COAST ARTILLERY JOURNAL

FIFTY-SECOND COAST ARTILLERY
(Railway)

June

1926

17th Annual

Prize Essay Competition

PRIZES

First Prize	$125.00
Second Prize	$ 75.00

CONDITIONS

(*a*) Subject to be chosen by competitor, discussing some phase of policy, tactics, or technique involved in the efficient accomplishment of the mission of Coast Artillery.

(*b*) Competition will be open to all readers of the JOURNAL.

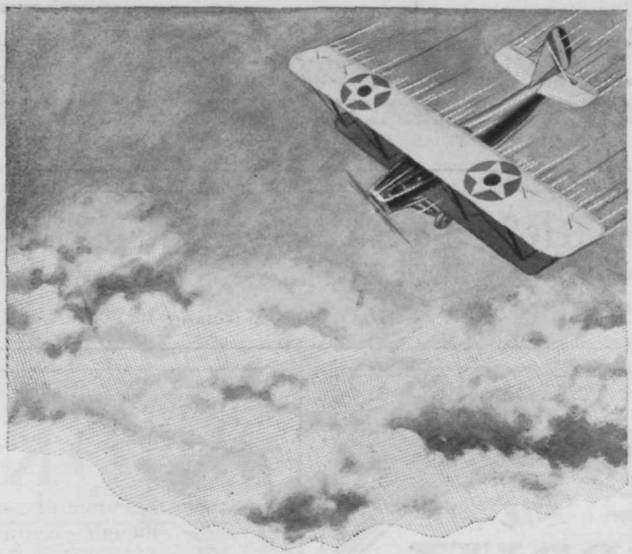
(*c*) Award will be made by a committee of award, consisting of three persons, to be nominated by the Editor. If no essay submitted seems to the committee worthy of a prize, none will be awarded. Honorable mention may be made of any essay submitted which seems to the committee worthy thereof, but to which a prize is not awarded.

(*d*) All essays entered in the competition will become the property of the COAST ARTILLERY JOURNAL. These will be published, if valuable and interesting to JOURNAL readers.

(*e*) Copy must be typewritten, with lines double spaced, on one side of the paper only, and must be submitted in triplicate. If illustrations are included, one of the three copies thereof must be in the form of drawings, tracings, or photographs (not blue-prints nor brown-prints).

(*f*) Copy must contain nothing to indicate its authorship, must be signed with a *nom de plume*, and must be accompanied by a sealed envelope containing this *nom de plume* and the name of the writer. This envelope will remain in the hands of the Editor of the JOURNAL and, after award has been made by the Committee, will be opened in the presence of the Executive Officer, Third Coast Artillery District.

(*g*) Copy must be received on, or before December 31, 1926. It must be addressed COAST ARTILLERY JOURNAL and the envelopes must bear the notation, "Essay Competition."



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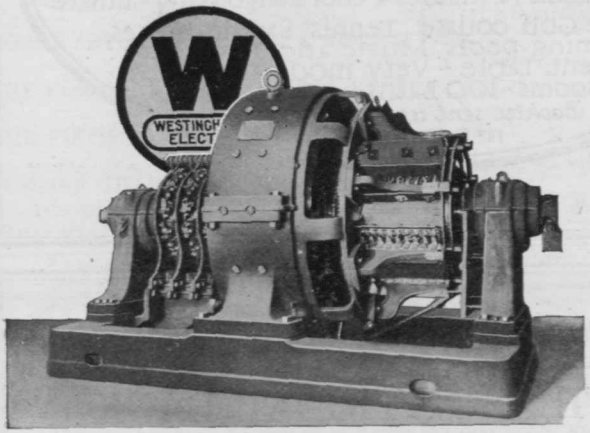

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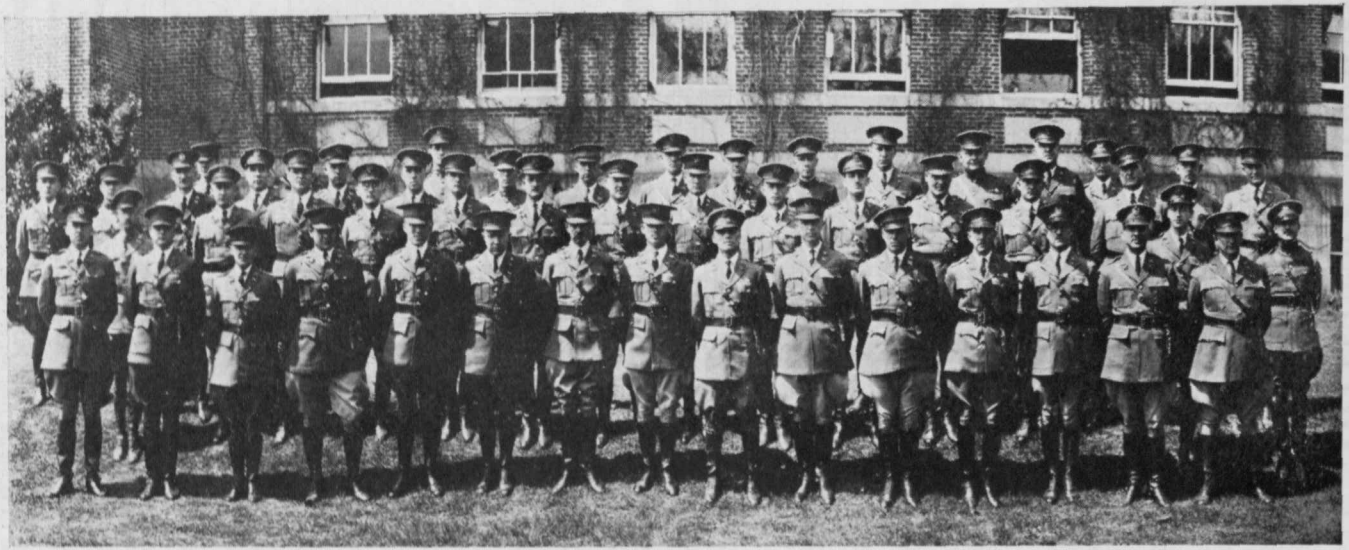

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THE COAST ARTILLERY JOURNAL

Volume 64 JUNE, 1926 Number 6

The Policy of the Coast Artillery On Small Arms Equipment and Training

A Reply

COLONEL C. E. KILBOURNE
Coast Artillery Corps

SINCE the last outburst of the former Colonel Mitchell of the Air Service, and since his statement that much he said was based on opinion rather than on fact, I have found it well, when studying articles on controversial questions, especially when such articles can be interpreted as an arraignment of policies, to divide them into statements of *fact* and statements of *opinion* and then to proceed with my analysis.

Following this method I listed first the statements of fact made in the article appearing under the above title in the May issue of the COAST ARTILLERY JOURNAL. There are four—

First, that the policy calls for 80 per cent of the personnel to qualify in marksmanship; this statement is repeated, giving it as 80 per cent of the battery.

Now this is not the policy. The policy calls for 80 per cent of *those firing* to qualify—a very different thing as is recognized later in the article by the writer himself.

Second, that while small arms training is not the sole reason for slow progress in artillery work it is one of the principal causes.

This, of course, is capable of check from records of accomplishment. Applying such check to the progress of units, the following appears from official records:

	1924	1925
Batteries attaining the small arms standard	44.6%	63.8%
Rating of batteries in artillery—Excellent	16.8%	38.1%
Very Good	43.9%	46.2%
Satisfactory	39.3%	15.7%

Carrying the analysis further, we find that 73 per cent of the units rated as *excellent* in artillery practice attained the small arms standard, while

only 33.3 per cent of those rated as *satisfactory* in artillery practice met the requirements for small arms. Apparently Captain Irvine did not have the records available when he reached his conclusions.

Third, that training to meet the standard in small arms practice and for the Coast Artillery Rifle Team is taking about twenty-five per cent of the training year and fifty per cent of the best training weather.

