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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

A Journal Devoted to the Interests of the Military and Naval Forces of the Dominion of "Canada"

VOL. - VII.

OTTAWA, (CANADA,) TUESDAY, APRIL 22, 1873.

No 16.

NEWS OF THE WEEK.

Under date of the 17th inst., London despatches say a rumour from Alexandria, Egypt, states that Sir Samuel Baker and wife were murdered in the interior of Africa by the natives. They were with the Egyptian expedition up the Nile.

A severe thunderstorm occurred in Wales on the 16th inst. The crops were injured and several persons struck by the lightning and killed.

The weather throughout England is fair and favorable to crops.

A despatch from Rome says on Thursday (10th) the condition of the Pope was the cause of much anxiety.

The usual Easter services in the Catholic Churches in England, will be curtailed in consequence of his sickness.

The German Army will evacuate France in July, every place will be given up except Verdun which will be retained till the last half milliard of francs of the indemnity are paid.

Gen. Manteuffel, commander of the German army of occupation, gave a dinner to day (16th April) at Nancy in honor of the birthday of President Thiers.

Mario Girardin died suddenly on the 11th inst., of apoplexy.

Revolution seems to be the order of the day in Spain, especially as far as it relates to fighting, murder, and plunder.

A despatch from Perpignan says the Carlists retreated from before Puigcerda, in consequence of the arrival of three columns of Spanish troops to reinforce the garrison of the town. The Carlists, however, say they abandoned the attack, and withdrew because they would not fight on Good Friday. They also say that they intend to return and renew the attack. Don Carlos arrived in Perpignan before the attack on Puigcerda commenced, and there awaited the result.

The force of Carlists, under Saballo, which attacked Puigcerda, was 1,000 strong, while the defenders of the town numbered 500, of whom only 56 were soldiers. After a fusillade of 34 hours duration the ammunition of the Republicans became exhausted, and the Alcalde of Puigcerda, sent for reinforcements

which arrived too late to participate in the fighting, as the Carlists had ceased their attack, and withdrawn from before the town. The Insurrectionists carried their wounded with them, and buried the bodies of their dead.

Many Carlists are surrendering to the Government troops in the North in the hope of receiving amnesty.

It is reported that a son of Prince Henry of Bourbon, who took up arms in the cause of Don Carlos, was killed in the late engagement of the detachment under Siballo, which before the attack on Panguorda, was sent to hamper the march of the troops sent to the relief of that town, and was repulsed by the Republican troops and lost 300 men exclusive of the prisoners.

Additional reinforcements of troops arrived at Puigcerda, where they were received with great enthusiasm by the populace. The Carlists are again threatening the town.

The Government has received intelligence of the crushing defeat by the Republicans of a Carlist force at San Lorenzo de la Muga, in the Province of Gerona.

A report that the Spanish troops in Porto Rico revolted against the Government is untrue. They merely asked for an increase of their pay, which was granted, and no demonstration was made.

To add to the complications afflicting that unhappy country, advices via New York from Cuba, under date 14th March, states that General Farcia, commander of the Eastern Department, says reconciliation with Spain is impossible, except on the basis of Independence. The only terms the Cubans have to offer are that the Spaniards shall go away and leave Cubans to take care of their own future. They have no faith in the permanent establishment of the Spanish Republic.

As this intelligence is contained in a telegram to the New York *Herald* it must be taken *cum grano salis*.

From Fort Garry advices of the 14th state that rumours have reached Winnipeg that the Sioux and some of the Ontario settlers on the third crossing of White Mud river have come in collision, and that some of the

latter have been shot and a house burned. There are Sioux settled in that quarter, but the story is probably exaggerated. A body of volunteers enrolled in Stanaro will, it is said, be sent to that quarter to protect the settlers. It is about one hundred miles from Fort Garry.

The *Manitoba* publishes a statement of the work of the boundary Commission so far. Captain Cameron constructed for this party a barracks at North Pembina, at a cost of \$20,000, the American division having run a line last fall thirty-eight miles eastward from Red River. It was arranged that Captain Cameron's party should cut out a line through the woods, west of the Lake of the Woods. During the winter this was done, and enables the Commissioners to be able to start west in May. No part of the boundary line surveyed and marked will be formally agreed upon by the Commissioners until observations of both are rigidly scrutinized.

Under date of the 17th inst., rumours about the Sioux murders were exaggerated. No one hurt. The snow storm continue. Red River is reported open at Fort Abercrombie, and the water is said to be very high.

Yeddo, Japan, advices say Count Te, the Italian envoy, has brought about an agreement with the Japanese Government which, if duly ratified, will enable Italian citizens to visit and reside in all parts of this empire with absolute freedom. This is a favor which other Ministers have eagerly coveted, though none of them have been willing to obtain it, or to show a disposition to accept the only conditions on which it could be granted.

A letter from Essen says there will be sent to the Vienna Exhibition from the cannon foundry of Herr Krupp, two specimens of his "big guns" that surpass anything of the kind the establishment has hitherto produced. The first is a brass gigantic brass cannon, the tube of which will be 670 metres in length, and 1.46 metre in diameter, and which will weigh 760 quintals, or 38,000 kilogrammes. The second is manufactured of one block of brass four metres long and 1.50 metre in diameter, of the weight of 1,000 quintals, or 50,000 kilogrammes. These two model guns are to be despatched to Vienna toward the middle of the month by special train, via Giesen, Nuromberg, and Pönnau.

THE NEW INFANTRY SUB-DISTRICTS.

The following is a list, compiled from the *Army List* for March, of the distribution of all the Infantry (except the Guards) of the Regular and Auxillary forces in Great Britain under the new regulations. It will, of course, be recollected that not only is one of the two regular battalions comprised in each sub district supposed to be always on foreign service, but that it is not even intended that the other regular battalions should be quartered at the brigade depot:—

No. 1.

NORTHUMBERLAND.

Brigade Depot—Newcastle-on-Tyne.
Lieut. Col.—H. D'O'Torrens, C.B. Col.
Line—5th Northumberl'd Fusiliers, 1st Batt.
" " " " 2nd Batt.
Militia—Northumberland Light Infantry.
2nd Northumberland.
Volunteers—1st Northumberland Ad Batt.
8th " " RVC.
1st Newcastle " "

No. 2

CUMBERLAND AND WESTMORELAND.

Brigade Dept.—Carlisle.
Lieut. Col.—E. Newdigate, CB. Col.
Line—34th Regiment.
" " " " 55th " "
Militia—Royal Cumberland.
" " Westmoreland.
Volunteers—1st Cumberland Ad Batt.
1st Westmoreland " "

No. 3.

DURHAM.

Brigade Depot—Sunderland.
Lieut. Col.—H. H. Morant, Colonel.
Line—68th Light Infantry.
106th Bombay Light Infantry.
Militia—1st Durham (Fusiliers).
2nd North Durham.
Volunteers—1st Durham Ad Batt.
2nd " " "
3rd " " "
4th " " "
3rd " " RVC.

No. 4.

NORTH RIDING OF YORK.

Brigade Depot—Richmond.
Lieut. Col.—A. A. Chapman, Col.
Line—19th Regiment, 1st Batt.
" " " " 2nd Batt.
Militia—North York Rifles.
2nd North York.
Volunteers—1st North York Ad Batt.
2nd " " " "

No. 5.

EAST RIDING OF YORK.

Brigade Depot—Beverley.
Lieut. Col.—J. Gubbins, Col.
Line—15th Regiment, 1st Batt.
" " " " 2nd Batt.
Militia—East York.
2nd East York.
Volunteers—1st East York, Ad Batt.
1st " " RVC.

No. 6.

WEST RIDING OF YORK.

Brigade Depot—York.
Lieut. Colonel—J. Nason, Col.
Line—25th K.O. Borderers, 1st Batt.
" " " " 2nd Batt.
Militia—5th West York.
2nd " " Light Infantry.
Volunteers—1st West York Ad Batt.

No. 7.

WEST RIDING OF YORK.

Brigade Depot—Doncaster.
Lieut. Colonel—T. Lightfoot C. B. Col.
Line—65th Regiment.
84th " "
Militia—3rd West York Light Infantry.
Volunteers—4th West York Ad Batt.
2nd " " RVC.

No. 8.

WEST RIDING OF YORK.

Brigade Depot—Doncaster.
Lieut. Colonel—G. B. Harman, Col.
Line—51st K.O. Light Infantry.
104th Bombay Light Infantry.
Militia—1st West York Rifles.
Volunteers—3rd West York Ad Batt.
7th " " RVC.

No. 9.

WEST RIDING OF YORK.

Brigade Depot—Bradford.
Lieut. Colonel—J. E. Collings, C. B. Col.
Line—33rd (Duke of Wellington's Regt).
76th Regiment.
Militia—6th West York.
Volunteers—2nd West York Ad Batt.
3rd " " RVC.
29th " " "
4th " " "

No. 10.

WEST RIDING OF YORK.

Brigade Depot—Bradford.
Lieut. Colonel—F. G. Hibbert, Col.
Line—14th Regiment, 1st Batt.
" " " " 2nd Batt.
Militia—4th West York.
Volunteers—5th West York Ad Batt.
29th " " RVC.
34th " " "

No. 11.

LANCASHIRE.

Brigade Depot—Lancaster.
Lieut. Colonel—W. Wiley, CB. Col.
Line—4th K O Royal 1st Batt.
" " " " 2nd Batt.
Militia—1st Royal Lancashire.
Volunteers—5th Lancashire Ad Batt.

No. 12.

LANCASHIRE.

Brigade Depot—Preston.
Lieut. Colonel—R. J. Feilden, CMG. Col.
Line—47th Regiment,
81st " "
Militia—3rd Royal Lancashire.
Volunteers—6th Lancashire Ad Batt.
27th " " RVC.
82nd " " "

No. 13.

LANCASHIRE.

Brigade Depot—Warrington.
Lieut. Colonel—J. C. H. Jones, Col.
Line—8th King's, 1st Batt.
" " " " 2nd Batt.
Militia—2nd Royal Lancashire.
Volunteers—1st Lancashire RVC.
13th " " "
48th " " "
54th " " "
5th " " "
15th " " "
64th " " "
30th " " "

No. 14.

LANCASHIRE.

Brigade Depot—Warrington.
Lieut. Colonel—W. Drysdale, CB. Col.
Line—40th Regiment.
82nd " "

Militia—4th Royal Lancashire.
Volunteers—8th Lancashire, RVC.
47th " " "

No. 15

LANCASHIRE.

Brigade Depot—Burnley.
Lieut. Colonel—E. Senger, Col.
Line—30th Regiment.
59th " "
Militia—5th Royal Lancashire.
Volunteers—3rd Lancashire Ad Batt.
8th " " "

No. 16,

LANCASHIRE.

