

THE COAST ARTILLERY JOURNAL

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FOR

WHOLE No. 214

JUNE, 1924

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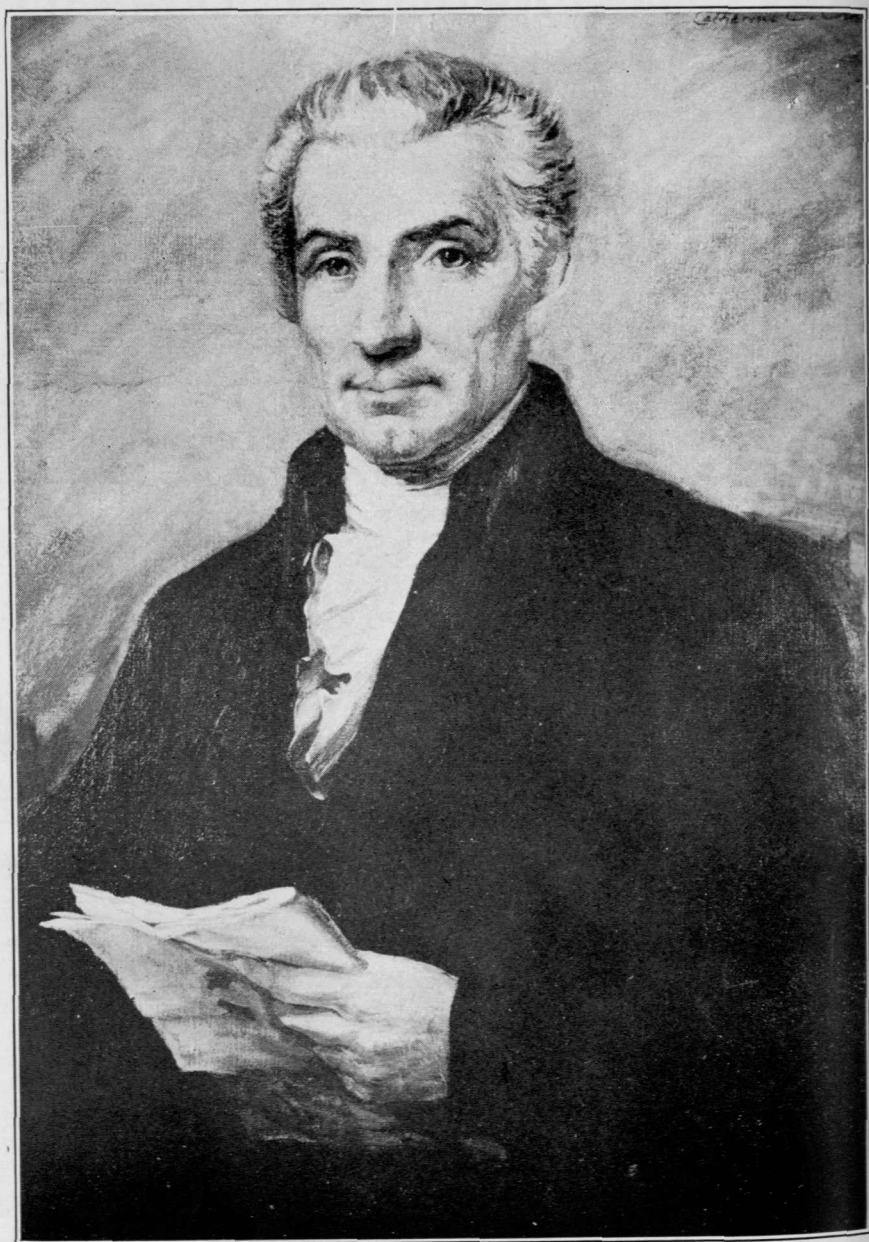
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MAJOR J. A. GREEN, C. A. C., Manager and Editor.

CAPTAIN D. L. DUTTON, C. A. C., Assistant Editor.

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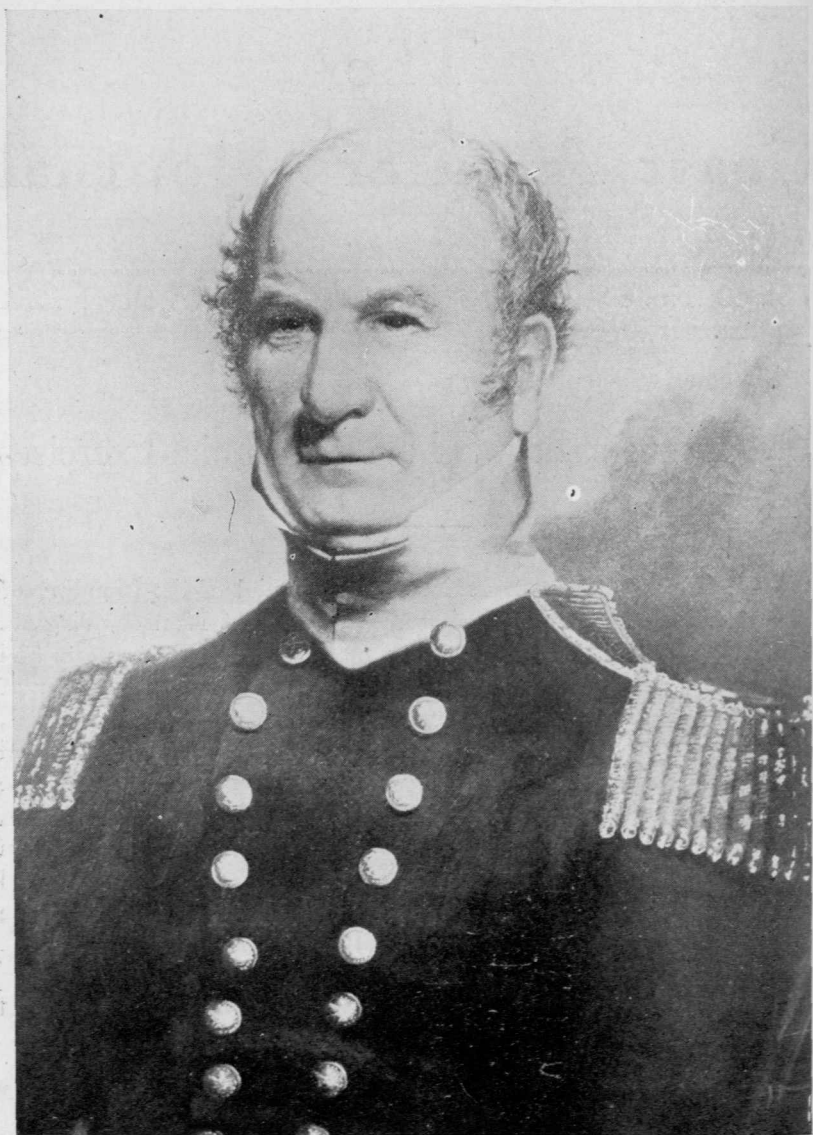
The Coast Artillery School Centennial Exercises

THE exercises commemorating the centennial of the founding of the Coast Artillery School were held at Fort Monroe, Virginia on May 24, 1924, in the presence of many distinguished guests and thousands of visitors. The morning exercises included a review of all the troops of Fort Monroe and many of those from Fort Eustis, an inspection by General Pershing and his party of the School and Post, and exercises at the Liberty Theater. The program for the afternoon included firing from the various types of fixed guns, tractor drawn artillery, railway artillery and antiaircraft guns; an aerial review by the air forces from Langley Field, a review of all motor and horse-drawn transportation, including Battery D of the Virginia National Guard, and a reception at the Officers' Club.

In his address at the Liberty Theater, General Pershing stated in part as follows:

I do not want any of you to think that I am urging war, but I do want you to understand that I am working to build up an Army which will be adequately trained and prepared to defend us in the event that anyone wishes to impose war on our country.

This country is divided into nine areas according to population, called Corps Areas, and in each of the nine corps areas we have a skeleton division of the Regular Army, two National Guard Divisions and three Reserve Divisions. They are the ones particularly of which I am going to speak today. They are the ones for whom special training is necessary, and they are the men that you officers



BRIGADIER GENERAL ABRAHAM EUSTIS, U. S. ARMY

The organizer of the Artillery School at Fort Monroe, Va., in 1824.

will be called upon to train. The problems which you are working on in this School are the very problems that you will be called upon to demonstrate to these officers when they are called into summer camps. The thought which ought to be in your minds is, that you are going to be responsible for the efficiency of these men and that all they require is leadership and that you are the ones that are going to be called upon to furnish that leadership.

If we could interest the greater portion of our people in this work, (training and building up the organized reserves), if they could only understand what we are talking about, what we are trying to do, then if we should ever be so unfortunate as to be forced into another war, we would not be in the deplorable condition in which we found ourselves in 1917, when there were no plans, no system. Nobody had foreseen anything for fifty years. Indeed all was confusion—everybody wanted to do something, but nobody knew what to do.

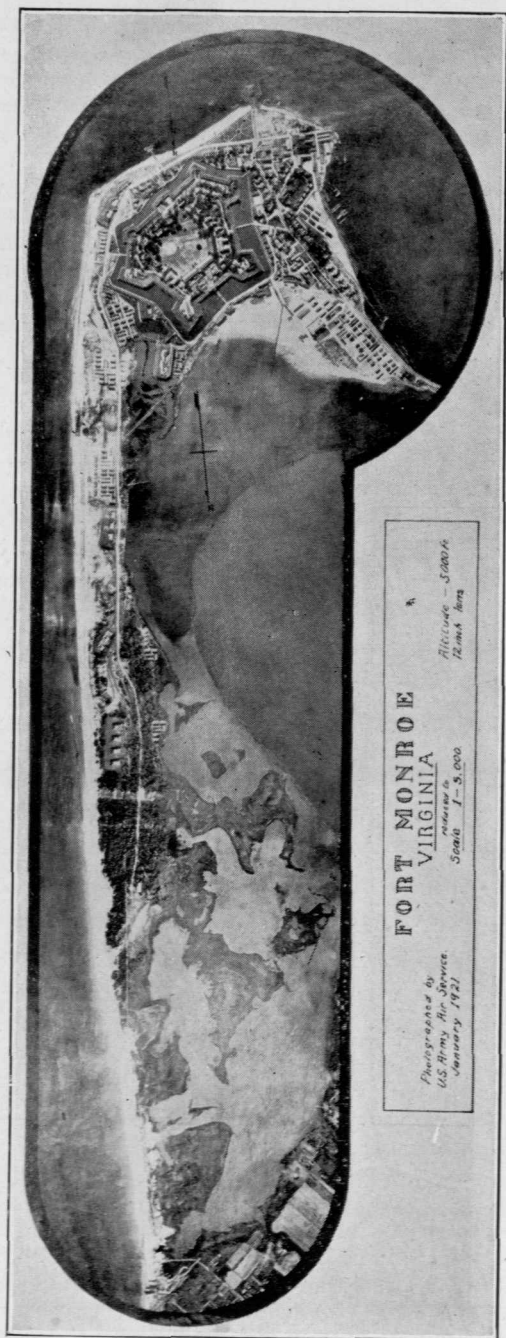
We have 80,000 reserve officers assigned to 27 divisions, besides a number of smaller units. Congress has begun to see the necessity of training these units and has appropriated for the training of 18,000 this year, as compared with 6000 last year, and we hope that the appropriation will be forthcoming for the training of a larger number of citizen soldiers each year.

Secretary of War John W. Weeks had expected to be present at the exercises, but due to illness, was prevented from attending. The remarks he had intended to make were read by General Pershing. The principal part of his address follows:

Anniversaries are always a pleasure to me. They afford an opportunity to become removed temporarily from the confusion of present problems while we review past accomplishments. Such a process invariably restores faith in the progress of the world and civilization. It proves the enduring value of steadfast adherence to ideals and sound principles.

In celebrating this Hundredth Anniversary of the establishment of the Coast Artillery School, it is appropriate that we give attention to both the achievements of this school and the survival of the conviction which caused its establishment. Today there are special schools for all the branches of the Army. We recognize that every officer must be a specialist in his own branch. Were Coast Artillerymen ever guilty of boasting you might claim that this school had set such a high standard that the other branches were forced to emulate your example. In view of your modesty we will let it suffice to say that this is a patriarch among army schools. Leavenworth with its dowager position is a debutante in comparison.

These schools fill an extremely important function to the Army of the United States. They are our only means of assuring that our officers will be thoroughly competent to command; that our system of instruction will be uniform; and that the Army of the United States will be prepared to meet all requirements in organization and instruction. There is no complete substitute for an efficient school system, short of the war experience we avoid by readiness attained by other means. The ideal condition for the military education of our officers would be a combination of theoretical studies in the school, followed by long periods of practical application of these principles by service with troops in peace. However, our Regular Army is too small and too scattered to permit all officers to receive the experience of exercising high command during extended field work. The obligation upon our schools is therefore the greater. They must not only pro-



FORT MONROE
VIRGINIA

Photographed by
U.S. Army Air Service
January 1921

Altitude - 500 ft.
12 mi. long

Scale 1-5,000

vide theoretical instruction, but must impart that instruction by such an applicatory method as will compensate, so far as possible, for the absence of troops.

The importance of these schools advances with the progress of science. Banks protect their riches in vaults of thick concrete and steel, to which entrance is guarded by intricate time locks and other burglar-proof devices. As the further advance of science threatens these protective installations, new inventions supersede the old. Similarly we strive to protect our national wealth—our independence. The military profession must constantly adapt the technical developments of the day. Contact must be maintained with the progress of all civil professions, in order that we may not find ourselves antiquated should the emergency of war be thrust upon us. This does not necessarily mean that war will become more and more destructive for the defensive application of science makes progress side by side with the offensive application. As new weapons are discovered, new protection is devised. As science produces the means for increasing the offensive power of armies, it also produces the means of defense and provides for comfort, health and rehabilitation. However, the professional soldier must constantly increase the scope of his research in order that he may not be surprised by new weapons, new defenses or changes in tactics based upon these developments.

There is another point to be considered with respect to the added importance of these schools. The National Defense Act of 1920 gave the Regular Army a trusteeship. It is not sufficient that the officers and men of our permanent force should be ready and effective. They must develop the methods of instruction whereby the less trained citizens, who will constitute the bulk of the Army of the United States, may rapidly reach a state of military effectiveness. Time is a very important element in all production. Efforts constantly are being made to simplify methods and cut out lost motion which contributes to cost, but to no industry or profession is the element of time more important than to the Army. It is true that our production is not in constant use, but when there comes need for defensive measures, the value of rapid methods is great and the penalties for avoidable delay are exorbitant. Institutions like the Coast Artillery School have a very important mission to develop which will produce military effectiveness with the least possible delay.

In the past few years the War Department has made considerable progress in the formulation of the general plans and provisions under which we expect to proceed in the event of a national emergency. Our readiness in this respect is markedly superior to any previous condition in our history because we now have in the Defense Act the first definite provision for the force upon which we will rely in event of war. Heretofore war plans could not be of such great value because there was lacking an assurance on many of the premises which were fundamental to the consideration of these plans. Now Congress has provided the basic structure and accordingly provision can be made for our action.

War plans, however, are not in themselves a guarantee of readiness. If conceived according to sound principle and maintained for ready utilization, they provide means for saving of time and avoidance of confusion. However, there still remains the necessity to have in vogue such methods of training as will speedily make effective the forces contemplated under the plans. It does little good if we succeed in the hasty assembly of untrained men if they are to have their time squandered by uselessly complicated or aimless methods of training. We must be prepared to utilize to the best advantage the time our citizens may be required to spend under arms.



THE DESIGNER OF FORTRESS MONROE

Brevet Brig. General Simon Bernard, U. S. Engineers Corps, formerly an officer under Napoleon in the Imperial Army of France. Born in France 1779—died in France 1831. Appointed an officer in the U. S. Army, and second in rank to the Chief of Engineers, by President Madison in 1816 pursuant to a joint resolution of the two Houses of Congress.

There is another point which seems appropriate to this consideration of the relation of the Regular Army to the public. The World War left a great confusion of thought. The natural reaction of many minds has now taken definite form in expressions in favor of universal action toward peace. We all laud the commendable purpose of these movements, but we must be watchful that national security is not threatened by the acceptance of wishes for facts. War may be abhorred, but so is pestilence, and we must be ready to cope against the former by defensive measures as against the latter.

The progress of the world is gradual. Changes in civilization come slowly. It is inconceivable that standards held during the entire existence of mankind should suddenly be found false. Our social structure has always been maintained by force, whether in the hands of policemen as individual representatives of the state, or in the hands of the Army when police measures are insufficient. Gradually society increases the custom of peaceful settlement of controversies, but the world seems far from a condition which will justify reliance solely upon honor, either between individuals, or between nations.

I am sometimes chagrined to find that because I happen to be Secretary of War, some of my fellow-citizens believe me an advocate of war. Indeed, surprise has been indicated at my protestations that I am a zealous worker for peace. So I fully realize that many of you may sometimes question the futility of your efforts toward perfecting the defenses of the Nation, when there exist so many who discredit your work. However, we must not abate our efforts. Theories have created wars, but never have they made peace; American Armies have never created wars, but have made peace many times.

Military training does not bring benefit only to the nation. Our efforts are not wasted if they do not bring eventual application on the battlefield. The Army is a great educational institution. You receive here a post-graduate course which better fits you for your faculty position. Your students will be the young men of the country whom you will undertake to give some degree of military training. Should war come that training will be of inestimable value to the Nation. If war does not come, you will nevertheless, have produced such results perfecting physiques, encouraging qualities of good citizenship and building up a sense of the value of teamwork that the peacetime benefits of your instruction will more than compensate for your time and effort and for the cost to the Government.

The Coast Artillery School has a broad field of activity. It has in the last hundred years demonstrated a great value. The future, however, appears to present even greater possibilities. The value of tradition is great. Today we pay respect to Colonel Fenwick, Colonel Eustis, and their contemporaries in the establishment of this institution. A hundred years from now men at this spot may be justified in far greater praise for you who now are assembled here. Many accomplishments can only be measured in the light of time. We here cannot design our own yardstick, but we know that its elements will be loyal and conscientious service in a worthy cause.

One of the most interesting features of the Centennial Day exercises was the Battle Command practice, held under the direction of the Coast Defense Commander, Colonel J. F. Howell, in honor of the distinguished guests and for the instruction of the Student Officers of the Coast Artillery School. These latter acted as safety

officers, time keepers, observers of deviation, and assisted with records.

In this practice, five batteries participated, fire being directed upon two pyramidal targets, towed by the Mine Planter Schofield at a range of about 9000 yards; and upon two pyramidal targets, towed by the tug Reno at a range of about 7000 yards. The Schofield targets, which simulated a battleship division, were fired upon by the two 12-inch disappearing guns of Battery Parrott; by Battery Anderson, which delivered pit salvos with two 12-inch seacoast mortars; by Battery Ashbridge, two 12-inch railway mortars brought to Fort Monroe by the 52d Artillery (Railway), from Fort Eustis; and by Battery Taylor, a four-gun 155-mm. G. P. F. Battery, brought to Fort Monroe by the 51st Artillery (motorized) from Fort Eustis. The Reno targets, simulating a division of destroyers and mine sweepers, were engaged by Battery Montgomery, two 6-inch barbette guns and by Battery Taylor.

Following the gun firing, a target was towed across the mine field, simulating a mine-sweeper division. This attack on the mine field was met by the explosion of submarine mines, observation fire being used. Immediately afterward, an air attack on Fort Monroe was simulated by two planes from Langley Field towing sleeve targets, which were fired upon by the 3-inch guns of the 61st Artillery Battalion (AA). The machine guns of the 61st Artillery (AA) then opened fire on low flying attacking plans, represented by free balloons.

Upon the arrival of General Pershing and his party on the parapet of the Old Fort, near the East Gate, at about 1:45 P. M., the Schofield was given orders to commence towing, moving north from an initial position near Ocean View. Batteries Parrott, Anderson, Ashbridge and Taylor immediately opened fire, on orders from the Coast Defense Commander, with excellent effect. As soon as the Schofield had approached about half way to Bug Light, the Reno was ordered to commence towing, starting out from the vicinity of Ocean View.

At this time, however, a sudden and very severe rainstorm completely obscured targets and tugs and firing was suspended. The towing boats were held in place by the Coast Defense Commander, the order being transmitted by radio. They were started on their courses again by his orders as soon as the weather cleared, the storm causing a suspension of fire for only ten minutes.

Firing was immediately resumed, Battery Montgomery opening fire on the Reno target and Battery Taylor transferring its fire from the Schofield to the Reno target upon orders from the Coast

Defense Commander. The effect of this fire was also excellent, nearly all the range deviations being overs of small magnitude. As soon as the Schofield targets passed to the left of Bug Light out of Battery Parrott's field of fire, the latter battery transferred its fire to the Reno target. Firing ceased at 2:29 P. M., 160 rounds having been delivered on the attacking fleet during the 25 minutes between "*Commence Firing*" and "*Cease Firing*," excluding the ten minutes storm period.