Possibly some regimental commanders may have spent that much time, but programs and schedules do not indicate it. Ten days to two weeks per battery on the range, with such preliminary training as can be given as an advantageous variation in daily routine, appears to be nearer the general custom.

Fourth, that forty per cent of the entire mileage allotted the Coast Artillery is used by the Coast Artillery Rifle Team.

The actual figure (1925) was 7.9 per cent.

It would appear that Captain Irvine, having heard certain statements, accepted them as facts without investigation and used them as a basis for argument. Some analysis is wise before concluding from hearsay that those in responsible positions are of limited vision. Let us now consider his opinions.

He decides that a small arms weapon is required for disciplinary drills, for guard duty, and for personal safety and protection. He presents arguments to show that for all the pistol is an equal, and in the majority the superior weapon. For riot duty he suggests the shotgun and the riot stick.

Many officers of long experience will not agree with him in his conclusions. An officer who has trained units—some armed with the rifle and some with the pistol—states that he can produce the same results in disciplinary drill but that it is slower and harder with the pistol. The man with the gun is the American idea of a soldier; we have all noted the marked increase in interest and effort of recruits when rifles are issued. For riot duty many officers believe the rifle *and bayonet* have a moral effect that is great. The infantry doctrine of practically all nations stresses the psychological effect of the bayonet in close action. As for acting as infantry the Coast Artillery has been called upon in the past and those who remember the occasions are still justly proud of the response. Finally, I do not think personal safety plays any part in equipment—the Coast Artilleryman, like the soldier of other combat arms, is given a hand arm for the performance of duty, not for personal protection.

It is recognized that mobile artillery will find the rifle troublesome; that those units will probably never need the rifle in war; that in street parades and other public exhibitions in peace, if they take part at all, the weapons of their major assignment stamp them as units of a combat arm. But the harbor defense regiments may need the rifle in war if infantry

supports are insufficient; they may be needed again to act as infantry; and for parades and ceremonies it is better that they be not mistaken for soldiers of some non-combatant branch. In this last respect the morale of the Coast Artillery harbor defense regiments of the National Guard has received consideration.

Captain Irvine believes that the objective of the Coast Artillery team is to beat the Infantry, Cavalry, and Marines with *their* principal weapon. Now for two years my command was charged with sending an officer and forty men to serve the team at its preliminary training camp. These men were in addition to those he estimated in his article. But *his* idea of the objective did not occur to me. I thought the objective was the promotion of rifle practice in the United States and that the Coast Artillery was doing its share with the other combat arms. It hurt us locally, but we were willing to stand it. In this connection I quote the following from a letter which recently reached my office from Oahu: "I wish to state that the value of a man who has been with the rifle team is very great—I know I have not always had as much sympathy with that team as have some others, but I feel now that it pays its way."

Captain Irvine believes that, since Congress and the American people are appropriating money and paying taxes for our mission, it is rather difficult for them to connect this mission with small arms practice. I am unable to find any one who has heard of any such reaction, while there is no difficulty in locating many requests for Coast Artillery troops in parades, as firing squads at funerals, etc., etc.

Captain Irvine considers our training schedules too crowded and our state of training unsatisfactory. The War Department reports indicate that a few schedules are too crowded but that this is not the rule—that most of them are admirably suited to carry on in an orderly manner the training plans of those who have in mind the broad policies for national defense. Also, these reports show that the progress is satisfactory; most Corps Area and Artillery District Commanders have far more to say in praise than in criticism.

Finally Captain Irvine believes our morale is low. He is so positive I had almost included this among "statements of fact." But I realized it could be only an opinion. He is wrong, of course, for our inspections show interest and pride of accomplishment to be the rule even in our little caretaking detachments; inspection reports show an earnest desire for progress practically everywhere. To say that the morale of an organization or an individual is low means moral cowardice, shrinking from responsibility, pessimism, tendency to shirk, and many other contemptible things. Certainly the reserve is true in our Corps, and I hope Captain Irvine is alone in his opinion.

There are some things in Captain Irvine's article to be commended. Everyone will agree with him as to our main mission and its importance; everyone will agree that the best solution of some of our problems remains to be found; everyone will agree that it is desirable that solutions be formed as promptly as possible. But I believe very few will agree that the solution of these problems will be brought any nearer by the substitution of pistol firing and cleaning for rifle firing and cleaning, or by close order drill and ceremonies with the pistol rather than with the rifle.

I think I can state that the heavy and varied responsibilities of the Coast Artillery Corps and the shortage of means are fully recognized by the War Department and that constant thought is being devoted to easing the burden on the lower echelons. But let us all remember that the factors that enter into decisions on policy can not all be known in the lower echelons, that when we do not agree it *may* be that *we* and not *they*, are wrong. Let us hold to the fact that, by loyal effort and the exercise of initiative, judgment, and common sense, we can do much toward aiding the plans of our leaders. And above all let us avoid giving the impression that there exists in our Corps a spirit of pessimism, discontent, and opposition.

We disarmed our navy completely at the close of the American Revolution and in 1785 did not have a single fighting ship. This did not bring peace, for the pirates of the Barbary Coast were quick to take advantage of our helplessness, and to seize our cargoes of wheat which were being shipped into the Mediterranean.—*Admiral Potter.*

Coast Artillery R. O. T. C. Operations

CAPTAIN C. D. Y. OSTROM
Coast Artillery Corps

Honorable mention, Essay Competition, 1925

A TOUR with the R. O. T. C. has shown that the officers of our Corps who are not familiar with this duty view with much interest the operations and activities of a Coast Artillery unit. Only those who have come in close contact with this training have any real conception of its problems and merits, of its methods and value. Some ten per cent of our officers are on this duty. With the turnover consequent to a four-year tour, more and more will find themselves so detailed. Few seem to be detailed to this duty the second time. The last report of the Chief of Coast Artillery stated a desire to organize two or more units. These will require personnel. It seems as if officers request assignment to this duty with no idea of the requirements that will be made of them. May it not be well, then, to detail some of the problems that must be met and some of the reactions one may expect?

A notion of the variety of conditions that may be met may be obtained from the R. O. T. C. number of the JOURNAL OF THE UNITED STATES ARTILLERY, printed in February, 1922. These articles may be supplemented by others in varying vein that have appeared from time to time in the same JOURNAL.

The organization of the Unit is of prime importance. Though fundamental, it can not well be discussed separately because of the many considerations that are so closely interwoven and which so profoundly affect it. The allotment of time to subjects, the scope of these subjects, and their grouping into academic courses must be considered. The time made available by the university or college for meeting classes and students and the credit value allotted to the courses by the institution are governing factors. Then the tables of allowances of equipment and materiel must be studied with the kindred problems of the space allotted for its installation and the use that can be made of it in the time and space available. Throughout all of this planning period the number of students to be expected in each year of the course must be estimated and borne in mind. Though at a casual glance one may conclude that this series of studies need be made only upon the beginning of a Unit, this need is constantly recurring and results rather in a continuous study. Above all and always, one must hold firmly to the objective, efficiency of instruction of our young reserve officers.

While this discussion is based upon a Coast Artillery Unit and usually mentions but a single unit at an institution, the content is equally applicable where there is a group of units. In such a case, certain common instruction may be given the members of the various units at one time with a consequent saving of the instructors, though the effect on unit esprit may be questioned. Multiplicity of units does, however, tend greatly to complicate matters of administration and supply.

A sound organization is essential; the organization of the personnel detailed to duty with the unit, the organization of the subject matter of the courses, the organization of the materiel for use, the organization of the students into classes and sections, the organization of the supply and accounting system, and finally the administrational organization.

Let us first consider instructional matters. The program of instruction is issued by the Adjutant General. Certain portions of it may well be extracted as it has not been widely distributed.

PROGRAM OF INSTRUCTION AND TRAINING FOR COAST ARTILLERY UNITS OF THE SENIOR DIVISION, RESERVE OFFICERS' TRAINING CORPS

Beginning with the Academic Year, 1924-25.

