CHAPTER IX

TRAINING OF THE DIVISION FOR WAR

O part of this book should prove more interesting to one who seeks a correct understanding of the war accomplishment of the 27th Division than this chapter on the training of the division. The character of training received by the *personnel* of the division very largely determined the standard of their efficiency. Viewed superficially, it does not seem a difficult matter for any experienced officer to prescribe an appropriate course of military training suited to meet the needs of a particular body of troops. When, however, the problem is carefully examined, it will be found always that there are many circumstances which affect its solution, and which call for decisions that are certain to affect favorably or adversely the general result. In the first place, a course of training suited to an organization that may have had little field experience might not be productive of good results in another organization schooled and experienced in field work. Again, modern war is so comprehensive in its operations and so complicated in its details, that the great number of activities in which the men should be trained is apt to twist training programs from the solid foundation of fundamental necessities to the instabilities of new and attractive specialties.

The initial training of a newly organized war army is always influenced by the peace-time customs and experience of the professional army maintained in peace.

In all countries in time of peace the business of soldiering is left largely in the hands of professionals. Particularly has this been true in Great Britain and in the United States. In these countries the regular or standing army, through force of circumstances, has been left largely to itself and, in consequence, has lived to a considerable extent separate and apart from the people as a whole. Under such circumstances it was natural that a percentage of regular officers in the course of half a lifetime should have become more or less out of touch with the things that dominate the interest and determine the habits of their fellow countrymen. This condition made it difficult for such officers fully to understand the psychology of the army in which they served, when that army became almost wholly a citizen army. This condition was accentuated by the experience of the professional officers with the men who constituted the soldiers of the peace-time professional army, for there was a tendency to assume that because these soldiers came from the people, they were truly representative of the people. And in relation to training, it was natural for such officers to assume that the military organization, methods and discipline which their experience told them were best for regular soldiers would have equal effectiveness with the citizen soldiers. Nothing

of course could be more incorrect. The war army included in its make-up the best young manhood of the country—the young men of education, sense of responsibility, intensity of purpose and a capacity to attain success in almost any field of effort engaged in. Obviously, methods of training and discipline necessary for the government of regular soldiers in time of peace needed modification before being applied to young men of this type, who were in the army at personal sacrifice and for the express purpose of doing whatever was necessary to be done to defeat or destroy the enemy in the shortest time and in the most effective manner. There existed also in time of peace in the Regular Army features of professional soldiering—social, academic, technical, political, disciplinary and organizational which had little relation or value in the development and conduct of a war army. As a matter of fact, many of these features served only to trip and tangle, annoy and delay those who had big and important tasks to do under military jurisdiction. The great corps of reserve officers complained feelingly of these features at the outbreak of the World War, and ultimately the ultra-conservative professional officers, who were instinctively and almost reverently laboring to preserve such things, were pushed aside.

In our own Regular Army the system of promotion by seniority without elimination of the unfit, which had obtained for so many years, was responsible for much of the inefficiency that obtained in the army for a considerable period after the outbreak of the war. Thus it was that elderly officers of little imagination and with no real experience in handling large numbers of men, or in any kind of important work, but with kingly dignity, fostered by years of formalism, were found in charge of important posts for which they were completely unfitted. It was this type that constituted the *bête noir* of the virile and energetic officers who were assigned as their assistants. It should be a source of pride to the Regular Army that in spite of the deadening influences of army peace-time existence, they produced so large a number of officers of great capacity in this war. Some of these when they attained the necessary rank and authority were most ruthless in weeding out and rendering innocuous the class above criticized.

When the war came it was a question which group, the professional or the citizen officers, were most changed as a result of war service. A score of comments and inquiries every day showed that some of the professional officers for some months after the war commenced were like persons in a dream, so new and extraordinary to them seemed the events that were transpiring. Pay day and no men drunk, train loads of supplies received, unloaded, checked and issued in a period of time usually required for the unloading of one truck, pumping stations installed, pipe lines laid, motors repaired, telephones installed, instruments of all kinds operated by soldiers already skilled in their work.

Obviously, training programs which did not adequately reckon with the efficiency assets brought into the army by the war officers and recruits were programs needing prompt revision.

Another consideration which vitally affected training was the question of the length of time necessary for the development of a soldier. Prior to the war, professional soldiers were almost unanimous in their opinion that at least three years were required for the training of a soldier, and as far as the officers were concerned, obviously this training involved a much greater period of time. Major General Leonard Wood was the first officer of rank to deny the truth of these assertions. Some years before the war he organized a detachment of Regular Army recruits, selected instructors and prescribed a course of training for them with the result that in a period of a few months they had developed standards that excelled those of organizations of the Regular Army largely made up of so-called old and experienced soldiers. General Wood followed this successful experiment by the inauguration of the training camps for civilians (college students and business men). He had been quick to see what the mass of the army had overlooked, namely, that the vital qualities which an officer must possess, that is to say physical fitness, education, intelligence, industry, courage and resourcefulness, are already the possessions of the best of the young manhood of the country, and that by limiting the training camp enrollments to men who met such requirements, he would be concerned in the problem of training almost wholly with the technical side of the subject. The great success of the Officers' Training Camps which were later officially adopted for the production of war officers demonstrated conclusively that in our country a veritable army of junior officers could be quickly trained from among the masses of young men when the selections were made upon merit to meet the fundamental requirements referred to.

These points are mentioned in this chapter on training because they furnish side lights upon the subject of divisional training as that was presented for consideration when the division was concentrated at Camp Wadsworth.

There were other interesting considerations and influences which affected the question of training which should be mentioned. There were numerous officers, most of them British, who sincerely believed that the war would be won with the bayonet. Others just as sincere advocated that all training should be subordinated to the development of machine gunners and machine gun units. Still others believed in the dominating importance of bombs, or of grenades, mining operations, gas, airplanes, or of some other specialty. There existed also a school of officers who believed that the World War marked a complete change in tactical principles and that time expended in maneuvers was time wasted. Such officers believed that trench warfare should be featured in training and every detail of trench operations worked out with the greatest nicety and precision.

In 1917, the so-called warfare of position, popularly known as trench warfare, had become so completely a part of the lives of the foreign armies that all military considerations seemed to be materially affected by its influence. The higher officers in all the armies knew that an ulti-

mate decision could not be gained by force of arms without a change to the warfare of movement, and that the then existing state of war was but a period of preparation for the other. But in war the will of the commander is affected and limited not only by factors of weather, topography, numbers and armament, but also to a greater or lesser extent, dependent upon the individual, by the experience and convictions of those about him. In 1917, when the writer served with the British and French armies, he seldom heard a foreign officer express confidence in any plan to penetrate the German defensive and force a change to open warfare. As one British officer said, and his point of view was typical of many at that time, "It probably is possible, with an unlimited supply of artillery, ammunition and of replacements, to barrage and fight our way through some part of the line and to bring on a battle in the open country now held by the enemy, but there are not enough shells or men to meet the demands of such a plan." And so the attacks and offensives of the Allies were for a considerable period of time carried out more or less locally and with limited objectives, for the purposes of gaining a ridge, or relieving pressure elsewhere, or getting out of bottom land, or driving in a salient, or of removing one held by the enemy. The French under Marshal Joffre called this policy one of attrition. This state of mind and policy is referred to by Philip Gibbs in his most interesting book, "Now It Can Be Told." He says:

> "In the early days the outstanding fault of our generals was their desire to gain ground which was utterly worthless when gained. They organized small attacks, against strong positions, dreadfully costly to take, and after the desperate valor of men had seized a few yards of mangled earth, found that they had made another small salient, jutting out from the front in a V-shaped wedge, so that it was a death trap to the men who had to hold it."

