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The Light Field Artillery in France



An Address Given Before
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Loyal Legion

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Light Field Artillery

In order to understand the method used in modern Field Artillery, it would be well to give a brief outline of the instructions given to the officers and men.

Practically all of the officers of my regiment had been candidates in an Officers' Training Camp, and most of the Battery Commanders and some of the Lieutenants had had a very complete course at the School of Fire for Field Artillery at Fort Sill, Oklahoma; all having had range practice on the artillery range with the United States three-inch piece, each battery having fired about 500 rounds of ammunition before we sailed for France.

Arriving in France, we had a complete course in the French Artillery methods, which were considerably different from our own. The French battle maps were made on the Lambert system of grids, which divided all the theatre of operation into squares representing one square kilometer each. The maps were generally on a scale of 1 in 20,000, so that a kilometer was represented by about two inches on the map.

We had a great deal of training in map firing both in the school and on the range, so that it was possible without seeing a target to range accurately on it. This necessitated, besides a careful study of the map, very accurate corrections for the atmospheric conditions.

While in training on the range and at the front, observation balloons furnished, every three hours, the height of the barometer, the direction and velocity of the wind at different elevations, and the temperature of the air. In addition to these data, it is necessary to know the temperature of the powder, the weight of the projectile and the powder lot. From the figures the gunner refers to his range table, which gives the muzzle velocity, the height of trajectory, angle of departure, the angle of fall and the probable error.

Now, by hasty calculations made in accordance with the set mathematical formulas, you are able to figure very accurately just where your projectile is going to fall, but you must take into

account that any change in any of the items above mentioned will affect in some way the direction or the distance traveled by your projectile.

In addition to instructing the officers on the above subject, it is necessary that they be trained in observation of fire and in being able to give quick and accurate orders for adjustment of fire, and also to transfer their fire accurately and rapidly from one objective to another.

The officers must also know the use of the various optical instruments, which practically includes a short course in surveying, a complete understanding of the telephone instrument, the telegraph instrument, a knowledge of the International Morse Code, radio telegraphy, and the installation and upkeep of telephone and telegraph lines.

They must then have thorough experience in the practical working of the piece, so that they can in turn train the gun crews. This is very important, for all gun crews must be taught exactly alike, so that any officer can handle any crew.

The average officer who came to us was not very well acquainted with the horse, and in addition to teaching him the fundamental principles of equitation it was necessary to go into the subject of principles of draft, the care of harness, the care and feeding of the horse, and general study of hippology and the care of the foot.

Before mastering the above subjects it is understood that the officers should have the ordinary infantry training, especially the use of the rifle, revolver and machine gun, and the ordinary principles of camp and field sanitation.

The officers then in turn must teach the enlisted men most of the subjects above mentioned, with the exception of the adjustment of fire. In my own regiment reconnaissance details, telephone, telegraph and radio details, and the scouts, the battery cooks, the battery barbers, mechanics, horseshoers, and in fact every man in each battery in addition to having training in his own particular branch, were taught to be of some service on the piece, and every man in the regiment had acted in some capacity in the gun crew. This gave us in each of our batteries four complete gun crews for each piece.

It can be easily seen from the above schedule that a field artilleryman is a combination of infantry, cavalry, signal corps, engineer and a general mathematician.

The main functions of light field artillery are the support of the infantry; to lay down a curtain of fire or a defensive barrage in case our own infantry are attacked; to remove obstacles such as barbed wire and machine gun nests in an advance, and to lay down a creeping or rolling barrage a short distance in front of the infantry wave when they are attacking. Light artillery is seldom used for counter battery work, as the light projectile has no serious effect on modern gun emplacements. It can, however, be used very successfully in neutralizing the effect of field artillery fire in the open, in interdiction fire on cross roads, to impede the approach of supplies and reinforcements for the enemy, and is especially good in gas attacks.

My regiment was equipped with French 75 millimeter guns, which are just a little smaller than three inches. The guns and caissons are each drawn by six horse teams, and the near horse is ridden. Seventy-two rounds of ammunition are carried in each caisson and twenty-four rounds in each limber. There are four guns in a battery, three batteries in a battalion and two battalions to a regiment. The battalion is the unit in actual operation and under normal conditions when it enters the line it carries 3,348 rounds of ammunition.

As far as possible a position is entered under cover of darkness. All the caissons and limbers are removed to an echelon some distance behind the line, leaving only the pieces in position. Camouflaged nets are immediately placed over the pieces and trenches are dug to protect the personnel and the ammunition which is stored near the guns.

A liaison officer goes forward with the infantry, with his own telephone line, and is in constant touch between the infantry and the artillery which is supporting it. The liaison officer, perhaps, has the most exciting part in field artillery. I had one liaison officer who went forward in the very front wave of the infantry attack three times in three consecutive days. During his very first attack he was hit in the wrist with a fragment of shell. He made a tourniquet out of his handkerchief and continued in the attack, giving me first-hand information all through the three attacks. When the attack was halted he climbed a tree in plain view of the enemy, and continued sending information from that point, although he was fired on continuously with machine gun fire. He was with the infantry seven days, and during that time he had no chance to lie down to sleep.

The telephone linemen also have very interesting occupations. It was necessary at one time to establish my observation post out

beyond the front line of infantry. We were equipped with a telephone instrument connecting us with the battalion. Telephone communications were broken and the linemen in going from the observation post back to the battalion, which was only a distance of two kilometers, repaired sixty-five breaks in one telephone line. During the time they were working on the line the Germans were firing with one-pounders, 77-millimeter high explosive shells and 150-millimeter shells.