Brigade Depot—Ashton.
Lieut. Colonel—R. W. Lary, Col.
Line—63rd Regiment.
66th " "
Militia—6th Royal Lancashire.
Volunteers—4th Lancashire Ad Batt.
7th " " "
6th " " RVC.
33rd " " "
40th " " "
56th " " "

No. 17

LANCASHIRE.

Brigade Depot—Bury.
Lieut. Colonel—W. A. Stratton, Col.
Line—20th Regiment, 1st Batt.
" " " " 2nd Batt.
Militia—7th Royal Lancashire Rifles.
Volunteers—8th Lancashire RVC.
24th " "

No. 18.

CHESHIRE.

Brigade Depot—Chester.
Lieut. Colonel—D. Anderson, Col.
Line—22nd Regiment, 1st Battalion.
" " " " 2nd Batt.
Militia—1st Royal Cheshire Light Infantry.
2nd Royal Cheshire.
Volunteers—1st Cheshire Ad Batt.
2nd " " "
3rd " " "
4th " " "
5th " " "

No. 19.

STAFFORD.

Brigade Depot—Lichfield.
Lieut. Colonel—L. E. Knight, Col.
Line—38th Regiment.
98th " "
Militia—2nd K O Stafford Light Infantry.
1st K O Stafford.
Volunteers—1st Staffordshire Ad Batt.
2nd " " "

No. 20.

STAFFORD.

Brigade Depot—Lichfield.
Lieut. Colonel—Fra Peyton, Col.
Line—64th Regiment.
98th " "
Militia—3rd K O Stafford.
4th Stafford.
Volunteers—3rd Stafford Ad Batt.
4th " " "
5th " " "

No. 21.

SHROPSHIRE.

Brigade Depot—Shrewsbury.
Lieut. Colonel—F. G. Wilkinson, Col.
Line—43rd Light Infantry.
53rd Regiment.
Militia—Shropshire.
2nd Shropshire.
Volunteers—1st Shropshire Ad Batt.
2nd " " "

No. 22

WORCESTERSHIRE AND HEREFORDSHIRE.
 Brigade Depot . Worcester.
 Lieut.Colonel . E. G. Bilmer, C. B. Col.
 Line . 29th Regiment .
 36th "
 Militia . Worcester.
 Herefor.l.
 Volunteers . 1st Worcestershire Ad Batt.
 2nd "
 1st Herefordshire "

No. 23.

ANGLESEY, CARNARVON, DENBIGH, FLINT,
 MERIONETH, MONTGOMERY.
 Brigade Depot . Wrexham.
 Lieut.Colonel . E.W.D. Bell, V.C. Col.
 Line . 23rd Royal Welsh Fusiliers, 1st Batt.
 " " 2nd Batt.
 Militia . Royal Flint Rifles.
 Royal Denbigh Rifles.
 Royal Carnarvon Rifles.
 Royal Montgomery Rifles.
 Royal Merioneth Rifles.
 Royal Anglesey Light Infantry.
 Volunteers . 1st Carnarvonshire Ad Batt.
 1st Denbighshire Ad Batt.
 1st Flintshire Ad Batt.

No. 24.

PEMBROKE, CARMARTHEN, GLAMORGAN.
 Brigade Depot . Cardiff.
 Lieut.Colonel . R. White, Col.
 Line . 41st Regiment.
 59th "
 Militia . Royal Glamorgan Light Infantry.
 2nd Glamorgan.
 Volunteers . 1st Pembrokeshire Ad Batt.
 1st Carmarthenshire Ad Batt.
 1st Glamorganshire Ad Batt.
 2nd "
 3rd Glamorganshire RVC.
 4th "
 5th "

No. 25.

CARDIGAN, RADNOR, BRECON, MONMOUTH.
 Brigade Depot . Brecon.
 Lieut.Colonel . E. Wodehouse, Col.
 Line . 24th Regiment, 1st Batt.
 " 2nd Batt.
 Militia . Royal Monmouth Light Infantry.
 Royal Radnor Rifles.
 Royal Cardigan "
 Royal Brecon "
 Volunteers . 1st Brecknockshire Ad Batt,
 1st Monmouthshire "
 2nd "
 2nd " RVC.

No. 26.

DERBY.
 Brigade Depot . Derby.
 Lieut.Colonel . J.R.S. Sayer, C.B. Col.
 Line . 54th Regiment.
 85th "
 Militia . 2nd Derby Rifles.
 2nd "
 Volunteers . 1st Derbyshire Ad Batt.
 2nd "

No. 27.

NOTTS, LEICESTER.
 Brigade Depot . Leicester.
 Lieut.Colonel . W. Rickman, Col.
 Line . 17th Regt. 1st Batt.
 " 2nd Bat.
 45th Regiment.
 Militia . Leicester.
 2nd Leicester.
 Nottingham.
 Volunteers . 1st Leicester.
 1st Notts AB.
 1st Notts RVC.

No. 28.

WARWICK.
 Brigade Depot . Warwick.
 Lieut.Colonel . R. W. M. Fraser, Col.
 Line . 6th Regiment, 1st Batt.
 " 2nd Batt.
 Militia . 1st Warwick.
 2nd "
 Volunteers . 1st Warwick AB.
 1st " RVC.

No. 29.

NORTHAMPTON, RUTLAND.
 Brigade Depot . Northampton.
 Lieut.Colonel . J.G. R. Alpin, Col.
 Line . 48th Regiment.
 53th "
 Militia . Northampton and Rutland.
 2nd Northampton and Rutland.
 Volunteers . 1st Northamptonshire AB.

No. 30.

LINCOLN.
 Brigade Depot . Lincoln.
 Lieut.Colonel . L. Farrington, Col.
 Line . 10th Regiment, 1st Batt.
 " 2nd Batt.
 Militia . Royal N Lincoln.
 " S "
 Volunteers . 1st Lincolnshire AB.
 2nd "

No. 31.

NORFOLK.
 Brigade Depot . Yarmouth.
 Lieut.Colonel . T.E. Knox, C.B. Col.
 Line . 9th Regiment, 1st Batt.
 " 2nd Batt.
 Militia . West Norfolk.
 East "
 Volunteers . 1st Norfolk RVC.
 2nd "
 3rd "
 4th "

No. 32.

SUFFOLK, CAMBRIDGE
 Brigade Depot . Bury St. Edmunds.
 Lieut.Colonel . H.M. Hamilton, Col.
 Line . 12th Regiment, 1st Batt.
 " 2nd Batt.
 Militia . West Suffolk.
 Cambridge.
 Volunteers . 1st Suffolk AB.
 2nd "
 3rd "
 1st Cambridge AB.
 3rd "

No. 33.

HUNTINGDON, BEDFORD, HERTFORD.
 Brigade Depot . Bedford.
 Lieut.Colonel . E.W. Donovan, Col.
 Line . 16th Regiment, 1st Battalion.
 " 2nd Battalion.
 Militia . Huntingdon Rifles.
 Bedford Light Infantry.
 Hertford.
 Volunteers . 1st Bedfordshire Ad Batt.
 1st Hertford "
 2nd "

No. 34.

DEVONSHIRE.
 Brigade Depot . Exter.
 Lieut.Colonel . A.Scudamore, C.B. Col.
 Line . 11th Regiment, 1st Battalion.
 " 2nd Battalion.
 Militia . 2nd Devon.
 1st "
 Volunteers . 1st Devonshire Ad Batt.
 2nd "
 3rd "
 4th "
 1st " RVC.

No. 35.

CORNWALL.
 Brigade Depot . Bodmin.
 Lieut.Colonel . J.E. Thackwell, C.B. Col.
 Line . 32nd Regiment.
 46th "
 Militia . Cornwall Rangers.
 2nd Cornwall.
 Volunteers . 1st Cornwall Ad Batt.
 2nd "

No. 36.

SOMERSET.
 Brigade Depot . Taunton.
 Lieut.Colonel . G. Mein, Col.
 Line . 13th Light Infantry, 1st Batt.
 " 2nd Batt.
 Militia . 1st Somerset.
 2nd "
 Volunteers . 1st Somerset Ad Batt.
 2nd "
 3rd "

No. 37.

GLOUCESTER.
 Brigade Depot . Bristol.
 Lieut.Colonel . Hon. J.J. Bourke, Col.
 Line . 28th Regiment.
 61st "
 Militia . R S Gloucester.
 R N "
 Volunteers . 1st Gloucester Ad Batt.
 " RVC.

No. 38.

WILTSHIRE.
 Brigade Depot . Devizes.
 Lieut.Colonel . W.H. Parish, C.B. Col.
 Line . 62nd Regiment
 99th "
 Militia . Royal Wiltshire.
 2nd "
 Volunteers . 1st Wilts Ad Batt.
 2nd "

No. 39.

DORSET.
 Brigade Depot . Dorchester.
 Lieut.Colonel . A.B. Hankey, Col.
 Line . 39th Regiment.
 75th "
 Militia . Dorset.
 2nd Dorset.
 Volunteers . 1st Dorset Ad Batt.

No. 40.

HAMPSHIRE.
 Brigade Depot . Winchester.
 Lieut.Colonel . J.W. Thomas, C.B. Col.
 Line . 37th Regiment.
 67th "
 Militia . Hampshire.
 2nd Hampshire.
 Volunteers . 1st Hampshire Ad Batt.
 2nd "
 4th "
 1st Isle of Wight Ad Batt.

No. 41.

BERKSHIRE.
 Brigade Depot . Reading.
 Lieut.Colonel . S.W.P. Bingham, C.B. Col.
 Line . 49th Regiment.
 66th "
 Militia . Royal Berks.
 Volunteers . 1st Berks Ad Batt.

No. 42.

OXFORD, BUCKS.
 Brigade Depot . Oxford.
 Lieut.Colonel . C.J.C. Mills, Col.
 Line . 52nd Light Infantry.
 85th "

Militia—Royal Bucks.
Oxford.
Volunteers—1st Oxford Ad Batt.
" RVC.
" Bucks Ad Batt.
No. 43.
SUSSEX.

Brigade Depot—Chichester.
Lieut.Colonel—W.Hardy, C.B. Col.
Line—35th Regiment.
107th "
Militia—Royal Sussex.
2nd "
Volunteers—1st Cinque Ports Ad Batt.
1st Sussex Ad Batt.
2nd "
1st " RVC.

No. 44.
ESSEX.

Brigade Depot—Warley.
Lieut.Colonel—J.J. Hort, Col.
Line—44th Regiment.
56th "
Militia—Essex Rifles.
West Essex.
Volunteers—1st Essex Ad Batt.
3rd "
5th " RVC
9th "

No. 45.
KENT.