Speaking of 1915, he says:

> "The battle of Loos and its aftermath of minor massacres in the ground we had gained—the new horror of the new salient—had sapped into the confidence of those battalion officers and men who had been assured of German weakness by cheery, optimistic, breezy-minded generals. It was no good some of those old gentlemen saying, 'We've got 'em beat!' when from Hooge to the Hohenzollern redoubt our men sat in wet trenches under ceaseless bombardment of heavy guns and when any small attack they made by the orders of a high command, which believed in small attacks, without much plan or purpose, was only 'asking for trouble' from German counter-attacks by mines, trench mortars, bombing sorties, poison-gas, flame throwers and other forms of frightfulness, which made a dirty mess of flesh and blood, without definite result on either side beyond filling up the lists of death. 'It keeps up the fighting spirit of the men,' said generals. 'We must maintain an aggressive policy.' They searched their trench maps for good spots where another 'small operation' might be organized. There was competition among the corps and divisional generals as to the highest number of raids, mine explosions and trench grabbings undertaken by their men."

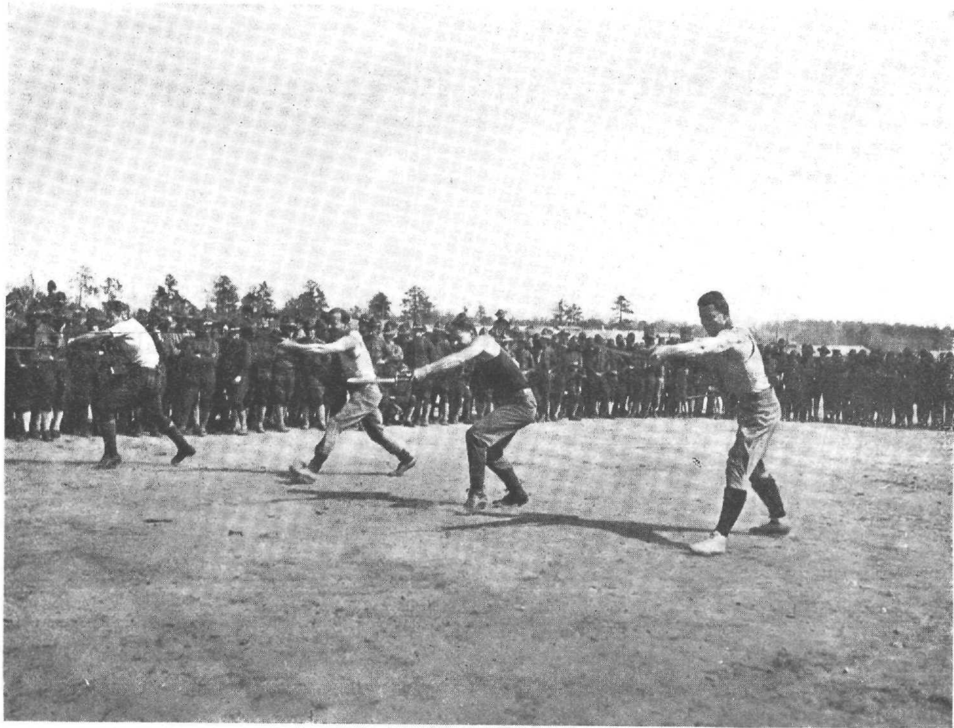
And so it came to be accepted by many officers that this war was to be fought and won by the development and application of principles and methods wholly new. It is, therefore, particularly interesting to reflect at this time upon the mental attitude of the man to whom was entrusted the destinies of the great American army, known as the American Expeditionary Forces.

After the writer's service with the British and French armies, referred to in the previous chapter, he was, with other division commanders, ordered to General Headquarters of the American Expeditionary Forces at Chaumont. The party was to dine there with General Pershing, but as he had been unexpectedly summoned to Paris, the dinner was held aboard a train *en route* from Chaumont to Paris. After the meal, in groups of two or three at a time, the officers constituting the party visited and chatted with the Commander-in-Chief in his compartment. One of these officers made some reference to the possibility of a stalemate on the Western Front, a term frequently used at that time. It was then that General Pershing sat straight up in his seat and accentuating his remarks with vehement vertical gestures of the forearm, said: "Gentlemen, there will be no stalemate. The war will be won and right here on the Western Front. And while I am on this subject, let me add that I was amazed a few days ago to hear an American officer say that the Western Front could not be broken. I sent him away. I will not have an officer with me who talks or thinks that way. I repeat, we shall break through. This war has not changed principles. Our Field Service Regulations are sound. The rifle is still a determining weapon and the men should be skilled in its use. Viewed broadly, there is no such thing as trench warfare. Trench warfare is but a temporary phase of warfare. When you go back to your divisions, spread that doctrine."

Now that the prophesy has been fulfilled, it seems so obviously sound as hardly to be worthy of mention, but at that time when the great armies of the world were settled down with apparent permanency in their great trench systems and engaging ceaselessly in limited attacks, his words seemed to be radical and overconfident.

The training problem at the outbreak of the war was complicated by a veritable avalanche of books, booklets, pamphlets and bulletins covering every phase and aspect of the conduct of war, which were delivered at the training camps almost daily. These came from the War Department and apparently had been prepared hurriedly by officers on duty in Washington. Most of them were reprints and adaptations of foreign books and pamphlets. Some of them were illuminating and valuable. Many were repetitions of other pamphlets, while a considerable percentage were obsolete.

Out of this mass of considerations, influences, orders, requirements, recommendations of foreign officers, and text books, recourse was had to the reflection that throughout the entire history of war, certain principles in relation to the training of soldiers have never changed. The first of these is that the ideal army is composed of soldiers, possessing, first, moral character and physical fitness; second, team-work; third, expertness in use of weapons and in tactics. With these principles in mind, training programs were arranged and instructors assigned so that no department of training should be featured at the expense of others and all effort directed to the development of a divisional team possessing the qualities mentioned.



Bayonet training, Camp Wadsworth

Hand grenade throwing practice, Camp Wadsworth

It will be noted that the requirements first and second above mentioned deal solely with the man, while the last requirement deals with the man and his use of weapons and movements. It is believed that at the time we entered the war our people, who for three years had been reading hectic accounts of gas, grenades, aircraft, bombs, machine guns and other mechanical implements of war, had come to believe that the war would in some way be determined by the relative efficiency of the implements employed on the opposing sides. This assumption to a considerable extent invaded the minds of the soldiers. Such persons placed too much stress upon the importance of the ever-changing implements and devices of war as compared with the character and efficiency of the man power of the army. Accordingly, from the very beginning, it was stressed at Camp Wadsworth that wars are won by men and not by or with inanimate things. It was pointed out to the officers and men of the division that weapons of warfare, no matter how mechanically efficient they may be, serve only as trophies to be captured by the enemy, unless they are in possession of men who understand their use, and understanding, employ them with indomitable courage and determination of purpose. In one of the early talks on this subject the division commander said:

> "I am sure you hold no doubt from what I have said that an army composed of intelligent and fit men, dominated by rigid discipline, habituated to concerted action and with eagerness for the fight born of justified confidence in themselves, but armed with inferior weapons, would nevertheless quickly overwhelm a force of equal size possessing every device and appliance of modern warfare, but lacking these martial 'man assets.' Unless handicapped by extremely mechanical odds or inferior leadership, an army of real fighting men cannot be stopped except by an army of equal or better 'man character.' "

All training thereafter conformed to this principle, which stressed the importance of physical and moral fitness, combined with a spirit of team-work in the employment of all weapons. It is believed that very much of the later accomplishments of the division during battle can be traced to the attention given these principles during the long training period.

