	22,950
1885. <i>Military District No. 9, Halifax.</i>			
Sept. 7.....	Lt.-Col. Mowbray, Commanding Halifax Brigade of Artillery ...	5,880	5,880
do 8.....	do Mackintosh do 63rd Battalion.....	5,040	5,040
do 8.....	do Bremner do 66th do .....	6,720	6,720
do 18.....	do Blair do 78th do .....	5,880	5,880
do 24.....	do Bingham do 94th do .....	4,200	4,200
do 24.....	Captain Ryan do King's Cavalry.....	840	840
do 25.....	Lt.-Col. Harrison do 93rd Battalion.....	4,200	4,200
do 25.....	do Chipman do 68th do .....	7,560	7,560
Oct. 2.....	Captain Jolly do Yarmouth Garrison Battery....	840	840
do 3.....	do Daly do Digby do .....	840	840
do 4.....	do Gordon do Pictou do .....	840	840
do 7.....	do Brown do Lunenburg do .....	840	840
do 10.....	do James do Mahone Bay do .....	840	840
Total Issues .....		44,520	44,520
1885. <i>Military District No. 11, Victoria, B.C.</i>			
Sept. 19.....	Captain Pittendreich, Commanding No. 1 By. B.C. Bde. G.A....	800	800
do 19.....	do Peele do New Westminster Rifle Co.	800	800
do 19.....	do Green do Victoria Rifle Co.....	800	800
do 27.....	do Pittendreich do No. 1 By. B.C. Bde. G.A....	.....	840
Oct. 18.....	do Peele do New Westminster Rifle Co.	.....	840
Total Issues.....		2,400	4,080
1885. <i>Military District No. 12, Charlottetown, P.E.I.</i>			
Sept. 22.....	Captain McDougall, Commanding Engineer Co.....	900	900
do 29.....	Major Mabou do No. 4 Company, 82nd Batt..	660	660
do 29.....	Captain Henderson do 1 do do .....	820	820
do 29.....	do Passmore do P.E.I. Prov. Bgde. G.A.....	720	720
do 29.....	do Moore do No. 2 Battery Prov. Bgde. G.A.	700	700
do 29.....	do Fraser do 5 do do .....	680	680
do 29.....	do Leslie do 4 do do .....	680	680
do 29.....	do Stuart do 3 Company, 82nd Batt..	980	980
do 29.....	do Ives do 8 do do .....	720	720
do 29.....	do Maxfield do 7 do do .....	700	700
Nov. 20.....	do McLeod do 5 do do .....	800	800
Total Issues .....		8,360	8,360

## RECAPITULATION.

Districts.	Rounds.	
	Ball.	Blank.
Military District No. 1, London.....	34,000	33,660
do 2, Toronto.....	66,900	39,440
do 3, Kingston.....	42,540	18,820
do 4, Ottawa.....	21,660	5,460
do 5 and 6, Montreal.....	69,359	.....
do 7, Quebec.....	20,280	.....
do 8, St. John, N.B.....	40,040	22,950
do 9, Halifax, N.S.....	44,520	44,520
do 11, Victoria, B.C.....	2,400	4,080
do 12, Charlottetown, P.E.I.....	8,360	8,360
Total Issues.....	350,059	177,290

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

The Deputy of the  
Minister of Militia and Defence,  
OTTAWA, 31st December, 1885.



[B]

## S. A. AMMUNITION issued on repayment during the Year 1885.

## Military District No. 1, London.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
Jan. 2...	Major Irwin .....	26th Battalion .....	700	11 20
do 14...	Capt. John Stevenson .....	26th do .....	1,000	16 00
April 21...	do Williamson .....	22nd do .....	780	12 50
May 12...	Lieut. O'Malley .....	25th do .....	500	8 00
June 8...	Capt. J. Stevenson .....	26th do .....	1,000	16 00
do 17...	Lieut. McCallum .....	29th do .....	500	8 00
do 20...	Henry George Reid .....	24th do .....	500	8 00
July 2...	N. Robson .....	Huron Rifle Association .....	1,000	16 00
do 2...	T. Henderson .....	Ingersoll do .....	1,000	16 00
do 10...	Capt. Garnett .....	26th Battalion .....	500	8 00
do 10...	Lieut. A. W. Young .....	24th do .....	500	8 00
do 13...	Lt.-Col. Dawson .....	Western District Rifle Association .....	2,000	32 00
do 16...	do .....	do do .....	500	8 00
do 21...	Lt.-Col. Scott .....	Kincardine do .....	1,000	16 00
do 23...	G. Pitt .....	Western District do .....	500	8 00
Aug. 1...	N. Robson .....	Huron do .....	1,000	16 00
do 10...	A. J. Green .....	21st Battalion .....	2,810	45 00
do 17...	W. Lawrence .....	Perth Rifle Association .....	1,200	19 20
do 26...	T. Henderson .....	Ingersoll do .....	1,000	16 00
do 27...	Capt. J. Stevenson .....	26th Battalion .....	500	8 00
do 29...	W. Lawrence .....	Perth Rifle Association .....	1,600	25 60
Sept. 8...	do .....	do do .....	1,200	19 20
do 30...	Capt. S. W. Ray .....	Port Arthur do .....	1,000	17 00
Oct. 1...	N. Robson .....	Huron do .....	1,000	16 00
do 26...	Thos. Henderson .....	Ingersoll do .....	2,000	32 00
do 27...	do .....	do do .....	800	12 80
Nov. 9...	Capt. H. O. Garnett .....	26th Battalion .....	500	8 00
do 10...	Capt. J. Stevenson .....	26th do .....	1,000	16 00
do 11...	do .....	26th do .....	500	8 00
do 18...	Lt.-Col. O'Malley .....	25th do .....	1,000	16 00
do 26...	Capt. Loveys .....	22nd do .....	500	8 00
Dec. 4...	W. Hiscott .....	7th Fusiliers Rifle Association .....	1,000	16 00
			30,590	490 50

## Military District No. 2, Toronto.

April 10...	Lt.-Col. Alger .....	Ontario Rifle Association .....	48,000	768 00
do 13...	Capt. Crowe .....	Guelph do .....	2,000	32 00
do 29...	do Cooper .....	12th Battalion .....	500	12 00
May 14...	Lt.-Col. Alger .....	Ontario Rifle Association .....	3,000	60 00
do 14...	do .....	do do .....	500	10 00
do 14...	Capt. Crowe .....	Guelph do .....	2,000	32 00
do 22...	do McMurrich .....	Toronto Garrison Battery .....	1,000	16 00
do 23...	Lt.-Col. Alger .....	Ontario Rifle Association .....	1,060	17 00
do 23...	Capt. Zealand .....	13th Battalion .....	1,000	16 00
June 5...	do Adams .....	do .....	1,000	16 00
do 10...	A. Paine .....	Victoria Rifle Association .....	2,000	32 00
do 15...	Lt.-Col. Alger .....	Ontario do .....	2,560	40 96
do 18...	do .....	do do .....	1,000	16 00
do 18...	do .....	do do .....	1,000	16 00
do 25...	Capt. Crowe .....	Guelph do .....	150	2 40
do 27...	do Panton .....	20th Battalion .....	350	5 60
do 25...	do Crowe .....	Guelph Rifle Association .....	2,000	32 00
do 26...	do do .....	do do .....	410	6 56

## S. A. Ammunition issued on repayment during the Year 1885—Continued.

## Military District No. 2, Toronto—Concluded.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
June 30...	Major Wilson .....	33rd Battalion .....	2,000	32 00
July 3...	Lt.-Col. Alger .....	Ontario Rifle Association .....	1,000	16 00
do 10...	do Jones .....	38th Battalion .....	1,000	16 00
do 22...	do Alger .....	Ontario Rifle Association .....	3,560	56 96
do 24...	do Davis .....	37th Battalion .....	2,000	32 00
Aug. 4...	Capt. Zealand .....	13th do .....	1,000	16 00
do 4...	do Griffith .....	37th do .....	1,000	16 00
do 5...	Lt.-Col. Alger .....	Ontario Rifle Association .....	20,000	402 08
do 8...	do Jones .....	38th Battalion .....	1,000	16 00
do 10...	Major Wilson .....	33rd do .....	1,000	16 00
do 10...	do Dunn .....	Governor General's Body Guard .....	2,500	40 00
do 11...	Capt. Adams .....	13th Battalion .....	1,000	16 00
do 12...	do Saule .....	37th do .....	500	8 00
do 13...	do Crowe .....	Guelph Rifle Association .....	1,000	16 00
do 15...	Lt.-Col. Alger .....	Ontario do .....	1,000	16 00
do 20...	do Davis .....	37th Battalion .....	1,000	16 00
do 22...	do Alger .....	Ontario Rifle Association .....	1,500	24 00
Sept. 17...	do Jones .....	38th Battalion .....	2,000	32 00
do 18...	do Alger .....	Ontario Rifle Association .....	500	8 00
do 18...	do do .....	do do .....	3,000	48 00
do 22...	do Gibson .....	Victoria do .....	500	8 00
do 26...	Major Wilson .....	33rd Battalion .....	500	8 00
Oct. 1...	Capt. Adams .....	13th do .....	1,750	28 00
do 6...	Lt.-Col. Alger .....	Ontario Rifle Association .....	1,500	24 00
do 7...	do .....	do do .....	2,200	35 20
do 10...	do .....	do do .....	1,000	16 00
do 12...	J. Henderson .....	Barrie do .....	2,400	38 40
do 16...	Lt.-Col. Alger .....	Ontario do .....	600	9 60
do 21...	W. J. Proud .....	37th Battalion .....	2,000	32 00
do 21...	Major Dunn .....	Governor General's Body Guard .....	2,800	44 80
do 21...	Mr. Bucknell .....	Victoria Rifle Association .....	1,000	16 00
do 21...	Mr. Bailey .....	Newmarket do .....	2,000	32 00
do 28...	Capt. McMicking .....	44th Battalion .....	500	8 00
do 28...	do McMonies .....	77th do .....	500	8 00
Nov. 4...	K. O. Marshall .....	Durham Rifle Association .....	2,000	32 00
do 5...	Major Dunn .....	Governor General's Body Guard .....	1,000	16 00
do 5...	Capt. Ray .....	Port Arthur Rifle Association .....	500	8 00
do 7...	Mr. Allenby .....	Galt do .....	1,000	16 00
do 24...	J. Henderson .....	Barrie do .....	1,200	19 20
do 30...	Lt.-Col. Alger .....	Ontario do .....	600	9 60
Dec. 7...	do Miller .....	2nd Battalion Q.O.R. .....	3,000	48 00
do 16...	Major Dunn .....	Governor General's Body Guard .....		
		Total .....	148,760	2,453 00

## Military District No. 3, Kingston.

Mar. 18...	Lt.-Col. Deacon .....	45th Battalion .....	2,000	32 00
April 28...	J. B. Mitchell .....	Bowmanville Rifle Association .....	1,000	16 00
May 18...	Sergt. Hume .....	14th Battalion .....	1,000	16 00
do 27...	J. B. Mitchell .....	Bowmanville Rifle Association .....	2,000	32 00
do 29...	Dr. R. W. Bell .....	Peterboro' do .....	1,000	16 00
June 21...	Capt. Ward .....	46th Battalion .....	2,000	32 00
July 6...	J. B. Mitchell .....	Bowmanville Rifle Association .....	1,000	16 00
do 2...	Wm. Hume .....	14th Battalion .....		