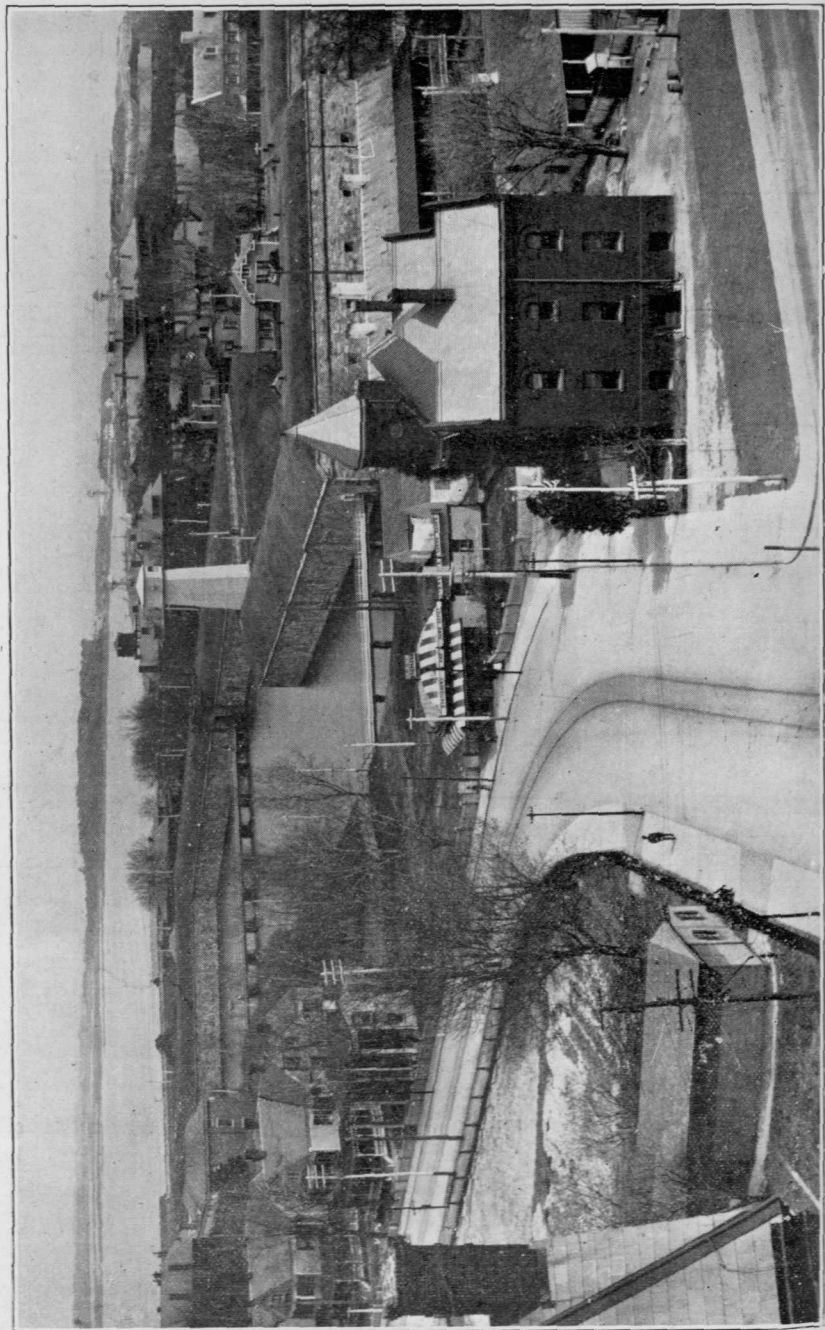
Good time and excellent coordination were obtained in the firing of trial shots by all the batteries between 9:30 A. M. and 10:00 A. M., following a regimental review on the parade ground. Com-



THE LIBERTY THEATER, FORT MONROE, OPENED 1920
CAPTURED GERMAN GUN IN FOREGROUND

panies were sent to their batteries by train, after a change of uniform following the review, fired trial shots, made the necessary calculations, returned and changed uniform, and were in formation at 10:15 A. M., in the vicinity of the Liberty Theater, where they were privileged to hear the addresses of the General of the Armies and those participating in the excellent program.

The press in general commented widely upon the exercises, the *Daily Press* of Newport News stating in part as follows: "The Coast Artillery School has an honorable record. Its past at least is secure. It has done a wondrous and invaluable work in training men for the artillery service, and it was never quite so efficient as it is today, for it builds upon its experience from session to session, and the last session is always the best. The Coast Artillery School of Fort Monroe richly deserves the honors that will be showered upon it today."



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A History of the Coast Artillery Board and its Work

EDITOR'S NOTE: *The following was recently delivered as a lecture to the Student officers of the Coast Artillery School by Colonel H. J. Hatch, C. A. C., President, Coast Artillery Board.*

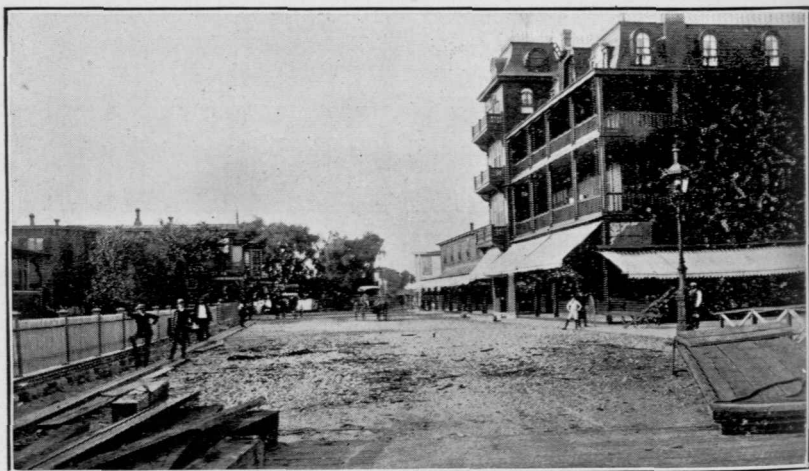
I HAVE been of two minds about how to present this subject—that is, whether to confine my remarks to a history of the Coast Artillery Board, which was the subject assigned me, or whether I may not, to better purpose, devote most of the time allotted to me to a discussion of the recent work of the Board.

The various files and records yield very little concerning the history of the Board that would be interesting or useful to you. I have taken from them copies of orders organizing the various Artillery Boards that have existed in our service. The other records available consist of retained reports, lists of members, and copies of correspondence. Also, I have had prepared a list of the projects which have occupied the attention of the Board during the last two years, 234 of them in all, of which number 201 have been reported on, and it has occurred to me that by going over this list and discussing some of the more important projects I should be able to give you a better idea of the character and scope of the Board's work than in any other way. When I shall have covered such of the history of the Board as seems worth while, I shall hope to discuss some of these reports of projects, if by that time I shall not have encroached too heavily on your time. The history of the Board should be of some interest to officers of the Coast Artillery School because the history of the Board is very intimately connected with the history of the School.

Artillery Boards and Artillery Schools appear in the very early history of the United States Artillery. Neither the present Artillery Board nor the Artillery School has had a continuous existence, however. The Artillery Board or its predecessors can claim some credit for the establishment and existence of the present Artillery School, since the School as finally reorganized was established in 1867 as a result of a project submitted by the so-called Permanent Artillery Board, which had been organized the year before. The School has been in continuous operation since that date except for the period 1898-1900, during the Spanish-American War. The Permanent Artillery Board, however, was not permanent, but was

very short-lived; its most important work being the establishment of the Artillery School, reports on "Instruction for Artillery Troops at Posts" and "Regulations Governing the Relations Between the Artillery and Other Arms." Later on Artillery Boards were created as part of the School, so that the question of priority between these two institutions is similar to the much mooted question of the priority of the hen and the egg.

During the Revolutionary War and up to the War of 1812, the Artillery, Engineers, and Ordnance, were combined in one branch of the service under the commander of the Artillery, Brigadier General Henry Knox, who was in reality the first Chief of Artillery, and the last one for over a century.



THE HYGEIA HOTEL. LOOKING NORTH FROM THE MAIN DOCK. TAKEN ABOUT 1890

The first organization of the Artillery was patterned after that of our enemies, the British, rather than that of the French, our allies. This was due to the prewar association of the Colonial with the Royal Artillery. Colonel Richard Gridly, a half-pay British officer, commanded the first artillery regiment arrayed against the crown. Colonel Gridly was one of the foremost Artillerists of his day, but was a very old man. He was succeeded in 1776 by Knox, who was then only 25 years old. Congress made good Gridly's half-pay, and made Knox a Brigadier General of Artillery, a grade which for over one hundred years was held by no other officer.

From the beginning, the Artillery service claimed and assumed superiority to other branches of the Service. This was so pronounced that as early as 1775 Congress found it necessary to

provide that Artillery officers and soldiers should be governed by the same rules and should be subject to be tried in like manner with other officers and soldiers of the Continental Army. A year later in order still further to curb this prideful spirit of the Artillery, Congress provided that when sitting on Courts-Martial with other officers, Artillery officers should rank according to the dates of their respective commissions, and "*not otherwise.*" Formerly Artillery officers ranked Infantry and Cavalry officers of like grade.

An amusing example of this feeling occurred when the provincial Congress of New York authorized Captain Lamb to organize a company of artillery and then decided to attach the company to a regiment under Colonel McDougall. The sturdy captain objected "that it placed the artillery on a level with the infantry—a practice unprecedented in any service," and thereupon tendered his resignation. Strangely enough, the resignation was not accepted, but instead the obnoxious resolution was repealed.

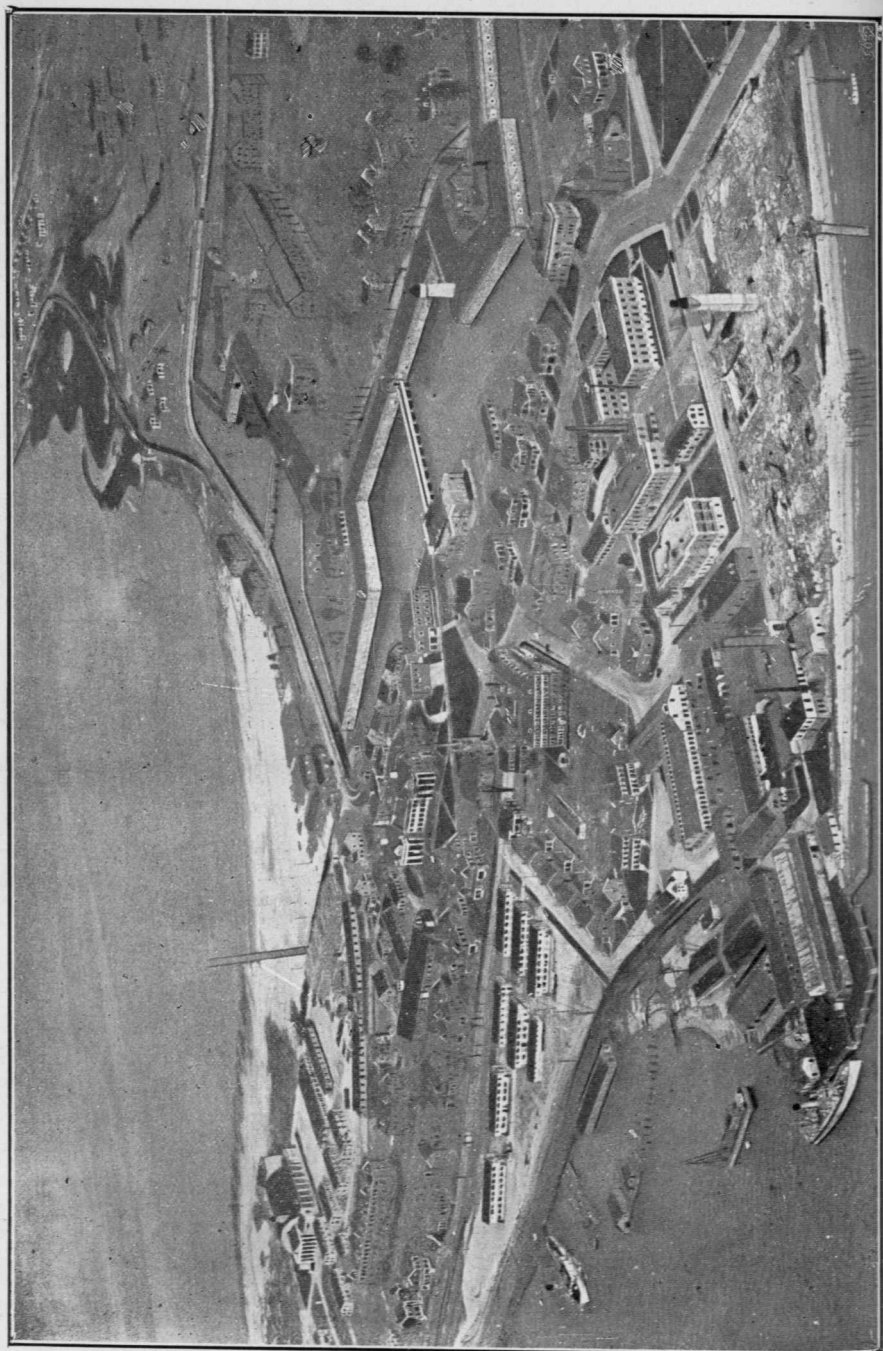
At this time the Artillery, Engineers, and Ordnance consisted of five regiments of artillerists and engineers. One of the five regiments of artillery was composed of civilians who performed no military duty but were artificers and mechanics charged with the operation of arsenals and laboratories.

General Knox, in 1776, after the defeat of the Americans on Long Island, recommended to Congress:

"That all matters respecting Artillery and Artillery stores be under the direction of a Board of Ordnance whose business shall be the regulation and management of the affairs of this Department and to whom returns shall be made." This was the first Artillery Board.

The "Artillery School of Practice" was organized one hundred years ago by Order No. 18, April 5, 1824, at Fort Monroe, and Fort Monroe became the favorite experimental ground for testing guns and carriages and other artillery materiel. Boards of artillery officers were assembled at the School for the purpose of advising the Secretary of War on artillery matters. Fort Monroe was recognized as the headquarters from which emanated well digested opinions on artillery matters, but no permanent artillery board was in existence between the close of the Revolution and the Civil War.

About 1832 Indian Wars made necessary the transfer of Artillery troops from Fort Monroe to duty in the field and by 1835 all troops had been transferred to various theaters of hostilities and the School of Practice was discontinued. Fort Monroe became the center of purely Ordnance activities until the School was reorgan-



BIRD'S EYE VIEW OF FORT MONROE IN 1920. RUINS OF THE HOTEL CHAMBERLAIN IN THE IMMEDIATE FOREGROUND

ized in 1856, under the name of "The Artillery School." This school was organized on more ambitious lines than the School of Practice of 1824, but it lasted only until the outbreak of the Civil War.

The Ordnance was organized as a separate department in 1812. It was merged with the Artillery in 1821, and reorganized as a separate department in 1832.

Beginning with the Mexican War, the duties of an Artillery staff were gradually usurped by the Ordnance Department. An effort was made in Congress to reorganize the Artillery under its own chief, but the effort failed. In an attempt to give the Artillery a permanent representation at the War Department, the Artillery Board of 1866 was organized.

GENERAL ORDERS
No. 6

• HEADQUARTERS OF THE ARMY,
ADJUTANT GENERAL'S OFFICE,

WASHINGTON, JAN. 30, 1866.

A permanent artillery board is hereby organized, to which questions pertaining to the artillery arm of the service may be referred by the Secretary of War or the General in Chief, for discussion and recommendation.

The board shall also have the power to make original recommendations to the General in Chief, in reference to the interests and efficiency of the artillery of the Army.

The members shall sit on the board according to their rank in the artillery and the senior member shall be president. He shall have the power to call meetings at such times and places as shall be approved by the General in Chief, in addition to those called by the Secretary of War or the General in Chief.

A complete record of all the proceedings of the board will be kept by the secretary, who, on being relieved, shall turn over to his successor or to the Adjutant General of the Army.

The Quartermaster's Department will furnish the necessary rooms, and stationery, on requisition of the president of the board.

DETAIL FOR THE BOARD

Bvt. Brig. Gen. H. J. Hunt, Lt. Col., 3d Artillery.

Bvt. Colonel Albion P. Howe, Maj., 4th Artillery.

Captain John Gibbon, 4th Artillery.

Bvt. Lt. Col. S. N. Bengamin, 4th Artillery, Secretary.

By command of Lt. Gen. Grant:

E. D. TOWNSEND, A. A. G.

* * *

GENERAL ORDERS
No. 16

HEADQUARTERS OF THE ARMY,
ADJUTANT GENERAL'S OFFICE,

WASHINGTON, MARCH 12, 1866.

The Permanent Artillery Board, organized in General Orders No. 6 c.s., will assemble at Washington, D. C., April 2, 1866.

The Board will prepare and submit a project for an Artillery School, to be established at Fort Monroe.

It will also prepare and recommend, if it deems necessary, a project for instruction at posts at which not less than one company of artillery may be present.

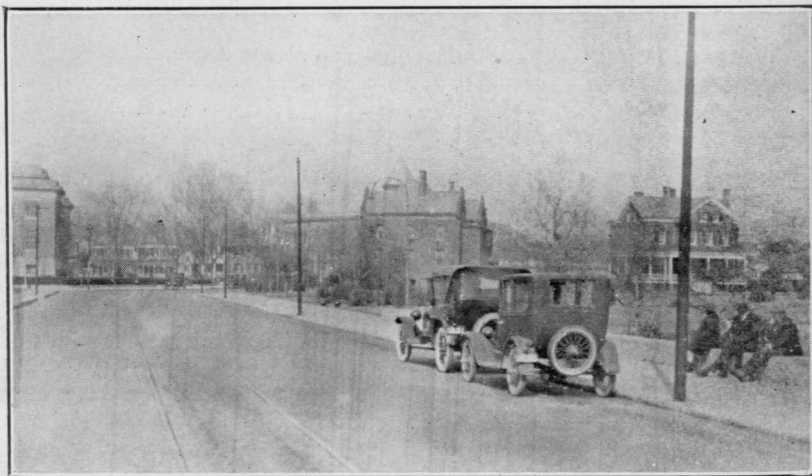
By command of Lt. Gen. Grant:

E. D. TOWNSEND, A. A. G.

* * *

The result of the recommendation of the Board, was as I have stated, the organization of the present Artillery School. In the fall of 1866 the Board adjourned, never to be reassembled.

There is no record of the Board after 1866 and the only reference to it that I have found is in a letter from Colonel Hunt, the



LOOKING NORTH FROM THE MAIN DOCK TODAY

President, to the A. A. G., Department of the East, dated November 5th, 1870. This letter is of interest and throws some light on the possible reasons for the inactivity of the Board after 1866.

I have the honor to acknowledge receipt of your letter of September 21, directing me, in the name of the Department Commander, to make an inspection of Light Battery F, 5th Artillery, and to report whether the numbers of men and horses is not greater than the requirements of the service; and if so, what reduction can be made in the number that can be allowed to light batteries by existing orders and regulations.

Whilst I appreciate the compliment implied in the call for this report, I am extremely reluctant to express an opinion on the subject, as by G. O. No. 6, of 1866, a Permanent Artillery Board was established to take cognizance of questions of this nature. I was president of that Board until it adjourned under circumstances which convinced me that it was neither useful nor safe to make reports, even under orders, and I requested to be relieved from a position which devolved upon me grave responsibilities affecting my professional reputation with-

out securing respect for the action it compelled me to take, or consideration for the matured judgment and recommendation of the Board.

Although it was arranged that I was to be, yet I have not been formally relieved, nor the Board, so far as I know, either abolished or reconstructed. I have inferred that so novel an innovation on the customs of our service, as having a recognized artillery authority, of allowing spontaneous action to artillery officers on questions relating to their own arm, had been speedily repented of and abandoned, with somewhat scant courtesy perhaps toward those who composed the board.

I have therefore carefully abstained from intruding my views on artillery subjects, which indeed (in time of peace) would be lightly esteemed; except when required to do so in the discharge of some imposed duty.

I am thus circumstantial in my statements because my position is a peculiar and embarrassing one. By existing orders I am still president of the Board, with power to call it together and recommend such action as I consider necessary, yet to do so as affairs stand is simply impossible. The subject you submit is certainly one which, by terms of the order, the Board should take cognizance of, on the proposition of its president, and it might seem in the absence of this explanation, that I had been guilty of neglect of duty in the matter.

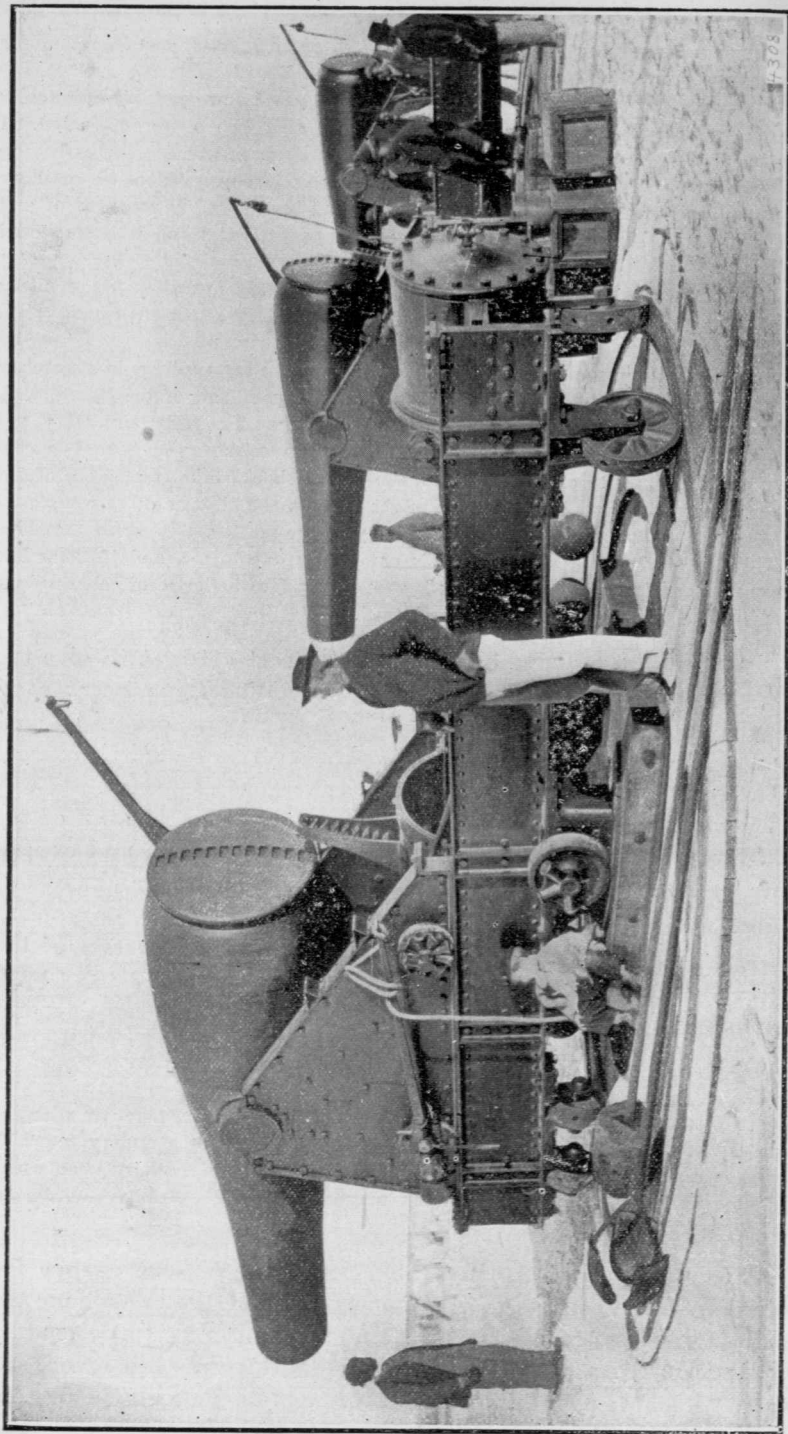
This is not the case; the subject is not a new one to me, and if there has been any unnecessary expense incurred, as compared with the result obtained, it is not justly chargeable to me or to the Board.

The Artillery Board of 1866 was the last attempt to give the artillery a permanent representative at the War Department component to advise on its affairs until the Artillery was organized as a corps with a separate chief in 1901. During this period there were artillery inspectors on the staffs of the various Department Commanders, and there were artillery representatives on the staff of the War Department in Washington. Development work, and experiments looking toward improvement in artillery materiel and methods devolved upon the Ordnance Department. The need for reorganization of the Artillery, and a chief to represent the interests of the branch in Washington, was very keenly felt.