Speaking briefly and generally of these three subdivisions of training above mentioned, it may be said that so far as individual character was concerned, the division had the advantage of possessing an extraordinary personnel. The men were volunteers. They were in the military service of their own volition, because they believed in the country and its institutions and in the cause which had carried the country into the war. Almost wholly the men of the division came from homes where the families led good, healthy, normal lives and where they, the young men, had been brought up to worship God in some form and to believe intensely in the obligation of the citizen to support his government by military service in time of war. The tendency, therefore, of these young men in relation to their habits and conduct was to be law-abiding and well behaved, a tendency quite firmly founded upon some form of early religious training in the home and the church. Obviously this was excellent material with which to build military character. Military character is moral character,

plus a highly developed sense of responsibility to the government and its cause, which prompts the soldier almost automatically, by virtue of his training, to be responsive to orders, prompt and thorough in their execution and ready to endure heavy punishment in the form of fatigue, discouragement or injury without being thwarted or deterred from accomplishing his mission. It may be said that this field of training is the one calling for the hardest and most intelligent work on the part of instructors. Many men readily attain expertness in the use of arms. Many are possessed of such intelligence, perception and zeal that they are able to execute particular jobs at particular times with remarkable success. But in the field of military character building, the process of training meets difficult obstacles almost from the beginning. These obstacles are the confirmed habits of men, which make some shiftless, others inattentive, or frivolous or tardy, superficial, faint-hearted, pessimistic, wilful or garrulous.

In this field of military character development, recourse was had to every available helpful agency for the purpose of insuring the highest possible standards attainable. These were religious influences, which included the chaplains and the local churches and the allied auxiliaries, such as the Red Cross, Y. M. C. A., Knights of Columbus, Jewish Welfare Board, War Camp Community Service, enlisted men's clubs, etc. These agencies in their relations with the men employed methods based upon reason, precept, example and exhortation. The military methods employed in this field were necessarily founded upon compulsion and for the purpose of establishing, by constant repetition, fixed and correct habits of thought and of action. Promptness, for example, developed and stimulated by enforced repetitions, becomes confirmed habit. Men were required to make formations on time and precisely in the uniform prescribed for the occasion, with inevitable punishment for failure in any detail. They were required to salute with most punctilious regard for the position of the fingers, hand, arm, head and eyes, with inevitable punishment for neglect as to any detail. The psychology of the salute played a most important part in the development of military character. There were so many officers at the camp that soldiers were constantly required throughout every day of the training period to render the prescribed salute and by the manner of its rendition to disclose to all who might see, this earmark of their zeal, intelligence, mental and physical alertness, precision and attention to detail.

A system for checking salutes by individuals and units was inaugurated. The results accomplished justified what was done. So much stress was laid upon the salute that in the course of a few months salutes were rendered with such automatic precision that they constituted a continuing demonstration to the mass of the men of their own homogeneity as a division and of the thoroughness and precision of the individual officers and men. Psychologically, the effect was stimulating to their confidence and morale.

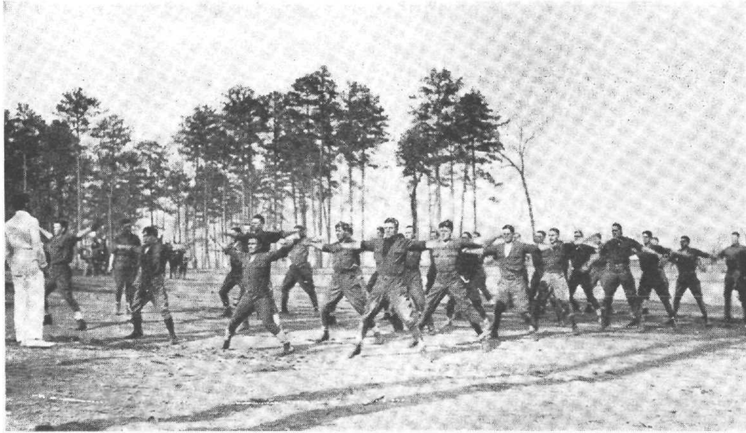
In the field of physical training it was laid down as a maxim that

the physical excellence of a command is not to be judged by the athletic prowess of a few champions, but rather by the physical skill, strength and endurance of the mass. Athletic meets were, therefore, not over-encouraged. On the other hand, games employing large numbers were encouraged. So superior seemed the British system of physical training to anything which we had employed in our own army that with slight modifications it was adopted and given over almost wholly to the charge of Major John B. Sharp, the Buffs Regiment, British army, who was one of the able officers sent to the division by the British Military Mission to aid in the training of the troops.

Major Sharp established and maintained a high standard of disciplined efficiency, not only in the work of physical training, but also in all branches of instruction conducted by the British *personnel.* He was ably assisted by Company Sergeant Major William Tector of the Leinster Regiment, who was one of the experienced instructors of the British Army Gymnastic Corps. This man's natural ability as an instructor was so exceptional as to call for some mention. Sergeant Major Tector had been wounded on several occasions during the war and this carried with it a certain glamour for the young men of the division who were training for war. He possessed real qualities of leadership, in that the men developed for him a real affection, although when on duty he was exacting and strenuous in his comments and criticisms.

It was the theory of the British system of physical training that the war had shown the necessity for something more than mere muscular development in the physical training of soldiers. Raids and local combats conducted by groups and detachments of the British army early in the war had indicated the desirability of some form of physical training which would stimulate the attention of the men, as well as develop their muscles and at the same time tighten the relation between the mind and muscle, so that the latter would become automatically and instantaneously responsive to the former and the former instantaneously resourceful in applying methods to aid the latter when hard pressed. British combat experience had indicated that groups of fighting men are most effective when their training is such that at the height of the noise and confusion of local combat they are as a team automatically responsive to commands.

The men trained at Spartanburg will not soon forget the so-called "O'Grady Game," which was one of those introduced by Major Sharp. This game, designed for the purpose of developing the coordination of mind and muscle, requires that the men of the detachment who are to play the game shall not obey any order or command which is not given with the authority of "O'Grady." This authority is indicated by prefixing to the command or order the words "O'Grady says." For example, the officer or non-commissioned officer in charge of the game roars out, "Forward! March!!" without prefixing to the command "O'Grady says." Promptly some men are certain to execute the command in violation of



Physical training at Camp Wadsworth under Sergeant Major Tector of the British Army Gymnastic Corps

the rules of the game. These men are immediately singled out and given some stunt to perform which involves physical exercise and some element of ridicule, such as turning three somersaults or climbing a tree, after which they fall in again. The instructor resumes his commands, sometimes prefixing the warning "O'Grady says" and sometimes not. Men who do not promptly respond to the order when it is given with the authority of "O'Grady," or who respond when it is not given with his announced authority, are summarily disciplined in some such manner as that indicated. When the game is applied to troops who have had considerable training in its application, they are exercised in most violent fashion by a storm of commands, some of which are with the authority of "O'Grady" and others not. The game calls for imagination and ingenuity, as well as a powerful commanding voice on the part of the instructor, while in the men it develops a strenuous readiness for rough-and-tumble action, controlled by a keen and alert responsiveness of mind.

Major Sharp and Sergeant Major Tector, British Army, conducting physical training

There were numerous other games constantly played by every company of every regiment in the division. From every training group, men of exceptional physical fitness and mental alertness were picked and sent to a special training course for the development of physical training instructors. These were subjected to an exhaustive course of physical training under Major Sharp's personal supervision and from this group were selected the best, who were made platoon instructors of physical training throughout the division.

In the field of team-work training, some of the games above referred to were specially adapted to demonstrate the superiority of team-work among men, over the individual efforts of those whose work was uncoordinated. Company wrestling matches, platoon against platoon, were employed for the development of team-work. Opposing platoons of equal strength would stack arms, shed their coats and charge each other. Men thrown down were to remain down until the decision of the instructor

was announced. The platoon with the greatest number of men standing at the termination of hostilities was announced as the winner.