## S. A. Ammunition issued on repayment during the Year 1885—Continued.

## Military District No. 3, Kingston—Concluded.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
July 8...	F. W. Fowlds	Hastings Rifle Association	500	8 00
do 14...	Lt.-Col. Benson	46th Battalion	2,000	32 00
do 30...	R. W. Bell	Peterboro' Rifle Association	2,000	32 00
Aug. 3...	F. W. Fowlds	Hastings do	1,000	16 00
do 14...	Capt. Ponton	15th Battalion	1,000	16 00
Sept. 7...	J. B. Mitchell	Bowmanville Rifle Association { Snider	2,000	56 00
do 11...	F. W. Fowlds	Hastings do	1,000	16 00
do 12...	Capt. Ponton	15th Battalion	1,000	16 00
do 22...	R. W. Bell	Peterboro' Rifle Association	2,000	32 00
do 26...	N. S. Young	Bowmanville do	1,000	16 00
Oct. 2...	Major Dingwall	4th Battalion	2,000	32 00
do 14...	do A. H. Moore	13th do	2,000	32 00
do 20...	Capt. Peters	Kingston Pistol	50	0 50
do 20...	J. B. Mitchell	Bowmanville Rifle Association	2,000	32 00
do 28...	F. W. Fowlds	Hastings do	1,000	16 00
do 28...	W. Dingwall	East Durham do	1,000	16 00
do 31...	Henry Tammadge	Belleville do	1,000	16 00
		Total	34,550	562 50

## Military District No. 4, Ottawa.

April 13...	Lieut. Huntington	Prescott Rifle Association	500	8 00
May 5...	Lieut. White	Governor General's Foot Guards	500	8 00
do 8...	Capt. Palliser	do Pistol	100	1 00
do 9...	Sergt. Cawdron	do	500	8 00
do 14...	do	do	500	8 00
do 17...	Dr. Cranston	Arnprior Rifle Association M.H.	1,000	24 00
do 20...	Chief Sherwood	Dominion Police do	200	4 80
do 22...	Sergt. Cawdron	Governor General's Foot Guards Snider	500	8 00
do 26...	do	do M.H.	500	12 00
do 28...	Capt. Perley	Engineer Staff do	500	20 00
do 28...	do	do Snider	500	16 00
do 30...	A. H. Campbell	Cornwall Rifle Association	1,000	8 00
do 30...	Major Anderson	43rd Battalion	500	8 00
June 5...	Sergt. Cawdron	Governor General's Foot Guards	560	8 96
do 5...	Lieut. Chamberlain	43rd Battalion	500	8 00
do 8...	do	do	500	8 00
do 8...	Chief Sherwood	Dominion Police	1,000	16 00
do 9...	Sergt. Cawdron	Governor General's Foot Guards Snider	560	20 96
do 9...	do	do M.H.	500	14 40
do 13...	A. H. Campbell	Cornwall Rifle Association	1,500	24 00
do 16...	Lt.-Col. McKenzie	Gananoque Field Battery M.H.	600	17 92
do 18...	Sergt. Cawdron	Governor General's Foot Guards Snider	1,120	30 00
do 25...	Dr. Cranston	Arnprior Rifle Association M.H.	1,250	14 40
do 26...	Sergt. Cawdron	Governor General's Foot Guards do	600	8 00
do 26...	Lieut. Chamberlain	43rd Battalion	500	8 00
do 30...	Capt. Grant	do	500	8 00
July 3...	Sergt. Cawdron	Governor General's Foot Guards	560	8 96
do 6...	Lieut. Chamberlain	43rd Battalion M.H.	200	9 60
do 6...	do	do Snider	300	14 40
do 9...	Sergt. Cawdron	Governor General's Foot Guards M.H.	600	16 00
do 9...	Major Jackson	Gananoque Rifle Association	1,000	14 40
do 16...	Sergt. Cawdron	Governor General's Foot Guards	600	14 40
do 23...	J. S. Huntington	Prescott Rifle Association	1,000	16 00

## S. A. Ammunition issued on repayment during the Year 1885—Continued.

## Military District No. 4, Ottawa—Concluded.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
July 24...	Sergt. Cawdron	Governor General's Foot Guards	1,120	17 92
do 23...	A. H. Campbell	Cornwall Rifle Association	1,500	24 00
do 28...	H. C. Chamberlain	43rd Battalion	500	8 00
Aug. 5...	Lieut. Gray	Governor General's Foot Guards Snider	3,000	72 00
do 5...	do	do M.H.	1,000	16 00
do 10...	Sergt. Cawdron	do	1,120	17 92
do 11...	Trooper Bell	Princess Louise Dragoon Guards	500	8 00
do 12...	Capt. Gourdeau	do	200	12 80
do 12...	do	do Snider	500	8 96
do 19...	Sergt. Cawdron	Governor General's Foot Guards	500	8 00
do 26...	Capt. McKay	11st Battalion	1,120	17 92
Sept. 8...	Sergt. Cawdron	Governor General's Foot Guards	100	2 40
do 15...	Lt.-Col. White	43rd Battalion M.H.	1,500	24 00
do 17...	Dominion Police	do Snider	1,000	16 00
do 18...	do	do	500	8 00
do 21...	Lt.-Col. White	43rd Battalion	1,500	32 00
do 24...	J. F. Campbell	Arnprior Rifle Association M.H.	500	8 00
do 28...	do	do	560	8 96
do 28...	Sergt. Cawdron	Governor General's Foot Guards	2,000	42 00
do 28...	Major Motherwell	Perth Rifle Association	416	16 00
do 28...	do	do M.H.	1,000	16 00
do 29...	Capt. Milden	Cornwall Rifle Association	468	7 50
Oct. 1...	Capt. Williams	42nd Battalion	500	8 00
do 1...	Major Carmichael	56th do	4,000	64 00
do 5...	T. W. Sparham	Brockville Rifle Association	500	8 00
do 10...	Capt. Stitt	56th Battalion	1,000	16 00
do 10...	Major Jackson	41st do	100	2 40
do 10...	Lt.-Col. Macdonald	Militia Department M.H.	3,000	72 00
do 12...	Major Anderson	43rd Battalion Snider	1,000	16 00
do 12...	do	do M.H.	100	1 60
do 15...	Lt.-Col. Macdonald	Militia Department	2,000	32 00
do 16...	W. H. Mossman	Prescott Rifle Association	100	1 60
do 17...	Lieut. S. L. Shannon	Governor General's Foot Guards	600	8 00
do 17...	Capt. Stitt	56th Battalion	1,000	16 00
do 20...	Major Motherwell	Perth Rifle Association	560	8 96
do 22...	Sergt. Cawdron	Governor General's Foot Guards	500	8 00
do 23...	Major D. E. Jackson	41st Battalion	500	17 60
do 28...	Capt. Gourdeau	Princess Louise Dragoon Guards	400	8 96
do 30...	do	do M.H.	560	8 00
do 30...	Sergt. Cawdron	Governor General's Foot Guards	500	8 00
Nov. 5...	Capt. Gourdeau	do	1,000	16 00
do 6...	Major Carmichael	56th Battalion M.H.	100	2 40
do 9...	A. F. Taylor	42nd do	1,000	16 00
do 18...	J. W. Motherwell	Perth Rifle Association	500	8 00
do 20...	Capt. Gourdeau	Princess Louise Dragoon Guards	500	8 00
do 27...	Capt. Grant	43rd Battalion	100	1 60
Dec. 4...	Hon J. Bolduc	St. Victor de Tring M.H.	11,700	834 80
do	Dominion Rifle Association	do Snider	37,000	156 96
do	Gunpowder for noon gun	600 lbs. ; friction tubes, 315		
			110,634	2,073 06



## S. A. Ammunition issued on repayment during the Year 1885—Continued.

## Military Districts Nos. 5 and 6, Montreal.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
April 7...	Sergt. J. C. Marks.....	Rifle Association.....	2,000	48 40
		M.H.	600	8 00
May 12...	R. J. Spearing.....	53rd Battalion.....	500	8 00
do 18...	Sergt. J. C. Marks.....	Rifle Association.....	3,000	48 00
do 22...	do.....	do.....	8,000	128 00
June 3...	Lieut. Macfarlane.....	50th Battalion.....	500	8 00
do 8...	Sergt. R. Spearing.....	53rd do.....	500	8 00
do 12...	Capt. Gardner.....	50th do.....	500	8 00
do 17...	Lieut. Geo. Wright.....	50th do.....	500	8 00
do 19...	Lieut. M. Thornton.....	50th do.....	1,000	16 00
do 19...	Major McLaren.....	50th do.....	500	8 00
do 22...	Sergt. J. C. Marks.....	Rifle Association.....	7,000	112 00
do 25...	do R. J. Spearing.....	53rd Battalion.....	545	8 89
do 29...	do J. C. Marks.....	Rifle Association.....	8,000	128 00
July 8...	do R. J. Spearing.....	53rd Battalion.....	2,000	32 00
do 8...	Capt. Baker.....	58th do.....	560	9 21
do 13...	Sergt. R. J. Spearing.....	53rd do.....	560	8 96
do 20...	Capt. Burland.....	6th do.....	1,000	16 00
do 29...	Sergt. Browne.....	54th do.....	560	8 96
do 31...	Lt-Col. Martin.....	Rifle Association.....	10,000	160 00
Aug. 3...	Sergt. J. C. Marks.....	do.....	8,000	128 00
do 7...	Lt-Col. Martin.....	do.....	10,000	232 00
		M.H.	3,000	
do 13...	Sergt. J. C. Marks.....	do.....	5,000	94 40
		M.H.	600	
do 17...	Lt-Col. Gardner.....	6th Battalion.....	1,000	16 00
do 15...	Capt. E. S. Baker.....	58th do.....	1,120	17 92
Sept. 12...	Lt-Col. Gilmour.....	60th do.....	1,680	26 88
do 24...	Benny, Macpherson & Co.	Montreal.....	2,000	32 00
do 28...	Lieut. G. Wright.....	50th Battalion.....	1,120	17 92
Oct. 1...	Capt. Davidson.....	52nd do.....	1,000	16 00
do 2...	Major McFee.....	Hemmingford Rifle Association.....	4,000	64 00
do 5...	Capt. Bowen.....	52nd Battalion.....	500	8 00
do 7...	Lieut. Whitman.....	60th do.....	500	8 00
do 7...	Capt. Brooks.....	Shefford Rifle Association.....	500	8 00
do 8...	Sergt. J. C. Marks.....	Rifle Association.....	6,000	96 00
do 10...	Lt-Col. Worsley.....	Brigade Major.....	2,000	32 00
do 24...	H. Ormond.....	River Police.....	500	8 00
Dec. 1...	Major Turnbull.....	Montreal Garrison Artillery.....	60	0 96
do 2...	Sergt. J. C. Marks.....	Rifle Association.....	600	14 40
do 10...	Dr. Smith.....	11th Battalion.....	500	8 00
			97,505	1,598 70

## Military District No. 7, Quebec.

Jan. 22...	Major Frenette.....	9th Battalion.....	500	8 00
March 23...	Lt-Col. Scott.....	8th Royal Rifles.....	3,000	48 00
May 16...	do.....	do.....	1,000	16 00
do 26...	do.....	do.....	500	8 00
do 30...	do.....	do.....	1,120	17 92
June 3...	do.....	do.....	1,120	17 92
do 25...	do.....	do.....	3,000	48 00
July 23...	Major Lampson.....	Fraserville Rifle Association.....	1,000	16 00

## S. A. Ammunition issued on repayment during the Year 1885—Continued.

## Military District No. 7, Quebec—Concluded.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
July 22...	Lt-Col. Scott.....	8th Royal Rifles.....	1,680	29 28
do 22...	do.....	do.....	100	
do 31...	Robt. Stewart.....	Megantic Rifle Association.....	3,125	50 00
Aug. 5...	Major Lampson.....	Fraserville do.....	2,000	32 00
do 6...	Lt-Col. Scott.....	8th Royal Rifles.....	1,120	20 32
do 6...	do.....	do.....	100	
do 6...	do.....	do.....	1,120	17 92
July 11...	do.....	do.....	560	8 96
Aug. 18...	Sergt-Maj. Richard.....	17th Battalion.....	1,500	24 00
do 20...	Major Lampson.....	Rimouski Rifle Association.....	1,000	18 40
do 20...	Lt-Col. Scott.....	8th Royal Rifles.....	100	
do 20...	do.....	do.....	500	8 00
do 27...	do.....	do.....	500	8 00
do 29...	Major Lampson.....	Rimouski Rifle Association.....	1,500	24 00
do 29...	do.....	Fraserville do.....	200	3 20
Sept. 19...	Lt-Col. Scott.....	8th Royal Rifles.....	70	12 00
Oct. 26...	do.....	do.....	1,000	16 00
Dec. 14...	Lt-Col. Hudon.....	89th Battalion.....	1,000	162 00
	Quebec Harbor Commissioners, 900 lbs. of gunpowder.....			
		Total.....	28,095	613 92