Brigade Depot—Canterbury.
Lieut.Colonel—W.H. Kirby, Col.
Line—3rd Buffs, 1st Batt.
" 2nd Batt.
Militia—East Kent.
2nd "
Volunteers—2nd Cinque Ports Ad Batt.
4th Kent Ad Batt.
5th "

No. 46.
KENT.

Brigade Depot—Maidstone.
Lieut.Colonel—E.T. Gloster, Col.
Line—50th Regiment.
97th "
Militia—West Kent Light Infantry.
2nd West Kent.
Volunteers—1st Kent Ad Batt.
2nd "
3rd "

No. 47.
SURREY.

Brigade Depot—Kingston.
Lieut.Colonel—G.H. Page, Col.
Line—31st Regiment.
70th "
Militia—1st Royal Surrey.
3rd "
Volunteers—1st Surrey Ad Batt.
2nd "
1st "
7th "

No. 48.
SURREY.

Brigade Depot—Guilford.
Lieut.Colonel—A.H.L. Fox, Col.
Line—2nd Queen's Royals, 1st Batt.
" 2nd Batt.
Militia—2nd Royal Surrey.
4th Surrey.
Volunteers—3rd Surrey Ad Batt.
4th "
2nd " RVC.
19th "

No. 49.
MIDDLESEX, METROPOLITAN.
Brigade Depot—Woolwich.
Lieut.Colonel—R.Y. Shipley, C.B. Col.
Line—7th Royal Fusiliers, 1st Batt.
" 2nd Batt.
Militia—2nd R Tower Hamlets.
1st "
Volunteers—26th Kent RVC.
40th Middlesex RVC.
46th "
49th "
1st Tower Hamlets Ad Batt.
1st " RVC.
6th "

No. 50.
MIDDLESEX, METROPOLITAN.
Brigade Depot—Woolwich.
Lieut.Colonel—G.W.T. Rich, CB. Col.
Line—57th Regiment.
77th "
Militia—RE Middlesex,
R London.
Volunteers—3rd London RVC.
2nd Middlesex Ad Batt.
7th "
15th " RVC.
29th " "
33th " "

Nos. 51, 52, 53, 54.
Rifle Depot—Winchester.
Lieut.Colonel—F.R. Elrington, Col.
Line—60th Rifles, 1st Batt.
" 3rd "
" 2nd "
" 4th "
Rifle Brigade, 1st Batt.
" 3rd Batt.
" 2nd "
" 4th "
Militia—2nd Middlesex (Edmonton) Rifles.
3rd Royal Westminster.
5th " South Middlesex.
5th " R Elthorn.
Volunteers—1st London RVC.
2nd "
2nd Middlesex RVC.
4th "
9th "
18th "
11th "
1st "
17th "
20th "
21st "
22nd "
23rd "
26th "
28th "
36th "
37th "
39th "

No. 55.
ORKNEY AND SHETLAND.
SUTHERLAND, CAITHNESS, ROSS, CROMARTY,
INVERNESS, NAIRN, AND ELGIN.
Brigade Depot—Fort George.
Lieut. Colonel .P. Bayly, Col.
Line—71st Highland Light Infantry.
73th Ross-shire Buffs.
Militia—Highland Light Infantry.
" Rifles.
Volunteers—1st Elgin Ad Batt.
1st Inverness Ad Batt.
1st Ross shire "
1st Sutherland "

No. 56.
ABERDEEN, BANFF, KINGARDINE.
Brigade Depot—Aberdeen.
Lieut. Colonel .E.S.F.G. Dawson, Col.

Line—92nd Gordon Highlanders.
93rd Sutherland "
Militia—Royal Aberdeenshire Highlanders,
2nd Aberdeen.
Volunteers—1st Aberdeenshire AB.
2nd "
3rd "
1st " RVC.
1st Banffshire AB.
1st Kincardine "

No. 57,
FORFAIR, PERTH, FIFE.
Brigade Depot—Perth.
Lieut.Colonel—A.R. Harenc, Col.
Line—42nd R. Highlanders.
79th Cameron Highlanders.
Militia—Royal Perth Rifles.
Forfair.
Volunteers 1st Fifeshire AB.
1st "
1st " RVC.
10th "
1st Perthshire AB.
2nd "

No. 58.
KINROSS AND CLACKMANNAN, STIRLING, DUM-
BARTON, ARGYLL, BUTE, RENFREW.
Brigade Depot—Stirling.
Lieut.Colonel—W. Hope, CB. Col.
Line—72nd Highlanders.
91st "
Militia—Highland Borderers, Light Infantry.
Renfrew.
Volunteers—1st Argyllshire AB.
1st Clackmannan AB.
1st Dumbarton "
1st Renfrewshire "
2nd "
3rd "
1st Stirlingshire.

No. 59.
LANARK.
Brigade Depot—Hamilton.
Lieut.Colonel—F. Carey, Col.
Line—26th Cameronians.
74th Highlanders.
Militia—1st Royal Lanark.
3rd Lanark.
Volunteers—1st Lanark AB.
4th "
1st " RVC.
3rd "
4th "
5th "

No. 60.
LANARK.
Brigade Depot—Hamilton.
Lieut.Colonel—W. Gordon, CB. Col.
Line—73rd Regiment.
90th Light Infantry.
Militia—2nd Royal Lanark.
4th Lanark.
Volunteers—3rd Lanarkshire AB.
18th " RVC.
25th " "
31st " "
105th " "

No. 61.
AYR, WIGTOWN, KIRKCUDBRIGHT,
DUMFRIES, SELKIRK, ROXBURGH.
Brigade Depot—Ayr.
Lieut.Colonel—
Line—21st R.N.B. Fusiliers, 1st Batt.
" 2nd Batt.
Militia—The Scottish Borderers.
Royal Ayr and Wigtown.
Volunteers—1st Ayrshire Ad Batt.
1st Dumfriesshire Ad Batt.
1st Galloway "
1st Roxburgh

No. 62.

EDINBURGH, PEEBLES, HADDINGTON, BERWICK,
LINLITHGOW.Brigade Depot. Greenlaw.
Lieut. Colonel. R.L. Ross, CB. Col.
Line. 1st Royal Scots, 1st Batt
" 2nd Batt.Militia. Edinburgh Light Infantry.
The Lothians.Volunteers. 1st Berwick Ad Batt.
1st Edinburgh RVC.
3rd " "
1st Haddington Ad Batt.
1st Linlithgow " "
1st Midlothian " "
" RVC.

TORPEDOES IN NAVAL ACTIONS.

[From the *Lion* in Engineer.]

It may be interesting briefly to glance through the torpedo question, as it affects offensive and naval warfare, and to show what, in our opinion, is its present position. Without entering into the details of the numberless projects invented of late, which would occupy far too much time, we will rapidly examine three principal systems of offensive torpedoes, or torpedo vessels, specially constructed for this service, which are capable of being launched in a fixed direction, and of preserving it under water, thus striking an enemy at a certain distance. This is known as the Whitehead system. The torpedo vessels carries a horizontal tube, usually in the bow and in a line with the keel, at a depth of about eight feet below the surface. The torpedo is projected and worked by compressed air, and attains a speed of from six to seven knots, preserving a constant depth below the surface. As the apparatus proceeds its speed decreases, owing to a diminution in the expansive force of the compressed air; nevertheless, we may estimate its average speed at six knots. At the moment of launching it is necessary to reduce the speed of the torpedo vessel so that it shall be a knot or a knot and a half inferior to that of the torpedo. This precaution is essential to avoid accident. The necessary slackening of speed is one of the inconveniences inherent to the Whitehead system, and one which may bring about the most serious consequences to the attacking ship. It is easy to comprehend the danger of slackening speed just when within reach of an alarmed and ready adversary. On the other hand, as the torpedo has to be projected towards a moving object, it is not difficult to see that uncertainty of result increases rapidly with the distance of the vessel attacked. To achieve success the torpedo vessel must take into consideration the course of the vessel attacked, must accurately estimate her speed, and must then manœuvre so as to place her bow at a projecting angle very difficult to determine with such problematical data. It is not necessary to dwell upon the details of the Whitehead torpedo; from the slight sketch we have given the extreme importance of skilful handling of the torpedo vessel will be appreciated. She should endeavour to approach as near as possible, and, taking into consideration the speed and course of the enemy, project the torpedo so as to strike her bilge, then make off as fast as possible and prepare a fresh track. The tube or cannon which projects the torpedo being placed on a line with the keel, it follows that the captain must be a suitable manœuvrer, place the bow of his vessel so that the direction of her keel passes a cer-

tain distance ahead of the enemy, in order that the torpedo, by its own velocity, may arrive at the point where the two courses meet at the same instant as the vessel attacked. Sailors know the difficulties attending the attempt to ram an adversary; they ought to be able to tell us whether any practical result can be arrived at in estimating by the eye alone the course, distance, and speed of a moving target. However seductive this system of torpedoes may appear in theory, we are forced to the conclusion that it in no way strengthens the attack in the open sea on an enemy who is master of his movements. Looking to the results of a long series of experiments by the Torpedo Committee, that at a distance of about 300 yards a torpedo projected from a vessel at rest against another vessel at rest in still water or a moderate tideway has a fair chance of striking her, we are confirmed in the opinion we have all along held viz., that the Whitehead system is not applicable to naval actions on the high seas, however successfully it may be used for the defence of ports on the attack of ships which commit the grave imprudence of remaining at anchor on an enemy's coast.

The second system is that of carrying torpedoes fixed at the extremity of spars projecting from the bow of a ship, sometimes above and sometimes below the water (a system much used by Americans during the war, and since then largely developed by them) depends, as a rule, for success on the power the attacking ship has of concealing her movements, whether by fog, darkness, or other causes, so as to take her adversary by surprise. For this purpose small vessels presenting but little surface above the water, have generally been used; nor have the insuperable difficulties and dangers of submarine boats entirely prevented their application to this purpose by desperate and determined men; at the same time their employment has necessarily been limited to calm waters and the vicinity of a port. The impossibility, notwithstanding great efforts and many experiments, of employing so delicate an agent as electricity in the explosion of these torpedoes, and the extreme danger in the confusion of a sea-fight of using mechanical or self acting exploders, have prevented the application of this system to large ships. Hence we may say that this system also is inapplicable to actions on the high seas.

The last system, of which Captain Harvey's torpedo may be considered as a representative, is that of towing torpedoes. In this system two torpedoes are towed, one on each quarter, at a lateral distance of about fifty yards from the vessel's track. They remain at the surface until shortly before striking, when, by slackening the tow line the torpedo is dropped under the enemy's bottom and explodes upon contact.