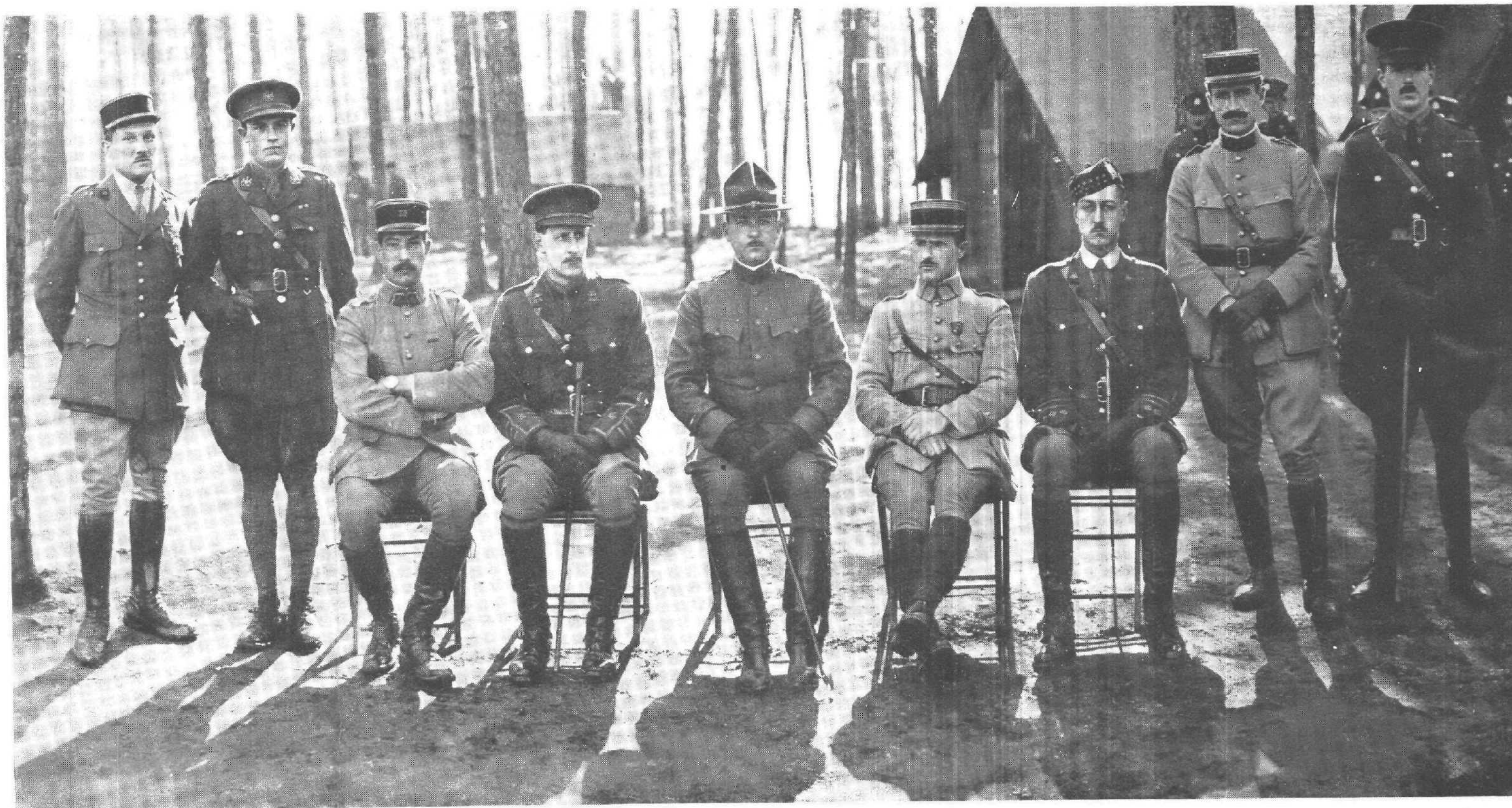
Soon it was found that team-work in pursuance of a plan was more effective in result that a mere mass of unrelated effort on the part of strong men. In march-outs it was the record made by the company with no stragglers that counted, not that of a company which came in first, but with ten per cent. of its strength left to hobble along after the rest of the command. Accordingly, team-work was developed so that the company commander concerned himself largely with the conservation of the endurance not of the best half of his personnel, but of the weaker half, so that at the end of the march he might be enabled to bring into play the full man power of his company.

Training in the use of weapons and in tactics was of course covered by the schools and by the daily drill and evolution of units. The character and diversity of the specialty schools may be understood by enumerating them and giving an outline of their work. They were:

GRENADE SCHOOL (Hand and Rifle). All foot soldiers were put through the hand grenade course and a very large percentage through the course in the use of rifle grenades. The course covered an understanding of the make-up and of all details affecting grenades and their uses, with practice in throwing and firing dummy grenades, finishing with practice with live grenades. This school was in charge of Lieutenant Pierre Forestier, 119th Infantry, French army, who was one of the French officers detailed by the French Military Mission to assist in the training of the division. This experienced officer inspired enthusiasm for the attainment of proficiency in the use of grenades. He was largely responsible for bringing the personnel of the division to a high state of combat efficiency in this specialty. He accompanied the division overseas and continued his valuable services during the early combat training in Flanders. Lieutenant Forestier was assisted by Aspirant Edgard Mercier, Third Mixte Zouave Tirailleurs, French army. Captains William H. Curtiss and Raymond F. Hodgden of the 105th Infantry and First Lieutenant Arthur J. McKenna, of the 107th Infantry, were assigned to this school as instructors, and gave most efficient assistance to Lieutenant Forestier.

BAYONET FIGHTING AND PHYSICAL TRAINING SCHOOL. This was the course through which non-commissioned officers and others specially selected to serve as instructors in platoon were schooled in these subjects. This school was in charge of Major Sharp and has already been referred to. Captains Cleveland L. Waterbury and Harry Vaughn, Officers Reserve Corps, First Lieutenants Harry L. Strattan of the 107th Infantry and Murray Taylor of the 106th Infantry and Sergeant Emil Roth, 107th Infantry, were assigned to this school as instructors, and by their methods and dash put the spirit of the bayonet into all who came under this instruction.

MUSKETRY SCHOOL. The course provided by this school was for the purpose of developing expert instructors in musketry training. The



Foreign instructors. Left to right: Lieutenant Ernest Veyret, French Army; Captain A. N. Braithwaite, British Army; Lieutenant A. Borde, French Army; Major John B. Sharp, British Army; Major General O'Ryan; Captain C. Gaston Veyssiere, French Army; Captain Harold H. Deans, British Army; Lieutenant Charles W. Smith, French Army; Captain H. H. Johnson, British Army

course included theory and practice of rifle fire, methods and effects of fire, and the relation of rapidity, accuracy, distance, cover, shelter, visibility and control, to fire effectiveness in battle. It was in charge of Major Joseph J. Daly, Division Ordnance Officer, who was a graduate of the School of Musketry, Fort Sill, Oklahoma. Majors Frederick M. Waterbury, Ordnance Department, Walter P. Gibson, 74th New York Infantry, and William A. Turnbull, 108th Infantry, and Second Lieutenant Waldemar Busing, 106th Infantry, were assigned to this school as instructors. The long experience of these officers in this field of training and their unshakable belief that the rifle would win the war impressed the infantry of the division with the effectiveness and dependability of rifle fire in combat.

Motorcycle detachment of Division Headquarters Troop

AUTOMATIC ARMS SCHOOL. Here were trained the automatic riflemen of the Infantry companies in the technical use of automatic arms. These included the Lewis gun, later used by the division with the British army, the light Browning, used by the American army, and the Chauchat, used by the French army. This school for a time was in charge of Captain Charles G. Veyssiere, Infantry, French army, who was one of the French instructors who assisted in the training of the division. Captain Veyssiere, though a quiet type, had won a very warm place in the hearts of the men and was very popular with them. Much of his work in the automatic arms school was with the French Chauchat rifle, a weapon in which our men did not place much faith.

Later, with the return to the division of some of our own officers who

had been graduated from the School of Arms, Fort Sill, Oklahoma, this work was taken over by them. Among these were Captain Ernest L. Schroder, 71st New York Infantry, and First Lieutenant Thomas J. Coursey, 108th Infantry.