## Military District No. 8, St. John, N.B.

April 24...	Capt. Hartt.....	St. John's County Rifle Association.....	2,000	32 00
do 28...	do.....	do.....	1,000	16 00
May 23...	do.....	do.....	1,000	16 00
do 23...	do.....	do.....	500	8 00
June 6...	do.....	do.....	500	8 00
do 13...	Lieut. McElmon.....	Westmoreland do.....	2,000	32 00
do 15...	Capt. Hartt.....	St. John's County do.....	500	8 00
do 16...	Lieut. Wedderburn.....	8th Cavalry.....	500	8 00
do 16...	Capt. Loggie.....	71st Battalion.....	1,000	16 00
do 23...	Lieut. Lordley.....	62nd do.....	1,000	16 00
July 17...	Capt. Loggie.....	71st do.....	1,000	16 00
do 17...	Lieut. McRobbie.....	8th Cavalry.....	2,000	32 00
do 8...	Capt. Hartt.....	St. John's Rifle Association.....	500	8 00
do 14...	do Langstroth.....	8th Cavalry.....	2,250	36 00
do 23...	Lieut. McElmon.....	Westmoreland Rifle Association.....	1,000	16 00
Aug. 4...	Capt. Hartt.....	St. John's County do.....	500	8 00
do 6...	do Langstroth.....	8th Cavalry.....	1,500	24 00
do 6...	Major Vince.....	Engineers.....	1,500	24 00
do 6...	Lieut. McRobbie.....	8th Cavalry.....	2,000	32 00
do 8...	do McElmon.....	Westmoreland Rifle Association.....	12,000	192 00
do 10...	Capt. Hartt.....	St. John's County do.....	2,000	32 00
do 11...	do.....	do.....	2,000	32 00
do 17...	R. Hunter.....	62nd Battalion.....	1,000	16 00
Sept. 14...	Capt. Hartt.....	St. John's County Rifle Association.....	1,000	16 00
Oct. 7...	Capt. Loggie.....	71st Battalion.....	2,000	32 00
do 13...	do.....	do.....	1,000	16 00
Nov. 25...	Capt. Hartt.....	St. John's County Rifle Association.....	1,000	16 00
	Thorne & Co., 1,000 friction tubes.....			27 40
		Total.....	43,250	719 40



## S. A. Ammunition issued on repayment during the Year 1885—Continued.

## Military District No. 9, Halifax, N.S.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
Jan. 16...	Major Egan.....	63rd Battalion.....	500	8 00
April 28...	do.....	do.....	1,000	16 00
May 11...	Lt.-Col. Mackintosh.....	do.....	3,360	53 76
do 21...	Capt. Curren.....	66th do.....	1,000	16 00
do 22...	do Bland.....	Halifax County Rifle Association.....	500	8 00
June 10...	Lt.-Col. Mackintosh.....	63rd Battalion.....	1,000	16 00
do 16...	Capt. Bland.....	Halifax County Rifle Association.....	500	8 00
do 24...	do Beckwith.....	68th Battalion.....	1,000	16 00
do 26...	Lt.-Col. Mackintosh.....	63rd do.....	1,000	16 00
do 27...	Capt. Bland.....	Halifax County Rifle Association.....	500	8 00
do 29...	do Curren.....	66th Battalion.....	1,000	16 00
July 7...	Lt.-Col. Mackintosh.....	63rd do.....	1,000	16 00
do 10...	Major Humphrey.....	66th do.....	1,000	16 00
do 14...	Capt. Bland.....	Halifax County Rifle Association.....	500	8 00
do 16...	Lt.-Col. Mowbray.....	do Garrison Artillery.....	500	8 00
do 20...	D. M. Owens.....	Lunenburg Rifle Association.....	3,000	48 00
do 30...	Capt. Bland.....	Halifax County do.....	1,000	16 00
do 31...	Major Egan.....	63rd Battalion.....	1,000	16 00
Aug. 5...	Capt. Gordon.....	Pictou Garrison Artillery.....	560	8 96
do 5...	do.....	do.....	560	8 96
do 5...	Capt. Menger.....	66th Battalion.....	1,000	16 00
do 8...	Major Egan.....	63rd do.....	940	15 00
do 12...	Lt. Dickie.....	78th do.....	1,000	16 00
do 12...	Capt. Bland.....	Halifax County Rifle Association.....	3,000	48 00
do 15...	Major Egan.....	63rd Battalion.....	1,060	17 00
do 19...	Capt. Hill.....	94th do.....	500	8 00
do 26...	do Weston.....	Provincial Rifle Association.....	12,310	212 56
do 26...	do do.....	do.....	650	8 00
Sept. 3...	do Bland.....	Halifax County Rifle Association.....	500	8 00
do 30...	Major T. J. Egan.....	63rd Battalion.....	1,560	24 96
Oct. 8...	Lt. Dickie.....	78th do.....	1,000	16 00
do 3...	Capt. James.....	Mahone Bay Garrison Artillery.....	1,000	16 00
do 15...	P. A. Grant.....	Pictou County Rifle Association.....	700	11 20
do 19...	W. J. Butler.....	63rd Battalion.....	3,920	62 72
do 20...	Capt. Bland.....	Halifax County Rifle Association.....	1,680	26 88
do 28...	do.....	do.....	1,680	26 88
	Capt. Jolly.....	Friction tubes.....		2 50
			52,980	855 38

## S. A. Ammunition issued on repayment during the Year 1885—Continued.

## Military District No. 10, Winnipeg.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1885.				\$ cts.
April 22...	J. Hingston Smith.....	Rifle Association.....	2,000	46 40
do 22...	do.....	do.....	400	6 40
May 18...	A. Freeland.....	Brandon Rifle Association.....	1,000	16 00
June 25...	Major Street.....	Manitoba do.....	1,120	17 92
July 7...	do.....	do.....	600	32 32
do 7...	do.....	do.....	1,120	16 00
do 13...	do.....	do.....	1,120	17 92
do 14...	do.....	do.....	1,000	16 00
do 25...	do.....	do.....	1,000	16 00
do 30...	do.....	do.....	1,000	16 00
do 31...	Major Cates.....	do.....	500	8 00
do 31...	do Street.....	do.....	1,000	16 00
Aug. 4...	A. P. Cameron.....	do.....	560	8 96
do 5...	Capt. Copeland.....	do.....	1,000	16 00
do 8...	Major Street.....	do.....	4,500	72 00
do 10...	do.....	do.....	560	8 96
do 11...	do.....	do.....	6,000	139 20
do 11...	do.....	do.....	1,800	17 92
do 14...	Capt. Copeland.....	do.....	1,120	17 92
do 15...	J. Hingston Smith.....	do.....	560	23 36
do 15...	do.....	do.....	600	8 96
do 21...	J. C. Waugh.....	do.....	560	8 96
Sept. 2...	J. H. Ashdown.....	do.....	2,240	35 84
do 14...	J. Hingston Smith.....	do.....	2,400	57 60
do 15...	do.....	do.....	1,120	17 92
do 26...	J. H. Ashdown.....	do.....	2,000	32 00
Oct. 7...	J. Hingston Smith.....	do.....	2,000	46 40
do 7...	do.....	do.....	600	8 96
	Total.....		39,680	687 68

## Military District No. 11, Victoria, B.C.

Date.	Purchaser.	Corps.	Rounds.	Amount.
Mar. 26...	Capt. Fletcher.....	British Columbia Rifle Association.....	500	12 00
May 4...	do.....	do.....	2,000	32 00
do 11...	do.....	do.....	2,000	32 00
do 12...	do.....	do.....	500	12 00
do 18...	do.....	do.....	2,000	32 00
June 8...	do.....	do.....	500	12 00
do 15...	do.....	do.....	2,000	32 00
do 23...	do.....	do.....	500	12 00
do 25...	do.....	do.....	500	12 00
July 11...	do.....	do.....	2,000	32 00
Aug. 11...	do.....	do.....	500	12 00
do 20...	Capt. A. W. Jones.....	do.....	500	8 00
do 22...	do Fletcher.....	do.....	6,000	96 00
do 24...	do do.....	do.....	500	12 00
do 24...	Lt.-Col. Holmes.....	"C" Battery, C.R.A.....	1,000	16 00
Sept. 1...	Capt. Fletcher.....	British Columbia Rifle Association.....	500	12 00
do 1...	do.....	do.....	2,000	32 00
Oct. 5...	do.....	do.....	2,000	32 00
do 5...	do.....	do.....	500	12 00
do 21...	do.....	do.....	500	12 00
Nov. 2...	do.....	do.....	500	12 00
do 13...	do.....	do.....	500	12 00
	Total.....		27,500	488 00



S. A. Ammunition issued on repayment during the Year 1885—*Continued.*

Military District No. 12, Charlottetown, P.E.I.

Date.	Purchaser.	Corps.	Rounds.	Amount.
1884.				\$ cts.
Dec. 18...	Capt. Stewart.....	82nd Battalion.....	500	8 00
do 24...	do G. Gay.....	Charlottetown Engineers .....	500	8 00
do 29...	do Alexander.....	82nd Battalion.....	500	8 00
1885.				
Jan. 5...	Capt. Owen.....	Garrison Artillery .....	2,000	32 00
March 11...	do Alexan. er.....	82nd Battalion.....	500	8 00
do 13...	Lt.-Col. Beer.....	do .....	1,000	16 00
April 24...	G. Crockett.....	do .....	500	8 00
June 15...	Lieut. A. Horne.....	do .....	2,000	32 00
July 28...	do .....	do .....	2,000	32 00
do 30...	Capt. D. Stewart.....	do .....	500	8 00
Aug. 7...	E. MacDougall.....	Charlottetown Engineers.....	500	8 00
do 8...	Major Dogherty.....	82nd Battalion.....	5,000	80 00
do 8...	J. S. MacLeod.....	do .....	500	8 00
do 13...	Capt. Owen.....	Garrison Artillery.....	1,250	20 00
do 19...	do .....	do .....	3,000	48 00
do 19...	Lieut. Hooper.....	82nd Battalion..... M.H.	500	12 00
Sept. 23...	do Longworth.....	Queen's County Rifle Association.....	1,200	19 20
Oct. 3...	Capt. D. Stewart.....	82nd Battalion.....	500	8 00
Nov. 20...	do T. S. MacLeod.....	do .....	500	8 00
			22,950	371 20

## RECAPITULATION.

Military Districts.	Rounds.	Amount.
		\$ cts.
Military District No. 1, London .....	30,590	490 50
do 2, Toronto.....	148,760	2,453 00
do 3, Kingston.....	34,550	562 50
do 4, Ottawa.....	110,634	2,073 06
do 5 } Montreal .....	97,505	1,598 70
do 6 }		
do 7, Quebec.....	28,095	613 92
do 8, St. John, N.B.....	43,250	719 40
do 9, Halifax, N.S.....	52,980	855 38
do 10, Winnipeg.....	39,680	687 68
do 11, Victoria, B.C.....	27,500	488 00
do 12, Charlottetown, P.E.I.....	22,950	371 20
Total.....	636,494	10,913 34

Snider—Ball.....	Rounds.
do Blank.....	595,848
Martini-Henry—Ball .....	1,000
Revolver—Colts' .....	39,496
	150
	636,494

[C.]

## RETURN of Gunpowder and Friction Tubes issued for Practice and Salutes during the Year 1885.

Military Districts.	Stations.	Corps.	Gun-powder.	Friction Tubes.
			Lbs.	No.
No. 1.....	London.....	London Field Battery.....	100	110
No. 2.....	Toronto.....	Field and Garrison Batteries of Artillery....	3,002½	1,635
No. 3.....	Kingston.....	Field and Garrison Batteries of Artillery, Royal Military College and Royal School of Artillery.....	1,214½	400
No. 4.....	Ottawa.....	Field Batteries of Artillery and Salutes.....	640	391
Nos. 5 & 6	Montreal.....	Field and Garrison Batteries of Artillery and Salutes.....	748½	901
No. 7.....	Quebec.....	do do do .....	3,181½	1,665
No. 8.....	St. John, N.B.....	do do do .....	2,276½	600
No. 9.....	Halifax, N.S.....	Garrison Artillery Batteries .....	2,656½	275
No. 11.....	Victoria, B.C.....	School of Artillery.....	105	50
No. 12.....	Charlottetown.....	Salutes.....	1,543	280
		Total .....	15,467½	6,307

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

The Deputy of the  
Minister of Militia and Defence,  
OTTAWA, 31st December, 1885.



