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NOVEMBER, 1924

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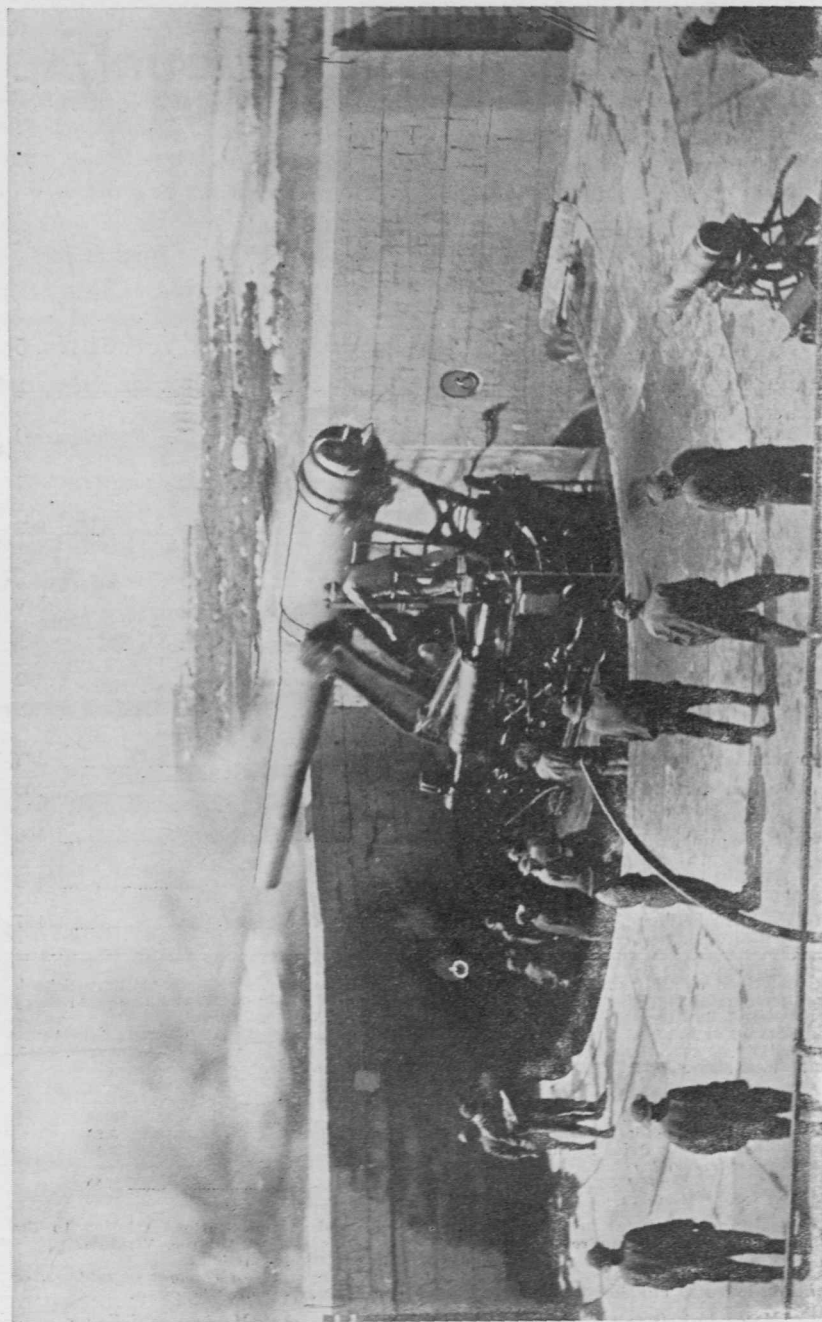
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THE 242ND COAST ARTILLERY (CONNECTICUT NATIONAL GUARD) AT FORT H. G. WRIGHT, NEW YORK

The Coast Artillery Journal

Vol. 61 No. 5 NOVEMBER, 1924 Whole No. 219

Remarks of General Pershing to Army War College, September 2, 1924

EDITOR'S NOTE: In this address General Pershing speaks not only to the War College student, but also to every officer of the Army. He explains the attitude that must be adopted by the regular toward the volunteer officer if our National Defense policy is to succeed. He speaks of some of the advantages of the National Defense policy—a policy it is the duty of every officer to thoroughly understand. He states he is in favor of some modification of the present method of promotion for officers of the regular service.

IT IS with very sincere appreciation, Mr. President, that I acknowledge the honor that has been conferred upon me this morning as the first to be designated an honor graduate of the War College, without having had the privilege of passing the high examination tests usually required for graduation. That this distinction may not be regarded as altogether unmerited, at least in my own estimation, perhaps I may be allowed to console myself in not having actually graduated by the fact that twenty years ago, as General Ely has stated, I took one-half of the course before being assigned to duty elsewhere, and by the further fact that you, on your part, have doubtless believed the work *in absentia* since that time to be of such a character as to be worthy of your consideration.

The War College in its earlier days was conducted in a rented house on Lafayette Square, while this imposing building was in process of construction, its cornerstone having been laid by President Roosevelt during the previous year. The College courses and the influence of the institution have gone far since then, and the College has now come to stand for all that is broadest and best in the science of the profession. It would seem unnecessary to review the history of the War College, which is probably familiar to you all, but it will be sufficient to state that with the readjustment of the educational

system in our Army, through which the courses beginning with instruction in the regiment lead up to the War College, it has become the keystone of the arch. Therefore all the more honor attaches to the degree you have conferred upon me.

During the World War the graduates of Leavenworth and the War College held the most responsible positions in our armies. And I should like to make it of record that, in my opinion, had it not been for the able and loyal assistance of the officers trained at these schools, the tremendous problems of combat, supply and transportation could not have been solved. And without the least disparagement of the services of the great body of scientific, professional and business men who held responsible positions during that emergency, it is only justice to say that in all essential respects the directive genius, almost without exception, was the educated soldier. Nor can it ever be otherwise. Our armies can never be led by political officers, but the leadership must be entrusted alone to those trained men whose ability, efficiency and loyalty shall have been determined in advance by the Army itself.

The lessons drawn from our own war experience have already proved most valuable, not only in the study of campaigns and in the conclusions drawn regarding the organization of our units, but because they have led to the adoption of a new national defense system. Under this scheme our methods of training and the development of plans for mobilization of manpower and industrial resources are making commendable progress. Although there can be no such thing as complete perfection, yet that we of the Army should constantly strive toward that end need hardly be stated.

It is now fully recognized that the Regular Army has become a corps of instructors, a large college faculty, if you please, which is charged with the theoretical determination of processes and their practical demonstration and application to all elements of the national defense system. In addition to the duty of educating and training our own limited personnel, we have become responsible directly for the education and training of the civilian components as well. These responsibilities fall to us in our capacity as military men and as patriotic citizens, and they cannot and never should be shifted to other shoulders. The task of the Regular Army is clearly outlined and ours will be the praise or the blame for the outcome.

As to the eventual result, there is much of hope. The conception of national defense as contemplated in the law of 1920 and its necessity as a matter of security have already taken deep root, and while the complete realization is still in the distance, yet the people are behind it in principle. It only remains for us to continue the demonstration of its benefits to our young manhood and to the nation as a whole until the goal is reached.

The results accomplished through the association of officers of our service schools with civilian contingents are most gratifying. These officers carry with them and transmit in intelligent and interesting fashion clear ideas of initiative and method that were found necessary to successful tactical leadership in combat, and spread also the equally necessary knowledge of administration and supply. Correct doctrine is taught in the beginning and the scope of instruction is being extended to higher officers in both civilian components. The response of the great body of civilian forces who voluntarily receive this instruction is most praiseworthy, and is plainly indicative of a full appreciation of our efforts and a very earnest desire on the part of our civilian comrades to attain efficiency.

In passing, it should be said of this work that no instruction of these volunteer officers and men can reach its highest value without a thorough grasp of the conditions under which they are serving, nor without a very generous attitude of sympathy and understanding on the part of the Regular Army instructor. An attitude of fraternity and comradeship on his side is not at all inconsistent with the complete fulfilment of his obligations; indeed, it is a necessary requisite to his success. Regardless of individual ability and efficiency, as measured by strictly military standards, those who find themselves unable to establish cordial relations, and arouse enthusiastic cooperation among our citizen soldiers, should not be considered available for this kind of duty.

And speaking of service of this nature where actual contact with the citizen elements is afforded, I would add that, in my opinion, there is no duty to which an officer can be detailed that is fraught with greater significance to himself and to the personnel with whom he becomes associated. In preparation for handling large bodies of men, and in view of the fact that these are the very men who must compose a larger part of our armies in time of great emergency, who could ask for a better opportunity to study the problems involved? It is my firm belief that those whose success as instructors is greatest in peace give the highest promise of leadership in war. It occurs to me to suggest further, for the benefit of those who have not had the experience, that an overbearing or hypercritical mien does not take the place of definite knowledge. We all know from examples furnished by the World War that ignorance and inefficiency cannot be hidden by rudeness or sarcasm, but, on the contrary, that efficiency is quickly recognized and that stern discipline is willingly accepted if accompanied by kindness and based upon sound reason.

Concerning the progress that is being made, if I were called upon to submit a report, and perhaps I can do no better than to make such a report to you in whose hands these matters must rest, I would say that greater proficiency in training in all categories

has been attained during the present year than in any year since the war. A deeper interest, and a more encouraging earnestness among all ranks, is very evident. Indeed, the people themselves have a more definite idea of the importance of national defense, and grasp more readily the purposes and objectives toward which we are striving. It is my belief that, as the development of the system proceeds, and a larger number of people are brought into touch with the results, there will be a continued growth in general understanding and approval.

Eventually we shall have representatives of one or another of the various elements of this national defense system in all communities, and their influence will be felt among their neighbors until all our people come to appreciate the wisdom of supporting a national defense plan so essential to security and peace, so beneficial to our youth, and yet so economical to the taxpayer.

At present, and perhaps of necessity, the larger numbers of reserve officers are drawn from centers of population, but as time goes on and as higher standards are established, the possibility of more careful selection and distribution will be afforded, which will more nearly correspond to the actual territorial allocation of units, down to the company, in both the National Guard and the Reserves. This process could no doubt be materially hastened by the allotment to communities, or counties, of their due proportion of candidates for our training camps, instead of recruiting these camps from corps areas in general.

I am led to believe that this is true from the fact that in my own state, Missouri, inquiries have been made as to why the country boys are not given a chance to go to these camps and assurance has come from many of the more remote localities that if they should receive their relative allotment, there would be no question as to their sending the full quota. This clearly indicates the gradually widening influence of the training that young men are receiving in our various contingents, and more especially, perhaps, that received in colleges and training camps.

It would seem hardly necessary to invite the attention of officers in attendance here to the immense value of this training, especially as a means of elevating the standards of citizenship. Leading educators testify almost universally to the remarkable improvement resulting from even a brief course of military instruction accompanied as it is always with special courses in constitutional government and the responsibilities of citizenship. They lay great stress on the advantages that accrue to their schools in discipline and in respect for authority, and especially emphasize the benefit to the individual himself.

I think, therefore, that even greater stress ought to be given to this phase of our work. Our principal task, after all, as I see it, is

to utilize to the fullest extent the advantages of these camps and, in fact, all of our training, to stimulate in the minds of both old and young a more loyal and more intelligent appreciation of the obligations of the citizen and a more serious purpose to fulfill them. The extension of education in this regard in a democracy like ours is immeasurably the most important task to which our energies can be devoted.

While I have seemed to emphasize this particular feature of our training, it is because we are prone to dwell upon the military phases and to lose sight of the exceptional opportunity that is offered for instruction in civic duties. We of the military service are essentially of the people, and it should be our aim under all circumstances to develop the highest conceptions of citizenship among those who come under our instruction, for, although vital to the safety of the Republic, the people will accept the obligation of national defense only as they learn to consider it a part of their duties as good citizens. Thus in all our efforts toward the goal of national security, we also promote good government by elevating the ideals of our people.

In connection with the service you are giving to our country, it may oftentimes seem that efficiency and devotion do not always receive their just recognition, and possibly that may be true in some instances, but as a general rule it is not true. If you could know the difficulty of finding officers who are in every way capable of fulfilling satisfactorily the duties expected of them, you could more fully realize what I mean. Efficient and accomplished officers are sought for every class of duty, and the supply has never been equal to the demand. Important assignments come unsought to those who are qualified. When selections are to be made, records are studied to determine the character, ability and the personal equation of officers, particularly for the key positions, and it is my belief that no officer who is known to consider every assignment as an opportunity and who honestly and intelligently gives at all times the very best there is in him, need ever fear for his advancement.

In saying this I do not mean to declare that the present and apparently unalterable method of promotion by seniority should continue. On the contrary, I am strongly in favor of some modification that would provide that a part, at least, of the promotions be by selection. Let us take especially the list of captains. Many of these men must look with more or less gloom upon their prospects. Beyond a fine *esprit de corps* there is little in the future of a large number of them to encourage sustained effort. I can but think that a wonderful stimulus would be afforded if a certain proportion of the promotions to the next higher grade each year could be by selection from the upper half of this list of captains. The whole group would take on new life. There would be something to look forward

to besides the endless routine that many must experience. Perhaps it might not be necessary to extend selection beyond that grade, but certainly something ought to be done to give these men new hope.

In this talk I have attempted to touch only upon a few points that are uppermost in my mind relating to which the service will look to you for guidance, as it must in all matters affecting its welfare. Yours is the leadership in creating the sentiment both in and out of the Army, essential in working out the details of our national defense system—the main object of our existence as an Army.

On the eve of my retirement, after forty-two years of active service, upon which I naturally look with a certain pride and which has been so graciously recognized today, I can only express my most sincere appreciation of the efficiency and the loyalty of the graduates of the War College, and extend to you my most earnest wish that you and the students of the future may be guided by the lofty ideals to which your predecessors have ever been devoted.

We are the wealthiest nation on earth. We have acquired with our wealth the responsibilities which wealth always brings. A small state can decay with slight damage to civilization generally. A great state in its collapse brings down with it countless other states and communities. Criminal and destructive tendencies are generally directed toward unprotected wealth. Our own safety and liberty, as well as our duty to the world, demand even a greater attention to national defense than we have ever devoted in the past.

—*John W. Weeks, Secretary of War.*

The Tank

By MAJOR A. C. CRON, *Infantry (Tanks)*

INTRODUCTION

THE tank should be of particular interest to the Coast Artillery for two reasons. First, because it is an Infantry weapon; the Coast Artillery, like the boy's dachshund (part alligator) being considered by us as "part Infantry." Second, because it is a mechanical monster which familiarity with their own great pets should enable them to understand and love.

We have heard much scoffing of sidelines for soldiers and we appreciate that an arm of the service staggering along with inadequate personnel is not likely to receive suggestions for more work with overwhelming joy. Nevertheless, having seen the musketeer of a few years ago evolve into the rifleman, automatic rifleman, grenadier, machine gunner, one-pounder man, trench mortar man, etc., etc., of today, we take courage and boldly opine that such combat infantry training as is given the Coast Artilleryman should be tank training. We know of some National Guard Tank companies that are being maintained on a plane of efficiency by a few hours drill per week. The Coast Artillery can do as well or better. Then, if the call comes to take the field, the Coast Artillery will take its place, not as riflemen, adding a few regiments to the assembled throngs, but as Tank men filling with battalions of priceless tanks, a most deplorable void. We have hundreds of tanks in storage that ought to be put to use.

ORIGIN

The idea of the tank is older than the Trojan Horse. In fact, one clever author* has traced the idea back to the burly caveman, who, in advancing on a smaller opponent armed with stones, used one arm for protection while brandishing his club with the other.

Those interested in the origin of the tank are referred to Colonel Fuller's excellent work† in which are described and illustrated several of the early battle cars or mobile fortresses. It is particularly interesting to note that "the Chinese, as early as 1200 B. C., made use of war cars armoured against projectiles." Of more

*"First Principles in the Attack," by Colonel Commandant T. C. Mudie, D. S. O. The Royal Tank Journal, January, 1924.

†"Tanks in the Great War" by Brevet-Colonel J. F. C. Fuller, D. S. O.

recent types, we note the Scottish war cart, 1456; Leonardo da Vinci's invulnerable covered chariot, 1482; Holzschuler's battle car, 1558; and Simon Stevin's landship, 1599. The landship was a small battleship, fully rigged and mounted upon wheels.

With the introduction of steam in the 18th century the self-moving wagon became an accomplished fact and we are informed* that Napoleon was sufficiently impressed to write a paper on "The Automobile in War." A century was consumed, however, in the development of a satisfactory endless track, but eventually a practical cross-country vehicle was produced. Two tractors designed over 30 years ago embodied features found later in the tanks. How-



FIG. 1. FIRST BRITISH HEAVY TANK

ever, it was not until the production of a satisfactory internal combustion engine that the tractor came into its own. In this Americans had a leading part and our Holt caterpillar was well known before the war.

THE WORLD WAR

As a result of the exhaustion that followed the Battle of the Marne, stabilization set in. Says a periodical† of the time: "Quick-firing field guns and the machine guns used defensively, proved too strong for the endurance of the attackers, who were forced to seek safety by means of their spades rather than through their rifles. Whole fronts were intrenched, and, except for a few small breaks, a man could have walked by trench, had he wished to, from Nieuport almost into Switzerland.

*"The Forerunner of the Tank" by H. H. Manchester, published in the *American Machinist*, Vol. 49, No. 15.

†"Weekly Tank Notes," a confidential (British) official periodical for private circulation.

“And with the trench came wire entanglements—the horror of the attack—and the trinity of the trench, machine gun and wire made the defense so strong that each offensive operation was brought to a standstill.

“The problem which then confronted us was a twofold one:

“Firstly, how could the soldier in the attack be protected against shrapnel, shell-splinters and bullets? Helmets were reintroduced, armour was tried, shields were invented, but all to no great purpose.

“Secondly, even if bullet-proof armour could be invented, which it certainly could, how were men laden down with it going to get through the wire entanglements which protected every position?”

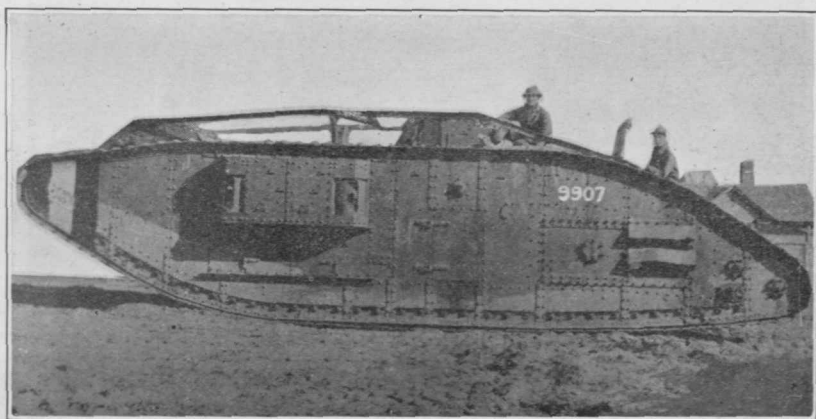


FIG. 2. IMPROVED BRITISH HEAVY TANK

Both sides at first tried to blast their way through by means of terrific artillery bombardments. However, this had two great disadvantages. It not only gave up the element of surprise but tore up the ground so badly that only a short penetration was possible. The Germans also had a solution for the deadlock—gas. Fortunately, the High Command had to be convinced of the efficacy of this new weapon. The test gave it away and when again used, in quantity, the Allies were prepared for it.

THE BRITISH TANKS

It appears that as early as October, 1914, Lieutenant-Colonel (now Major General) E. D. Swinton of the British Army, advanced the idea of an armored car on the Holt or similar tractor, designed to crush down wire entanglements, cross trenches and destroy machine guns. Others contributed their ideas. One design, seriously considered, was described as a veritable juggernaut, having wheels 40 feet in diameter and estimated to weigh over 1000 tons.

Finally, after many discouragements, there appeared on the Western front in September, 1916, an armored caterpillar cruiser, known as the tank.

The story of how the term "tank" came to be adopted is told by Colonel Stern in his interesting book*, as follows: "Mr. Macnamara then suggested, for secrecy's sake, to change the title of the Landships Committee. Mr. d'Eyncourt agreed that it was very desirable to retain secrecy by all means, and proposed to refer to the vessel as a 'Water Carrier.' In government offices, committees and departments are always known by their initials. For this reason, I, as

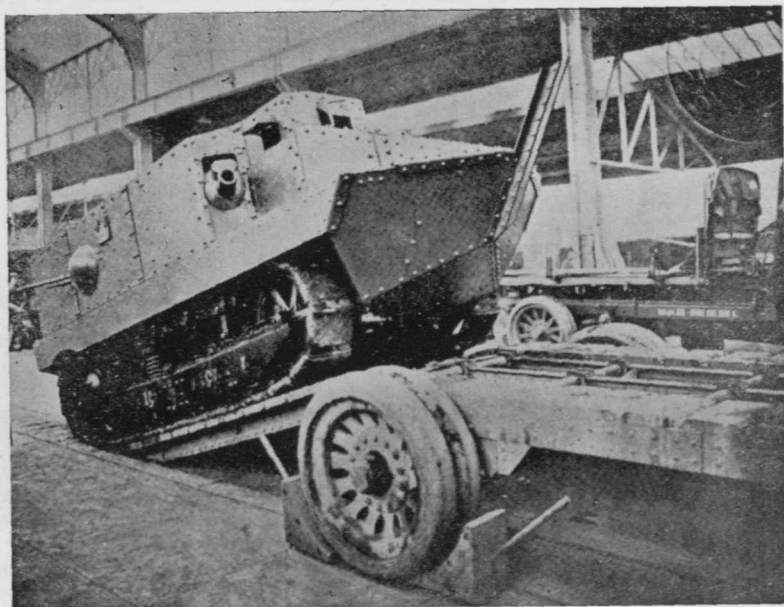


FIG. 3. FRENCH SCHNEIDER TANK

secretary, considered the proposed title as totally unsuitable. In our search for a synonymous term, we changed the word 'Water Carrier' to 'Tank,' and became the 'Tank Supply' or 'T. S.' committee."

The first of the British heavy tanks was officially known as the Mark I (see Fig. 1), but it was soon dubbed "Mother," "Big Willie" or "Centipede" by the rank and file. Although mechanical improvements were introduced in the later models, the hull was so well designed as to require no change. It was at first fitted with an unwieldy two-wheeled tail known as a "Hydraulic Stabiliser." This device was designed to assist in steering and it also enabled the Mark I tank to

*"Tanks: 1914-1918. The Log-Book of a Pioneer" by Lieut. Col. Sir Albert G. Stern, K. B. E., C. M. G.

successfully span a wider trench than the later "tailless" machines of the same dimensions. Four men were required to drive it.

Improvements were introduced so rapidly that within a year large numbers of the Mark IV were produced and sent into action. This machine weighed 28 tons and was 26 feet, 5 inches long. The "male" carried two 6-pounder guns in sponsons and four machine guns. The "female" carried six machine guns. The Mark V and Mark V Star, (see Fig. 2) which soon followed, embodied other improvements.

It is, perhaps, very fortunate that the handful of tanks that went into action in the Battles of the Somme and Ancre, in September and November, 1916, accomplished so little, for the Germans failed to be impressed by them and made no adequate preparations for the greater blows to follow.

The British, however, learned several valuable lessons and bent their energies toward the production of improved tanks in the great numbers they saw would be needed.

At Arras, April 9, 1917, sixty tanks were used with favorable results. A small detachment also did good work at Gaza, in Palestine. Still later, at the Third Battle of Ypres, though the tanks did much good work, the results on the whole, due to mud and water, were disappointing.

It was, therefore, not until the Battle of Cambrai, on November 20, 1917, that the value of the tank was fully demonstrated. As the artillery preparation was omitted the attack was a great surprise to the Germans. Nearly 400 fighting tanks were used and a penetration of 10,000 yards was effected in 12 hours. Cambrai showed that with tanks present in large numbers the heavy artillery preparation could be dispensed with; that infantry must train with the tanks; and that a tank reserve should be held out.

Numerous tank actions took place during the months that followed. That at Hamel on July 4, 1918 is of special interest to Americans because several of our small infantry units participated with the Australians in that dramatic affair.

Finally came the memorable Battle of Amiens, August 8, 1918, referred to by Ludendorff as "the black day of the German Army during the war." Led by 415 tanks the Allies advanced more than seven and one-half miles the first day and inflicted severe losses on the Germans.

THE FRENCH TANKS

The French in 1917 produced two types of heavy tank, the Schneider and the St. Chamond. (See Figures 3 and 4.) These differed greatly from the British tank with its all-around track. They were, in fact, merely large caterpillar tractors with the body mounted on top. These tanks had great difficulty with bad terrain and their accomplishments were, for the most part, disappointing.

General Estienne, Chief of the French Tank Corps, had early conceived a scheme to place on the battlefield waves of skirmishers, each skirmisher to be clad in armor and to be armed with a machine gun. This resulted in the building of the Renault light tank. (See Fig. 5.) This remarkable machine weighed about 6 tons, crossed trenches 5 feet wide and could run from 1 to 5 miles per hour. It carried but two men, a driver and a gunner. The "male" tank was equipped with a 37-mm. gun and the "female" with a Hotchkiss machine gun.

The French heavy tanks first went into action on April 16, 1917, but failed to destroy machine guns and thus pave the way for



FIG. 4. FRENCH ST. CHAMOND TANK

the infantry. There was further disappointment at Malmaison six months later.

The Renaults first came into action in May, 1918, when they helped break the German advance. The next month they were used on a large scale in General Mangin's counter-attack with great success, though suffering severe losses. In July, at Soissons, they again participated with notable results. The German General Staff attributed this victory to the use of "masses of tanks." As a result, "Infantry commanders now clamoured for tanks" and battalions of Renault tanks were formed at the rate of one per week.

THE GERMAN TANKS

It is amusing to note that when the British first began to use tanks the Germans referred to them as "cruel and detestable." They appear to have appreciated only the mechanical imperfections of the

Mark I machine they captured at the Somme. Later tank actions, however, opened their eyes and in the spring of 1917 they began construction of their "Type A.7.V." tank, sometimes called the "Elfriede." (See Fig. 6.) However, only 15 were ever produced and as only 25 captured Mark IV's were repaired, their Tank Corps did not amount to much.

The "Elfriede" was larger and heavier than either the British or French heavy tanks and weighed about 40 tons. On smooth ground it could make about eight miles per hour, but, owing to its shape and lack of clearance, it could not cross wide trenches or bad ground.

The Germans first used tanks in their offensive of March, 1918. On this occasion they employed 10 of their own and 10 British tanks. They accomplished very little. About a month later they made their only successful tank attack, using 14 machines in the capture of Villers-Bretonneux, an important tactical point. Thereafter, they appeared in some half dozen actions. It was, perhaps, the irony of fate that, on October 8th, some 15 captured British machines should be used by them at Cambrai with demoralizing effect on the British.

THE AMERICAN TANKS

Soon after the arrival of our first contingents in France, Brigadier General S. D. Rockenbach was appointed Chief of Tank Corps and a tank training center was established at Bourg. Having the benefit of the experience of both the British and French it was decided that a combination of use of the British heavy tanks and the French light tanks would be ideal. Accordingly an agreement was made with the British for the production of the Mark VIII (see Fig. 7), the British to provide the hulls and armament and the United States to furnish the engine and transmission. Assembly was to be made in France. An improved Renault was to be built in this country. Although a stupendous building program was launched, it soon became apparent that we could not produce tanks in quantity before 1919, whereupon the British agreed to equip one of our battalions with heavy tanks and the French two battalions with light tanks.

The two battalions of light tanks were turned over just before the Battle of St. Mihiel and took part in that action. However, it will be recalled that the Germans made no determined stand on this occasion; hence, the tanks did not have a serious test. However, the terrain was extremely difficult and, in reaching their objectives on time, they accomplished a noteworthy feat. Of the 174 tanks engaged, three were disabled by artillery and 43 were put out by ditching or mechanical trouble. All were soon salvaged and repaired except two.

Participation in the Meuse-Argonne offensive was a sterner task. The same brigade that fought at St. Mihiel was engaged here. It participated in every action of the I Corps from September 26th to October 13th, on which date it was so seriously depleted that a battalion headquarters and provisional company of 10 officers, 140 enlisted men and 25 tanks were organized out of it, the remainder being sent to Bourg for reorganization. The provisional company participated in several actions with credit.