MACHINE GUN SCHOOL. Major Edward McLeer, Jr., commanding the 104th Machine Gun Battalion at the time, and who later became Divisional Machine Gun Officer, with the rank of Lieutenant Colonel, had charge of this school after it had been organized by Lieutenant Colonel Henry J. Cookinham of the 1st New York Infantry. The latter in the absence of *materiel* had succeeded in making considerable progress in the theoretical instruction of officers and men. Later, after Major McLeer took charge, the school was furnished with a few Colt machine guns and some Vickers machine guns. Captain Kenneth Gardner, 107th Infantry, was assigned to this school as Executive Officer, and First Lieutenant George L. Schelling, 106th Machine Gun Battalion, as Supply Officer. This school constructed its own machine gun range and provided constant training of a practical character in the solution of machine gun problems and the development of machine gun non-commissioned officers. This school had assigned as instructors, Captain Albert W. Putnam, 105th Machine Gun Battalion, First Lieutenant Robert R. Molyneux and Second Lieutenant Walter G. Andrews of the 104th Machine Gun Battalion.

ONE POUNDER SCHOOL. No one pounder cannon were furnished the division until after its arrival in France and, accordingly, the instruction in this field was confined to theoretical work.

STOKES MORTAR SCHOOL. This school was in charge of Captain A. N. Braithwaite, General List, British army, who had considerable experience in combat with the Stokes mortar. This officer, a winner of the Military Cross, conducted the training of Infantry and Artillery units armed with trench mortars. He was later succeeded by Captain Alfred Hall, also of the British army, who accompanied the division to France, and aided in its battle training in Flanders. The personnel of the Trench Mortar Battery and of the Stokes Mortar Platoons were trained both in theory and practice in the school. Captain Hall was assisted by Sergeant Frank Cookson, 20th London Regiment, British army. First Lieutenant Donald M. Ray was assigned to this school as instructor.

No Stokes mortars were furnished the division until about sixty days before its departure from Camp Wadsworth. In the absence of these weapons mortars were improvised. Light mortars of three-inch gas pipe were constructed by the men while bombs were made of milk cans and other containers. A great amount of practical experience was had in the selection of primary and alternative Stokes mortar positions, the construction of shelters and dugouts and generally in the work of trench and Stokes mortar detachments in combat.

GAS DEFENSE SCHOOL. This school was in charge of Captain Harold H. Deans of the King's Own Scottish Borderers, British army, an exceptionally able and industrious officer, who knew from practical experience and suffering the importance of efficient gas defense, he having

been badly gassed during active service with the British army. Just prior to the departure of the division for France this officer was returned to active service with his regiment and was subsequently killed in action. At Camp Wadsworth great attention to the subject of gas defense was insisted upon and all the officers and men of the division were constantly practised in all phases of this specialty. Officers and men were required at stated periods to drill and work while wearing the box respirator. They were tested practically in detecting various kinds of gas and by constant attention to this important subject were impressed with the dire consequences following inefficiency of defense against gas. Every officer and man of the division was subjected to the effects of both chlorine and tear gas, while wearing the respirator, in order that his confidence in its effectiveness might be stimulated by actual test. This was done in gas chambers erected for the purpose. Demonstrations were also given outdoors of cloud gas. While occupying the trench system at the camp, battalions were subjected to light clouds of lachrymal gas. The excellence of the training of the division in gas defense accounts for the small number of gas casualties sustained by the division during active operations, although most of these operations involved long and violent enemy gas bombardments. Captain Deans was assisted in his work by Company Sergeant Major A. MacFarlane, 7th West York Regiment, one of the British sergeant instructors. First Lieutenants Harry Adsit, 106th Machine Gun Battalion, and O. E. Roberts, Sanitary Corps, and Sergeant Chester M. Scott, Sanitary Corps, were instructors in gas defense, while First Lieutenant Lindsay Peters, Medical Corps, instructed the personnel of the division in the use, care and repair of the gas mask.

CAMOUFLAGE SCHOOL. This school was made up of one noncommissioned officer from every platoon in the division and was in charge of Captain A. W. Palmer, 102d Engineers, and Second Lieutenant Linwood P. Ames, who was at that time acting as aide to the Division Commander, and who proved a most efficient instructor in this field. The school featured the importance of utilizing natural cover with or without modification for securing invisibility of troops, rather than to attempt to construct wholly artificial cover and freak objects concerning which so much had been written in the newspapers. This school was most successful in developing throughout the division an appreciation of the security to be gained by invisibility and the readiness with which invisibility may be attained by imagination, resourcefulness and skill, in the selection of natural features of the ground supplemented by the use of available planks, earth, stones, hedges, netting, weeds, etc.

ENGINEER SCHOOL. This school, consisting of a Sappers and Bombers Section and a Field Fortification Section, was in charge of Captain Ernest F. Robinson of the 102d Engineers, with Second Lieutenant E. Veyret and Aspirant Eugene Dalle, 9th Engineer Regiment, French army, as advisers. Captain George D. Snyder conducted the instruction in sapping and bombing, while the field fortification instruction was con-

ducted by Captain William E. Lane, 102d Engineers, and Second Lieutenant Rexford Crewe, 105th Infantry.

SNIPING, PATROLLING AND RECONNAISSANCE SCHOOL. This school was in charge of Captain (later Major) H. H. Johnson, M. C., the Welsh Regiment, British army, who was a specialist in this field. This officer accompanied the division to France and aided materially in the scout training of the division in Flanders. From every infantry company, non-commissioned officers were detailed for a special course in this work. Training was almost wholly practical. It was in part conducted at the rifle range and in part at night in the no man's land of the camp trench system.

TRANSPORTATION SCHOOL. The course in this school covered the transportation by rail and ocean transport of troops and *materiel* and, as well, the care and supervision of motor cars and wagons. The school was in charge of Major James T. Loree, Assistant Division Quartermaster. All transport officers and supply sergeants, as well as certain other selected officers, were required to take this course. Instruction in rail transportation was given by Captain William T. Starr, 102d Trains Headquarters, motor transportation by First Lieutenant William W. Ackerly, 102d Ammunition Train, assisted by Privates Charles H. Newell and Charles W. Mason, of the 102d Ammunition Train; animal drawn transportation by Captain John D. Webber, 106th Field Artillery, and pack transportation by Captain David D. Mohler, 102d Engineers, assisted by Master Engineer Harry Elkan, of the same regiment.

LIAISON AND COMMUNICATION SCHOOL. This school was in charge of Major William L. Hallahan, commanding the 102d Field Signal Battalion, who was later made division signal officer, with the rank of lieutenant colonel. This course covered theoretical and practical instruction and training in the maintenance of relations between units in battle, both laterally and between front and rear, and an understanding of and practice with the equipment employed in the maintenance of such relations. These included the buzzer, the telephone, pigeons, flares, rockets, panels, radio, runners, message bombs, wigwag, semaphore and balloon observation. Lieutenant Charles W. Smith, 8th Engineer Regiment, French army, assisted by Sergeant Eugene Grand of the same regiment, acted as adviser, while the instructors were First Lieutenants Gordon Ireland, L. J. Gorman and James G. Motley, of the 102d Field Signal Battalion.

SCHOOL OF EQUITATION. This school was in charge of Captain Geoffrey Taylor, 12th New York Infantry, who was assisted by First Lieutenant Harley W. Black, 104th Machine Gun Battalion. This school was intended primarily for such officers and non-commissioned officers of infantry and engineers as were not skilled in horsemanship. The officers and enlisted men of mounted units were generally good horsemen, and where they were newly commissioned or enlisted, their training in horsemanship was provided for in their own units.

SCHOOL FOR BANDS AND FIELD MUSIC. This school was in charge of Captain Henry E. Greene, Adjutant, 105th Infantry; Band Leader Francis W. Sutherland of the 104th Field Artillery Band, a musician, leader and disciplinarian of rare merit, was assigned to this school as instructor. He developed in this school the bands and field music of the division to a very satisfactory standard of excellence. He was assisted by Band Sergeant Charles F. Swarthout of the 107th Infantry. From this school there was developed out of the personnel of all the bands of the division a provisional division band of more than 100 pieces which led the division at home and abroad in important reviews and ceremonies.