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

GUNS—FIELD, SIEGE AND GARRISONS.

Rifled.

Smooth

Wrought-iron.

Cast-  
iron,  
convrtd

Bronze.

STATION.

Breech-  
loading.

Muzzle-loading.

18-pr.

24-pr.

	6-pr.	12-pr.	20-pr.	40-pr.	7-in.	9-pr.	64-pr. 7 inch.	8 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.
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1	London Field Battery.....					4																
	Store charge.....																					
	Charge of City.....																					
	Guelph, 1st Brig. Field Artillery.....					4																
	Goderich Garrison Battery.....														4							
	Sarnia do .....																					
	do Charge of Town.....																					
	Stratford do .....																					
	Galt do .....																					
	Kincardine do .....																					
2	Toronto Drill Shed.....			1															1			
	Field Battery .....					4																
	Charge of City .....																					
	Store charge.....	2																				
	York Pioneers.....														4			1				
	Old Fort.....												1									
	New do .....																					
	Hamilton Field Battery.....					4																
	Drill Shed .....																					
	Charge of City.....																					
	Port Robinson, Welland Canal Field Battery.....					4													1			
	Collingwood Garrison Battery....																		1			
	St. Catharines do .....																		2			
	Sault Ste. Marie Mountain Battery .....										2											
3	Durham Field Battery.....					4																
	Cobourg Garrison Battery.....																					
	Port Hope do .....																					
	Trenton do .....																					
	Kingston Field Battery.....					4																
	Charge of City .....																					
	Store charge .....																					
	Tête du Pont Barracks .....			1		2			1					4	9			4	4	1	6	17
	Fort Henry .....				1									2				1		1	1	15
	Fort Frederick.....				1														2			
	do Tower.....																					
	Murney do .....																					
	Shoal do .....																					
	East Branch do .....																			1		
	West do do .....																			1		
	Cedar Island do .....																					
	Royal Military College.....	6	1																			
4	Gananoque Field Battery.....					4														1		
	Brockville, charge of City.....																					
	Ottawa Field Battery.....					4																
	Charge of City .....																					
	Store charge .....												2									
	Nepean Point .....																2					

and in Dominion Store charge, on 31st December, 1885.

[illegible]



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

Military District.	STATION.	GUNS—FIELD, SIEGE AND GARRISON.															
		Rifled.								Smooth							
		Wrought-iron				Cast-iron, converted				Bronze.							
		Breech-loading.				Muzzle-loading.											
		6-pr.	12-pr.	20-pr.	40-pr.	7-inch.	9-pr.	64-pr.	7-inch.	8-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.	18-pr.	24-pr.
	Ottawa, Time Gun																
	Montreal Field Battery																
	Store charge																
	Charge of City																
	Granby, Shefford Field Battery																
	Richmond Field Battery																
	St. John Garrison Battery																
	Quebec Field Battery																
	Citadel																
	King's Bastion																
	Mann's do																
	Richmond do																
	Diamond do																
	Dalhousie do																
	Parade Ground																
	Field Battery																
	City lines:—																
	Upper Casemate																
	St. Louis Curtain																
	do Bastion																
	Ursulines' Curtain																
	do Bastion																
	St. John's do																
	Barrack do																
	Armory Battery, No. 1																
	do 2																
	Artillery Barracks																
	Drill Shed, Louis Road																
	Towers, No. 1																
	2																
	3																
	Nunnery Battery, No. 1																
	do 2																
	Montcalm Battery																
	Hope Gate do																
	Half Moon do																
	St. Charles do																
	Assembly do																
	Grand do																
	Prescott Gate Battery																
	Wolfe's do																
	Carronade do																
	"B" Magazine Yard																
	Under Dufferin Terrace																
	Lévis, Artillery Park																
	No. 1 Fort																
	2 do																
	3 do																
	Island of Orleans																

## and in Dominion Store charge, &amp;c.—Continued.

		CARRONADES, CAST-IRON.										HOWITZERS		MORTARS, CAST-IRON.		REMARKS.												
Bore.	Cast-iron.											Brnze	Cast-iron.	10-inch.														
		32-pr.					8-in.																					
		32 cwt.	42 cwt.	45 cwt.	49 or 50 cwt.	56 cwt.	58 cwt.	63 cwt.	66-pr.	64 cwt.	65 cwt.	68-pr., 95 cwt.	12-pr.	18-pr.	24-pr.	32-pr.	68-pr.	12-pr.	24-pr.	54-inch.	8 inch	8-inch, 9 cwt.	16 cwt.	18 cwt.	47 or 52 cwt.	13-inch, 36 cwt.	Gating Machine Guns.	Russian Guns.
						3					1			1		23			4	2				2				3



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

Military District.	STATION.	GUNS—FIELD, SEIGE AND GARRISON.																						
		Rifled.												Smooth										
		Wrought-iron.						Cast-iron converted		Bronze														
		Breech-loading.			Muzzle-loading.											18-pr.		24-pr.						
		6-pr.	12-pr.	20-pr.	40-pr.	7-inch.	9-pr.	64-pr.	7-inch.	8-inch.	64 pr.—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.	60 cwt.
	Quebec, store charge																	4	2	8	14	24		
	Grosse Isle																			1				
	Gaspé Garrison Battery																							
	Quebec, charge of City																							
8	Newcastle Field Battery																							
	Woodstock																							
	Dorchester Penitentiary																							
	St. John, Store charge																							
	Fort Dufferin																							
	Carleton Tower																							
	Fairville																							
	Fort Howe																							
	Red Head																							
	Partridge Island																							
	Dorchester Battery																							
	Drill Shed																							
	Chatham																							
	St. Andrews																							
	St. George																							
	Fredericton																							
9	Halifax, N.S., Drill Shed																							
	Point Pleasant																							
	Pictou																							
	Granville																							
	Digby																							
	Lunenburg																							
	Yarmouth																							
	Sydney, C.B.																							
	Herring Cove																							
	Chester																							
	Liverpool																							
10	Winnipeg Field Battery																							
	Battleford, "A" Battery																							
	Qu'Appelle, "B" do																							
11	Victoria, B.C.																							
	Finlayson Point																							
	Esquimalt, Macaulay Point																							
	Brothers Island																							
	New Westminster																							
12	Prince Edward Island—																							
	Victoria Barracks																							
	Fort Edward																							
	Drill Shed																							
	Georgetown																							

## and in Dominion Store Charge, &amp;c.—Concluded.

Bore.	CARRONADES, CAST-IRON.										HOWITZERS		MORTARS, CAST-IRON.		REMARKS.											
											Bro'ze	Cast-iron.	10-inch													
Cast-iron.																										
	32-pr.																									
	8-inch																									
	32 cwt.	42 cwt.	45 cwt.	48 or 50 cwt.	56 cwt.	63 cwt.	56-pr.	54 cwt.	65 cwt.	68-pr.—95-cwt.	12-pr.	18-pr.	24-pr.	32-pr.	68-pr.	12-pr.	24-pr.	6½-inch.	8-inch	8-inch—9-cwt.	16 cwt.	18 cwt.	47 or 52-cwt.	13-inch—36-cwt.	Gatling Machine Gun.	Russian Guns.
1				17											32				1	2	2	5	1		1	
2																										2
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## APPENDIX No. 12.

## REPORT OF THE ARCHITECT, ENGINEER BRANCH.

DEPARTMENT OF MILITIA AND DEFENCE,  
OTTAWA, 31st December, 1885.

SIR,—I have the honor to transmit herewith my Report upon works and repairs made to the Military Buildings and Fortifications under control of the Department from 1st January last to date.

*London, Ont.*

The walls, &c., of Drill Shed have been cleaned and lime-whitened, and repairs to roof made. Pending decision as to the location of proposed Military School, general repairs to the other Militia buildings have been deferred.

*Toronto.*

Contract has been awarded for the erection of new fence and gateways around the New Fort Barracks, in place of the present picket fence, which is beyond repair. Work will be commenced early in the spring of 1886. Other general and usual repairs have been made to the several buildings, &c., of old and new forts.

Owing to threatened danger to roof and walls of Drill Shed from settlement considerable repairs have had to be made.

*Hamilton.*

A plank floor, on cedar sleepers, has been laid in Drill Hall, to replace the old earth floor.

*Simcoe.*

Considerable general repairs have been made to Drill Shed.

*St. Catharines.*

Considerable general repairs have been made to Drill Shed.

*Niagara.*

Two additional rooms have been erected to Caretaker's house at Fort Mississauga, and general repairs to fort made.

*Kingston.*

At Royal Military College a large number of necessary works have been carried out, comprising extension of water supply to Nos. 1 and 2 Non-Commissioned Officers' Quarters, repairs to boilers, extension of steam heating to Quartermasters' stores, addition to Quartermasters' stores, repairs to drainage, water supply to gate-house, new kitchen range to educational block. Besides the above, a large number of the

usual and necessary minor repairs, as called for in the monthly Barrack Reports, have been executed.

A wooden building for Observatory, containing two small rooms, has been erected by contract on the College grounds.

The alteration to No. 1 Officers' Quarters, so as to convert same into two residences, has been completed. Both buildings are heated by hot water. Work done under contract.

At Tête de Pont Barracks a fire occurred in February last, necessitating a considerable outlay for repairs. A new range has been placed in mens' kitchen. Improvements have been made to water supply and drainage, besides the usual and general repairs.

The Riding School for Battery stationed at Tête de Pont Barracks and for Royal Military College Cadets, mentioned in my last Report, has been completed.

Minor repairs have been made at Fort Henry, Fort Frederick, Murney, Shoal and Cedar Island Towers, and to Artillery Park Barracks.

Considerable repairs have been made to the Drill Shed.

*Ottawa.*

At Nepean Point a fence has been built around the wooden building used as a Magazine for small arms' ammunition, and new platforms laid for the six guns forming saluting battery. At old Militia stores room has been fitted up for storage of medicines and surgical appliances.

The unsightly lot between the north wall of Militia stores, Canal Basin, and Sappers' Bridge, has been cleared, graded, fenced and planted, the roadway between the stores and properties on east side fenced, and gates placed at south end to prevent trespass. Considerable works have been done inside the stores, in alteration of gas supply, improvement of drainage, additional flooring to space in roof, extra shelving for clothing, &c.

*Prescott.*

The old Guard House at Fort Wellington has been repaired and improved, and made into residence for Caretaker.

Extensive repairs have been made to the walls, roof, &c., of Drill Shed.

*St. John's, Quebec.*

The fencing to Infantry School grounds and new Guard House, &c., mentioned in my last Report, were satisfactorily completed by the contractors early in 1885. Since then contracts have been awarded for the erection of fuel sheds, new flooring, drainage, clearing away ruins of old burnt buildings, new windows, sidewalks, &c., and most of these works are now completed. A large amount of minor works and alterations, in addition to the above, are now in progress by day's work, under supervision of Clerk of Works. A considerable outlay is still required before the buildings can be said to fully meet the requirements of a well organized Military School, as these buildings, when taken to, were in a very bad state of repair.

*Montreal, St. Helen's Island.*

Contract was awarded in August, 1885, for taking down ruins of old burnt Barrack buildings, for repairs of gravel roof to gun shed, repairing and painting tin roofs, repairs to drainage, general painting, repairs to workmens' cottages, and new closets for same, all of which are satisfactorily completed. A small additional outlay will now place the whole of the buildings on the Island in a good state of repair.



*Old Military Burial Ground, Papineau Road.*

The conversion of old chapel building into a residence for Caretaker is completed, and Caretaker appointed. It is hoped in future no complaints will be made as to the desecration of the grounds owing to absence of Caretaker.

*Bury.*

Extensive general repairs have been made to Drill Shed.

