

FIELD ARTILLERY FIRE.

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(From Proceedings of the Royal Artillery Institution.)

FIRE DISCIPLINE.

In the days of smooth-bore weapons effective ranges were very short, and shooting was very inaccurate; with the musket of 1842 the percentage of hits on a target six feet high by 20 feet broad was :

At 100 yards.....	74.5
" 200 "	42.5
" 300 "	16
" 400 "	4.5

Artillery was therefore used at what are, to us, very short ranges, from 400 to 600 yards, and even closer; guns were only sighted to 1,000 or 1,200 yards, and beyond 600 yards the effect of fire became very uncertain; at the range of 1,000 paces only one-third of the shot hit the target then in use, which was six feet high and 50 paces broad. The method of procedure was for the battery commanders, using their batteries as tactical units, to bring their commands in as close as possible to the enemy and open fire, having first ordered a rough approximation of the range to be given as elevation. In none of the old works on artillery fire do we find any mention of any subsequent proceedings for the purpose of rectifying the elevation, the reasons for which are very apparent :

(a) The smooth-bore might or might not respond to small alterations of elevation, and such were really of not very great importance since, round shot being used, the projectile, if it fell short, would generally ricochet on some part of the target.

(b) All subsequent corrections were made by the No. 1, for we find in all the older drill-books that "after giving the word 'Ready' No. 1 will step to that side of the piece from which he can best observe the effect of his round." Indeed, this observation was easy, for the eye could follow the projectile over its short trajectory.

Again, in the older drill-books we do not find any stress laid upon the accurate pointing out of the target to the sectional officers and gun-layers; the reason for this is again obvious; at the short distance which separated the two opposing lines it was seldom possible that there could be much, if any, great choice of target to select from; it was like fighting in a crowd where it is only possible to hit out against the man immediately opposite. Thus, when a battery came into action, it is probable that the target and elevation were indicated only in the most sketchy manner, such as "Artillery in front, 400

yards;" the selection of the particular portion to fire at, and all subsequent corrections of elevations, fell to the section officers and No. 1. Indeed, most of us can remember the field days, the survival of the old procedure, when a battery seldom had an objective pointed out to it, sometimes even no elevation was given, and it was not unusual to hear the words "Blank cartridge, load! Fire one round from right to left and cease firing." The joy of getting off a round before one's neighbor being the reward for this, what is to-day an enigmatical proceeding.

With smooth bores then, the battery was the tactical unit, and the commander had to study and give his attention, to a great extent, to the tactical situation, while the gun, or at most the section, was the fighting unit.

Under the above conditions a system of fire discipline, as we now understand the term, did not exist, nor was there any necessity for it; but the close proximity of the enemy, and the consequent greater excitement of the men, made a most rigid system of drill discipline of paramount importance, in order that, in the turmoil of the fight, they might perform mechanically those functions which hours of laborious training on the drill-ground had taught them to carry out with the precision of a machine. In fact, what was desired was "Discipline under Fire."

After the introduction of rifled arms it was found that the old method of procedure was no longer possible. The greater range at which it is now necessary and possible to fight gives a very large choice of target to the batteries and makes a careful pointing out of the objective necessary, and as it is no longer possible for gun-layers to observe the effect of their rounds, and thus correct their elevation (which, owing to the improvements in projectiles, has become of great importance), this duty of the observation of fire and the rectification of the elevation becomes the duty of the battery commander. In order to give him time to attend to these increased duties it is necessary to relieve him of all, or almost all, tactical considerations, which now devolve upon the officer commanding the brigade division.

Thus, the Brigade Division has become the tactical unit and the Battery the fighting unit. That is, with the officer commanding the Brigade Division rests the responsibility for

manœuvring of, and the position taken up by the batteries, and the tactical application of their fire under such orders as he may receive from the Divisional General, while with the Battery Commander lies the responsibility for the technical administration of the fire of his battery.

It is only necessary to recapitulate these onerous tactical duties to show how much they must have occupied the Battery Commander of former days to the almost total exclusion of technical affairs.

The duties of the tactical commander, the officer commanding the Brigade Division, are now as follows :

1. To consider the tactical situation not only of his own troops, but also that of the enemy.
2. To select and reconnoitre positions.
3. To point out the objective and divide it among the batteries under his command, changing it from time to time with the fluctuations and progress of the fight.
4. To control the rate of fire and thus nurse the expenditure of ammunition against the critical period of the battle, and to ensure the renewal of the supply, *i.e.*, beyond that in the immediate possession of the batteries.
5. To receive all orders from the commander of the troops and to keep him well informed.

Having been relieved from his tactical responsibilities the Battery Commander can now turn his full attention to the technical administration of his fire. It is a question of some moment to define precisely how far the commander of a Brigade Division may interfere in the technical working of a battery, but, it may be taken as a general rule that if he does so, he does it at the imminent risk of losing sight of the important and absorbing role that falls to his share. There are, no doubt, occasions when the interference of the Brigade Division Commander is warranted, but, except on the practice ground, it is a matter which involves a great possible danger, and should, therefore be strenuously avoided.

To enable a Battery Commander to fight his battery, a sound system of fire discipline is necessary.

The British has been the last artillery of the European powers to adopt a definite system of fire discipline, and this arises, perhaps, from the fact that we have never, since the introduction of rifled guns, been pitted against an enemy in the field who could take advantage of our lack of this quality. Against those with whom we have had to deal, the old "go in and win" system has been very efficacious, owing to the prestige attaching to it, and possibly on account of the indifference of the argument opposed to it.