SCHOOL FOR TEAMSTERS, HORSESHOERS AND PACKERS. This school was in charge of Captain Richard B. Wainwright, Quartermaster Reserve Corps, and was the agency whereby the teamsters, horseshoers and packers of the division were tested and developed to meet prescribed standards and whereby also their *esprit* was stimulated and they were made to feel that they played an important rôle in the life the division. Much of the unsatisfactory work given the army in the past by teamsters, more particularly, was undoubtedly the result of a practice which obtained in many places of relieving the rougher men from units where they were causing trouble and assigning them for service with the wagon trains.

These schools were all grouped under the general supervision of the Divisional School of the Line, of which Lieutenant Colonel William A. Taylor of the 108th Infantry was the commandant. Colonel Taylor, a graduate of the Field Officers School at Fort Leavenworth some years before the war, was eminently fitted for the task. The function of the Division School of the Line was to coordinate the efforts of the schools mentioned, to arrange schedules and recommend the detail or relief of instructors and students.

On January 5, 1919, when the course at the Third Officers Training School was begun, Colonel Taylor was relieved from the Division School of the Line and placed in command of the Training School. The command of the Division School of the Line was then taken over by Lieutenant Colonel John B. Tuck of the 106th Infantry. Colonel Tuck brought to this important duty long experience as a military instructor, a knowledge of military organization, an acquaintance with the personnel of the division, and a judicial type of mind, which made for impartiality in his relations with subordinates and in the apportionment of time and facilities among the specialists who were always in rivalry over the relative importance of their respective activities.

Reference has been made to the trench system at Camp Wadsworth. This system was laid out by Colonel Vanderbilt of the Engineers and Captain Veyssiere of the French Army. It covered a front of 700 yards, while the linear length of trench excavation totaled eight miles. It was complete in every particular. It was occupied by the troops, a battalion of infantry at a time, supported by one or more machine gun companies, and sanitary detachments. The system included shelters and bomb-proof

dugouts. It afforded opportunity for every unit to engage in practical instruction in the use of the pick and shovel, revetment, trench sanitation, the construction of listening posts, barbed wire entanglements, saps, mines, machine gun emplacements and lines of communication. At first, battalions occupied the trench system in turn for a period of twenty-four hours. Later the practice was extended to seventy-two-hour periods. Much of this service was during the hardest kind of winter weather. An improvised trench representing an enemy front line, faced the front of the system. This trench was occupied at unexpected times during the night by small detachments of troops representing enemy front line forces. These detachments were occasionally formed of parties from the Snipers and Reconnaissance School, which conducted minor operations in no man's land for the purpose of wire cutting, gaining information by raids and listening in. These operations served to keep the troops occupying the trenches in a continued state of readiness. The result of this very practical character of trench warfare training was that the units of the division after their arrival in France were enabled to take over trenches from British forces with little difficulty.

In the Appendix will be found orders and bulletins covering the subject of training at Camp Wadsworth in greater detail than can be given in the text.

An improvised rifle range was established on the Snake Road immediately outside the camp limits. This range was used by the Automatic Arms School, by the Snipers' School and for the target practice of recruits.

The main rifle range was at Glassy Rock about twenty-five miles distant from the camp. It was constructed on a tract of 30,000 acres of land, which included facilities for the fire training of the field artillery. The advantages afforded by this great training tract were many. It

Artillery Camp at Glassy Rock, S. C., winter of 1917-18

covered a very diversified terrain including small villages, woodland, cotton fields and farms, as well as rugged mountain sections. It enabled the fire training of infantry machine gunners and of the Field Artillery to be supplemented by field firing exercises employing the combined arms in action, and it is believed that the field firing exercises carried out there shortly before the division left for France, were the most advanced exercises ever executed in this country by so large a body of troops.

The work of securing leases for this great tract of land was one of considerable magnitude. The tract was made up of a considerable number of relatively small farms, occupied almost wholly by mountaineers, who seldom met or dealt with strangers. The task of securing this property for the government was entrusted to Captain Cornelius W. Wickersham, who was one of the assistant chiefs of staff of the division. By his untiring energy, tact and legal skill, this really difficult problem of securing the land desired was carried out promptly.

Two complete infantry ranges of 100 targets each were constructed by means of soldier labor. The range included firing lines, both open and trench, up to 1,000 yards. All commands armed with the rifle practiced on this range, as well as all officers and enlisted men armed with the pistol. All the infantry regiments of the division completed Special Course "C," Changes No. 19, Small Arms Firing Manual, 1917, twice. The 105th and 106th Infantry Regiments and part of the 108th fired in addition a modification of that course. The field artillery regiments were sent to Glassy Rock and served there during periods varying from seven to ten weeks. The 105th Field Artillery, under Lieutenant Colonel DeWitt C. Weld in the absence of Colonel George Albert Wingate, who was taking the Field Officers' Course at the Army Schools at Fort Sam Houston, Texas, spent most of the very severe winter of that year camped in the mountains at Glassy Rock.

The field artillery had practically an unlimited supply of ammunition and were firing almost constantly under all kinds of terrain and weather conditions. Their practice included battery and battalion problems in open warfare and regimental and brigade problems in firing barrages. Their work also included practice in the construction of gun pits, shelters and dugouts, as well as the occupation of positions by batteries, battalions and regiments.

On one occasion during the practice of Battery E of the 106th Field Artillery, commanded by First Lieutenant William B. Gaskin in the absence of Captain Harry L. Gilchriese who was at the School of Arms at Fort Sill, Oklahoma, one of the 4.7 howitzers used by the regiment burst with a great explosion. It seemed miraculous that a number of officers and men were not killed. Major Guido F. Verbeck, commanding the battalion, was at the time within a few feet of the piece. The cradle and what was left of the gun were thrown directly to the rear for a distance of about fifty feet, passing between the gunner and number one cannoneer without injury to either. One large, heavy fragment of the breach, thrown to a great height fell directly into the centre of a circle

around which were gathered the field telephone operators, lying on the ground with their instruments, the fragment cutting off the corner of one of the telephone instruments. None of the operators were injured. Several men of another gun section were slightly injured and the number six cannoneer was badly wounded by a fragment which drove through his leg.

The machine gunners of the division having completed their elementary course of theoretical and practical training were sent to the Glassy Rock range, where they worked out many problems in indirect machine gun fire. On one occasion, although using the obsolete guns referred to earlier in this chapter, they struck 84 percent of the targets representing enemy forces. These targets were 600 in number and indicated an enemy assaulting in three waves of two lines each. The range to these waves varied from 950 to 750 yards. There were 100 targets to a line, with ten yards distance between lines, and approximately thirty yards between waves. Five machine gun companies, some with two and some with four guns fired the barrage. Five hundred and four of these 600 small targets which were about two feet square were hit. In all, 1,750 actual hits were registered on the targets struck. This problem was one covering distribution of fire.

The 102d Engineers in addition to the construction of roads and bridges in and about Camp Wadsworth and at the rifle range, also aided in the construction of all the ranges at Glassy Rock and furnished detachments of their officers and men to supervise the construction of the trench system at the camp. Detachments of the engineer regiment were also employed in the construction of pontoon bridges at a small lake at Whitney, S. C. On March 4th, 1918, the engineer regiment, less the First Battalion, was sent to Camp Humphreys, Belvoir, Virginia. On March 17th, Company B joined the detachment at Belvoir. They took over the construction of railroad bridges at that place. This latter work in particular won for this regiment considerable commendation from the authorities at Washington. The railroad construction referred to was under general supervision of Colonel Cornelius Vanderbilt and his staff and in the immediate charge of Captains George D. Snyder, Norris P. Stockwell, George H. Johnson and Alexander McC. Barrett, commanding Companies D, E, F and B respectively. The regiment remained at Camp Humphreys until May 10th, when it entrained for Newport News, enroute for overseas.