*Quebec.*

Since my last Report, contracts have been let and completed for repairs, &c., at Citadel, amongst which may be mentioned: continuation of roofs over casemates to part over Dalhousie Bastion, in order to render casemates properly habitable; also, for extensive repairs to roofs, walls, chimneys, floors, windows, &c., of the several buildings, all of which have been let by tender, whenever possible. Plans are now being prepared for extension of Quebec City water supply into the Citadel, and for improvement of the drainage. The present privy pits will then all be altered into water closets. These works will, of course, entail a large outlay, but will add much to the health of those living in the Citadel and prevent the frequent complaints which have been made by the City and Military Medical authorities.

If the Citadel and fortifications of Quebec are to be preserved, then it is important that Parliament should grant proper funds to keep them in a proper state of repair. As it is, they, in places, are going to decay as rapidly as works of their solid character can do. The whole usual annual vote for maintenance and repair of Military properties in Canada can be economically expended on Quebec Citadel and fortifications alone.

Considerable alterations and repairs have been made, under contract, to the Director of Stores' Offices, old Military Prison building, Citadel Hill.

General repairs have been made, under contract, at Cartridge Factory.

The portion of ground outside fortification walls, at rear and side of Skating Rink has been inclosed with a neat fence, and the grounds inside graded and seeded down. This will prevent the ground being used in future as a dumping place for rubbish.

*Lévis.*

Casing to front of casemates, No. 2 Fort, as mentioned in my last report, has been completed.

*Fort Chambly.*

Considerable repairs have been made to the above fort, under contract and by day's work.

*St. John, N.B.*

A new plank floor is now being laid in Drill Shed.

*Fredericton.*

The Drill Shed for the use of Infantry School and local Corps, mentioned in my last Report, is now completed. It is a frame building, and contains drill hall 100 x 50 feet, seven armories, two regimental storerooms, two orderly rooms, band room, and residence for Caretaker, containing four rooms.

The old store building on Barrack Square has been remodelled, and, with an addition in rear, now forms a most convenient hospital.

The usual minor repairs have been made to the barrack buildings generally.

*Windsor, N. S.*

Considerable repairs to Drill Shed have been made.

*Winnipeg.*

The establishment of an Infantry School at Winnipeg has necessitated a large number of alterations, additions and repairs to the old buildings at Fort Osborne, to fit them for occupation. Additional buildings will be required, and large further outlay necessary, before the School can be properly organized.

*Victoria, B.C.*

New Artillery stores have been built and repairs made to batteries at Brothers' Island, Macaulay's Point, Victoria Point and Finlayson's Point.

*Charlottetown, P.-E. I.*

Repairs to Magazine, Fort Edward, have been made.

I have the honor to be, Sir,

Your obedient servant,

H. JAMES,

Architect, &c.

Lieut.-Col. Hon. C. E. PANET,  
Deputy Minister Militia and Defence,  
Ottawa.



## APPENDIX No. 13.

## GOVERNMENT CARTRIDGE FACTORY.

## ANNUAL REPORT.

QUEBEC, 1st December, 1885.

SIR,—I have the honor to report as follows on the operations at the Cartridge Factory from 1st December, 1884, to this date.

*Machinery.*

Several improvements in the manufacturing plant have been made during the year:—

By adding a guard ring to the power choking machine one operative may now perform the work of two.

A cap extracting apparatus has been devised and adjusted to the capping machine by means of which if by accident a cap without an anvil be fed in the machine the extractor removes the cap, thus providing against miss fires.

A plate for plating anvils has also been put in use by which the insertion of anvils into percussion caps is rapidly performed.

The rifle rests at the range have been made suitable for either Martini-Henry, Snider, long or short rifles on their own service stocks, a non-recoil contrivance having replaced the usual sliding gear. The results of practice carried on with those rests have been very regular, and no injurious action has developed on the rifles used. The practice of adopting non-recoil rests obtains in several large private and other ammunition factories. There is, therefore, no novelty in using them in our tests.

A small machine for coiling brass unpapered cartridge cases has been designed and manufactured in the factory. This apparatus can coil 3,000 to 4,000 rounds per diem and combines three different operations on one same machine, viz. rolling, pelleting and crimping.

Several sets of reloading tools in connection with the coiled brass reloading shell have been made in the workshop. One of them was forwarded to Headquarters for approval and several others were subsequently made and distributed for trial to Rifle Associations.

It having become necessary to work during night hours to meet increased demands, two electric light apparatus were provided by the Edison Electric Light Company of Hamilton, Ont., one of 100 16-candle power incandescence lights for the main factory and one of 50 16-candle power incandescence for the laboratory building.

A milling machine has been added to the workshop machinery. It was received in good time as the cams of a number of the cartridge machinery required to be overhauled, which can now be done both rapidly and economically.

The small steam engine at the laboratory had to be laid down on more solid foundations to meet the increased work it had to perform in driving the electric light dynamos.

If, as anticipated, the new Drill Shed is to be lighted with electric lamps, the laboratory engine will have to be replaced by a more powerful one, and a larger boiler will also be required. A 25-horsepower engine and boiler will meet these requirements and furnish power to manufacture as well.

No very considerable repairs had to be performed during the year. The replacing of parts of manufacturing machinery has not exceeded the usual proportion to the work done.

The steam engines and boilers are in good order. The latter were examined, tested and certified to be in a safe and efficient condition during the year.

Whilst on the subject of machinery I may advert to the advantage there would be in providing, now, the necessary interchangeable parts to our present plant to enable the inception of manufacture of Martini-Henry ammunition. The alterations and additions necessary are comparatively inexpensive, and if provided now with the necessary appliances, a start might be made, allowing thus for unavoidable delays, consequent to breaking in our *personnel* to a nature of fabrication somewhat different from our present work.

I have already furnished the Department with estimates of the cost of additions for manufacturing Martini-Henry ammunition, which is not considerable.

*Raw Material.*

A new mode of obtaining supplies of raw material was adopted this year with very beneficial results. All the special articles required for manufacturing have been obtained direct from trade in England and in Canada.

The object aimed at—prompt delivery of articles at Quebec—has been fully attained, and, as regards quality, everything has been very satisfactory and equal to samples furnished in every respect; in fact, superior in some cases to what had been supplied in previous years, more particularly lead, and certain descriptions of brass strips.

Two supplies of raw material were received this year, consequent to a greater demand than usual for ammunition having arisen. The first supply, as reported, having been received from England the 13th May, that is about five weeks after the order had been given, and the second supply on the 8th November, about four weeks after the order. This second supply is for next year's manufacture.

There is much difficulty in obtaining high explosives for the Cartridge Factory. For the last importation the order had to be cancelled. No vessel will accept such dangerous freight. The supply of the previous order could only be obtained at a very high figure and the freighters in fact declined bringing it up to Quebec, throwing it overboard before reaching port, and it had to be recovered and brought up in a small craft. I am, in consequence, now arranging to have fulminates manufactured in the country, and no doubt will succeed in obtaining quantities required.

*Manufacturing.*

Manufacturing having been brought nearly to a standstill for want of material (R.F.G. powder from Waltham Abbey) to complete the work on hand towards the latter end of last year, an extra number of operatives had to be employed at the beginning of this year.

A considerable quantity of the work in stock was finished and new work completed since, bringing the total of ammunition turned out, up to date, to 2,902,120 service ball.

A number of ammunition boxes had to be repaired and altered, with the new pin attachment, to pack those quantities of service ammunition, though a large number of boxes to hold each 2,000 were also utilized.

These latter prove very serviceable, I understand, in camps of exercise. A quantity of boxes marked 1, to hold 420 rounds, previously unlined, were provided with tin linings, rendering them practically water-proof.

Having had a sufficient complement of operatives this year has made it possible to keep both the Main Factory and the Cove Fields simultaneously at work. There is much in favor of finishing all the processes of manufacture at once instead of accumulating stock to be finished at intervals.



*Experiments, Tests, &c.*

Numerous and varied tests of ammunition have been conducted during the year. I annex herewith diagrams of proof of ammunition covering several months' manufacture. (Plate I).

I have reproduced the grouping of diagrams of tests on a form which may appear more familiar to those who take interest in rifle shooting.

It will be observed that the groups, as obtained, have been made from fixed rests, on which no allowance whatever can be made for wind. Still, though none of the groups were formed in calm weather, it will be noticed that, in so far as the ammunition is concerned, the average at target practice should be high.

I also refer to two diagrams of proof of Martini-Henry ammunition. (Plate I.) This latter proof was ordered in consequence of complaints having been made as to the quality of some Martini-Henry ammunition issued for practice.

The great advantage of small bore ammunition is its non-liability to be affected by wind compared to large bore cartridges, such as the Snider. The average figure of the Martini stands at 10 inches, whilst that of the Snider is 16 inches. Moreover, by its flatter trajectory, the Martini is a more formidable weapon; the zones of dangerous fire are more extended; the effects of errors in judging distance minimized. These are obtained with a small calibre bullet driven at a high velocity.

I would refer to the annexed extract from my report of the 7th October, 1885, on the subject of that ammunition. (A.)

Noticing hereunder a list of the different rifles made use of in Europe and America for military purposes, the above may appear amply substantiated.

\* England and Turkey :—

Calibre.....	.45 inch.
Weight of bullet.....	480 grains.
“ powder charge.....	86 “
Muzzle velocity.....	1,315 feet.

France :—

Calibre.....	.433 inch.
Weight of bullet.....	386 grains.
“ powder charge.....	81 “
Muzzle velocity.....	1,430 feet

Russia :—

Calibre.....	.42 inch.
Weight of bullet.....	368 grains.
“ powder charge.....	77 “
Muzzle velocity.....	1,384 feet.

Prussia :—

Calibre.....	.433 inch.
Weight of bullet.....	386 grains.
“ powder charge.....	77 “
Muzzle velocity.....	1,410 feet.

Austria and Hungary :—

Calibre.....	.421 inch.
Weight of bullet.....	371 grains.
“ powder charge.....	77 “
Muzzle velocity.....	1,437 feet.

United States :—

Caliber.....	.45 inch.
Weight of bullet.....	405 grains.
“ powder charge.....	70 “
Muzzle velocity.....	1,350 feet.

\* The new rifle for the British army has a calibre of .40 inches; the weight of bullet, 384 grains, and of powder charge, 86 grains. The muzzle velocity is 1,577 feet. The Snider B.L. bullet has a muzzle velocity of 1,270 feet.

The occasional jamming of the fired cartridge in the Martini-Henry is now overcome by adopting a stronger extractor to replace the present one, which, being too weak, bent instead of extracting the expanded shell.

Early in the year I was ordered to examine and fully test a Martini-Henry rifle, into which several new features had been introduced by Captain Harston, of the 10th “Royals” of Toronto. The rifle was submitted to very severe tests. The alterations to the present arm were mostly in the lock and in the extracting mechanism. The objections found to exist rested more on the mode of construction followed than on the principle of the alterations, which, in fact, presented many good points to be urged in their favor.

A crusher gauge for taking pressures in the bore of rifled field guns having been received at the factory last October, the necessary borings for the insertion of the gauge were made in a 9-pounder M. L. R. provided for such tests.

These tests I have carried out at the Cove Field proof butts. They comprised muzzle velocity tests simultaneously with the pressure tests. The factory Le Boulanger Chronograph having been placed in one of the buildings on the Cove Field for this purpose.

I forward a special report of those experiments, as well as of the tests for density, and hygroscopic tests. I need not, therefore, recur to them further. (B.)

The want of a re-loading cartridge having been felt by Militiamen expert at rifle shooting, and a demand having been made to supply them, I had coiled brass shells prepared and re-loading tools. Some 30,000 rounds were prepared as directed, to enable those interested to try them. There is no doubt that this shell is quite adaptable as a re-loader. Shells have been fired and re-loaded as often as twelve consecutive times without giving way in the least, except after several rounds, at the choking, viz; at the cannellure impressed in the cartridge case to secure the bullet.

The great advantage of this new re-loading shell appears to be relatively low original cost, not exceeding that of the ordinary papered Snider shell. Half the price of Snider ammunition is saved at each re-loading. A solid drawn case, to act as a re-loader, has been made for the Snider. I was present at some tests carried out at Woolwich with this shell. Its cost is higher than the proposed coiled brass shell, and it is liable to split if allowed to oxidise before re-loading.