The Artillery Board was first organized along the same general lines as at present constituted, under the provisions of G. O. No. 58, A. G. O. 1900, which states:

The Commandant of the Artillery School at Fort Monroe, together with the heads of the several departments, will constitute a Board of Artillery to which may be referred from time to time all subjects pertaining to artillery upon which the Commanding General of the Army may desire their opinions and recommendations.

The Board as thus constituted continued without change for five years. The reports of the Commandant of the School for the years ending September 1, 1904 and September 1, 1905, contain very excellent resumes of the projects and studies then before the Board. Records of the Board's proceedings on file with the present



A BATTERY OF 10-INCH COLUMBIADS AT FORT MONROE IN 1863

Weight of shot, 280 pounds; shell, 224 pounds; powder 15 to 18 pounds. Note the recoil cylinder at the rear of carriage. Our present recoil cylinders on seacoast carriages are a development of this one.

Board start with September, 1901, and are practically complete down to the present time.

General Orders No. 60, 1902, provides for the organization of a separate Field Artillery Board in connection with the Cavalry and Light Artillery School at Fort Riley, Kansas. The Artillery Board at Fort Monroe continued to function but confined its work to Coast Artillery projects. The Coast Artillery and Field Artillery were not separated at this time.

The next important change in the Artillery Board was made by General Orders No. 156, W. D., 1905, which states:

1. G. O. No. 60, Headquarters of the Army, A. G. O., June 25, 1902, and Pars. 77 and 122, G. O. No. 115, W. D., June 27, 1904, are hereby revoked, and the boards therein provided for will hereafter be constituted as prescribed in this order.

2. *Artillery Board.*—Such Artillery officers as may be designated by the War Department shall constitute the Artillery Board, with station at Fort Monroe, Virginia, to which may be referred from time to time, all subjects pertaining to artillery, upon which the War Department or the Chief of Artillery may desire the Board's opinions and recommendations. For the information of the Commanding Officer, Fort Monroe, Virginia, all correspondence with the Artillery Board shall be conducted through him, also through the Chief of Artillery, who, in each case shall be furnished with a duplicate copy of the Board's action. The recorder of the Artillery Board will keep a separate record of its proceedings.

By order of the Secretary of War:

J. C. BATES,

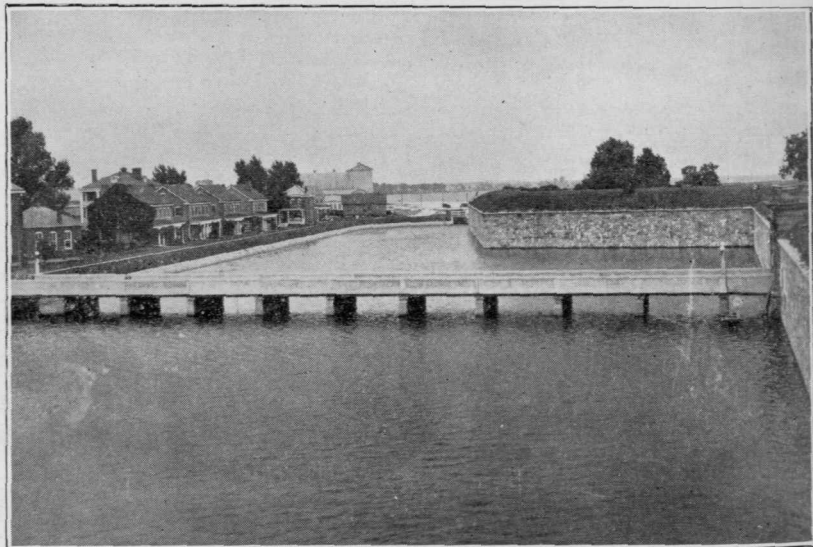
Major General, Acting Chief of Staff.

The change in the composition of the Board effected by General Orders No. 156 was rendered necessary by the burdensome duties under which the officers of the Artillery School, especially the Commandant, were laboring, and since the work of the Artillery Board was in no way administrative, but wholly technical, there was no difficulty in severing the close relations existing between it and the Artillery School.

The amount of work done by the Artillery Board at that time was very large. During the year ending June 30, 1905, one hundred reports varying in length from one to one hundred pages, were submitted by the Board on subjects requiring much research, experiment, calculation and discussion. Board members were also battery and fire commanders, or heads of school departments. They continued to have such assignments until about 1910, after which time the members devoted their time exclusively to Board work. In general the duties of the Board along lines of research, experiments and

tests pertaining to artillery matters, has continued along much the same lines to the present time.

The Coast Artillery and Field Artillery became separate branches of the service in 1907. General Orders No. 107, War Department, of that year, changed the Board's official designation to "The Coast Artillery Board." Members were detailed by War Department orders and correspondence on purely technical matters was permitted direct between the Chief of Coast Artillery and the President of the Board.



NONCOMMISSIONED STAFF OFFICERS' QUARTERS, FORT MONROE

The organization of the Board continued unchanged until the World War and the period immediately following, when the Board underwent several changes in the matter of administrative control; chiefly in that it became part of the Coast Artillery Training Center which was organized in accordance with General Orders No. 69, War Department, 1918. In accordance with G. O. No. 17, Headquarters C. A. T. C., April 5, 1919, all activities of the Board were taken over by the Development Division of the Training Section of the Coast Artillery Training Center. The Commanding General of the Training Center exercised close supervision and administrative control over the section during this period. A digest of all the activities of the Training Center is contained in the report of the Commanding General for the period January 1, 1917 to August 31, 1919.

G. O. No. 62, C. A. T. C., December 22, 1919, reorganized the Training Center and assigned officers to duty with the Technical Staff and the Coast Artillery Board, thereby giving the Board an individual status, separate from the Training Section of the Training Center.

G. O. No. 66, C. A. T. C., December 30, 1919, made the President of the Coast Artillery Board the Chief of the Technical Staff, and charged him with supervision of the duties of the Technical Staff.

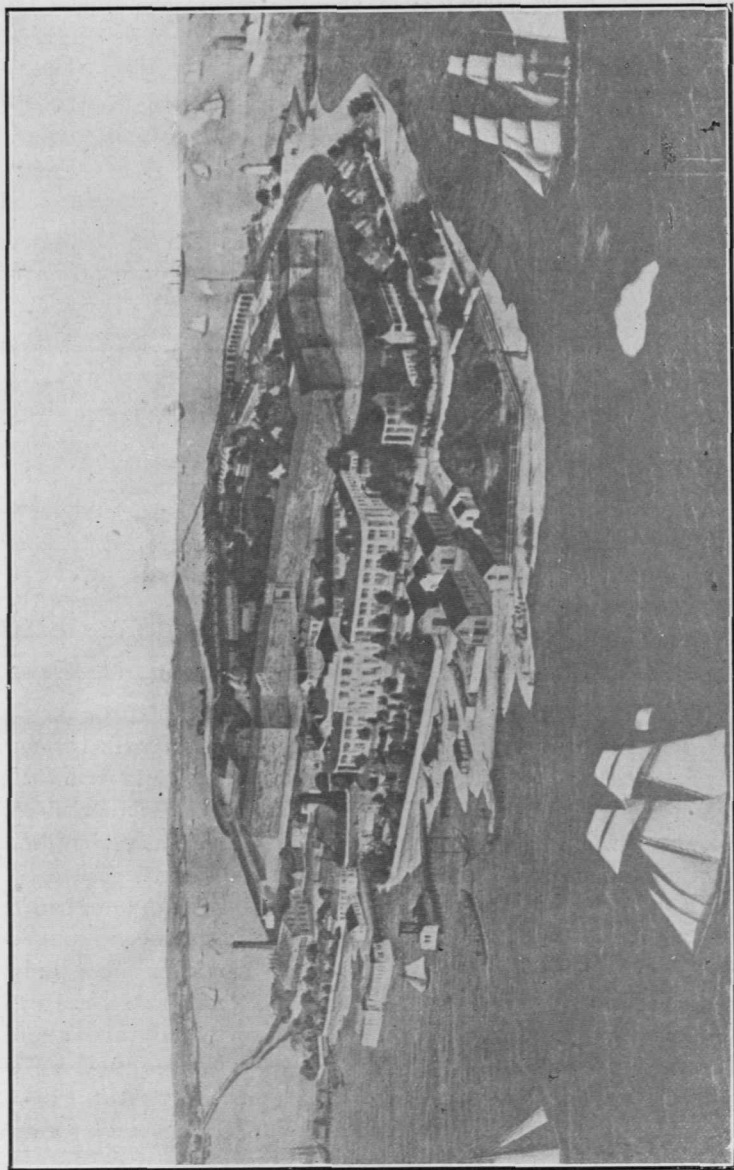
Beginning early in 1920, the Board resumed about the same status that it had prior to the World War, viz: an advisory Board to the Chief of Coast Artillery.

The new Army Regulations, 90-20, February 8, 1922, fixed the present status and organization of the Board. All Board reports are forwarded through the Commanding General, 3d Coast Artillery District, for action of the Chief of Coast Artillery.

Before discussing any of the Board's recent studies, I wish to impress upon you the fact that the value of the Coast Artillery Board to the service will depend very much on the interest that is taken in the development work of the Board by the service at large and by the amount of direct assistance that is given the Board by Coast Artillery officers on duty with troops and elsewhere. Such assistance not only is invited, but in every way that we have been able to think of, it has been encouraged and urged.

Through the very cordial cooperation of Major Clark, former Editor of the COAST ARTILLERY JOURNAL, we have been permitted to occupy considerable space in the JOURNAL for Coast Artillery Board Notes, in which are given to the service practically complete records of the recommendations on nearly all studies undertaken by the Board, together with discussions of the considerations on which the recommendations were based. The same policy has been pursued by Major Green, the present editor of the JOURNAL. The only cases in which reports are omitted are those of a confidential nature. I should like to urge upon you the desirability of looking over these Notes when reading your JOURNAL, for it gives you an opportunity to get in touch with most of the problems confronting the Coast Artillery. Practically every technical question that is under consideration by the Chief of Coast Artillery is submitted to the Board for study or test and report.

The most important product of the Board in the last two years, I believe, is Project No. 114, "Preparation and Adjustment of Fire Against Naval Targets," which was published in the COAST ARTIL-



FORT MONROE IN 1858

The large building in the center of the picture is the first *Huge'a Hotel*. It was torn down in 1862. Mr. J. Ware of the Corps of Engineers, who was employed as a machinist at Fort Monroe during the Civil War, and has lived there constantly ever since, states that for many years the causeway connecting Fort Monroe with the mainland was a sandy road so low that it was completely submerged during unusually high tides. He also states that during McClellan's advance on Richmond he has seen this causeway choked for days at a time with troops, wagons, cattle and sheep. Persons acquainted with Fort Monroe will recognize that since the days of 1865 its area has been greatly increased by extending the shore line

LERY JOURNAL for August, 1923. It was the purpose of this report to recommend and submit to the service, a doctrine, which, if approved as sound by the Chief of Coast Artillery and accepted by the service generally, would result in the development of improved methods. It aimed to differentiate between the methods which are applicable only to land firing at fixed targets and those which apply to the conduct of fire at moving targets also.

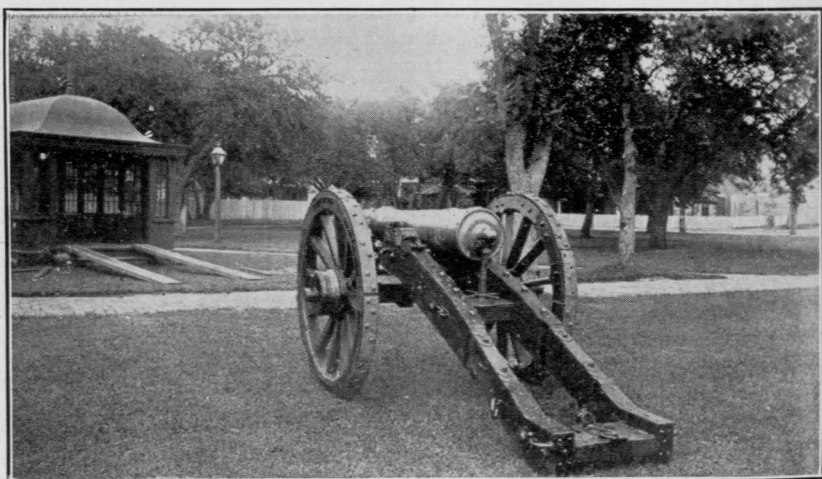
The Board is now engaged in a more extended study of the subject and in the near future will submit a report which will include not only a restatement of the principles and methods recommended in Project 114, but will cover in detail the steps necessary in the preliminary preparation of a battery for action and the detailed procedure in the fire control section for the regulation of fire, using the devices and methods which the Board has recommended in recent reports as desirable additions to the standard fire control systems for all classes of seacoast armament. Also it will discuss what we believe to be the primary missions of Coast Artillery weapons.

There is a deplorable lack of uniformity of Coast Artillery doctrine throughout the service, I think. Differences of opinion are natural and to be expected; changes and improvements in materiel and methods are to be hoped for and encouraged; but since a large proportion of the commissioned force of the Coast Artillery has been in the service but a few years, and many of these officers are just learning the game, and since one of the chief missions of regular officers is the instruction of the National Guard, Organized Reserves and R. O. T. C. units, it would seem to be of considerable importance that a closer agreement be reached as to fundamental principles. The ideas held by older officers will be extremely influential in forming the opinions of those who are new to Coast Artillery problems. Wide differences of viewpoint among experienced artillerymen cannot fail to result in confusion in the minds of beginners. The difference in viewpoint that exists at present is due principally to the fact that one class of officers believes that Coast Artillery methods should be improved along the lines of their experience in land warfare firing at fixed targets, and another class looks upon the two problems as fundamentally different.

The Coast Artillery Board has made a careful study of the problem of fire at moving targets and, in the project I have mentioned as in preparation, will submit the best solution that the combined efforts and experience of the members can produce. It doubtless will be far from perfect; bristle with flaws, perhaps, and possibly be fundamentally or totally unsound, but criticisms and suggestions are what is wanted. The more vulnerable it is, the more

likely it is to attract criticism, and some of that criticism will be constructive.

If no single item of the Board's proposals stand up, if there survive not a single vestige of the theories we assume are sound, nor the methods we suggest are improved, nor the gadgets we have sold to ourselves and tried to sell to the service; if every last one of our recommendations are junked, we still shall have been successful to a degree satisfactory to ourselves if sufficient interest shall have been aroused to result in a sound, practicable doctrine, and a general standardization of methods throughout the service, for the solution



MEXICAN WAR CANNON. FOR MANY YEARS IT OCCUPIED A CORNER OF THE PARADE GROUND

of this problem—effective fire at moving targets. It is the most important subject, I believe, with which we have to deal.

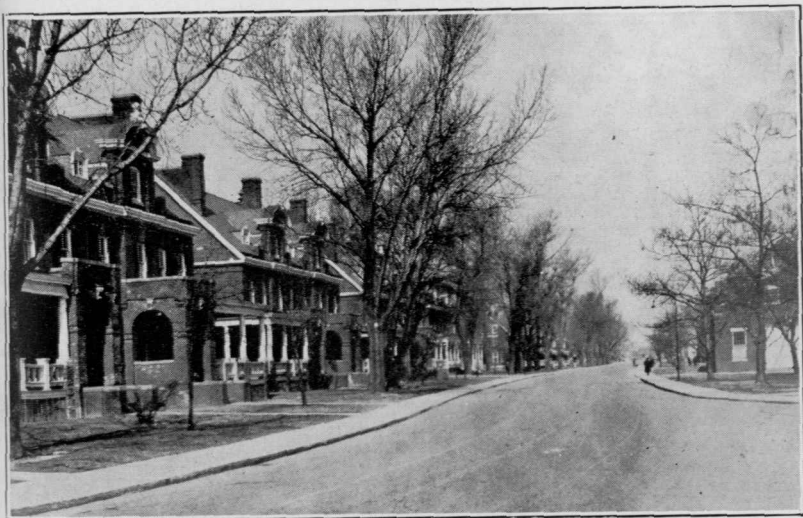
Some of you, I have no doubt, feel that I attach altogether too much importance to this problem of moving target firing—that I exaggerate.

Let us look at it for a moment from a viewpoint that may be different from your present one. Isn't it true that preparation for combat with naval and air targets is the primary function of our Corps? Is not that just exactly the job for which you and I are hired?

Any probable enemy intent on the invasion of our country must first secure mastery of the sea before he can approach our shores with forces of the composition and strength necessary for the accomplishment of his mission. His next, and by far the most dif-

ficult task of his entire enterprise, will be to obtain a foothold on the beach, and in that he will come in contact with the Coast Artillery, whether he launches his first attack from the sea or the air. If his preliminary attack is from the air he will be opposed by the anti-aircraft armament of the Coast Artillery Corps and by our own Air Service, and the latter will be the more effective weapon of defense.

But he cannot hope to manage a successful invasion or conquest with air forces alone. He must bring his battle fleets and transports. *Up to the time he reduces our harbor defenses, or effects a landing on the beach, the Coast Artillery Corps is the*



OFFICERS' QUARTERS, FORT MONROE

primary branch of the fighting service, and the others are secondary. Has not the Government a right to expect that we shall study the problem presented by a situation of this kind and adopt every possible means of preparation and training to defeat an overseas enemy while he is still afloat? Has it not a right to expect that we will be prepared to operate our fixed defenses and our mobile weapons to the maximum of efficiency for the defense of our harbors and our open coasts?

Has the Government not a right to expect that every Coast Artilleryman who draws an officer's pay shall give his best efforts to reach—not only *a solution*—but *the best solution* to the problem of bringing effective fire against naval and air targets?

It is true that military knowledge along other lines not only is desirable, but as necessary to us as it is to all soldiers, but we Coast

Artillerymen should not dissipate our energies to the neglect of our primary job.

It is true that a 100% fortification probably will never fire a shot because such a fortification will never be attacked, but a fortification that is ill prepared *may* be attacked—and successfully. Is it not our duty to provide our Government with 100% insurance against an enemy attack from the sea? Such preparation is a better guarantee against war being forced upon us than all the peace



THE POST HOSPITAL, FORT MONROE

treaties, all the disarmament conferences, and all the World Courts and Leagues of Nations that have ever been conceived of by a peace-loving people.

Consider an inefficiently manned fortification opposing the attack of a determined and well equipped enemy, an attack made at a time and under visibility and weather conditions of the enemy's own choosing, an attack made with ships capable of maneuvering at the rate of 1000 yards a minute, with facilities for making use of smoke screens and sinuous courses. Under such conditions the defense will face quite a different problem than you did when you fired at Bosche ammunition dumps in France, a problem that will require much more thoughtful preparation, and immeasurably greater skill in execution. The enemy ships may appear suddenly

and it is quite probable that they would be under our fire for a matter of minutes only.

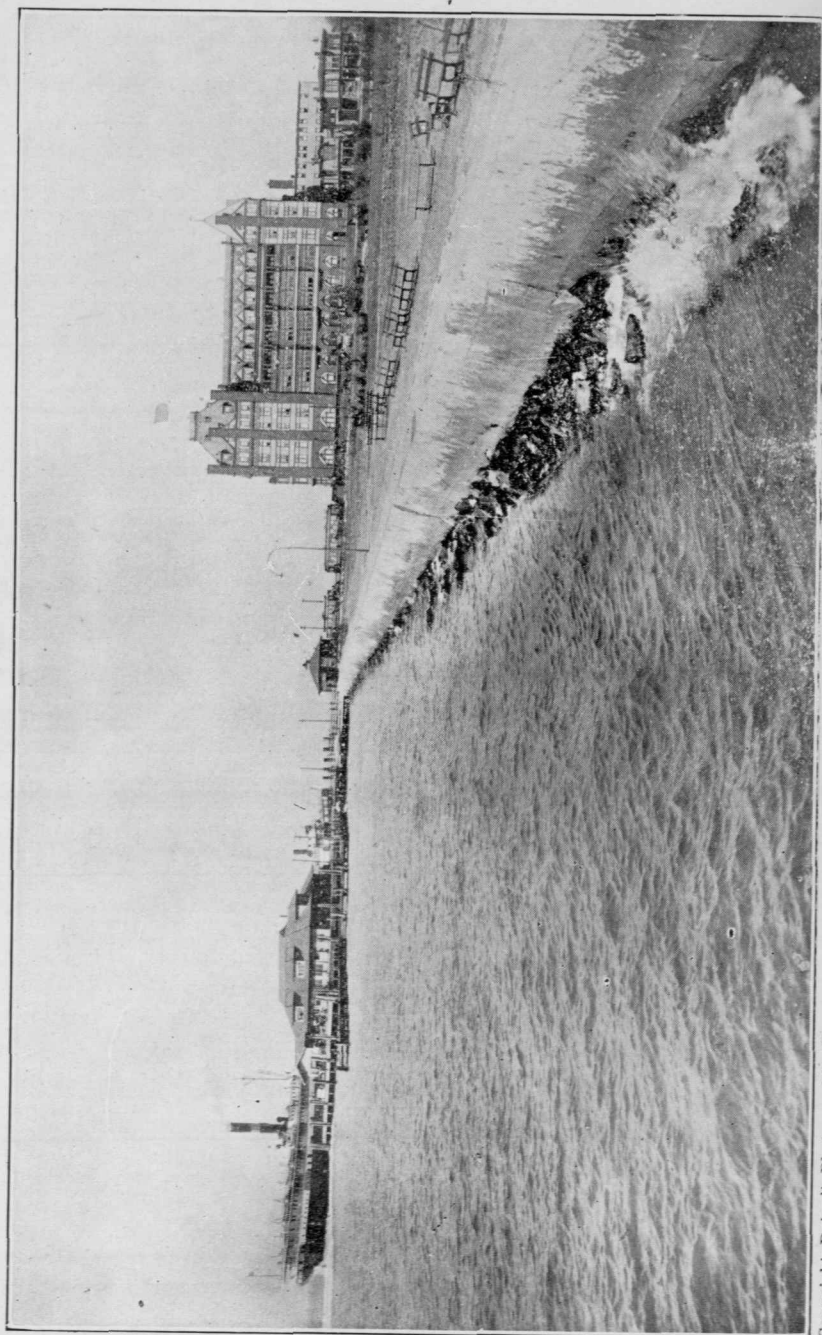
The Artillery commander whose plan of action is such that, after the moment for action against such targets has arrived, he will fire a shot, wait from 20 to 70 seconds for it to strike, then measure or estimate the deviation (not only from the target, but from the setforward point), determine the proper correction to apply to the next shot, by any of the methods of adjustment applicable to shoots at fixed targets, and then fire another shot, continuing the process until he arrives at a "trial elevation" (whatever a "trial elevation" for firing at a target moving 1000 yards a minute may mean)—accepting all this as merely the preliminary "phase" to that pretty fiction known as "improvement fire"—such action, I believe, suggests a very feeble notion of the problem he is up against. The real problem has about the same relation to the ammunition dump problem that some vast engineering construction project bears to the toy houses you built with wooden blocks when you played on the floor as a prattling babe.