The advantage of this system over the others is that the torpedo can be towed for defensive purposes from almost any vessel, and that it then adds largely to security against being rammed. The attack can be delivered in several ways: (1) Both ships holding the same course—this argues a great superiority of speed on the part of the torpedo vessel. (2) The ships steering directly opposite courses—this supposes the enemy to be surprised or incapable of defence. (3) Crossing either ahead or astern—a condition into which the two previous methods will most frequently resolve themselves. To cross an enemy's path and pass close ahead of him not only demands superiority of speed, but also there must be plenty of room for manœuvring with safety, and for steer-

ing with the greatest precision in order to avoid being struck by the enemy's ram. We see that this is a very hazardous manœuvre, and one which ought only to be resorted to under exceptionally favourable circumstances; but it is the only one which torpedo vessels of equal or inferior speed can attempt with a chance of success.

If, on the other hand, the torpedo vessel passes under the stern, she must immediately turn in the direction of the ship attacked, and, using the superiority of speed which is necessary for this manœuvre, draw slowly along the broadside of the enemy in order to insure contact. It is needless to dwell upon the danger of being thus exposed, at a distance of fifty yards, to the whole weight of a heavy broadside fire in a small and lightly constructed ship. Success would be only too surely followed by the almost immediate sinking of the victor. The danger of carrying these destructive weapons exposed on a vessel's flank for a chance shot to explode, and the great care necessary in launching them, etc., have led to proposals to explode them by electricity; but as we before remarked, this agent is unsuited for naval purposes, and no success has attended the attempt. As a great superiority of speed is necessary for these torpedoes when used offensively, the construction of special ships has been deemed necessary. Looking at the difficulties which attend the employment of this system on a large scale, we may, without denying the success which has attended certain experiments with them, refuse to be led away by the illusions of inventors.

In conclusion, we may say that the introduction of these new weapons tends to neutralize the offensive power of each, and renders caution more necessary; the ram will demand it from the torpedo, and *vice versa*. Perhaps the tendency of all will be to replace guns and gunnery in their old position and to restore the preeminence of pluck and endurance. Though we hesitate to accept any of these systems as satisfactory for offensive purposes, we fully recognize the important part which torpedoes may play in coast defence. The large sums spent and the many experiments made both at home and abroad, bear witness to the importance of the question. Complaint has been made that our naval establishment compares badly in this respect with those of foreign governments; but it should not be forgotten that in America, France, and Germany the naval budget bears the expense of this department, the large sum allotted this year in Germany being required for the maintenance of the whole Torpedo Department. With us this service is kept in the hands of the Royal Engineers, and looking to the conclusions we have arrived at, when considering the offensive or naval side of the question, we think the arrangement a wise one.

A new gun, a 25-pounder, will shortly be introduced into the British service. The gun will weigh a little over a ton, and will be used as a siege gun in India and other places, where the regular heavy siege-train cannot travel.

The total number of Russian troops who will proceed against Khiva does not exceed from 10,000 to 12,000 men. Generals Variofkan and Markozoff are mentioned as the sub-commanders of the expedition under General Kaufmann. The march of the troops upon Khiva will be concentric.

The Italian Government is about to organize a military topographical institution.

CONTENTS OF No. 15, VOL. VII.

POETRY.—	
The Ship of Death.....	173
EDITORIAL.—	
Bouchette Claims.....	174
Naval Guns.....	175
Birth Places of British Regiments.....	175
Torpedoes.....	176
The News of the week.....	177
Reviews.....	177
CORRESPONDENCE.—	
Quebec Gunnery Practice.....	177
SELECTIONS.—	
Modern War—Remarks of able Officers.....	170
Birthplaces of British Regiments.....	171
To Sharp-Shooters.....	173
Consumption of Timber.....	177
State of New York Rifle Association.....	177
REMITTANCES.....	
	177



The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

“Unbribed, unbought, our swords we draw,
To guard the Monarch, fence the Law.”

OTTAWA, TUESDAY, APRIL 22, 1873.

TO CORRESPONDENTS.—Letters addressed to either the Editor or Publisher, as well as Communications intended for publication, must, invariably, be *pre-paid*. Correspondents will also bear in mind that one end of the envelope should be left open, and in the corner the words “Printer’s copy” written; and a two or five cent stamp (according to the weight of the communication) placed thereon will pay the postage.

OUR respected contemporary the *Sherbrooke News* has an article on the reduction of the expense of the Militia force as defined by the last financial statement of the Canadian Chancellor of the Exchequer, in which the reasons for such reduction is given in rather a curious fashion for a *frontier* journal. Like all true prophets the *Sherbrooke News* has lived to witness the fulfilment of the utterances of its own prescience, but we doubt the soundness of the theory on which those utterances are based. The Treaty of Washington is not a valid excuse for a partial paralysis of the machinery by which our Military organization was being perfected: nor is it a sound axiom to depend on the chapter of accidents, in our international relations. As a set off against the supposed saving of \$653,000 this year, and the contingent saving in labour our contemporary would have done the State good service if he furnished the country with an estimate of what the loss incurred by the Fenian raids covered, how much in actual expense, and how much in deterioration of actual value in

stocks, securities, and business generally? Setting one against the other we are of opinion he would find that his supposed savings were in reality the worst of wasteful extravagance, inasmuch as it not only paralyzes the security against a recurrence of those pleasant visits from our neighbors territory, but actually invites them! And as the Washington Treaty provided no reparation for outrages already committed, we have to learn in what way it will act to prevent them, especially as the Yankee negotiators refused to acknowledge any liability whatever for those pleasure excursions of their Irish citizens.

Further reasons given do not improve the position. The plea of economy can be well understood, but where is the necessity of curtailing the expenses of the Militia? It was money expended on the people, it was not as in England expended in defending distant possessions, but it was a tax paid to a national police, and the actual truth is that it was in obedience to the pitiful whine of the Manchester school amongst the Commercial men of Canada that the reduction was made, it being in no sense sound policy. The money, as a general rule, went into the pockets of the agricultural population, and as they were benefitted why it was but reasonable that the commercial class who are neither burdened with taxes nor Military duty should be jealous.

The whole article appears in another column, and we should not have republished it but for some glaring misstatements which we are sorry to see in any respectable journal. It is not true that the *Military system was rapidly eating into the resources of the country, and certainly not improving its morality*; nor is it true that the Washington Treaty affected Canadian securities in the English market in any sense.

Since Canada has been able to show to the world that she could defend herself any loan that she tried to negotiate has been easily affected, and it is only necessary to turn to the share list in the English market before 1868 and since to show how rapidly her securities obtained the first place when English stockholders found she could protect investments confided to her charge. The Washington Treaty had about as much to do with the rise of Canadian stocks as Tenterden Steeple had with the Goodwin Sands, and the policy of the Government can be defended on far more justifiable grounds than that of the extremely questionable measure of reducing a military expenditure already too small for the vast interests it is required to protect and conserve.

Our contemporary in his complacency at being a true prophet forgets that Napoleon III. declared the Empire was peace just before the Russian war! He was probably quite as sincere in his aspirations thereafter as the *Sherbrooke News*, but history tells us what happened in the subsequent seventeen years of his reign. Another great political prophet

Mr. GLADSTONE declared early in June 1870 that the political horizon was without a cloud and his colleague Mr. CARDWELL proceeded to disband 20,000 veteran soldiers of the British Army to save the British taxpayer’s £2,000,000 sterling! In July the same parties were obliged to ask for a vote of £4,000,000 to replace those men with untrained boys!

We are no prophets political or otherwise, but our neighbors are a people rather lax in their ideas of *meum et tuum*, the political exigencies of the moment often precipitate matters with lightening speed, and a Fenian raid could be improvised in a short time that might teach our contemporary a lesson in political economy.

Coming events cast their shadows before. That our neighbors are not easy the following extract from the United States *Army and Navy Journal* shew, that at least there is a prospect of a little interference in Mexican affairs, and that once the ball is set rolling there is no telling where it will stop; and the invasion of Mexico may involve another raid on Canada, especially as the Yankees are not held liable to pay for past, present, or future experiments of that kind.

“We do not discover in the visit to Texas of the Secretary of War and the Lieutenant General the ominous signs of war with Mexico with which some of our daily contemporaries indulge their fancies. The questions as to whether a grand depot of supplies shall be established at San Antonio, and as to what extent cavalry are required along the frontier, can be best settled by the personal examination which Secretary Belknap has undertaken. An appropriation for establishing a depot at San Antonio was log-rolled through Congress, but it is not yet decided what use the Secretary will make of his discretion as to its expenditure. The extension of our railroad system into Texas is changing the conditions of transportation and making necessary a thorough inquiry into the expediency of establishing new centres of distribution for our Army posts in Texas.”

We would wish our contemporary to state how Military service operates to the deterioration of morals, and why he has libelled such a large and respectable body of his countrymen?

While quite as anxious as he is for the advent of the period when Wars will be no longer necessary, it is impossible to hide the fact or gainsay it that as long as people have diverse interests—as long as one nation has what another covets, so long will war decide between right and wrong, and be a mere question of limitation of force.

Our contemporary will not be surprised that we look on his article as being impolitic and not patriotic.

THERE seems to be a very general opinion amongst the officers of the British Army that *Mounted Rifles* is a necessary arm of any force engaged in active operations. We have already given our readers the opinions of Sir HENRY HAVELOCK on this subject, and altho’ they should carry the weight of his authority, yet it must be observed his experience was

local and under exceptional circumstances. In great operations it could not be supposed that any mere handful of Mounted Infantry could be of use in holding an enemy in check. It is true they might be utilized to hold a pass bridge head or any other post of advantage for a short time, but in nineteen cases out of twenty there would be no place for them in field operations and they would only add to the difficulties of an advance by increasing the transport. If trained to ride well and to fight on foot as well as on horseback, as one of our most talented officers advocates, we could train a large force for service in this country and could utilize them; but the idea of what is known in England as car-borne Riflemen could not be entertained in Canada at all.

The whole subject, notwithstanding what has been gained by personal or other experience, is one for close calculation; and the best thing we have seen on it yet is taken from the *Volunteer Service Gazette* of the 15th March, as follows:—

To the Editor of *Volunteer Service Gazette*.

Sir,—This question was much debated at Hythe in 1861. Major Calley of the Wilts Yeomanry proposed it with much zeal to General Hay, and it met with, from him, that qualified approval which the mixture of responsible official with advancing investigation was likely to beget.