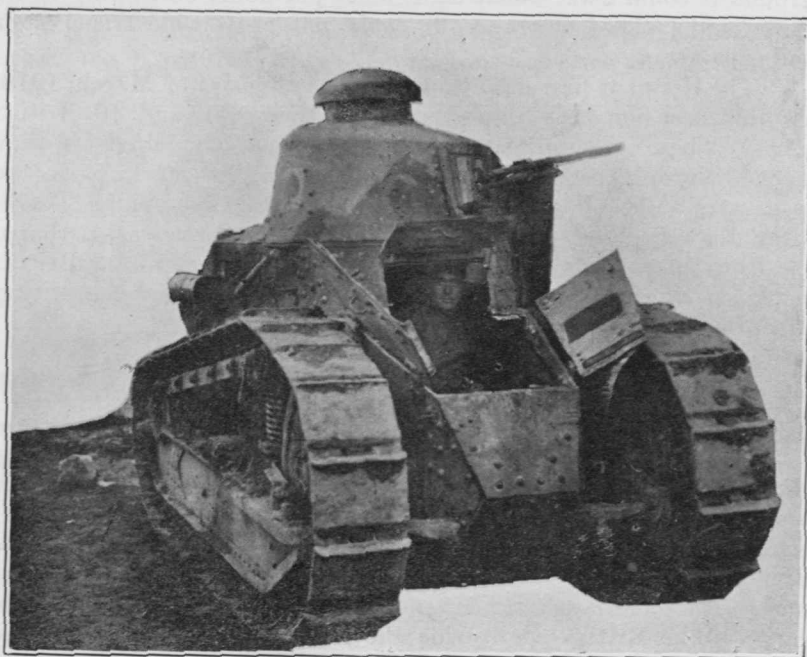


FIG. 5. RENAULT LIGHT TANK

Our heavy battalion participated with credit in "the British offensive," attacking with both the 27th and 30th American Divisions. On one occasion, however, it sustained serious losses by running into an old British mine-field.

POST-WAR DEVELOPMENT

The agreement with the British provided for the production of 1500 Mark VIII tanks during the year 1918. Just one of these super-tanks was completed and tested in America during the last month of active hostilities. After the signing of the Armistice, contracts were cancelled and only 100 of these machines were completed and put in service. Practically all of them are now assigned to Heavy Tank Companies.

The American-built Renault was in quantity production at the date of the Armistice and about 20 had actually been delivered in France. One thousand were finally accepted. Of these about 600 are assigned to Regular and National Guard Tank Companies and separate platoons.

Much serious thought has been given to the tank of the future, not only in our own but in foreign armies. In this country it has been decided that the Mark VIII, built to overcome obstacles of the abnormal, stabilized warfare, is too heavy, too long, too slow and lacking in durability. Also that our light tank is too small, too slow, of insufficient gun power and lacking in durability. Between these two extremes we hope to find the desired machine—medium-sized, fast and durable. Several models are undergoing tests and very encouraging progress is being made. Much interest has been shown in the public tests of the land and water machine designed by Mr. Christie.

In England much experimental work has been carried on and it is reported that the British have perfected a medium tank that can attain 25 miles per hour and cruise 300 miles on one fill.

France still has many of her war-time Renaults but has designed a new 7-ton tank more heavily armed than the Renault and provided with a more powerful engine. She is also experimenting with a 70-ton monster greatly resembling our Mark VIII.

In Italy, a marvelous tank about the size of the Renault is said to have been perfected. It is reported that it is capable of crossing streams, snow and sand, has armor capable of resisting armor-piercing bullets, and is equipped with two machine guns.

Germany had tested a new tank just before the Armistice but dismantled it soon thereafter. It is possible that experiments have been carried on since then in a quiet way.

Japan is said to have some light French tanks and to be carrying on experiments with a view to obtaining an improved machine.

With so much thought and effort being devoted to the subject we may expect to see some very interesting developments in the near future. A perfected machine gun and wire destroyer of this type means the saving of untold blood and treasure. May we hope to see America in the vanguard?

ORGANIZATION

In a striking introduction to an excellent work on tanks*, Major General H. J. Elles, C. B., D. S. O., distinguished commander of the British Tank Corps, wrote as follows: "In the assault, tanks are no more than a part of infantry, an integral part of the *troupes d'assaut*. For real success, i.e., cheap success, not only must the two arms train and re-train together, but they should live together, feed together, and drink together."

*"The Tank Corps" by Major Clough Williams-Ellis, M. C. and A. Williams-Ellis.

In spite of this strong presentation the Royal Tank Corps is still separate and independent of the Infantry. In France and the United States, tanks are a part of the Infantry.

In our service tanks are classified as follows:

(1) G. H. Q. reserve tank units and their administrative and training facilities.

(2) Divisional tank companies.

All tanks, except the divisional tank companies, are part of the General Headquarters Reserve and are attached to the various

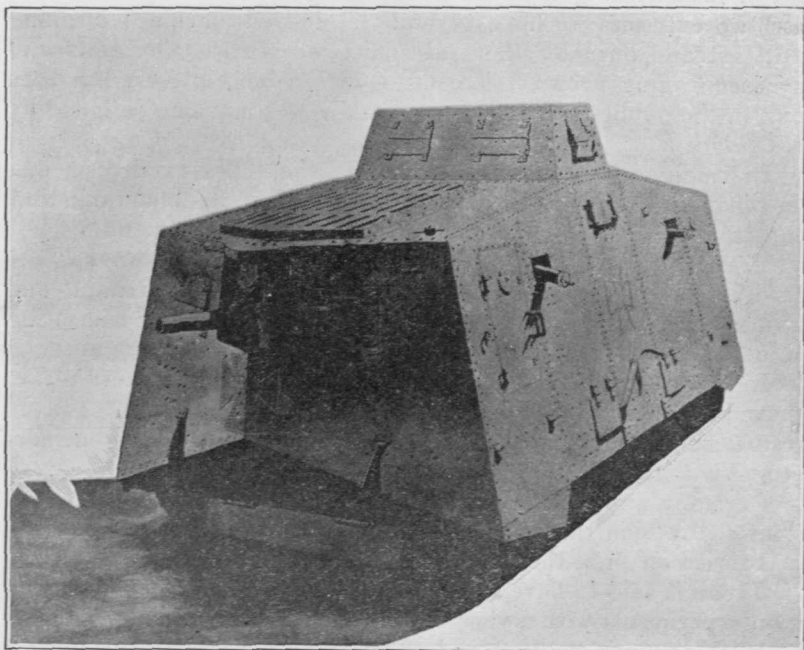


FIG. 6. THE GERMAN "ELFRIEDE" TANK

armies as needed to meet special situations. As a result, the maximum use of a given number of tanks is assured. The type of tank and the number of tank units required by an army or any subdivision varies with its mission and with the terrain.

The divisional tank company, equipped with light tanks at present, is a permanent part of each infantry division. This is designed to increase the effectiveness of the division acting as a whole, and to secure close cooperation between the tanks and the riflemen by constant association. The division, in action, is reinforced by additional tank units from the G. H. Q. reserve when conditions require such reinforcement.

In time of war there will be in the office of the Chief of Infantry, G. H. Q., a tank section headed by a Chief of Tank Service and consisting of a headquarters and headquarters company. G. H. Q. reserve tank activities are supervised by the head of the tank section through his staff in the same manner as a chief of any technical service exercises control through his staff.

When tanks are attached to an army from G. H. Q. reserve, there is attached to the army from the tank service a unit known as a tank section, army headquarters. In a similar manner, when a group of tanks, the usual proportion, is allotted by an army to a corps, there is attached to the corps a unit known as a headquarters and headquarters company, tank group. The group is an administrative unit whose purpose is to coordinate under the supervision of the army tank section, the fighting efficiency of two or more tank battalions with their corresponding tank maintenance company, which organizations constitute a tank group.

The tank battalions, both heavy and light, consist of a headquarters, headquarters company and three companies. The tables, at present, provide for the Heavy Tank Company, war strength, the following: 22 officers, 232 enlisted men, 15 fighting tanks (three platoons of three tanks each and six reserve tanks), and one signal and fighting tank. The war strength divisional light tank company is to have six officers, 145 men, 24 fighting tanks (three platoons of five tanks each and nine reserve tanks) and one signal tank.

Tank schools are to be established in the proportion of one per army organized.

TANK TACTICS

"Though experience is the only true test of a system of tactics," writes Colonel J. F. C. Fuller*, D. S. O., "the foundations of the tactics suitable to any particular weapon are not based on experiences, but on the limitations of the weapon, that is, on its powers, and on the fundamental principles of war. Further than this, if the weapon concerned is to be employed in cooperation with other weapons, the powers of these other weapons must also be considered, so that all the weapons to be employed may, so to speak, like a puzzle, be fitted together during battle to form one united picture. In thinking out a tactics for tanks, the first factors to bear in mind are the powers of the machine, which may be summarized in three words: 'penetration with security'."

The general role of the tank is to assist the riflemen, in battle, by overcoming machine guns, flattening wire entanglements, and reducing other obstructions blocking the advance of the infantry. The power of infantry is effected through a combination of fire and movement. The modern tank was built to maintain the balance be-

*"Tanks in the Great War" by Brevet-Colonel J. F. C. Fuller, D. S. O.

tween fire power and mobility. The tank bears a relation to the rifle of the infantryman similar to that which the artillery, machine guns and other weapons, bear to the infantryman, i.e., it assists him to move forward effectively.

The general capabilities of the tank are as follows: It can cross ordinary trenches and shell-pitted ground, demolish entanglements, destroy machine gun nests and pill boxes, force opposing infantry to seek shelter, provide protection for its own crew from small arms fire, shrapnel, shell fragments and grenades.

With respect to its limitations it may be said that the present type cannot cross deep unbridged bodies of water or deep bogs, nor can it penetrate deep forests of large trees. It has no power to hold

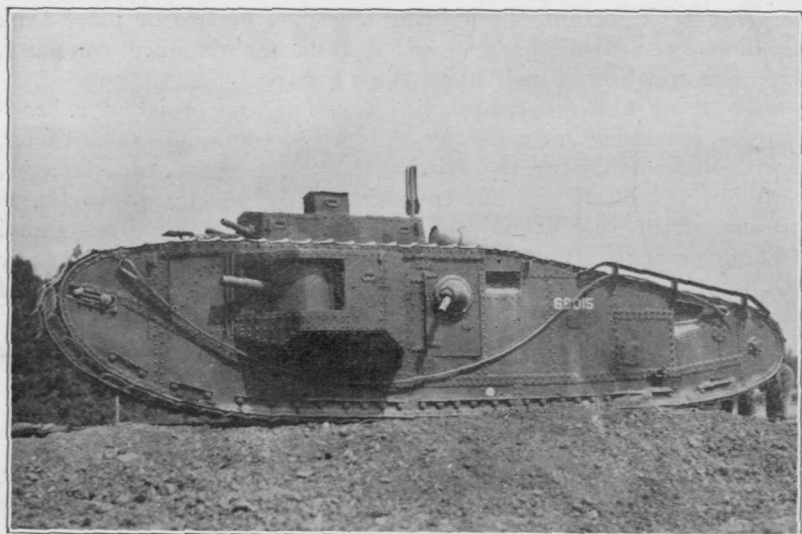


FIG. 7. BRITISH-AMERICAN MARK VIII TANK

a position taken and its mechanical deterioration is rapid when in use. Its radius of action is rather limited due to inadequate storage space for gasoline and the difficulty of supply in action.

Speaking generally, the tank has three variable characteristics: Mobility, fire power, and security (for its crew). It is evident that improvement in any of these can be secured only at the expense of the others. It follows then that the purpose of the tank must be carefully considered when its specifications are drawn.

The divisional light tank company, which, it will be recalled, is an integral part of the division, may be assigned various missions as indicated by the situation. Its biggest job, no doubt, will be to reinforce the riflemen in the attack, but it will also be used effectively in the advance guard, in making counter-attacks, and in

breaking up hostile counter-attacks. Light tanks have recently been effectively employed against mobs.

The division commander exercises tactical control over all tank units operating with the division and coordinates their employment. The usual allotment of G. H. Q. tanks to a division is one battalion of light tanks and the number of heavy tanks believed necessary for the task in hand. For the attack, a tank platoon will, in general, be attached to an infantry battalion.

In selecting missions for tanks, the suitability of the terrain for them must always be given serious consideration. The decision may be to make attacks in several sectors of the front of an army. The general rule for the employment of tanks, in this connection, is that the number of attacks involving tanks should be limited so that the attacks, which use tanks, will be of overwhelming power. These attacks are prepared, when possible, so that tanks may attack in mass with depth organization.

Let us conclude by considering certain statements made by General Elles, in his introduction to the Williams-Ellis book*.

"The employment of tanks in the field was one long conflict between policy and expediency. Policy seemed always to demand that we should wait until all was prepared, until sufficient masses of machines should be ready to use in one great attack that would break the German defensive system. Expediency necessitated the employment of all available forces at dates predetermined, and in localities fixed for reasons other than their suitability as tank country. Battles are not won with tanks alone, and in early 1917, for example, the tank was still a comparatively untested machine. Indeed, the later issues of the Mark I developed weaknesses in detail so alarming as to preclude anything more than a short-lived effort in battle.

"Not until the Mark IV machine was well into delivery could a guarantee as to its degree of mechanical reliability be given, and by that time the trend of the year's campaign was unalterably fixed.

"And so it was that it was our fate up to the first Cambrai battle to 'chip in when we could' in conditions entirely unfavorable.

"The employment of tanks in Flanders has often been criticized, without intelligent appreciation of the fact that had they not fought in Flanders they would have probably fought nowhere. Better, therefore, that they should fight and pull less than half their weight, and still save lives, than that they should stand idle while tremendous issues were at stake."

This may be our experience, some day.

*"The Tank Corps" by Major Clough Williams-Ellis, M. C. and A. Williams-Ellis.

Antiaircraft Doctrine

By 1ST LIEUT. C. E. BRAND, C. A. C.

EDITOR'S NOTE: *This paper tied for second place in THE JOURNAL'S 1923 Essay Competition.*

BATTLES must be planned before they are fought. And proper coordination of the actions of the different elements of a command during the combat period necessitates a prior analysis of all possible tactical situations which might arise, in so far as this can be done, to the end of determining beforehand the proper action to be taken in each case. This is of particular importance in fixed defenses because of the thoroughness with which the analysis may be made and the consequent completeness of indoctrination and detailed planning that is possible in the command. It may be said that perfect indoctrination of a command would entirely dispense with tactical orders, and the necessary delay incident to their transmission, and would insure absolute unity or uniformity of action of the command as a whole. On account of the high speed and consequent fleeting nature of aircraft targets, the inherent difficulty and likely delay, or even failure at times, of relatively long lines of communication, this condition of perfect indoctrination must be approximated in antiaircraft defenses as closely as possible. Thus in estimating a local situation, which can best be done from the local viewpoint, as, for example, from the battery or similar unit where it arises, the battery or other local commander must be depended upon to adopt with a fair degree of certainty the estimate of the situation and consequent action which the defense commander would adopt if present. For the local commander's action must always be immediate and based upon his own estimate rather than upon specific tactical orders from higher command, special cases excepted.

In the absence of such accepted antiaircraft doctrine, which will doubtless develop with the service, the following are listed as the general tactical functions and *modus operandi* of the several elements of the typical antiaircraft command.

The elements of the antiaircraft defenses may be conveniently grouped according to their tactical functions as follows:

PRIMARY (FIGHTING) UNITS	{	Antiaircraft Gun Batteries Machine Gun Batteries									
AUXILIARY UNITS ...	{	<table border="0"> <tr> <td style="vertical-align: middle;">Information Service</td> <td style="vertical-align: middle;">{</td> <td style="vertical-align: middle;">Outside Agencies All Observing Stations Sound Ranging Stations Searchlights</td> </tr> <tr> <td style="vertical-align: middle;">Auxiliary Fighting Units</td> <td style="vertical-align: middle;">{</td> <td style="vertical-align: middle;">Searchlights Machine Guns Automatic Rifles</td> </tr> <tr> <td style="vertical-align: middle;">Auxiliary to Other Services</td> <td style="vertical-align: middle;">{</td> <td style="vertical-align: middle;">Information Service Searchlights (especially)</td> </tr> </table>	Information Service	{	Outside Agencies All Observing Stations Sound Ranging Stations Searchlights	Auxiliary Fighting Units	{	Searchlights Machine Guns Automatic Rifles	Auxiliary to Other Services	{	Information Service Searchlights (especially)
Information Service	{	Outside Agencies All Observing Stations Sound Ranging Stations Searchlights									
Auxiliary Fighting Units	{	Searchlights Machine Guns Automatic Rifles									
Auxiliary to Other Services	{	Information Service Searchlights (especially)									

Our primary arms are therefore: (a) the anti-aircraft gun battery, and (b) the machine gun battery. All other elements of the command exist *primarily* for the purpose of placing and keeping these primary arms in action.

Chief among the auxiliary elements of the defenses are those comprising the information service. It is their function to discover for the fighting units any enemy forces which may approach the defense area, as far as possible before such forces come within the range of gunfire, and to keep all fighting units constantly informed of the whereabouts, numbers and characteristics of all enemy forces in the vicinity of the defenses to the end that they may be brought promptly under effective fire if possible and in their proper order of importance. This service includes the illumination of such forces as targets at night.

In addition to the above primary role the searchlight has of itself a direct offensive function of considerable importance in that the searchlight beam even when unattended by gunfire confuses and demoralizes the night flier and may prevent him from accomplishing his mission. To quote the Antiaircraft Defense Commander of London, 1916-1918, upon this important point:

It is necessary to read the personal narratives of night-flying pilots, and to listen to their conversations, to appreciate the great moral effect which the systematic and unhesitating use of searchlight beams has upon them when they are approaching their objectives on the ground. They know that once the searchlight succeeds in laying on them they become the target for every gun and aeroplane within reach—an experience to be avoided as far as possible. (“Air Defense,” *Encyclopædia Britannica*, 12th Edition, 1922.)

Several air raids were in fact stopped short of London simply by a searchlight display while the airships were still far enough away to give their commanders time to think matters over before venturing farther.

The machine gun, in addition to its primary function, has the secondary auxiliary role of providing local protection to the other elements of the defenses. It assists in this particular role the auto-

matic rifle, which has local protection for its primary function. The machine gun should be diverted from its own primary role only when necessary to prevent other more important fighting units from being put out of action.

Besides the primary functions of the anti-aircraft defenses which are coordinate with the offensive functions of our own air forces, there are certain elements of the anti-aircraft defenses which have important secondary roles which are purely auxiliary to the functioning of our own air forces. Chief among these is the searchlight, which may perform the same auxiliary function for our air forces as it does for our own anti-aircraft fighting units. Of almost equal importance to our air forces is our entire information service. The proper channels through which our coordinate and mutually auxiliary functions with our air forces should be kept in proper coordination is prescribed by higher authority. However, the more effective part of this coordination must be done by prearranged plan which is clearly understood by both our own units and the air service units concerned. These plans should rest upon a basis of inter-service doctrine. Since mutual agreement and understanding are essential in the formulation of such doctrine, and since, moreover, detailed plans would likely vary with conditions, neither will be undertaken at this time. However, it may be noted as a general principle that anti-aircraft guns cannot fire upon an enemy plane which is actively engaged by our own air forces. It is also obvious that searchlights should illuminate all enemy planes within their range not only as targets for our own guns and for the purpose of destroying the flier's morale, but also for the purpose of indicating such targets and illuminating them for our own air forces. It is of course equally important that our own air forces should not be illuminated.

It is not proposed to detail here the different methods of employing the several arms and auxiliaries of the anti-aircraft defenses under the several conditions of service and possible tactical situations which might arise. Some of these details will be found in the war plans of the command, and still others are covered by the technical training of the different units. The following specific tactical principles, however, will form a basis of the doctrine of the typical command. In the absence of any special orders to cover special cases they prescribe a definite plan of action for any tactical situation which may arise.

- a. A battery will fire as a unit at one target.
- b. Batteries will fire on the leading plane of a formation.
- c. Choice of targets as to type are:
First—Bombing planes (or airships).
Second—Observation planes.
Third—All other types.

d. All batteries will concentrate fire on a bombing plane near its objective rather than firing on other planes near their own battery assignment, even if such other planes are not fired on at all.

e. Do not fire on other enemy forces when bombing planes are within range unless this is *necessary* to prevent such other forces from *putting out of action* your own unit or a more important fighting unit than your own which is engaging an equally important target.

f. In case several bombing planes are within range, or in case no bombing plane is within range and no observation plane presents a favorable target, batteries will, subject to the above, keep all planes or formations within range under fire by each battery firing at the group nearest it or relatively nearest (considering that other batteries must apply the same principle). In case of doubt under this rule senior battery should select its target and juniors shift fire if necessary, and time permits, to other targets. The principle involved is to keep all planes or formations under continuous fire in so far as possible and subject to limitations imposed by relative importance of targets.

g. To further aid in the distribution of fire, certain batteries in each command (which should be designated) on account of their locations with respect to the areas to be protected are designated as Advance Batteries. Groups of hostile planes approaching the defenses will be fired on first by the advance batteries, whose fire will be shifted to succeeding equally important groups in turn as soon as the preceding group comes under the fire of the main batteries, and subject to the above.

h. Track any plane in sight not known to be friendly and fire on it as soon as it is within range, subject to the above.

As has been noted above, antiaircraft actions will as a rule be by "Battery Commander's Action." Tactical orders, such as the assignment of targets, will rarely be given by higher commanders. Communications from these sources will normally have to do with (1) strategic disposition of mobile and reserve units, and (2) *dissemination of information*. The latter is essential to intelligent cooperation according to doctrine or specific prearranged plan. The vital necessity of information as the basis of intelligent action through indoctrination cannot be over-emphasized. It is unquestionably patent that if the local commander is to make the same estimate of the situation which his commander would make he must have all the information regarding the situation which his commander has. The first paragraph of a campaign or battle order, even by radio dispatch where words and time are equally scarce, places in the hands of the subordinate the vital and pertinent *information* concerning the enemy and our supporting forces, even when

expressed and detailed orders for the action are to follow. A system of command which is hypothecated upon indoctrination substituted for detailed battle orders therefore necessarily implies a system of dissemination of information which is thorough, efficient and accurate. It is essential that such a system be maintained in the anti-aircraft command. All information of military value arising or discovered within the command should be transmitted at once to the defense commander. All pertinent information from whatever sources will be furnished battery and other commanders by the defense commander.

The tactical functions of the different commanders after the beginning of the combat period are summarized as follows:

a. The Antiaircraft Defense Commander:

(1) To collect, collate and disseminate all available and pertinent information concerning the enemy and our supporting forces.

(2) To indicate any variation from the enumerated tactical principles for any special purpose, such as, for example, to permit enemy proper observation of camouflage works designed to deceive him, or to coordinate our work with that of our own air forces when this is not covered by doctrine or by fixed plan.

(3) To order any special action desired, such, as, for example, a general searchlight display while an attack is still at a distance.

b. Group (Fire) Commanders:

(1) To collect, collate and forward promptly to the Antiaircraft Defense Commander all available information concerning the enemy and our own forces. If not of immediate importance it may be forwarded in the daily report of operations; but observation of an enemy should be reported at once by telephone.

(2) To keep all subordinate commanders constantly informed of local situations that affect them in order that such commanders may be enabled to take prompt and intelligent action as the situation may demand. This will include the transmission of general situation reports and operations orders from time to time, on the one hand, and possibly tactical orders during an action on the other. The latter, however, will be considered exceptional.

(3) To make certain limited tactical distribution of mobile and reserve units. This, however, will be as a rule a strategic consideration and will be attended to prior to an action.

(4) To indicate any desired variations from the enumerated tactical principles for any special purpose.

c. Battery, Searchlight Co. and Other Commanders:

(1) To maintain alert and properly equipped and instructed lookouts; to secure thereby all possible information concerning the enemy, and to transmit same, together with all other pertinent information obtainable promptly to the next higher commander.

(2) To be constantly prepared to go into action *at once* with all elements of the command upon any target within range and in accordance with the tactical principles enumerated above.

The following points are particularly pertinent to antiaircraft actions and should be borne constantly in mind:

A speed of 90 miles per hour is about *50 yards per second*. This makes our gunnery problem difficult when firing at a bomber of this speed, but it also makes bombing difficult. Granted that the bomber has computed proper deflections and is flying directly over his target, *an error of one second in dropping the bomb may and probably will cause a miss* on a target of small size. The flash of high explosive shell within even several hundred yards—preferably ahead of the bomber—or the glare of a searchlight beam at night will detract no inconsiderable amount from the sense of such refined finesse of both pilot and bomber.

The flier is *deaf*. Visual images affect him strongly; but no sound can reach him—not even the explosion of a major caliber gun. The machine gun is therefore ineffective unless it *hits*.

At night the flier, in addition to being deaf, is blind, except as we, his enemies illuminate for him. If during the day when he can see clearly about him the flash of our shells near him gives him a feeling of conspicuousness which materially shakes his morale—and his accuracy—think of his state of morale at night when flying upon the apex of three or more blazing searchlight beams which mark out and illuminate him only of all the surrounding blackness; when each flash of high explosive shell is a hundredfold more livid than during the day, and when he must momentarily expect a close range and deadly attack by an enemy that he not only cannot see, but whose presence he can in no way divine except through a most direful apprehension. The offensive function of the searchlight is direct and real.

That a searchlight in action may draw fire is of no consequence. It was made and emplaced *to be used*, not to be concealed. Besides, so far as discovering the area to be protected is concerned, there is no reason to assume that the enemy has lost his way. Do not hesitate to place and keep searchlights in action.

A plane flying at 90 miles per hour at an altitude of 3000 feet and directly over an antiaircraft gun battery would be within range of its guns not more than five minutes. Substituting machine guns for the antiaircraft guns and reducing the altitude to 100 yards, the time must be reduced to less than two minutes. The average target would probably be within range not more than half these times.

The Coast Artillery Rifle and Pistol Teams

THE JOURNAL is indebted to 1st Lieut. H. C. Barnes, Jr., C.A.C., Team Coach, for the data published below showing the records made by our Rifle and Pistol Teams at Camp Perry. In the October number of THE JOURNAL appeared the records made at Wakefield. It should be noted that the Coast Artillery Rifle Team won third place in the "National Rifle Team Match," an event in which 75 teams competed and the principal event of the year at Camp Perry. Our Teams have again demonstrated their ability to "hold their own" in the handling of small arms, and have again justified the pride which the whole Corps holds for its Rifle and Pistol Teams.

200-Yard Rapid Fire Match, 1031 entries (10 shots, rapid fire, target A)—Sgt. C. O. Franzen, U. S. M. C., 1; 1st Lieut. G. F. Nichols, 19; Capt. J. D. Brown, 19; 1st Lieut. H. C. Barnes, Jr., 59; Sgt. J. B. Grigsby, 59; Capt. C. E. Loucks, 59; 1st Lieut. C. F. Wilson, 59; Capt. F. S. Swett, 59.

300-Yard Rapid Fire Match, 1025 entries (10 shots, rapid fire, target A)—Sgt. Franzen, 1; Lieut. Nichols, 13; Capt. W. H. Sweet, 19; Capt. Swett, 60; Maj. W. H. Fulton, 60.

Members' Match, 1079 entries (10 shots, slow fire 600 yards, target B)—Capt. L. S. Spooner, Inf., 1; Lieut. Nichols, 9; Capt. E. F. Olsen, 11; 1st Lieut. L. A. White, 39; 2nd Lieut. L. S. Barroll, 55; Maj. C. W. Baird, 56; Maj. Fulton, 72; 1st Lieut. R. W. Crichlow, Jr., 73.

The Leech Cup Match, 1043 entries (7 shots each at 800, 900 and 1000 yards, all slow fire, target C)—2nd Lieut. P. M. Martin, Cav., 1; Lieut. Crichlow, Jr., 11; Lieut. Nichols, 14; Capt. Swett, 38; Pvt. J. M. McAlhane, 43; Capt. Loucks, 83; Lieut. Barnes, 86; Lieut. Barroll, 89.

The Navy Match, 979 entries (20 shots, slow fire standing, 200 yards, target A)—Capt. J. D. Andrews, C. E., 1; Capt. Loucks, 11; Capt. Brown, 14; Lieut. Crichlow, 51; Sgt. G. B. Ping, 64; Sgt. James Wertzberger, 70; Capt. Sweet, 74; Lieut. Barnes, 86; Pvt. McAlhane, 99.

Camp Perry Instructors' Match, 268 entries (10 shots, slow fire, 50 yards, automatic pistol; 10 shots, slow fire standing, 200 yards, service rifle)—2nd Lieut. S. R. Hinds, Inf., 1; Maj. C. W. Baird, 29; Cpl. J. W. Simpson, 64.

The Marine Corps Cup Match, 1142 entries (20 shots, slow fire 600 yards, target B; 20 shots, slow fire 1000 yards, target C)—Cpl. S. P. Roberts, U. S. M. C., 1; Lieut. Nichols, 15; Sgt. Wertzberger, 20; 1st Lieut. G. W. Trichel, 42; Sgt. J. B. Grigsby, 66; Capt. Swett, 89.

NRA Free Rifle Match, 84 entries (20 shots standing, 20 shots kneeling, 20 prone, 300 meters, international target)—Lieut. Hinds, 1; Lieut. Trichel, 5.