Re-loading tools could be procured very cheap (\$15 a set), in fact, as they are not protected by patent, any one may make or improvise a set for himself. The directions, however, are to be strictly adhered to if satisfactory results are to be obtained. Herewith a copy of directions annexed. (C.)

*Buildings.*

The several buildings in my charge, including quarters, &c., are in a fair order, excepting the workshop and Dauphine Barracks. Several alterations will be required in the workshop. There has always been a deficiency of light in that building, and mechanics working accurately to gauges must have plenty of light to do their work properly. I have, therefore, sent estimates for alterations to the windows and to provide skylights, &c., which I trust may be sanctioned. As regards Dauphine Barracks the walls of the older portion of the building require repointing. These and other items appear in the returns for maintenance and repairs furnished to the Department.

I have the honor to be, Sir,  
Your obedient servant,

OSCAR PRÉVOST, Major,  
Superintendent.

To the Deputy Minister of Militia and Defence,  
Ottawa.



## (A.)

EXTRACT from Report, dated 7th October, 1885, on test of Martini-Henry Ammunition from Militia Stores.

"The results of tests indicate mark III, 1874, as quite serviceable, still I would draw attention to the fact that Martini-Henry ammunition requires extra dry storage. I have had occasion to notice before that mark III, 1874, was getting corroded. Corrosion once begun must develop rapidly."

## (B.)

COPY of Report of Experiments and Tests of R. L. G.<sup>2</sup> Gunpowder manufactured for the Militia Department by the Hamilton Powder Company.

QUEBEC, 22nd December, 1885.

SIR,—I have the honor to report that, according to your instructions, I have tested samples of R. L. G.<sup>2</sup> powder manufactured by the Hamilton Powder Company for the Militia Department.

The tests were for muzzle velocity, pressure, density, power to absorb moisture and size of grain.

A 9-pounder M. L. R. was prepared at the factory to receive the pressure gauge, and the Le Boulangé Chronograph of the factory placed in one of the buildings at the Cove Fields.

Samples of three lots were submitted for testing, being Nos. 38, 39 and 40.

I also tested, comparatively, a lot of R. L. G. 2, ordered as a sample from Imperial Stores at Halifax, N. S.

A series of rounds were fired with 9-pounder common shell brought to exact weight, and accurately weighed charge from the different samples to be tested.

The velocity and pressure were taken simultaneously for each round. The mean velocity and pressure of the H. P. Co. powder compared favorable with those of the R. L. G.<sup>2</sup> from Imperial Stores, the mean pressure with both being under 12 tons. The Canadian powder gave a velocity of 6 feet over that of the English powder.

A series of experiments were also performed to determine the density and the power to withstand absorption of moisture.

The density tests gave:

For lot 38.....	1.692
" 39.....	1.729
" 40.....	1.73

The Waltham Abbey sample (from Imperial stores) gave 1.658.

The hygroscopic tests gave:

Lot 38.....	86
" 39.....	100
" 40.....	62
" 40.....	100
" 40.....	65
" 40.....	100
Waltham Abbey.....	78
" 40.....	100

For size of grain, the samples submitted were all within limits of R. L. G.<sup>2</sup>: less than one ounce of small grain per pound, passed through the six mesh sieve.

I, therefore, have to report that samples submitted as of lots 38, 39 and 40, of R. L. G.<sup>2</sup> powder, by the Hamilton Powder Company, fulfil the conditions of a good, serviceable powder of that kind, and compares favorably with the sample of R. L. G.<sup>2</sup> from Imperial stores.

I have the honor to be, Sir,

Your obedient servant,

OSCAR PRÉVOST,  
Superintendent.

To the Deputy Minister of Militia and Defence,  
Ottawa.

## (C.)

# DIRECTIONS FOR RE-LOADING BRASS COILED SNIDER B. L. CARTRIDGES.

1st. *Un-Capping*.—The first operation in the process of re-loading the brass coiled cartridges is to uncapp the case already fired, which is performed as follows:—

The case is placed into a steel die marked 1, recessed to receive the base and which keeps the case in a vertical position, base downwards. The needle punch marked 2, is then placed inside the case and given a sharp blow with a wooden mallet on the outside end of the punch and the cap is then easily forced from its position leaving the cap chamber ready for re-capping.

2nd. *Re-Forming*.—The case having been enlarged by previous firing, it must, before re-loading, be reformed to proper "gauge." Introduce the case in a reforming mould, marked 3, pressing it carefully down as far as possible by hand and then finally driving it well home with the steel setter, marked 4, and mallet. Particular care should be exercised in pressing down case as far as possible by hand, otherwise it may get damaged in the mould when forced down with the mallet. To remove the case out of mould use mandrill, marked 4.

3rd. *Capping*.—Never cap a loaded cartridge. To insert a new primer put the cartridge case in the chamber gauge, marked 5. Then push the gauge into the recess and over the die in the capping machine, having previously inserted into the die thereof a cap and anvil. Then press up the lever underneath the table, to force the cap in the cartridge. To force the cap to a sufficient depth a set screw on the bed of the machine is provided which, limits the action of the hand lever underneath.

4th. *Loading*.—To load, the measurer is worked to and fro, this will allow the proper charge to fall into cartridge. The figures on the measurer should not be trusted but the charge regulated by accurate weighing first. The measurer thus regulated keeps sufficiently accurate. Seventy grains is the regular charge.

5th. *Wooling*.—A tuft of cotton wool of about  $\frac{1}{2}$  grain is introduced over the powder and well flattened down with a gun metal drift, marked 7. No wool must remain on the sides of the case.

6th. *Shooting*.—A bullet is next inserted taking care not to damage the lubricant on the edge of the cartridge case.

7th. *Gauging*.—The bullet is forced home by pressing the shotted cartridge into the recess of the choking machine, marked 8, till the iron base disc meets the projecting lugs thereof.

8th. *Choking*.—The choking is performed by holding the cartridge firm in the recess and well home and at the same time turning the crank of the crimping machine, one or two turns should suffice.

OSCAR PRÉVOST,

Superintendent, Government Cartridge Factory.

QUEBEC, 24th August, 1885.



Rests,

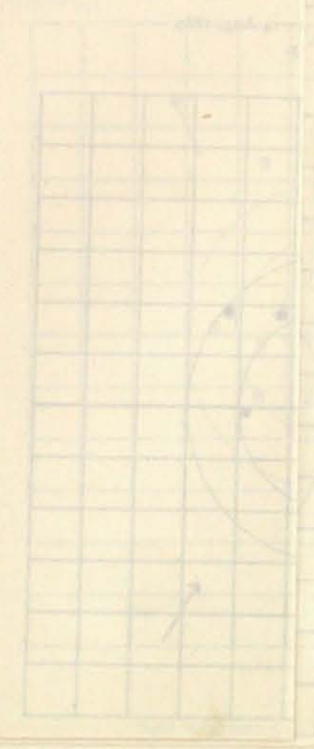
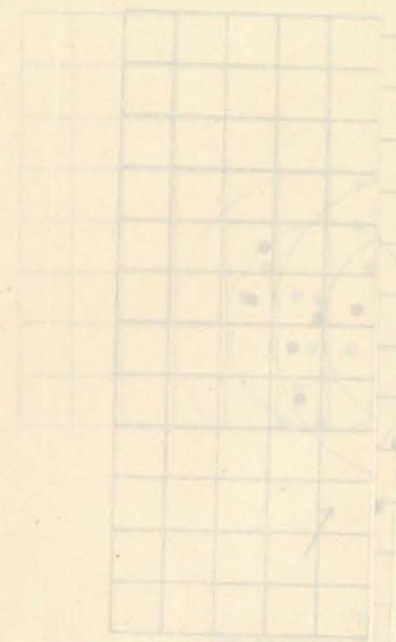
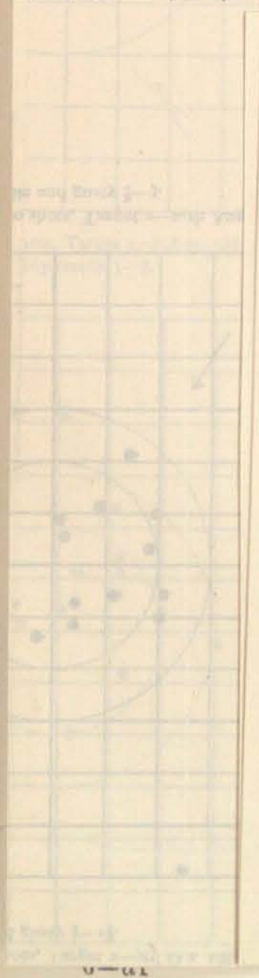
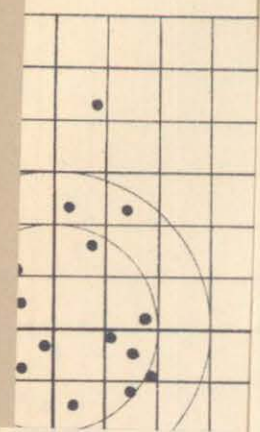
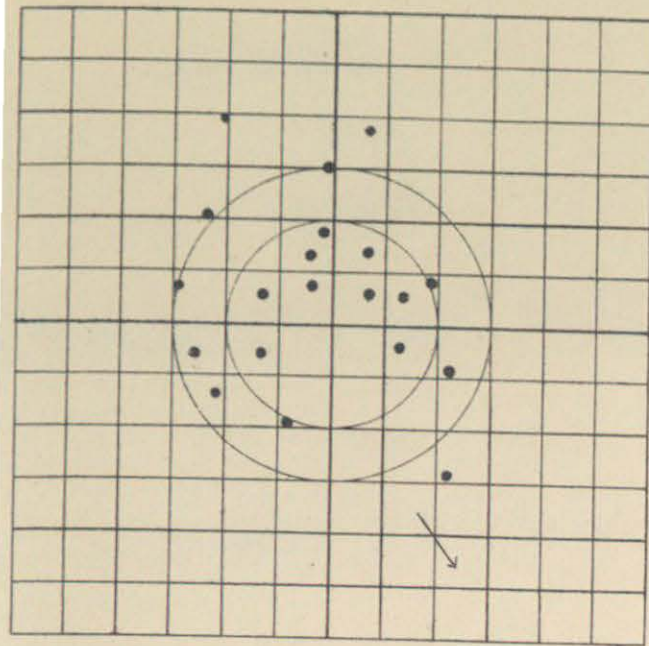
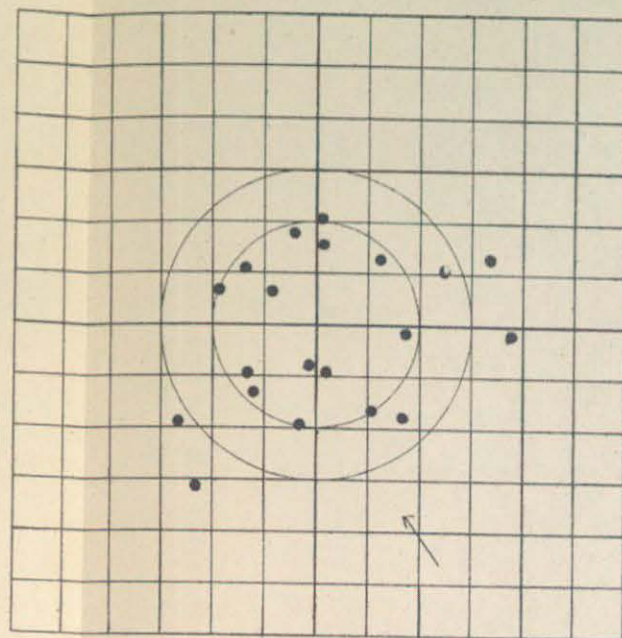




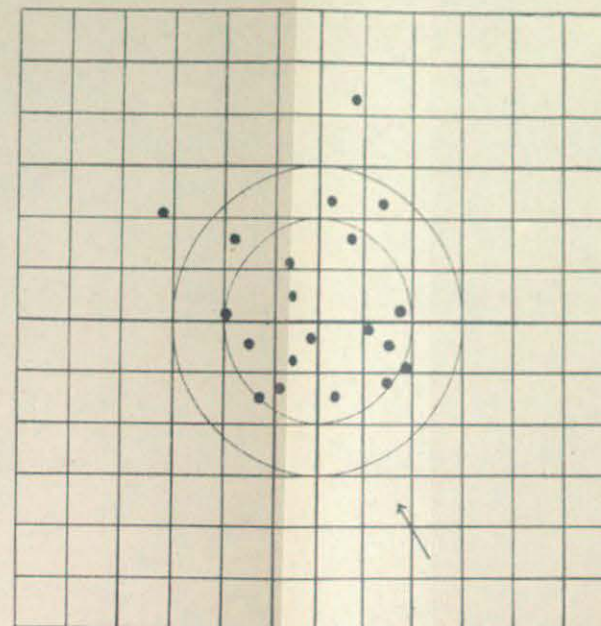
PLATE I.  
Records of Proof of ammunition from Fixed Rests,  
AT 500 YARDS.