The great opposition to carriages was to the length, the weight, and the danger of encumbering roads of advance and retreat. These might be met, I think, by making them short, but holding men four deep. Place the seats over the wheels, and have three men facing three others in the channel between the wheels, and three on each facing outwards. The driver and non-commissioned officer on the box, and the whole to be drawn by three horses abreast, the centre one bearing shafts. If the way is likely to be blocked, I conceive the hind carriage could be unlimbered and the front limber trotted off, when the party could unship the hind wheels and raise the body on end out of the way at the road side.

Still, the objection is weight. Good roads are the exception, not the rule in warfare, and these vehicles ought to go anywhere and do anything like a horse artillery gun. Three horses to fourteen men, weighing with arms and kit 200 lbs. a man, are rather over weighted; and, unless the men are in sufficient numbers on the cars, the train would be too long for rapid use, and utility in action, and four horses with drivers are only equal to three horses without, and you get two useless mouths.

Eight cars and twenty-four horses, therefore, will carry eight drivers, eight officers, non-commissioned officers and buglers, and ninety-six fighting men, and might be denominated a car troop.

Let us now take a troop of Mounted Infantry. There can be no doubt of the much greater elasticity, rapidity, and general utility of these. Let them be able to scramble anywhere on small Cossack, or Welsh cobs, and you get the most harassing body imaginable. Hardy animals, ready to browse any where, and stand exposure; small cars of men bright, bold, and intelligent; sharp clever commanders, and there is a very pretty thorn for the enemy's side, and no bad assistance to the new intelligence officer. Well, now, let us put them together; we have

given precedence to carriage folks, and we will ask how to put the same number of fighting men and officers in the field as on the cars.

If properly trained, 4 horses might be held by one man beside his own, or even more if he dismounts, and the horses are brought heads together in a circle, like a Welsh drove at a fair; but let us take it that one man holds 4 horses. Ninety six men and eight officers, non-commissioned officers, and bugler will require 104 horses and 26 horse-holders, total, 130 horses. Consequently, we have to compare 24 horses and 9 non-combatants with 130 horses and 26 non-combatants. On this comparison certainly cars are cheapest and most efficient on paper, while Mounted Infantry are most active, most far-reaching, and most convenient in the field and its approaches. I should decide in favor of the latter.—Yours, B. W. H.

P.S.—Since writing, I have seen a short resume of Colonel Wood's lecture. I suppose his distribution of 150 men would be somewhat as follows: Mounted—1 captain, 2 lieutenants, 4 sergeants, 1 bugler, 65 privates, 2 farriers; total 75 horses. Dismounted—1 captain, 1 lieutenant, 4 sergeants, 1 bugler, 1 assistant surgeon, hospital ordinary, 8 drivers, 58 privates; total, 75.

So eight carriages or cars, with ambulance, conveying ten men, a driver, and an officer—non-commissioned or non-combatant—would need 24 horses; and allowing, at least, four horses for "spare," and two for ambulance, we should mount and convey our 150 men on 105 horses. I think I adhere to the view of 120 men on 120 horses as more available and trustworthy, even if they require two light four-horse or three-horse Army staff waggons with them: 75 horses will take 15 men to hold them, leaving, all told, 60 per company of all ranks combatant of the mounted branch, and there will be 65 of the dismounted ranks. So we shall get 125 less active men than 120 mounted men, less 24 horse holders, equaling 96 more active men. I must leave the deduction to be drawn to the profession.

B. W. H.

Our readers will remember that it is an error of the gravest kind in *Logistics* to increase the number of animals which should properly belong to an army. General BACON: brought the greatest disgrace upon the Military reputation of Great Britain that it has ever suffered—by disregarding this plain axiom—he would persist in transporting a train of artillery out of all proportion to his force or its possible necessities, and the disaster of Saratoga followed.

Our contemporary's correspondent puts the whole case in its proper light—it is a question of transport alone—and he has given it in full without circumlocution.

In the Fifth volume of the *VOLUNTEER REVIEW*, at page 820, will be found an article on *Field Fortifications*, in which a modification of the angular or right lined system was advocated, by substituting for the ordinary fleches segments of circles on the ground that it would provide better flanking fire and entirely overcome the difficulties offered to defence by dead angles as well as affording protection from ricochet fire. Since then a volume of the *United Service Journal* for 1831, has showed us that the principle was recog-

nised at the Military Academy at Addiscombe, England, and that Mr. BORDWINE, Professor of Fortifications and Artillery at that institution, lectured on it at the annual examination of that year.

The *Journal* says—"Upon that occasion plans illustrative of the system were produced. Mr. BORDWINE attaches to the angular system of permanent fortification four principal defects.

"1st. The liability to enfilade unless constructed under peculiarly favorable circumstances of locality.

"2nd. The want of direct fire from their most exposed points; the salients.

"3rd. The want of direct fire for defence of the re-entering angles; and

"4th. The want of co-operation between their fronts when the besiegers have attained the counterscarp and the consequent isolated condition of the attacked.

"All these evils may be considered as materially vitiating the existing methods of fortifying, and so innoxious in them that they cannot be removed, while the same form remains to the body of the place or to the detached works. Mr. BORDWINE, therefore, proposes to make his works circular; by giving them this form he preserves them from the effects of ricochet and obtains both a direct and flanking fire upon every portion of ground which the enemy must pass over. Whereas in the existing systems the salients are only defended by auxiliary fire, which being silenced by ricochet or direct batteries the ground is occupied by the enemy at little risk and trifling loss.

"All the flanking defences in the existing system may be silenced without the enemy being put to the necessity of attacking them directly, that is without getting possession of the works in which such flanking defences are placed. In the proposed system no such effect can be produced on the flanks; they cannot be seen from any ground out of the works in which they are situated, and their strong casemated condition renders them invulnerable to vertical fire, so that the besieger must carry them before they will cease to operate upon his advance to the body of the place.

"Those flanking batteries are placed in works which are so disposed as to allow them not only to defend the front to which they are attached, but also the collateral fronts, and thus, contrary to what is the case in the right lined system, the front against which an enemy would particularly direct his attack is not left to its own resources only but derives powerful assistance from the adjoining fronts. Hence the assault of the body of the place entails the necessary capture of five principal works either three bastions and two demi-lunes or two bastions and three demi-lunes. The enemy will thus find himself engaged in a widely extended course of attacks which are subjected to greater disadvantages than can be experienced against the angular systems. The

space also for establishing himself in those circular bastions and demi-lunes is overwhelmed with fire from the entrenchments and from the body of the place; and although these spaces are ample for the garrison to deploy means to meet an assault, they become disadvantageously contracted for the besiegers to advance from.

"Sorties from the angular works are also made under great difficulties, they are generally flank movements from the re-entering places of arms, out of which the troops must move in column. Mr. BORDWINE makes an arrangement for presenting a position parallel to that of the enemy, for enabling the garrison to issue from the covered way *in line*, to fall upon the trenches at any moment and to return again to the covered position without the risk of being pursued by the enemy. The covered way becomes, therefore, one of the strongest positions of the fortress, and which can only be occupied by the assailants after having driven the besieged from it sword in hand; an operation of doubtful character, when the means of defence in the covered way are considered as well as the powerful support drawn from the works before which it is situated. In the angular system it is well known that this position falls after a few days' labor with the spade and pick-axe."

It will thus be seen that the problem presented by a circular instead of a right lined angular system of fortifications has occupied the attention of experts nearly half a century ago, and probably at an earlier period.

We have always held that the substitution of iron for wood in the construction of sea-going vessels, was an error of the gravest magnitude, inasmuch as the power of resistance to the peculiar strains such a structure must encounter, is considerably less in a vessel built of iron, than in one built wholly of wood, while the durability of the latter is immensely greater; the full *life*, so to speak, of the iron not exceeding ten years, of the timber, with care, over one hundred.

Recent experience also proves that in future there must be a limit to the application of iron as a ship building material. The late grievous disaster is in part to be placed to the amount of that material employed in the construction of the vessel. Our readers will remember with what horror the telegraphic report of the wreck of the *Atlantic* of the *White Star* passengers line of steamers, plying between Liverpool and New York, on the 1st inst. on a ledge of rocks off Meagher's Island within thirty miles of Halifax, N. S. with the loss of over 700 lives, was received and how subsequent details showed that fifteen minutes had not elapsed from the moment she touched the rocks, till this immense sacrifice of human life was consummated.

Pending the inquiries which will necessarily follow it would not be proper to make

any comments or pass any judgment on the immediate cause of this fearful disaster, but the *United States Army and Navy Journal* has a very able article on the causes which undoubtedly aggravated it, from which we give the following extract:

"We are more inclined to impart blame to the directors of the line, from the fact that their steamers are notoriously built for speed at the sacrifice of safety. Far too long for their breadth, every nautical man can see that they must be unwieldy and dangerous in a heavy sea, and liable to break up on grounding with fatal rapidity. The criticisms to which this line has been subjected by experts has left the company without the excuse of ignorance as to the faulty construction of their ships. If there is any line of ocean steamers which needed to practise an excess of precaution, it was this one, which has been above all the most careless in sacrificing every consideration to that of temporary popularity.

"A correspondent of the *Herald*, arguing against the building of iron vessels for the Navy, has some criticisms on these vessels which gain new force from this disaster to the *Atlantic*, which followed immediately after. He says:

"England, France, and Russia, and may be other European powers, have small despatch boats and troop ships built of iron, but we have yet to see a war ship of half inch iron. This class of iron vessels does not require the repairs that wooden ships would, and the reason is obvious—when they come in contact with any unyielding substance they go down. They disappear beyond the possible reach of repairs. Upwards of sixty have already demonstrated that fact this year. No wonder that ship building is lively on the Clyde; for something must be constructed at once to make up this loss to the carrying trade. The *Vandalia*, lately broken up—a live oak ship—was as sound as when built, and requiring as many tools to break her up as it did to build her, although her keel was laid 33 years ago. It has on former occasions been shown that the *Hatteras* and other iron vessels that were purchased during the war were either sunk or badly damaged by shot, and it stands recorded that an armored vessel, built for the Italian government in this country, now remains, beyond repairs, sunk by an old teak built frigate turned into a steamer. The wooden vessel bore down upon her iron antagonist striking her amidships, and in a few minutes the costly fabric went to her last resting place, and the old frigate went back to port not very seriously damaged."

In concluding the re-publication of Lieut. Colonel H. C. FLETCHER'S valuable paper on the place of the *mitrailleuse* in war, we were of opinion that the subject had been pretty nearly exhausted, but the following paragraph from the *United States Army and Navy Journal* of the 5th inst. shews that human ingenuity and invention have no practicable or tangible limits.