We very seldom had any sight of the enemy. Sometimes we would enter a position, open up and fire for two or three days without having had an opportunity to see where one of our shells was falling. I recollect one instance where, after two days' action, we had an opportunity to establish an observation post from which we could see that all the batteries were hitting exactly where they had calculated. This means that every three hours changes were made in the range and deflection to keep up with the atmospheric changes during the day and night, and that not one of the officers had made a mistake in any of these complicated calculations during that time.

Another time it was reported to me by the Major of the infantry we were supporting that we shot up 157 machine gun nests in one afternoon, though we were not able to see one of these positions. In every case either the machine gun was put out of action or the crew were completely annihilated.

I mention these examples to show how thoroughly these young officers had mastered the principles of field artillery, for it should be borne in mind that not one of them had any previous military training.

From what I have said it can be seen that in order to be efficient an immense amount of training is requisite to make a satisfactory soldier nowadays. Anyone who says that the United States could raise an army of one million men over night is certainly misinformed, for the men are of absolutely no use unless they have been thoroughly trained.

I have taken a great deal of time in explaining the technical part of field artillery, but most of modern field artillery is simply the application of ordinary business principles and a practical application of mathematics. Of course, there is some excitement at times, but one is generally so tired and worn out that it would be almost a relief to get hit with a shell and end the misery of being dead tired, hungry and thirsty.

I dreaded the time when my battalion would be first subjected to shell fire, as I had some anxiety about the manner in

which the men would stand up under it. We received our initial shelling about three o'clock one morning. We had been making a forced march from our detraining point. The horses were green and had been on the train for over fifty hours. Our second battalion had detrained twenty-four hours before us, and I received orders on the march to overtake them and join them in position. We marched forty-five hours and joined our second battalion, which was just going into bivouac very close to a French battery in action. The Germans had a pretty good range on this battery, and we had just about finished unhitching when they started to shell. Instead of any fear being shown, the men joked about the screeching noise made by the shells on their approach, and I noticed not one remark that showed any fear whatsoever. I believe the men were so tired that they really didn't care.

The next morning we went into position in the line and shelling became part of the regular day's routine.

One of the characteristics of the average American is to boast about the prowess of everything connected with the United States. In our school history all the stress is laid on our victories and very little is said about our shortcomings. There were many instances at the front where very disastrous results should have occurred through inefficient planning of some of the attacks, but which turned out very favorably, for no other reason that I can see but sheer Yankee luck. There were many lessons taught us which should be more deeply considered to avoid future mistakes. One of the big causes for trouble was the lack of training of the average infantry officers and the general staffs in being able to locate their positions accurately on the map. This, of course, was due to insufficient practice in map reading. I know in one case that both the Division Commander and his chief of staff had so little knowledge of the ability of field artillery that in planning an attack they ordered artillery preparation on a position which they covered with nearly the whole palm of their hand and said they would like to have concentrated fire in this position. As a matter of fact, they covered an area of something like four square kilometers or more. These maps are prepared with contour lines showing depressions and elevations in the terrain. They very frequently mistook a hill for a depression, and it is easily seen what the result would be if their instructions were carried out literally.

Another very serious difficulty arose from the infantry commanders ordering us to place a barrage on a certain location which was identified by the map and which, if this were carried out, would result in the artillery placing concentrated fire either

within or behind our own lines. This mistake was so frequent that we would never fire on a spot indicated by the infantry unless our own artillery officers verified the position, as I have been requested by the infantry to fire on a position as far back as a thousand meters behind the point where they thought they wanted the fire.

I have also been ordered to place my artillery as far as three kilometers beyond our own lines. At one time I had three officers walk directly into a German machine gun nest because they were ordered by a general in person to establish an observation post which really would have been within the German lines.

Of course, it is a very difficult matter in strange territory, especially in wooded land, to be able to tell exactly where you are from a map and compass, but it is highly essential in modern warfare to be able to do this, and the infantry and the general staffs should be given the same training as the artillery in this respect.

During the last fight on November 11, 1918, which was the morning the armistice was signed, our own and another regiment of artillery were in position in a valley surrounded on two sides and in the rear by steep hills. During the night the infantry that we were supporting had been very badly shot up and some of the organizations of the regiment we were supporting had fallen back even behind our own gun positions. The balance were so disorganized that even the officers did not know where the location of their respective organizations should have been, which meant that there was no organized infantry in our front and that our front line really consisted of two regiments of light artillery. Just through luck, either the Germans lacked the information or did not have sufficient strength to follow up this advantage, or they could have captured all our guns.

When one considers our absolute unpreparedness at the time the United States went into this war, and the tremendous effort that we made to organize the army that we had in so short a time, it was simply marvelous to think of the way we were able to stand up at all against the trained German army. It was impossible to conceive of a better personnel than that which composed our army, but the lack of training was evident at nearly every turn. I am a strong advocate of national preparedness, and I sincerely hope that a lesson will be learned from this war that will sufficiently arouse the people not to drift back to the old shiftless view held by the majority of citizens before our entrance into the war.

The march to the Rhine, which should have been a victory parade, was really one of the greatest hardships that we encountered during the war. The men suffered through lack of clothing, especially of shoes, and our animals were not sufficiently nourished, all due to the failure to properly accompany the troops with supplies. There is no complaint about this, as everybody realized that everything was being done that was possible under the circumstances, but simply to dismiss the subject with this excuse would be very unwise.

The laurels of victory are bound to live and should live, but they should not completely overshadow unfortunate mishaps from which we should learn and remember some of the valuable lessons which this war has taught us, and I am very much opposed to all praise and no constructive criticism.

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