The 102d Field Signal Battalion maintained good radio communication at all times between Camp Wadsworth and the infantry and artillery ranges at Glassy Rock. They also constructed a telephone line from the two ranges for a distance of twelve miles, to the nearest commercial telephone station.

In the spring of 1918, officers of the division received divisional practice in liaison during battle. Every company and higher unit was represented by its officers, signal detachment and runners, in the conduct of a battle liaison and communication exercise. In these exercises, which covered the country about Camp Wadsworth, communication was main-

tained by radio, wireless, buzzer, earth induction sets, visual signalling, runners and pigeons.

Troops going to and from Glassy Rock were required to march the twenty-five intervening miles. In the Fall of 1917, most infantry commands were required to make this march in three days. Later the march was made in two days, and in spring of 1918 every regiment made the distance in one day without straggling. This indicates the physical excellence of the division prior to its departure for service abroad. On all of these marches complete equipment was carried on the person.

The practical field training of all troops of the division was completed during the months of March and April, 1918. Towards the end of this training period a series of combined arms field firing exercises, already referred to, were executed on the Glassy Rock tract. These exercises included the firing of a barrage by the field artillery brigade for a practice attack by each infantry regiment. Each regiment formed for attack in an outlined system of trenches. Occupation of this trench system took place on a 500-yard front after the artillery had registered its fire for the error of the day. All details of an infantry attack under battle conditions were carried out. At zero hour the artillery fired and a few seconds later the infantry heard for the first time the scream of the "whiz-bangs" as they flew over their heads and burst a hundred yards in front of the infantry start line. In these barrage problems the artillery fired a standing barrage for three minutes with percussion shrapnel. At zero hour plus three minutes the artillery barrage moved forward at the rate of 100 yards per minute in lifts of 50 yards, each gun firing four rounds per minute. At zero hour plus four minutes the infantry in successive waves moved forward. In this manner the advance of each regiment was continued for a distance of 400 yards, when the artillery fire ceased, in order not to expend too much ammunition. The psychological effect upon units which were subjected to these tests was marked. They had in other words, experienced at least, many of the sensations of troops waiting to move forward under a real barrage and then actually participated in an advance behind a rolling barrage. There is no question, but the infantry of the 27th Division, as a result of their rather radical training at Glassy Rock, were very much more effective in their first attack in Belgium, when they went forward behind a supporting barrage.

Other units beside the infantry which participated in these barrage exercises, were one company of military police, part of the engineer regiment, two ambulance companies and the personnel of the Third Officers' Training School, which was then in progress at Camp Wadsworth.

The barrage exercises were followed by open warfare exercises. In order that the training might be thorough, a corps of control officers was constituted of the most capable officers of the division. These numbered about thirty. In order that the demands upon these officers in their conduct of the exercises might not embrace too great an area, the employed troops in each exercise were limited to a detachment of the division composed of one regiment of infantry, one battalion of field artillery,

one machine gun battalion, one company of engineers, one signal company, two ambulance companies, one field hospital, one company from the trains, and a detachment of military police. The control officers were not umpires. They were called control officers because it was their function to make decisions, and, as well, to offer criticism on the spot. At times they made rulings in relation to losses; and occasionally specified particular officers and men to fall out as wounded. This was done by handing the designated officer or soldier a tag, which showed the character of his wound. Such cases were required to be handled as they would be handled in battle, by rendering first aid at the regimental aid post, from which point they would proceed to station for slightly wounded or be evacuated to the dressing station and thence to the Field Hospital. The detachment of troops engaged usually constituted in each problem the advance guard or the rear guard of an assumed division on the march. Infantry troops were supplied with 100 rounds of service ammunition per man, with additional ammunition in the combat wagons. The field artillery carried 100 rounds of service ammunition per gun, both H. E. shell and shrapnel. The machine gun companies were provided with 1,000 rounds per gun. In the exercises the troops advanced as they would advance under actual battle conditions. Obviously no troops could represent the enemy, as the firing was to be conducted with service ammunition. To the non-military reader the absence of targets or other features to represent the enemy may seem like requiring the troops to exercise too great an imagination in relation to battle conditions. Such view, however, is not correct. On the contrary, it is remarkable how little one can see of the enemy in ordinary engagements at distances beyond 100 or 200 yards. The positions of the enemy were, therefore, indicated by each control officer to the unit to which he was attached. His manner of doing this was to state: "Lieutenant, your platoon is now being fired upon from the direction of that hill. The fire thus far has consisted of thirty or forty rifle shots and a machine gun burst apparently from that clump of bushes distant from here about 1,000 yards and about ten mils to the right of that barn. One of your sergeants has just reported seeing smoke of the machine gun from that point." This and similar statements made by the control officers were not haphazard statements made on the spur of the moment, but were all in pursuance of a general scheme for the conduct of the exercise, carefully prepared in advance, after which the entire corps of control officers had gone over the ground in preparation for the parts they were to play during the exercises.

Obviously, it is impossible without using service ammunition in this way, to approximate battle conditions in the training of troops. Without the use of ammunition the element of danger is lacking, which means that a premium upon the exercise of the highest standard of fire discipline is lacking. The noise of the firing is so great that it injects into the maneuver exercise one of the greatest obstacles to command and communication. In no other manner is it believed, than by practical field

firing exercises, can the proper relation between the field artillery and the infantry be burned into the minds of junior officers and enlisted men.

In the first of these exercises and under the stress of the excitement, battalion commanders, checked in their advance, frequently determined to deliver assaults without any reference to supporting artillery or machine gun fire, although these officers theoretically knew the necessity for such supporting fire, as well as the writers of text books on the subject. After frequent participation in such exercises, the technique in relation to these matters which had been correct theoretically, but inefficient practically, developed into dependable and almost automatic responsiveness to the tactical suggestions of the occasion. In no part of the division were these exercises more profitable than in the Field Artillery arm. In the Field Artillery schools of our service, very excellent work had been done in the development of gunnery technique. Batteries had also been exercised and trained in the selection and occupation of artillery positions. They had often participated with infantry troops in maneuver exercises with blank ammunition, but on such occasions the infantry knew nothing of what the artillery was doing, except when they heard a few blank charges fired in their rear, indicating that the artillery was doing something. In practical field firing exercises of the kind mentioned, however, it was vital for both the infantry and the artillery, that correct team work should result, so as to avoid accident to the infantry from wayward artillery fire. In our army artillery schools, where infantry troops were usually lacking, the presence of the infantry was assumed. The psychological effect of this was that the assumed infantry was unconsciously and conveniently made to do the things that the artillery thought the infantry should do. In war, however, the artillery, if it is to be of any use, does what the infantry requires. One artillery officer in the early part of these practical exercises at Glassy Rock, having tried ineffectively three times to place his battery in action to support the checked advance of an infantry battalion, said with disgust that the terrain was entirely different from that of the artillery school at Fort Sill, and, therefore, quite unsuited to the use of artillery. This officer did not seem to appreciate that the ancient days, when opposing armies moved to a previously selected and well adapted battle ground to test the relative efficiency, were passed. In time, however, the artillery of the division learned that the technique of gunnery was more or less of an exact science and that reasonable excellence can be acquired very readily in that field by alert minded young officers, but that the handling of batteries in action so as to support infantry effectively, was apparently a limitless field presenting new problems upon every occasion, problems which called for the exercise of judgment, initiative and great skill in estimating the value of ground and the visibility of approaches thereto. The importance of these very advanced forms of practical training can hardly be overestimated in the development of the division as a combat unit. The troops which participated in the field firing exercises knew the dangers involved. In the open warfare attacks subdivisions of the line were at times one hundred yards in advance of other parts of

the line, due to advantages of cover offered on their immediate front. Such situations called for the automatic suspense of fire by flanking platoons, until they had succeeded in gaining the more advanced front. When service ammunition is being used under such circumstances, and the infantry has parts of its line extended through woods with machine gun units and the field artillery also delivering their supporting fire, it will be obvious that a very high standard of discipline and skill is essential to avoid numerous accidents. Although hundreds of thousands of rounds of ammunition were fired during these realistic battle exercises, no accident marred their conduct. On April 12th, after the conclusion of one of them, however, a cartridge which had been unaccountably left in a machine gun, became so overheated by the high temperature of the air cooled gun, that it exploded and caused the death of Corporal John Kowalski, Company A, 104th Machine Gun Battalion, a most excellent soldier.