In a defensive war we will have fixed targets to fire at only after the enemy has effected a landing—after his invasion is an accomplished fact—that is, *after we have failed in action against moving targets*. I believe that the Government has a right to expect we will devote the major portion of our energies to prevent such a failure.

I believe that any Coast Artillery officer who lacks interest in this problem, anyone who does not know as much about his job as he is capable of knowing, and who is not interested in finding the best solution to this problem, swindles the Government every time he puts his name to a pay voucher.

This latter part of my harangue has as its purpose the encouragement of additional interest in the problems before the Coast Artillery Board, for practically all our studies have a direct bearing on this particular problem, and we want every Coast Artillery officer to feel that they are his problems as much as ours.

The Coast Artillery Board, as at present constituted, has but a short lease of life, but I am positive I can speak for our successors as well as for ourselves, in requesting and urging your cooperation and assistance in the solution of any and all problems that are put up to the Board.



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THE CHAMBERLIN, MAIN DOCK, OLD DOMINION STEAMER, AND A SECTION OF THE SEA WALL, TAKEN ABOUT 1910

Establishment of the Coast Artillery School and its Operation Until the World War

EDITOR'S NOTE: *For a more complete history of the Coast Artillery School the reader's attention is invited to articles appearing in the July-August and September-October, 1915, JOURNAL OF THE U. S. ARTILLERY, entitled "Historical Sketch of the Coast Artillery School," by Major Robert Arthur, C. A. C. The following is extracted almost entirely from these papers.*

FOLLOWING the close of the War of 1812, the question of military education began to receive the attention of the military authorities; and in 1818 a board, consisting of General Bernard and Colonel McRee, was appointed to study and report upon the "considerations on the course of instruction necessary for the officers of the different arms of an army." The report, which was transmitted to the House of Representatives by the Secretary of War on January 29, 1819, advised strongly the establishment of schools of application, and, after discussing the question thoroughly, recommended that such schools be separate from each other and from West Point, and that they be not too far removed from the seat of government.

A site for the artillery school, Fort Monroe, was determined upon as embracing the advantages of climate, location and transportation facilities, and Colonel J. R. Fenwick, of the 4th Artillery, was chosen to command. He did not, however, join at once, so the labor of organization fell upon Lieutenant-Colonel Eustis, who was persistent in his efforts to start the school properly, and who had, by December, 1824, so far progressed that he was able to issue the following order, which seems to be the first prescribing any system of instruction.

ORDERS

No. 113

ARTILLERY SCHOOL OF PRACTICE,

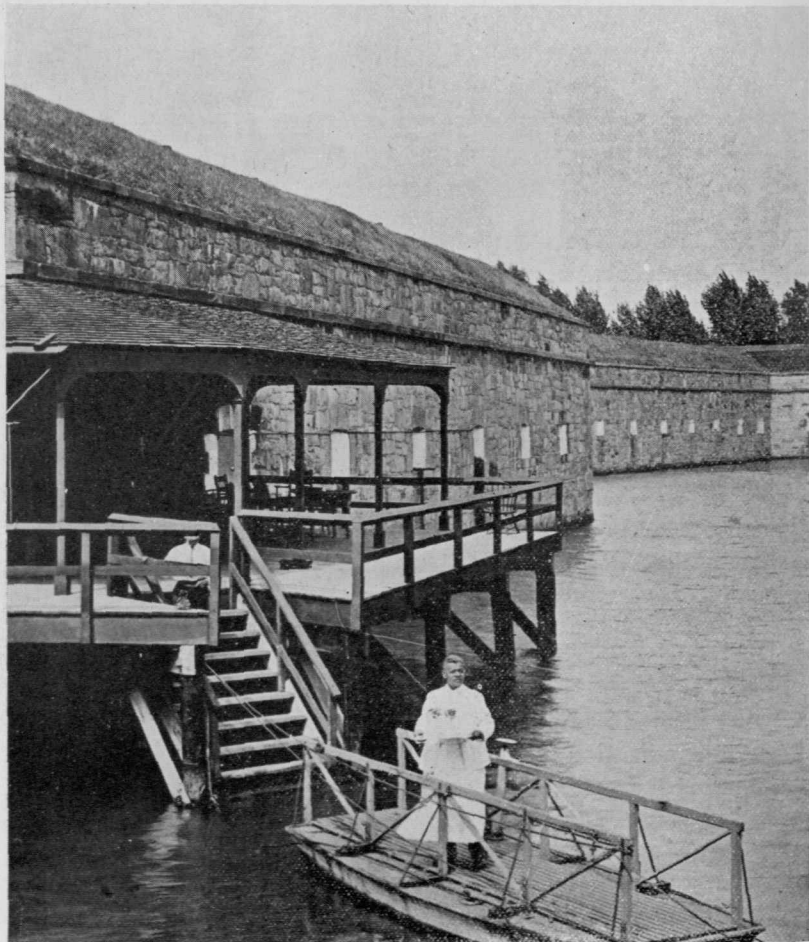
Hd. Qrs., Fortress Monroe, Dec. 12, 1824.

The following detail of service and instructions is adopted and will be continued until further orders, viz.: At dawn of day the reveille will be beaten, immediately after which the duties prescribed under the head of General Fatigue must be attended to.

Daily (excepting Sundays) at sunrise the troops will be formed as a Battalion of Infantry; a sufficient number of officers will be selected for instruction in the school of the Battalion, and all other commissioned officers off duty are to be instructed in the nomenclature and manual of Artillery and mechanical manoeuvres, by the Major or senior officer present. These exercises are to continue until half past eight o'clock.

At nine o'clock—breakfast.

At half past nine o'clock the assembly will be beaten and the troops will be formed into full companies, with three officers selected for each company, and be exercised either in the school of the company as Infantry, or in the mechanical manoeuvres and manual of Artillery, at the discretion of the senior officer present



KEENIE AND THE "MAID OF THE MOAT"

Keenie served drinks for forty years at the Officers' Club and is well remembered by the older officers of the Artillery and Navy for his wonderful mint juleps. Upon the arrival of prohibition Keenie applied for retirement and is today an honored pensioner of the Club. The "Maid of the Moat," like mint juleps, had to bow to progress and is today replaced by a foot bridge

on the parade. The remainder of the officers will attend the Artillery exercises under the direction of the Major until half past eleven o'clock.

At half past eleven the signal will be given for the Guard parade, two companies daily; a Captain as officer of the day; two Subalterns for guard, a subaltern as officer of police, to report at this hour to the Officer of the Day.

At twelve o'clock the commissioned officers who have been previously detailed will report themselves to the Captain of Ordnance to receive instruction in the duties of the Laboratory.

At three o'clock—Dinner.

At four o'clock the signal will be given for Dress parade.

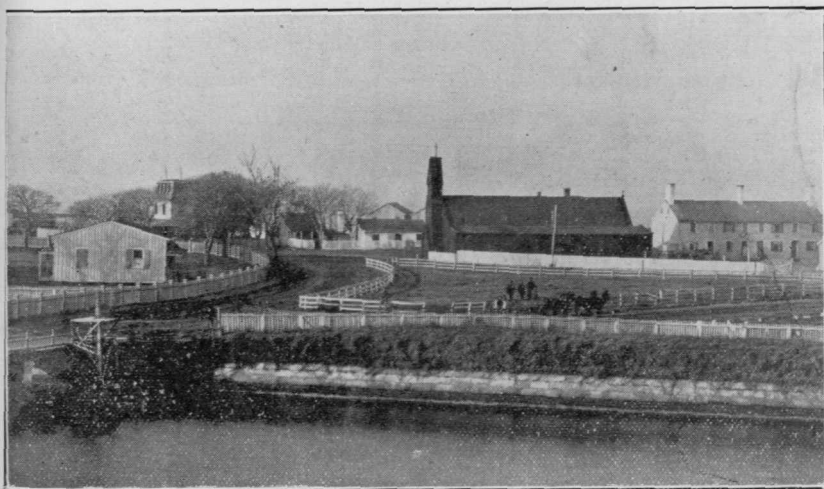
At nine o'clock the signal will be given for Tattoo.

On Saturday, when the weather will permit, the Troops will be reviewed by the Commandant, accompanied by the Staff of the School, and immediately after the parade is dismissed, the soldiers' barracks will be inspected.

Officers belonging to the companies of guard are excused from dress parade; but they are required to attend all other exercises.

BY ORDER OF THE COMMANDANT:

P. R. VINTON, Lt. and Adj.



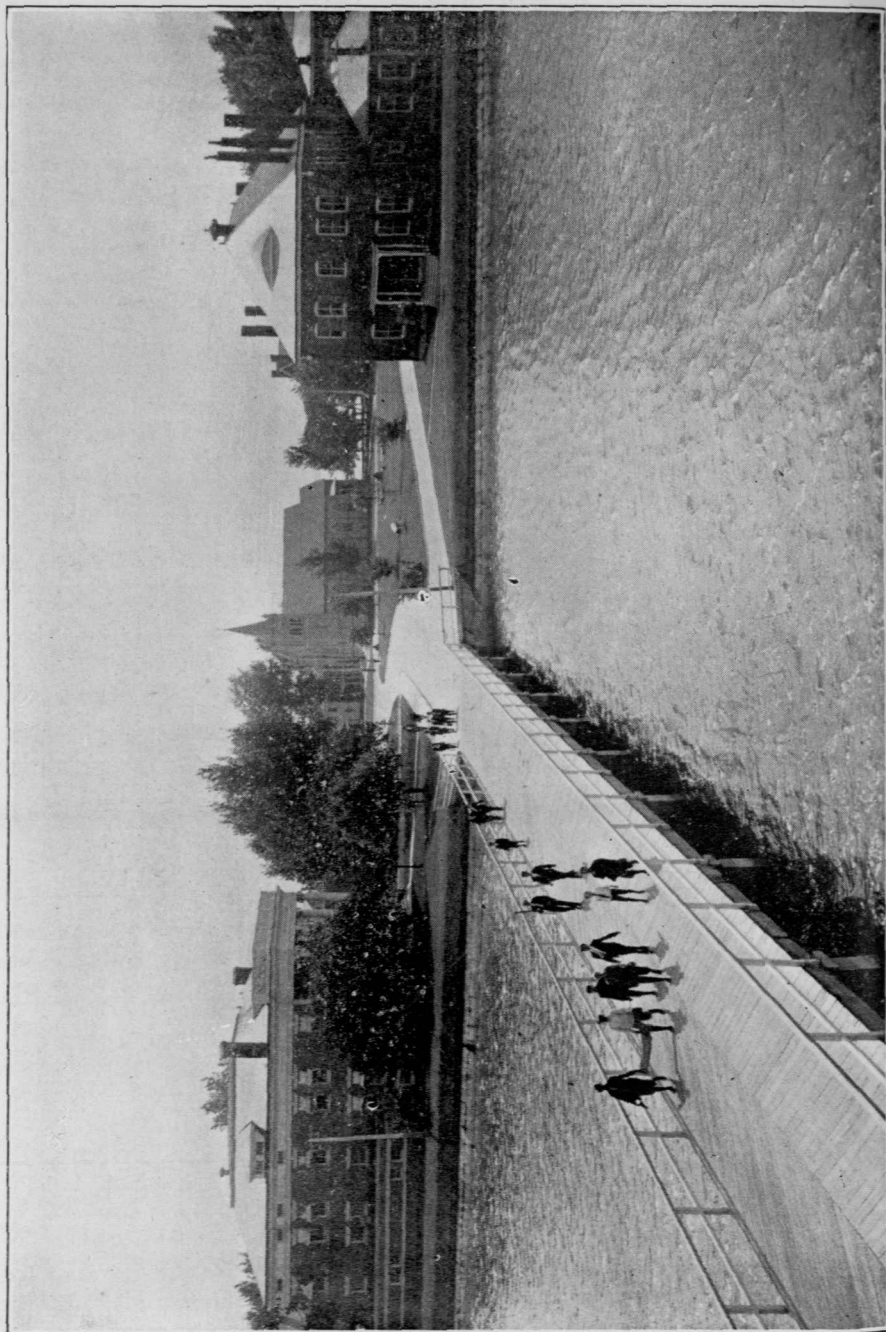
LOOKING WEST FROM MAIN GATE. TAKEN ABOUT 1870

At this time practically all artillery activities were carried on "within" the fort. This picture shows the post school (small one-story frame building on the left) situated on the present site of the Y. M. C. A. building; the Q. M. Corral, on the present site of C. D. Headquarters; the Catholic Chapel close to the site of the present Chapel; a boarding house that developed into the present Sherwood Inn; and, on the right, a building that was used as an Ordnance storehouse

An idea of what the instruction in the laboratory consisted of is given by Special Order No. 2, issued on January 17, 1825. This order says:

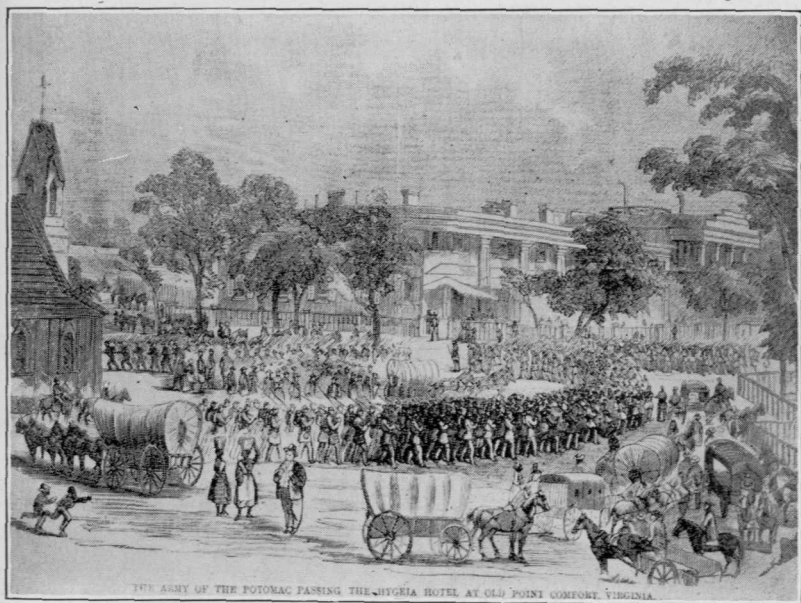
The course of instruction in the Laboratory for the week commencing 17th January will be confined to the preparation of ammunition for small arms, viz., casting balls and buckshot, cutting paper, forming the cylinder, filling, choaking, bundling and packing musket cartridges.

The officers under instruction are required to make memoranda of the weight and dimensions of balls, quantity of lead, powder, paper and thread required for any given number of cartridges; wastage in manufacturing, quality and size of



paper most suitable, etc., etc.,—dimensions of packing boxes or kegs to contain 1000 musket cartridges and their weight when filled, time and number of workmen required to complete any given number, etc., etc.

It is thus seen that the Artillery School opened with instruction which extended practically not at all beyond ordinary garrison duties. As organized, however, the personnel of the school was supposed to include at this time an instructor in mathematics, an instructor in engineering, an instructor in military drawing, and a professor of chemistry. By 1834 the School had been in operation for ten years, and at no time had it been able to approach the originally contemplated plans for instruction. Limited funds, lim-

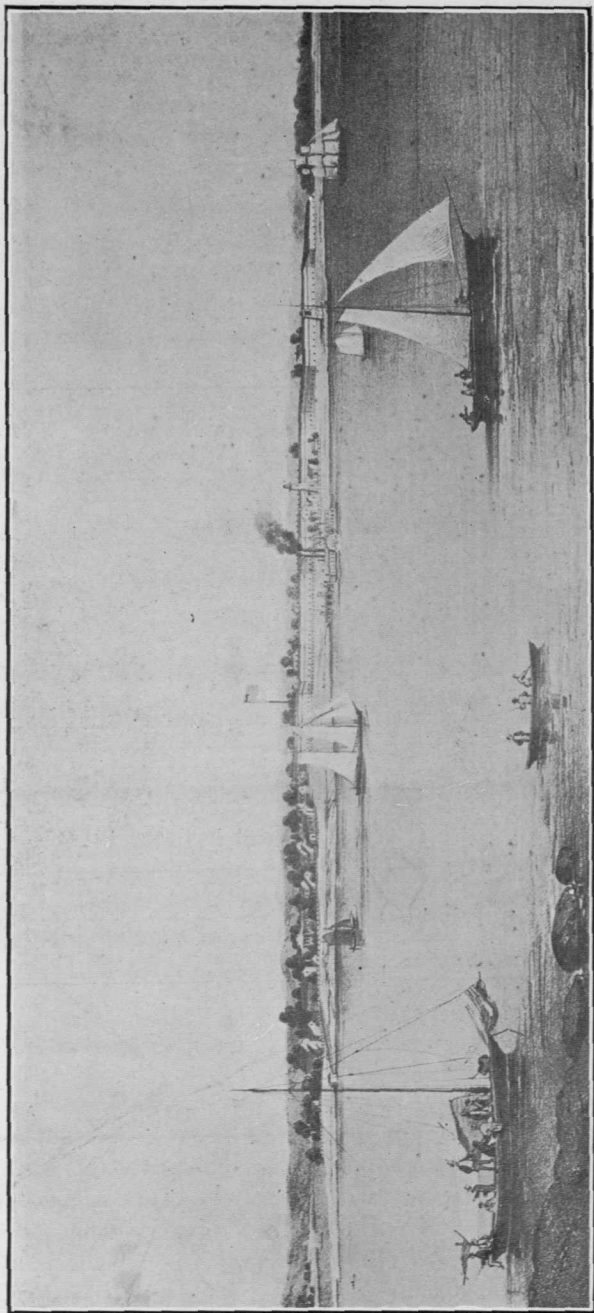


THE FIRST HYGEIA

Sketch made during the Civil War and published in Harper's Weekly

ited facilities, and, at times, limited personnel, had all operated against the best interests of the school. The instruction given had scarcely exceeded that which should have been found at any well regulated post; but, owing to the fact that Fort Monroe was the only artillery post of any considerable size, the benefits of the routine instruction under selected officers were considerable.

To Lieutenant-Colonel Eustis is due most of the credit for making a success of the school. This officer was in command from March 31, 1824, to November 12, 1828 (excepting for about five



FORT MONROE, 1857

months in the spring of 1825 when Colonel Fenwick commanded), and again from October 13, 1831, to the close of the school. His was the honor of organizing and opening the school. He entered the army at the age of twenty-two with the rank of captain, as one of the original appointments to the light artillery upon its organization in 1808, and remained connected with the artillery until his death in 1843, after thirty-five years of honorable and distinguished service. During the period from 1834 to 1858 the school was discontinued, this because no troops were available, they being used elsewhere because of slave uprisings, Indian wars, political disturbances, and the Mexican War.

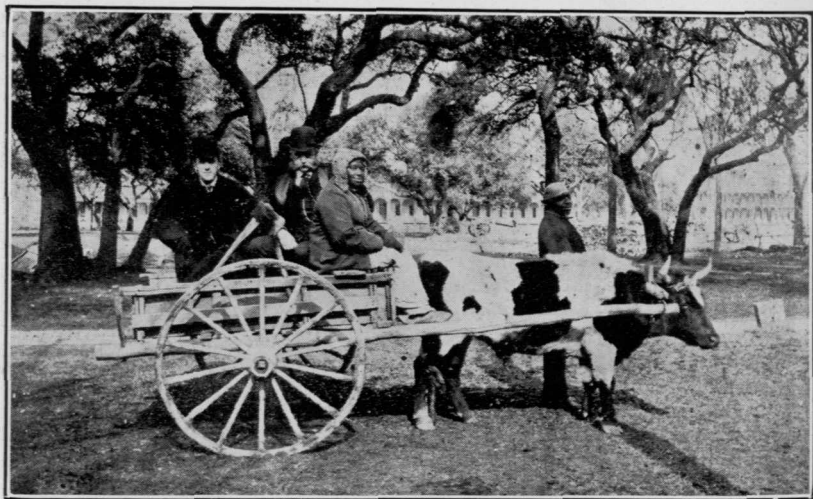


THE HOME OF THE COAST ARTILLERY SCHOOL FROM ABOUT 1880 TO 1909

The tower was added to the building in order to house one of the first searchlights ever used in Coast Defense

As soon as it became evident that troops could be made available for school duty, General Orders No. 9 were issued from the Headquarters of the Army, New York, dated October 30, 1856. This order directed "Companies M, 2nd Artillery; C, 3rd Artillery; and G, 4th Artillery, to be discontinued as light artillery companies, and, together with Company I, 1st Artillery, to be hereafter designated as garrison, seacoast and siege artillery. They will be concentrated at Fort Monroe, Virginia, and form a school of practice for service with heavy guns."

It took but a short time to organize the school, and the organization and the regulations of the school were published to the army in General Orders No. 5, War Department, May 18, 1858. This order provided that "there shall be established, at Fort Monroe, for the theoretical and practical instruction of Artillery, a school, to be termed **THE ARTILLERY SCHOOL;**" and that the school should consist of the officers and companies of the garrison at Fort Monroe, with the senior officer as Commandant. The Commandant was to be assisted by a field officer of artillery; and these two officers, together with the captains of artillery on duty at Fort Monroe, and the commander of the Fort Monroe Arsenal, were to form the "staff" of the school. The garrison was to consist of two companies from each of



THIS OLD MAMMY SOLD PIES TO THE SOLDIERS AT FORT MONROE FOR MANY YEARS

the four regiments of artillery and these companies were to be stationed at the school for two years, one company from each regiment being relieved each year. All graduates of the Military Academy were to be ordered to the school for a year before joining their regiments.

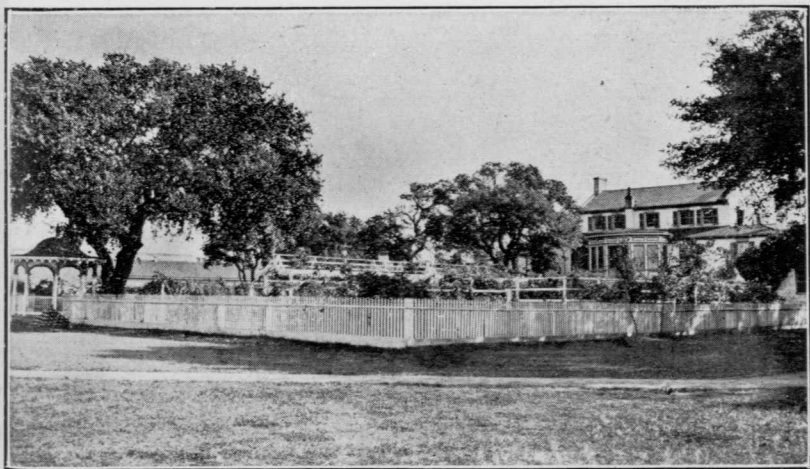
The Artillery School, as organized, had a much more ambitious scheme of instruction than did the school which had been organized in 1824. It was destined, however, not to endure as long as had its predecessor, for it had been in existence for scarcely three years when it was effectually broken up by the outbreak of the Civil War. During this short time but two officers had served as Commandant. Brevet Lieutenant-Colonel Harvey Brown had relieved Brevet Lieutenant-Colonel M. Burke, in command at Fort Monroe, in the latter

part of the year 1857, and had organized the school. He was in turn relieved by Brevet Colonel Justin Dimick in 1860.