The Wimbledon Cup Match, 999 entries (20 shots, slow fire 1000 yards, target C)—R. H. McGarity, District of Columbia, Civ., 1; 1st Lieut. E. W. King, 12; Sgt. H. E. Warren, 28; Sgt. Grigsby, 32; Capt. Olsen, 46; Capt. Swett, 48; Lieut. Crichlow, 65.

600-Yard "Any Rifle" Match, 382 entries (20 shots, slow fire 600 yards, target B)—Mas. Gun. J. J. Andrews, U. S. M. C., 1; Lieut. Trichel, 2; Lieut. Nichols, 14; 1st Lieut. L. A. White, 21; Capt. Loucks, 41; Lieut. Barnes, 44; Lieut. Crichlow, 55.

200-Yard "Any Rifle" Match, 357 entries (20 shots standing, slow fire 200 yards, target A)—Capt. J. H. Knuebal, Inf., 1; Lieut. Trichel, 16; Capt. Loucks, 18; Sgt. Wertzberger, 48.

The President's Match, 1078 entries (10 shots, slow fire standing, 200 yards, target A); 10 shots, slow fire, 600 yards, target B; 20 shots, slow fire, 1000 yards, target C)—1st Lieut. L. V. Jones, Inf., 1; Lieut. Crichlow, 24; Lieut. Barroll, 34; Sgt. Warren, 39; Capt. Olsen, 54; 1st Lieut. L. A. White, 62; Sgt. Wertzberger, 69; Maj. Fulton, 84; Capt. Swett, 94.

The NRA Grand Aggregate Match (aggregate of the scores made in the Leech Cup Match, the Members' Match, the Marine Corps Cup Match, the President's Match, and the Wimbledon Cup Match)—Maj. C. L. Sturdevant, C. E., 1; Lieut. Nichols, 9; Sgt. Warren, 11; Capt. Swett, 21; Lieut. Crichlow, 25; Lieut. Barroll, 26; Lieut. White, 41; Sgt. Grigsby, 51; Capt. Olsen, 70; Maj. Baird, 72; Maj. Fulton, 74; Lieut. Trichel, 81; Capt. Loucks, 87; Lieut. Barnes, 97.

200-Yard Two-Man Team Match, 122 team entries (20 shots, slow fire standing, per man, 200 yards, target A)—Sgt. Franzen and Capt. J. Lienhard, U. S. M. C., 1; Capt. Loucks and Lieut. Crichlow, 31.

600-Yard Two-Man Team Match, 114 team entries (20 shots, slow fire, per man, 600 yards, target B)—Cpl. Roberts and 1st Lieut. R. T. Presnell, U. S. M. C., 1; Sgt. G. B. Ping and Sgt. P. J. White, 9.

1000-Yard Two-Man Team Match, 113 team entries (20 shots, slow fire, per man, 1000 yards, target C)—Cpl. D. L. Hollowell and Cpl. H. J. Collins, U. S. M. C., 1; Capt. Brown and Lieut. White, 13; Capt. Swett and Pvt. McAlhaney, 15; Capt. J. W. Barker and 1st Lieut. E. W. King, 17.

The All-Round Championship, 34 entries. (Certain percentages of the scores made in the following matches constitute the score in this match:

The Wimbledon Cup Match

The Rapid Fire Championship Match

The Navy Match

The Small Bore Individual Championship Match

The NRA Individual Pistol Championship

The Camp Perry Registered Shotgun Championship

Lieut. Col. M. D. Snyder, Ind. N. G., 1; Lieut. Barnes, 2; Lieut. Nichols, 9.

The National Individual Rifle Match, 211 regular service entries (same course as National Rifle Team Match, shown below)—Capt. W. W. Ashurst, U. S. M. C., 1; Lieut. Crichlow, 9; Sgt. Warren, 15.

The National Individual Pistol Match, 131 regular service entries (same course as National Pistol Team Match, shown below)—1st Lieut. R. E. Vermette, Inf., 1; Lieut. G. H. Vogel, 5; Capt. Sweet, 10.

The National Pistol Team Match, 20 team entries (course of fire: 2 strings, 5 shots in 20 seconds, 25 yards; 2 strings, 5 shots in 10 seconds, 25 yards; 10 shots, slow fire, 50 yards. All fired on Standard American 50-yard target)—U. S. Infantry, 1; U. S. Marine Corps, 2; U. S. Cavalry, 3; U. S. Engineers, 4; U. S. Air Service, 5.

The Small Bore Long Range Trophy Match, 74 entries (20 shots, slow fire, 175 yards, .22-caliber rifle)—Ward L. Heller, Cal. Civ. Rifle Team, 1; Lieut. Nichols, 11.

The Herrick Trophy Match, 39 entries (open to teams of eight men, course fired: 15 shots per man at each range, 800, 900, 1000 yards, target C)—U. S. Coast Artillery, 1; U. S. Marine Corps, 2; U. S. Navy, 3; U. S. Infantry, 4; U. S. Engineer Corps, 5; U. S. Cavalry, 9.

The A. E. F. Roumanian Trophy Match, 35 team entries (open to teams of six men, course fired: 15 shots per man at each range, slow fire, 200 yards standing, 600 yards prone)—U. S. Engineer Corps, 1; U. S. Coast Artillery Corps, 9.

The United Service Match, 5 team entries (open to teams for the Army, Navy, Marine Corps, National Guard, and Civilians; teams of 16 shooting members, two alternates, team captain, and team coach; course fired same as National Team Match course shown below)—U. S. Marine Corps, 1; U. S. Army, 2; U. S. Navy, 3; National Guard Team, 4; Civilian Team, 5.

Coast Artillery Corps members of the United Service Team (Army Team)—Maj. C. W. Baird, team coach; shooting members: Lieut. Barnes, Lieut. Nichols, Lieut. White, Capt. Brown.

The National Rifle Team Match, approximately 75 team entries. Open to teams of 10 shooting members, two alternates, a team captain and a team coach, from the several branches of the Army, Navy, Marine Corps, the National Guard of the several states and territories, R. O. T. C. and C. M. T. C. teams from each Corps Area and civilian teams from each of the several states and territories. Course fired, for each shooting member: 10 shots, slow fire, standing, 200 yards, target A; 10 shots, rapid fire, sitting or kneeling, 200 yards, target A; 10 shots, rapid fire, prone, 300 yards, target A; 10 shots, slow fire, prone, 600 yards, target B; 20 shots, slow fire, prone, 1000 yards, target C)—U. S. Engineer Corps, 1; U. S. Marine Corps, 2; U. S. Coast Artillery Corps, 3; U. S. Infantry, 4; U. S. Cavalry, 5; U. S. Navy, 6.

Members of the Coast Artillery Team in the National Match—Maj. Baird, team captain; Lieut. Barnes, team coach; shooting members: Lieut. Nichols, Lieut. Barnes, Capt. Loucks, Lieut. Crichlow, Capt. Swett, Lieut. Wilson, Sgt. Ping, Sgt. Warren, Capt. Brown, Lieut. White.

EDITORIALS

Summer Training Camps

AN effort has been made in this issue of *THE JOURNAL* to publish brief accounts of the summer activities of the various Coast Artillery volunteer organizations. Unfortunately it has not been possible to secure records of all such camps, but enough are here recorded to permit any member of one camp to compare his with others of the same kind. These Coast Artillery camps included those of eighteen National Guard regiments, many Reserve regiments and half a dozen each of R. O. T. C. and C. M. T. C.

During the summer months one or more of these camps was held at almost every important coast fortification within the United States, the materiel and personnel of which was used almost exclusively to the end that those attending the camps should receive the very best instruction that is within the power of the Coast Artillery to put forth. The War Department has gone on record as stating that no more important work can be accomplished by the regular officer than that of instructing the other two components of our National Army, and today every Coast Artillery officer understands the extreme importance to the volunteer of this summer training.

A striking example of the great benefit to be derived by National Guard regiments from summer training is shown in the case of the 202nd Coast Artillery—an antiaircraft regiment stationed in Chicago. In the three previous camps it attended, all in the vicinity of Chicago, it had not fired a shot—this because no suitable firing ground for antiaircraft artillery was available. Morale was low and it was extremely difficult to maintain enthusiasm and *esprit* within the regiment. This year, however, the regiment was sent to Fort Monroe, where it fired almost 500 rounds, constantly saw the latest types of equipment in operation and had an opportunity to talk with officers and men who were in daily service with this equipment. The results were astonishing. Enthusiasm and *esprit* were reestablished. A new regiment returned to Chicago, and it was confidently predicted there would be a long waiting list for applicants to enter the regiment. The Commanding Officer of the regi-

ment stated that because of the intensive instruction his regiment had received, due largely to its constantly rubbing shoulders with an anti-aircraft regiment of the regular service, more progress had been made than would have been possible in three regular camps held at a place where only a limited corps of instructors would have been available.

Great credit is due the civilian who enters the National Guard or other volunteer unit. He does so in by far the greater number of cases because of patriotic motives and because he has the military instinct and wishes to satisfy it without entirely giving up his civilian occupation. He sacrifices many hours to the study of military subjects and in training at the Armory—hours that otherwise might be spent with his family or in better qualifying himself for his civilian occupation. He does this knowing that when summer comes he will be afforded an opportunity to attend a training camp and there receive the very best instruction it is within the power of the government to give in the short time available.

Our National Defense policy would be a failure were it demonstrated that the volunteer officer and volunteer unit could not be trained sufficiently in time of peace to take the field with assurance in case of a great national emergency. But that they can be and are so trained is the opinion of all experienced officers who inspected the Coast Artillery training camps this past summer.

Danger from Battle Cruisers

The following statement by Brigadier General Henry D. Todd, commanding the 9th Coast Artillery District, was featured on a leading page of the *San Francisco Chronicle* of September 21, 1924.

The public is probably fed up with a number of statements emanating from these headquarters that expose the weakness of the guns of our seacoast forts as compared with guns now carried on capital ships of foreign navies.

But there is one aspect of the case that has not been dwelt upon, and that is the destruction of property that could be inflicted in a short time by a raiding squadron of battle cruisers.

It should be noted, of course, that warships are not constructed to fight forts, and, moreover, no enemy would attempt to bring a large force to this coast until he had obtained temporary or complete command of the Pacific.

Raiding operations, however, might be attempted at any time after the declaration of war.

The fast and powerful battle cruisers of the German navy made a number of raids on the British coast and accomplished a great deal of destruction.

There are no such ships as battle cruisers in the American navy, and hence we have nothing to prevent such operations from an enemy except our seacoast guns, which, with the exception of two guns, are outranged from Puget Sound to San Diego.

The cost of emplacing four 16-inch guns in the coast defenses of San Francisco, namely, about four million dollars, can be considered as a fire insurance premium, not to be paid once every year, but to cover a large number of years. This is an insignificant amount as compared to the loss that could result from even an hour's bombardment of the city by battle cruisers of either the Kongo

class or the Hood class. Within such time very severe damage, if not destruction, could be produced in reference to your water system, power plants, railroad terminals, banks, residences, warehouses, etc., the cost of which mounts into the many millions.

On the same page of the *Chronicle* is published a most convincing account of what could happen to San Francisco, in case this country became involved in war. The article does not assume that the enemy has gained control of the sea, a condition which easily could and probably would occur were we opposed to a combination of two or more powerful nations. It points out how easy it would be for enemy battle cruisers to make a raid upon our Pacific coast, and clearly shows that, with our present seacoast armament in San Francisco, enemy ships could, in an hour's time, with their long range guns, destroy the water works system, sewerage system, fuel stations, docking facilities and wreck havoc and destruction upon its buildings and population. No citizen of San Francisco can read this article without realizing the hopeless position of the city were we engaged with a ruthless enemy. The article, however, points out that by emplacing four 16-inch guns of the Navy type, already in storage at Mare Island, the city would receive adequate protection from such a raid. It is evident that San Francisco, and other Pacific coast cities as well, have every intention of demanding and securing this protection. No one can blame them for that. But if San Francisco, with its present defenses, is open to naval bombardment, there can be no question but that certain cities on the Atlantic coast are likewise open to such bombardments.

It is my firm belief that those whose success as instructors is greatest in peace give the highest promise of leadership in war.

Efficient and accomplished officers are sought for every class of duty, and the supply has never been equal to the demand. Important assignments come unsought to those who are qualified.—General Pershing in his address to the Army War College. (See the leading article in this issue of the JOURNAL.)

SUMMER CAMPS

The C. M. T. Camp at Fort Adams, R. I.

By LIEUT. COLONEL S. G. SHARTLE, C. A. C.

The Coast Artillery Citizens' Military Training Camp of the First Corps Area was held this year during August at Fort Adams, R. I. It included all classes of students, of which there were 468 enrolled; also 26 of the Enlisted Reserve Corps. Being one of, if not the largest Coast Artillery Camp, some account of its work with comments may be of interest.

The procedure was similar to that to be employed in expanding a regiment with a reduced staff and only the Headquarters Battery in existence. The staff of the 10th Coast Artillery composed the overhead of the camp. The enlisted men of the Headquarters Battery, except the noncommissioned staff officers and certain others essential to the administration of the Coast Defenses, were divided among five batteries and composed the nucleus of the Citizens' Military Training Camp batteries. There were on the average 14 in each battery for the month. They attended for training in the forenoon, but were not messed or quartered with the Citizens' Military Training Camp, except the acting first sergeants, supply sergeants and cooks. There were approximately 90 students assigned to each battery. The different classes of students, Blue, White, Red and Basic, were distributed equally among the batteries.

This organization was a modification—essential under the conditions, of the system of parent units. Its only advantage is that it permits instruction of those enlisted men of the Regular Army, whose officers and noncommissioned officers are being used with the Citizens' Military Training Camp. But few of the privates are competent instructors themselves.

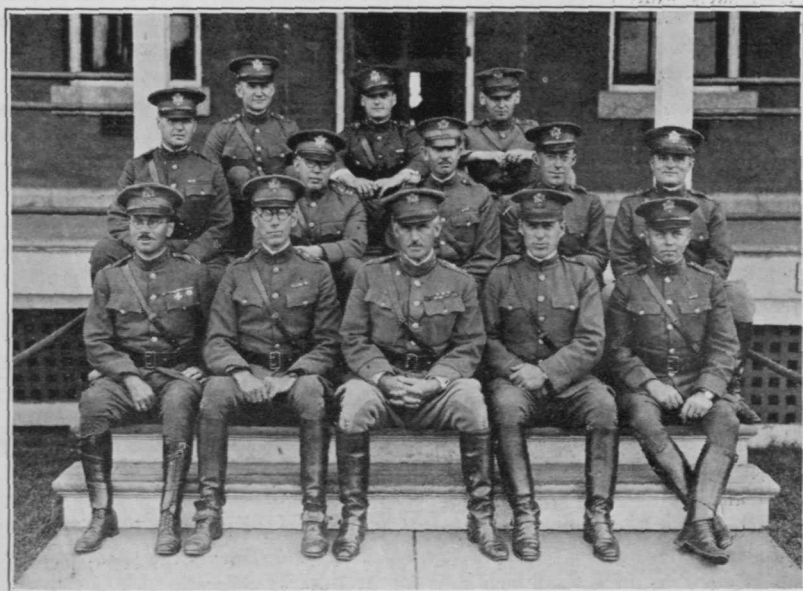
The five batteries were organized as a battalion under a Regular field officer, whose principal duty was supervision of training. Batteries B, C, D and E were commanded by Regular Officers, Battery A by a Reserve Officer with a junior Regular officer assigned. There were six Regular officers and four Reserve officers permanently available; and, on the average, eight Reserve officers on temporary duty for periods of 15 days.

The staff personnel is shown below. There were 12 officers, all of whom except the Executive and one Chaplain performed their regular regimental and coast defense staff duties in addition to those of the camp. The camp work, however, became the work of the whole garrison for the month. The staff was sufficient, with the addition of a personnel adjutant for purely administration work, but was handicapped somewhat by insufficient clerical force at times.

Camp Commander, Lieut. Col. S. G. Shartle, C. A. C.; Executive, Major R. S. Atwood, C. A. C.; Camp Adjutant, 1st Lieut. C. S. Denny, C. A. C.; Plans and Training, Captain R. J. Imperatori, C. A. C.; Supply and Mess Officer,

Captain B. Vogel, C. A. C.; Assistant, 2nd Lieut. F. B. Kane, C. A. C.; Camp Surgeon, Major W. H. Allen, M. C.; Assistant, Captain W. C. Whitmore, M. C.; Ordnance Officer, Captain H. S. MacKirdy, C. A. C.; Chaplains, Captain W. L. Gallup and 1st Lieut. J. R. Carroll; Athletics and Recreation Officer, Lieut. W. S. Lawton, C. A. C.; Publicity Officer, Captain R. J. Imperatori, C. A. C.

Battalion Commanders—Major C. M. Thiele, C. A. C., relieved August 16 by Major R. C. Eddy, C. A. C.; Battery A, Captain C. W. Lawrence, C. A. O. R. C.; Battery B, Captain G. W. Ricker, C. A. C.; Battery C, 1st Lieut. P. L. Harter, C. A. C.; Battery D, Captain E. R. Reynolds, C. A. C.; Battery E, Captain H. S. MacKirdy, C. A. C.



LIEUT. COL. S. G. SHARTLE, C. A. C., AND ASSISTANTS, C. M. T. CAMP, FORT ADAMS

Other than administrative work was forced on part of the staff—such as publicity and competition board work. The Athletic Officer was assisted by the director of athletics of the Army and Navy Y. M. C. A., Newport, R. I. There should have been the following additional officers on the staff: one personnel adjutant, one for publicity and liaison, one for athletics and two inspectors (line) who with a surgeon should compose the "competition board."

Permanent barracks with an authorized capacity of 500 were used. The squad and platoon system was employed. Barrack beds, placed head to foot, were used. There was some shortage in wall lockers. Daily inspections assured proper sanitation. The quarters were very satisfactory.

Three messes for the five batteries were organized—one for two batteries in the so-called "light artillery" barracks, two for three batteries in the old fort. This plan was adopted partly on account of the quartering conditions, partly because of the limitation in cooks. One officer with an assistant was detailed to handle all messes. There was one general mess sergeant and one assistant for each mess. The food provided was very satisfactory. The police of the dining

rooms and kitchens was the responsibility of the battery commanders. Students had one or two details in the kitchen during the month. Their inexperience and the divided responsibility made proper policing difficult to maintain. With sufficient officer personnel, a better system would be to have battery messes with one officer for each in permanent charge.

Woolen O. D. was issued as most suitable throughout the month for the Newport climate. This was partly from renovated clothing used at Fort Wright last year, and the stock on hand. None of it in appearance conduces to pride in the uniform. The positive ugliness of this uniform was very striking when the Citizens' Military Training Camp battalion paraded with the apprentice seamen in their natty white uniform with neat canvas leggings. I am of the opinion that money spent for a proper uniform—gray is suggested, made especially for the C. M. T. C., would be well spent in promoting the C. M. T. C. movement. Canvas leggings are recommended to replace the roll, so difficult to adjust properly.

The battery commanders were made responsible for instruction under the supervision of the battalion commander. The general scheme of training provided for artillery work by the advanced students and infantry work by the basic students in the forenoon. Afternoons, each battery drilled as a whole.

Batteries A and B were assigned to the 12-inch mortars and together formed one battery for target practice. This was held on the 23rd day of the camp under Reserve Officers, all other positions being filled by students. The practice was very creditable.

Batteries C and E were assigned 12-inch guns. Each battery had its own practice on the 28th day of camp. Battery C furnished the entire manning detail from battery commander down—all students, using some basic for the ammunition detail. The practice was excellent, three direct hits on the hull and two on the superstructure being made out of seven record shots. Battery E held its practice under the officers of the battery with one Regular gun commander, gun pointer and plotter. The practice was smooth and creditable.

Battery D held practice with two G. P. F. guns on the 16th day of camp, firing at a moving target. The practice was excellent. During the latter part of camp, this battery fired the 3-inch guns for its Reserve Officers.

Special attention was given to precision in the elements of infantry drill, march discipline and small arms practice. The battalion attained a high state of efficiency in close order movements, especially in respect to steadiness, cadence and uniform angle of rifles. In all parades, cadet officers handled the batteries.

Although not required, all advanced students fired 20 to 30 rounds each on the Marine targets at Sachuest Point under the tutelage of Marine noncommissioned officers. This service was volunteered and gratefully accepted. The Basic students fired approximately 70 rounds each, as part of their regular course, on the Fort Greble range.

There was some criticism on the part of students of "kid" games, so-called mass games. However, the baseball, swimming, track and field athletics and the War Department tests were all successfully carried out. A Red Cross Life Saving course was taken up by 50 students, 10 of whom qualified and were given the Red Cross certificates and badges.

The Competitive Spirit, battery *esprit* and individual morale were encouraged by a system of awards. These included the "efficiency thermometer" and cups for the highest batteries; a "leadership prize"; Training Camp Association Medals for Excellence; Newport Post, American Legion medals for field and

track events; medals for small arms shooting; medals for proficiency in the Life Saving Course; and the "Babe Ruth" prizes for baseball.

Among the events of interest outside the regular training were:

Visits of Senator Wadsworth, General Brewster and General Hersey.

Saturday night dances, of which three were held. These were quite successful.

Camp fire and clam bake at Sachuest Point after the day's march and shooting of the G. P. F's.

Final Saturday night Smoker, at which Junior Training Camp Clubs by states were organized.

Governor's Day, when the Army, Navy and Marines combined for parade and exhibitions. Admiral Sims, Admiral Howard, General Hersey and General Parker reviewed the troops and sailors.

American Legion Field Day.

Visit to the Torpedo Station, destroyers and battleship "Utah."

The storm of August 26th.

The Headquarters Battery, as a unit, deserves special mention for its loyal and self-effacing work in the interests of the camp. The men of the battery are commended for their good spirit and their sense of responsibility as Regular Army soldiers. "The soberest month the battery has ever had"—according to one of its oldest men.

For Adams, by reason of its beautiful location and surroundings, its facilities and climate, makes an ideal camp site. No other place on the Coast combines all these to such an extent and affords so many things of interest. There is the historical background, the contact with the Navy—battleships, airships, destroyers, hydroplanes, and a real interest in the camp on the part of the citizens.

Fort H. G. Wright School for National Guard Officers

By LIEUT. COLONEL C. C. BURT, C. A. C.

As an example of the character of instruction being given to National Guard officers, it is believed that the following account of the four-day school for National Guard officers, Coast Artillery Corps (Harbor Defense), First Corps Area, held at Fort H. G. Wright, New York, June 14-17 inclusive, will be of general interest to the service.

The idea of a combined school for all National Guard officers of the First Coast Artillery District in preference to schools for a like period conducted within each organization originated with Brigadier General Mark L. Hersey, U. S. A., commanding the First Coast Artillery District, the object being uniform and regulated instruction in selected subjects with a view to making the course progressive from year to year.

The following officers were selected to conduct the school: Lieut. Col. Charles C. Burt, C. A. C., Commandant; Major Robert C. Eddy, C. A. C.; Major Thomas O. Humphreys, C. A. C.; Captain E. C. Meade, C. A. C.; Captain J. G. Murphy, C. A. C.; Captain C. B. Lindner, C. A. C.; Captain S. R. Mickelson, C. A. C.; and 1st Lieutenant R. E. DeMerritt, C. A. C.

With the exception of Majors Eddy and Humphreys, who are on Organized Reserve duty, all of these officers are on duty as instructors with National Guard units in the First Coast Artillery District.

A series of conferences was held at which the subjects for instruction were chosen and a division of subjects made among the several instructors. The in-

structors were notified of the subjects assigned them and given suggestions as to the ground to be covered and the general character of instruction desired and were directed to submit to the Commandant in advance a resume of lectures and proposed instruction for approval by the District Commander and for co-ordination.

Because of its general accommodations of suitable quarters and materiel, Fort H. G. Wright, N. Y., was selected as the place where the school would be held. Previous arrangements were made with the Commanding Officer, Coast Defenses of Long Island Sound, Colonel R. S. Abernethy, C. A. C., who appointed a liaison officer and who rendered every possible courtesy and assistance both before and during the school. The instructors and the colonels and lieutenant-colonels who were members of the classes were assigned quarters in one of the temporary barracks in the garrison. The other student officers were assigned to quarters in one of the permanent barracks, the field officers occupying the private rooms therein. Lists of the names of those assigned to the several squad and private rooms were prepared in advance and posted on the bulletin board, and a name card placed on each bunk. Incoming officers were met at the boat and



STUDENT OFFICERS AND INSTRUCTORS. SCHOOL FOR COAST ARTILLERY NATIONAL GUARD OFFICERS OF THE NEW ENGLAND STATES. THE SCHOOL WAS HELD AT FORT H. G. WRIGHT, N. Y., JUNE 14-17, 1924

conducted to quarters. One mess was established in the barracks occupied by the majority of the students which accommodated the personnel. The mess was of superior quality and met with general approval and commendation.

The student officers and instructors all arrived on June 13th. They were divided into three sections, viz.: Field officers, battery commanders and battery officers. Upon the recommendation of organization commanders certain captains and lieutenants were given instruction with the field officers and battery commanders, respectively. A total of 98 officers attended the school, as follows: 240th Coast Artillery (Maine), 1 F. O., 10 B. C., 13 B. O. 241st Coast Artillery (Mass.), 5 F. O., 13 B. C., 23 B. O. 242nd Coast Artillery (Conn.), 1 F. O., 3 B. C., 7 B. O. 243rd Coast Artillery (R. I.), 4 F. O., 6 G. C., 12 B. O. Total, 11 F. O., 32 B. C., 55 B. O.

The school opened at 9 A. M., June 14th, and continued throughout the four days with but slight variation from the schedules A, B and C as shown. The instruction consisted of lectures, conferences and discussions of problems and their solution by the instructors; demonstrations of the solution of problems in fire adjustment; solutions by the students of problems in fire adjustment; preparation by the students of analyses of drill and target practice and the preparation

of reports; practical demonstration of the inspection and adjustment of armament and fire control equipment prior to target practice; inspection of storage magazines for ammunition, explosives, fuzes and primers. As an additional feature, Colonel Abernethy and the personnel of his command presented to the class as a whole a most interesting and instructive demonstration of a Coast Defense tactical exercise. The following extracts are taken from the final report of the Commandant of the school:

The loyal cooperation of the instructors and the able manner in which they presented their subjects in the combined effort to offer to the students a maximum of instruction in the brief time available are deserving of favorable comment. The attitude of the students towards the school appeared to be, with very few exceptions, what is to be desired. They were interested in the instruction and eager to embrace anything pertaining to their professional advancement.

I believe that the combined school justifies itself and that the officers attending received a fair and reasonable return for the time and effort incident to attendance. While, of necessity, there was in this school a limited amount of instruction in subjects in which the majority of the officers had had more or less instruction, there was a general advancement and progress beyond that attained in previous schools of this nature, but conducted only within the organizations.

In addition to what is considered the most important feature of a school of this nature, viz.: uniformity and progression of instruction, the opportunity thus afforded officers of the several states and organizations for discussions and the interchange of ideas and of becoming acquainted, personally and professionally, is of great benefit.

By the exercise of care in and the application of the principles of training to the preparation of programs and schedules for future schools of this character, it is believed that they will have a decidedly important effect in the preparation of the National Guard for the performance by it of the duties which justify its existence.

Schedules A, B and C. (NOTE: Complete schedules can be secured by application to the Commanding Officer, Fort H. G. Wright, N. Y.) The subjects included in Schedule A, that for field officers, follow:

General Assembly and remarks by Brig. Gen. Mark L. Hersey and Lieut. Col. C. C. Burt, C. A. C.; "A Positive System of Coast Defense" and illustrated problem; "Army and Navy in Coast Defense"; The Coast Defense Command; The Fort Command; The Fire and Mine Command; The Battery Command; Duties of Regimental and Battalion Commanders; Staff Organization and Functions; Field Artillery—types, functions and tactical use; Railway Artillery—types, functions and tactical use; Antiaircraft Artillery—types, functions and tactical use; Fire Control Installations, standard, emergency and field; Adjustment of Fire; War Game Board; Estimate of the Situation and Orders. Problem and Practice in giving commands; Duties of Field Officers in preparation for, during and after Target Practice; Records and Reports; Analysis of Drill and Target Practice; Critique of Battery Commanders' Analysis of Target Practice; Lecture: Recent Developments in Ordnance Materiel; Lecture on Chemical Warfare; Lecture on Subaqueous Sound Ranging.

The C. M. T. Camp at Fort Worden, Washington

By CAPT. E. T. CONWAY, C. A. C.

The C. M. T. C. at Fort Worden this year began on June 19th and ended July 18th. The outstanding features of the camp can be summed up thusly:

First—3-inch target practice, conducted under major caliber fire control methods. *Second*—Small arms target practice. *Third*—Hike and over night camp. *Fourth*—Program of athletics, ending in physical test and the determination of the best squad.