At the conclusion of every exercise the control officers turned in memoranda of their observations and criticisms and these, supplemented by his own observations, were made the basis of critiques by the Division Commander to the officers of the troops participating. The work of the control officers was so effective as to call for mention of at least those who played the more prominent roles. They were Brigadier General James W. Lester, Colonel Charles I. DeBevoise, Lieutenant Colonel William A. Taylor, Major George E. Roosevelt, Major Andrew E. Tuck, Captain William H. Curtiss and Captain Cornelius W. Wickersham.

A feature that affected training in the 27th Division and which later affected in marked manner the fighting efficiency of the division, was the fact that the units of the division were locality units. By locality units is meant that they had existed for many years as National Guard units located in particular sections of the state, from which they drew their recruits. To some extent this condition was modified when the infantry regiments were given their war designations and were brought up to the new prescribed strength by transfers of men from other regiments of the New York Division. But the men so transferred came from locality regiments and so they possessed not only pride of organization, but what was equally important, a sense of responsibility to the people of the locality from which they came. Thus it happened that in the 27th Division, as in other Guard divisions where similar conditions existed, the men in their conduct and in their relations with each other, were not only influenced by their individual moral sense and by the discipline which governed them but also and materially, by the knowledge that dishonorable conduct was bound to be reported and perhaps even exaggerated where it was least desired that such conduct should be known, namely, the home locality. It could not be otherwise where men, all coming from the same place, were striving together in the intimacies of military life in the same command. And so when the time of battle came and the sensibilities of men were shocked or benumbed by the sights and sounds about them, and when the instinct of self-preservation struggled fiercely to loosen shackles of discipline, the decisive factor in the control of conduct was frequently the

warning thought, "What would people say if I am not in with the rest at the finish?" It must be obvious, too, that the ties which bind men together in a military command are greatly strengthened when their military relations are augmented by the relations and mutual obligations growing out of a common home locality. Hundreds of instances are known in the division where the fighting spirit of men was tremendously stimulated by the desire to punish the enemy for the loss of a pal, not only because he was a member of the same unit, but because he was a fellow townsman, to whose family an obligation was created to avenge his loss. These emotions are human, and under the circumstances, become military assets in battle. In the smoke barrage of battle when individuals lost contact with their units, their greatest concern in many cases was the public opinion of the company in relation to the absence, and the fear that the absence might be misconstrued and reported back home. The gang spirit of the division was very exacting in relation to absence from check roll at the conclusion of combats. Slight wounds were not deemed to be justifiable for retirement from action. In great efforts like the Hindenburg Line assault, scores of cases are on record where officers and men of the division, knocked down by shell fragments or bullets, have gone on to be struck again and again before being killed or permanently put out of action.

One remarkable instance of the feeling of the men in relation to absence from their companies in battle is illustrated by the experience of Privates John W. Rawlinson and Eugene Reynolds, of Company K, 106th Infantry, and an unknown corporal of the 105th Infantry. These three, in the attack on the Hindenburg Line, September 27th, became separated from their companies in the smoke barrage, and meeting by chance, proceeded through the enemy's trench system with a view to connecting with their units. As the trenches through which they were advancing seemed to be occupied, they advanced cautiously and with one of their number acting as advance guard. After proceeding a considerable distance, the latter, looking around the corner of a communicating trench, saw about twenty German soldiers sitting on the fire step of the trench eating bread. The three men quietly conferred and determined to make an immediate attack. Rawlinson and the unknown corporal crept over the top and diagonally across to the trench occupied by the enemy. As they began to throw in their hand grenades, Reynolds opened magazine fire with his rifle from the head of the trench. The enemy party who were not killed or wounded either surrendered or broke to the rear. The latter were followed by Reynolds. It then developed that a short distance down the trench there was a considerable party of enemy machine gunners, enjoying a respite from their long period of firing, this being indicated by large piles of empty cartridge shells alongside a large group of heavy machine guns. The sudden firing and the dashing into their midst of the survivors of the first group caused consternation among the second group, who were promptly covered by the rifles of Rawlinson and the corporal on the ground above them. At this moment a German officer emerged from a dugout and admonished the attacking party, whom

he naturally supposed were but part of a larger group, that further killing was unnecessary—that they all surrendered. At this moment and while the three men were getting the prisoners out of the trench, German machine gunners located at a point some distance away opened fire on the party, but immediately desisted when they saw the helmets of the German soldiers coming out of the trench. The three American soldiers then maneuvered so as to keep the party of prisoners covered by their rifles and at the same time between them and enemy machine gun nests. In this manner and rather appalled by the number of their prisoners, estimated by them to include three officers and between 80 and 100 enlisted men, they marched them to the rear. As a matter of fact, the captors had been so turned about that in the smoke which to some extent still prevailed they did not know which direction was the rear. Preserving their composure, they ordered one of the German officers to head the column toward the American lines. Not knowing that the American soldiers were lost, he headed in the correct direction. Soon the party passed other supporting detachments and reached a regimental aid post. At this time the unknown corporal of the 105th Infantry stated that he already had been away from his command too long and headed back for the front. His attitude of mind illustrates the sense of responsibility to the company spirit already referred to. His identity was never learned. In all probability he was killed while trying to find his own company. The two remaining men, Rawlinson and Reynolds, were equally concerned about their absence from their company. Lying about the aid station were numbers of badly wounded American and German soldiers, and the medical officer in charge, Captain Walter C. Tilden, demanded the use of a detachment of the prisoners to carry back the wounded. Fifty-seven prisoners were turned over and employed for this purpose, but so fearful were the two remaining captors of company opinion that, in the midst of the disturbing events which transpire at a dressing station during battle, they nevertheless demanded and secured from Captain Tilden a receipt for the number of prisoners employed by him. The remainder were marched to the rear and turned over to the military police. Instances might be multiplied of the sense of obligation shown by the men to the home locality and to the standards imposed by the public opinion of the company.

In relation to this subject of training, it may be said that due to the relatively thorough training of the mass of the officers of the division, and of a very considerable percentage of non-commissioned officers, for a period of years priod to the war and including the Mexican border service, they were substantially grounded in those essential things which determine dependability in battle, and hence they were enabled to take up with understanding and zeal the details of the work of preparing the division for its part in the World War. What handicapped the division and the American army as a whole in its war preparation was not so much the problem of the men as the problem of equipping them with the material things needed, and the things needed were not only required

for the actual fighting, but also for their effective training. Examples of this condition may be instanced by the fact that the field artillery of the 27th Division, which was complete on the Mexican border and when it went to Camp Wadsworth, was shortly thereafter embarrassed by having taken from it fifty per cent of its guns, caissons and other artillery material for the purpose of sending the same to other camps where artillery units were completely lacking in guns and equipment.

Again, the signal battalion of the division, very well trained and quite experienced in the use of its material, was handicapped not only in relation to their own activities, but in giving instruction to signal detachments of other units, by an almost complete lack of signal equipment. As late as April, 1918, the organizations of the division, less the signal battalion and the field artillery regiments, possessed only five per cent of their authorized signal equipment. In like manner, although one year had elapsed from the time of our declaration of war, divisions ready to leave for France lacked machine guns, automatic rifles, steel helmets, box respirators and a substantial percentage of almost every other article required.

This is interesting to reflect upon, in view of the fact that for some years preceding the war the cry for preparedness was almost always made in support of more military personnel, rather than in adequate supply of the material things essential for the training and use of troops.