Following the Civil War, the school was again opened in 1868, with Colonel and Brevet Major General William F. Barry, as commandant. Instruction included:

First—Practical instruction in the construction and service of all kinds of artillery and artillery material, and in gunnery and mathematics, as applied in the artillery service.

Second—A series of lectures on the organization, use and application of artillery; the duties of artillery troops in campaigns and sieges; the construction of guns and carriages, and other artillery material; military law and military history.



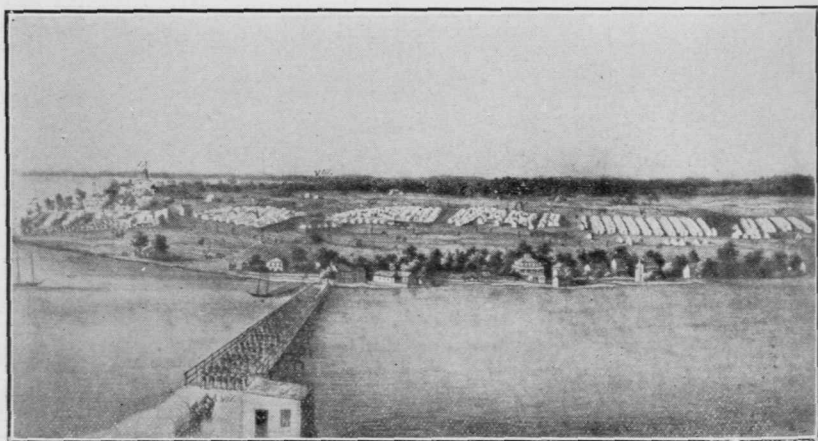
FOR MANY YEARS THE QUARTERS OF THE COMMANDING OFFICER. A SMALL FRAME ONE-STORY BUILDING THAT STOOD NEARBY WAS USED AS POST HEADQUARTERS

Third—Such classes of elementary instruction, for officers and enlisted men, as might be established by the staff, to be attended principally during the winter half of the year. Notes were to be taken on all lectures and these formed the basis of notebooks of that time and for a good many years following. There was to be at least one examination annually. The lieutenants of the instruction batteries were to be relieved by others every year, and, after final examination, each was to be “furnished with a certificate setting forth his standing and efficiency as an artillery officer.” A failure to obtain a satisfactory certificate was to be a bar to promotion until, after further instruction, the officer passed the examination. This last regulation, while it remained in the regulations of the school for a good many years, was never strictly enforced.

There was a daily parade, and the batteries drilled twice daily for an hour and a quarter. During the hours of drill the band and field musicians were required to practice. On Friday afternoons the instruction was in infantry drill exclusively, by company or by battalion, as the commanding officer might designate. On Saturdays there were no military exercises, except the mounting of the guard, the day being given up to police of the post and barracks.

The month of August was devoted principally to mounting 15-inch guns, for which platforms had been arranged, and to laying 13-inch mortar platforms.

The assignment of the companies to the guns was by the month, the companies rotating, and at the end of each month the superin-



THE PRESENT SITE OF PHOEBUS

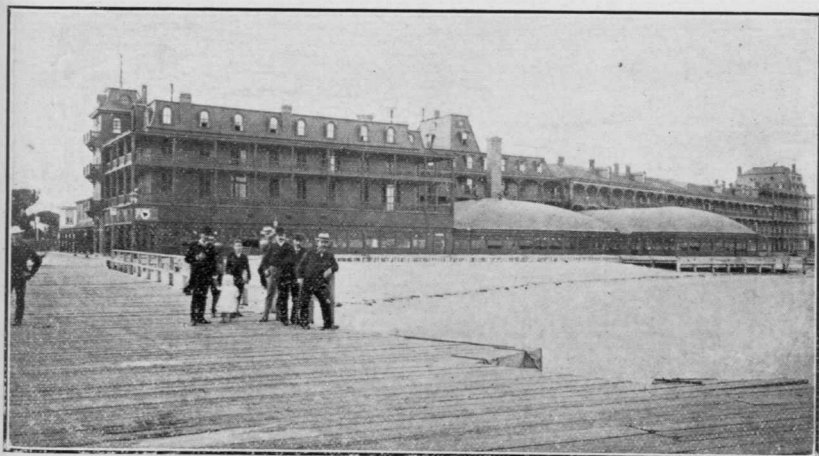
Looking north from Fort Monroe. Used by the Federal Forces as a camp during the Civil War

tendents of instruction submitted detailed reports to the Commandant covering the instruction for that month. A monthly examination of the non-commissioned officers was made by the commanding officer of the school in person, and a report, together with his remarks as to the proficiency of each man, forwarded to the Adjutant General of the Army.

September was set apart for target practice with the different pieces, and for laboratory work. For practice with the field and siege guns, a target 12 feet square was set upon the beach at a measured distance of 1510 yards for rifled guns and 1110 yards for smooth bores. In connection with the target practice, plane tables were used, as also were Benton's ballistic pendulum, Schultze's

chronoscope for obtaining initial velocities, and Rodman's pressure plugs for ascertaining initial strains.

By 1875 practically all of the lieutenants of artillery and a few officers from other branches of the service had received instruction at the Artillery School. As the courses were more fully developed, it was recognized that one year was insufficient for the complete instruction of student officers, when so much of their time was taken up in routine post duties such as courts-martial, boards, guard duty, etc.; and consequently the course was extended to two years by General Orders No. 89, War Department, 1875. Many things were dropped out of the course as being too elementary, and other things, such as signalling and telegraphy, foot and mounted reconnaissance,



THE SECOND HYGEIA HOTEL, AS SEEN FROM THE MAIN DOCK.

*Constructed about 1870 and added to from time to time. Torn down about 1901
It stood directly across the road from and east of the site of the Hotel Chamberlin*

etc., were added. The extended course was divided into the general subjects of Artillery, Infantry, Mathematics, Engineering, Law, and History and Strategy, and, with the additional time available, each subject was considerably broadened. This was especially true of field and permanent fortifications and of laboratory work.

The lack of suitable professional literature covering in a satisfactory manner the subjects taught at the school, made it necessary for the various instructors to prepare pamphlets or text-books on their subjects. During these years (1870-1890) many articles were published at the Artillery School, some specially prepared for the school by the instructors, and others prepared by student officers in connection with their theses or essays. From a long list of such publications may be mentioned *Practical Surveying*, *Surveying*

Instruments, Roads and Railroads, Military Bridges, Permanent Fortifications, and Temporary Fortifications, by Captain Chester; *Exterior Ballistics, Ballistic Machines, and Notes on Meteorological Instruments*, by Captain Ingalls; *Chemical Manipulations and Practical Problems in Minor Tactics*, by Lieutenant Wisser; *Method of Calculating Coefficients of Deviations*, by Lieutenant Whistler; and many others which were found to be extremely valuable at that time. Later came Walke's *Lectures on Explosives* and Ingalls' *Ballistic Tables*. Some of the officers who took the course during the period in question state that they found the study required and the information obtained in the preparation of essays, theses, etc., to be fully as valuable as that of any other part of the course.



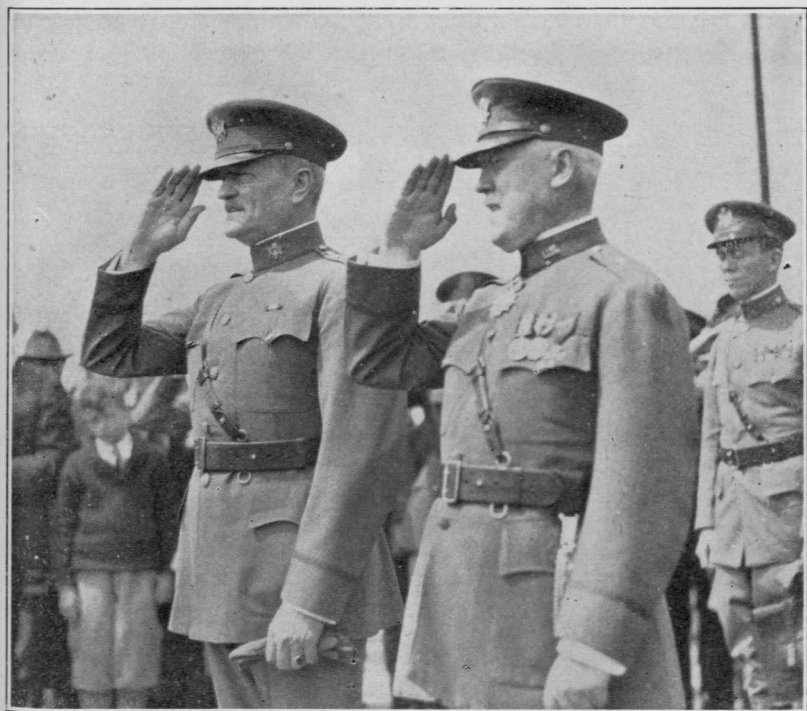
A SECTION OF THE OLD WATER BATTERY TAKEN ABOUT 1885

It extended for several hundred feet on the sea side of the Fort, but has since been torn down

In 1883 a Department of Ballistics was added to the course, with Captain J. M. Ingalls in charge. This officer prepared a textbook on exterior ballistics which was accepted and approved by the staff in May, 1883, and which was then published at the school. This is said to be the first work on exterior ballistics published in North America. Revised editions were published in 1885 and 1886 and the work continued to be the standard treatise of exterior ballistics for a number of years.

Early in 1892 several members of the class then receiving instruction expressed a desire to undertake the publication of an artillery journal, which should be a medium for the exchange of thought and the discussion of artillery questions by artillery officers and others interested in such questions, as well as a means of dis-

tributing the latest information on artillery subjects obtainable in this and other countries. The want of such a journal had long been felt, and it was thought that, if the initiative were taken, it would meet with a cordial response. The scheme was approved by the staff, and the facilities of the school press were made available for the journal's publication, other expenses being borne by subscribers. Receiving the hearty support of the Commandant, the *JOURNAL OF THE UNITED STATES ARTILLERY* made its first appearance as a



GENERAL J. J. PERSHING AND BRIGADIER GENERAL WILLIAM R. SMITH

quarterly under date of January, 1892. The *JOURNAL* was a success from the start and soon came to be recognized as one of the world's leading publications on artillery matters.

During all the years immediately preceding the outbreak of the Spanish-American War, the school progressed smoothly, without serious interruption of any sort, and without much change in the personnel of the staff. The instruction companies were more or less permanent, as were the instructors and the staff, so that the change during any one year was scarcely perceptible. General Barry had

given way in 1877 to Colonel George W. Getty, who served as Commandant until he was relieved by Colonel John C. Tidball in 1883. This officer remained in command until 1888, when Colonel Royal T. Frank succeeded to the command, which he retained until the war.

Changes in the system of instruction were along the lines of progress, especially in the later years when the equipment began to be modernized. For a good many years the school had been hampered by lack of modern equipment, the student officers studying smooth-bore guns long after rifled guns had been adopted throughout the world. This was all being remedied and much new equipment had been received at Fort Monroe, when the war with Spain interrupted the operations of the school.



CARROLL HALL—LOCATED ON THE PRESENT SITE OF THE MAIN GUARD HOUSE
Jefferson Davis was quartered here after being removed from the Casemates

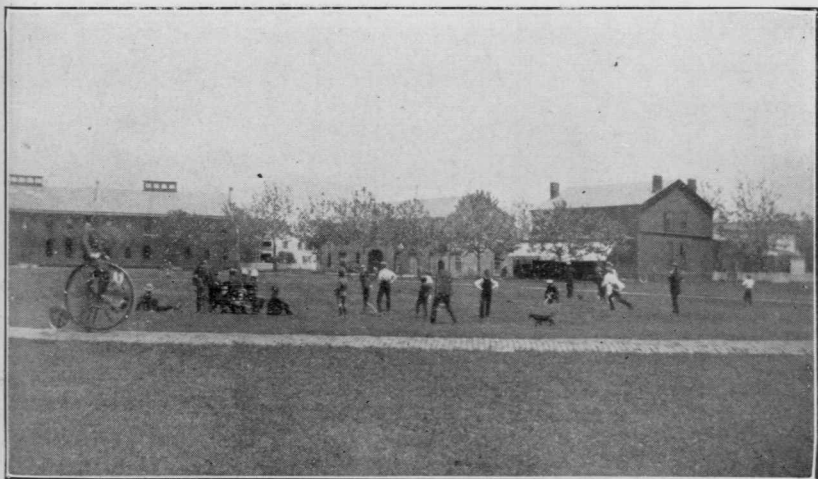
The services of the student officers and of the instruction batteries were required elsewhere; so, by direction of the Adjutant General of the Army, the class was graduated and the operations of the school "temporarily suspended" on March 28, 1898.

The school had been in practically uninterrupted operation for thirty years, and had graduated nineteen classes, eight during the period of one-year courses and eleven during the period of two-year courses. Practically all of the lieutenants of the artillery had taken the course at the school, many of them returning a second time; and not infrequently other branches of the services were represented in the classes. Even the Navy and Marine Corps had been represented.

In 1897, after the Artillery School had been in operation for some thirty years, the War Department decided to effect its com-

plete reorganization; and work along this line had been carried to the drafting of a code of regulations and its submission to the Adjutant General, when, in the spring of 1898, the Spanish-American War necessitated a suspension of all school duty and the withdrawal of the greater part of the personnel. This interruption continued for some time, and it was not until the spring of 1900 that the War Department felt free to reopen the school.

The personnel consisted of the commandant, the adjutant, and the instructors and assistant instructors, in addition to the troops and the student personnel. The school was organized into five departments: (1) Ballistics and seacoast engineering; (2) Electricity, mines and mechanism; (3) Artillery, chemistry, and



A SECTION OF THE PARADE GROUND—TAKEN FIFTY YEARS AGO

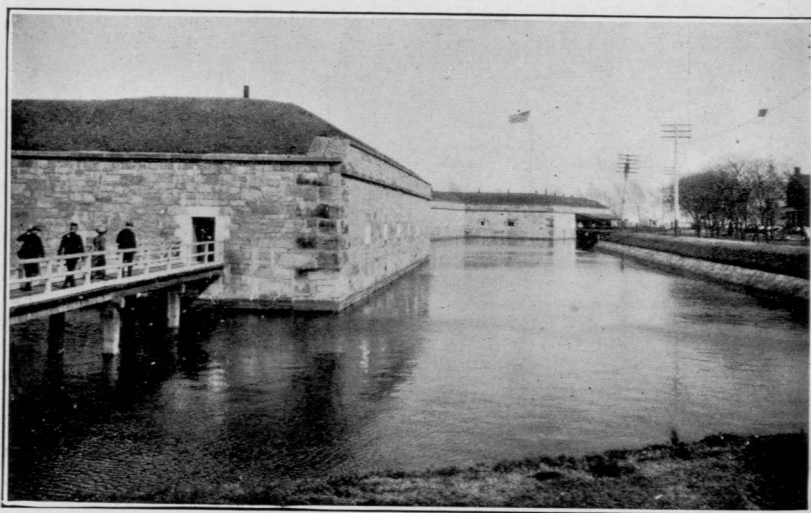
explosives; (4) Art and science of war; and (5) Special courses, including customs of the service, usages, property returns, correspondence, regulations, etc., and the actual performance of all the different duties of an officer at a post.

The school board, consisting of the Commandant as president and the heads of the various departments as members, was required to meet at least once a week during the course of instruction. The Commandant was required to submit quarterly reports to the Adjutant General, this regulation, however, being modified in a short time so as to require annual reports only.

The school for enlisted men consisted at the start of only a "school for electrician sergeants." This school had been established at Fort Monroe on December 22, 1899, and was made part of the

Artillery School by General Orders No. 71, A. G. O., 1900. It did not remain long a part of this school for, in 1901, pursuant to General Orders No. 157, A. G. O., 1901, it was made part of the School of Submarine Defense and transferred to Fort Totten.

The Artillery having been charged with the care and use of submarine mines and torpedo defenses by the Act of February 2, 1901, it was decided by the War Department during the following summer to transfer the United States Engineer School, at which all instruction relating to submarine mining and torpedo work had formerly been given, from Fort Totten, N. Y., to Washington Barracks, D. C., and to establish a torpedo school under charge of the Artillery at Fort Totten. This was accordingly done, and the



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POSTERN GATE AND MOAT

The Officers' Club is in the Casemates almost directly under the flag. For several months after his capture, Jefferson Davis was imprisoned in No. 2 Casemate (the second port hole to the right of the corner nearest the reader)

School of Submarine Defense, Major Arthur Murray, Commandant, was instituted in October, 1901.

The separation of the Coast and the Field Artillery in 1907 brought about a reorganization of the Artillery School under the name of "The Coast Artillery School." The departments became:

1. Department of Artillery and Gun Defense, including Artillery proper; Artillery Defense; Explosives; Ballistics; Artillery Defense (advanced); Explosives (advanced).
2. Department of Electricity and Mine Defense, including Submarine Mining; Submarine Defense; Power; Electricity; Power (advanced); Electricity

(advanced). 3. Department of Enlisted Specialists, including instruction for electrical specialists (electrician sergeants); mechanical specialists (firemen); and artillery specialists (master gunners). Each department was placed under the direction of a field officer who was known as the director of that department, and the directors, together with the Commandant, constituted the School Board.

In 1909 new school buildings for the officers' division and for the enlisted men's division of the school and a new building for a library were completed, and the school and library moved from the old into the new buildings. In this same year was organized, under the Act of Congress approved March 3, 1909, a detachment of seventy-five enlisted men of various grades at the Coast Artillery School to give the assistance and to perform the duties in connection with the school which had prior to this time been performed by men detailed from the Coast Artillery at large. This order went into operation on July 1, 1909. Another step in advance made this year was the detail, in February, of a Secretary for the school, who relieved the Adjutant of the Artillery District of Chesapeake Bay of all duties pertaining to the school, including disbursements and the command of the School Detachment and of the Detachment of Casuals. The changes made during this year separated the Coast Artillery School almost entirely from the post of Fort Monroe.

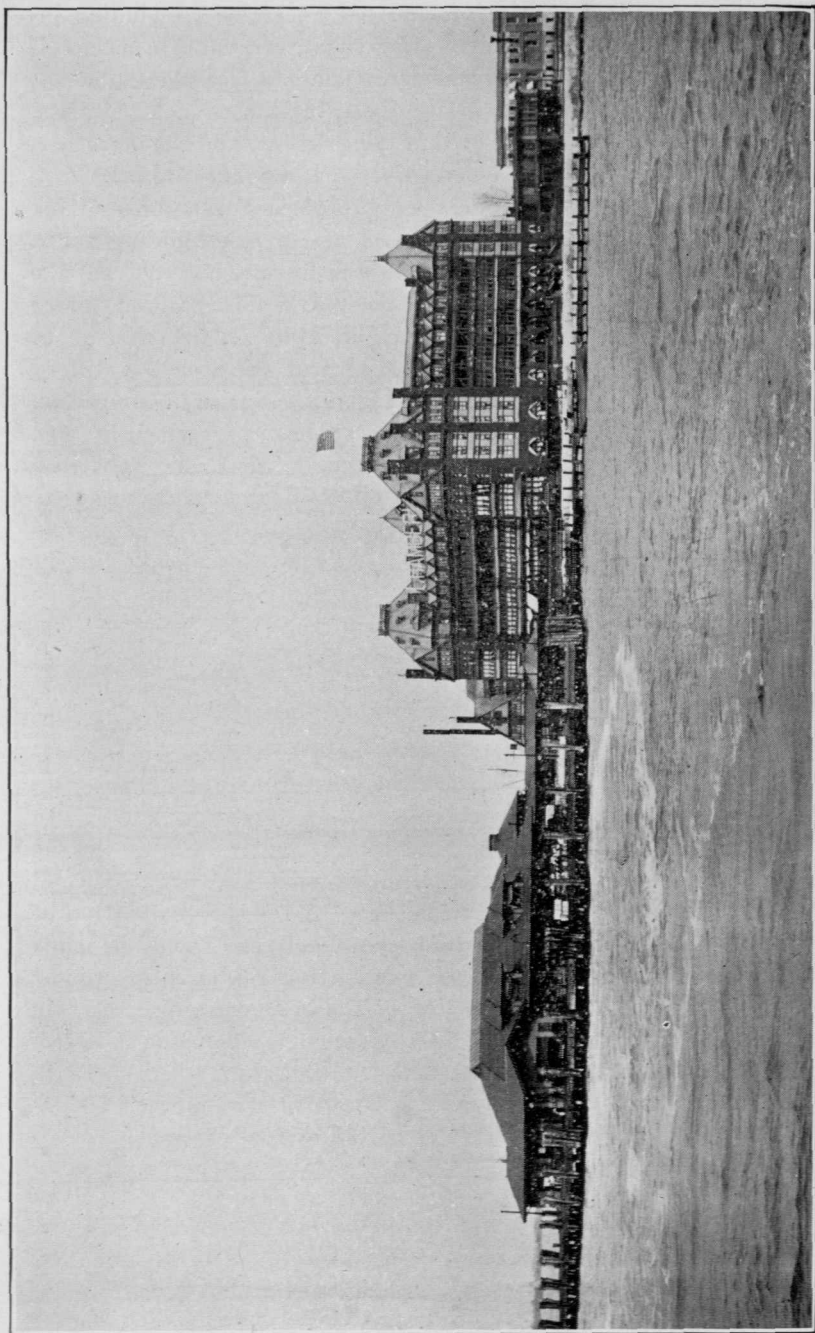
Since 1909 the changes made at the school have not been considerable. In 1910 the departments became known as the Department of Artillery and Land Defense, the Department of Engineering and Mine Defense, and the Department of Enlisted Specialists. In 1911 an advanced class was added to the Artillery Course in the Department of Enlisted Specialists, and in January, 1912, a special course in radiotelegraphy was established. After the graduation of the class of 1912 it was ordered that the school year should be made coincident with the calendar year, graduation taking place on or about November 30. The operation of the law requiring a certain amount of company duty from all company officers made it necessary to relieve the members of the advanced class in December, 1912, and to discontinue for a time all advanced instruction; and since that date the regular classes have consisted of forty members.

The Coast Artillery School During the World War

IN CONSIDERING the history of the Coast Artillery School and the Coast Artillery Training Camp during the war, it is convenient to divide it broadly into three parts. The first begins with the initial training camps for civilians in which the Plattsburg idea was applied to the problem of rapidly producing trained officers for the new armies, and includes the first, second, and most of the third Coast Artillery Training Camps. It ends near the conclusion of the third camp, with the return of Lieut.-Colonel Sunderland and Major Welshmer from the Heavy Artillery School in France and the consequent changes in organization and instruction which turned the camp from a Coast Artillery School into a Heavy Artillery School. The second period, in which the curriculum was definitely linked up with French conditions, includes the end of the third camp and more particularly the fourth and fifth. The third period begins with the organization of the Training Center under the command of Brigadier General F. K. Fergusson, and the inauguration of the Continuous Camp.