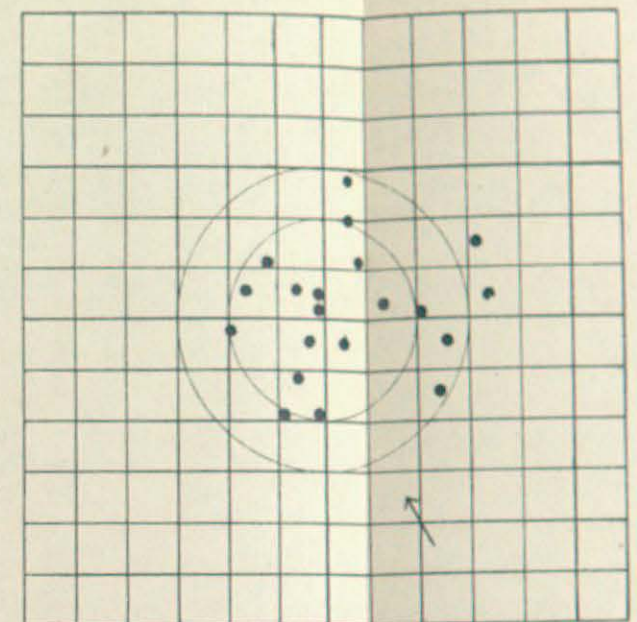
Snider B. L., 20 shots, Target 2—2nd July 1885.  
Wind  $1-1\frac{1}{2}$  fairly steady.



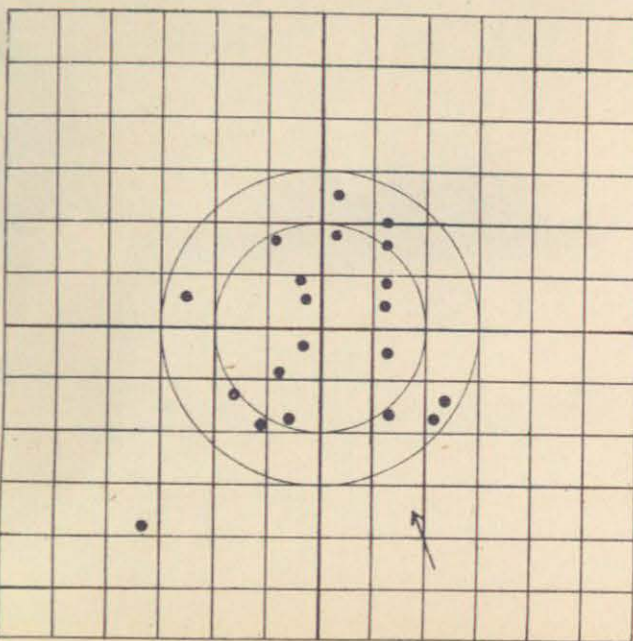
Snider B. L., 20 shots, Target 3—6th Aug. 1885.  
Wind fairly steady  $1-1\frac{1}{2}$ .



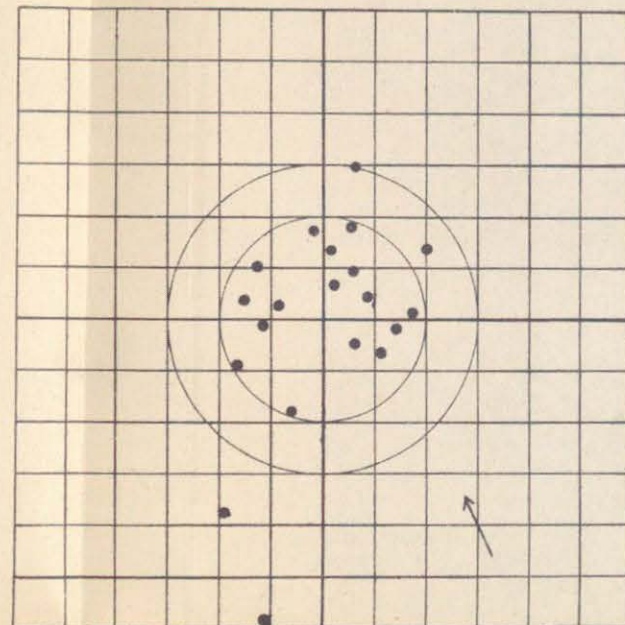
Snider B. L., 20 shots, Target 1—6 Aug. 1885.  
Wind fairly steady  $1-1\frac{1}{2}$ .



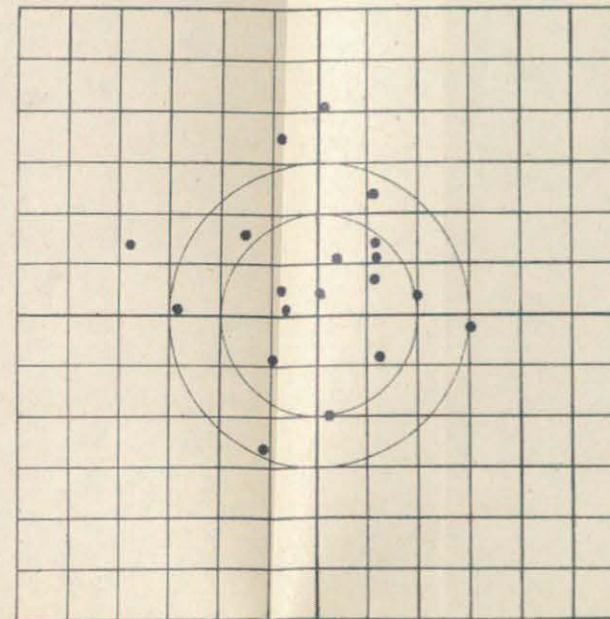
Snider B. L., 20 shots, Target 1—14 Aug. 1885.  
Wind variable  $1-3$ .



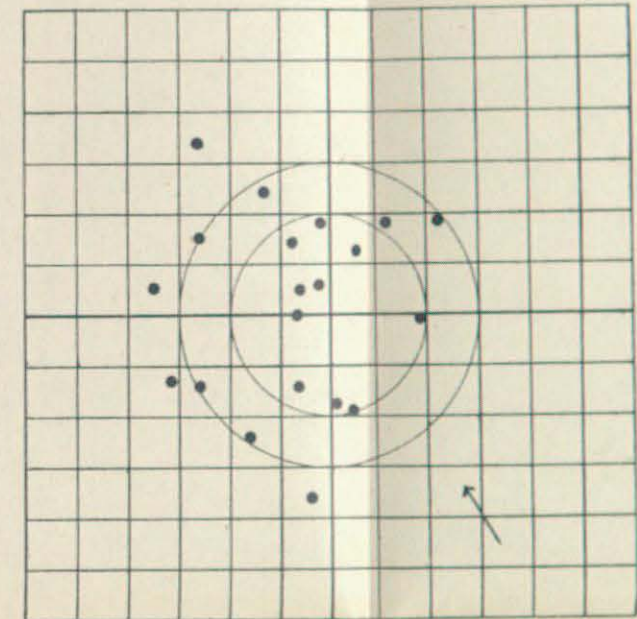
Snider B. L., 20 shots, Target 2—26 Sept. 1885.  
Wind gusty  $1-1\frac{1}{2}$ .



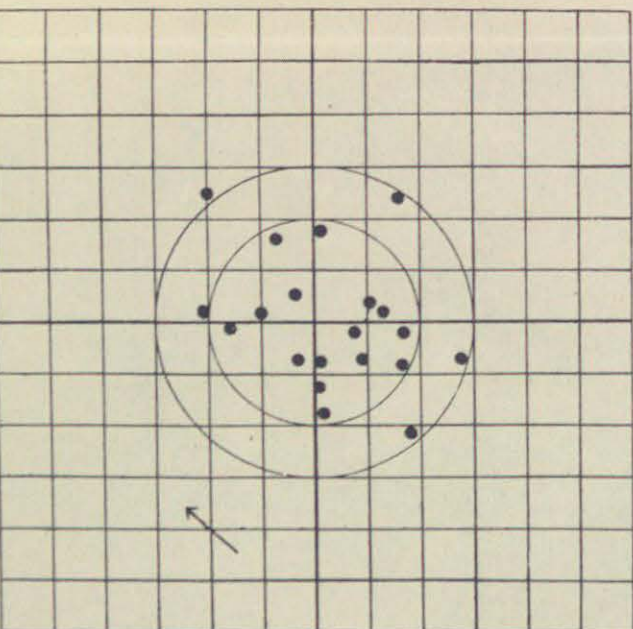
Snider B. L., 20 shots, Target 3—30 Sept. 1885.  
Wind gusty  $1-1\frac{1}{2}$ .



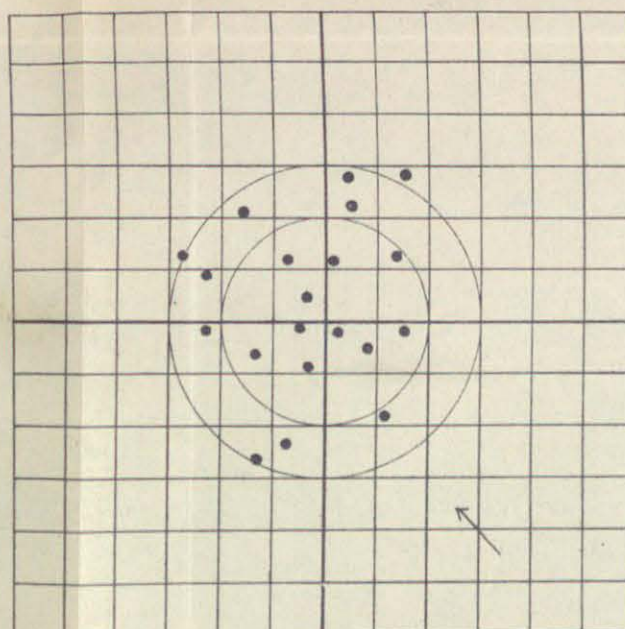
Snider B. L., 20 shots, Target 2—3rd Oct. 1885.  
Wind gusty  $1-1\frac{1}{2}$ .



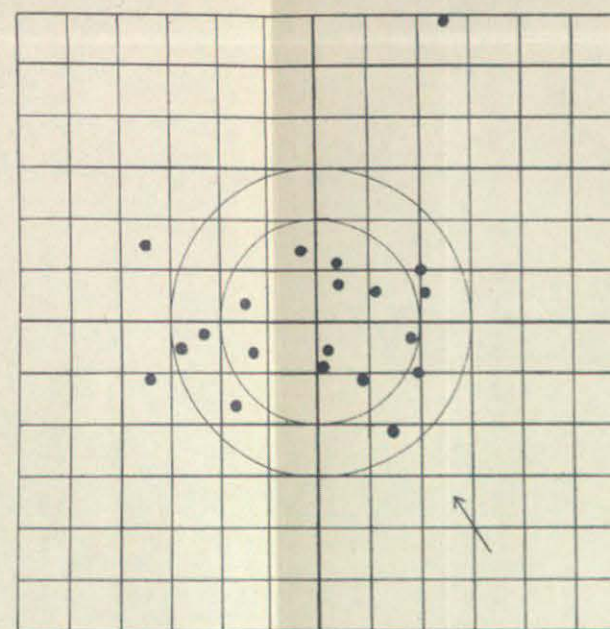
Snider B. L., 20 shots, Target 1—3rd Nov. 1885.  
Wind  $1-1\frac{1}{2}$ .