1. General Instructions

Primary object.—The primary object of the Reserve Officers' Training Corps is to provide systematic military training at civil educational institutions for the purpose of qualifying selected students of such institutions for appointment as Reserve Officers in military forces of the United States.

Secondary object.—The secondary object is to impart military instruction to those students who do not complete the four years of college with a view to making them more useful in the National Guard, the Organized Reserves, or in the military establishment in the event of public emergency.

Scheme of instruction.—The following courses have been arranged in progressive order to attain these primary and secondary objects and, in general, to fit the student, at the end of his basic course, to function as a qualified noncommissioned officer and, at the end of his advanced course, as a subaltern officer of Coast Artillery.

2. Successive Steps of Instruction

a. First year, basic course.

Formation of a qualified private.

Discipline, soldierly bearing, and a proper conception of military duty, to take precedence over all other instruction.

b. Second year, basic course.

Formation of the noncommissioned officer.

On the assumption that the objects of the first year basic course have been attained, disciplinary drill may be limited to that necessary for the development of poise and leadership of a noncommissioned officer.

The objective of artillery training in this year is qualification as a second-class gunner and, if local conditions permit, instruction as a first-class gunner.

c. First year, advanced course.

Formation of the first-class gunner and enlisted expert.

Disciplinary drill limited to training in command and leadership.

The special object of this year is to train students in the technique of artillery and to prepare them so as to obtain the maximum benefit from the advanced R. O. T. C. camp.

At the end of his first year advanced course, each student should be able to function in each of the expert gunner positions (except motor transport and communication) of the materiel with which trained.

d. Second year, advanced course.

Formation of the subaltern officer.

Disciplinary drill limited to exercise of command and leadership.

Artillery instruction is designed to supplement the knowledge and experience gained in advanced R. O. T. C. camp.

The instruction of this year is designed to round out the general military education of the student and to give him the equipment necessary to fulfill his duties as a second lieutenant.

* * * * *

5. Combined Instruction

At institutions where there are units representing two or more arms of the service, those units may be combined for instruction in such subjects, or parts of subjects, as are common to any two or all of them.

Note: The sequence in which the following subjects are listed is not intended to indicate the order in which they should be taught, nor is the apportionment of time mandatory.

THE BASIC COURSE

Basis for calculation of time available for instruction and examinations:

1. Minimum hours of instruction required by law = 3 per week.
2. Estimated number of weeks per academic year = 32.
3. Estimated total available academic hours = 96 per year.
4. The length of the basic course is two academic years = 192 hours.

Subjects	*Guide for the apportionment of time*
Infantry	40%
Physical Training — I	8%
Military Courtesy and Discipline	5%
Military Policy of the United States	2%
Military Hygiene	3%
Gunners' Instruction — I and II	35%
Optional for Professor of Military Science and Tactics	7%

THE ADVANCED COURSE

Basis for calculation of time available for instruction and examinations:

1. Minimum hours of instruction required by law = 5 per week.
2. Estimated number of weeks per academic year = 32.
3. Estimated total available academic hours = 160 per year.
4. The length of the advanced course is two academic years = 320 hours.

Subjects	*Guide for the apportionment of time*
Infantry	10%
Physical Training—II	5%
Gunners' Instruction—II and III	10%
Gunnery—I, II, and III	20%
Orientation — I and II	15%
Field Engineering	3%
Artillery Materiel—I and II	5%
Artillery Tactics	5%
Military Law	6%
Administration	2%
Motor Transportation	15%
Optional for Professor of Military Science and Tactics	4%

The scope of the subjects in the two courses need hardly be reproduced with the single exception of the last of each group: "Optional for Professor of Military Science and Tactics.—This percentage of time is provided to permit the Professor of Military Science and Tactics to supplement the course of instruction by any additional subjects he may deem desirable or appropriate, or to increase the time allotted to any individual subject for which, for any reason, the time allotted is insufficient."

But we should also bear in mind par. 6 *g* (4) of A. R. 140-21. "Reserve Officers' Training Corps graduates exempted from tests for promotion to first lieutenant.—As the courses of instruction in the senior divisions of the Reserve Officers' Training Corps cover the subjects specified for promotion to the grade of first lieutenant, Reserve Officers' Training Corps graduates who have successfully completed such instruction within five years of date of application for certificate of capacity for promotion to first lieutenant will be excused from all tests specified for the appropriate branch of the service." In par. 2 of A. R. 140-27, the professional qualifications expected for promotion to the grade of first lieutenant of Coast Artillery Reserves are detailed.

And then we find pars. 3 *b* and 12 *b* of T. R. 435-310: "Any student of a Coast Artillery Reserve Officers' Training Corps Unit, whose commander certifies that, in his belief, the student is properly qualified, is eligible for examination as second-class gunner. The student who has successfully completed the examination for a second-class gunner, and who has had two years' duty with a Coast Artillery Reserve Officers' Training Corps Unit, or the equivalent thereof, may take the examination for a first-class gunner; and, similarly, a student who has qualified as a first-class gunner, and who has had three years' duty with a Coast Artillery Reserve Officers' Training Corps Unit, or the equivalent thereof, may take the examination for expert gunner." "The same standard will apply in the case of members of the Coast Artillery Reserve Officers' Training Corps Units as applies in the case of enlisted men."

Though the final schedule of instruction must conform to the quoted program, the subject matter taught may be so chosen as to satisfy all three conditions and may be arranged in such order as will readily permit the gunnery qualification of students.

The allotment of time to subjects presents but little difficulty at first glance. The three hours per week required for the basic course multiplied by the number of weeks in the two academic years covered by this course yields the total number of hours. The percentages allotted each subject may be applied to furnish the guide to the hours per subject. The academic year is divided into quarters or semesters so the basic course must be likewise subdivided and and there follows the task of grouping hours of different subjects to make up either the six or four required academic courses.

Here one must begin to consider the scope of the subjects. He must plan for a progressive scheme of instruction bearing in mind the desirability of having his students able to qualify as gunners in the various grades as early in their careers as regulations will permit. He must consider the probable weather to be encountered if any of the instruction is to be given out of doors. He must consider the effect of the sequence of subjects on the stimulation of student interest. He must examine into the amount of academic credit allowed by the institution for his courses and must arrange to utilize the time so the credit will be equitable. Academic credit usually is based on the equality of one hour in the classroom, for which the student is expected to devote two hours to preparation, and three hours in the laboratory with no accompanying preparation outside this period. The work of the R. O. T. C. is naturally divisible into both these classifications and credit value is assigned accordingly. The basic course work divides up well if two hours per week are allotted to the laboratory or practical work with the other hour spent in the classroom in lecture or recitation. This requires for the most part concurrent instruction in two subjects, one of them being in the nature of physical training, infantry or artillery drill, or command and leadership. Two hours in the classroom, with three a week in the laboratory or in other practical training, permit a ready solution of the division of time, subjects, and academic credit in the advanced course. Such a division of time will to some degree govern the matter taken up under a given subject and will require ingenuity in the presentation of some subjects.

The academic course should be so arranged that only closely relative subjects are taken up during a term and each course should be complete in itself. Obviously the subjects can not be taught in the order as listed in the quoted training directive.

The irregular student must be thought of, the student who is in and out of college. He can not be expected to pick up readily the threads of

a continued subject after being out a term or more. The in-and-outer presents additional difficulties in arranging the advanced course details.

In a land-grant institution the ratio of advanced course to basic course students is small, from ten to twenty per cent. These figures do not apply to other institutions. The large numbers of basic course students justify the giving of all the academic parts of this course concurrently, that is, a student enrolling in the institution at the opening of any term may begin the basic course at once and pursue it consecutively to its conclusion regardless of whether it is the fall or spring term. But this does not always hold for the advanced course due to the limited number enrolled and to the additional two hours a week necessary for the instruction of these students. To care for this irregular student, the academic subdivision of the advanced course should be so arranged as to be independent in each college year; that is, the work of one academic course should not be prerequisite to that in another and the courses in any one year should be to the least possible extent dependable upon each other and yet provide continuity.