In one respect, the task of the first camp was simpler than that of some of its successors. All its students had been through five weeks of the intensive infantry drill of the general training camps before turning to artillery and there were no recruits, raw from civil life, to learn trying foot movements and ballistics all at the same time.

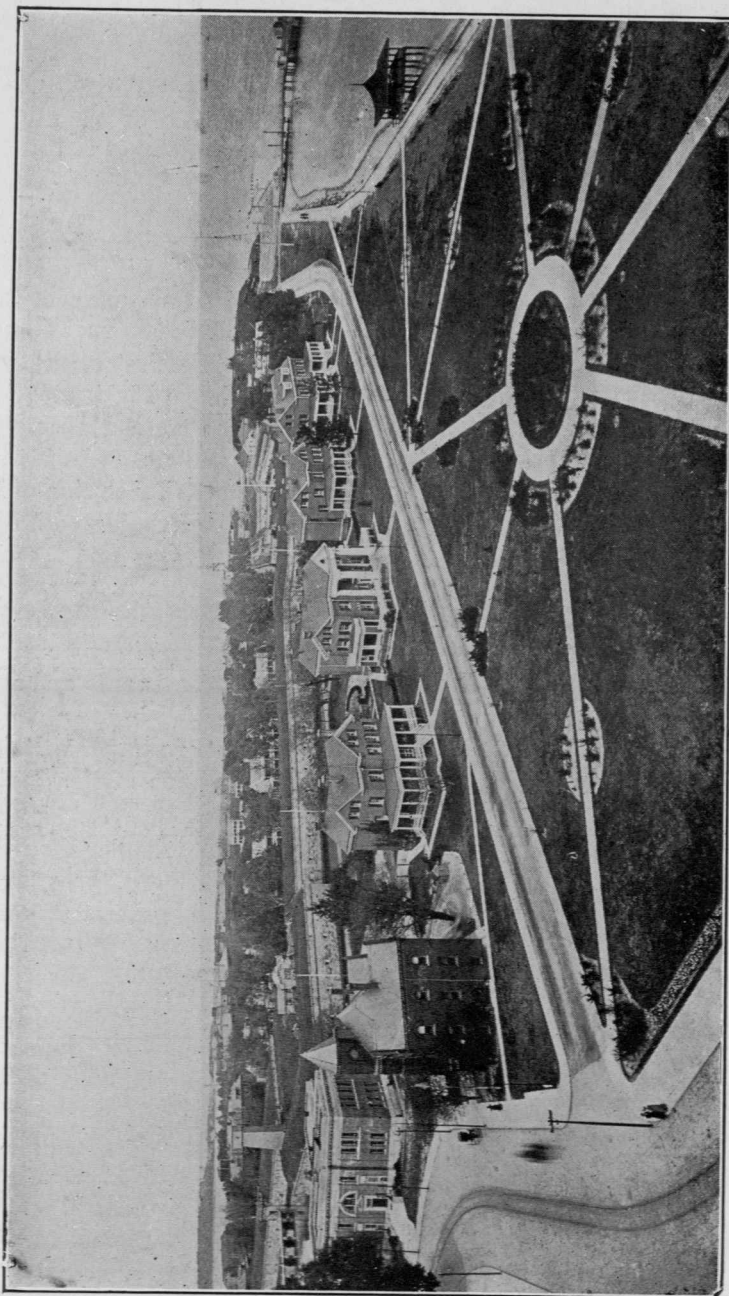
Twelve hundred candidates were assembled at Fort Monroe on June 18, 1917, to begin the first war course in Coast Artillery. Two hundred others from the Presidio of San Francisco were sent to Fort Winfield Scott, where a separate training center was maintained during the first and second camps. The scheme proved unsatisfactory, and after the end of 1917 all officer candidates in the Coast Artillery were concentrated at Fort Monroe. The camp at Fort Monroe, in accordance with the instructions of the War Department, was commanded by Colonel S. M. Foote, Commanding Officer of the Coast Defenses of Chesapeake Bay.



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THE HOTEL CHAMBERLIN

Opened to the public 1896; destroyed by fire 1920. The store of Mr. J. B. Kimberly, also destroyed by the same fire, is to be seen at the right



THE QUARTERS OF THE COMMANDING GENERAL AND HIS IMMEDIATE STAFF. THE LIBRARY BUILDING, HOME OF THE JOURNAL, IS SHOWN AT EXTREME LEFT

The accommodations of the Coast Artillery School were of course far too scanty to take care of this tremendous influx. The garrison of Fort Monroe, much reduced by the organization of a provisional brigade for overseas service and the sending of two companies to guard the White House, was moved out of its barracks in the Old Fort and sent into tents on the beach, and the candidates were moved in.

The instructors of the First Camp were Regular officers, assisted by sergeants and master gunners. Only the heads of departments were attached to the Coast Artillery School.



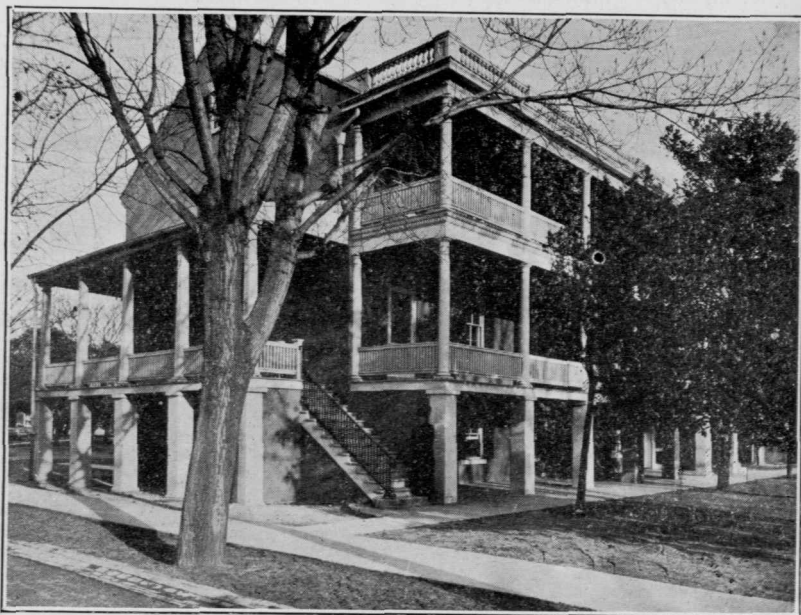
LEFT TO RIGHT: Maj. Gen. F. W. Coe, Brig. Gen. J. P. Jervey, Maj. Gen. C. H. Muir, Rear Admiral McDougall, Gen. John J. Pershing, Mr. W. S. Copeland, Maj. Gen. C. L. Bailey, Representative W. F. Lineberger, Maj. Gen. E. A. Helmick, Maj. Gen. C. P. Townsley, Rear Admiral Roger Welles, Brig. Gen. W. R. Smith

The work in the first camp was divided broadly into three periods of nine working days each, followed by three or four days of lectures on a variety of subjects, and then by a ten-day period of target practice.

As the military program of the United States began to develop, it soon became obvious that a second series of training camps for civilian candidates for reserve commissions would be needed. The revised Special Regulations No. 49, published on August 15, 1917, showed some important differences in plan between the first and second series, though in broad outline they were alike. The uniform "First Period" for candidates in all branches of the service was

abandoned. Separate courses for Infantry, Cavalry, and Field Artillery were arranged, and while the Coast Artillery contingents were to take a four weeks course of instruction with the Infantry, they were from the beginning of the camp organized into separate companies.

Accordingly the "First Company, Fort Monroe Training Camp" was established at Plattsburg, the Second Company also at Plattsburg, the Third at Fort Niagara, the Fourth at Fort Myer, the Fifth, Sixth and Seventh at Fort Oglethorpe, the Eighth and



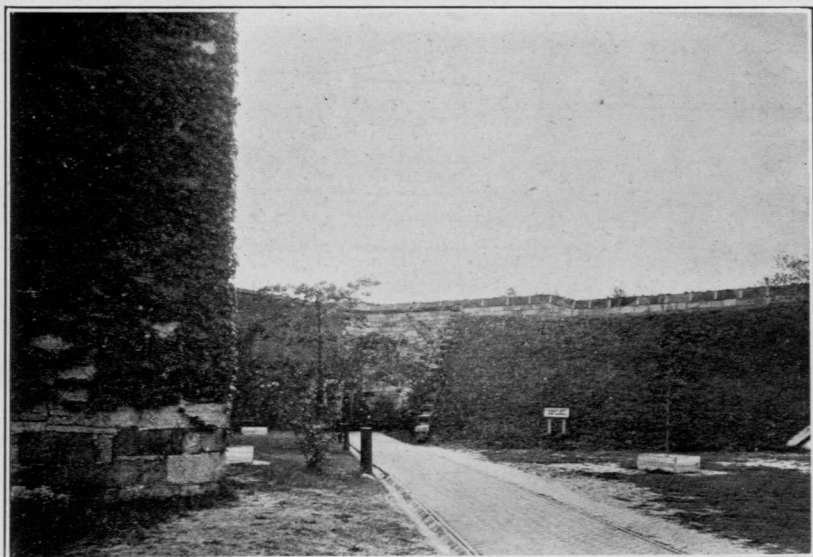
THE TULLERIES—ONE OF THE OLDEST SETS OF OFFICERS' QUARTERS

Ninth at Fort Benjamin Harrison, the Tenth, Eleventh and Twelfth at Fort Sheridan, and the Thirteenth at Fort Snelling. The First Company, Fort Winfield Scott Training Camp, was established at Leon Springs, the Second and Third Companies at the Presidio of San Francisco.

To each of the training companies destined to complete their work at Fort Monroe were sent a captain and two lieutenants (the latter graduates of the First Camp) from Fort Monroe. The infantry instruction and preliminary training of these candidates was thus in the hands of Coast Artillery officers.

While the candidates of the Second Camp were receiving this training about fifty instructors recruited from the graduates of the

First Camp were taking a rigorous normal course to prepare for the work of the two months at Fort Monroe. Obviously the Coast Artillery could not afford to detain as instructors a sufficient number of Regular officers to man the whole camp. It was therefore necessary to build up an instruction staff out of the new officers and to renew this at the end of each training camp so that the doubly trained officers of the "faculty" might be progressively released for overseas service. This theory was maintained throughout the successive camps, though as a matter of practice there were many officers



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APPROACH TO POSTERN GATE

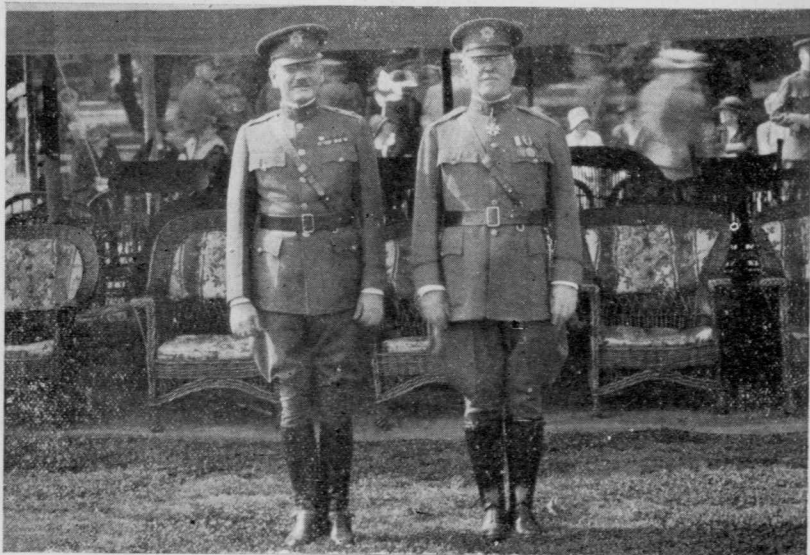
whose efficiency as instructors and in administration of the School, led to their being retained during several camps or even up to the bitter end.

Meanwhile the Coast Artillery Corps as a whole was being greatly enlarged. A memorandum from the Chief of Staff dated November 1, 1917, directed the formation of Training Units, Coast Artillery Corps, National Army, and stated that the Coast Artillery Corps, N. A., would be "progressively increased, to begin immediately, to approximately 70,721 officers and enlisted men in each Army of the American Expeditionary Forces in Europe."

The Second Camp had ended on November 22. During the month of December about 250 provisional second lieutenants com-

missioned from civil life were on duty at Fort Monroe, receiving a month's infantry training before entering the artillery camp. They were joined on January 5 by about 350 candidates, enlisted men from the Coast Defenses, the total enrollment of the camp being 613. Of the 350 enlisted men, not more than 50 were professional soldiers.

The Third Camp was a small one, but nobody who experienced the temperatures which characterized the winter of 1917-18 wonders that even the muster roll contracted. The Bay froze over. At the batteries the command "remove—ice!" had to be injected into the proceedings before the guns could be tripped. The candidates



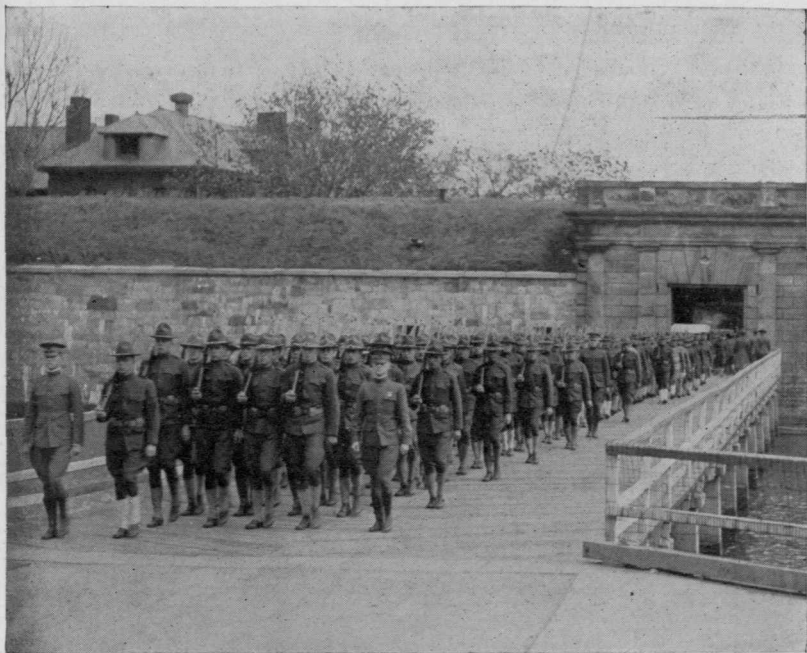
THE CHIEF OF COAST ARTILLERY AND THE COMMANDANT, COAST ARTILLERY SCHOOL

quartered in the long barracks, who had to brave the outer air to reach the wash houses, wasted no water. A certain section was scheduled to study a seacoast battery for thirteen days; on all but two the guns were effectively camouflaged by blizzards and storms.

In the middle of February, 1918 General Sunderland (then Lieutenant-Colonel) and Colonel Welshmer (then Major), who had been on duty at the Heavy Artillery School of the American Expeditionary Forces at Mailly-le Camp, returned to Fort Monroe. With them came Captain Georges Charruey and Lieutenant Pierre Villemer, of the French Artillery. In March there also arrived the 8-inch howitzers and 6-inch wheel mount guns for which successive commandants had been praying. Thus the School gained almost at one

stroke the American officers who had become familiar with French methods, the French officers, and the heavy mobile materiel, which, as Major Wallace had pointed out six months before, were essential to the successful conduct of a heavy artillery training camp at Fort Monroe.

On March 26 the Third class was graduated. There were 202 new Second Lieutenants, and 245 provisional Second Lieutenants who had completed the course. No commissions in higher ranks



TURNING OUT 200 OFFICERS A WEEK

preceding classes, and none of the new officers were assigned to were given. The total of 447 was much smaller than either of the immediate overseas duty.

The Fourth Camp began the new training course on April 6. Colonel F. K. Fergusson, who had arrived from France, assumed the duties of Commandant of the School, with Lieutenant-Colonel Sunderland in immediate charge of the Training Camp and Officers School, and Major Welshmer as Director of Instruction. For the first time, a full schedule for the entire camp and a definite summary of the course were published in printed form for the use of the candidates.

The Fifth Camp opened on July 6, 1918, with 981 candidates officially in residence, besides the men housed on the beach. By this time the old Coast Artillery Corps enlisted men had been pretty thoroughly combed for officer candidates, and while theoretically all candidates of the Fifth Camp were enlisted men from the defenses, there were only a handful who had seen any service (except in the National Guard) before the war, and there were many who had been inducted for the training course and had seen no service of any kind till a few days or weeks before the camp began.

The organization of the Coast Artillery Training Center and the inauguration of the Continuous Camp really preceded the end of the Fifth Camp, but since they begin the new order, while the Fifth Camp was wound up according to older precedents, it is convenient to treat them separately. The Coast Artillery Training Center was created by Section II, G. O. 69, W. D., July 30, 1918, to include the Coast Artillery School, the Coast Defenses of Chesapeake Bay, and Camp Eustis.

By the provisions of G. O. 13, Coast Artillery Training Center, November 6, 1918, the Coast Artillery School was reorganized with an Officers' Department, which included both the Candidates' School and the Officers' School; an Enlisted Men's Department, which included all the courses for Enlisted Specialists existing before the war and the Motor Transportation Course; and a Tactical Department. Under the old plan, only candidates with three months' prior service in the ranks were to be admitted into what was to be the Sixth Camp, scheduled to begin on October 5. By August 16 this restriction had to be abandoned; the Chief of Coast Artillery wrote to the Commanding General of the Coast Artillery Training Center, in part, as follows:

A greatly enlarged program laid out for the Coast Artillery calls for an increased number of officers. All reasonably qualified candidates will therefore be sent to the next course, regardless of length of service. This course will begin October 5 and end December 21, 1918. . . . You will quarter them in any available barracks, and use tentage if necessary.

But this concession did not meet the necessity and at Fort Monroe a new plan providing for a continuous camp, with a company of 200 candidates beginning work every week, was devised. By the first of September it had been approved in principle by the Chief of Coast Artillery, and on the 3rd General Sunderland wired that the Training Center was "prepared to start first class of 200 artillery candidates September 14 and to continue 200 every week from then on." In two weeks after the signing of the armistice the enrollment of all candidates had fallen to 1893; within a month it had

passed the thousand mark on its way down, and shortly thereafter all candidates were on their way home.

By November 11, the date of the Armistice, 4432 students had been commissioned as officers and 4221 as enlisted specialists. Had it not been for the fact that a Coast Artillery School was organized and in operation at the opening of the war it would have been utterly impossible to perform such a feat. The maintenance of a Coast Artillery School for over ninety years was justified by this one act alone.



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BEAUTIFUL LIVE OAKS WITHIN THE FORT

It is hardly to be expected that Fort Monroe would accommodate comfortably these unprecedented thousands of students, together with its usual garrison and staff. In the autumn of 1917 it was decided to build temporary buildings to house the work and workers at the Fort during the war. A project involving forty buildings of standard cantonment types was prepared and the constructing quartermaster was authorized to proceed with the work about November 1.

It was necessary not only to put up barracks and quarters for large numbers of men and officers, but to increase the water supply, sewer capacity, lighting plant, and the post railroad. The urgent

necessity for rapid construction was well understood, and every effort was made to complete the buildings in the shortest possible time. Contracts were quickly executed, material ordered, and the work pushed to the limit, with the result that in less than three weeks candidates were established comfortably in buildings constructed of lumber which was actually growing in the forest not much more than a month before.

It soon became evident that this project alone would not meet the requirements of the situation. The classroom of the Coast Artillery School had ordinarily been used by not more than forty students in the course of a year; now candidates were enrolled by the thousand. Authorizations for additional accommodations followed each other in rapid succession until a total of twenty-one were received, calling for the erection of about 250 different buildings. These included schoolroom buildings—the familiar double-decked section-room unit and barracks, messes, officers' quarters, latrines and warehouses. The type of building depended largely upon individual requirements and nearly twenty different designs were finally adopted.

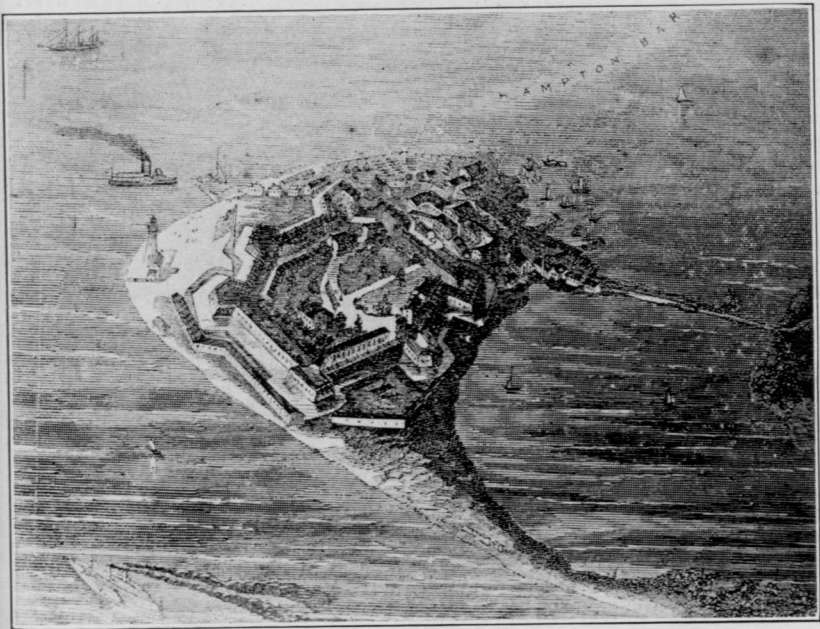
Odd corners of the reservation were soon occupied by two-story shacks of unpainted wood, set this way and that, wherever room could be found for them. Down the beach toward Buckroe crept the outposts, with barrack units, gun sheds, gas-houses and the like flanking the concrete road, and in the intervals between them, officers' quarters squatting bungalow fashion on the seaward side, making a brave attempt to look homelike between the truck trains and the railroad track.

Early in 1918 it became clear that there was actually not enough ground at Fort Monroe to accommodate the buildings which would be necessary. The only thing to do was to make more. Accordingly a fill was planned in the vicinity of the causeway on the edge of Mill Creek. Sand from the Bay was pumped into the marsh from the intake of the moat to a point close to the end of the trestle across the creek, the outer boundary of the area being bulkheaded in a more or less temporary manner to prevent excessive spreading of the dredgings. On the land thus reclaimed, barrack units and study halls were erected for the companies of the Continuous Camp, which very soon overflowed the barracks within the Old Fort which had sufficed for the earlier camps.