The new *Mitrailleuse* is sufficient evidence of the truth of our proposition, and as described by our contemporary must be a truly formidable weapon.

"A new *mitrailleuse*, invented by James Patten Taylor of Tennessee, formerly examiner in the office of the Commissioner of Patents, was tried recently at Sand Point, Long

Island. It is claimed that 700 rounds per minute can be discharged *en fusilade* and 1,000 rounds in volley firing. The weight of the gun is 700 pounds, and with the carriage 1,000. It is about twenty-eight inches long from breech to muzzle, and contains twenty eight barrels. A lever which slides on the breech plate, sets in motion a revolving chamber plate, cleaning apparatus, &c., &c. ejects the cartridges from discharged chambers, forces the brushes at the breech to clean them out, brings forward the cartridge from the feeder, and discharges a volley of 24 shots when a small spring is touched. This is accomplished by an upward and downward movement of the lever. A small steel crank is used to make a fusilading fire. When the twenty four chambers are exhausted, the further turning of the crank is prevented by a piece of mechanism. The magazine or feeder of the gun is a steel cylinder containing the same number of tubes as the gun. It will hold, when filled, 216 of the patent Berdan centre fire cartridges, calibre 54. As the lever is worked, a number of iron pins, somewhat thicker than the largest sized lead pencil, plunge into the tubes of the magazine and forces the cartridges forward into the barrels of the gun, where they are discharged by the twenty four hammers set in motion by the crank or levers. The piece is moved horizontally, elevated and depressed for sighting by a simple attachment at the rear. A water casing is used to prevent overheating of the barrels. The water is pressed through a small funnel into a circular compartment between the barrels and the outer casing of the gun.

The barrels are elliptically grouped at their muzzle, and a lateral or horizontal range is thus given, it is claimed, instead of throwing the projectiles up and down at right angles with the ground. In firing, the balls discharged spread right and left over a space of twelve feet wide, in a range of one hundred yards, twenty four feet in two hundred, and so on. The gun experimented with will fire a distance of 500 yards effectively."

THEIR Excellencies the Governor-General and Countess of DUFFERIN have been dispensing their princely hospitalities at Rideau Hall during the past week. A grand ball was given on Wednesday the 16th inst., at which a large proportion of Senators and members of the House of Commons, Her Majesty's Ministers, the usual amount of staff officers and officers of the Canadian Army, with the youth, beauty, and fashion of the Provinces were present. The guests numbered over seven hundred persons.

We publish this week the By-Laws of the *New York Amateur Club* for the benefit of our readers.

As a consequence of the artillery experiments made recently at Calais, the Creusot Works have just received an order for steel cannon for the French Government.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday the 19th inst.—

COBOURG, Ont.—Lt.-Col. D. E. Bolton.....	\$4.00
Lieut. Geo. Guillet.....	2.00
CHATHAM, NB.—Lt.-Col. Caleb McCulley.....	2.00
PORT ROWAN, C.—Lt.-Col. S. P. Mabee.....	2.00

HEAVY ORDNANCE.

(From the London Iron, March 1.)

The Naval Administration has had under serious consideration the ordnance mishaps of the past year. Three systems for rifling ordnance have been successively adopted in Her Majesty's service within fifteen years, and the present French plan of rifling has been in use eight years. Though no heavy gun rifled on the French, or as it has been renamed the "Woolwich" system, has ever been in action, yet a great deal of experience has been gained as to its destructive effect, both upon the gun and upon the projectile. This experience has led to so many modifications that no two natures of guns in her Majesty's service have the same pitch of rifling, while the destruction of projectiles has been quite wholesale. These modifications in the system may be supposed to have eliminated all destructive conditions, other than those essentially incidental to false mechanical principles. The attention of the Board of Admiralty has been directed to the results achieved by the latest developments of the system, on which all the talent of the Woolwich Arsenal has been vainly concentrated for over eight years.

The kind of results which have disturbed all intelligent minds in the navy, may be understood by a survey of the mishaps of the past year. 1872 was a year of profound peace. Heavy ordnance was only used to fire a few rounds at a time, generally at low elevations and with diminished powder charges. Hardly a gun fired, in the course of the whole year, as many rounds as it might be required to fire in a few hours of naval bombardment. The guns were not, therefore, strained by heated chambers, by excessive charge, by violent powder, by high elevations, or by the "moving accidents" of war. Yet the projectiles were so injured while escaping out of the bores that every one recovered (not being a "proof" shot) had to be destroyed and returned to the furnace. The act of mutilating those projectiles so injured the bores that inspectors of ordnance were employed, at salaries of about £300 a year to register the damages inflicted by every fifty projectiles. The firing of each gun was stopped at each fiftieth discharge, until the ships returned, and the military authorities would be communicated with, and the "soldier-inspector, with his staff of soldiers, exercised for a careful registration of the injuries. Many guns were thus found marked or injured in the interior by the efforts of the projectiles to escape. Though these marks were not always of a vital character, they produced a roughening of the surfaces, which still further obstructed the path of the gun metal studs, and consequently, enhanced the tendency of the projectile to revolve on those centres round its minor axis. Obviously, the greater force exerted in these erratic movements within the bore, the more difficult the effort to escape, and consequently, the higher the powder pressure accumulating in the rear, and the smaller in proportion to the corresponding velocities and penetrating power.

The position of the marks and inquiries found upon the recovered projectiles, illustrate the misapplication of force, under which they suffer loss of velocity and loss of endurance. Though no part of the projectile, except the two rings of metal studs, is supposed to touch it, the bore is frequently impressed by deep marks made by the edges of the grooves in the course of the oblique movements of the axis. The studs are

found to have had their rounded edges worn down to the destruction of all their proposed centering properties; sometimes the studs are found crushed into wedge shapes showing that they had overridden their grooves. This wedge action, operating in two circles near the centre of the projectile, compresses its side walls so as to nearly draw the studs out of their grooves. The projectile being then supported upon the front and rear, with the studs in its centre being withdrawn from the grooves, the studs are liable to pass over the lands, and to be wedged still more forcibly between the sides of the bore and the walls of the shell. Other erratic oblique movements within the gun may be traced by a careful study of the marks on the projectile.

The inspectors of ordnance report that the interiors of the guns are frequently marked and damaged along the driving edge of the grooves; roughened above the seat of the rear studs. They also report that when more serious injuries are found, they usually consist of cracks and fissures in the grooves, which occur a few inches in front of the seat of the rear studs, where these came into "driving" bearing, or about a foot from the muzzle, where the front stud begins to do its work. The latter position seems to be most destructive when employing common shell, which have thinner walls than cored shot, while cored shot appear to inflict their share of the injuries just in front of the seat of their studs.

The *Bellerophon* has been particularly unfortunate in her guns. For training practice, the crews of Her Majesty's ships are in the habit of firing eight rounds from each gun every three months. While subjecting her ordnance to this mild ordeal, five 12½ ton guns have been more or less damaged. Two of them were so disabled as to necessitate their return to the Royal Gun Factories for repairs.

The *Prince Consort* has been hardly less unfortunate than the *Bellerophon*. The front studs did their destructive work so effectually on the muzzle of a 9-ton gun that it had to be rebuilt at a cost of £302. A 12½ ton gun had its outer coils opened to a disabling extent, 23½ inches from the muzzle, after only 24 rounds; and another 12½ ton gun in the same ship, developed a similar defect, but not to so injurious an extent, 17 inches from the muzzle, after only 18 rounds.

The *Hercules* is the only ship mounting 18 ton guns which has yet passed through a three years commission. Sea sickness seems to have disturbed the stomachs of these soldier-made weapons to a considerable extent. Three out of eight of these pieces have given way in the interior while discharging eight projectiles per quarter, two of them being returned to the Royal Gun Factory for rebuilding or repair.

The *Agincourt*, another ironclad in the Channel Squadron, has an old fashioned armament of comparatively small ordnance, but it includes half a dozen 12½ ton guns; of these latter one was disabled last year while discharging seventy empty shells at a canvas target, and has been returned to the Royal Gun Factories to be rebuilt or repaired.

The *Devastation* though not yet at sea, has suffered even more severely in her ordnance. This enormous and powerful ironclad has her armament concentrated into four pieces, each of thirty-five tons weight. Before its embarkation it was deemed requisite to test guns of this nature at Woolwich Butts.

Mild slow burning pebble powder was used, no common shell was employed; the gun was discharged horizontally, with sufficiently long intervals between successive rounds to prevent the heating of the chamber, and consequent extra combustion of the charge; and generally the "Infant" was as carefully nursed as if a delicacy of the digestive organs was suspected. Notwithstanding this tender nursing, the "Infant" had to be returned to the Royal Gun Hospital, after thirty-eight discharges from its 12 inch barrel, having subsequently endured thirty-five rounds from a smaller bore. The injuries sustained all occurred a few inches in advance of the seat of the studs, and consisted of four cracks or fissures in the grooves, enlargement of diameter and roughening from the escaping gases. The illustration given in our February 15th number shows how closely the position of these injuries corresponds with the point of "driving" contact of the rear studs, and of hammering by the front studs. Instead of being embarked in the *Devastation*, this gun had to be rebuilt at an estimated cost of £700.

At Shoeburyness an 18-ton gun had its muzzle-cracked in three places on Waterloo Day last, while discharging common shell.

About 103 tons weight of naval ordnance were permanently disabled during the year 1872, exclusive of guns less vitally injured, while discharging a few projectiles at targets. The vital importance of endurance in naval battles is enhanced by the small number of heavy guns carried, and by the introduction of the turret system, which denies them the relief otherwise accorded of a change of broadsides. Moreover, the rearmament of the iron clad fleet, so urgently called for, becomes a doubtful gain, if the accession of penetrating force obtained by the substitution of heavier ordnance brings with it a rapidly increasing loss of endurance.

No wonder, then, that the navy remonstrates against being expected to fight with weapons that won't stand a combat with canvas targets. No wonder that the Admiralty, slow as it is to move, has listened attentively to the urgent remonstrances of its more intelligent subordinates. But human nature must be greatly changed if the War Department, which supplies the navy with such brittle tools, does not contest the right of naval artillerymen to be heard on such a question. Nor will the War Office officials be the less annoyed that most military men conversant with the mechanical questions involved, are of one mind with the Admiralty as to the misapplication of mechanical forces which operates to the disruption of both guns and projectiles, and imparts to British ordnance, in official language, "decidedly the lowest velocities," and, consequently, "decidedly" the least penetrating power.