Such considerations will require changes in the number of hours allotted to the given subjects. An adjustment can be made that will satisfy all conditions. The optional time allowed the P. M. S. & T. is at once the reservoir and the spillway.

Having determined the number of hours to be devoted to each subject and having divided these hours among the terms to form academic courses in the institution's curricula, attention turns toward the content of these courses. Here follows laborious study as the result must be a daily lesson sheet scheduling not only the subject to be covered but the accompanying text assignment for the students' reference.

The subject must be broken up into portions that will fill but not crowd one period, either in the classroom or the laboratory. These portions should be so chosen as to cover a definite part of the subject to lead the student from the one preceding to the following one. The division of four drumsticks among seven small boys would not be more difficult, and the compressing of field equipment into a musette bag would present no greater problems. Where the same subject is treated in both the theoretical and practical parts of the course, the latter must be made to follow the former in sequence to amplify and illustrate the instruction given in the classroom. This is the ideal method where time, space, and equipment permit.

Dearth of suitable texts is a great handicap. Many subjects are not as yet covered by Training Regulations. Even these, printed in pamphlet form, are difficult for the student to keep together. They are not written with the purpose of giving basic instruction with the result that some are too brief and too advanced, while others contain too much extraneous

matter for the R. O. T. C. student. Many otherwise suitable texts are not available in sufficient quantity. And again, in others the bulk of the volume is inapplicable. Though the instructor may have at hand excellent material for a day's assignment, it may frequently be in such form and so scattered that he can not readily put it into the hands of his students for reference. He should bend every effort to include as many reference texts in the college or departmental library as he can obtain. Recourse to mimeographing may be had. This is expensive, difficult, laborious, and unsatisfactory. It gives the student just what the instructor has gleaned and condensed and is of least benefit to the student. The professor who has just published his text book finds the preparation of his lectures quite involved thereby. The student who is handed mimeographed notes of a lecture files them in his notebook for quick reference in the cramming period and obtains the minimum benefit.

Schedules of drills should be prepared by the instructor and given the battery commanders. These students have not the time or the experience for such planning. The time is short and the best use must be made of it to obtain satisfactory results. A definite scheme of progressive instruction must be arranged. Monotony must be avoided. Issue a copy of this schedule to each individual in the battery and require him to prepare himself for the drill. Frequent checks will insure that the battery commander adheres to the schedule. He should plan his drill for the day in accordance with it. When once the members of a battery generally consult the drill sheet before assembly, the drill of that battery will show marked improvement.

The graduates of a Coast Artillery Unit may be assigned to a Harbor Defense Regiment, to a Heavy Tractor Regiment, to a Railway Regiment, or to an Antiaircraft Regiment. How should this affect their training? At some institutions this is simplified, due to their location. Particularly is this true in parts of the interior where the normal assignment is to the antiaircraft artillery. This common assignment of graduates is not the rule. A sound general policy would seem to be to give fundamental training in gunnery for fire against fixed or moving terrestrial targets. All should receive instruction in antiaircraft machine gunnery. Training should be given on such materiel as is available and pertinent to the subject taught. Finally, at every institution, such time as remains should be devoted to giving the student a general idea of the antiaircraft gun and searchlight problems.

The program of instruction contemplates the preparation of the student for his advanced camp period and a prompt resumé of the work and materiel at the camp upon his return to the campus. The student normally attends this six-week camp between his third and fourth aca-

demic years. As this time is subject to change on the student's application, great irregularity results, with consequent lack of complete satisfaction. The instructor can prepare his course at the school only for the usual case, but must bear this requirement in mind when arranging the lesson schedules for the periods contiguous to this camp.

We are prone to aim too high, to attempt too complete instruction; to try to instill into the student in a few hours what we have attained through years of training and experience. Remember that the student should be given fundamental training only, that he is being trained to be a good second lieutenant, that this is but the beginning of his military training. The bulk of it will come later as his experience rounds it out. We are but laying the foundation; let it be firm.

Equipment and materiel present an enduring problem. What items are included in the Tables of Allowances? Which of these are necessary, which can be used to advantage, which merely take up valuable space? Are these allowances sufficient? How much space is available? Is sufficient indoor space available for all equipment desired? Is the allotted space suitable? Is it assigned exclusively to the Military Department? Is it of such size and shape that observing instruments may be used in the tracking and plotting of a moving target? How are you going to get a realistic moving target? Will the switchboard and telephone installation be permitted? What source of electrical power is available? If some materiel must be kept out of doors, how can it be made secure, how can it be properly cared for, how can it be protected from the weather, will weather conditions limit its usefulness to such an extent as to reduce its instructional value to the point where its retention is not justified? Is the outdoor space contiguous to that allotted indoors? Are suitable storerooms available at all places where equipment is installed? Will the maneuvering of heavy materiel be permitted on the roads in the vicinity? What effect will the sound of the T. I. bell and the noise of the tractor have on neighboring classes? Can office space be provided adjoining that used for laboratory or classes? These are some of the questions that require answers. Most of them are not capable of general solution and can be answered only when particular conditions are known.

An ideal solution of the space and installation problems would provide in one building assigned to the Military Department only the administrative offices; a clothing storeroom with issue space; separate space for gun racks; class rooms; a complete position finding system for fire against targets of any type, terrestrial or aerial; adjoining gun positions with sufficient space to permit standing gun drill in a room that will permit ready entrance and egress; a motor vehicle laboratory that may also serve as a garage; storeroom space for accessories and cleaning materials; and a nearby drill field. If each part of the installation can

be in a separate room, instruction can be given on more materiel at one hour.

Perusal of them will show the general adequacy of the Tables of Allowances. Some items appear which are certainly superfluous. In establishing a Unit, a complete plan of the desired installation should be drawn up to conform to the conditions of the space provided, the plan being prepared without reference to the Tables. It should then be modified to conform to these and the requisitions should contain only the items necessary to that installation. This will avoid a storeroom full of excess articles. The institution is bonded to the value of the equipment issued. Using the least possible amount brings this bond to a substantial figure. The college may not care to bond itself for the more than couple of hundred thousand dollars represented by the complete table if reasonably satisfactory instruction can be given with less materiel. The obtaining of additional unauthorized equipment is becoming increasingly difficult, but recent changes in the allowances decrease the number of such necessary or desirable articles. If the instructor bears in mind that he will bear the brunt of the labor of installing and maintaining this equipment, he may be more easily satisfied without loss of efficiency of instruction. He should confine his installation to that which he can actually use bearing in mind the number of students and the state of training required for its operation.

The method of property accountability and responsibility is adequately covered in Army Regulations and requires but brief comment. As the P. M. S. & T. may not himself submit requisitions, but must transmit them through school authorities, a little more time will be required for supply. This can be foreseen and the request can be initiated sooner to permit the receipt of equipment and supplies in ample time. The absence of any allowance of office furniture brings immediately to one's attention the need for obtaining certain equipment and supplies from the institution. This must be arranged with the proper administrative officer and the institution's system of budgeting, supply, and accounting must be installed; the two methods of requisition and accounting being operated side by side. The acting supply officer must have a clear conception of both sets of regulations and instructions and must administer both carefully and equitably.

The allotment of hours for instruction again is not capable of a common solution, being largely dependent upon the general academic schedule of exercises. It runs the gamut from the college where definite hours are set aside during which all military instruction must be given to the university that provides no definite hour for any military instruction and this must be given whenever a group of students has an open hour. Both these extremes are unfortunate. The former does not use the full

time of the instructor to advantage and prevents certain detailed instruction whereas the latter does not permit of any instruction in large groups so essential to success in the practice of command and leadership. The P. M. S. & T. may have little control over this distribution of time, usually must content himself with what hours he can get, and must fit his instruction to this schedule.