The 41 students that survived the physical examination conducted by Major Stephen H. Smith, M. C., were quartered in one of the empty barracks. Two cooks, a mess sergeant, clerk, fireman and two K. P.'s formed the complete personnel for the administration of the camp. Besides these, there were four officers and four noncommissioned officers detailed as instructors. The instructor personnel was as follows, all being from the 14th Coast Artillery:

Captain Louis J. Bowler, Camp Commander; Captain Eugene T. Conway, Senior Instructor; 1st Lieutenant David B. Latimer, Mess Officer; 2nd Lieutenant Donald G. Tredennick, Athletic Officer; Sergeant J. W. Cothran, Corporal J. R. Johnson, Corporal J. Barnett, Corporal H. E. Harris, Corporal J. D. Chastain.

These noncommissioned officers conducted their work in such a satisfactory manner that they were frequently invited to various homes throughout the neighborhood and hold a permanent invitation to visit any one of the forty others any time they leave Fort Worden. This was a good sign of the "spirit" put into their work.

Every afternoon and evening the tennis courts, bowling alleys, handball courts and the baseball diamond were cluttered up with enthusiastic C. M. T. C. students and in addition to a full day of inspections, drills and lectures they were mighty tired, but always happy when they put the lights out at 9:00 P. M.

All athletics were conducted on a competitive basis, and thus there was determined the best squad in volleyball, pushball, handball, bowling, track and field events and several informal games thrown in. The individuals starred in tennis, bowling, pool and in the War Department Physical Efficiency Test. On one occasion the scorer at the bar vault had to interpolate for the value to be given a vault far greater than contemplated in Bulletin No. 3, W. D., 1923. The camp baseball team didn't have enough opposition to make a big showing, but they did well when they had the opportunity. Every Sunday swimming was in order at Port Discovery Bay.

The features of the over night camp were, briefly—hard bread, fat bacon and a nice soft bed of rocks. The big bonfire brought out a wealth of stories and all of the theatrical talent in the crowd.

Rifle practice was a big event and after making good triangles at 300 yards and paying close attention to all the details of holding and squeezing, they went at it with great confidence. This netted some wonderful scores, quite a few of which were well over 90 per cent. There were no poor scores, although there were a few who did not qualify, because of the fact that the rifle was bigger than they were.

The biggest thrill and the event of the year was the "big gun" practice. There were two shoots of 20 rounds each. Battery Walker, (3-inch R. F.) was fired as a major caliber battery, using a convenient base line. Shots were fired on the bell, every 30 seconds. A pyramidal target was towed at a range of about

5000 yards. The method of successive approximation was used. All corrections for range including arbitrary corrections were applied to the plotted range before the data was sent to the gun.

The students of the Blue Course held the positions of range officer and executive, the Red and White Course men manned all elements of the battery except the ammunition detail, which was taken over by the basic students the day of the practice. The noncommissioned officers assigned as instructors found very willing material to work on and after a few snappy drills, and with the analysis down to a fine point, and with no errors in operation or transmission, the students pulled off two practices, excellent in every respect. There were no personnel errors in either shoot. After plotting all shots on the hypothetical destroyer, it was found that there were seven vulnerable hits in each practice and four others in each one that were close enough to have done some damage. Deflection corrections were made by the student gun-pointer and although they were scattered a bit during the first practice there were none greater than .25 and he held them down during the second practice.

The last two days in camp were as interesting as the first and there were many who wished that it could go on for another month or so. The medical records give a substantial record of improvement in the average chest expansion, the average weight and the average height. The greatest individual gain in weight was eight pounds and in height was one and one-quarter inches. The average gain in chest expansion was .16 inches.

The camp average in the physical efficiency test was 51 per cent.

The C. M. T. Camp at Ft. Hancock, N. J.

A most successful and progressively instructive camp was conducted at Fort Hancock this year. The candidates—122 of them—arrived on August 1st and during the next few days. There were 23 Blue, 18 White and 81 Red candidates. The young men entered enthusiastically into the business before them, and took full advantage of the opportunity offered for development along the lines of military training and physical betterment.

A battalion consisting of three batteries—A, B and C—was organized. These batteries were attached, practically on the *parent organization basis*, to three batteries of the regular garrison. Officers on duty at Fort Hancock commanded the C. M. T. C. batteries in addition to their own organizations. The result proved the efficiency of the system thus adopted.

The following named officers performed the principal camp functions: Camp Commander, Colonel E. B. Martindale, Jr.; Camp Executive, Lieut. Colonel H. J. Watson; Senior Instructor, Major Gooding Packard. Captain R. E. Harrington, Captain Napoleon Boudreau and Captain A. M. Jackson commanded Batteries A, B and C, respectively.

In addition to basic training, there were baseball and tennis tournaments, track meet, calisthenics and swimming, as well as group contests. Instruction was given all candidates in Life Saving (the Red Cross course), and the Red candidates were instructed in First Aid.

The principal feature of the training was the Artillery Instruction Course, which culminated in battery practice for the three C. M. T. C. organizations—Battery A, 155-mm. G. P. F. guns; Battery B, 6-inch guns on pedestal mount; Battery C, 12-inch barbette guns. All fired adjustment problems with surprisingly good results.

The following named cadets were awarded trophies emblematic of excellence in the particular features indicated:

Best Soldier—Robert B. Nixon, Mont Alto, Pennsylvania, gold medal.

Best Athlete—George L. Jones, Jamaica, New York, gold medal.

Best Swimmer—George C. Shipley, Seaford, Delaware, Grassi medal.

Best Point Score (Field Meet)—George L. Jones, Jamaica, N. Y., gold medal.

Cadet Jones also won the autographed Louisville Slugger and baseball presented by Babe Ruth. Both were inscribed, "To the Champion of Fort Hancock."

Wilfred R. Ehrhardt, West New York, N. J., won the tennis singles. Mr. Ehrhardt and his partner, James W. McDonald, Philadelphia, Pa., were victors in the doubles. Prizes for these events were awarded by the Y. M. C. A.

The Scott Trophy, the Coast Defenses of Sandy Hook Trophy, and the Fort Hancock Trophy were awarded to Batteries A, C and B, respectively. These are in the nature of first, second and third prizes. The Fort Hancock Trophy is a 3-inch projectile. The others are silver cups, suitably mounted and inscribed.

Besides the purely military features and athletics, dances were arranged for Saturday evenings. Music was furnished by the band of the 7th Coast Artillery. There were special showings of motion pictures at the War Department Theater, and several entertainments at the local branch of the Y. M. C. A.

Of the 23 Blue candidates, 16 completed the course successfully. Four of these had qualified for commissions last year and were recommended therefor. The remaining 12 were recommended for appointment as second lieutenants, O. R. C., Coast Artillery Section, as a result of their success at this camp. The seven who failed to qualify for commissions were recommended for appointment as sergeants, C. A. C., O. R. Seventeen of the White candidates also were successful in completing the course. They, too, were recommended for appointment as sergeants. Not a single candidate was recommended to be dropped.

The camp authorities feel deeply gratified by the success attained, and are looking forward to an enlarged measure of achievement next year.

The C. M. T. and O. R. Camps at Fort Winfield Scott, California

THE JOURNAL is indebted to Lieutenant Colonel J. P. Spurr, C. A. C., for the following information concerning these camps. He states as follows:

"One of the most unusual records of this camp in comparison with others was the fact that such supervision was exercised over the property that it was unnecessary to request a survey on a single item of property. I really believe that you will find that this record cannot be equaled by any other camp held in the United States. Ninety-nine students attended the camp; one was sent home on account of sickness; none were dismissed, and 98 finished the course in a very satisfactory manner. The target practice with 6-inch guns, barbette mount, was excellent. The Organized Reserve Camp was attended by 58 officers with rank from colonel to second lieutenant. The different firing problems were held with a 3-inch gun battery, pedestal mount and were very satisfactory. The food was excellent and the cost of \$1.15 per day was very reasonable. Both camps were highly satisfactory and the morale excellent. Many complimentary remarks have been made by higher authorities on the manner of conducting the camps and the excellent results obtained. One departure from the usual training schedule was the fact that the students taking the basic course in the C. M. T. camp formed the gun crews for the Reserve officers when firing the 3-inch guns. This added greatly to the morale of the basic students."

In addition Colonel Spurr sent *THE JOURNAL* a copy of one of the numerous letters received from parents upon the students' return home. This letter is so interesting that it is quoted below:

My dear Colonel Spurr:

Answering your inquiry of the 25th inst., I am glad to advise that my son, Paul R. Maxey, arrived safely home. In this connection permit me to congratulate you and your able assistants in charge of the camp on the splendid results attained in his case, from a physical, mental, and, I may add, moral standpoint. I think he came home altogether more a man, in fact, his mother remarked to me shortly after that all of a sudden our boy seemed to have grown up—generally more self-reliant. We consider ourselves fortunate in having this invaluable training added to his high school work, supplementing as it does his ordinary schooling, besides emphasizing the necessity of a definite standard in matters of health and discipline. You have actually succeeded in making discipline attractive, the best proof of this being the fact that our lad found the four weeks duration of the camp all too short, and has expressed his determination to attend again next year.

As with the others there, you have assumed the boy to be a gentleman, treated him as such, and by example and precept required him to live up to that standard. This, of course, is only in line with the best traditions of the National Military and Naval Schools, but never was there greater public need for re-emphasizing these traditions than at the present time.

I am aware that a boy's heart is often reached through his stomach. I was at the camp on visitors' day and had dinner with the boys. The food was of the best, and from what my boy reports, it appears to be uniformly good.

The last war was bad enough, and we lost our eldest son through it, but should hostilities ever come again, which God forbid, I want my remaining boy to have some training so that when and if he, too, offers his services, they will be those of one trained at least in the rudiments of military science.

How any boy could, morning after morning, awaken to such a view as the Parade Ground at Fort Winfield Scott presents of hill and shore, mountain and bay, and with the flag of his country fluttering over him and the companionship of its trained defenders about him, without feeling a thrill of pride in and love for his country is more than I can comprehend. I feel sure that all of the boys in the C. M. T. C. are better for having been there. I know that my boy is.

Sincerely and respectfully yours,

(Signed) FRANCIS J. MAXEY.

The R. O. T. C. and C. M. T. Camps at Fort Monroe, Va.

By MAJOR F. S. CLARK, C. A. C.

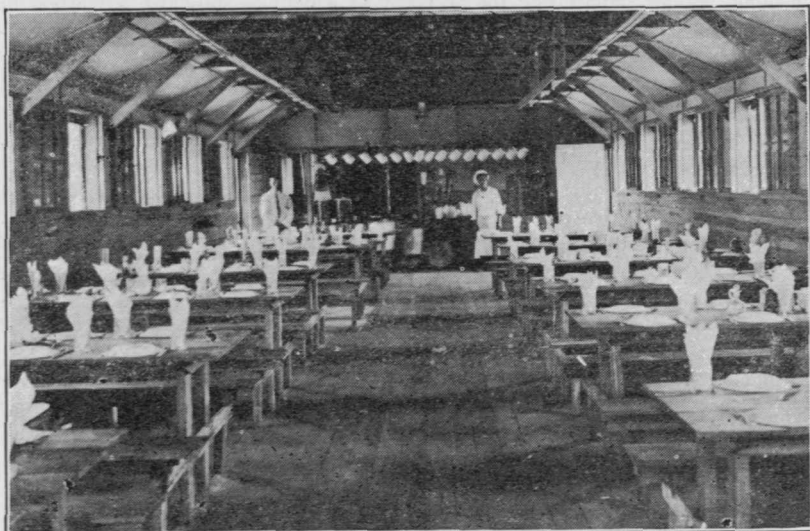
Included in the series of training camps at Fort Monroe for the summer of 1924 were a camp for Reserve Officers' Training Corps and a Citizens' Military Training Camp. Both of these camps were under the supervision of Colonel Edward Carpenter, C. A. C., commanding officer of the Coast Defenses of Chesapeake Bay, who provided the necessary commissioned and enlisted personnel to supplement that available from other sources for duty with these camps.

The R. O. T. C. camp was held from June 19 to July 30, inclusive. The administrative and instructional staff consisted of the following, all being of the Coast Artillery Corps, unless otherwise indicated:

Camp Commander, Lieut. Colonel F. J. Behr; Executive, Major R. V. Cramer; Adjutant, Capt. H. B. Holmes, Jr.; Chaplain, Lt. Col. E. P. Easterbrook; Surgeon, Major J. W. Bauman, M. C.; Dental Surgeon, Major R. W. Pearson, D. C.; Mess Officer, Lieut. R. D. Patterson; Supply Officer, Lieut. G. C. Bland, Q. M. C.; Publicity Officer, Major F. S. Clark; Athletic and Recreation Officer, Captain C. D. Hindle; Senior Instructor, Major J. A. Mack; and Director of Small Arms Target Practice, Captain H. P. Detwiler.

BATTERY A—Major W. R. Nichols, Captain J. C. Hutson, Captain R. E. Turley, Jr., 2nd Lieut. A. R. MacMillan.

BATTERY B—Major R. S. Dodson, Major G. D. Holland, Captain J. B. Day, Captain G. W. Dunn, Jr.



THE INTERIOR OF ONE OF THE MESS HALLS

BATTERY C—Major E. B. Gray, Captain W. H. Warren, Captain N. L. Adams, Captain H. G. Archibald.

EQUITATION—Captain R. E. Turley, Jr., Captain W. H. Warren, Captain G. W. Dunn, Jr., 2nd Lieut. C. V. R. Schuyler.

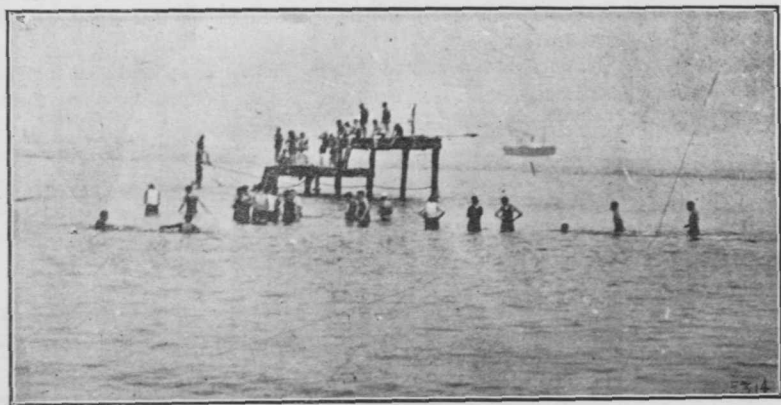
Two hundred and fifty Advanced Course students were present from the Coast Artillery units of the following colleges: University of Pittsburgh, Virginia Polytechnic Institute, Washington University, Kansas State Agricultural College, The Citadel, University of Michigan, University of Cincinnati, Michigan Agricultural College, University of Alabama, University of Kansas and University of Minnesota.

The program of instruction for this camp followed the general lines of preceding R. O. T. C. camps held at Fort Monroe, the period from June 19 to July 20 inclusive being spent at Fort Monroe, followed by one full week at Fort Eustis. During the time spent at Fort Monroe the schedules were so arranged that nine batteries in turn fired rifle, pistol and machine gun practice on the small arms range, followed through a complete course of instruction on a

particular Coast Artillery battery, beginning with drill and after subcaliber practice, concluding with service practice. In all Coast Artillery firing every position in the firing battery from Battery Commander down was filled by an R. O. T. C. student.

In addition to these major items in the instruction, all students participated in the infantry training, physical training, first aid and hygiene, administration, and conducted firing problems with a 75-mm. field gun. Other instructional features included the witnessing of antiaircraft firing day and night by the 61st Coast Artillery, visits of inspection to the Coast Artillery School plant, the Portsmouth Navy Yard and the Battleship *Colorado*.

The recreational features of the R. O. T. C. camp as well as those of the C. M. T. C., were coordinated and planned by Major A. G. Strong, C. A. C., acting as recreation and athletic officer for both camps. For each of these camps he provided an intra-battery baseball schedule, an intra-battery tennis tourna-



BATHING BEACH

ment, a track and field meet and a swimming meet. All of these activities were much appreciated by the members of both camps and excellent material was brought out in all the forms of athletics for which provision was made. In addition daily swimming, carefully supervised by Mr. Conahay, the physical director of the Fort Monroe Y. M. C. A., was required of the members of both camps. A hostess house for the reception and entertainment of visitors to both camps was maintained and a competent hostess was secured. Through the joint efforts of Mrs. McNichols, the hostess, and Major Strong, a separate series of four dances each was arranged for each of these two camps. Other recreational features separately conducted but common to both camps were trips to Jamestown Island, historic Yorktown, and fishing trips.

The R. O. T. C. students were given a brief course in equitation, while both camps were afforded instruction in the ceremonies of parade, escort to the colors and guard mount.

The Citizens' Military Training Camp consisted of 381 candidates divided among the Red, White and Blue courses. There were no Basic course candidates in the camp this year. This fact facilitated the prompt completion of camp organization, and enabled the schedule of Coast Artillery and other instruction to get under way full blast by the third day of camp.

The C. M. T. C. opened on July 1 and closed on July 30. Its organization was as follows, all officers being of the Coast Artillery Corps unless otherwise indicated:

Camp Commander, Major P. J. Horton; Executive, Major A. G. Frick; Senior Instructor, Major W. C. Knight; Surgeon, Major J. W. Bauman, M. C.; Adjutant, 2nd Lieut. K. C. Frank; Chaplain, Lt. Col. E. P. Easterbrook; Supply Officer, 1st Lieut. G. C. Bland, Q. M. C.; Athletic and Recreation Officer, Major A. G. Strong; Mess Officer, 1st Lieut. R. D. Patterson.

BATTERY A, attached to Battery A, 12th Coast Artillery—Captain L. R. Lutes, 1st Lieut. L. W. Jefferson, 1st Lieut. H. D. Cassard, 2nd Lieut. H. E. C. Breitung.

BATTERY B, attached to Battery B, 12th Coast Artillery—Captain O. B. Bucher, 1st Lieut. H. H. Newman, 1st Lieut. O. D. Bowman, 2nd Lieut. H. H. Duval.

BATTERY C, attached to Battery C, 12th Coast Artillery—Captain R. E. Phillips, 1st Lieut. A. K. Chambers, 2nd Lieut. J. F. Simmons, 2nd Lieut. D. McLean, 2nd Lieut. J. B. Carroll.

In addition to the officers assigned to duty with this camp, enlisted instructors, supply and mess personnel were furnished to this camp, as well as to the R. O. T. C. camp from the 12th and 61st Coast Artillery.

The program of instruction for the C. M. T. C. was not so broad in scope as that of the R. O. T. C. camp. Consequently, greater opportunity was afforded for concentrating effort on the main purpose of the C. M. T. C., namely, to secure a thorough grounding in handling and firing fixed Coast Artillery armament by all attending, to the extent of their previous experience, age and adaptability.

The schedule of instruction provided two morning periods—first a brief period devoted to close order infantry drill, and second, a long period occupying the rest of the forenoon devoted to gunner's instruction and drill at a major caliber battery. Battery A was assigned to Battery *Eustis*, 10-inch guns; Battery B to Battery *Parrott*, 12-inch guns, and Battery C to Battery *Anderson*, 12-inch mortars. This morning instruction, supplemented by afternoon periods for Red, White and Blue, and evening periods for Blue candidates, culminated in successful service practices at each of the three batteries.

In conclusion it may be said that this year's Citizens' Military Training Camp at Fort Monroe showed a distinct advance over the one held last year not only in the larger attendance, but in the higher average of physique, earnestness and maturity of the candidate personnel.

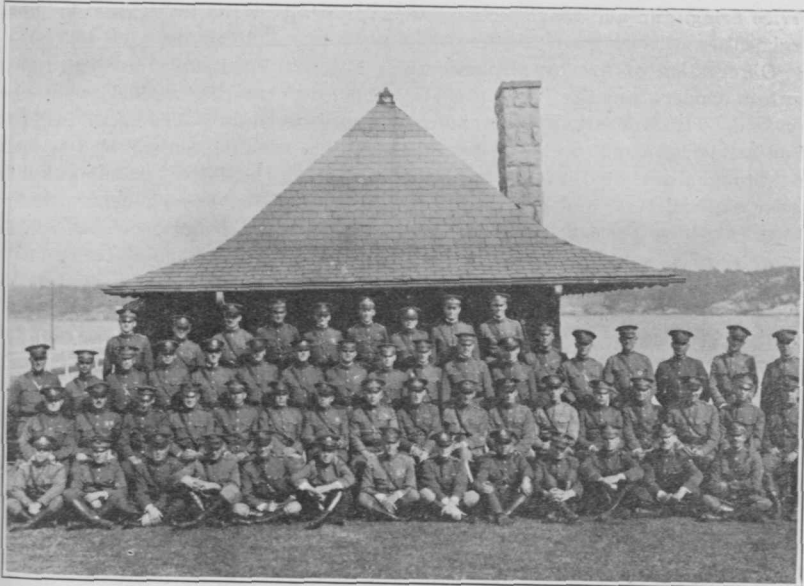
Reserve Officers' Camp at Fort Adams, R. I.

By 1ST LIEUT. DAVID G. SCHNEIDER, C. A. C.—O. R. C.

Thirty-two Coast Artillery Reserve officers residing in New England states took their annual 15-day active tour at Fort Adams, R. I., from July 13 to 27, 1924. Two chaplains and two officers of the Dental and Quartermaster Reserve assigned to nearby units of the Organized Reserve, were present for the same period, taking special courses of instruction in their own fields.

The camp was practical and thorough. Based upon the experience of the previous training periods in 1922 and 1923, Lieut. Colonel Samuel G. Shartle, C. A. C., commanding officer, Coast Defenses of Narragansett Bay, had arranged a program of instruction in which there was a minimum of class room work and ample opportunity for drill and target practice with several types of heavy

artillery armament. Practically every morning during the two weeks was spent at the batteries of 3-inch and 12-inch mortars and guns and 155-mm. guns. In addition there were lectures on military law, mess management, administration, anti-aircraft, searchlights, submarine mines and infantry drill. More than half of the reserve officers shot the pistol instruction course, many of them completing their record course and qualifying as expert, sharpshooter and marksman. A test mobilization and muster was held on Saturday, July 19, Lieut. Colonel George A. Taylor, F. A., representing the Commanding General, First Corps Area. On Wednesday, July 23, the Reserve officers visited the United States Navy Torpedo station in Newport harbor. The greater part of two days was spent at the



STUDENT OFFICERS AND INSTRUCTORS—RESERVE OFFICERS' TRAINING CORPS, FORT ADAMS, R. I.

Marine reservation on Sachuest Point, where a 155-mm. gun was emplaced and fired at a moving target.

On Saturday, July 26, Major General Helmick, Inspector General of the Army, made an unexpected call at Fort Adams. In his informal inspection of the post which followed, General Helmick was accompanied by the Reserve officers in a group and was a guest of the reservists at their mess. General Mark L. Hersey, Commanding General, First Coast Artillery District, spent Friday and Saturday of the second week at Fort Adams, taking lunch with the Reserve officers on Saturday and participating in the conference which followed, when reservists and regulars freely suggested improvements and changes in the program for the 1925 tour of duty.

Sunday, July 13, the date on which the camp was opened, was a day of pleasant reunion for many officers who served together during the World War, and others who, in typical man fashion, had made warm friendships in previous Reserve camps. The next morning a highly concentrated program of practical instruction was opened by an early period of calisthenics directed by Mr. Walter

Camp's proxy, Victrola. The artillerymen were divided into a field officers group and a group for basic and battery instruction. Then there was a further subdivision into gun and mortar sections, each section being again divided into target practice teams. These teams conducted a complete target practice drill, using Battery Greene, Fort Adams (12-inch mortars) and Battery Tousard, Fort Getty (12-inch disappearing guns). In the practice, Reserve officers carried out every detail, from inspecting and checking up the battery to the reports and analyses, with a minimum of supervision by the Regular Army instructors. Officers of appropriate grade acted in all capacities from fire commander to pit and tug officer. Two days of preparatory drill, in which the officer teams functioned as range and gun sections, preceded the actual firing. For subcaliber and service firing, gun and range sections were furnished by the 10th Coast Artillery Regiment.

Observation of fire by airplanes from Mitchell Field added reality and a touch of modern practice. The usual spotting and observing methods were also provided. The firing was speedy and satisfactorily accurate. The entire problem of adjustment was put up to the reservists and was handled by them in a manner that brought unstinted praise from the regulars. The latter, standing by to render any assistance and guidance needed, found little to do. The team division created a competitive spirit that put each group on its toes and developed a high degree of efficiency. In strict accordance with the regulations, these teams made full reports on their firing and conducted a critique that was characterized as an intelligent and snappy demonstration of fitness on the part of the battery commanders.

Individual firing with Battery Whiting, Fort Getty (3-inch guns) gave each officer an opportunity to function as Battery Commander. Due to the efficiency of the gun detachments and the understanding by the officers of the adjustment methods used in the practice, the target was quickly bracketed in almost every instance and fire for effect opened with a minimum of preliminary expenditure of ammunition. As in the case of the large caliber practice, regular reports were made out and submitted by each officer firing.

Due to the shortage of enlisted personnel, infantry instruction was limited to lectures and one battalion review, given on Friday, July 25. Reserve officers occupied every post in the ceremony, which was carried out smoothly. General Hersey witnessed the review and later addressed the officers.

The end of the tour, on Sunday morning, July 27, was marked by regretful partings by all hands. There is something fine and lasting about service friendships that introduces a note of genuine regret when brother officers part for their separate homeward journeys. This feeling of comradeship is by no means the least valuable of the by-products of the annual training periods, when officers who might some day be called upon to fight side by side are given an opportunity to form mutual estimates of personal valuation. This year, with regimental formation of reserve groups pending, the group spirit was intensified. The Rhode Island officers, soon to be assigned to a regiment, are designing a device and a motto for their regimental colors.

Among the reserve officers there were many outstanding personalities, of no great consequence to those who were not there, but of lasting and happy recollection to their comrades. The earnestness and sincerity of the Reserve officers and their whole-hearted attention to the work outlined for them was one of the most striking features of the training period. Even the constant outcropping of the irrepressible boy spirit at mess and after the day's work had been finished

could not altogether obscure the fact that these men were serious in their acceptance of the obligation to serve their country. When there was work to be done after recall had been sounded, there was no evasion on the part of any man. Even the unaccustomed early rising for calisthenics could not drive to their bunks the members of target practice teams whose reports and analyses had not been completed by the usual retiring hour. The standards of loyalty and of honor that make the service a school for moral rectitude, gripped the Reservists as strongly as it does the regular. The thoroughness and the competency with which every detail was carried out by these men who are soldiers for half a month in the year and lawyers, teachers and whatnot the rest of the year, brought from more than one regular the statement that he would like to have them in his command in time of war. It is a far cry from this acceptance by the professional soldier of the amateur fighting man as a factor to be taken seriously to the days when political preferment and personal popularity gave civilians their commissions and earned for them the scorn and distrust of the regular. It is proof positive that the United States has at last a military policy that will demand personal proficiency of the man who seeks the right to attach to his name the honored titles of military rank and command.

If should happen that any pacifist read these lines and finds in them further proof that America is being Prussianized by a military caste let him consider fairly this significant additional fact: that the men who had their fill of the horror of war during the world conflict hate war with a venomous disgust. It is their hope that law and international honor will render armed conflict between nations as obsolete as horse-cars; but it is their purpose to make sure that if and when a fight is forced upon this nation, our victory will be made swift and sure. The officers in the Reserve Corps prefer to follow their pursuits of peace, to remain with their families, to round out their lives in their chosen fields of personal endeavor. But they hold themselves in readiness to follow the flag when it goes into battle against oppression, aggression or injustice.

Reserve Officers' Camp at Fort Monroe, Va.

Two 15-day camps were held: July 1 to 15th for officers of the Third Corps Area, 503rd and 510th Artillery attending; August 1 to 15th for officers of the Fifth Corps Area, 199th Brigade Headquarters and 535th Artillery attending. In both camps there were a number of officers from units other than those ordered to active service. They were attached to the active units.

All of the Reserve officers were attached to the 61st Coast Artillery for training. Major William E. Shedd, Jr., commanding officer of the regiment, was also camp commander.