The area of Fort Monroe was further increased by a fill between the railroad trestles back of St. Mary's Catholic Church, devoted to the use of the Enlisted Men's Department. The two fills together added to the post an area equal to about twenty-five acres. Nearly

four thousand cubic yards of material had to be moved for this purpose.

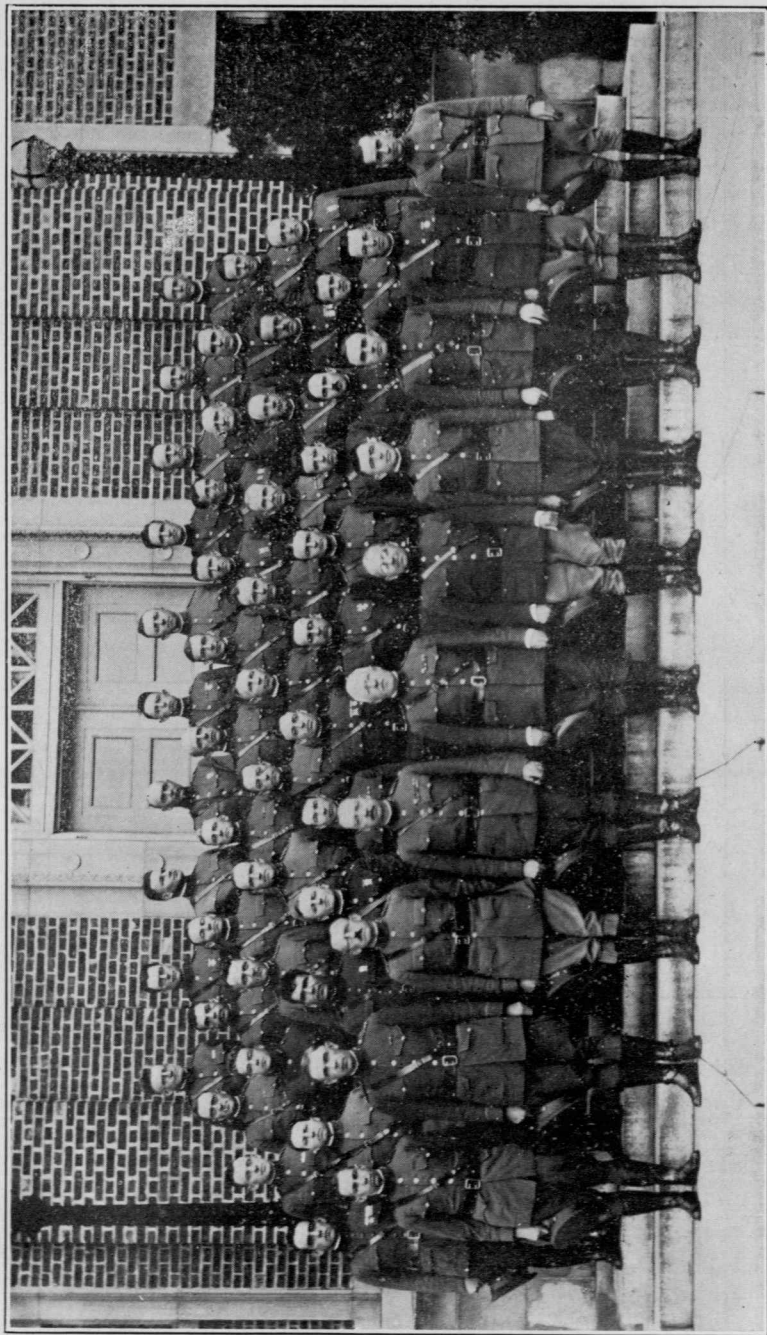
On November 11 orders were received to suspend all operations, and work was practically stopped on the following day. The job had been complicated by the fact that unskilled and skilled labor had to be brought daily from Hampton and Phoebus, which put a considerable strain on the limited transportation facilities and made it impossible to place a sufficient force on the work to complete it in record-breaking time. The figures representing the work done are, of course, small beside some of the other operations conducted by the Construction Division.



SKETCH OF FORT MONROE MADE DURING THE CIVIL WAR AND PUBLISHED IN HARPER'S WEEKLY

But during the entire period of war construction at Fort Monroe one building for every working day was completed and ready for occupancy. During the last month the work went at top speed and two buildings for each working day were made ready.

Five million feet of lumber was used, and over six thousand squares of roofing. The lumber consumed—270 full carloads, if carried in one train would require a train more than two miles long. If all the buildings put up at Fort Monroe during the war were thrown into one, that one would be about three miles long.



THE BATTERY OFFICERS' CLASS, COAST ARTILLERY SCHOOL, 1924

First Row: Captains Paul H. French, J. H. Wilson, D. D. Hinman, Lt. Col. W. H. Wilson, Brig. Gen. Wm. R. Smith, Lt. Col. F. J. Behr, Major C. Thomas-Stahle, Captains J. C. Riddell, E. J. Bond, Jr. Second Row: Capt. Mario Torres (Cuban Army), 1st Lieut. W. E. Griffin, Capt. Aniceto Sosa (Cuban Army), Capt. Wm. Hesketh, 1st Lieut. W. H. Lins, Capt. John T. Lewis, Capt. F. E. Edgecomb, 1st Lieut. G. M. O'Connell, Capt. G. W. Ricker, Capt. F. F. Gallagher, Third Row: Capt. Arthur J. Lacourate, Fourth Row: 1st Lieut. O. D. Boleman, Capt. K. McCarty, 1st Lieut. D. Ferry, Capt. K. S. Fardie, Capt. G. W. Whybark, Capt. F. J. Fitzpatrick, Capt. C. S. Harris, 1st Lieut. O. W. Marshall, Capt. E. C. Thompson, 1st Lieut. M. H. Barnes, Jr., and Capt. Wm. W. Vertz. Fourth Row: 1st Lieut. F. F. Nichel, 1st Lieut. G. O. Hildreth, 1st Lieut. M. H. Barnes, Jr., and Capt. Wm. W. Vertz. Fifth Row: Capt. J. A. K. Chambers, 1st Lieut. A. G. Bull, 1st Lieut. F. C. Hamilton, 1st Lieut. M. H. Barnes, Jr., and Capt. J. A. K. Chambers. Sixth Row: Capt. J. A. K. Chambers, 1st Lieut. A. G. Bull, 1st Lieut. F. C. Hamilton, 1st Lieut. M. H. Barnes, Jr., and Capt. J. A. K. Chambers.

The Coast Artillery School Today

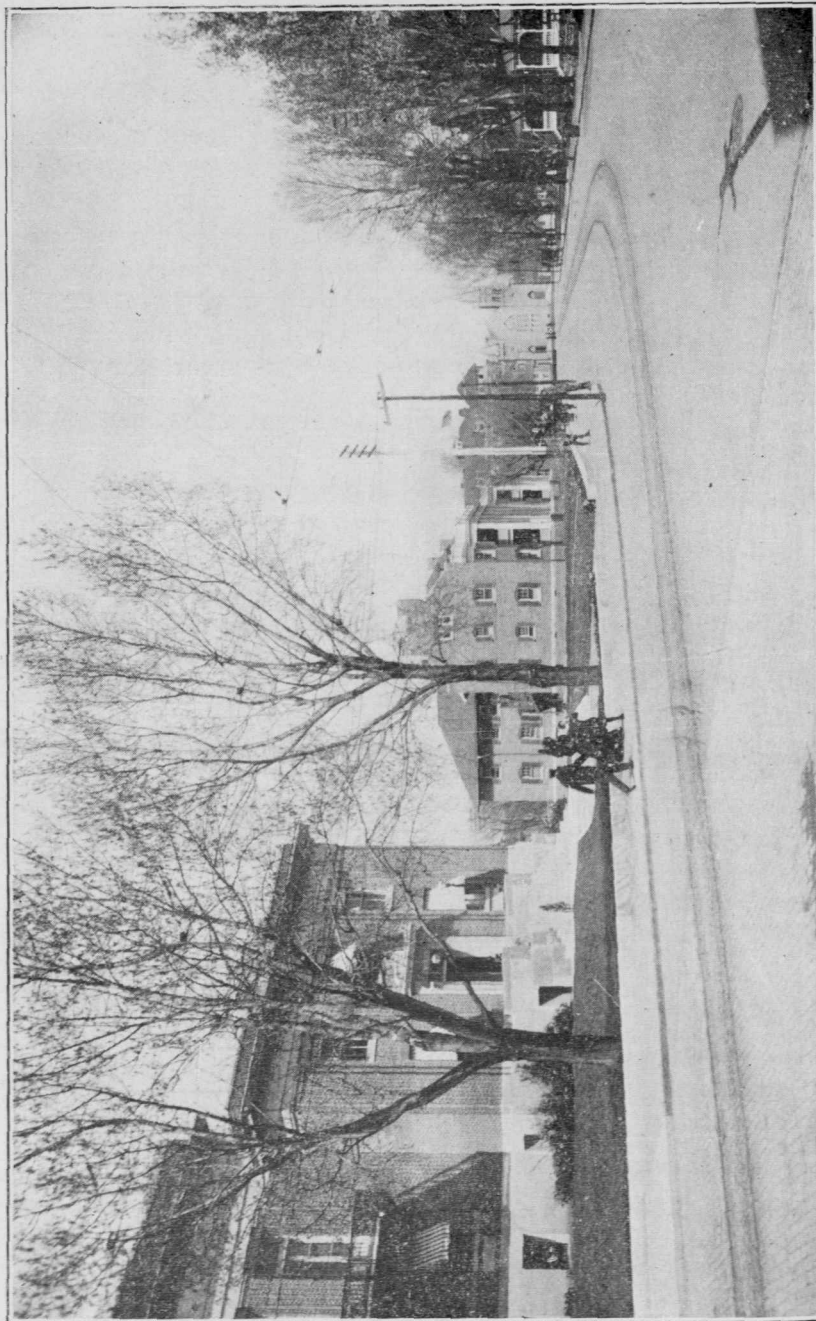
By LIEUT. COL. WM. H. WILSON, C. A. C., *Assistant Commandant*

THE Coast Artillery School completes the first century of its existence this year. During this period great changes and progress have been made in the design, technique and tactics of artillery; the school has constantly endeavored to keep abreast of these changes by yearly revisions of its curriculum, texts, and equipment.

The mission assigned to the School by the War Department is: "To provide competent leaders for all units of the Coast Artillery Corps, and qualified instructors for the Regular Army, National Guard, Organized Reserve, Reserve Officers' Training Corps, and the Citizens' Military Training Camps. This mission, taken in conjunction with that assigned to the Corps, determines the curriculum of the School as a whole.

The Coast Artillery School provides for the instruction and training of commissioned officers, and selected enlisted men for the several specialist grades. Its organization is as follows:

1. Commandant (also the District Commander)
2. Assistant Commandant (directly in charge of instruction)
3. Administrative Division
 - a. Executive officer
 - b. Secretary (also supply officer)
 - c. School Board
 - (1) Assistant Commandant
 - (2) Directors (4)
 - (3) Secretary
 - d. Library
 - (1) Librarian
 - (2) Asst. Librarian
 - e. Library Board
 - (1) School Board plus Librarian
 - f. School detachment
4. Instruction Division
 - a. Assistant Commandant
 - b. Commissioned Branch
 - (1) Advanced Course (Field Officers) (nine months)
 - (a) Department of Military Art
 1. Director (1)
 2. Instructors (5)
 3. Students (41)



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LOOKING NORTH ALONG THE MAIN ROAD

On the left of the road are the Coast Artillery School Building, Officers' Apartments, the Sherwood, and the Catholic Church

- (2) Regular Course (Battery Officers) (9 months)
 - (a) Department of Artillery
 - 1. Director (1)
 - 2. Instructors (4)
 - 3. Students (45)
 - (b) Department of Electricity
 - 1. Director (1)
 - 2. Instructors (4)
- (3) Special Courses
 - 1. General Officers (2 months)
 - 2. National Guard Officers (8 weeks)
 - 3. Reserve Officers (8 weeks)
 - 4. *Advanced Engineering* (4½ months)
 - 5. Correspondence Course (in preparation)
- c. Enlisted Branch
 - (1) Department of Enlisted Specialists
 - (a) Director (also C. O. school det)
 - (b) Instructors
 - 1. Commissioned (1)
 - 2. Enlisted (12)
 - (c) Courses (9 months each)
 - 1. Artillery
 - a. Master Gunners
 - 2. Electrical
 - a. Electricians
 - b. Engineers
 - 3. Radio
 - a. Radio operators and traffic men
 - 4. Clerical (Inactive)
 - a. Sergeant-major
 - b. Military clerks, typists, stenographers

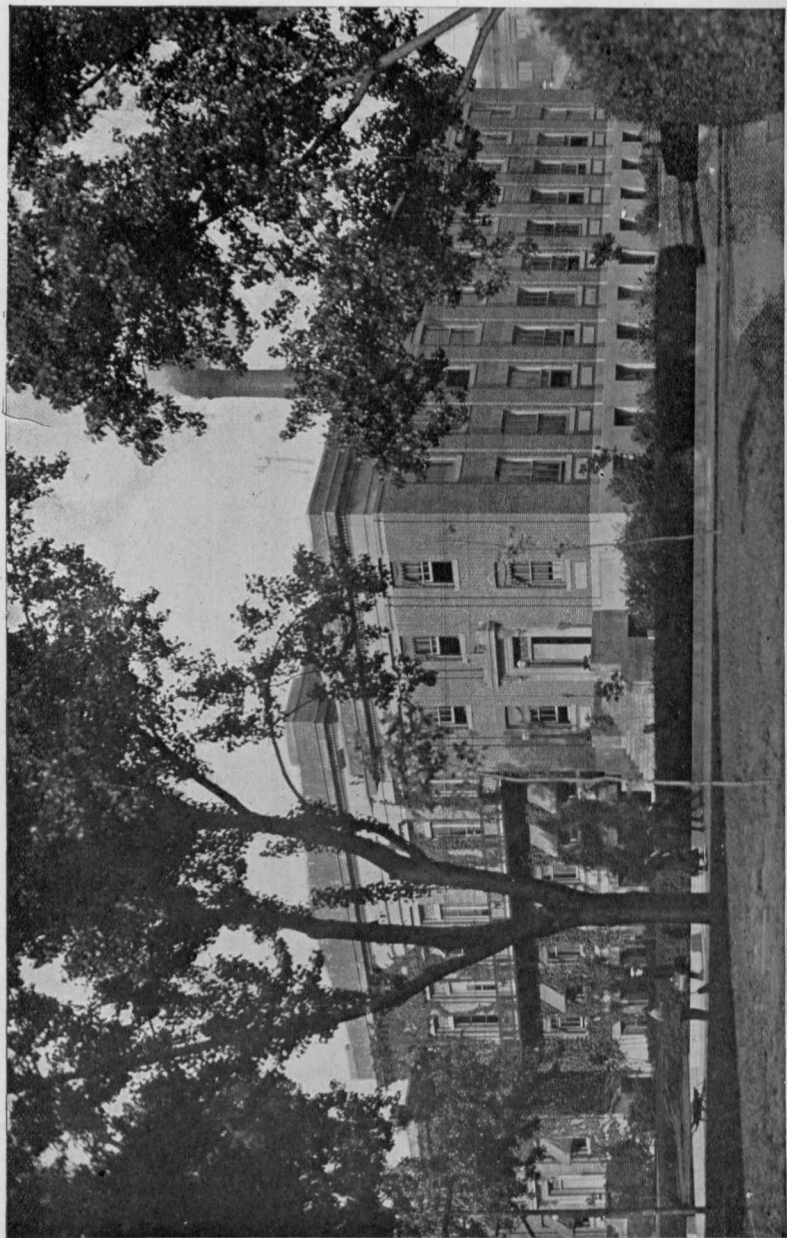
The scope of the several courses is a matter of considerable importance and interest to the Corps, and may be shown in outline as follows: (*figures in parentheses refer to hours allotted subjects*)

1. BATTERY OFFICERS' COURSE

- | | |
|---|--|
| a. Technique and tactics of smaller units (30) | f. Artillery firing (30) |
| (1) Military sketching and map reading. | g. Small arms firing |
| b. Artillery tactics (185) | h. General conferences |
| (1) Seacoast artillery | (1) Teaching and imparting information |
| (2) Land warfare artillery | (2) The U. S. Army |
| (3) Antiaircraft artillery | (3) National Defense Act |
| c. Military history (15) | (4) The military policy of the United States. |
| d. Materiel and gunnery | (5) Current events |
| (1) Antiaircraft (145) | i. Stable management, care of animals, and equitation (25) |
| (2) Seacoast, railway and tractor (materiel) (60) | j. Electrical engineering (155) |
| (3) Orientation (95) | k. Mechanical engineering (125) |
| (4) Gunnery (260) | l. Submarine mining (30) |
| e. Field fortification (30) | m. Defensive Chemical Warfare |

2. ADVANCED COURSE (FIELD OFFICERS) (9 months)

- | | |
|-------------------------------|--|
| a. Military topography (57) | e. Combat orders (54) |
| b. Field fortification (48) | f. Technique of seacoast, railway, heavy tractor-drawn, and antiaircraft artillery (156) |
| c. Military history (48) | |
| d. Military organization (54) | |



THE OFFICERS' DIVISION OF THE COAST ARTILLERY SCHOOL, BUILT 1909

- g.* Artillery firing (90)
- h.* Tactical employment of seacoast defenses (60), antiaircraft artillery (45), and railway and heavy tractor-drawn artillery (162)
- i.* Tactics of arms other than Coast Artillery (174)
- j.* Artillery staff duties (45)
- k.* General conferences (35)
- l.* Stable management, care of animals, and equitation (152)

3. ADVANCED ENGINEERING COURSE (4½ months)

- a.* Electricity and magnetism (60)
- b.* Wire telephony and telegraphy (28)
- c.* Line construction (12)
- d.* Radio telephony and telegraphy (170)
- e.* Message centers (36)
- f.* Signal orders and operation instruction (7)
- g.* Tactical radio procedure (20)
- h.* Meteorology (3)
- i.* Cryptanalysis (15)
- j.* Fire control apparatus (3)
- k.* Searchlights (3)
- l.* Fortification power plants (123)
- m.* Duties of the Artillery Engineer (20)

4. NATIONAL GUARD AND RESERVE OFFICERS' COURSE (8 weeks)

- a.* Materiel
- b.* Orientation
- c.* Gunnery
- d.* Artillery firing
- e.* Artillery tactics
- f.* Equitation

5. GENERAL OFFICERS' COURSE (Two months)

- a.* Coast Artillery organization (6)
- b.* Coast Artillery School (18)
- c.* Coast defense (63)
- d.* Artillery firing (60)
- e.* Materiel (69)
- f.* Sound ranging (12)
- g.* The Coast Artillery Board (3)

6. CORRESPONDENCE COURSE FOR FIELD OFFICERS (tentative) (9 months)

- a.* Map reading
- b.* Field fortification
- c.* Combat orders
- d.* Tactics and technique of the separate branches
- e.* Military organization

7. ENLISTED SPECIALISTS

- a.* Artillery (1260 hours)
 - 1. Algebra
 - 2. Plane geometry
 - 3. Solid geometry
 - 4. Plane trigonometry
 - 5. Spherical trigonometry
 - 6. Descriptive geometry
 - 7. Coordinate geometry
 - 8. Plane surveying
 - 9. Topographical surveying
 - 10. Mechanics
 - 11. Drawing
 - 12. Orientation
 - 13. Gunnery
 - 14. Photography
 - 15. Ballistic computing
- b.* Engineering (1260 hours)
 - 1. Algebra
 - 2. Trigonometry
 - 3. Shop mechanics and mathematics
 - 4. Direct current
 - 5. Alternating current
 - 6. Cable splicing and wiring
 - 7. Fire control apparatus
 - 8. Steam engineering
 - 9. Internal combustion engines
 - 10. Searchlights
 - 11. Machine shop practice
 - 12. Motor transportation
- c.* Radio (1260 hours)
 - 1. Algebra
 - 2. Trigonometry
 - 3. Direct current
 - 4. Alternating current
 - 5. Radio engineering
 - 6. Internal combustion engines
 - 7. Field communications
 - 8. Visual signalling
 - 9. Buzzer practice
 - 10. Radio laws and procedure
 - 11. Motor transportation
- d.* Clerical (1260 hours) (inactive)
 - 1. Spelling
 - 2. English grammar
 - 3. Army regulations, orders and circulars
 - 4. Records, reports and returns
 - 5. Personnel records
 - 6. Military correspondence
 - 7. Filing systems
 - 8. Stenography
 - 9. Touch typewriting
 - 10. Office management and organization
 - 11. Military training
 - 12. Manual of Courts Martial



BRIGADIER GENERAL WILLIAM R. SMITH, U. S. ARMY.
The Present Commandant of the Coast Artillery School.

Each course has a special mission assigned, a fact perhaps not well known to the Corps at large. These special missions, while conforming to that of the school, are influenced to a greater or less extent by the time available and the general state of training of the commissioned personnel of the Corps. It is not possible to provide *competent* commanders for all units of the Corps without including the subjects of administration—the conduct of the business of the Army, not paper-work—and leadership in the curriculum. Unfortunately this is not practicable in the time allotted.

The special missions are:

BATTERY OFFICERS' COURSE:

1. To provide battery commanders trained in their *technical* duties.
2. To give battery officers the basic tactical principles involved in the battery and battalion of artillery.
3. To provide the groundwork for future tactical study and historical research.
4. To indoctrinate the Corps, through the battery officers, in the latest approved methods of artillery technique.

FIELD OFFICERS' COURSE:

1. To bring field officers of Coast Artillery up to date in the technique of their arm.
2. To train Coast Artillery field officers in the tactics of Coast Artillery and the tactics of the smaller units of the other branches.
3. To train Coast Artillery field officers in artillery staff duties and the functions of brigade and division staffs.

ADVANCED ENGINEERING COURSE:

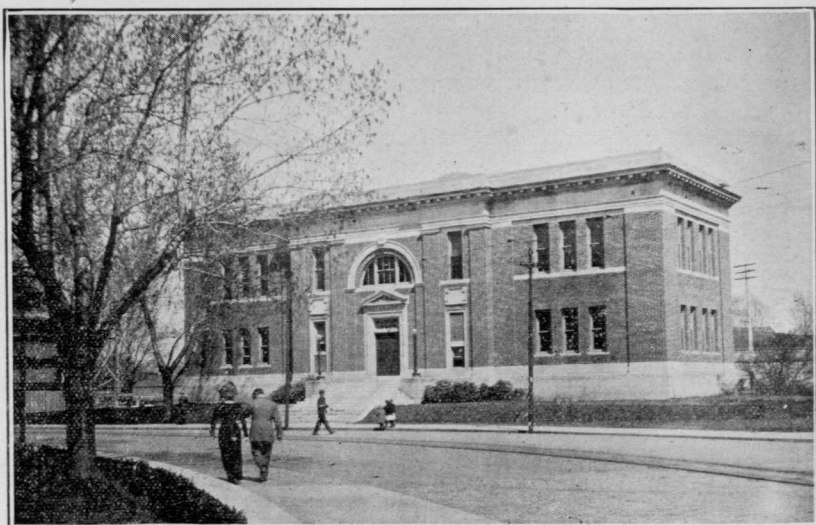
1. To provide trained artillery engineers.
2. To provide artillery communication officers.