The allotment of one or two hours per week during which all students may at one time receive military training with the additional required time to be selected by the instructor is rather common. It is certainly satisfactory. It will permit the organization of the large groups desirable for instruction in close order drill and in command and leadership and will permit the holding of ceremonies, will also allow the division of the students into small groups for other instruction, and will afford maximum advantage in the use of equipment. The students may be organized into batteries for drill. The size and composition of the battery should be governed by consideration of a unit capable of effective coordinated artillery drill even though the bulk of the drill time must be devoted to close order drill in satisfaction of the infantry requirement. The conduct of artillery drill requires that certain subjects must already have been covered in the classroom; that the cannoneers have received instruction on the nomenclature and action of parts of the cannon; that the range section shall have been instructed in position finding. This will govern the assignment of students to batteries as well as the period of the academic year when such drill may be conducted.

A system of appointment of cadet officers and noncommissioned officers must be arranged. Undoubtedly the most efficient drill will be obtained with a regular officer in command of each battery, but there are the accompanying disadvantages that it greatly limits the training of students in command and leadership and does not offer them a reward for which to strive. One finds a system of class control of student affairs at many schools. At such places, the use of the same system for cadet appointments is consistent and, for example, might provide for corporals from the sophomore class, sergeants from the juniors, while seniors only would be eligible for appointment as cadet officers. This rule is not always simple of application. There may be more seniors than the complement of officers authorized by current tables of organization, or there may not be enough juniors to furnish the needed number of sergeants. In such an event the seniors might be put on a roster but with loss of efficiency in organizational training due to the frequent change of commanders; the number of sophomore corporals may be increased to permit their acting as sergeants. "Acting" grades should be reduced to the minimum, as this gives the student an erroneous idea of the organization of the battery and of the duties of the various grades.

The hours for classroom or small group instruction must be sandwiched into the academic schedule wherever a study reveals an hour when a sufficient number of students can be gathered. The division into sections should be based on the number of students suitable for instruction in the subject at hand. There is little gained in instructing in position finding a group that is too small to permit of drill. Equally does such instruction lose value where the group is so large that each man can not be assigned specific duties during the drill. There is a limit to the number that can be given proper instruction when grouped about a gun. A certain minimum group is required for puff-board firing, though, if necessary, an individual can be drilled in blackboard firing. Sections may well be limited to from twelve to eighteen students. The student will obtain maximum benefit in a section of such size. This determination should not be considered absolute. Circumstances will arise that will render variation from the rule advisable. It may be that a certain small group can not otherwise be accommodated or that all instructors are busy at some particular hour so another section can not be formed at that time and a large section enrollment will result. The size of sections, then, determines the number of sections into which a course must be subdivided and enough suitable hours must be selected to permit of the enrollment of students in these numbers.

The applicatory method of instruction is prescribed and may be used readily with these small sections. The student is pursuing an unfamiliar path. He has not yet reached the point where he is capable of assimilating his information wholly from the printed text or from the drawing. Having the equipment in the classroom or assembling the class at the materiel is most desirable. Instruction then becomes easy and efficient. The student can understand the meaning of hoops from looking at the contour of the gun. He can see the effects of the stops when attempting to orient an azimuth instrument mounted on a tripod and will remember the definition of a datum point after searching vainly for one. He realizes the need for careful training in observation of fire when his fellow phones in an incorrect sensing in puff-board firing. This method leads to the conclusion that instruction can best be given in a room where equipment and materiel are permanently installed so the student may study it in the few spare minutes he may have between classes as well as permitting its use by the instructor during the class hour. At one university, the solution has been to meet all classes either in the gun park or the plotting room.

In the use of equipment, makeshifts and crude improvisations should be reduced to the minimum. If the article is not available, instruct from the text, better results will be secured than if a crude device is used. At drills, the manning party should be complete and each man should perform only the duties prescribed for his number in the training regulations.

In addition to the use of illustrative material to the utmost, several other aids to instruction may be used. Problem or question sheets requiring that results or answers be turned in to the instructor at the following meeting of the class will extend the instruction beyond the minimum time spent in the classroom; will serve to keep his study more constantly before the student; and will permit the instructor to determine the degree of success he is attaining as a teacher. The reading and correction of these papers is laborious, but, however that may be, they must be corrected and returned promptly to the student.

Students may be divided into two groups, the one whose interest needs stimulation and the one whose enthusiasm merits encouragement and satisfaction. Both these groups may be served by visits to places of interest off the campus. A few hours may be well spent looking about a harbor fort. An afternoon may be devoted to witnessing an antiaircraft firing demonstration. A showing of infantry training and weapons following a ceremony of regular troops improves the close-order drill. An evening in a National Guard Armory crystallizes the student's ideas regarding that component of the Army of the United States.

Once each spring a week-end camp may be established at a neighboring fort. Here good use may be made of some of that ample allowance of ammunition that now accrues annually. In this case, the senior gets additional practice in leadership; the junior gains experience in the observation and adjustment of fire; the basic course students may put into practice their training in position finding and in the service of the piece. Through it all will run that priceless feeling of camaraderie and good fellowship to which our minds continually revert.

The success of such trips and camps depends upon the support and cooperation of the various commanding officers with whom they must be arranged. Experience has shown this to be whole-hearted. The trips are not all simple to arrange and do require considerable additional time, but the effort is well repaid. The number of students to attend may vary from the required attendance of the entire student body to witness an elaborately prepared special demonstration to the automobile load that wants to be taken a hundred and fifty miles or so for a few minutes' inspection of the 14-inch gun, railway mount, at one of the stops on its way west. As the years pass, experience assists in the preparations, suitable programs are more readily arranged, all get better acquainted and the instructor can enjoy the trips as well as the students.

The qualification of students as gunners has a double effect. Desire for the highest possible qualification stimulates interest and necessitates additional study. For best results, the qualification examination should be separate from any required part of the course and qualification should

be voluntary on the part of the student. Not all should be rated. This offers a real reward for the extra effort. Standards should be different from those required for the mere passing of the academic course. As the examinations must be given late in the term, there results an extra review on the part of the interested students which is reflected in their grades at the end of the term. A marked increase in knowledge and a raising of grades has been noted since qualification for gunnery badges has been authorized.

To a lesser extent, small arms marksmanship may be used as a stimulant. This can not be participated in at odd moments as can study for gunners' examinations, with the result that fewer can put in the time necessary to success. Gallery competitions within and without the unit are readily arranged and carried through. A good unit gallery team is a great aid to unit esprit though the participation in firing may not be widespread. An occasional day on the rifle range will interest others. Marksmanship qualification with the service rifle affects the individual rather than the group. Team building with this rifle requires much more time than with the .22, due principally to the time lost in going to and from the range and to the labor of opening and operating it. Matches are not so readily arranged and fired. One officer of a unit should devote much of his time to the encouragement of small arms firing.

Competitions will tend to raise the standard of drills and the esprit of the unit. Individual, inter-battery, and inter-unit gallery competitions and drill competitions may be held. These should not occur too often lest they fail in their purpose by not arousing enthusiasm. Harm will result if competitions are held frequently and some one organization gets the name of never winning. The competition should be capable of being brought to a quick conclusion and the results should be announced at once. An award of some nature should always be made, preferably in the nature of a visible object, a streamer on the guidon, a band on the guidon staff, a cup, or a badge.

Coming to consider the organization of the personnel assigned to duty with the Department of Military Science and Tactics, we may draw together several of the loose ends of this study and show their close relationship.

Regulations require that the senior officer be head of the department and that he be given the same academic rank as is given the heads of other departments, usually that of professor. No academic rank is specified for the other personnel allowing the institution complete freedom in their appointment. In academic circles we find certain standards that govern the amount of time the various grades are expected to devote to the giving of instruction. The head of a department gives the minimum amount of instruction as administration falls largely to his lot. Allow-

ance is made for those indulging in special research. From this we scale down to the instructor, not concerned with administration, who is expected to give as many as fifteen or more hours of classroom instruction weekly or an even greater number in the laboratory.