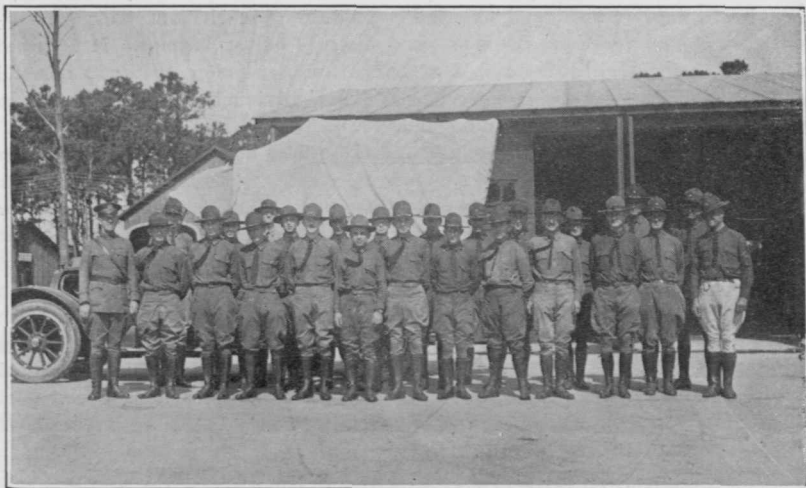
503RD AND 510TH COAST ARTILLERY REGIMENTS.—Thirty-three officers attending with these units arrived by the morning of July 2nd when the period of active training began. Lieutenant Colonel Edwin A. Zeigler commanded the 503rd; Major Cary R. Wilson the 510th. Each regiment was assigned to one of the temporary barracks for quarters. They messed at the officers' mess.

For the first two days groups were formed and each group was given instruction in turn with the searchlight, gun, machine-gun, and headquarters batteries. This instruction covered only the main features, and served to portray the whole anti-aircraft problem. Then each officer was attached to one of the regular batteries, according to his reserve assignment. There they were trained in the duties of battery officers. They conducted infantry drill, battery inspections and ceremonies. They participated in artillery drill, day and night firing practices, con-

voys, and occupation of positions. The officers were given instruction and practice in writing combat orders and solving anti-aircraft tactical problems. Conferences were held on mobilization plans.

On Monday, July 14th, the camp closed with a convoy to Grand View where target practices were held. The regiment went out in the morning, took up position, laid communications, set up kitchens, and then opened up with the guns and machine guns. At 4:00 p. m. the batteries returned to Fort Monroe and the camp ended.

199TH BRIGADE HEADQUARTERS AND 535TH COAST ARTILLERY—Twenty-four officers of the Fifth Corps Area came in on August 1st and 2nd. Lieut. Col. Bowman Elder commanded the 199th, Lieut. Col. Thompson short was attached to and commanded the 535th.



RESERVE OFFICERS AT FORT MONROE, VIRGINIA

The camp schedule followed the same scheme as the preceding camp. It was planned to close this camp on August 13th with a field problem at Fort Eustis with the Reserve officers commanding. However, heavy rains prevented. So the problem was converted to a terrain problem and the camp ended with its solution.

In both camps the officers were enthusiastic over all features of the camp work. They were greatly pleased to get actual experience with the regular troops and the materiel. It was surprising to note the great interest aroused over the solution of a tactical problem and the writing of a field order. But undoubtedly the "one best bet" in both camps was the night firing practice.

Reserve Officers' Camp at Fort Hancock, N. J.

On August 15th, the 607th Coast Artillery completed its first annual tour of summer training. Organized last fall, many of the officers had been attending the conference course held during the winter and were anxious to see their theories tried out in camp. They mobilized at the Army Building, New York, and after the inevitable "physical," embarked on the U. S. A. M. P. *Ord* for Fort Hancock, N. J. Training on the 155-mm. G. P. F.'s was started immediately,

and in the second week of the camp, two problems were fired at moving targets. The first was by indirect fire, using an aiming point, and the second was by direct fire. Lieut. Colonel Robert Starr Allyn of Brooklyn, commanding officer of the 607th, expressed himself as well pleased with the work of the two battery commanders, Capt. Emanuel Meyer and Capt. Leslie V. Jeffries.

Most of the 65 officers and five enlisted men of this regiment live in or near the City of New York. At the same time as the 607th went on duty, a C. M. T. camp started at Fort Hancock. This meant lots of news, so 1st Lieut. Abbott Oberndorfer was appointed publicity officer. Every few days he would broadcast mimeographed news to all the metropolitan papers with very good



THE SEAHAWKS (607TH C. A.) HOLDING TARGET PRACTICE WITH CROSSBOWS

results. In this connection, he made a publicity tie-up with a motion picture company with the result that the company sent him four cannon of a period 300 years ago, and these were fired, with much ceremony, at the same time as the G. P. F.'s. After this spectacular "demonstration," a contest was held using ancient cross-bows, and that night, in the Fort Hancock Liberty Theater, was screened one of their most recent pictures, "The Sea Hawk," out of compliment to the 607th Coast Artillery, which had previously adopted "The Sea Hawks" as its name. During the intermission, Colonel Allyn presented a cross-bow and equipment, as first prize in the cross-bow contest, to Cadet Twentymon, and autographed copies of Sabatini's "The Sea Hawk" as second and third prizes to Cadets O'Day and Perkins. After this, Colonel E. B. Martindale, Jr., commanding Fort Hancock, introduced Brig. Gen. William Weigel, who addressed the ensemble on "The Relation of the Regular Army, the Officers' Reserve Corps and the C. M. T. C." The evening was highly successful.

The 607th believes that they were the first Reserve regiment in this Corps Area (the 2nd), to have their coat of arms approved and actually made up. The design is symbolic of the origin of the regiment from New York and New Jersey men, of the nature of its mission—mobile Coast Artillery—and of its mobilization point, Fort Hancock, and one of the prominent features is the head proper, of the osprey, a valiant, clean-living, hard-fighting bird local to New York waters. Hence the name, "The Sea Hawks."

When the 607th was relieved from duty, the C. M. T. camp was but half over, but so enthusiastic had some of the cadets become, that quite a few expressed their intention of joining the enlisted personnel of the 607th. Thus



SIXTEENTH CENTURY AND TWENTIETH CENTURY CANNON COMPARED

will they continue their training, and pave the way toward being commissioned in the Officers' Reserve Corps. Of the five sergeants now in the 607th three had World War experience, and two will become second lieutenants, O. R. C., as soon as they reach maturity.

The R. O. T. C. Camp at Fort H. G. Wright, N. Y.

By MAJOR E. B. WALKER, C. A. C.

The 1924 R. O. T. C. camp was the second one held at Fort H. G. Wright. Owing to changes in officer personnel due to orders from the War Department it became necessary to make shifts in some of the duties assigned.

The following officers were on duty during all or part of the camp period: Major E. B. Walker, Camp Commander; Major Peter H. Ottoson, Senior Instructor; Major S. S. Winslow, Instructor; 1st Lieut. G. M. O'Connell, Instructor; 1st Lieut. J. E. McGill, Supply, Mess and Administrative Officer; Capt. Francis L. Christian, commanding parent organization; and 1st Lieut. Thomas L. Waters, Instructor and on duty with parent organization.

There were no enlisted personnel from the R. O. T. C. units on duty at the camp. There were only 53 students who reported for the camp. Fifty were from Massachusetts Institute of Technology, two were from the University of New

Hampshire and one from Norwich University. There are bright prospects for a larger attendance next year.

Prior to the reporting of the students at the camp one battery of the regular garrison had been designated as the parent organization. This was very helpful. The battery from the captain down showed that they thoroughly understood the situation and did everything they could to cooperate in the training and welfare of the students. This battery most thoroughly policed the barracks, had all supplies ready for issue, and kitchen ready to operate when students reported. During the training period the personnel of the parent organization was always subject to call for various things such as giving an exhibition drill, furnishing instructors for the various details and different classes of armament, furnishing fatigue details, preparing for athletic events and tests, permanent kitchen police, etc. It gave a definite organization, with a responsible head, upon which to call for anything needed. When it could not be furnished through the battery personnel, the battery commander went elsewhere in order to provide it. At closing of camp the personnel was available to police up, turn in property, and take care of the many loose ends that had to wait until the departure of the students. Of course there were minor troubles and mistakes, but such an organization is strongly to be recommended.

The students occupied one side of a permanent brick barracks. The officers were in a cantonment type barracks.

The artillery instruction included drill, subcaliber and service firing of 12-inch mortars; drill and firing of 3-inch antiaircraft gun on trailer mount; drill, subcaliber and service firing of 3-inch R. F. G.; and emplacing, firing, and putting in traveling position of 155-mm. G. P. F. gun.

Infantry instructions included close order drill, inspections, participation in reviews and parades with the other units undergoing training at Fort Wright. Small arms included both rifle and pistol firing. The rifle was fired in course "D," and the pistol in the regular dismounted course.

Visits were made to the submarine base at New London, to the 16-inch gun at Fort Michie, and to the Yale-Harvard boat race. Lectures were given on visits to the submarine mine system, and subaqueous sound ranging laboratory. Then there was miscellaneous instruction such as administration, hygiene, first aid, etc. General Hersey, at a review, personally delivered commissions to the students completing the R. O. T. C. course at camp.

Athletics included tennis, baseball, volleyball, mass games, calisthenics, a little equestrian, and swimming. The last soon had practically no devotees—the water was cold.

The weather was favorable during practically the entire camp, and the coolness of the climate makes it most desirable as a summer training station.

In the artillery firing a goodly per cent of hits was made. In small arms rifle practice out of 50 students firing, eight qualified as Sharpshooter, 25 as Marksman, and with the pistol, four Sharpshooters and 17 Marksmen.

During the camp period units of the National Guard and the senior class at West Point underwent their period of training. This was fortunate as it brought together all three components of our National Army and the contacts made were beneficial to all. The soldierly bearing, appearance, and alertness of the West Point cadets also gave the R. O. T. C. students a standard to strive for—gave competition. It might also be said that there was some competition in the social way. There were dances given by the West Point cadets at which the R. O. T. C. took part, and vice versa.

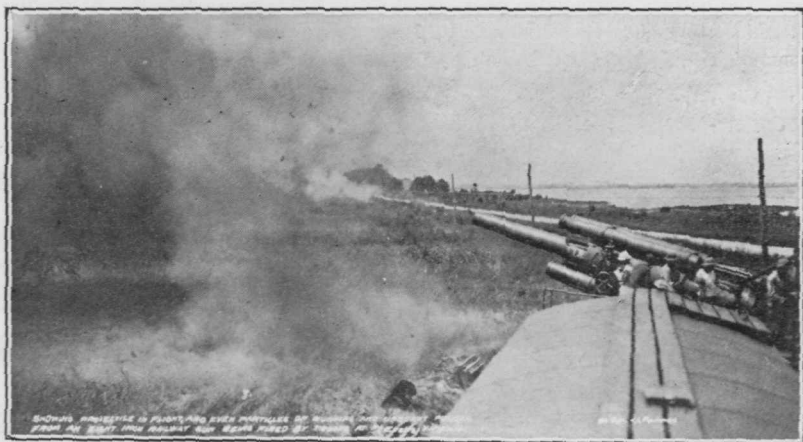
Reserve Officers' Camp at Fort Eustis, Va.

By MAJOR H. D. BURDICK, C. A. C.

Due to the discussion of the subject of observation of fire that has from time to time appeared in the *JOURNAL*, and believing that those who have formerly written upon this subject should have had some recent firing problems to submit to prove or disprove their theories, I take pleasure in submitting to the readers of the *JOURNAL* the following record of firing held July 12th this year at Fort Eustis.

Reserve officers of the 603rd Coast Artillery (Railway) conducted the firing under the supervision of the writer.

Detailed training of personnel is fundamental. If the range section is not highly trained failure will result. The gun sections must be alert and always on



RESERVE OFFICERS' CAMP, FORT EUSTIS

their toes loading and firing with mechanical exactness or the elapsed time of firing will be prolonged and a battery cannot hope to attain its maximum efficiency. Excellence in gunnery depends upon two things. Accuracy first, then speed. The combination of these two joined with correct observation of fire and proper corrections applied through the battery commander will give actual hits on the target.

I have known of batteries being cited for their excellence in gunnery that have fired as many as 50 rounds of ammunition in fast time but didn't make a single hit. Just how the citation came about I have been at a loss to understand for the answer to the gunnery problem is *hits per gun per minute* and if this answer is not high no battery is efficient.

It is not my intention to go into the subject of training of the various sections that go to make up the battery but I firmly believe it true that the officer in charge of the training can not hope to attain the desired success unless he knows thoroughly how to do practically himself every job in his sections. For example, take the gun sections. He should study the movements of every man. Starting in with the *gun commander*, he should note his movements through the loading of one round. Does he make the members of his gun section do the

same thing the same way every time? Does he personally see for example after the breech is opened that the bore is clear? They failed to do this on board the Mississippi. You know the results. Does each man execute his movements with precision? These are some of the things that the officer in charge of the emplacement should know and if necessary he should be able to step into the man's place and show him exactly how the movement should be made.

The same remarks are pertinent to the range section. The range officer should be an expert at each place in the plotting room, and should be able to stand beside his men and see that accuracy is the first rule at drill and in preparation for firing.

I have known batteries to be firing a string of practice rounds during the drill period and relay after relay come out from the plotting room. This ought to be the red flag to the bull. Some man is not playing his part in the team and when a relay comes it means just that and nothing more. I urge battery officers during drills to follow the practice of stopping everything right where it is and investigate at the moment the cause of every relay and hold the individual who caused it responsible. If this is done when you come to service practice there won't be relays and interruptions except from interruptions through the safety officer who is observing the field of fire.

In this problem the plan was to give the best lot of training possible to the Reserve Officers, assimilating warlike conditions. We also assumed that the battery had only twenty-four rounds of ammunition in its cars and that no more was available for the rest of the day. The enemy was approaching under a smoke curtain. His general course and speed had been received from the airplane. About 2000 yards in advance of the curtain a point was selected and three trial shots were fired from each gun. These shots were actually plotted and each gun was adjusted to bring the center of impact twenty yards over the target.

Three minutes later the curtain lifted and the target was observed as above stated. It was immediately assigned to the battery and after three points were plotted three salvos were laid down, each salvo having one over and one short and during these salvos one actual hit was made upon the target. The elapsed time of firing the six trial shots and the three salvos was twelve minutes. The average range at which these three salvos were fired was 12,680 yards.

The battery commander was then relieved by another officer. In fact the entire battery was relieved, as far as officers were concerned. It was assumed that a strong wind had come up and that the smoke screen laid down by the enemy was not effective. Observation could now be made as if no trial shots had been fired. The new battery commander could use any data that he desired from the previous firing.

The man who thinks that he can observe in a few hours of practice is as far wrong as he can be. It takes weeks of practice to train men to observe properly. The old idea of sending a man off to the flank of the field of fire and have him make out some kind of a table and tell you where the shot hit is certainly nothing but a worthless idea as well as being old.

I recommend the construction of a target in miniature. Place this in some long room like a gymnasium. Set up your instruments at the far corners. Measure off on the floor, using chalk, the observers' lines on ten-hundredths of degrees. Then using a piece of cotton for the splash, have them read what the edge nearest the battery should be. Note the place on the floor and see how good your spotters really are. Lots of practice at the miniature target will make

them proficient but nothing else except actual observing when another battery is firing will give you the same results.

If trial shots are fired I recommend "no observation," unless the spotters are highly trained. Because this method will give more hits than any other under the conditions stated. If the spotters are highly trained so that they check the camera within 25 yards (this should be the minimum standard) then the battery commander has a choice of methods and may use any of the four prescribed with good results.

Assuming then that you have all details of the battery well trained, the next step to take in order to win is to decide on what you are going to do. Then let everyone in the battery know what you intend to do, and finally rehearse it many times. You never heard of a winning football team that didn't know its plays perfectly, and you will never hear of a battery winning that doesn't place its shots perfectly.

Tactical Inspection of the 62nd Coast Artillery

By LIEUT. P. McC. SMITH, C. A. C.

On June 26, 27 and 28, 1924, Colonel Gordon G. Heiner, C. A. C., commanding the Second Coast Artillery District, accompanied by his staff officers, and a representative of the Corps Area Commander, conducted a tactical inspection and field problem for the 62nd Coast Artillery, Colonel C. H. Hilton, commanding. This regiment had been encamped at Camp Alexander Hamilton on the old Camp Upton reservation on Long Island, about 70 miles from New York, since May 1st, 1924, during which time all work was concerned with the Regular Army; instruction for National Guard and Organized Reserve units starting July 1st.

This portion of Long Island is ideal for anti-aircraft field maneuvers—all normal airplane lines of approach are present, there are a sufficient number of good roads for transportation, natural cover is often sufficient, but usually must be augmented by camouflage. Target practice for machine guns is conducted on the old target range. The guns fire over Long Island Sound from a leased plot on the North Shore.

On June 1st, a letter addressed to the Commanding Officer, 62nd Coast Artillery, prescribed the procedure to be followed during the inspection. This communication directed that similar preliminary inspections and problems be conducted by battalion and regiment commanders, and specified that reports of these inspections reach district headquarters several days prior to the district inspection. This enabled the district commander to stress particularly those subjects in which improvement appeared necessary.

The program for the first day included a review and inspection in full field equipment, followed by a thorough inspection of the camp site and its installations. With the exception of one frame recreation building and storehouse, the entire encampment is under canvas. At the road inspection every vehicle assigned to the regiment was on the road in running condition. These events occupied the entire morning. The afternoon and evening were devoted to gun and machine gun target practice. Both active gun batteries fired the target practice prescribed in Bulletin, O. C. C. A., Antiaircraft series, Antiaircraft Target Practice; several shrapnel holes were placed in the sleeve towed by airplane. Major General R. L. Bullard, the Corps Area Commander, witnessed the afternoon firing.

At 6 p. m., Part I of the tactical problem was transmitted to the regimental commander. This contained the general situation, explaining a state of war existing between the United States (Blue) and a European State (Red). The Reds who had unhampered action on the Atlantic, had landed three corps with accompanying air units on Montauk Point. The main line of resistance and outpost areas of both armies were indicated on an accompanying map. The Blue Air Service controlled the air.

At 7:30 the following morning the regimental commander reported to the brigade commander (district commander) at Middle Island, N. Y., receiving Part II of the problem. This contained the additional information that the brigade, of what the 62nd was a part, would take up positions in the combat zone. The 62nd was scheduled to arrive at Middle Island with its leading element at 9:30 a. m. The Antiaircraft Brigade was charged with the air defense of all installations in the XI and XII Blue Corps in rear of divisional areas, those in the XI Corps being assigned the 62nd. These installations, consisting of corps headquarters, evacuation hospital, chemical warfare dump, ammunition dump, engineer dump, G. M. C. (ration, oil and ammunition) dump, two balloon barges, corps air wing headquarters, one battalion of railway artillery, headquarters of a tractor brigade and two tractor regiments were indicated on the map. A secondary mission assigned the regiment was the prevention of a break through of enemy planes for the purpose of attacking vital areas within the antiaircraft defense of New York City. During the night the enemy had landed a sufficient number of planes to insure their control of the air.

The requirements of the problem were as follows: (1) The regimental commander's estimate of the situation given verbally to the brigade commander at Middle Island, not later than 9:00 a. m. (2) The emplacement of all elements of the regiment as per decision and written order of the regimental commander. (3) An accurate record kept by each officer of all estimates and orders issued, object and description of any movements, all conferences held, and statement of their objects, and a map showing all movements and emplacements of materiel.

The solution of the problem by the regimental commander, with minor changes, is given here in a consolidated form.

The regimental commander assembled his battalion commanders, giving them verbal orders, based upon the estimate already given the brigade commander, and specifying the approximate position of the units of the command. He explained their mission and advised them of the necessity for adequate cover. He thereafter visited the headquarters of adjacent units and of the installations arranging for mutual support. Upon his return from this trip he signed his field order.

At 11:00 a. m., he held a conference with staff officers arranging details of communication lines, assisting batteries in establishing base lines, providing with corps headquarters for road circulation, issue of supplies, etc. All batteries reported in position ready to fire by 12:30 p. m.

In the afternoon the regimental commander accompanied the brigade commander on a detailed inspection of his command, leaving his C. P. at 12:45 p. m. and proceeding to 1st and 2nd Battalion C. P's., to machine gun battery positions and to the gun batteries.

A drizzling rain started shortly after the regimental commander reported at Middle Island and continued throughout the day permitting an excellent opportunity to observe the efficiency of the telephone communications under adverse conditions.

As a whole the problem was successful. There was no delay in moving into positions, the men showed familiarity with their duties, communications were completed in a minimum of time and messages accurately relayed.

The two inactive machine gun batteries and one inactive gun battery were represented by men stationed at the positions selected for their emplacement.

At the critique the following morning, several items of general interest were brought out. Among them were the need for light trailer reels in laying and taking up the communications net, the necessity for heavier tires or axles on the Cadillac searchlight units, the advantage of familiarizing all men with the purpose of the problem and the general situation, with the consequent increase in interest, and the need for suitable listening device.

Viewed as a whole, the inspection was satisfactory. The comments of the representative of the corps area commander were commendatory, and throughout, the officers and soldiers of the regiment displayed an interest and grasp of the situation.

Camps at Fort Barrancas, Florida.

The Fourth Corps Area Coast Artillery Training Camp, under the command of Brigadier General William H. Johnston, U. S. A., was held at Fort Barrancas, Florida, from June 10 to August 1, 1924, inclusive.

The camp was organized for training into three separate commands as follows, the staff of Camp Headquarters and Coast Defense Headquarters serving in administrative capacity for each of these commands. All officers of the Coast Defenses of Pensacola were on duty at the camp.

Reserve Officers' Training Corps, June 14th to July 25th. Col. E. A'D. Pearce, C. A. C., commanding; Citizens' Military Training Camp, July 3rd to August 1st. Lieut. Colonel R. M. Nolan, U. S. A., commanding. Organized Reserve, July 9th to 23rd. Lieut. Colonel L. S. Edwards, C. A. C., commanding.

Each of these camps had its own headquarters staff and functioned as a separate unit.

RESERVE OFFICERS' TRAINING CORPS (June 14th to July 25th).—This camp consisted of 89 students from educational institutions as follows: Georgia School of Technology, 34; Mississippi A. & M. College, 36; University of Alabama, 19; total, 89. Of this number, 13 were basic and 76 advanced. The students were organized into a battery consisting of two platoons which was designated the R. O. T. C. Battery. The first platoon was assigned to Course A, Harbor Defense Artillery, and the second platoon to Course C, Antiaircraft Artillery and later to 3-inch R. F. rifles. The first week was devoted to small arms firing, the battery qualifying one Sharpshooter, rifle; 18 Marksmen, rifle; one Sharpshooter, pistol; and 13 Marksmen, pistol.

For artillery training, which was conducted during the morning periods, the first platoon was assigned to Battery Cullum (10-inch), Fort Pickens, and the second platoon to 3-inch antiaircraft guns, trailer mount, at Fort Barrancas. Each student was required to drill at the different positions, and each platoon conducted a service target practice at which the armament was manned by students and commanded by student officers under the supervision of Regular Army officers. The afternoon periods, except Wednesdays and Saturdays, were devoted to the remaining subjects of the training program.

CITIZENS' MILITARY TRAINING CAMP (July 3rd to August 1).—This camp consisted of candidates from the eight states comprising the Fourth Corps Area. These candidates were organized into five batteries for training. Batteries A

and B, 13th Coast Artillery, were the parent units of these C. M. T. C. batteries. The former were divided into training cadres which, for training purposes, were assigned to and formed a part of each C. M. T. C. battery.

All artillery instruction was conducted during the morning periods while the remainder of the daily periods were devoted to the other subjects of the training program. All C. M. T. C. batteries manned the armament to which assigned during practices fired by reserve officers, and, in addition, conducted their own practice.

For the purpose of regimental parades, the C. M. T. C. Battalion, with the R. O. T. C. Battery, was organized so as to form two battalions. The 8th Infantry Band participated in parades and ceremonies.

Artillery instruction: 10-inch D. C. Rifle (Battery A)—Excellent; 3-inch R. F. and 155-mm. G. P. F.'s (Battery E)—Excellent; 3-inch antiaircraft guns, trailer mount (Battery B, one platoon Battery C)—Fair; .30-caliber antiaircraft machine guns (Battery D, one platoon Battery C)—Fair.

Infantry Instruction: Close order—Very Good; extended order—Fair; Security—Good; military courtesy—Very Good; ceremonies—Very Good; physical training—Excellent; citizenship—Excellent; duties of officers and noncommissioned officers—Good; hygiene, sanitation, etc.—Very Good.

Of the 18 Blue candidates at camp, 16 were recommended for appointment as second lieutenants, Coast Artillery Officers' Reserve Corps. One captain and five second lieutenants, C. A. O. R. C., had training June 18th to July 2nd, and duty with C. M. T. C. batteries July 3rd to August 1st. One captain Med., O. R. C. and one chaplain, O. R. C., were also with the C. M. T. camp.

ORGANIZED RESERVES (July 9th to July 23rd).—The War Department program of instruction included provision for training of regiments of the Organized Reserve, the enlisted strength of which was to be represented by units of the Regular Army (called parent units), members of the Enlisted Reserve Corps, and candidates of Citizens' Military Training Camps, the composite units thus organized constituting units of one regiment, Organized Reserve, at each camp. For this reason, the period of 15 days' training for the Organized Reserve was included within the period of 30 days scheduled for the Citizens' Military Training Camp. The District and Camp Commander designated the 545th Coast Artillery as the regiment, Organized Reserves, to be trained at camp. This regiment, the unit headquarters of which is located in Louisiana, Mississippi and Alabama, was authorized to have present 63 officers, Coast Artillery, three medical, two dental, and one chaplain. As the total commissioned strength of the regiment was not able to accept invitation for active duty during the period designated, Coast Artillery Reserve officers of other antiaircraft regiments in the district were called to active duty in sufficient number to complete the commissioned strength of the regiment. In addition, eight Coast Artillery Reserve officers assigned or attached to Harbor Defense batteries were called to active duty and received their practical training with two batteries of the C. M. T. camp. This policy of the War Department was found to be very wise. It gave opportunity to members of the Officers' Reserve Corps actually to command batteries, battalions, and a regiment of the Organized Reserves. Batteries A and E, C. M. T. camp, being assigned to Harbor Defense armament, each had attached thereto four members of the Coast Artillery Officers' Reserve Corps. Batteries B, C and D, C. M. T. camp, being divided into two platoons each, represented three gun batteries and three machine gun batteries of the 545th Coast Artillery. The R. O. T. C. battery, to which was added three members of the Enlisted

Reserve Corps and a detachment of Headquarters Battery, 13th Coast Artillery, furnished the personnel for Headquarters Battery and Searchlight Battery of the 545th Coast Artillery.

During the first week of the Organized Reserve Camp, 10 officers daily visited the batteries at Fort Pickens and practiced adjustment of fire, Battery E, C. M. T. camp furnishing gun detachments for 155-mm. G. P. F.'s and 3-inch R. F. rifles for this adjustment. Other officers devoted the morning to witnessing the training of C. M. T. C. batteries by Regular and Reserve officers on duty therewith. Each afternoon for two hours, members of the Officers' Reserve Corps in two classes solved map problems, terrain exercises, and attended conferences on the tactical employment of antiaircraft artillery and the service of security. All field officers, and a few captains whose previous experience in war or successful completion of correspondence courses warranted, were in a class under Major Gilbert Marshall, C. A. C., and all other Reserve officers in a class under Major W. K. Dunn, C. A. C., both recent graduates of the Command and General Staff School, Fort Leavenworth.

Later, battery officers of the O. R. C. witnessed infantry training and ceremonies of parade and escort of the colors. For the purpose of regimental drills and ceremonies, the 8th Infantry Band, the R. O. T. C. battery, and five composite batteries, C. M. T. camp, formed a regiment of two battalions, each of three batteries.

During the second week, all composite batteries, the two battalions, and the regiment were commanded by officers assigned or attached to the 545th Coast Artillery. During this week, two field exercises were scheduled for the purpose of training Reserve officers and the batteries in tactical employment of antiaircraft artillery and the service of security. One battalion (three composite batteries) of the C. M. T. camp left Fort Barrancas at 1:00 p. m., and marched about six miles west of the post, each battery serving as advance guard for one hour. At 2:00 p. m., another battalion (two composite and the R. O. T. C. battery) established an outpost covering Fort Barrancas from the west. The harbor defenses at Fort Pickens were manned only by Reserve officers. Lieut. Col. W. F. Robertson, C. A. O. R. C., commanded the coast defenses; Lieut. Col. Andrew Bramlett, 202nd Artillery Brigade, commanded the 545th Coast Artillery; majors of this regiment commanded battalions and the battalion on outpost while one acted as fort commander, Fort Pickens. After 6:00 p. m., the battalion which had marched west represented a hostile landing force with mission to attack Fort Barrancas. During the entire field exercise Regular Army officers served as umpires, and at 10:00 p. m., the exercise was terminated, all batteries marching to their cantonment by 11:00 p. m. Two days later a critique was held by the camp commander, participated in by Regular and Reserve officers. This exercise was to be repeated a few days later but extreme heat and a crowded program prevented.

