

possible, ammunition should be supplied direct from the waggon bodies, the limbers both of guns and waggons being moved away to a safe place directly the battery comes into action. The gun-limbers should be kept as a last reserve, with full boxes and fresh horses, ready for an advance to the next position. If this system be finally approved, waggons must always be accustomed to be brought into action simultaneously with the guns. Gun and waggon should never be separated. This is a new departure, and one which must have an important bearing on future artillery tactics. The advantage of bringing up the waggons and unlimbering them in rear of the guns is that in the space of a few seconds every horse is taken away from the fire which the guns are certain to draw when once in action. The alternative method of serving ammunition from the gun-limbers and unhooking the horses meets with general condemnation from artillery officers. Certainly, in our view, unhooking horses under modern fire does not sound practicable. On this point we shall again await the Camp Commandant's report with interest and expectation. With reference to tactics, it is now more than ever settled that the battery is the unit for fire and manœuvre. Six guns with their waggons are as much as one man can bring into action and control with his own hand and voice. For purposes of organization, batteries are collected by threes into brigade divisions; but it cannot be too clearly understood that the purpose of the brigade division is for organization only, and not for drill or manœuvre. The colonel of artillery who in the next war tries to play the part of a cavalry brigadier, and heroically lead his three batteries into action, will lead them to certain destruction. The conditions of cavalry and artillery fighting are absolutely different. For artillery fire effect so much depends upon the local circumstances of the ground selected that each battery commander must reconnoitre his own ground and personally bring up his own battery on to the actual position where he is going to fight his guns. Such drill movements as are now practised at Woolwich and Aldershot—long advances of many batteries in line and deployments from deep columns—are unreal, unpractical, and misleading. For our part, we should wish to see what is known as precise drill limited to the battery, and any attempt to combine batteries together for drill movements forbidden. As soon as the fire discipline of a battery is perfect, and as soon as it can drill steadily under its own commanding officer, drill should cease and instruction in manœuvre begin.

The Drill and Driving Competition.

The official returns of the drill and driving competition of the Field Batteries, just made up by the Secretary of the Dominion Artillery Association, show that the Gzowski Challenge Cup, offered as the chief prize, has been won by the Durham Field Battery, with headquarters at Port Hope, Ont. It is the second win for this Battery, the former being in 1886. The cup has to be won two years in succession to give permanent possession, and it will be remembered that in 1887 Durham only lost by a fraction of a second, a piece of hard luck, which, now that they will have another chance for final possession, they deserve to have offset by a win next year. With the cup this year there went a cash prize of \$35. The second prize, \$25, was taken by the Ottawa Battery, whose time was only a few seconds more than that of the winners, and the third prize, \$15, was won by No. 1 Battery of the 1st Brigade. No. 2 Battery of the same Brigade were first last year, and this year they were fifth, so that the 1st Brigade make a very creditable showing.

The details of the competition were published early in the season. The prizes were awarded to the batteries performing the conditions in the shortest average time. For striking the pickets and other faults and mistakes in drill time is added by the umpire. The time given below is that after such additions had been made:—

Battery.	No. 1 Sub-Div.	No. 2 Sub-Div.	No. 3 Sub-Div.	No. 4 Sub-Div.	Total Time.	Average Time
	M. S.	M. S.	M. S.	M. S.	M. S.	M. S.
Durham.....	2 20	2 17	2 20	2 35	9 32	2 23
Ottawa.....	2 18.8	2 28	2 23	2 41	9 50.8	2 27.7
No. 1 Bty., 1st Brigade..	2 46	2 38.5	2 38	2 30	10 32.5	2 38.1
Quebec.....	2 27.4	2 39.2	3 06.6	2 32.8	10 46	2 41.5
No. 2 Bty., 1st Brigade..	2 40	2 48	2 52	2 35	10 55	2 43.75
Montreal.....	2 40.5	3 03.5	2 37	2 35	10 56	2 44
Gananoque.....	2 36	2 38	3 04	2 48.4	11 01.4	2 45
Welland Canal.....	3 36	3 01	2 47	2 47.5	12 11.5	3 02.9
Kingston.....	2 56.4	3 08.4	3 38.8	3 10	12 53.6	3 13.4

The Garrison Artillery Competitions.

Below will be found the details of the firing in the Garrison Artillery competitions recently held under the auspices of the Dominion Artillery Association at the Island of Orleans, and the prize lists for which appeared in last issue:—

40-pr R. B. L. Guns.

Halifax Brigade.