The departmental administration should be distributed to require the minimum attention of any one officer and to permit his maximum use as an instructor. In addition to the head of the department, there should be an adjutant and a supply officer. There may be an executive officer in the event that the head of the department devotes considerable time to instruction. One officer should be put in charge of the gallery range while another should be range officer in charge of service rifle marksmanship. The senior officer of each arm of the service represented should be put in charge of the operations of that unit.

Before assigning instructors, a decision must be reached as to the total amount of instruction that can be given. There is a limit to the reasonable requirements that can be made of an individual. This probably will govern the number of courses that can be offered in a term. Certainly every academic subdivision of the basic course must be given each term. This work is of such nature that it must be consecutive. A curtailment of the number of courses offered in the advanced course may be made by arranging their content so that courses in any one academic year may be taken without regard to sequence. Careful planning permits this.

Twelve or thirteen hours a week in the classroom or an equivalent amount at drill or in the laboratory seem about the proper amount of instruction to be required of an officer on R. O. T. C. duty. If he is in charge of a unit or has other administrative duties, this should be materially decreased. The time required for preparation for classes must be as carefully considered as the time actually spent with classes. The distribution of the selected hours is governed largely by the time that classes can be met; the instructor's hours must be made to fit the students'. The officer should have one free afternoon each week for exercise. At other times he is available for assignment. All instructors should bear in mind that the ethics of the teaching profession, as well as of the army, require that an instructor's time belongs to the student, not to the instructor. His success is judged not by the results he obtains with the clever and the most interested but rather by the examination or inspection of the entire group, excellent and poor combined. In addition to meeting classes, he should keep definitely announced office hours for consultation with students, daily, if possible. In the interest of efficiency of instruction, at least one hour should intervene between succeeding classes and the instructor certainly should not be asked to conduct more than four classes in one day, three being a better limit.

Instruction can be given by enlisted men only to a limited extent in a few subjects. Undoubtedly they can instruct groups of two or three in the mechanism of a breech block; they may be invaluable in the gallery; a sergeant motor-mechanic generally can give the motor transportation instruction to good advantage—not only is his mechanical knowledge more intimate but he can be allowed more time for preparation; an experienced plotter may assist in position finding instruction and yet not be able to conduct class instruction to advantage. These soldiers are a great help when used as are laboratory assistants in academic courses and they should be so assigned. They can pinch-hit on occasion, but many of them lack either the ability or the presence to maintain the required high standard of instruction.

Assigning all sections of a single course to one instructor results in the minimum time required for preparation and insures uniformity of instruction throughout the course. There is a consequent disadvantage that several repetitions are a severe drain on the individual and the later sections are apt to suffer, especially if as many as three of them meet on the same day. It is pleasant if one instructor can carry a class through its four-year course. The wisdom of permitting this depends largely upon the capability and personality of the individual. It may lead to an increased output of reserve officers, but it will limit the students' vision to one officer's beliefs and experiences. Each instructor has some outstanding training or experience that better fits him to teach certain parts of the course. Make use of this. Do not have the officer without court experience instruct in military law. Most officers prefer giving advanced course instruction feeling possibly that this adds to their prestige. To a certain extent it is more pleasant, the group is smaller, there is less repetition and there is a greater display of interest. But bear in mind that most of the instruction is given to students enrolled in the basic course as their numbers usually are greater.

A satisfactory solution of the problem is to divide the sections in most courses about equally between two instructors requiring their collaboration in their preparation of the subject matter. Do not confine an officer to a single course or year. Spread his time out among courses and change his duties from year to year. This will serve to keep up his interest, too.

With these considerations in mind, the teaching and administrative loads may equitably and happily be distributed among the instructors of the department.

Many of the details of administration and supply should be borne by the soldiers. Rifles must be kept clean; fire control equipment must be kept in adjustment; cannon must be cared for; equipment must be prepared for use in classes; the adjutant must have an office force; the supply

officer needs assistance in keeping accounts and in issuing equipment. As the size of the military department increases and as the number of units multiplies, these duties mount rapidly. Probably the senior sergeants had best be assigned as chief clerk and as supply sergeant, the rest of the duties being distributed as widely as may be according to the personnel available. This will permit the maximum use of the soldiers in assisting in instruction.

The allowance of commissioned and enlisted personnel is strictly limited. Officers are allotted line units at the rate of two per first hundred students and one for each succeeding two hundred or major fraction. The allowance of soldiers seems to be based on the arm of the service represented with its resulting material and equipment rather than on the number of students enrolled. Consequently recourse must be had to the employment of additional assistants by the institution. Here one should obtain stenographers and additional office help. Or armorers may be employed so the soldiers' time will not all be given to keeping small arms free from rust. Such non-military assistants surely justify their employment, and the benefit is plainly seen not only in their own work but in the better instruction resulting from the freer use of the soldiers in instruction.

Questions of administration are omnipresent. The administrative requirements are from three sources: the laws of the country and of the state; the regulations and orders of the War Department; and the rules of the institution. Administrational detail would include the enrollment of students, their physical examination, the keeping of their academic records, the keeping of their accounts, the rendition of the various required reports, the supply of uniforms, the care of materiel and equipment, and the operation of the system of accountability for institutional as well as military property. Some of these have already received brief comment.

The enrollment of students is dependent upon their passing a physical examination with standards closely similar to those required for commission in the Organized Reserves. This does not lend itself readily to simple administration. Considerable delay must result before enrollment can be completed with a consequent confusion and irregularity in the organization of drill units and classes. Especially is this true in Air Service Units at colleges requiring certain military training for all students as the satisfaction of more severe physical standards is required for acceptance into that Unit. If not finally accepted into that Unit, they must be transferred into some other unit. The examinations are usually made by the university physician and he can devote but a portion of his time to them due to his other duties. Again, the student must meet his other classes and this may result in delay. It would seem advisable to detail personnel from the Medical Corps to temporary duty at each insti-

tution over the enrollment period to make all these examinations. They would be available at all times and could proceed more rapidly with more definite results due to greater experience in this type of examination and their recommendations might not be reversed so frequently.

The uniforming of students furnishes food for thought. The labor of issue is but one item for consideration. The use of issue uniforms in many ways presents fewer difficulties and is about as satisfactory as is the drawing of commutation of uniforms. In either case the student deposits a fee covering the cost of the uniform as a guarantee against loss to the institution. The deposit to cover a commuted uniform is more than twice that required for an issue uniform. This difference is serious to some students. Where enrollment is voluntary, it may prevent their military training. For the former an individual running money account must be kept while a memorandum receipt will suffice on the issue of a uniform. The deposit is returned to the student either when he has turned back the issue uniform in good condition or when he has completed his course, by which time the full money value of the uniform has been earned. While commutation of uniform may result in a more pleasing appearance, even this is left to chance, as the cloth and tailoring obtainable for the sum allowed are not of the best. Suppose the student is forced to withdraw soon after enrollment through no fault of his own; he may return his issue uniform and receive the full amount of his deposit but he retains a commuted uniform that is of no use to him, out of which he has gotten no wear, and receives little, if any, fee refund. This is necessary but does not always seem just. He can not sell his uniform to another student because the uniforms must be purchased by the institution under contract and the War Department pays the bill. The method of accounting for commuted uniforms is the more involved and is more costly to the institution.

The keeping of academic records and the rendition of various reports both to the institution and the War Department agencies are tedious rather than intricate. The Military Department must conform to academic as well as military methods, each with its own requirements. In any case, this problem is not one capable of general solution and the system to be used must be determined locally.

The student must attend one summer training camp of not more than six weeks duration as a portion of his advanced course. Throughout his life he will recall the incidents of this camp. The success of your unit at the college depends largely upon his reactions at this camp.