Throughout the Organized Reserve Camp all Reserve officers had physical training (Koehler system) one half hour after reveille and before breakfast, precisely as the R. O. T. C. and composite batteries had. The hour for ceremonies of parade and escort of the colors, etc., was 6:00 p. m., in order that the period from 3:00 to 5:00 p. m. might be devoted by Officers' Reserve Corps to pistol practice and by C. M. T. C. candidates to athletics, as well as to enable citizens of Pensacola to witness the ceremonies. When the Corps Area Commander visited the camp July 19th, all personnel of the camp was organized as a regiment, none but Reserve officers being with the regiment. All Regular Army personnel formed in line behind the Corps Area Commander. Reserve officers

demonstrated they were fitted to command the regiment and units thereof during the inspection and review by the Corps Area Commander.

The entire day during the camp (5:30 a. m. to 6:30 p. m.) was devoted to instruction and athletics. On two evenings of each week dances were held at the pavilion, young ladies of Pensacola attending; on two evenings of each week moving pictures, boxing and wrestling at the pavilion; on two evenings of each week the C. M. T. C. batteries had mass singing in camp. On Wednesday and Saturday afternoons and on Sundays excursions by boat and by automobile were had. Each Sunday the steamer *Jenkins* carried members of the camp to the battleship *Massachusetts*, sunk just outside the harbor in 1921, and to fishing banks in the neighborhood. The Chamber of Commerce, Rotary Club, Kiwanis Club, and Civitan Club, and numerous citizens of Pensacola furnished automobiles in which R. O. T. C. students and C. M. T. C. candidates were transported to various beach resorts in the neighborhood of Pensacola. Several churches in Pensacola invited the students and candidates to social entertainments in Pensacola.

The general morale was excellent. Many Reserve officers submitted written comment at request of the Camp Commander concerning the program of training and conduct of the camp. All were enthusiastic concerning their opportunity to command as the best means of acquiring training. Many Reserve officers commented favorably upon the fact that the quarters assigned them and the mess organized for them were the same as those furnished and supplied for Regular officers attending the camp. Many C. M. T. C. candidates wrote letters to their home newspapers in which they expressed their satisfaction with the character of training and especially commented upon the advantage of training in citizenship during their stay at the camp. These letters were forwarded by the Camp Commander to the editors to whom addressed, and have since been published in their home papers. It is believed that every officer, soldier, student and candidate who attended this camp will prove a useful recruiting agent in obtaining applications for duty at the camp during the summer of 1925.

The 197th Coast Artillery (New Hampshire)

The 197th Coast Artillery (A. A.), Colonel Clarence E. Rexford commanding, traveled to Fort Terry, N. Y., for its field training this year. The four days school for officers was held there during the encampment of the 211th Coast Artillery in July and the officers were therefore able to look over the situation and to a great extent prepare for the new camp.

The Regiment traveled to Terry in two detachments, the larger by special train from Concord, N. H., via the Boston and Maine and N. Y. N. H. & H. railroads, the other via the Central Vermont railroad. The time necessary for this travel is too long and the trip was especially tiring for those from the northern part of the state.

The Regiment was preceded to camp by a truck convoy, consisting of one White staff car, one GMC ambulance, five three-quarter-ton GMC trucks, five one and one-half-ton Packard trucks, two Dodge light repair trucks, and two motorcycles. Two officers, 1st Lieut. Lyman Hills, Service Battery, and 2nd Lieut. Norman Andrews, Battery H, and 34 enlisted men handled the convoy. This convoy made excellent time, loaded and unloaded on a large barge without mishap or delay, and throughout the camp was commented on for its splendid work and the excellent condition of its motor equipment. The District Commander in his report stated that it was the best motor equipment of any unit in the corps area.

The Gun Battalion had to draw new equipment for this year's firing, there being no allowance for the expenditure of 3-inch AA ammunition. The 75-mm. guns on White truck mounts and the R. A. correctors were issued and the batteries started in to get acquainted with this new materiel. This retarded the progress of the training somewhat and firing did not start as soon as scheduled.

The firing of the Gun Battalion was confined to wind problems, trial shot problems, and firing at bursts. Only one night firing problem was fired; this was not as satisfactory as desired due to the limited elevation of the 60-inch seacoast lights that were used, the Searchlight Battery having only one 60-inch Cadillac light for its training.

In the night firing at free balloons by the Machine Gun Battalion the Searchlight Battery had excellent results in tracking the targets, and the work of the sections in charge of the stationary seacoast lights was much better than the 60-inch Cadillac. In this practice only one balloon got away, this was being tracked by the Cadillac which went out of action just as the command for firing was given. The 60-inch seacoast light searching the water area was ordered to pick up the target which it did about 1000 yards from the guns and at about the maximum elevation of the light. But few rounds were fired when the target passed out of the area of elevation of the light.

One of the features of the camp was the message center established by Headquarters Battery, Capt. William J. Knowles and 1st Lieut. Everett White, and the excellent work of the communications section of that battery. All orders and messages passed through the message center and the runners of the battery covered the entire island in handling the messages.

This battery added another attraction to the camp in the shape of a 20-piece drum and bugle section which played with the band and furnished music for the drills alternately with the band.

The Recruit Company composed of all men with less than three months' service was organized the first day of camp under the command of Captain Albert Coffey. The entire morning and afternoon drill periods of the first week were devoted to the training of these recruits and others who were deficient in the basic training who were added to the company and the results obtained were excellent. The battery commanders were not in favor of this segregation at first but all agreed at the close of the camp that it was the best thing that could be done and would not want to see another camp without it.

On August 25th the Regiment embarked for Fort Wright for the day. In the morning the 243rd Coast Artillery fired the big guns and the men from the antiaircraft regiment looked on. Some one discovered that several of the New Hampshire units had been on guard duty at the Springfield Arsenal in 1917 with some of the units from Rhode Island and soon there were several reunions and gatherings of those who had fought the "battle of Springfield."

The Rhode Island Regiment acted as hosts for the noon meal and at two o'clock the two regiments formed for a brigade review in honor of General Hersey. After the review the regiments had a field inspection, conducted by the General, assisted by Lieut. Col. Musgrave, commanding the defenses, and his staff.

The 243rd Coast Artillery, Colonel Cyril Wells, returned the visit of the 197th Coast Artillery on Wednesday and watched the firing of the different types of antiaircraft guns. Colonel Wells preceded his regiment by airplane as did Lieut. Col. Hammond of the same regiment.

Other visitors that day were Lieut. Col. John R. Musgrave, C. A. C., commanding the defenses, also Lieut. Col. Horace Landon, commanding the 211th

C. A. (A. A.) of Boston, who flew down from the Boston Air Port with Lieut. Moffat, Air Service.

The regiment was inspected by Lieut. Col. W. Burt, G. S. C., and Major G. W. Easterday, C. A. C., on duty in the Militia Bureau, who arrived the first Monday of the camp.

The 198th Coast Artillery (Delaware)

By COLONEL J. P. LEFEVRE, C. A. C., Del. N. G.

The National Guard of Delaware, consisting of the 198th Coast Artillery (Antiaircraft), the State Staff Corps and Departments, and Battery A, 1st Sep. Bn., C. A., had its annual summer training August 1st to 15th inclusive. Lieut. Col. J. A. Ellison, the Adjutant General, was Camp Commander. Col. John P. LeFevre, Commanding Officer of the 198th Coast Artillery, was in command of



COLONEL J. P. LEFEVRE, COMMANDING THE 198TH COAST ARTILLERY, DELAWARE NATIONAL GUARD, AND OFFICERS OF THE REGIMENT

the troops; all of the units of the Guard being attached to his regiment for instruction and training.

As the Delaware Guard was reorganized just three years ago, the organization was faced with a big recruiting task prior to this encampment. An intensive recruiting program was launched and successfully carried out. This resulted in about 60 per cent of the men in the camp being raw recruits.

As the Delaware units are mobile troops it was planned to concentrate the training especially on target practice and mobility. An ideal target range was selected at Rehoboth Beach, Delaware, on the Atlantic Coast, and an ambitious motor convoy of 200 miles was planned. The Delaware officers were assisted by Major J. P. McCasky, D. O. L., and Capt. L. A. Hudgins, D. O. L., instructors on duty in Delaware, and Capt. E. R. Percy, Lieut. Mahlon Reed, Lieut. A. S. Howell, Jr., and 30 enlisted men of the 62nd C. A. (A. A.)

A tremendous task was faced and overcome in securing the necessary motor equipment and putting it in running order. The trucks available were drawn from various depots and while issued as serviceable, major repairs were found to

be necessary on many and minor on most of them. The last cargo body was placed on its chassis at 8 o'clock the morning the convoy started to move. Three of the trucks required to carry the baggage were "dead" and had to be towed. No passenger vehicles were available for issue and these were supplied by the officers of the regiment. The convoy contained 90 vehicles of all descriptions.

The troops, consisting of 46 officers and 525 enlisted men, assembled on the State Rifle Range, near New Castle, Delaware, on the morning of August 1st, the movement to the mobilization camp being made entirely by motor vehicles. The time until August 7th was used in preparatory training, in gun, machine gun, and pistol practice and in strenuous work on the motor materiel. On the morning of August 7th the convoy left camp promptly on the hour scheduled and proceeded to Milford, Delaware, a distance of 56 miles, where it bivouacked. The next morning the movement was resumed to Rehoboth, a distance of 44 miles.

At Rehoboth Beach an exceptionally good camp site was available within 300 yards of the ocean front and close to the town. Pure water for drinking purposes was secured by driving a number of wells, the sandy soil afforded excellent drainage and the beach was utilized for bathing purposes. The firing points were all close to the camp grounds and the weather conditions being ideal all of the ammunition allowances were expended. The results of the target practice were excellent. Planes from Aberdeen were on duty with the troops and functioned as a temporary landing field located a few miles from the camp site. They towed targets for the gun batteries. The machine gun batteries used free balloons as targets, while a pistol range was established on the beach.

The Governor's trophies, which are competed for annually and awarded to the batteries making the best records for the year, were won, in the Gun Battalion by Battery B, of Wilmington, and in the Machine Gun Battalion by Battery H, of New Castle. Many expert machine gunners have been developed in the regiment and several of the gun crews have reached a high state of proficiency.

During the 15 days of the encampment camps were made five times. The convoy movements were all made in good time and without accidents or serious troubles. The tour of duty was perhaps a bit strenuous but the hours of work were shortened and an extra hour devoted to recreation when practically the entire command repaired to the beach daily for surf bathing. The reactions from the tour of duty indicate that the enlisted men found the variety of experiences in a tour of duty of this kind very interesting and instructive. As the movement of the troops through the State was of considerable advertising value, it is believed that the tour will materially aid the officers of the Guard in their recruiting duties.

Many distinguished guests visited the camp. General Johnson Hagood, C. O., 2nd C. A. District, and his Executive Officer, Col. Gordon C. Heiner, C. A. C., inspected the camp at Rehoboth, while Col. H. J. Price, A. C. of S. from the 2nd Corps Area Headquarters and Lieut. Col. Clark C. Wren, O. R. C., on duty with the General Staff at Washington, visited the camp at the State Range. Thousands of Delawareans including Governor William D. Denney and his staff and many other officials of the state government, also visited the troops in the field and were interested spectators, particularly of the spectacular night firing at aerial targets.

The officers of the regiment feel that progress was made. The discipline maintained was unusually good and while a minimum of time was devoted to close order drills and parades, the main missions of the tour of duty were accomplished and the foundations well laid for the building up of a mobile, straight-shooting, disciplined antiaircraft regiment.

The 203rd Coast Artillery (Missouri)

The 203rd Coast Artillery (A. A.) Missouri National Guard, Colonel T. H. Loy commanding, went into Federal Camp of Instruction, for the period July 6th to 20th, at Camp Raupp, Fort Sill, Okla. Strength of the regiment, 48 officers and 755 men. The camp had been named in 1923 in honor of General W. A. Raupp, the Commanding General Missouri National Guard. General Raupp was a visitor at camp this summer, taking great interest in this regiment, which he



COLONEL T. H. LOY, COMMANDING THE 203RD COAST ARTILLERY, AND OFFICERS OF HIS REGIMENT

had commanded for several years prior to his appointment as Brigadier General and Adjutant General of Missouri.

This is the second year the regiment has been to Fort Sill. The camp site this year was greatly improved over last year, it being the regular area of the Oklahoma National Guard. The kitchens and mess halls were all screened in and equipped with tables and electric lights. There were no latrines to dig, every-



MACHINE GUN PRACTICE BY THE 203RD COAST ARTILLERY

thing being on a sewer. Due to the fact that there is no place in this Corps Area for the regiment to train, Oklahoma very courteously extended the use of their camp to the 203rd.

Target practice was very successful and interesting this year, as the camp of 1923, and the armory training for 1923 and 1924 had better fitted the various units for the service of the piece, this being especially true of the 75-mm. Gun Battalion. Over 600 rounds were fired, and while the regulation targets were not available, excellent results were obtained. The Machine Gun Battalion did ex-

cellent work on the balloon targets (hydrogen inflated). Over 90 per cent were brought down as they floated across the field of fire.

Athletics was one of the important features of the training. The Chaplain had established a baseball tournament, and on the last Friday in camp a field meet was held that was participated in by all units. Excitement ran high in baseball, Headquarters Battery winning the pennant after a close game with Battery E. Headquarters Battery also won the pennant at the field meet. The only ceremony held was formal guard mount every afternoon.

The firing area assigned to the regiment this year was the Arbuckle Area, and being much larger than the area used last year, better results were obtained. The climax of the training was reached the end of last week, when the regiment participated in a maneuver over this area, it being considered a Corps Area, with the location of the various arms, searchlights, etc., a critique being held upon completion.

General Irwin, Post Commander, made several calls, and it is in a great measure due to his courtesy and interest, and that of his staff, that the camp was so successful. Major Easterday of the Militia Bureau made an official visit. The



GUN PRACTICE BY THE 203RD COAST ARTILLERY

instructors assigned this year, Lieut. Col. G. Robinson, Capt. P. Adams, and Capt. D. W. Hickey Jr., rendered invaluable assistance, the two former officers being the regularly assigned instructors.

Weather conditions were most favorable, the rains prevented the dust, and it was cool enough for the work to go with a snap and vim. Viewed from all angles this was the most profitable camp the regiment ever participated in. Most of the officers and a goodly number of the enlisted men who had seen service in the late war had trained at this place, and in practically the identical spot, Col. Loy having commanded the 129th Machine Gun Battalion (35th Division). Every officer and man anticipates the 1925 camp at Fort Sill.

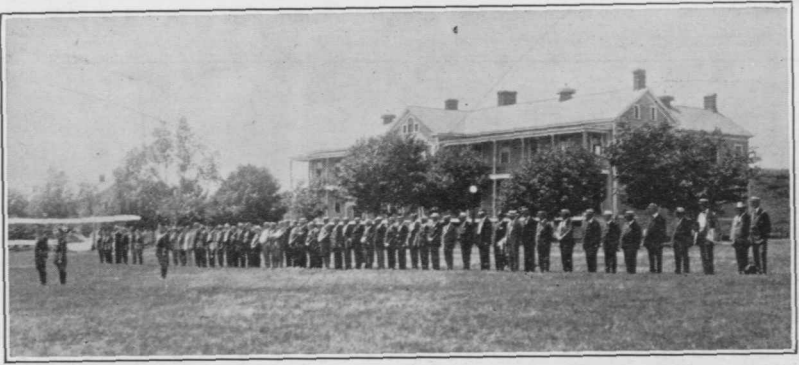
The 211th Coast Artillery (Massachusetts)

By LIEUT. COL. H. Z. LANDON, C. A. C., *Mass. N. G.*

In joining the Coast Artillery Corps the Ancient First Corps of Cadets of Boston establishes a new phase in its career. During the greater part of its life since 1741 it has been an infantry unit although during the last war it was the Engineer regiment of the 26th Division. The change was made, however, not

only because of the well known spirit of the Coast Artillery but because the anti-aircraft service seemed to provide the type of work which would most appeal to the student or college type of national guardsman, which type has always largely made up the Corps. The organization has frequently been called a "school for officers" but certainly never in its history before has it had a better or more interesting branch of the service with which to work, or one offering more opportunity for the actual training of men for the duties of officers.

Having joined the Coast Artillery Corps, certain other advantages developed which had not been anticipated. The New England camp area at Devens, while appealing to some, has not the inspiration for the recruit that is of such benefit in times of peace. He fails to see in the many dilapidated buildings the vision of the war hosts preparing for France, or assembling for the final review. His picture is apt to be colored by the dust of a windy day or the distance from his



VETERANS OF THE 211TH COAST ARTILLERY (MASSACHUSETTS) WITNESS A YOUNGER GENERATION CARRY ON AT EVENING PARADE

quarters to the parade ground or rifle range. As he soldiers he gets used to all things, but if it is possible to surround the game with a large number of pleasant features, the service as a whole benefits.

Therefore, Fort Terry, with its pleasant boat ride from New London, an occasional glimpse of a submarine, its spacious permanent barracks or opportunity for a tent camp if preferred, its nearby parade ground available for planes, its convenient rifle range, its pistol range at the barracks door, its marvelous salt water bathing close by, and above all the courteous and efficient hospitality and cooperation of the entire Coast Artillery District, from the local garrison to the District Commander himself, gives the officers and men of the National Guard units a realization that much can be done to make peace-time soldiering attractive as well as efficient.

With this background the Cadets, officially known as the 2nd Battalion, 211th Coast Artillery (Anti-aircraft), started their second tour of summer duty at Fort Terry on July 12th. The condition of the plant and equipment made it possible to commence training immediately.

The first week was devoted to fundamentals, with the rifle, machine gun and pistol, while the second week dealt largely with anti-aircraft problems, both of tactics and firing on hydrogen balloons. The terrain is such that firing is possible with almost any wind, while the field of fire is not frequently crossed by

boats, except at the rifle range. Unfortunately the firing at towed targets had to be dispensed with owing to conditions at Mitchell Field, but it is felt that by carrying on the balloon firing at long ranges and with strong winds blowing, very good practice was had. At least the hits were apparent the instant they occurred.

Night firing was carried on through the assistance of Colonel Musgrave and Lieutenant Papenfoth, enabling details of this command to operate the fixed searchlights, as well as a mobile Cadillac unit. It being the desire of this unit to reform into a skeleton regiment having 3-inch guns and searchlights as well as machine guns, this practice was particularly interesting to the entire command.

Although holding evening parade daily in order to retain snap and precision, the island is sufficiently removed to preclude too large a number of civilian visitors; thus the training program was adhered to practically throughout the tour. Athletics, including baseball and track had a place, but swimming was the daily sport.



4:30 P. M. FORMATION—211TH COAST ARTILLERY

Of the visitors, however, there is one special group always welcome in any organization—the veterans—and to these men a special day is annually set aside. Numbering several thousand, there are a sufficient number of veterans of the Corps living near Boston, and of these a sufficient number interested enough, even after the lapse of years, to take the train ride to New London and the boat to Terry to see the present organization in camp. For these men the Corps displays all departments of its work.

This year the battery demonstrating infantry work wore for the first time since 1916 the famous Cadet white coats, blue trousers and shako. The sight of the old uniforms, worn by the Corps for a large part of its 183 years of existence, aroused tremendous enthusiasm on the part of the veterans, for it meant that the younger men were carrying on one more of the traditions and privileges of the past.

Without entering into tabulations of the results of the encampment, it may be sufficient to say that from a standpoint of efficiency of training, health of the command and enjoyment of the work, the location, conditions and management at Fort Terry are amply satisfactory for a National Guard encampment.

The 212th Coast Artillery (New York)

On the morning of July 13th the regiment, commanded by Colonel N. B. Burr, marched out of the Armory in New York City, swinging into Columbus Circle, past the Columbus monument and the Maine memorial, and down Broadway bound for the annual tour of field service. Crossing to Long Island City, the regiment entrained for Camp Alexander Hamilton on the Upton Reservation at Manorville, N. Y.

While a great many of the younger men were embarking on their first camp tour, there were a number present who had ridden over the route of the Long Island Railroad to and from Camp Upton in 1917 and 1918 with a grimmer objective.

On detraining at the camp siding the regiment went on the motor equipment of the 62nd C. A., which was already encamped there, and proceeded by convoy to the camp. In a surprisingly short time tents were pitched, mess served, and with hardly a ripple the command settled down to camp life.

Work commenced the next day, with artillery drill and basic machine gun work predominating.

That group under a tent fly pitched beneath the trees was a Message Center; dancing, bobbing bits of red and white cloth over on yon hill betrayed the position of a signal detail. A barked command and the snap of breech locks—gun crews hard at work “bringing down” a plane from Mitchell Field, while the range sections clicked off data with a regularity that was almost mechanical. Every now and then one passed groups “pulling wire” with the customary preoccupied air peculiar to telephone men. The afternoons were replete with infantry drill.

On schedule time the first Battalion with their 75s proceeded to Wading River, on the north shore of Long Island, where they emplaced their guns preparatory to firing. The field of fire was over the sparkling waters of Long Island Sound. Thereafter, each morning, the battalion formed in convoy and proceeded to this firing point 11 miles from camp.

The firing, at target bursts and at free balloons, was highly satisfactory. Target bursts put up by one battery were fired at by another, and the number of times that the target burst was obscured by successive rounds spoke well for the ability of the gunners.

Free balloons, also, were used as targets nor did they always escape. A tiny black object floated high up, shrapnel bursts chasing it across the sky as a high wind rushes it along, a burst obscures it, floats away dissipated, problem—find the balloon.

The Searchlight Battery functioned with its usual high efficiency. They spent the hours of darkness prowling the country over and dragging their searchlights with them. However, they cannot be accused of hiding their light under a bushel.

The day set for target practice arrived and so did the clouds. They were of the gray weeping variety and refused to leave us, even for that short length of time necessary to fire service practice at a towed target. To heighten the disappointment, the weather had until then been perfect, but at that time and late date neither prayers, harsh language or orders were strong enough to cause the skies to clear. So “march order” was given and the Battalion returned to camp.

The Machine Gun Battalion functioned in their usual steady and self-contained manner, going each day to the range by convoy and there setting up their guns, loading stations and targets on the 1000-inch range for the first few days. After that they went out and took up their antiaircraft positions. Con-

nected to the Battalion C. P. by telephone and functioning with almost perfect regularity. There were very few balloons which got away even at the long ranges. One night they went into action aided by the searchlights and a very interesting exhibition was put on. We all felt sure that no enemy plane would have stayed in our midst very long.

The most notable improvement in our camp over that of last year was the success of the individual battery mess. This was made possible by the new permanent kitchens and mess shacks.

The opportunity for an unlimited amount of pistol and revolver practice was very popular, many of the men spending their recreation hours on the range.

Our water supply was limited and would have been far short of our requirements had we not been able to give all hands a daily swim in the Sound.

The regiment broke camp on July 23rd and returned to its home station with the satisfaction of having done better than on any previous year.



REGIMENTAL OFFICERS, 213TH COAST ARTILLERY, PENNSYLVANIA N. G., FORT MONROE, VA., 1924

The 213th Coast Artillery (Pennsylvania)

The 213th Coast Artillery, Pennsylvania National Guard, was sent to Fort Monroe for its annual tour of duty for the first time in 1923. It formed a departure from the usual training camps of National Guard troops, in that it was the first time in the history of the Pennsylvania Guardsmen that troops from that state were sent out of the state for instruction purposes. It served its purpose, for the regiment again participated in its usual tour of duty this summer, during the latter part of August.

There is significance attached to the fact that the regiment should train at Fort Monroe, the training center for fixed defenses and anti-aircraft in coast artillery. Although attached to the 28th Pennsylvania Division for administration, the regiment in reality is part of a corps in actual combat, and the facilities at Monroe are such that war conditions can be simulated to better advantage than anywhere else. The instruction received these past two years, particularly this year, has been of very much benefit, and the Commanding Officer of the regiment desires to use this opportunity to express his appreciation of the splendid cooperation from instructors and others on the post who made the tour such a valuable one for us.

The armory instruction received during the winter months formed the basis of the work done at camp. But that was only the theoretical side, and what was learned in theory was expounded in practice at Monroe with good results. Excellent materiel from the equipment of the 61st Coast Artillery gave the

officers and men of the 213th plenty of opportunity to make use of the searchlights, 3-inch guns mounted on trucks, and the antiaircraft machine guns. During the course of the tour, also, record pistol firing was accomplished with good ratings made throughout the regiment. The preliminary course was fired at the home stations prior to camp.

The newness of the branch of the service, coupled with the interesting program that had been arranged for the camp, kept the morale of the personnel at high point. Although there had been some speculation as to the successful carrying out of the heavy program set forth for the two weeks, it was nevertheless accomplished, with everyone smiling—another indication of the satisfaction that is found in belonging to an organization where *esprit de corps* and morale abounds high.

During the course of the tour the regiment was visited in an official capacity by the following distinguished officers: Major General George C. Rickards, Chief of the Militia Bureau; Major General William G. Price, commanding the 28th Division; Brigadier General Frank D. Beary, Adjutant General of Pennsylvania; Brigadier General E. C. Shannon, commanding the 56th Pennsylvania Infantry Brigade, 28th Division; Lieut. Col. William H. Zierdt, Inspector, 28th Division; Major Leo Luttringer, U. S. P. and D. O. for Pennsylvania

The 240th Coast Artillery (Maine)

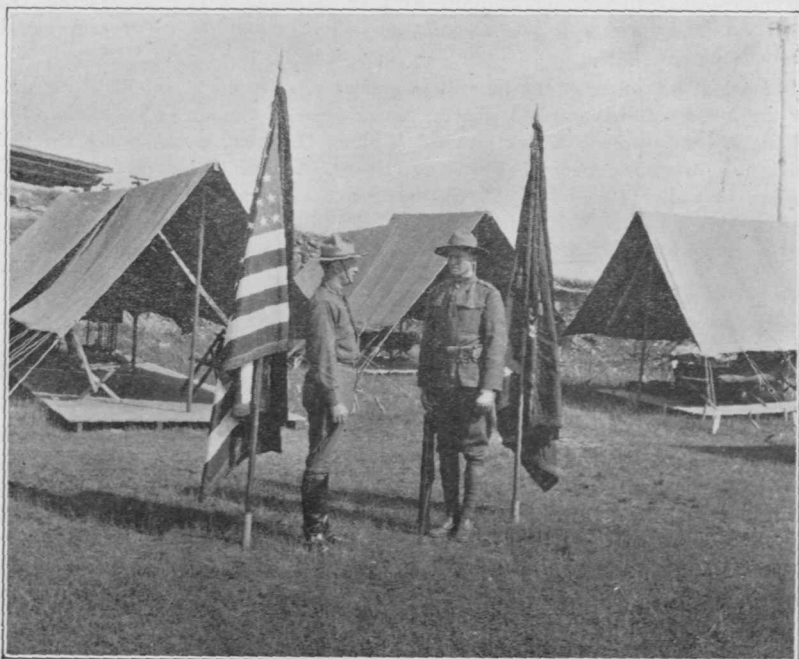
Extracted from a report by CAPT. P. A. BACHELDER, C. A. C., Maine N. G.

The Maine Coast Artillery National Guard consists of one regiment of Coast Artillery assigned to harbor defense, the 240th, commanded by Colonel George E. Fogg of Portland. The regiment is the direct descendant of national guard units which have served both as infantry and artillery and whose history extends back to 1802. Prior to the late heated argument with the ex-Kaiser, units of the regiment saw service in the Civil War and the Spanish-American War. The regiment has been coast artillery since January 1, 1910. The provisional regiment of Maine Coast Artillery National Guard, then consisting of 13 companies, band and attached troops, was called into the Federal service on July 25, 1917, and the component units stationed at the various forts in the Coast Defenses of Portland. During the remainder of the World War the regiment lost its identity as a National Guard unit, but many officers and men saw service in France with various regiments of coast artillery troops, mainly with the 54th Artillery, C. A. C. In the Spring of 1921 the regiment was reorganized as coast artillery, at that time comprising five companies and regimental headquarters. Three additional companies and a headquarters company were later added and the unit designated as the First Coast Defense Command, Maine National Guard, which designation was recently changed to the 240th Coast Artillery (Harbor Defense), (First Maine).

On Saturday, July 5th, the advance detail under command of Captain Washington L. Mosley, Regimental Supply Officer, arrived at Fort Williams and began to prepare the camp for the arrival of the regiment two days later.

Bright and early Monday morning, July 7th, the Headquarters Battery, Battery A and Battery D, of Portland, arrived at Fort Williams and proceeded to make camp. Later in the morning Battery B arrived by special train from Sanford, and Battery C and the entire Second Battalion arrived by special train from "down east."

The peace time quiet of Fort Williams was rudely disturbed by the sound of motor truck exhausts, sledges striking tent pegs, the shouts of men handling tent floors, and many inquiries as to "When do we eat?" Soon the results began to show and like bungalows in a newly developed real estate suburb the pyramidal tents lined up along the battery streets. At 12:15 p. m., the soldier's battle cry was answered by the bugler's call to "Soupy, soupy, soupy; beans, beans, beans." After the finger bowl act with the mess kits, the work of making camp and preparing for inspection and muster went on with a brief lull in the "When do we eat?" cries.



