

bered, the infantry fire is dead. While the battery, on the pivot flank, can continue its fire without intermission, that on the reverse flank should trot into a new position to do so, long before the infantry columns have deployed to deliver fire or melted into skirmishers. But at all times considerable freedom to advance should be given to a battery commander, who, it must not be forgotten, holds a tactical unit, and, if he is a man of decision, will not let slip golden opportunities of action by any undue waiting for orders which may have miscarried in the confusion of battle. He should, however, remember the golden rule of Taubert, i.e. "Divisional Artillery, is merely an auxiliary arm, and that the infantry, and not the artillery, is the chief element in an action. It is, therefore, the duty of that artillery to comprehend the object momentarily in view, with quickness and accuracy, and powerfully to support the infantry in combat."

The following simple practical rules may be of assistance to battery commanders and others whom it may concern :

1st. *If you cannot march you will never fight.* A few galled, lame or broken-down horses among your teams, mean the disgrace of abandoning a gun or ammunition wagon.\* In this case prevention is the only remedy which a steam-power commander cannot ensure, unless in time of peace he has forged a chain of responsibility, every link of which bears a steady strain, from the subalterns commanding divisions, the sergeants in charge of sub divisions, down to the individual driver.

2nd. *Regularly trained Artillery collar-makers, shoeing-smiths and wheelers are very important personages, and should be well supplied with tools and materials.* Otherwise, misfitting harness, that would produce many galls, would seem to be inevitable with Volunteer batteries turned out suddenly.

3rd *Your limber gunners must be able to lay their hands on every article in the limber boxes, 2 and 3 greasing wheels, screwing-up bolts, &c.*

4th. *As you generally have to commence the fight, never lose an opportunity of getting permission for your guns near the head of the column of march, except in a wooded or close country. Under all circumstances, in addition to your eclaireurs in front, have a couple of intelligent mounted markers, non-commissioned officers, well in advance, to seek out passages over dittoes, swampy ground, &c.*

5th. *Procure maps, even when familiar with the country—they are necessary for directing others—and habitually use them, folded the size of your sabbatuche.*

6th. *Note carefully every cross-road or lane, as a means of breaking away to a flank, from which you will beat be able to assist your infantry deployment by partially enfilading the enemy's line.*

7th. *Avoid the converse of the above, that is getting jammed up between the leading battalions of infantry, whose deployment will probably be checked unless you cover it, while the rear battalions press up and crowd round you, restricting your action.*

8th. *Keep an eye on your neighboring infantry, with a view to mutual support in case of a rush by the enemy. Escort-duty of guns is distasteful, except there is a strong feeling of camaraderie for the artillery. Infantry are unable to keep up, and losing sight, perhaps, of both guns and their own battalion, wander off disgusted. Cavalry are little use against a resolute line of skirmishers. The proper escort for guns would be the remaining cavalry—the long-talked-of mounted riflemen!—and their place, the exposed flank of the battery, dismounted and under cover when practicable. If they formed part of the establishment of the battery, they would be doubly valuable filling casualties at the guns, or getting them out of difficulties with breast harness, which they should carry on their riding horses.*

9th. *Leave your ammunition wagons under charge of the Quartermaster Sergeant, or an officer, if available, to follow at a distance, taking advantage of accidents of ground, and to re-*

placing expended ammunition by sending up wagon-limbers to be exchanged for the empty gun-limber, which, when refilled, can again come up. It might be advisable to do away with wagons and have only an increased number of limbers, for facility of movement, &c.

10th. *In advancing into action, the commander rides several hundred yards in front to select a position and avoid a cul-de-sac; he is accompanied by his trumpeter and a mounted marker from each division to act as range-finders, carrying a pocket sextant and a measured piece of fishing line on a reel, to take a base on Colonel Drayson's plan. The battery is brought up, silently by the sword-arm signals of the commander, who will endeavor to bring up guns without being seen by the enemy, unlimbering in rear of a slope to avoid the teams appearing on the sky-line, and running the guns up by hand when practicable.*

11th. *The points for consideration of a position are, in order of importance :*

(a) *Efficacy of fire ;*

(b) *Cover for the pieces and limbers, if possible, the reverse of a gentle slope permitting guns to be withdrawn till the muzzles only can be seen; best fulfil this condition, or 20 minutes with the entrenching tools will give cover if no hedge or bank is available; a screen of bushes or a Canadian rail fence with a little earth thrown up gives confidence ;*

(c) *Position of the other troops, your own and the enemy ;*

(d) *Facility of advance ;*

(e) *Facility of retirement.*

These conditions are seldom united in an equal degree. The commander must at once decide which is the most important to secure the object of the engagement, and which to give up as least essential. No position can be called a good one that does not fulfil the first condition.

12th. *Avoid unmasking the position by opening fire until a worthy object is within range, which should not be above 2,500 yards, the limit of field-glasses by which the results of fire can be ascertained.*

13th. *Open fire deliberately from the leeward gun, firing a little short of the estimated range, increasing and correcting the elevation of the remaining guns, firing more rapidly as the range is ascertained or comes to close quarters; but never waste ammunition, which encourages an enemy, misleads your men and is difficult to replace. "If ordered to fire, (unlesly in your own judgment), obey; but fire as slowly as possible."\* Opening fire at too long ranges is the vice of all arms and armies; restrained fire raises the confidence of those who practice it, and none can do so more steadily than the English, while it depresses those who have to advance on a comparatively silent foe.*

14th. *"Guns should bear on that arm of the enemy's force which threatens most—as a rule, the enemy's infantry, or cavalry, rather than their artillery." When you do fire on an opposing battery, not in self-defence, but to save your own infantry being shaken before a contemplated assault by the enemy, let it be understood in your own battery that you concentrate on their centre gun (common shell and percussion fuzes), and when silenced, turn attention to that on its right, then left, and so on.*

15th. *Guns being useless while limbered up, and a change of position necessitating a fresh estimate of range, the number of changes of position in action should be a minimum and the pace a maximum, provided it is steady.*

16th. *The subaltern's command of two guns should never be separated—they are battle comrades, and form as complete a unit as an infantry company. They are often detached from the battery for advanced guards, or quasi outposts. It is not good for a gun to be alone; alternate fire is essential.*

17th. *Having a favorable position, keep it until the enemy retires beyond 2,500 yards, or your own troops mask your fire*

\*Not so with Cavalry, when a sore back means only a dismounted trooper.

\*Orders of Frederick the Great to his Artillery.