The camp training program should be planned to round out the instruction obtained on the campus. This may seem a difficult contract due to the number of universities and colleges sending students to the same camp. Each of these institutions is governed by the requirements that its

instruction shall lead up to such a camp at this period of the student's training so a broad program can readily be arranged.

As only advanced course students are in attendance, their training in command and leadership should be stressed. In addition, they should be given such instruction as they can be expected to deliver in event of an emergency. This period has many possibilities for the rapid development of the student. He should be given the greatest possible responsibility and yet should be subject to strict discipline and be held to precise and accurate performance of his duties. His time should be well filled, but his duties should be arranged to avoid monotony.

During this period he should witness and participate in as much firing as the ammunition allowance will permit, his duties being changed for each practice. He should be required to keep records and to analyze a drill. He should assist in the analysis of a target practice and in the preparation of reports on it. He should be given a real opportunity to qualify with both the rifle and the pistol. He should take his place on the roster for kitchen police and the necessary fatigue. He should be instructed in the daily routine of the soldier and in such details of battery administration as would fall to his lot as a second lieutenant.

Only a camp conducted along these lines can be counted a success and worth the expense to the government and the time of the student.

The ambition of every officer on R. O. T. C. duty is realized when he sees the name of his institution on the War Department list of Distinguished Colleges. This puts the stamp of approval on his efforts. He feels amply repaid and he will gladly give his best again the next year. Due to the general improvement in R. O. T. C. training throughout the country, a place on this roll is harder to win each year. To achieve this distinction the officer must devote his entire energy to the training and welfare of his students. This, of itself, will increase the output of reserve officers from his unit and will insure their adequate training. Aids to instruction and esprit de corps have already been outlined. The best method of obtaining satisfactory results is not capable of definition. The personality of the officer has enormous influence. He must have the respect and confidence of his students. His classes will respond to his industry and interest and will accurately reflect his enthusiasm. He must be known as a square shooter, one who can appreciate the student's point of view, one who can appraise the student and judge his merit. He must be a leader.

The Command and General Staff School

By A STUDENT

Fort Leavenworth, Kansas,
April 2, 1926.

My Dear .....:

I have your letter asking about the Command and General Staff School as it is today and reply as a pleasant task.

For a number of years I have been meeting old friends, recently graduated from here, and found that the majority were outspoken against the School—some almost bitter. This made such an impression on me that I was ready for the worst, only to be most pleasantly surprised. On reporting early one evening I had my quarters and garage assignment, keys, and full instruction within ten minutes; a maid, obtained through the local personnel office, on the job by noon; and most of my furniture unpacked by night. Courtesy, efficiency, and dispatch were universal all the way from the executive to the electrician who responded at once to fix the bell—all in accordance with instructions, I recently learned, given the key men by the Commandant in person. Such is the introduction which the new arrival will have.

A few days remain before the opening day of school, all pleasant days because filled with greeting old pals and meeting others who soon become pals. And then there are the golf course and tennis courts, both better than average, available for recreation and necessary exercise. Those who prefer a horse can get one any time.

About the time one gets his bearings, the first day and the Commandant's opening address will come. In that address, he will make it plain that you are faced with a year of hard work; that the faculty is here to help; that an excellent physical fitness, indicated externally by a large chest and a small waist, is a prime requisite to withstand the grind; that the wives are to spread sunshine in the homes; and that booze is taboo. It would be foolish to forget this last injunction, particularly since you can go anywhere you like on week ends.

Unlike many schools this course actually begins on the first day. The school week is from Monday to Friday, both inclusive. Saturday and Sunday belong to the student. The school day is from 8:30 A. M. to 5:30 P. M. The morning is divided into three one-hour periods with fifteen-minute intermissions between them. The assignments for the day are covered during these periods by lectures and conferences, for the latter of which the students are asked embarrassing questions. The afternoon con-

stitutes one four-hour period reserved for map problems, map maneuvers, tactical rides, and terrain exercises. When none of these are scheduled students ride for one hour, the remaining time being free. The evenings are taken up with study and prognostication concerning the subject of the next pay problem. The latter is a glaring waste of precious time, but human nature is thus constituted and the waste will continue until a change is made.

The scheme of instruction is essentially that of the lecture and conference systems. The lectures are on a number of collateral, but interesting and necessary subjects inserted at intervals throughout the course. They do not require preparation on the part of the student.

Conferences prevail. During these students selected at random are asked questions on the subject matter assigned for study, primarily to emphasize the point being considered rather than to catch the student, as some are inclined to believe. Also, at these conferences illustrative problems are discussed in detail in the attempt to develop the student's tactical judgment and to impress the basic truths involved. It is the means by which officers of all branches are taught to speak the same language—indoctrination, some call it.

Stated broadly, the first part of the course is taken up with the tactics and technique of the several branches. Then we learn how to use the infantry, the signal corps, and all other combat and staff branches. After this will come tactical principles and decisions in which we learn to use the branches in combination, i.e., brigades and divisions. Following this will come a study of the corps. While we do not study the army as such with a view to handling it, we do give it some attention in order that we may make a thorough study of the corps and its function in the army.

Although it is by tactics that the enemy is driven back, the school does not lose sight of the fact that if the soldier is to fight he must eat, that if the artillery is to put down a barrage it will need ammunition, and so teaches the many phases of supply and evacuation. Staff work is touched upon here and there and is emphasized in map maneuvers and certain problems. The command phase is strong throughout the course, involving as it does both tactics and supply, and is emphasized in a set of troop leading problems and in decision problems. Thus the tactics course is paralleled by the course in command, staff, and logistics, making possible a finished study of all points which a commander and his staff will have to consider.

Tactical rides and terrain exercises are held in limited number during the fall. If the student is inclined to doubt their value it would be well for him to look upon them as preparatory to the general terrain exercises which come near and at the end of the year, and which, in reality, constitute a series of examinations under a disguising name. Their

value in points is more than twenty-five per cent of the whole course, and so it behooves the student to be physically fit and to have a clear head to the very end.

If the men at Monroe are worried about the equitation, calm them. It is for an hour a day two to three times a week during the first five winter months only, generally at will on the road. Face the fact that most field officers need that much either for their horsemanship or for their waist lines. Besides, it provides exercise while the weather prevents tennis, golf, and other forms.

Beginning with the current year only two marks are given out—"S" for satisfactory and "U" for unsatisfactory. Thus, a low "S" now, corresponding to the "C" of your year, looks about as good as some of those "A's" which you used to get. Anyhow, many heart pangs of olden days are *not here* and fewer people are going under from the strain.

The heads around here are distinctly human, but there yet remain some of the features which contributed to the bilious reputation of the early post-war Leavenworth. I am one of those optimists who believe that further improvements are already en route. If you become impatient for them just recall your mechanics and the fact that it takes time and energy to swerve a ponderous gyroscope revolving at high speed.

So much for the school—now a word about preparation. That preliminary work is best had in the special branch schools where each officer learns much about his own branch and some about the others. It is a positive advantage to have had such a course, provided the teachings are in accord with Leavenworth doctrine, as is true of most of the branch schools. But the officer who comes here without such a course need not worry. He can gain much by looking over correspondence courses put out from here and will be fully oriented before the pay problems become numerous.

Although you preceded me here by only one year I exaggerate little when I tell you that you would be amazed by the high morale here now. The place has been maligned or else things have changed, and I am inclined to the belief that both have occurred.

If I were talking to friends about to come here I would say these things:

1. It is hard work for a year—a marathon rather than a sprint.

2. The course can be done by any officer who spends his energy on the course rather than on worry about marks.

3. Physical fitness to finish the course and to proceed with the duty to which assigned at its completion is far more important than "remarks on graduation."

4. If your views differ from those of the School, conceal them on pay problems. This is the indoctrination year, after which you can elaborate your views.