COLONEL GEO. E. FOGG, COMMANDING THE 240TH COAST ARTILLERY, AND CORPORAL ROBERT E. PEARY, JR., SON OF THE FAMOUS EXPLORER

At 1:30 p. m., all officers of the regiment were welcomed to the coast defenses by the Coast Defense Commander, Major E. E. Farnsworth, C. A. C., and to the post of Fort Williams by Captain Thomas Thomas, 5th Infantry.

At 4:10 p. m., all units of the regiment were formed and marched to the parade ground and inspected by Colonel Fogg, after which they were mustered by the Regular Army instructors. After the echo of the last "Here" of the muster had died, Adjutant's Call was sounded and the first retreat parade began. Following their bright red guidons the batteries marched to their positions; "Parade Rest" and "Sound Off"; the 240th band marches and counter-marches to one of Sousa's best; the band plays the Star Spangled Banner as each man holds his rifle rigidly at present and feels that tingling of the skin, that stiffening of the vertebrae, that indefinable mingling of personal pride and love of country which the slacker and pacifist can never experience and only the free born volunteer soldier at retreat parade can feel.

After retreat parade the ceremony of guard mount was held and then the bugle call known to every soldier—the Call to Chow—started a rush of men bearing mess kits towards the kitchens. Tattoo at nine, call to quarters at ten-forty-five, and at eleven the sad, sweet notes of “Taps” left in solitary grandeur the light in Portland Head lighthouse an additional sentinel over the sleeping national guardsmen. The first day of camp was over.

Next day the real work of camp began—coast artillery instruction followed by officers and noncommissioned officers school, infantry drill, parade and guard mount. Two days later all batteries were firing sub-caliber practices and after a very satisfactory progress inspection on Saturday, service practice was commenced on Monday, July 14th. Batteries A, B, C and D, manning 10 and 12-inch rifles, fired eight shots each and the following day the mortar batteries, E, F, G and H, hurled their 12-inch projectiles far into the bay, completing the practice an hour and a half ahead of the schedule.

Then came analysis of practice and police of batteries and stations followed by a war condition period with the regiment functioning as a complete unit under the eyes of Brigadier General Hersey, District Commander. The enemy suffered heavy losses and withdrew and every man felt proud of himself and his outfit. Morale was high.

Artillery inspection by the Coast Defense Commander, a field meet and visitor's day wound up the camp and Monday morning, July 21st, after a final “daily dozen” and breakfast, camp was broken and thoroughly policed, property was turned in and all units returned to their home stations, there to prepare during the coming year to make the next camp bigger and better than ever. And this is no small job when we consider that during the encampment just ended the following was accomplished: the Headquarters Battery personnel learned their tactical duties. The members of the band section and all the other specialists of this battery learned the details of a highly specialized “overhead” job, and when the test came during the war condition problem, each man performed his coast artillery duties with promptness, precision and intelligence, thus enabling the regiment to function as a regiment rather than as an assemblage of individual firing batteries.

The field and staff officers of the regiment learned the details of their tactical and administrative duties and were able to put across the very successful target practices and correct solution to the war condition problem.

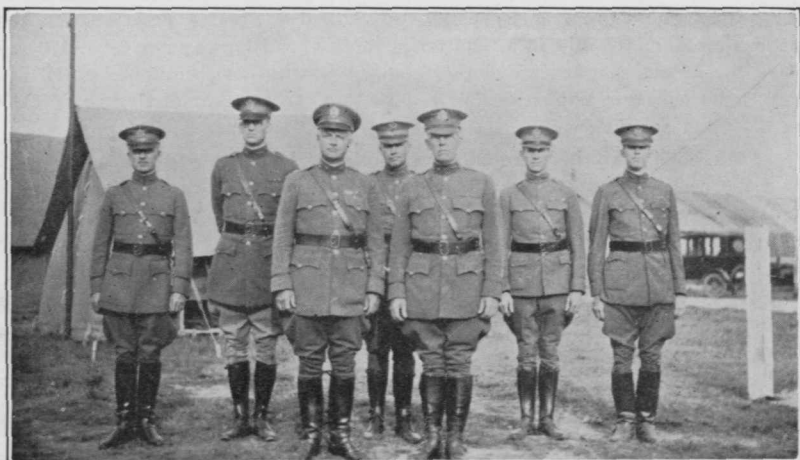
Each individual firing battery fired a very successful target practice after only seven or eight days in camp. These practices were properly analyzed, the reports properly completed, and most instructive critiques held on each practice before the end of camp.

The organization and the training of the regiment during the encampment, and prior to the encampment, was such that when the regimental commander was handed a problem simulating the conditions which might exist were Portland harbor threatened by an actual enemy battle fleet, each officer and man of the regiment stepped into his war assignment post in such a business-like manner and performed his duties so well, that General Hersey, an officer of long and varied experience, was most profuse in his praise and proud to have such a regiment in his district.

The administrative work of the encampment was carried on with a minimum of waste motion. This was made possible by the publication, before the beginning of camp, of printed Standing Orders. Much of the success attained in the Coast Artillery instruction during the encampment was due to the work done by Major

C. B. Lindner, C. A. C. (D. O. L.), one of the Regular Army instructors on duty, in preparing a mimeographed Provisional Instruction Manual which provided for every phase of instruction.

And last, but far from least, each officer and man of the regiment worked hard during the encampment to make it successful; each went away from camp feeling that he was a better artilleryman than two weeks previously, and this gave him that feeling of pride and preparedness which makes his morale high, for he feels that he is a better man—a trained man.



COLONEL B. B. SHEDD (fifth from left) COMMANDING THE 241ST COAST ARTILLERY, AND STAFF OFFICERS. LIEUT. COL. G. M. KING IS AT THE LEFT OF COLONEL SHEDD

The 241st Coast Artillery (Massachusetts)

By CHAPLAIN D. H. HICKEY, C. A. C., *Mass. N. G.*

The annual encampment of the 241st Coast Artillery was held at Fort H. G. Wright, N. Y., August 2nd to 16th. The tour of duty was the most successful that the regiment has had in years. The total strength was larger than at any other camp within the memory of the oldest officer. The regiment carried 55 officers, one warrant officer and 898 enlisted men out of a total of 962. Three batteries, B, C and I had 100 per cent attendance.

The weather conditions were ideal for target practice. The exercises were conducted according to a well defined training schedule. This training program was pronounced by Lieutenant Colonel Musgrave, Coast Defense Commander at Fort Wright, as being the best submitted by any National Guard unit this year.

The service practice of Batteries B and I at Battery Barlow, 10-inch B. L. R. came in for special mention in the Coast Defense Commander's report as each battery had made eight hits out of a possible eight. The Battery Commanders, Captain Clifford of Battery B and Captain Borden of Battery I were commended for their excellent preparation for practice.

The firing of Batteries C, H, L and G, all of Boston, on the 12-inch mortars were highly satisfactory. Batteries M and A of Fall River made fine records at Battery Butterfield, a 12-inch B. L. R. battery on disappearing carriages. Bat-

teries F and E of New Bedford and D and K of Boston were commended for their satisfactory work at Battery Dutton with 6-inch disappearing rifles.

In addition to the training schedule a well planned athletic program was carried out. A field day was held and a banner given to the battery winning the highest number of points in athletic events. The games were so keenly contested that Batteries L of Boston and I of Fall River were tied for first place so that it became necessary to present each battery with a trophy. On several evenings boxing bouts were held under the direction of Chaplain Hickey. The regiment has many fast boxers some with professional ring experience. "Kid" Williams of Boston took on Private Morahan of Battery L. "Kid" Roberts of Boston and Tony Dias of Fall River put up a very fast bout.

The regiment won high commendation both from the commanding officer of the post and civilian population of the island for the deportment of the enlisted personnel in camp and in the village.

There were many social functions held during the training period which made it pleasant for both officers and enlisted men alike, such as dances for the officers at the Service Club, dances for the enlisted men under the direction of the chaplain, entertainments by Elks and Craftsmen's Clubs, band concerts by the regimental band, "movies" by the post exchange, etc.

General Hersey visited the camp and commended Colonel Shedd upon the excellent work of the regiment. Adjutant General Stevens and staff also made an inspection. Visitors from Fall River, New Bedford and Boston arrived at camp by special boat from New London, the second Sunday.

The regiment is the second oldest military body in the United States with a continuous history, being organized in 1784, and has participated in every war in which the country has been engaged. It is the oldest National Guard unit in the army and has a record which its officers and men are striving to maintain.

The 242nd Coast Artillery (Connecticut)

By 2ND LIEUT. RAYMOND WATT, C. A. C., Conn. N. G.

The annual encampment of the 242nd Coast Artillery (H. D.) was held July 5th to 19th inclusive, at Fort H. G. Wright, N. Y., and in the opinion of the Commanding Officer, together with the officers and men, was by far the most successful encampment thus far held.

The 242nd C. A. at present consists of one battalion which is commanded by Major L. E. Evans. His staff consists of 1st Lieut. C. N. Hungerford, Adjutant, 2nd Lieut. Seth Wiard, Supply Officer and 1st Lieut. L. C. Heidger, M. C., Surgeon.

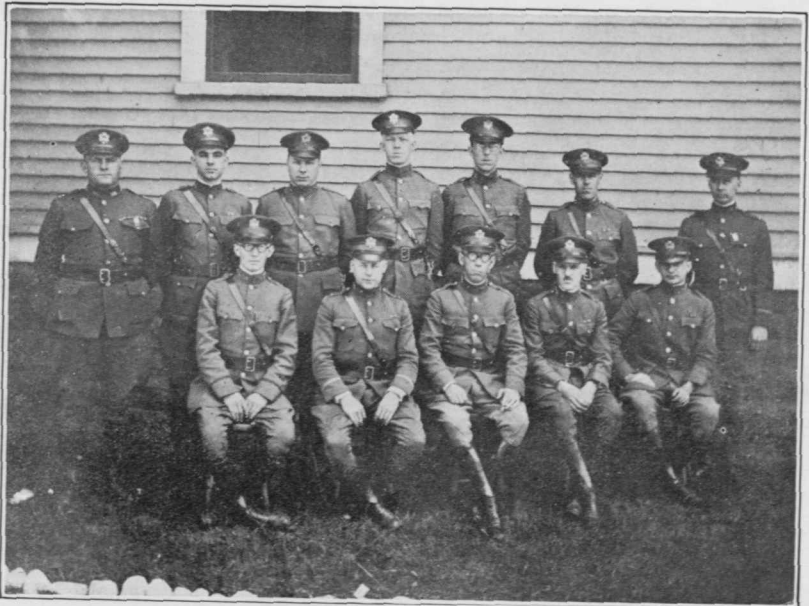
Battery A manned Battery Barlow, 10-inch disappearing guns; Battery B manned Battery Clinton, 12-inch mortars; and Battery C manned Battery Butterfield, 12-inch disappearing guns.

When off duty the command could always be found occupied in athletic, recreational or social pursuits. The Bridgeport men were regularly entertained by men of the garrison at their dances. These occasions served to cement the friendly relations between these two organizations. The hospitality and courtesies extended officers of the 242nd by those of the garrison were such as to insure pleasant memories of this camp.

Scheduled athletics consisted of inter-battery baseball games and a joint field and track meet. Battery C emerged as champions in the baseball series while in the field and track meet the regular garrison, with a brilliant display of

talent, won the cup. The R. O. T. C. also competed. Boxing and volley ball occupied much of the spare time.

Thursday, July 17th, was Governor's Day. Charles Templeton, Governor of Connecticut arriving at the post was escorted from the wharf to the parade ground by Batteries A and B. After a review and parade were held in his honor he made an inspection of the troops at work at the batteries, on the rifle range and drilling on the parade ground. In the Governor's party were Brigadier General G. M. Cole, Adjutant General, State of Connecticut and Brigadier General M. B. Payne, Quartermaster General of the state and commanding officer of the local infantry brigade. The Governor and his party remained with us



MAJOR L. E. EVANS (center, front row), COMMANDING THE 242ND COAST ARTILLERY, CONNECTICUT NATIONAL GUARD, AND OFFICERS OF THE REGIMENT

throughout the day dining at the camp mess in a true soldier manner. In the afternoon Battery A showed the Governor its ability in firing the big guns.

An invitation was extended several of the influential men of Bridgeport to pay an extended visit to the camp and learn how the modern National Guard functions during its summer training. This invitation was accepted by Mr. S. H. Bullard, President Connecticut Chamber of Commerce; Mr. George Crawford, President Bridgeport Chamber of Commerce; Mr. John Hoyt, President Milford Chamber of Commerce; and Mr. Robert Crosby, Secretary Bridgeport Chamber of Commerce. It is believed that such visits as these are invaluable in building up community interest in the National Guard. Plans are being laid to entertain many more citizens of the community during the next camp.

Brigadier General Mark L. Hersey, commanding the 1st Coast Artillery District, inspected the organization on the 15th.

All batteries came through in their service practice with splendid results. Airplane spotting was used throughout. Battery A, firing the 10-inch battery,

put two shots through the "boiler room" and one through the "wardroom." Three hits out of six shots at the target. Battery B with the 12-inch mortars dropped one projectile down the "forward funnel" and one in the "fo'castle," a third of the five shots clipped the "anchor off the port bow." Battery C, not to be outdone, aimed high and shot away the "fighting top."

The Air Service and the 242nd Coast Artillery began a "grand and glorious friendship" through the excellent airplane spotting of Lieutenants Kenneth Garrett and Homer B. Chandler, A. S., Mitchell Field. Their average error for two practices was but 15 yards. Sensings were received by the battery commander in less than 30 seconds after the impact.

Spotting of the trial shots was checked by the Sub-Aqueous Sound Ranging Section of the regular garrison. Although sub-aqueous sound ranging is still in an experimental stage the results furnished by this section agreed with the battery to within a few yards in each case.

The practical worth of sub-aqueous sound ranging and airplane spotting was unquestionably established. These two factors should play an effective part in future development of coast artillery firings.

The following Reserve Officers were attached to the organization during the camp: Major G. B. Sawyer, CAORC, Boston, Mass.; Capt. I. T. Hook, CAORC, New Haven, Conn.; 1st Lieut. W. C. Packard, CAORC, Naugatuck, Conn.; 2nd Lieut. G. K. Birdseye, CAORC, Bridgeport, Conn. The policy of attaching officers of the Reserve Corps to a National Guard organization for training during its camp proved excellent in practice. These officers were of great value to the organization and in turn received practical training with troops that is not possible in the ordinary school.

The 243rd Coast Artillery (Rhode Island)

The summer encampment of the 243rd Coast Artillery, Rhode Island National Guard, Colonel Cyril L. D. Wells commanding, was held at Fort H. G. Wright, N. Y., August 17th to 31st inclusive. Thirty-six officers and 516 men entrained at Providence at 9:00 a. m., August 17 and arrived at Fort H. G. Wright at 12:15 p. m. The entraining, detraining, embarking and debarking of the command was excellent.

The training activities of the first week consisted of infantry drill, artillery drill, and subcaliber practice, supplemented by sanitary instruction, guard duty and supervised athletics. On Saturday of the first week, the test mobilization of the regiment took place. It was carried out very successfully. Part of the test consisted of an inspection by the regimental commander of the whole command in full field equipment. The regiment was also mustered at this time.

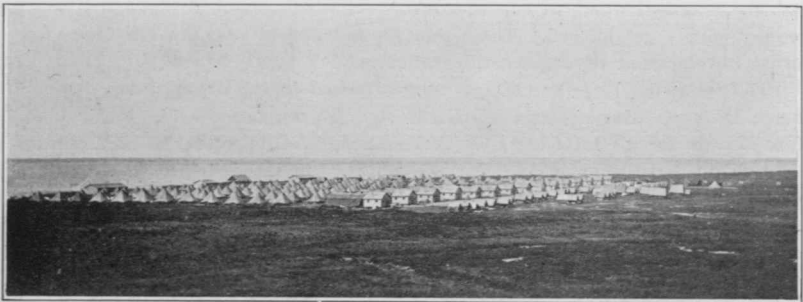
On Monday, August 25th, the first service practice was fired. Battery H of Pawtucket, Captain M. F. Hayes commanding, conducted practice on Battery Butterfield, 12-inch rifle, disappearing carriage, at a moving target at ranges from 8000 to 9000 yards. Eight shots were fired in 27 minutes and five hits on a hypothetical target registered. The next practice at Butterfield was fired by Battery F, Woonsocket, Captain E. F. Wolf commanding. The ranges for this firing were from 9000 to 10,300 yards. It took only 22 minutes to complete this practice and three hits were secured.

On Monday, August 25th, the 197th Coast Artillery (A. A.) New Hampshire National Guard, Colonel Clarence E. Rexford commanding, came to Fort H. G. Wright as the guests of the officers and enlisted men of the 243rd to witness target practice. In the afternoon, two regiments formed a provisional brigade,

Colonel C. L. D. Wells acting as Brigade Commander, and were reviewed and inspected by Brigadier General Mark L. Hersey, Commanding General of the First Coast Artillery District.

Tuesday, the 26th, will always be remembered by all the men of this command. On this date occurred a terrific storm that practically wiped out the camp. The wind, reaching at times the velocity of 80 miles an hour, literally ripped some of the tents to shreds. The whole regiment battled the gale and torrential rain for seven hours in a futile effort to save the camp. When the storm subsided it was necessary to move the regiment into empty barracks.

Despite the havoc created by the storm, a real comeback was staged next day, and six service target practices were fired. Battery A of Providence, Captain Gustave Anderson commanding, and Battery B of Providence and Bristol, Captain George Fleck commanding, each fired a very successful practice at



THE CAMP OF THE 243RD COAST ARTILLERY, RHODE ISLAND NATIONAL GUARD, AT FORT H. G. WRIGHT, NEW YORK

Battery Clinton, 12-inch mortars. This was followed by Battery G of Providence, Captain B. V. G. Zetterstrom commanding, firing eight shots at Battery Barlow, 10-inch rifle, disappearing carriage, in 21 minutes and securing seven hits on a hypothetical target. Battery D, Providence, Captain Henry A. Sather commanding, followed on the same armament and also registered seven hits. The fifth practice of the day was fired by Battery I, East Greenwich, Captain H. V. Allen, commanding, at Battery Dutton, 6-inch rifle D. C. Four hits were secured out of 12 record shots fired. The last practice was fired at the same armament by Battery E, Westerly, Captain J. F. Datson commanding. This battery which had just been reorganized before camp and had only four men who had ever been through a practice previously, reeled off 12 record shots in 16 minutes and registered four hits.

It is believed that this camp was of great benefit to the officers and men of the regiment. All took enthusiastic interest in their work. What they accomplished is possibly most clearly shown by the following letter:

His Excellency William S. Flynn,
Governor of Rhode Island,
State House, Providence, R. I.

My dear Governor Flynn:

I have just finished an inspection of the camp of the 243rd Coast Artillery, your own Rhode Island Regiment, and want to express my satis-

faction with its splendid condition. I have never seen a camp, National Guard or Regulars, in more perfect order. I want to second the invitation that Colonel Wells tells me he has already extended to you to come down and see what a model camp can be, and in this case, is.

If you can arrange your engagements so as to be here, I would be very much pleased if you would notify me of the date of your arrival so that my own engagements may be made to conform therewith.

Very sincerely yours,

(Signed) MARK L. HERSEY,
Brigadier General, U. S. Army.



THE 243RD COAST ARTILLERY RETURNING FROM EVENING PARADE

No account of the camp would be complete without reference to the splendid cooperation of the Regular Army personnel at Fort H. G. Wright. Lieut. Col. J. R. Musgrave, C. A. C., Coast Defense Commander, his staff officers and the officers of his command did all in their power to make our stay pleasant and profitable.

The 244th Coast Artillery (New York)

The 244th Coast Artillery left New York City on August 3rd, 1924, for its 15-day tour of field service at Fort Eustis, Va. The regiment consisted of 53 officers and 691 men, and arrived at Fort Eustis late in the evening of August 3rd, after an all-day trip.

Immediately upon arrival, the training of the regiment as a 155-mm. gun regiment (motorized) began in earnest, and selected men were put to work laying telephone lines, the observing and plotting details were instructed in their duties, and chauffeurs and tractor drivers were given practical instruction in the operation of the motor equipment. The gun crews, after the positions had been located, set up the pieces and were drilled in their particular duties. In spite of the unusually hot weather, the interest in this work of both officers and enlisted men was maintained at a high standard, and the progress was considered to be extremely satisfactory, particularly in view of the fact that the duties of every-

one differed materially from those of previous years when the regiment functioned as an organization assigned to fixed defenses. The first practice consisted of firing on stationary land targets after which the firing was directed on moving sea targets. While conditions at Fort Eustis at the time were not considered ideal for sea firing, on account of rather low visibility and a restricted field of fire, nevertheless the progress made and the results attained from the practice were quite gratifying.

All members of the regiment, as the result of the tour, have a good idea as to what their duties are, and as to how those duties should be performed, and also understand to a great extent the function of the regiment as an organization of mobile artillery assigned to coast defense. This better understanding will, it is hoped, have the effect of maintaining the high degree of interest shown



A SECTION OF D BATTERY, 244TH COAST ARTILLERY

at camp to the same high standard during the coming armory drill season, and the prospect of having the regiment developed to a high state of combat efficiency is extremely bright.

While at Fort Eustis, the visit of Brigadier General Johnson Hagood, and also of three high general officers of the Japanese Army, was marked in each case by a brigade review, tendered to the distinguished visitors, in which ceremonies both the regulars and guardsmen took part. Colonel John J. Byrne, commanding the 244th Coast Artillery, acted as brigade commander, and Lieut. Philip K. Rhinelander was his brigade adjutant.

The relations between the regular and visiting officers were most pleasant, several dances and dinners being held, which were attended by all the officers and their wives and friends.

The historic character of the country surrounding Fort Eustis held the interest of the visiting troops, and many trips were made to Yorktown, Williamsburg, Fort Monroe and other spots made famous during the Revolutionary War. The faculty of William and Mary College at Williamsburg invited Colonel Byrne and his staff to a dinner at the college, which was accepted with much pleasure. The college, which was established by the British government in colonial times,

has a continuous history as an institution of learning up to the present time, and carries on its records as former students the names of many famous Americans.

Our tour of duty at Fort Eustis was concluded on Saturday afternoon, August 16th, when the regiment entrained for New York, where it arrived Sunday morning, the 17th.



READY TO FIRE—244TH COAST ARTILLERY

The 246th Coast Artillery (Virginia)

By CAPT. A. B. LAND, C. A. C., *Va. N. G.*

If success is to be measured by the attainment of all the ambitions of our Commanding Officer, Colonel M. M. Milton, our field officers and battery commanders, then the annual encampment of the 246th Artillery, Virginia National Guard was a failure, for although vast improvements were noted in the work of the organization, yet our aims are high. If success is measured by comparison with other National Guard organizations, then our encampment was a very successful one, for the regiment not only prides itself on being Virginia's "crack regiment," but also takes pride in its favorable inspection reports and the rating it has received as one of the best National Guard organizations in the corps area.

Those who have a clear conception and appreciation of the mission of the National Guard under the National Defense Act realize, however, that no matter how efficient our regiment is in comparison with other National Guard organizations, that we should not be satisfied with accomplishments, but constantly strive to improve.

An account of the annual encampment of the 246th Artillery at Fort Monroe, August 1st to 15th, would not be complete without a short sketch of the history of the organization. The 246th was organized and federally recognized as a complete unit in 1922, and held its first annual encampment that year at Fort Monroe. Battery E, of Lynchburg, was the only battery organized in 1921 in time to take the annual field training that year, which it did as a separate company. For the other batteries of the regiment the encampment of 1924 was the third annual encampment in which they had participated with the exception of two of the batteries just reorganized in the spring of this year. Like many other National Guard organizations, the 246th passed through a period of reorganization and strengthening in 1922 and 1923. Battery D, formerly at Buchanan, was transferred to Covington, and Battery B, formerly of Gordonsville, was trans-

ferred to Danville. These transfers considerably strengthened the regiment, as it assured the permanent maintenance of the units at a reasonable strength.

The *esprit de corps* of the 246th Artillery is unsurpassed, and a wonderful spirit of cooperation and efficiency prevails within the organization. Its personnel, both commissioned and enlisted, is far above average, and this fact has contributed to the establishment of a proper and commendable pride in the work of the organization upon the part of its officers and men.

The 246th is a reorganization of the old 60th Virginia, which earned an enviable record in the World War. Numbers of officers and men now serving in the 246th were in training at Fort Monroe for several months during the early part of the war, and on each return of the organization to the post, old associations are renewed, thus keeping awake a spirit of comradeship between the officers and men of the regiment with officers and men of the Regular Army stationed at Fort Monroe.



COLONEL M. M. MILTON, COMMANDING THE 246TH COAST ARTILLERY (VIRGINIA) AND OFFICERS OF THE REGIMENT

Traveling on three special trains the Virginia guardsmen arrived at Fort Monroe about 5:30 o'clock Friday, August 1. The special trains carrying the regiment were met by the Coast Artillery band at Fort Monroe, and the guardsmen, after detraining with a precision that would have been a credit to veterans, marched to their barracks in Camp Area No. 2.

The regiment was the largest unit which has trained at Fort Monroe since the war, the morning report showing 38 officers and 617 enlisted men in camp. The eight letter batteries and headquarters battery showed an average strength of 67 men, or approximately 90 per cent of the full strength of the units. The Medical Detachment with 19 men had a 100 per cent attendance.

A full field inspection was held on the parade grounds at the post Saturday morning, the men being allowed furloughs to leave camp that afternoon. The real work started on the guns Monday morning, and for nine days the batteries spent each morning at artillery drill, with the afternoons devoted to infantry instruction and supervised athletics. Firing of service practice started Tuesday, August 12th.

The six lettered batteries which for the past two summers had been training at Fort Monroe all made an exceptionally good showing, and the two new batteries, while showing lack of training, as was to have been expected, made rapid progress during the two weeks spent at Fort Monroe.

Batteries E, of Lynchburg and F, of Roanoke, were both commended in a report of the encampment made by Major J. C. Henderson, senior instructor of Coast Artillery, Virginia National Guard. The work of both of these batteries in

both artillery and infantry compared very favorably with Regular Army units. Captain P. B. Taliaferro, also instructor, Coast Artillery, Virginia National Guard, aided Major Henderson in the supervision of the training of the organization.

A noticeable improvement in the 1924 encampment over the encampments of 1922 and 1923 was the increased strength of all units in this regiment. The reorganization of batteries accomplished this, and with another year's training of the newer units the 246th Artillery will show marked improvement in general efficiency.

The following battery awards were made: Efficiency cup, Battery E; Infantry cup, Headquarters Battery; second place, Infantry, Battery E; Rifle cup, Battery H; Baseball cup, Battery E; Track cup, Battery G; Relay cup, Battery G.

The regiment fortunately has always taken just pride in the excellence of its commissioned personnel, and with each of its units now favorably located for securing replacements, our future seems bright. The 1924 encampment was a far more successful one than the two that preceded it, and the entire regiment will be disappointed unless the 1925 encampment is not far more successful than the one just past. We look ever to the future for improvements based on our mistakes of the past, nor are we satisfied at being termed Virginia's crack regiment, and at being rated as one of the most efficient organizations in the corps area, for we have just begun our work.

The 248th Coast Artillery (Washington)

By MAJOR J. H. HOOD, C. A. C.

The 248th Coast Artillery (H. D.), consisting of Headquarters and Headquarters Detachment, Batteries A, D and K, established camp at Fort Worden, Washington, on Saturday, June 14, 1924. Organizations were assigned to fixed armament as follows: Battery A, Battery Benson, 10-inch D. C.; Battery D, Battery Kenzie, 12-inch D. C.; Battery K, Battery Tolles, 6-inch D. C.

The usual training received by National Guard Coast Artillery organizations during the periods devoted to weekly armory drills was supplemented by a course of intensive instruction during that part of the encampment which immediately preceded the firing of service target practice. The National Guard troops were thrown upon their own initiative and required to man and fire the batteries, though a careful watch was maintained by the instructors of the Regular Army to prevent mistakes which would endanger the personnel or damage the materiel. Frequent analyses of drill were held which improved the work of the range sections and had a beneficial effect upon all members of the batteries.