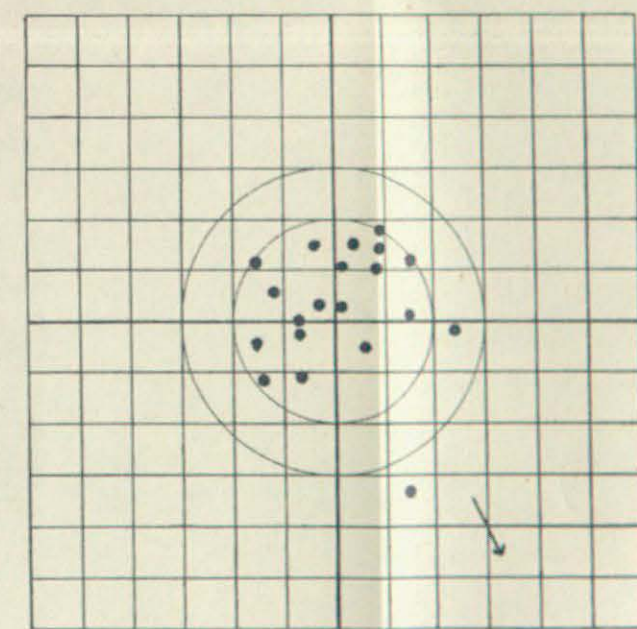
Snider B. L., 20 shots, Target 4—14th Nov. 1885.  
Wind steady  $1-1\frac{1}{2}$ .



Snider B. L., 20 shots, Target 4—27th Nov. 1885.  
Wind fairly steady  $1-1\frac{1}{2}$ .



Martini-Henry, B. L., 20 shots, Target 2—24th Aug. 1885.  
Wind variable and gusty  $1-3$ .



Martini-Henry, 20 shots, Target 1—2nd Oct. 1885.  
Wind  $1-1\frac{1}{2}$  steady.



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## EXPLANATION OF ABBREVIATIONS.

M D.....	Military District.
prov.....	Provisionally appointed.
l c.....	Lieutenant-Colonel.
lt.....	Lieutenant.
m.....	Major.
a c.....	Artillery Certificate.
c c.....	Cavalry " "
m s.....	Military School Certificate.
g s.....	Gunnery " "
g s e.....	Engineer Certificate obtained at Royal School of Gunnery.
g s i.....	Infantry Certificate " "
q f o.....	Qualified former Provincial Organization.
r s a.....	Royal School of Artillery Certificate.
s c.....	School of Cavalry " "
s i.....	School of Infantry " "
m q.....	Military Qualification " "
v b.....	Board of Examiners " "
37-8.....	Served during rebellion.
F.....	" " Fenian raid.
R.....	" " Red River Expedition.
m.....	Medal for war services Imperial Army.
C B.....	Companion of the Order of the Bath.
G C M G.....	Grand Cross of the Order of St. Michael and St. George.
K C M G.....	Knight Commander " "
C M G.....	Companion " "

(Her Majesty having sanctioned the issue of a medal for recent service in the North-West, the names of Officers who may receive such medals will be duly noted in subsequent editions of the Militia List.)

Errors and omissions will be rectified on notification thereof through the proper channel of communication.



Corps.	Military District.	Province.	Column.	Corps.	Military District.	Province.	Column.
<i>Cavalry.</i>				<i>Garrison Artillery—Continued.</i>			
Cavalry School Corps.....	7	Que.	31	Pictou.....	9	N.S.	61
Governor General's Body Guard	2	Ont.	33	Prince Edward Island P. Brig	12	P.E.I.	57
1st Regt.....	1	do	33	Quebec, No. 1.....	7	Que.	61
2nd do.....	2	do	35	do No. 2.....	7	do	61
3rd P. Regt.....	3	do	36	do No. 3.....	7	do	62
4th do.....	3	do	37	St. John's.....	5	do	62
5th do.....	5	Que.	38	Toronto.....	2	Ont.	63
6th do.....	5	do	40	Yarmouth.....	9	N.S.	64
8th Regt.....	8	N.B.	41				
King's Troop.....	9	N.S.	43				
Prescott do.....	4	Ont.	43				
Princess Louise Dragoon Guards	4	do	43				
Queen's Own Canadian Hussars.	7	Que.	42				
Winnipeg Troop.....	10	Man.	44				
				<i>Mountain Artillery.</i>			
				Sault Ste. Marie.....	2	Ont.	64
<i>Field Artillery.</i>							
1st P. Brigade.....	1	Ont.	45				
Durham.....	3	do	46				
Gananoque.....	4	do	46				
Hamilton.....	2	do	47				
Kingston.....	3	do	47				
London.....	1	do	47				
Montreal.....	5	Que.	48				
Newcastle.....	8	N.B.	48				
Ottawa.....	4	Ont.	49				
Quebec.....	7	Que.	49				
Richmond.....	5	do	50				
Shefford.....	5	do	50				
Sydney.....	9	N.S.	51				
Toronto.....	2	Ont.	51				
Welland Canal.....	2	do	51				
Winnipeg.....	10	Man.	52				
Woodstock.....	8	N.B.	52				
				<i>Engineers.</i>			
				Brighton Company.....	8	N.B.	63
				Charlottetown Company.....	12	P.E.I.	63
				Montreal Company.....	5	Que.	64
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				School Mounted Infantry.....			33
				1st Batt. Governor General's			
				Foot Guards.....	4	Ont.	65
				1st Battalion.....	5	Que.	66
				2nd do.....	2	Ont.	67
				3rd do.....	5	Que.	69
				4th do.....			
				5th do.....	5	Que.	70
				6th do.....	5	do	71
				7th do.....	1	Ont.	72
				8th do.....	7	Que.	74
				9th do.....	7	do	75
				10th do.....	2	Ont.	77
				11th do.....	5	Que.	79
				12th do.....	2	Ont.	80
				13th do.....	2	do	82
				14th do.....	3	do	83
				15th do.....	3	do	84
				16th do.....	3	do	85
				17th do.....	7	Que.	87
				18th do.....	4	Ont.	88
				19th do.....	2	do	90
				20th do.....	2	do	91
				21st do.....	1	do	93
				22nd do.....	1	do	94
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Collingwood.....	2	do	59				
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Gaspé.....	7	Que.	59				
Halifax, 1st Brigade.....	9	N.S.	53				
Levis, No. 1.....	7	Que.	60				
do No. 2.....	7	do	60				
Lunenburg.....	9	N.S.	60				
Mahone Bay.....	9	do	60				
Montreal Brigade.....	5	Que.	55				
New Brunswick Brigade.....	8	N.B.	56				

Corps.	Military District.	Province.	Column.	Corps.	Military District.	Province.	Column.
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23rd Battalion.....	7	Que.	96	66th Battalion.....	9	N.S.	171
24th do.....	1	Ont.	98	67th do.....	8	N.B.	172
25th do.....	1	do	99	68th do.....	9	N.S.	174
26th do.....	1	do	101	69th do.....	9	do	177
27th do.....	1	do	103	70th do.....	7	Que.	179
28th do.....	1	do	105	71st do.....	8	N.B.	180
29th do.....	1	do	106	72nd do.....	9	N.S.	182
30th do.....	1	do	108	73rd do.....	8	N.B.	184
31st do.....	2	do	110	74th do.....	8	do	185
32nd do.....	1	do	112	75th do.....	9	N.S.	187
33rd do.....	1	do	114	76th do.....	6	Que.	188
34th do.....	2	do	116	77th do.....	2	Ont.	190
35th do.....	2	do	118	78th do.....	9	N.S.	191
36th do.....	2	do	120	79th do.....	5	Que.	193
37th do.....	2	do	122	80th do.....	6	do	195
38th do.....	2	do	123	81st do.....	7	do	196
39th do.....	2	do	126	82nd do.....	12	P.E.I.	198
40th do.....	3	do	128	83rd do.....	6	Que.	200
41st do.....	4	do	130	84th do.....	6	do	201
42nd do.....	4	do	131	85th do.....	6	do	203
43rd do.....	4	do	133	86th do.....	6	do	204
44th do.....	2	do	135	87th do.....	7	do	206
45th do.....	3	do	137	88th do.....	7	do	207
46th do.....	3	do	138	89th do.....	7	do	209
47th do.....	3	do	140	90th do.....	10	Man.	211
48th do.....				91st do.....			
49th do.....	3	Ont.	142	92nd do.....	7	Que.	213
50th do.....	5	Que.	143	93rd do.....	9	N.S.	214
51st do.....	5	do	146	94th do.....	9	do	215
52nd do.....	5	do	148				
53rd do.....	5	do	149				
54th do.....	5	do	151				
55th do.....	7	do	152				
56th do.....	4	Ont.	154				
57th do.....	3	do	156				
58th do.....	5	Que.	158				
59th do.....	4	Ont.	160				
60th do.....	5	Que.	162				
61st do.....	7	do	164				
62nd do.....	8	N.B.	165				
63rd do.....	9	N.S.	166				
64th do.....	6	Que.	167				
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				Sault Ste. Marie.....	2	Ont.	218
				St. Boniface.....	10	Man.	218
				St. Jean Baptiste.....	10	do	219
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## List of Active Militia Corps

No. 1. Ont.	No. 2. Ont.	No. 3. Ont.	No. 4. Ont.	No. 5. Que.	No. 6. Que.
<i>Cavalry.</i>	<i>Cavalry.</i>	<i>Cavalry.</i>	<i>Cavalry.</i>	<i>Cavalry.</i>	
1st Regiment.	Governor General's Body Guard 2nd Regiment.	3rd P. Regiment 4th "	Prescott Troop, Princess Louise Dragoon Guards.	5th P. Regiment. 6th "	
<i>Field Batteries.</i>	<i>Field Batteries.</i>	<i>Field Batteries.</i>	<i>Field Batteries.</i>	<i>Field Batteries.</i>	
1st P. Brigade, London.	Hamilton. Toronto. Welland Canal.	Durham. Kingston.	Gananoque. Ottawa.	Montreal. Richmond. Shefford.	
<i>Garrison Artillery.</i>	<i>Garrison Artillery.</i>	<i>Garrison Artillery.</i>	<i>Garrison Artillery.</i>	<i>Garrison Artillery.</i>	
	Collingwood Battery. Toronto Battery.	" A " Battery, R.C.A. Cobourg Battery.		Montreal Brigade. St John's Battery.	
	<i>Mountain Artillery.</i>				
	Sault Ste. Marie.				
				<i>Engineers.</i>	
				Montreal Company.	

## by Military Districts.

No. 7. Que.	No. 8. N.B.	No. 9. N.S.	No. 10. Man., N.W.T. and Kew.	No. 11. B.C.	No. 12. P.E.I.
<i>Cavalry.</i>	<i>Cavalry.</i>	<i>Cavalry.</i>	<i>Cavalry.</i>		
Cavalry School. Queen's Own Canadian Hussars.	8th Regiment.	King's Troop.	Winnipeg Troop.		
<i>Field Batteries.</i>	<i>Field Batteries.</i>	<i>Field Batteries.</i>	<i>Field Batteries.</i>		
Quebec.	Newcastle. Woodstock.	Sydney.	Winnipeg.		
<i>Garrison Artillery.</i>	<i>Garrison Artillery.</i>	<i>Garrison Artillery.</i>		<i>Garrison Artillery.</i>	<i>Garrison Artillery.</i>
" B " Battery R.C.A. Gaspé Battery. Levis No. 1 Battery. Levis No. 2 Battery. Quebec No. 1 Battery. Quebec No. 2 Battery. Quebec No. 3 Battery.	New Brunswick Brigade.	Digby Battery. Halifax 1st Brigade. Lunenburg Battery. Mahone Bay Battery. Pictou Battery. Yarmouth Battery.		" C " Battery R.C.A. B.C. Provisional Regiment.	P. E. Island Provisional Brigade.
	<i>Engineers.</i>				<i>Engineers.</i>
	Brighton Company.				Charlottetown Company.