BRakfast.—Epps's COCOA.—GRATEFUL AND COMFORTING.—The very agreeable character of this preparation has rendered it a general favorite. The *Civil Service Gazette* remarks:—"The singular success which Mr Epps attained by his homoeopathic preparation of cocoa has never been surpassed by any experimentalist. By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition and by a careful application of the fine properties of well selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills." Made simply with boiling water or milk. Sold by the Trade only in 4lb., 2lb., and 1lb. tin-lined packets, labelled—JAMES EPPS & Co., Homoeopathic Chemists, London, England

THE OLD SWEET DREAM.

What dimpling smiles and happy tones
The rippling waters took
As they foamed around the stepping stones
That crossed the little brook!
Still in my dreamful reverie lost,
The boulders smooth I see,
This dark, that gray, that deeply messed,
All swept by the waters free.

And there, where we paused in the maple's
shade.

Above the glassy pool,
Where the rushing ripples sank and made
A mirror bright and cool;
Again in its depths I seem to look,
And see her gentle face,
And her form, as she stood by the running brook
With her soft and girlish grace.

Again her voice o'er the brook's rude tones,
In my ear sounds clear and sweet,
Again o'er the dripping stepping stones,
I guide her timid feet;
Again her little hand to my own
Clings with a pleading fear,
As I lift her over the last broad stone
To the green bank rising near.

But ah! since then, like a doubtful dream,
Hath passed full many a year,
And the vision of love by the running stream
Is dimmed by the gathering tear;
For long hath the dear loved voice been still
The little hand long cold,
And laid to rest in a grave on the hill,
The form of the loved of old.

But not at all dark is the old sweet dream;
For the brook of the past so gray
Now is but a type of the broader stream
Which we all must cross some day;
And the coming years be my stepping-stones
To that brighter and better shore
To whose peace and rest with the good and blest
Her spirit hath crossed before.

BY-LAWS OF THE AMATEUR RIFLE CLUB OF NEW YORK.

I. This Association shall be known as "The Amateur Rifle Club," of New York.

II. Its objects shall be the encouragement of Rifle Shooting, and the use of rifles of the most approved patterns.

III. Its officers shall consist of a President, Vice-President, and Secretary, who shall act as Treasurer; they shall be elected annually by ballot, by the members present at the annual meeting, a clear majority of the votes cast being required to elect a candidate. In case no candidate shall receive such majority at any election, the one receiving the least votes shall be withdrawn, and another ballot taken, until one of the candidates receives a majority.

IV. The management of the Club shall be under the direction of an Executive Committee, consisting of the officers of the Association and five members, who, in addition to controlling the affairs of the Club, shall elect members, take cognizance of all violations of these rules, and fill vacancies in their own body until the next annual meeting. Three shall form a quorum of such Committee for the transaction of business.

V. The Annual Meeting shall be held on first Tuesday of April in each year. In case it should not take place at the time fixed, it shall be held as soon thereafter as may be convenient, and all persons then in office shall hold over until their successors are elected.

VI. Special meetings may be called by the President at his own option, or on receiving a requisition signed by five members stating the object of the meeting. Such object shall be specified in the notices calling such special meeting, and no other business shall be transacted but that specified. Two days' notice of such special meeting must be given.

VII. At any meeting, even members shall constitute a quorum.

VIII. Applications for membership must be in writing, and vouched for by some member of the Club in good standing. One black ball shall exclude an applicant.

IX. The number of members shall be unlimited, unless two thirds of the members present, at a special meeting to be called for the purpose shall determine otherwise.

X. No member of the Club shall be allowed to transfer his right of membership.

XI. Any member whose conduct shall be pronounced by a vote of the Executive Committee, to have injured, or to be likely to injure the welfare, or character of the Association, shall forfeit his membership; but such vote shall not be taken without giving two weeks' notice to the offender of the charges made against him, and affording him an opportunity of being heard in his defense.

XII. The Entrance Fee shall be Five Dollars, and Annual Dues Three Dollars, both payable in advance. No applicant shall be entitled to the rights of membership until such entrance fee and annual dues be paid.

XIII. Members who do not pay their entrance fee and annual dues within one month after the same becomes due, shall cease to belong to the Club.

XIV. The Secretary shall be empowered to procure such stationery and print such notices as he may consider necessary for the performance of his duties; and the members are requested to pay their entrance fees and dues to him at his place of business.

XV. The target Practice of the members shall be conducted in accordance with the rules of the National Rifle Association.

XVI. The Committee of Management shall also have power to make such regulations as they may deem necessary in regard to rifle practice, which regulations shall be binding, unless reversed at a general or special meeting of the Club.

XVII. The scores made by the members shall be recorded in such manner as the Executive Committee may prescribe.

XVIII. In case of a challenge given or received from other marksmen, the result of each last practice of each member shall be averaged, and the representatives of the Club be selected by the Executive Committee according to their order of merit, and the latest averages of their recorded practices.

XIX. No debt exceeding Twenty Five Dollars shall be contracted without a vote of at least five of the Executive Committee; and no debt exceeding Fifty Dollars shall be contracted without a majority vote of the members present at a general or special meeting of the Club.

XX. Any member of the Executive Committee, or of the Association, may, at any time, examine the records of the Secretary and inspect his accounts.

XXI. Any member having complaints or suggestions to make as to the management of the Association, must do so in writing to the Executive Committee.

XXII. No member shall give any gratuity to any servant of the Association.

XXIII. Any member of the Executive Committee who shall fail to attend six

consecutive meetings, shall be deemed thereby to have tendered a resignation of his office; but he must be specially notified before his resignation is accepted under this By-Law, and the President, or in his absence, the Vice President may excuse him for such neglect.

THE MILITIA: REDUCTION OF EXPENSE.

Some months ago we pointed out the expediency of reducing largely the expense of the Militia force, which amounted last year to one million and three quarter of dollars. We did this on the ground, that the original arguments in favor of the organization on so extensive and expensive a scale, have lost much, if not all their cogency, by the Washington Treaty, which had recognised an International Arbitration Tribunal, and which as far as Great Britain and the United States were concerned, was likely to adjust all present and future differences between these countries. It seems this reasonable view only anticipated the action of our own Government. The expense of the Militia force for the current year, is \$1,000,000 instead of \$1,653,000; and this vast saving of nearly three quarters of a million of dollars was prudently effected by the Government in prospect of a season which does not promise an increased revenue from the consuming capacity of our people, and in the face of an importation not likely to reach that of the past season. But the money saved by this wise economy is not half the gain to the country. Such a large force of the able bodied of the population will not be taken from their labors, whether mechanical or agricultural, for an entire fortnight or more; and the capital of the country will, instead of being diminished by their absence from their avocations, be increased to fully the extent of the amount struck off the item in the estimates for Militia expenses. Besides the abolition of the duty on Tea and Coffee last year, owing to the policy of the United States which admitted these articles duty free, diminished this source of revenue, and at the same time, the large liabilities of the Dominion to effect public improvements promised to tax our resources to the utmost limit. We were prepared for a slight increase in taxation, but perplexed to discover on what articles it could be laid, except the "free list" were curtailed of some of its items. But as our native manufactures derived a portion of protection from the importation, duty free, of the raw material, it would have been a delicate matter to interfere with that list, even if that interference would not have called up a corresponding hostility in the tariff of our neighbors in the United States. But the difficulty has been removed by economy; and that economy is only half represented by the amount of reduction in the Militia item. The Government might prudently have saved one million in this item; but it is probable that existing engagements may have prevented greater economy. There is more however in this abridgment of Militia expenses than lies on the surface; it is a practical recognition of the value and benefit of the Washington Treaty, it is to some extent a recantation of the arguments and reasons formerly urged to bolster up a Military system which was rapidly eating into the resources of the country, and certainly not improving its morality. Had the relations between Great Britain and the United States remained in their previous, unsatisfactory, even

threatening attitude, this reduction could not have been effected. It is an unanswerable reply to those who grumbled and civil led at the conduct of the Minister of Justice while Commissioner at Washington; and this large economy is only an incidental benefit secured to Canada by the Treaty which Sir John A. Macdonald assisted to devise. Some have avered that Canadian rights were neglected in that Treaty; that England bartered them away to her own advantage. But the answer is, that with the guarantee of Great Britain we are now able to borrow in the English market \$17,500,000, at a reduced rate of interest; add to this the saving on Militia expenses consequent on the Washington Treaty, and we must admit the advantages to this country, arising out of the compact between the Mother country and our neighbors, in these two items alone, justify the policy of the Government—*Sherbrooke News*.

THE RED RIVER EXPEDITION, 1857.

(From the Free Press.)

Much has been said and written on the subject of the late expedition to the new settlement in the Red River Territory, but very little appears to be known to the public of that which embarked at Montreal during the summer of 1857. Though nearly sixteen years since, a copy of the following narrative of the journey, which speaks for itself, may prove generally interesting, with remarks added by a gentleman who was in Montreal at the time of their departure.

Fort Garry, via St. Paul and Pembina, Minn., U.S. November 9, 1857.

The troops arrived here on the 12th and 13th October, having been 70 days between Montreal and the landing at York Factory; we spent 4 days at York Factory and 39 days from York Factory to Fort Garry, in all 113 days between Montreal and this place.

The ship carrying the troops met with considerable danger and detention in the ice, and was very materially damaged, but with the exception of the death of one poor child, I am happy to report that no casualty occurred on this long and dangerous journey, accompanied, as it was, by great discomfort and fatigue, amounting almost to hardship.

The health of the detachment has generally speaking, been good since leaving Canada, &c.

On the 17th ult. I received the Assist. Adjutant General's letter of the 2nd of September, directing that Capt. — should not leave this detachment until further orders.

I regret to say that the clothing and boots for 1858-9, besides the warm clothing, and the Enfield Rifles with their ammunition, which were sent direct from England to York Factory, have been left there, owing to the mismanagement of the Hudson Bay Company's servants to whom was entrusted the duty of bringing the troops and their stores to the Red River.

In addition to these things, which might have been brought up, a quantity of the stores sent from Canada have all been left at York Factory, and perhaps necessarily, as the means of transport is very inefficient. Indeed, I think it will be found that in undertaking to bring troops here and to provide for them, the Hudson Bay Company has overrated its own ability, as mentioned in my letter of 9th July, the Hudson Bay Company was unprepared for our reception.

The consequence is that nearly the whole of their supplies are required for the use of the troops, to the exclusion of the half-breeds and others who have few other means of supplying themselves, and are already, I am informed, murmuring a little against us as a cause of their discomfort, and more violently than before against the Hudson Bay Company.

Troops were never less required at Red River, so far as the internal peace of the settlement was concerned, and a few policemen at most is all they require, but our presence seems not unlikely to stir up the very broils which before arrival existed only in the imagination of those members of the Company who do not reside in their territory. Rations high and scarce, not to be got at any price. No blame can be attached to the Company's Officers on the spot as they are doing all in their power, but supplies are not in the country, nor men, nor means of transport, nor internal communication, great scarcity of provisions is expected next year.