Subcaliber firings were held prior to the firing of service target practice. In these firings the Battery Commanders obtained excellent practice in the adjustment of fire upon moving targets. The Battery Commanders' problem in the service target practice consisted in the adjustment of fire upon moving targets. The following tabulation shows the results accomplished during service firings:

Organization	Rounds fired	Hits upon pyramidal target	Hits upon hypothetical target (C. A. M. No. 1)	Mean Range
A	8	1*	4	7000
B	8	1	4	7225
K	16	1*	3	6415

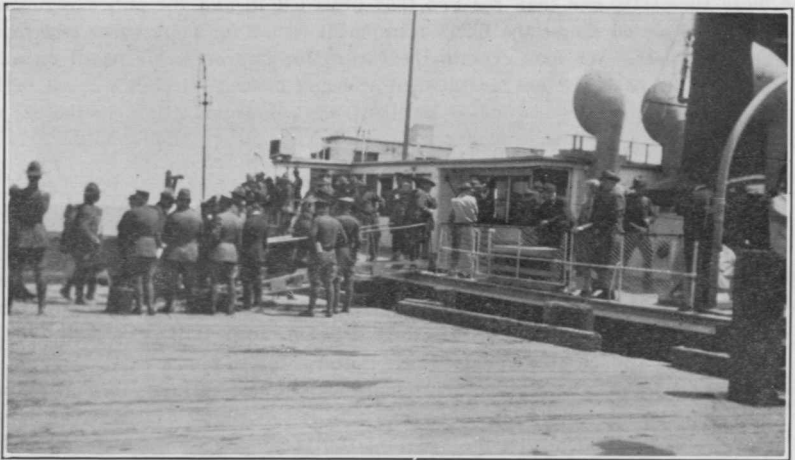
*Target completely destroyed.

In conclusion I may state that the encampment was a very successful one. The administration and camp sanitation was very good; the morale high, the discipline excellent; and the artillery work all that one could expect.

The 249th Coast Artillery (Oregon)

Commanded by MAJOR C. E. GJEDSTED, C. A. C., Oregon N. G.

Since the World War, the Oregon Coast Artillery has attended five encampments, each in a different place. In 1920, we manned the 155-mm. G. P. F.'s of Camp Lewis; in 1921, the 10-inch rifles at the mouth of the Columbia river; in 1922, the 6-inch, 10-inch, and 12-inch rifles at Fort Worden, Washington, and in 1923, the 6-inch and 12-inch rifles at Fort Barry, California. In 1924, it appeared that our regiment would break its record as a wanderer and visit Fort Barry, California, for a second time, but fate decreed that this regiment having joined the Army would see the world. Tentative plans were approved for our annual encampment at the California fort when the Governor notified the Adjutant General of Oregon that on account of the dreaded foot and mouth disease in



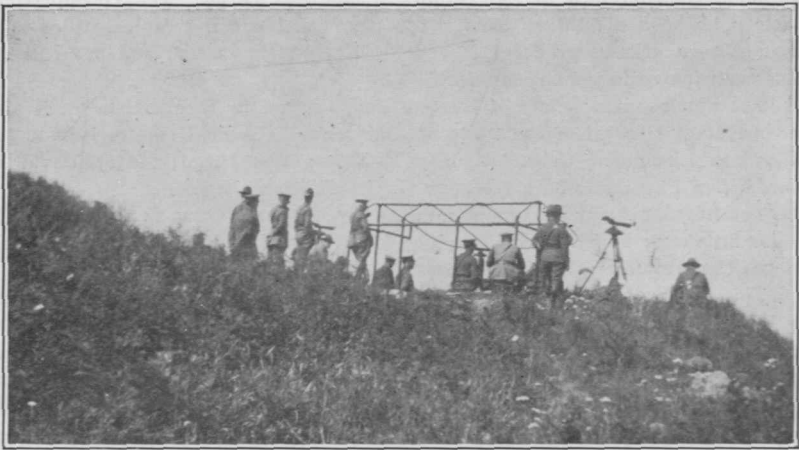
THE 249TH COAST ARTILLERY (OREGON NATIONAL GUARD) HOMEWARD BOUND

California and of the necessity for disinfecting all incoming travelers from that state, he deemed it to be to the best interest of the state to send the Oregon National Guard elsewhere for their annual encampment. It was then decided to send the Coast Artillery units to Fort Casey, Washington.

The following assignments were made of the units of the 249th Artillery: Battery A to Battery Worth (two 10-inch guns); B to Battery Moore, (two 10-inch guns); C to Battery Van Horne (two 3-inch guns); and D to Battery Trevor (three 3-inch guns). Officers and noncommissioned officers of the Regular Army were assigned to duty as instructors at the batteries, as instructor mess sergeants, and as instructor cooks. Due to the sudden change of the camp site, the instructors ordered to duty at the proposed camp in California were also ordered to duty at the actual camp in Washington. The corporals and sergeants of the Regular Army on duty with an organization were rationed and quartered with that organization. As a result, the organization received the benefit of their experience for 24 hours in the day. The uniformly excellent standard of the condition of barracks and messes is attributed to a great degree to the precept and example of these trained noncommissioned officers.

At the 3-inch batteries, the ammunition allowance was sufficient to give each commissioned officer experience in firing and adjustment. Excellent results were attained. At the 10-inch battery, the allowance was eight rounds per organization. In order to gain experience and the greatest possible good, one rifle was manned and each organization fired two trial shots at a fixed point to determine the correct muzzle velocity for use in the practice. As soon as this was determined, each organization fired four shots for adjustment and two shots for effect. The results were considered satisfactory in spite of the fact that the firing was conducted under very unfavorable atmospheric conditions.

Two batteries having small arms ranges at their home station were excused from conducting small arms practice during the annual encampment and the range placed at the disposal of the two batteries lacking range facilities at home. These organizations gave every man training with the service rifle.



INSTRUCTORS, INSPECTORS, AND VISITING OFFICERS WATCHING FIRE FROM B. C. STATION AT BATTERY VAN HORN (3-INCH), FORT CASEY, WASHINGTON

Athletics were given a prominent place in the camp schedule, and the results of this phase of training were plainly evident at the close of camp—notwithstanding the handicap which every guardsman has to assume these days as the result of having to wear uniforms of World War vintage. Included in the athletic schedule were a baseball game and track meet with our Coast Artillery friends from the state of Washington who were encamped at Fort Worden.

The Corps Area Commander, Major General Charles G. Morton, accompanied by his assistant, Colonel Roger G. Fitch, inspected our camp. At another time, Colonel Alston Hamilton, representing the District Commander and Colonel Percy M. Kessler, commanding the Coast Defenses of Puget Sound, attended the 10-inch service target practice. The Adjutant General of Oregon, Brigadier General George A. White, inspected the encampment on June 26th and 27th, as well as Major George W. Easterday, the personal representative of the Chief of the Militia Bureau, Washington, D. C.

On breaking camp, the question most frequently heard was: Where do we go next year? We have shown our ability to serve in five different places in five years. In view of this record, will the War Department see fit next year to send

us to Hawaii to show what the National Guard can do? Our embarkation on the steamer Indianapolis was a marvel of efficiency. From the instant the single gang plank was laid from the steamer to the shore, the Oregon National Guard filed aboard with clock-like regularity until the last man had passed over. "Well done" from the veteran first officer of that steamer means "well done." And the verdict of the first officer of the steamer may be applied to the entire encampment.

The 250th Coast Artillery (California)

The 250th Coast Artillery Regiment, California National Guard held its 15-day annual encampment, from July 5th to 19th inclusive, at Fort MacArthur, Coast Defenses of Los Angeles, California. This regiment is composed of 12 firing batteries and a headquarters battery. Six batteries are from San Francisco, four from San Diego, and one each from Long Beach and San Pedro. Medical personnel is maintained at San Francisco and San Diego. The Headquarters Battery included a military band of 40 pieces and a full complement of non-commissioned officers, grades 1, 2 and 3. Forty-eight officers and 678 enlisted men participated in the encampment.

The Commanding Officer of the regiment, Colonel R. E. Mittelstaedt, is also the Adjutant General of the State of California. The field officers include the following: Lieutenant Colonel Sydney E. Clyne, San Diego; Major David P. Hardy, San Francisco; Major Walter G. Gastile, San Diego.

The Regular Army instructors on duty are: Major Thomas C. Cook, C. A. C., senior instructor at San Francisco; Captain G. de L. Carrington, C. A. C., San Diego; Captain James D. MacMullen, C. A. C., Long Beach and San Pedro.

This regiment was originally organized as the 1st Coast Defense Command in 1906 from the First California Volunteer Infantry and participated in the Spanish-American War, Philippine Insurrection, and the World War. Streamers indicating this service for the colors of the regiment were issued by the War Department about a year ago.

Preparation for camp was conducted in the usual way by sending advance details. Upon arrival the troops found everything in readiness to promptly begin training and instruction. The camp in general was held primarily for Coast Artillery practice and instruction, and all schedules were laid out by the instructors on this basis.

For the service target practice with the 14-inch rifles, the organizations assigned to the same emplacement were grouped together and combined their authorized ammunition allowance of six rounds per organization. The trial shot method of adjustment was used, the first organization in any one group firing four trial shots, followed immediately thereafter by four record shots with no correction made during the record series. The second organization in the group thereupon took up and finished the problem by firing four record shots basing corrections for same on the result of the previous four record shots fired by the leading organization.

The results attained with the guns were very satisfactory, the organizations averaging $33\frac{1}{2}$ per cent hits at a range of a little over 10,000 yards. In firing the mortars each organization independently fired its allowance of eight rounds by using three shots as trial shots followed immediately with five record shots at about 10,000 yard range, with no correction made during the record firing until after the fourth shot.

The target for all practices was the usual pyramidal type towed by a commercial tug. Two tugs, each with a target, were used in the firing and saved

considerable time, where so many batteries were involved. Communication between the tugs and the shore was conducted by means of radio telephone and telegraph.

Experience at previous encampments indicated that sufficient instruction for spotting details was not provided prior to service practice. This was handled during this encampment by special methods of instruction which gave all spotters preliminary practice in observing splashes. This instruction was accomplished by first setting up azimuth instruments on the bluff above the beach for the use of the spotters. A small target was anchored in the water about 300 yards from shore. Two men nearby fired continuously at these targets with .30-caliber rifles. The spotters made observations on splashes, recorded and plotted all data. This arrangement proved very satisfactory.



MAJOR GENERAL CHARLES G. MORTON, COMMANDING THE 9TH CORPS AREA, AND COLONEL R. E. MITTELSTAEDT, COMMANDING THE 250TH COAST ARTILLERY (CALIFORNIA N. G.)

The camp while conducted primarily for artillery practice, included considerable infantry drill, first aid, camp sanitation, personal hygiene, military protection, guard duty, first and second class gunners instruction, and ceremonies. One of the principal ceremonies was a review of all the troops held in honor of Governor Friend W. Richardson, who later made an inspection of the camp.

On July 19th the camp was concluded and the troops departed for their homes with a feeling that their two weeks had been very well spent, that they had derived much instructional good therefrom, and that the camp, all in all, was one of the best that the regiment had ever attended.

The 252nd Coast Artillery (North Carolina)

The reorganization of the Coast Artillery in North Carolina, after the World War, began in Wilmington in the spring of 1920 under the command of Captain Robert Strange. The 421st Company, C. A. C., was organized and federally recognized August 31, 1920.

On January 4, 1921, Captain R. S. McClelland succeeded Captain Strange, and commanded the 421st Company at Fort Caswell, N. C., during the summer encampment. No ammunition allowance had been arranged for, and, therefore, no target practice was conducted; nevertheless, good results were accomplished and recruiting was much stimulated.

Major Clarence T. Marsh, C. A. C., (DOL) was assigned by the Militia Bureau as instructor of coast artillery for North Carolina, South Carolina and Florida, with headquarters at Wilmington, and to his indefatigable energy is largely due the growth of the Coast Artillery of North Carolina in numbers as well as efficiency.

In 1922 the 422nd Company, Coast Artillery, was organized at Greensboro under the command of Captain J. R. Elder, thus forming the First Separate Battalion, with headquarters at Wilmington, and commanded by Major R. S. McClelland, Captain R. S. Burnett succeeding him as Commanding Officer of the 421st Company. Captain Burnett was succeeded by Captain McCulloch B. Wilson, the present Commanding Officer, in 1924.

The annual encampments for 1922 and 1923 were held at Fort Monroe, Virginia, under the supervision of Major Clarence T. Marsh, instructor. Instruction was given on the 12-inch disappearing rifles, and excellent results were generally obtained.

In 1923 an effort was made to increase the allotment of one two-battery battalion of Coast Artillery in North Carolina, to a five-battery regiment. This was somewhat delayed due to the fact that requests had to be forwarded to the various states whose quota of Coast Artillery had not been filled, for the release of a sufficient number of companies of Coast Artillery to accomplish this organization. Authority to increase the Coast Artillery allotment to five batteries was eventually obtained by the Adjutant General's department of the State of North Carolina, and in July, 1924 the last battery to complete the regiment was federally recognized at Lumberton.

The annual encampment for 1924 was also held at Fort Monroe, Virginia, under the supervision of Major Marsh. All batteries attended, with the exception of Battery B, this battery not having received equipment. An excellent schedule of instruction was prepared and followed as closely as conditions would permit. Each battery fired the allotted number of rounds of service ammunition during target practice with gratifying results. Hits were registered by all batteries, regardless of the fact that two batteries had never fired before, having been organized less than six months.

Fort Monroe seems to be particularly fitted for the reception and instruction of National Guard Coast Artillery. With the numerous nearby resorts where all can find amusement after the day's duties have been performed, together with the advantages of the latest theory and materiel, it is indeed an ideal post for summer encampments. Everything the post affords is placed at the disposal of the National Guard, and the North Carolina Coast Artillery looks forward to its arrival at Fort Monroe with pleasure, and to the departure therefrom with a tinge of regret.

COAST ARTILLERY BOARD NOTES

Communications relating to the development or improvement in methods or materiel for the Coast Artillery will be welcome from any member of the Corps or of the service at large. These communications, with models or drawings of devices proposed may be sent direct to the Coast Artillery Board, Fort Monroe, Virginia, and will receive careful consideration.—R. S. ABERNETHY, Col., U. S. A., President Coast Artillery Board.

New Projects Initiated During the Month of September

Project No. 281, Test of Airplane Spotting Instrument, Model E, 1923.—An Airplane Spotting Instrument, Model E, 1923 (F. A.) has been received by the Coast Artillery Board and will be tested in conjunction with firings to be held at Fort Monroe next summer.

Project No. 282, Test of Signal Corps Dry Batteries.—One hundred and twenty-five (125) No. 6 dry cells, (60 "Columbia Gray Label" and 65 "Ever Ready No. 711"), have been received by the Coast Artillery Board for test. The purpose of the test is to obtain comparative data upon which may be based decision as to the preferability of these cells over portable storage battery cells for use in local battery telephone circuits with railway, tractor drawn, or antiaircraft artillery and harbor defense, and to obtain similar comparative data with reference to the two kinds of dry cells.

Project No. 283, Firing Tables for 240-mm. Howitzer.—Brownprint copies of Firing Tables for 240-mm. howitzer (Schneider) Model of 1918, MI, firing H. E. shell, Mark III, were referred to the Coast Artillery Board for information as to whether or not they were in satisfactory form for printing. With exception of minor omissions the tables were found to be in satisfactory form for printing and were so reported.

Project No. 284, Coordination Between Coast Artillery, Air Service and Coast Defense (Supply and Equipment).—During the conduct of the bombing and antiaircraft firing carried on in Hawaii under direction of the McNair Board, from May to December, 1923, lack of materiel and certain defects in the equipment issued were found. The Adjutant General directed that a study be made with regard to unsatisfactory functioning and lack of certain materiel and that recommendations be submitted which will lead to the adoption and supply of satisfactory type of materiel. The matter is now under study by the Coast Artillery Board.

Project No. 285, Comments on Training Regulations No. 435-....., Meteorology for Coast Artillery.—Copy of Training Regulations No. 435-....., Meteorology for Coast Artillery, was furnished the Coast Artillery Board by the Third Coast Artillery District August 19, 1924. The Board made a study of the Training Regulations and made comments thereon.

Project No. 286, Jones Longitudinal Deviation Ruler.—The device was referred to the Coast Artillery Board in 1923. A complete description of the device is published in the September, 1923, issue of the COAST ARTILLERY JOURNAL. After study and test of the device the Board recommended that it be not adopted as the standard spotting device for manufacture and issue to the service.

Project No. 287, 5-Ton Tractor with Trailer and Ramp.—The Board considered the necessity for supplying tractors to handle antiaircraft guns which are placed at a distance from improved roads. The Board's opinion was that one 5-ton tractor, with trailer and ramp and one additional truck should be provided for each gun battery in the prescribed peace time organization and that two tractors, with trailers and ramp, and two additional trucks should be provided for each gun battery in the antiaircraft regiment for the war organization.

Project No. 288, Travel Prediction Device.—This device was improvised at Frankford Arsenal and consists of a pair of similar prediction scales and a board on which is mounted a travel prediction chart. The prediction scale consists of a frame with central fixed pointer and two movable elements carrying plates on which indices are cut. These plates serve as a base for supporting the scale in an upright position and also as a means of prolonging the straight line. The similar prediction scales are provided for use by the plotter who would set off observed travel on the short end of the scales, while an assistant, equipped with suitable chart, would set off corresponding travel during the prediction interval on the long end of the scale. The assistant, having set this predicted travel on a prediction scale, places the scale in a position convenient for the plotter's use and repeats the process using the second prediction scale. Complete description and result of test will be published at a later date.

Project No. 289, Rotor for Psychrometer.—This device was designed in the Office, Chief Signal Officer, and is arranged for mounting inside of the instrument shelter. The object of the rotor is to whirl the psychrometer. This device has two advantages over the present method of whirling; first, the psychrometer will be whirled in the instrument shelter, thereby obviating the chance of dry bulb becoming wet during the rain; second, it is thought that there will be much less breakage with the psychrometer mounted, than when whirled by hand. Complete description of rotor, its operation, and result of test will be published later.

Completed Projects

Project No. 269, Range Elevation Tables and Range Relation Tables, Coast Defenses of Manila and Subic Bays.—Coast Artillery Board Project No. 198, Target Practice at Reduced Velocities, described in the January issue of the *COAST ARTILLERY JOURNAL*, called for a solution of the problem presented by supplying guns with more than one weight of projectile when the range drum was graduated in yards for only one projectile called "Standard." At that time, the best solution appeared to be a Range-Range Relation Table. Since that time many such tables have been furnished particular batteries. The table is not very convenient to use and in the general case requires an improvised board with T-square for its operation, and at the same time introduces an extra step in determining corrected ranges. Some of the Range-Range Relation tables have been furnished the Coast Defenses of Manila and Subic Bays. The following comment on them has been made by the Commanding Officer, Coast Defenses of Manila and Subic Bays: "The use of range conversion tables is regarded as beyond the capabilities of the native troops which man these batteries." The Coast Artillery Board, realizing that the Range-Range Relation table is not completely satisfactory, has developed what is believed to be a much more satisfactory means of handling the range-range relation. This is to place the range-range relation on a scale. To use the scale for range-range relation purposes it is necessary to improvise a small wooden box with two rollers for the scales and an index. The operation of this device is more simple than the use of the tables. It so happens that the range-range relation scales are also applicable to the percentage corrector. Any battery commander who requires a range-range relation must improvise means for using either the table or the scales. If the scales are used the battery com-

mander can at the same time, if he so desires, make use of the percentage principle involved in the percentage corrector. The Coast Artillery Board is convinced that the scales offer a much better solution of the range-range relation problem than the tables do. This project has been approved by the Chief of Coast Artillery, as follows:

"The recommendation reference the issue of Range-Range Relation Scale, is approved, provided Range-Range Relation Tables are furnished when especially requested."

Project No. 196, Electric Distant Controller For Antiaircraft Searchlights, G. E. Impulse Type.—In January, 1924, the Coast Artillery Board received from the Engineer Section, Schenectady General Reserve Depot for test, a 60-inch open type searchlight equipped with a distant (remote) control system, manufactured by the General Electric Company and described as an impulse type control. The searchlight is a standard open type mobile light equipped with motors for training in elevation and azimuth operated by the remote controller.

Upon receipt of the material at Fort Monroe, it was examined and tested in the laboratory in the presence of representatives of the General Electric Company. It was then placed in the hands of the 61st Battalion, A. A., at Fort Monroe. From the date of its receipt until August 15, 1924, the material was tested from time to time during night drills at which a Martin Bomber flying at heights from 3000 feet to 4200 feet, was employed as a target.

During the night tests personnel were trained in the operation of the controller and in following the airplane target with the searchlight beam controlled electrically. The personnel engaged in these tests included members of the Coast Artillery Board and officers and enlisted men of the 61st Battalion, A. A.

The control system consists essentially of a remote controller connected through 500 feet of multi-conductor cable to two training motors on the searchlight, one for azimuth and one for elevation.

The controller is a motor driven contact making device having a reciprocating action by means of which approximately 60 impulses of current per minute can be delivered to each motor armature. Variation in speed of the training motor is determined by the fraction of the time that the contact device is closed. On the outside of the controller box two small hand levers are provided, one for each motor. When the lever is in the neutral position no contact is made and there is no rotation of the training motor. As the lever is moved either to the right or left, contact is made for a fraction of the period which it takes the reciprocating device to move through one cycle. This fraction of time can be increased gradually until the contact is closed for the complete cycle. This produces the maximum motor speed. The direction of rotation is determined by the position, right or left, of the hand lever. When the cable is attached and the searchlight's generator is in operation the controller motor runs continuously and current is on the fields of the training motors.

The weight of the distant controller is 45 pounds. The dimensions of the housing are 12 $\frac{7}{8}$ by 11 $\frac{5}{8}$ by 5 $\frac{1}{8}$ inches.

Throughout all tests the controller mechanism functioned satisfactorily. Both minimum and maximum speeds of rotation in both azimuth and elevation were found to be satisfactory with the plane flying at 3000 feet altitude. The construction of the searchlight carriage does not permit the light passing through the zenith—the carriage must be traversed 180 degrees at that elevation to follow a target passing directly overhead.

The Board has been informed by representatives of the General Electric Company and of the Corps of Engineers, U. S. A., that the controller tested by the Board is simply a rather crude model of the device that would be furnished should this particular controller be adopted as standard. The model is not rugged, water-proof, or capable of withstanding severe field usage.

During the tests with the controller when an airplane was used as a target it was found to be a comparatively simple matter to follow the airplane with the searchlight, once it had been covered by the beam, and keep it illuminated. The airplane made no attempt to dodge the beam in any of the tests. This is believed to simulate service conditions closely, as a bomber may be expected to fly a straight course at a practically constant altitude when on a bombing mission. When the plane was illuminated by two additional lights approximately a mile apart and a mile from the first light, it was much more easily followed by the light equipped with the distant controller.

It was observed during night drills that in searching the sky with several beams, once any one light "flashed" the plane, other lights could be brought to converge upon it accurately and quickly and hold the plane in the beams until it had passed beyond the range of the antiaircraft guns. This refers to lights equipped with and maneuvered by the standard "pipe" control. The Board believes that it is extremely doubtful that this could be accomplished if all the lights were equipped with the distant control.

It was demonstrated during the tests that for efficient illumination of the plane and for keeping it covered, a minimum of three beams is necessary.

The Board is of the opinion that no conclusions can be drawn at this time as to the desirability of a remote control for mobile lights. It believes that further tests with at least three lights equipped with remote electric control are necessary before such conclusions can be drawn.

The Board is further of the opinion that any distant control for antiaircraft searchlights should provide means for enabling the controller operator to set the light at a given azimuth and elevation. Such a provision will likely be necessary in the event that sound locating devices are developed to the extent that they can be depended on for accurate location of a plane.

Information has been received that five mobile searchlights for the Panama Canal Department are to be purchased during the current fiscal year. The Board believes that it would be advisable to equip all of the lights with the "pipe" control and at least three, if not all, with remote electric control in order that exhaustive comparative field tests of the two methods of control may be carried out.

Recommendations.—The Board made the following recommendation:

a. That all of the five mobile searchlights to be purchased for the Panama Canal Department be equipped with the "pipe" control, and that at least three, if not all, of them be equipped, in addition, with remote electric control.

b. That no type of remote electric control for mobile searchlights be adopted as standard until exhaustive field tests of all types considered suitable shall have been made in the Panama Canal Department.

c. That the remote electric controls for the Panama lights consist of the G. E. Impulse Type and any other type, or types, that may be considered to give promise of being satisfactory.

d. That consideration be given to the development of a system that will enable the controller operator to set the light at a given azimuth and elevation.

The recommendations as stated above were concurred in by the Chief of Coast Artillery under date of September 6, 1924.

BOOK REVIEWS

Wandering in Northern China. By Harry A. Franck. The Century Co., New York. 1923. 6" x 9½". 502 pp. Price, \$5.00.

The author's tales of what he saw, heard and experienced are true to life and make very interesting reading. Numerous well chosen illustrations add much to the interest of the text. As the author says, "In our own land there are many false ideas about China." His book will correct many of these, and the reader will find an impartial statement of Chinese faults and virtues. "The unflinching cheerfulness, the hair-trigger smile and ready laughter, and their tenacious clinging to custom in spite of misfortunes."

The two greatest faults of character are the prevalence of "squeeze" and the lack of sternness. They like to avoid opposition. They like to be agreeable. They like to seem generous. They are given to compromise rather than to standing true to principle and fighting through according to their convictions. The Chinese people take it for granted that all officials are dishonest grafters, always have been and always will be. Any contact with government has always been most disagreeable and an experience to be avoided most strenuously. This accounts in a measure for the weakness of the Central government. The people are docile and easily controlled, but there are very few competent leaders. They generally lack courage for acts of violence—perhaps beheading has bred it out of the race—and as a result foreigners are usually safe all over China. Bandits are numerous, but only recently have they ventured to interfere with foreigners. "There has been progress in China, but nothing like the amount we have been coaxed or lulled into believing."

In comparing our own civilization with one so totally different, standards of importance must be considered. They think nothing of seeing cases of leprosy and smallpox daily on the street, but are shocked to hear of our letting criminals go free with their heads still securely connected to their bodies. We think eating with chopsticks a most difficult accomplishment, and are surprised when the sight of a foreigner eating a poached egg with a fork draws from them exclamations of wonder at such a marvelous feat of skill. The book is very readable.

Plutarch Lied. By Jean de Pierrefeu. Alfred A. Knopf, New York. 1924. 8¼" x 5½". Price, \$2.50.

Jean de Pierrefeu was a member of the French Headquarters Staff during the War, having as his work the writing of the French communiques. He is in a position to know whereof he writes. He maintains that the French General Staff was composed of inefficient men, imbued with false teachings—Bergsonian ideas—relying not on intelligence, but on intuition to carry them through. That younger officers of this cult connived to rid the General Staff of older and saner men, retaining only Joffre whom they wheedled about, is repeatedly asserted. His thesis difficult to prove and he is not always convincing.

The author firmly believes that contemporaneous French historians have turned panegyrists, and he cries passionately to France to look calmly at the records of her leaders, to admit their mistakes, and to profit by them. He does not vilify Joffre among the others, though he depicts him as a duped old man of "prudent slowness who preferred a calm existence" to the vigorous, insatiable activity of a strategist. Why? Because he could not, dared not, attack the Hero of the Marne, and in this de Pierrefeu suggests that he himself is guilty of that "prudent flattery adopted toward the leaders" of which he accuses those who have written of them. He seeks to show that the real Hero of the Marne was not Joffre but Gallieni. Poor Joffre was infested with a Bergsonian staff.

Proximity to greatness sometimes robs a man of perspective, and in reading the book, one frequently recalls the adage, "No man is a hero to his valet." But this much must be said, that the author is sincere, and writes not merely to tear away glory from a few men, but to warn France against the dangers of weaving into her history beautiful, if not strictly true, legends about her military leaders. However the reader may feel about de Pierrefeu's ideas, he will find the book worth reading and one furnishing much to think about. If he is a military man, he will feel his toes being trodden upon occasionally.

The Defense of London. By A. Rawlinson, C. M. G., C. B. E., D. S. O. Andrew Melrose, (Ltd.), London. 1923. 5¼"x 7¾". 267 pp.

The author of this book presents in a vivid manner the tremendous problem that had to be met in building up the antiaircraft defense of London.

To all students of antiaircraft defense problems, this book, it is believed, will be of value. The materiel used in the defense of London consisting of guns, searchlights, listening apparatus, balloons and aircraft, its disposition and the system of cooperation required for its use gives an idea of what must be done in carrying out defense plans for all of our large cities. Colonel Rawlinson speaks with authority for he served during the period 1915-1918 in various capacities in and around London, actively connected with the planning and carrying out of the Antiaircraft Defense System. The book is moreover of value in that to one reading it, the great problem to be faced in the future is presented, when we must be expected to encounter greater numbers of planes armed with bombs of greater destructive power than were used during the late war.

What the Infantry Should Know About the Artillery. By Colonel Treguier. Charles-Lavauzelle & Co., Paris. 1923. 5½"x 8½". 160 pp. 17 figures. Price, 5 francs.

Lessons of the World War are responsible for the emphasis now placed upon better understanding between branches of the military service. Chief of these are the Infantry and Artillery. Their mutual understanding of each other's functions is an established necessity in modern warfare.

The author has prepared a concise, lucid manual on the use of artillery supporting infantry in both attack and defense in which he has carefully omitted irrelevant and intricate technical details.

Published only in French, the book is recommended for libraries of service schools as a reference for instructors charged with the preparation of lectures or treatises on the subject.