NO. 1 BATTERY.			Gr. Burgess.....			9.00			5					
	Time.	Score.												
Gr. McCallum.....	7.50	6	Gr. Thomas.....	6.37	24									
Corp. Pierce.....	6.22	23	Total.....								57			
Sgt. Jackson.....	5.40	16												
Sgt. Frawley.....	8.05	23												
Total.....		68												
NO. 2 BATTERY.			NO. 5 BATTERY.			Bty.-S.-M. Kiddie.....			6.08			8		
Sgt. Byres.....	7.25	15				Corp. W. H. Theakston..	5.50	8						
Sgt. Carroll.....	8.00	18				Gr. McDonald.....	6.20	22						
Corp. Marshall.....	7.00	19				Corp. Cunningham.....	5.41	17						
Sgt.-Maj. MacKay.....	6.30	14				Total.....		55						
Total.....		66												
NO. 3 BATTERY.			NO. 6 BATTERY.			Sgt. Marshall.....			7.00			18		
Sgt. Weatherby.....	6.50	15				Sgt. Snow.....	5.25	18						
Corp. Spence.....	6.42	22				Bdr. Harmon.....	6.30	14						
Sgt.-Maj. Case.....	6.23	27				Gr. Watson.....	6.20	15						
Gr. Morgan.....	6.22	20				Total.....		65						
Total.....		84												
NO. 4 BATTERY.			NO. 7 BATTERY.			Sgt. Doane.....			6.25			11		
Sgt. Bartlett.....	8.25	22				Corp. Pritchard.....	5.00	14						
Sgt. Broadhurst.....	7.06	6				Bdr. Campbell.....	6.10	12						
Total.....		28				Gr. Hodgson.....	6.00	10						
						Total.....		47						

Montreal Brigade.

NO. 1 BATTERY.			NO. 4 BATTERY.			Sgt. Finlayson.....			7.32			15		
Gr. Stewart.....	6.03	8				Sgt. Clarke.....	5.22	14						
Gr. Harper.....	6.40	20				Sgt. Laird.....	5.13	8						
Gr. Salmon.....	5.45	10				Bty-Sgt.-Maj. Dowker....	5.55	7						
Sgt.-Maj. Benton.....	6.05	3				Total.....		44						
Total.....		41												
NO. 2 BATTERY.			NO. 5 BATTERY.			Corp. Norris.....			5.10			10		
Bdr. Wighe.....	4.15	7				Gr. Fradd.....	6.43	14						
Bty-Sgt.-Maj. Beattie....	6.11	6				Gr. Phillips.....	5.03	7						
Gr. Overing.....	6.34	16				Gr. Hammond.....	5.41	14						
Gr. Heissner.....	5.23	16				Total.....		45						
Total.....		45												
NO. 3 BATTERY.			NO. 6 BATTERY.			Bmbr. Gubian.....			6.45			12		
Sgt. McDonald.....	6.10	15				Gr. Edmunds.....	5.00	5						
Gr. Goodfellow.....	7.22	10				Bty-Sgt.-Maj. Figan.....	5.15	5						
Gr. Foreman.....	5.17	7				Sgt. Allison.....	5.12	8						
Bty-Sgt.-Maj. Jones.....	7.15	18				Total.....		30						
Total.....		50												

P. E. Island Brigade.

NO. 1 BATTERY.				Sgt. Coffin..... 7.05 22			
Gr. Scantlebury.....	7.29	9		Total..... 53			
Sgt. Ofter.....	6.05	12					
Bmbr. Proud.....	5.53	12					
Corp. McDonald.....	5.07	6					
		—					
Total.....		39					
NO. 2 BATTERY.				NO. 3 BATTERY.			
Corp. Quigley.....	11.58	5		Gr. Alley.....	7.43	21	
Gr. Johnson.....	6.09	17		Gr. Owen.....	9.45	13	
Gr. McLaren.....	6.30	9		Gr. Wickwire.....	5.53	3	
				Gr. McCormick.....	7.35	6	
				Total.....		43	

Yarmouth Battery.

Corp. Haley.....	6.10	19												
Bmbr. Hulsman.....	7.15	19												
Gr. Purdy.....	6.33	17												
Gr. Clarke.....	7.07	19												
Total.....		74												

New Brunswick Brigade.

NO. 2 BATTERY.				Gr. McKay..... 8.18 11			
Gr. McCavour.....	9.30	17		Total..... 54			
Sgt. Lee.....	8.17	3					
Gr. Smullen.....	8.20	4					
Gr. Lord.....	7.32	9					
Total..... 33							
NO. 4 BATTERY.				NO. 5 BATTERY.			
Corp. Hatt.....	7.05	17		Gr. Linton.....	9.19	14	
Gr. Law.....	11.35	10		Sgt. Semple.....	7.20	14	
Gr. Kerr.....	12.21	16		Gr. Rayne.....	6.27	11	
				Corp. Brownell.....		
				Total..... 39			