I beg to observe as to the manner in which stores were packed up. Thus, from the Purveyor's Department, 4 barrels of sugar each weighing 140 lbs., a barrel of rice 138 lbs., a barrel of barley 132 lbs., a box of sugar, 123 lbs.—all of which would have to be repacked before they could be carried from York Factory to Red River.

The port wine was packed in barrels and must have been broken had it been conveyed in that manner; and the corks for the bottles of wine were in many instances merely fragments of old corks, some not half an inch deep, so that all the wine in the bottles leaked out on the journey from York Factory and was lost.

From the Medical Department the things appear to be correct with one important exception, that in place of a lot of cupping instruments, one resembling that sort of box, containing glass bottles of medicine, had been substituted.

From the Barrack department several articles were packed in baskets and torn to shreds long before the journey's end, and their contents—such as metal basins, were consequently broken, and other packages did not contain the number of articles marked on them—for instance, on opening some of the bales, &c., four blankets, one pallasse, a hatchet, a scrubber, &c., were deficient, but for which the troops are supposed to be held accountable.

From the War Department, Canada, three or more packages overweight. No field officers' Marquees and a scarcity of tents.

From the War Department, England, the invoices which have been received, show that the Enfield Rifles are packed in such large cases (20 rifles in each) that they must be re-packed at York Factory into cases made at that place containing eight rifles each. The boots and shoes must also be re-packed into smaller cases before they can be transported on men's backs over the steep and rough portages between York Factory and Lake Winnipeg. I may also remark there are invoices from that Department which were evidently intended for the Hudson Bay Company and to be at York Factory to meet the arrival of these things from England, was directed to the "Officer Commanding at York Factory, Hudson Bay, Canada," in consequence of which, after being a month longer on the road than it should have been, it came here and was given to men when too late for it to be sent on to York Factory and moreover if it was intended, which it evidently was, for the Hudson Bay Company—it should have been directed to the "Gentlemen in Charge."

These things may appear to be trifling, and it may be wrong in thus reporting them, but they cause inconvenience, &c., &c.

(Signed)

ROYAL CANADIAN RIFLES.

No mention is made in any invoice received of any accoutrements having been sent for the new Enfield Rifles.

The vessel employed upon this expedition was the wooden sailing ship *Great Britain* of London, Dan, Wilson Master, 572 tons register. She left Montreal with the Royal Canadian Rifles aboard on the 23rd June 1857 for York Factory, Hudson Bay, a distance through the straits of Belle Isle of nearly 3,000 miles about 150 miles more than the voyage to Liverpool, but of course much more tedious. It is believed she arrived at York Factory about the 1st September, making the whole time about seventy days.

So little was known of this part of the world (this *terra incognita*) that Captain Wilson tried in vain to procure a chart before sailing, and as a consequence had to proceed very cautiously through fields of floating ice, etc., "hence the cause of the length of time occupied in the voyage. The ship was not detained at York Factory; she was discharged as soon as possible, left in ballast and arrived in Montreal, 17th October. A ship of this name, the *Great Britain*, and supposed to be the same vessel was wrecked about 8 years since on her voyage from London to the East Indies.

The Rifles had a long journey before them of land and water from York Factory (which lies at the embouchure of the Great Nelson river) to Upper Fort Garry, in all about 640 miles.

The line of march for the first 120 miles was southwesterly along the tortuous course of the Hayes River (some times called the St. River) and then over the silurian belt or ridge dividing the waters flowing north-easterly into Hudson Bay from those flowing south westerly into the Winnipeg, making the whole distance of this march overland about 300 miles.

After this long and tedious march the expeditionary force was embarked in canoes and proceeded southward along Lake Winnipeg, another 300 miles to the mouth of the Red River, 20 miles from Lower Fort Garry, commonly known as the "Stone Fort," having been erected there, it is said, at the expense of the Hudson Bay Company, about 30 years since, by the officers and men of the 60th Regiment, and in its construction said to be much better adapted for offensive than defensive purposes. The headquarters of the force was at Upper Fort Garry, 20 miles from the Lower Fort, thus making the whole journey from Montreal to Upper Fort Garry about 3,640 miles.

The altitude of Lake Winnipeg above the sea level is given as 600 feet, about the same as that of Lake Superior.

The Nelson River at York Factory is the great outlet of the vast accumulation of waters running eastward of the Rocky Mountains into Lake Winnipeg, and in volume have been assured by a gentleman of great experience is equal to the St. Lawrence, below Three Rivers.

The causes which led to this expedition may form the subject of another communication. It has been stated from unquestionable authority that if the precaution had not been taken of sending this expedition to Fort Garry, small as it was, much trouble and probably bloodshed would have occurred among the half-breeds and disaffected similar to what happened on more recent occasions.

The writer has been informed that the Governor of the territory at the time in question had been chased on the lake by a ferocious banditti, and owed his safety to the fleetness of his canoe, ("he did not paddle his own canoe"), propelled by the strong arms of his faithful and trusty band of Iroquois from Caughnawaga.

It is not understood why complaints are made in the narrative about the scarcity of provisions, while the lakes and rivers of that country are known to be swarming with varieties of fish. Beef and other kinds of fresh meat are also said, on the best authority, to be had in abundance.

It is stated the Rifles left Fort Garry on their return to Canada the 6th August, 1861. They arrived at York Factory, and waited some time there before the arrival of the ship, supposed, if not certain to be, the barque *Sir Colin Campbell*, David Gray, Commander, 457 tons register. She left on the 31st of August and arrived at Montreal the 10th of October, 1861. It is stated the Rifles proceeded direct to London, C. W., to join the headquarters of the corps, which had been established there temporarily during the civil commotion among our neighbours in the States.

Apologizing for the length of these remarks, I remain, Mr. Editor, your most obedient servant.

CHARLES WALKEM,
(Late R. E. Staff.)
Canada.

CORRESPONDENCE.

The Editor does not hold himself responsible for individual expressions of opinion in communications addressed to the VOLUNTEER REVIEW.

To the Editor of the VOLUNTEER REVIEW.

SIR,—In my last letter I called attention to the necessity of a better and a more liberal supply of food for our volunteers, I will now point out the necessity of supplying the men in a proper manner with water, one of nature's greatest blessings. During the performance of the two last Annual Drills a great amount of real suffering has been endured on account of the unsatisfactory manner in which the water has been supplied, I refer more particularly to the suffering of the men while on parade at Brigade drill. Mr. Editor, fancy if you can from three to four thousand men dressed in winter clothing in mid-summer, on parade in heavy marching order, marching and performing drill under the blazing heat of a July sun, with the perspiration flowing into their boots and without a drop of water to cool their parched tongues except what little can be carried in pails from a distance of a quarter to half a mile by a man appointed from each company for that purpose. Now, Sir, it frequently happens that some of the water carriers (being strangers to the neighbourhood) fail to find the well, and I have known some of them get tired and when wanted were found in the distance fast asleep, and the unfortunate company to which these men belong are compelled to do without or otherwise leave the ranks and beg for water, I have frequently seen

Batt., delayed several minutes before it could be brought properly to attention because several of its members were absent trying to obtain a drink of water. I have on several occasions noticed the arrival of water when a company was standing at ease, and before one quarter of it could be served out an order was received to come to attention, of course the water was immediately carried to the rear. I contend that nothing can be more trying to the discipline of our men than this, from the fact that the men with parched tongues had been patiently waiting for upwards of an hour for their water to arrive. I speak from experience when I say that the water would not be given up under the circumstances no matter what the consequence might be were it not for to *oblige their own officers*. If an open refusal to surrender the water under the above circumstances should occur, who would be to blame? certainly not the men themselves. If there is one mounted officer in the Volunteer Force who runs away with the idea that the men don't require water from the time of marching out until their return to camp, let him fall in as a private soldier in the ranks, it will require only one or two heavy drills to convince him of its necessity. If the system of brigading troops in hot weather is to be continued, it is high time that this disgraceful state of things was remedied, and for proof of my assertion I have only to point to the sufferings of the men on parade, and the confusion and delay that is constantly taking place on account of the men being compelled to leave the ranks in search of water. In my opinion the most proper method of supplying the men with water would be to attach a water cart (drawn by a horse) to each battalion during the Annual Drill, and by so doing we not only have the means of supplying each Batt. with water on parade, but the Battalion can also be supplied with plenty of wholesome water for drinking and cooking purposes while in camp. If this plan was adopted it would not only add to the health, and the general comfort of our troops, but it would also do away with the necessity of being compelled to use the slush from the City of Kingston which is wafted to the camp with every west and south-west wind that blows. Hoping, Mr. Editor that you will excuse me for occupying so much of your valuable space,

I am yours truly,
L.M.XLIX.

P.S.—I don't consider it necessary to issue water bottles in hot weather in time of peace.

The ex-Crown Prince of Hanover has been assigned the honorary colonelcy of the 42nd Austrian Infantry regiment. The motive for conferring this distinction is to avoid offending the German Emperor during his visit by obtruding upon him the sight of the old Honovarian Life Guard uniform which the Prince usually wears.

The completion of the Pacific Railway Survey is announced here and causes great satisfaction. The most difficult portion, contrary to all expectations, was found to be in the forests of British Columbia.



GOVERNMENT HOUSE, OTTAWA,

Monday, 14th day of April, 1873.

PRESENT:

HIS EXCELLENCY THE GOVERNOR
GENERAL IN COUNCIL.

ON the recommendation of the Honorable the Minister of Customs, and under the provisions of the 8th Section of the Act, 31st Vict., Cap. 6, intitled: "An Act respecting the Customs." His Excellency has been pleased to order, and it is hereby ordered, that the place known as River Bourgeois, County of Richmond, Province of Nova Scotia, be, and the same is hereby constituted and erected into an Out Port of Customs and placed under the survey of the Collector of Customs at the Port of Arichat.

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NOTICE TO SQUATTERS ON PUBLIC
LANDS.

THE attention of squatters on Public Lands is specially called to the regulations contained in the Order in Council of the 10th January, 1850, wherein squatting on Crown Lands is strictly forbidden.

No claim to purchase land by right of occupation will be entertained, unless such occupant was a *bona fide* settler on the land with substantial improvements at the time of inspection, and so reported by the Inspector. Improvements made on any Crown Lands since the time of such inspection, will be lost to the occupant, unless such occupation has been authorized by the Department.

THOS. H. JOHNSON,
Assist. Commissioner.

Department of Crown Lands,
Toronto. April 1, 1873.

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