ENLISTED SPECIALISTS:

1. *Artillery*—To train suitably qualified enlisted men to be master gunners.
2. *Engineering*—To train suitably qualified enlisted men to be power plant, motor transport, and communication engineers and operators.
3. *Radio*—To train suitably qualified enlisted men to be competent radio operators, maintenance men, and radio traffic regulators.
4. *Clerical*—*a.* To train suitable qualified enlisted men to be competent military clerks for duty as sergeants-major; *b.* To provide competent military clerks, typists, and stenographers for duty on artillery staffs in the higher echelons.

The curriculum of the Coast Artillery School is progressive, intense, and as thorough as time and facilities will permit. The

directors and instructors are selected from graduates of the School who have shown marked proficiency and fitness for that duty; in addition, the director and instructors in the advanced course are all graduates of the Command and General Staff School. The Coast Artillery School has been fortunate in securing the services of one infantryman and one cavalryman as instructors in the advanced course. This makes possible a more efficient and better balanced team of competent instructors than would otherwise be the case.



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THE LIBRARY, COAST ARTILLERY SCHOOL

The military educational policy contemplates that each regular army officer will attend the special service school of his own arm, battery officers' course, within his first five years of service, or by the time he has reached the age of 27; and will have completed the field officers' course at the same school within 15 years from date of first commission, or before the age of 33. After the completion of 15 years' commissioned service the regular army officer should be qualified to command any unit of his own arm. It will require four or five years to enable this program to be put into effect; at that time the courses at the Coast Artillery School will have been gradually changed to meet the situation. Every officer of the Corps should be a graduate of the Coast Artillery School, as in no other way may we expect to all talk the same language.

Painting of President Monroe Presented to the Coast Artillery School

By CAPTAIN W. W. IRVINE, C. A. C.

EDITOR'S NOTE: *A photograph of the painting referred to appears as a frontispiece in this issue of the JOURNAL.*

AN OIL portrait of President James Monroe was presented to the Coast Artillery School upon its One Hundredth Anniversary by the Kecoughtan Literary Circle of Hampton, Virginia. The formal presentation of the portrait was made by Governor E. Lee Trinkle, of Virginia, and was accepted by Brigadier General Wm. R. Smith, Commandant of the School. This ceremony took place at the Liberty Theatre, May 2, 1924, in the presence of the entire military garrison and hundreds of visitors.

The portrait is the work of the artist Catherine C. Critcher, who has acquired a national reputation from her paintings in the Corcoran Art Gallery, in Washington, and is copied from an original owned by Mrs. Gouverneur Hoes, a direct descendant of President Monroe. It has been hung in the lobby of the Library of the Coast Artillery School, where it may be seen and admired by all.

The school is fortunate in being the recipient of such a splendid oil painting of President Monroe, not only because the Post was named in his honor, but because the character of President Monroe is particularly suited to serve as an inspiration to the officers of the Army. President Monroe was himself a distinguished soldier, having left William and Mary College at the outbreak of the Revolutionary War and served continuously until the close of that war brought about the independence of this country. Though barely more than a boy in age, he quickly rose to the rank of lieutenant colonel. He was wounded in the battle of Trenton and commended by the Commander in Chief, George Washington, for his services.

The national defense of this country owes much to the energy, wisdom, and foresight of President Monroe. Though President Monroe's eight years as Chief Executive were known as the "Era of Good Feeling," it was not due to any policy of vacillation or pacifism, for he prosecuted military operations with vigor and sought and secured appropriations for the defense of the Atlantic coast.

Thus was President Monroe able to secure for a young republic respect from the governments of the Old World.

President Monroe was modest and little given to show, and his great contributions to this country have often been overlooked. It was President Monroe who enunciated the permanent policy of this government known as the Monroe Doctrine. This alone entitles him to rank as one of the great men of this country, for the Monroe Doctrine is perhaps the most important announcement by this nation since the Declaration of Independence. It is believed to have done more to preserve the peace of North and South America than any other agency.

It was largely due to the Monroe Doctrine that the feuds of Europe were avoided on this continent. This doctrine or policy of our government, though unwritten in the law of the land, has become a part of our national life and today has all the force of the Constitution itself.

Perhaps no other President, save Washington, combined the qualities of a soldier and a statesman to such an eminent degree as did President Monroe. No other man has served his state and country in so many and such important positions. Except for the few years after his second term as President, when he retired to private life, his entire life was devoted to the service of his country. Among the positions of responsibility he held were: Three times member of the Virginia Legislature, three times a member of Congress, twice Governor of Virginia, once a United States Senator, twice Minister to France, once Minister to England, once Minister to Spain, once Secretary of War, once Secretary of State, and twice President of the United States.

The particular attention of Coast Artillery officers is invited to the second half of an article in this issue of The Journal by Colonel H. J. Hatch, C. A. C., entitled "The History of the Coast Artillery Board and Its Work." This part of his article expresses so clearly the primary mission of the Coast Artillery Corps and the duty of all Coast Artillery officers, and is so forcibly presented, that it is well worth careful reading.

EDITORIAL

The Coast Artillery School

OVER in France there was a saying among the American troops that "the first five years are the worst." A similar saying that "the first one hundred years are the worst," if applied to the Coast Artillery School would argue well for its future. During the first forty-five years of its existence the school was operated only intermittently, being closed down in case of political strife, slave uprisings, Indian wars or wars of greater magnitude; but after the close of the Civil War it was placed on a going basis and only once since that time, that is, during the period of the Spanish-American War, has it ceased to function. Since the days of the Spanish-American War, however, the art of artillery firing has developed to such a high degree that no longer is it possible to convert civilians into officers and expect them to be of value to artillery units without first giving them sound instruction in the use of the weapons to which assigned. That this is appreciated is evidenced by the fact that over four thousand officers and four thousand enlisted specialists were graduated from the Coast Artillery School at Fort Monroe during the World War. Moreover, a branch of the Coast Artillery School was established in France for the purpose of giving newly appointed officers and specially selected enlisted men a course of training similar to that at Fort Monroe. Had it not been that highly trained officers, graduates of the Coast Artillery School, were available for duty as directors and instructors when the emergency arose, it would have been many months instead of a few weeks before these schools could have served any useful purpose. So it is seen that upon the anniversary of the centennial of its founding, the Coast Artillery School has justified its existence not only because it has succeeded in training officers to such a high degree that their technical knowledge is respected the world over, and the American Coast Defenses are second to none, but also because in a time of a great national emergency, the Coast Artillery School was able almost over night to expand into an immense plant capable of turn-

ing out hundreds of trained officers each week. That such an establishment shall be constantly available for the defense of this country is just as essential as it is that arsenals capable of turning out arms and ammunition shall be constantly available.

The Literary Digest on Antiaircraft Gun Fire

It will be a matter of interest and pride to Coast Artillery officers to know that the article by Lieutenant Colonel H. C. Barnes, C. A. C., entitled "Present and Prospective Development of Anti-aircraft Artillery and Its Probable Effect Upon Bombing Operations," that appeared in the April issue of *THE JOURNAL*, was published almost in its entirety in the *Literary Digest*, under date of April 12. The *Literary Digest* has a circulation second only to that of the *Saturday Evening Post*, and the gospel preached by Colonel Barnes in his article, to-wit: "that there are under development types of antiaircraft guns that will either deny the air entirely to enemy planes or else cause them to maintain such high altitude that their effectiveness will be largely diminished," has been spread broadcast over the country. So many statements are seen in print to the effect that enemy bombs in the next war can and will devastate entire regions and destroy everything living, that an article such as this will tend to allay the fears and set at rest the minds of many uninformed persons who accept such statements as facts.

Coast Defense and the Navy

From time to time someone suggests that the mission of the Navy might well be extended to include the Defense of the coast line, which would involve the taking over by the Navy of our fortifications. Such persons fail to realize that the defense of our coast in time of war cannot be secured by our permanent fortifications only, but must be obtained by the combined effort of these strong points with large infantry forces; the permanent fortifications having the mission of denying our harbors to the enemy, and the infantry, with their supporting arms, that of preventing the enemy from securing a foothold on shore between the permanent fortifications. Such an organization requires that all units within the various sectors be subject to the will of the Commanding Officer of each sector, and this can only be secured when the units concerned have been trained together, have thought along the same lines, and have been guided by the same regulations. With some of the units of a sector from the Navy and others from the Army, try as hard as they would,

misunderstandings would be sure to arise, and mistakes, perhaps costly, would be made. Furthermore, our harbor defenses consist not only of large guns in fixed emplacements, which an uninformed person naturally assumes are fired just as are guns on board ship, but in addition they include railway artillery, tractor-drawn artillery, and submarine mines of a type vastly different from those used by the Navy. The question was recently broached at one of the Military Affairs Committee meetings in Congress concerning which the *Army and Navy Register* has the following to say:

It is not expected that any congressional discussion of the Coast Artillery Corps in relation to coast defense will lead to a change in the existing situation. Those in Congress who have speculated upon the prospects of an improved condition by making the Coast Artillery a part of the Navy or by turning over the land fortifications to the naval establishment are plainly proceeding on imperfect information or no knowledge at all of the situation. More familiarity with the facts would show, to begin with, that there are no *bitter complaints* entertained or expressed by Coast Artillery officers as protest against the sedentary career at a coast fort; that duty with the fixed guns of the harbor defenses is only a small part of the work which the Coast Artillery personnel is called upon to perform with such variations as service with antiaircraft, railway and heavy tractor artillery, to mention nothing more and to ignore detached service generally. The training is highly specialized, and, while the guns on shore are of much the same type as is naval ordnance—some of the big-caliber naval guns being installed on the land fortifications—the methods of plotting and the system of fire control is altogether different. The problems, too, vastly differ, being perhaps more difficult in the case of the Navy, firing moving guns against moving targets, while the Army fires fixed guns against moving targets. The transfer of the coast fortifications to the Navy would result in many complications and the disturbance in the system of cooperation and coordination between the Coast Artillery and the supply branches of the Army, between which the closest relations prevail, to say nothing of a construction branch for the building of emplacements. As it is now, the Coast Artillery works in closest contact with the Navy in the preliminaries and the development of a joint protection of the coast, and there could be no improvement, declare those qualified to speak with authority, by any radical alteration in the relationship. Coast Artillery transfer to the Navy or naval personnel occupation and operation of the land fortifications would not, by any means, produce rotation in duty for the purpose of relieving the monotony of isolation, but would still find the fort personnel separated from the naval establishment just as is the Marine Corps. It is certain the War Department would oppose the project of transfer or of amalgamation if it ever reached that stage in the proceedings, and it is equally sure that the Navy Department would not support such a proposition. Even the commission that suggested many highly revolutionary consolidations in governmental organization, attempted no such flight in its erratic imagination.

BOOK REVIEWS

In the Footsteps of the Lincolns. By Ida M. Tarbell. Harper and Brothers. New York. 6¼"x 9½". 411 pp. Price \$4.00.

In this book are traced the Lincolns in America from Samuel, who came to Hingham, Massachusetts, from Hingham, England, in 1637, to Abraham, born in Kentucky one hundred and seventy-two years later. The ancestral line, generation by generation, is shown as it followed the frontier from Massachusetts to New Jersey, Pennsylvania, the Shenandoah Valley of Virginia, into Kentucky, Indiana and Illinois. In the six generations preceding the President, some were landowners and ironmasters, some held official positions of responsibility and distinction; all were resourceful, patriotic men, typical, we like to fancy, of the sturdy strain which subdued a wilderness and made a nation.

The author demonstrates that Abraham Lincoln was not an accident, that he was descended from vigorous, independent forebears, that "in him distilled and potent was the choice essence of a race." No country but America could have brought forth a Lincoln; no section of America could have produced him but the frontier. There, he not only endured the hardships of the border, but absorbed the pioneer's self-reliant spirit, his respect for labor and his ambition for better things. It was in accordance with the process of nature that from these folk who loved liberty and practiced equality should spring the great champion of freedom.

The career of Lincoln, himself, is covered up to the time of his election to the Presidency. Phases of his social life as a neighbor and as a member of the community which generally have been neglected by other biographers are dealt with in an intimate way. In the preparation of this book, as in her previous studies, Miss Tarbell has depended largely on personal investigation of original sources—documents, traditions and the recollections of those still living who really knew Lincoln. It is a record of a pilgrimage to each community in which the Lincolns successively lived and to the counties of Illinois made historic as the scenes of the future President's activities for over a quarter of a century. Consequently the book purposely deals at length with many incidents that probably will not interest the majority of readers but will appeal strongly to students of Lincoln.

Automobile Blue Book. Volume I. Automobile Blue Books, Inc. Chicago. 1924. 9½"x 5½". 794 pp. Price \$3.00.

Some alterations, which make this year's issue an improvement over the issues of past years, are the moving of the general index and the section maps to the front of the book, and the enclosing of the large folded "route map" in a transparent faced holder, which is attached to the binding by a tape, permitting of its being placed opposite the page listing the route in use. It thus serves as a book-mark, and also gives a graphical view of the route, supplementing the

printed details. This volume covers the New England States, New York, northern Pennsylvania and New Jersey, and the provinces of Quebec and Ontario. There are evidences of careful revision and rearranging of routes. Excellent city maps and guides, notably those for Boston and New York City, add materially to its value.

The volume is bound in blue fabrikoid, well-sewn in "flexible" form, printed on a thin opaque paper, and offers to the owner an accident policy for \$1000 without charge, which may be increased to \$2000 by subscribing to *Motor Life* at a cost of \$2.50; while an additional fifty cents furnishes a very attractive enameled radiator emblem of the "Touring Club of America."

Diplomatic Portraits: Europe and the Monroe Doctrine One Hundred Years Ago.

By W. P. Cresson. Houghton Mifflin Company, Boston. 371 pp. Price \$4.00.

This book consists of pen pictures of Alexander, Napoleon, Castlereagh, Talleyrand, Mme. de Krudener, John Quincy Adams, Gentz, Metternich, Chateaubriand and Monroe, which are blended into a picture of the diplomacy of Europe and America between about 1800 and 1824. The author was for some time a member of our Diplomatic Corps and availed himself of an opportunity to consult original sources in the preparation of this book. There is an interesting parallel between the conditions existing in Europe a hundred years ago and today. The effort made by Alexander, the internationalist, to bring about world peace has its counterpart today in the League of Nations.

The chapters are the right length for reading at one sitting. Of particular interest are the chapters on James Monroe and John Quincy Adams which trace the origin of the Monroe Doctrine. Here we find stated clearly and briefly the facts concerning this doctrine that has become today a vital part of our national tradition. There are two subjects that every army officer should be able to present clearly at any time. First, the National Defense Policy of this country, second, the Monroe Doctrine. The two are closely allied. In formulating any system of national defense, we must take into consideration our responsibility under the Monroe Doctrine.

President Monroe consulted both Jefferson and Madison who heartily approved this doctrine. Jefferson observed the matter to be "the most momentous since our declaration of independence. *That* made us a nation. *This* sets our compass and points our course through the ocean of time opening on us." Jefferson wrote to President Monroe that "the present occasion was auspicious" to formulate a second cardinal principle of Americanism: "Never to suffer Europe to intermeddle with cis-Atlantic affairs." The chapter on President Monroe will clear up any confusion on the origin and purpose of the Monroe Doctrine.

Diplomatic Portraits is worth more than a place in an officer's library; it is worth his reading.

Revolutionary New England. 1691-1776. By James Truslow Adams, A. M., LL.D. Atlantic Monthly Press. Boston, 1923. 6"x 9". 469 pp. Price \$5.00.

In this very able sequel to "the Founding of New England," Mr. Adams traces in a popular and readable fashion the series of events which culminated in the outbreak of the Revolutionary War. In accord with the present trend in historiography, he attaches a decreased importance to the purely imperial difficulties of the colonies, and stresses the influence of their domestic, social and economic evolution upon the course of political events. Finding the first stirrings of revolutionary sentiment in the closing years of the Seventeenth century, he

skillfully traces its slow development in the succeeding years through the "constant stream of discontent, of restlessness, and of upward striving" to its culmination in the Declaration of Independence. Finally, he brings us to the conclusion that, although the Revolutionary War may have been the immediate result of radical political agitation in America, separation of the colonies from the mother country had become inevitable.

While his treatment of colonial and English viewpoints is eminently fair to both sides, his reaction from the usual historiographic methods has caused the author to present a rather gloomy picture of colonial life. Of its lighter and more favorable aspects we are given but a glimpse, and in this respect the book is unbalanced. Moreover, there is apparent a distinct trace of prejudice against Puritans and the Puritan influence which has so markedly affected the characteristics of the true New Englander.

The work shows exhaustive preparation from primary sources and must be considered as authoritative within its field. It should not be missing from the library of any student of Colonial history.

Bolivar. By H. R. Lemly. Stratford Company, Boston. 1923. 5¾" x 8½". 452 pp. Maps and illustrations. Price \$4.00.

The first *detailed* history, published in English, of Bolivar, "The Washington of South America," is an interesting and accurate narrative. The author spent many years in Colombia, being Director of the National Military School at Bogata, and otherwise officially connected with the Colombian government. These connections and others have caused him to keep alive an intense interest in the military, political and commercial history of South America. From this interest and the opportunity of digesting many sources of which the author has made excellent use, there comes this interesting history of the greatest figure in South American history.

The narrative quotes largely from Spanish, South American and other writers, largely contemporaries of Bolivar, some his great admirers, others great enemies, and still others impartial. So the events are related with favorable and unfavorable elements both stated and the author's conclusions are impartial and tend to bring out the facts so as to tell the true story of the actions and intents of the Liberator.

Following the narrative, there is a chapter entitled "Conclusion—A Symposium," which is intensely interesting. It sums up the greatness of Bolivar, compares his work with that of other soldiers and statesmen, and quotes the appreciations of other writers.

Being the story of the life of Bolivar, it is naturally the story of the struggle for independence by the greater part of South America, for it was Bolivar who in making his dream come true, expelled the Spaniards from the territory which is now Venezuela, Colombia, Ecuador, Peru and Bolivia and Guiana. And it is interesting to note that in this fight for independence that it was not only against the troops of Spain, but principally against the native Royalists and those other natives led by men who through desire for power or hatred of Bolivar wished to undo his work. In this respect, and in many others, Bolivar had a much more difficult task than the "Father of Our Country." He had to create his army, his government and obtain the means of supporting both. Bolivar, like Washington, was of a fine family and comparatively wealthy, and it is an impressive fact that the two great leaders of independence in America were both men who were rich in those material things which seem dear in this modern materialistic age and which

would make ordinary mortals content with things as they exist. But these great men were ready and willing to sacrifice everything for the freedom of their country.

If one is interested in the struggles of South America for independence or in the leader of those struggles, or in obtaining a good idea of the character of the people he was leading and opposing, or in the way in which warfare was conducted in those days in South America, this book is recommended as being accurate in its facts and impartial in its conclusions.

Of particular interest to the military man and to every true thinking man, are Bolivar's views, even early in life, on the value of trained men in warfare and the necessity of preparedness for war. Some of his military exploits in the marching of troops for long distances over most formidable terrain can really be ranked with the highest. And as Sherwell says, "The most admirable moral quality of Bolivar was his constancy. It rose above everything." Surely, there are lessons and inspiration in the story of the life of a patriot and soldier who had that quality which, through many years and in spite of apparently insurmountable obstacles, made him accomplish a great self-imposed mission.

Mr. Archer, U. S. A. As told to R. H. Platt, Jr. Doubleday, Page and Company, New York. 6"x 8¼". 326 pp. Price \$2.50.

Back in 1896, a young boy, dreaming dreams, but having a tenacity of purpose to see his dreams come true, left an obscure settlement in Ohio to enlist in the United States Army. From that time on his days were filled with adventure, fighting the Spanish in Cuba, with romance lurking 'round the corner; hunting insurrectos in the Philippines, with service in Mindanao under Pershing; a sergeant in Reilly's Battery going to the relief of the Legations at Peking; filibustering in Honduras under La Guardia; soldiering in peace time at the Presidio and San Antone; doing "watchful waiting" on the Mexican border, with the Great War as the climax to his career.

This is the story of the "Old Timer," the professional soldier, who has all but disappeared—"a vanishing brotherhood, but his name—Americano, Gringo, Yank will never die."

Mr. Archer does not glorify war, but rather makes it dreadful with his realistic accounts of hardship and torture, but he does glorify the American spirit—the spirit that fights not for gain but for the fun of the fight—the spirit that led men across the mountains and deserts and through the wilderness, the spirit that we fear is passing.

No other book of the American soldier is so true and unglossed as this; no other book of authentic American history is so fine a tale of adventure. Don't fail to read it!

German Strategy in the Great War. Lieut. Colonel Philip Neame. Longman's-Green and Company. New York. Price \$3.50.

Where a book has been written with an avowed purpose it must be critically examined both as to the purpose and to the extent to which this purpose is accomplished.

In the introduction the author states that "no attempt has been made to give a connected narrative" and that "the book should be regarded as a framework on which to base more detailed study of the various campaigns."

The author has succeeded admirably in presenting just such a framework. Its greatest appreciation will probably come from those who, having studied in

somewhat disconnected form or in complete but random manner the history of the war, here find a very definite succinct resume of the various campaigns with the salient strategic features of each carefully summed up.

Limited by its purpose, the book does not furnish a study or analysis or any of the campaigns touched on. Followed in connection with any more detailed study it would serve to keep the essential major features well focused in the mind of the reader.

Occasionally the author has made generalizations to which many will not subscribe. One of these is the statement that "surely the most vital decision that a Government has to make on the outbreak of war is the selection of the Commander-in-Chief." While it cannot be denied that the decision is very important, it may be questioned whether it is the most vital one which a Government faces on the outbreak of war. In the case of the revolt of the American colonies in 1776 it is highly probable that that selection of Washington as Commander-in-Chief was a determining factor in the ultimate success of our army. At the outbreak of the War of Secession in 1861 it is doubtful whether any selection Lincoln could have made would have had a marked determining effect on the ultimate result.

There is much in the book that is very suggestive. Many writers have contrasted the unified control of the armies of the Central Powers with the effort at cooperation of the allied armies. Colonel Neame brings out instances of lack of unity in the councils of the German Government with consequent failure of effort.

The contention of some American writers that in August, 1914, the Russian army was the correct objective for the German forces finds no support in this author's analysis.

The book is recommended to any who are interested in the study of military strategy, in particular, those who desire to obtain a complete though brief grasp of the strategy of the World War. In spite of the limitations of scope the author has succeeded in presenting his subject in a vivid manner that will hold the interest of the cursory reader.

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