5. Work conscientiously for five days, then go somewhere on week ends and put a ban on school thoughts while gone.

6. Use the Christmas and Easter holidays for the purposes for which set apart, i.e., recreation and pleasure.

7. To quote an instructor here adept at stating things tersely, "You will be O. K. if you do not get mad."

8. The instructors claim that they work harder than do the students. Take pleasure from that and go smiling on. Even your friends dislike to see you grouchy.

Such are a few of the high points and sidelights on the School as it is today. A transformation has started and we are justified in expecting only improvement, not alone in the course itself but also, and more important, in the conditions under which earnest officers from forty to fifty years of age work while taking the course.

Sincerely,

We do not discharge the police to abolish crime, we do not discharge the firemen to stop fires, and we do not discharge the doctors to stop disease. But they do wish to discharge the army and navy to stop war. The police do not incite men to crime in order to increase the numbers and importance of the police force, nor firemen go about setting fires to increase the number of fire engines, nor do the doctors spread pestilence to help their practice.—*Captain McNamee.*

The Fifth French Army In August, 1914

LIEUT. COL. NED B. REHKOPF
Coast Artillery Corps

THE MARCH TO THE SAMBRE

On the evening of August 14, the enemy situation, as known to the French was as follows:

> Columns of infantry have been reported on the left side of the Meuse west of Visé. It appears that a large part of the VII Corps, one division of the IX Corps, and a brigade each of the III, IV, VI, X and XI Corps, have taken part in the operations against Liège, which are still in progress.
>
> Field works have been constructed on the Ourthe, probably for the purpose of concentrating army corps behind that river to form a mass of maneuver for the German right wing. The Guard Corps has been reported in the vicinity of Stavelot.
>
> Virton appears to be occupied by important forces of all arms. Longwy has been bombarded by artillery. No movements have been reported around Metz.
>
> The German forces are covered by six cavalry divisions on the general line, Hasselt—Huy—Marche. Cavalry engagements near Diest and Eghezee resulted in the repulse of the Germans. Small bodies of cavalry have appeared along the Meuse near Dinant.

With this information at hand, General Lanrezac was more than ever convinced that the Germans intended to make their main effort on their right and believed that if the French were to be prepared for the turning movement which he expected on the west side of the Meuse, it was necessary to make haste. After talking the matter over with his staff, he decided to go to G. H. Q. at Vitry-le-François and, as he expressed it, "put General Joffre straight" on the situation. At G. H. Q. he talked with General Joffre and Generals Belin and Berthelot (Chief of Staff and principal assistant) and expressed the fear that the Germans, moving on the west side of the Meuse, would launch an offensive just at the time when the Fifth Army was moving to the front, Gedinne-Paliseul-Neufchâteau. General Joffre replied that he had the feeling that the Germans were nowhere near ready for such an operation; with which idea, Generals Belin and Berthelot agreed. General Lanrezac was unable to convince them. On his return to his command post, he found a G. H. Q. informa-

From Hanotoux's Histoire Illustrée

PLATE I

tion bulletin which confirmed him in his estimate of the situation. He, therefore, wrote General Joffre a note, repeating his advice that a movement of the Fifth Army to the region of Maubeuge-Givet should be studied and prepared for at once.

Toward evening of August 14, the German Fifth and Guard cavalry divisions attempted to force a crossing of the Meuse at the bridges at Anseremme and Dinant, but were repulsed by units of the 8th Brigade and I Corps. Foreseeing that the attack would be renewed, General d'Esperey, commanding the I Corps, ordered the 2d Division to assure the crossings between Hastiere and Anhée and placed the 1st Division in reserve at Anthée. The 37th Division, which detrained at Rocroi, was put at the disposition of the I Corps.

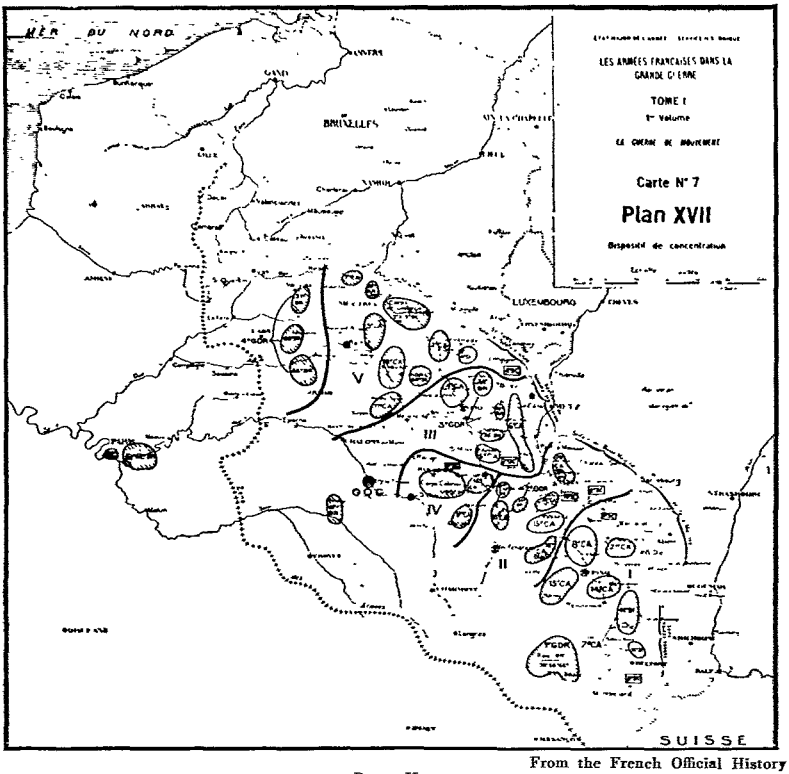
This attempt to cross the Meuse and the information that ten thousand cavalry had crossed the Meuse northeast of Huy and were moving on Waremme; the evacuation of Huy by the Belgian Army, which had destroyed the bridges behind it; and the presence of many German troops south of Huy, led General Joffre, on the morning of August 15, to give permission to the Fifth Army to study and plan for the movement of two corps (in addition to the I Corps) to the north, but such a movement was to be made only on order of the Commander-in-Chief.

General Lanrezac then ordered the III Corps to form faced to the northeast, with divisions abreast, on the line Prix-les-Mézières—Harcy, thus extending farther to the north and ready to move either toward Paliseul and Gedinne or toward Philippeville. The X and XI Corps were also directed to extend toward their left, facing to the northeast. The X Corps formed with divisions in column; and the XI Corps with divisions abreast. The army artillery, in the vicinity of Vouziers was ordered to move north, by groups; the leading group to Draize, a march of about twenty kilometers.

While this rearrangement was in progress, G. H. Q. authorized, by telephone at 7:00 P. M., and later by formal order, the movement of the III and X Corps to the north. In this order G. H. Q. admitted for the first time that the enemy appeared to be making his main effort with his right, north of Givet, and stated that another group of forces appeared to march against the front: Sedan—Montmédy—Damvillers.

The Fifth Army, leaving its right corps in the region southwest of Sedan, its reserve divisions for the defense of the Meuse, and the Fourth Cavalry Division, all to the Fourth Army, was directed to move the remainder of its forces to the region of Mariembourg or Philippeville and there to act in concert with the British and Belgian forces against the right wing of the enemy forces. The Cavalry Corps, which had crossed the river at Hastiere and moved to Florennes, and the group of reserve divisions at Vervins were attached to the Fifth Army. The total strength

of the army, with these changes and after the addition of the XVIII Corps a little later, was approximately the same as in the initial concentration. In place of a well-rounded organization, however, there were now two independent Moroccan divisions and a group of three reserve divisions, with no corps staffs or corps agencies to assist the army in the employment of these divisions. Furthermore, the corps which had been de-



From the French Official History

PLATE II

tached from the Fifth Army were two of the three corps with which the Army Commander had been closely associated before the war. These changes, however, enabled G. H. Q. to send the Fifth Army to the Sambre without disrupting the dispositions of the armies along the Meuse.

The Fourth Army established itself so as to be able to debouch from the front: Sedan—Jametz in the general direction of Neufchâteau. The 52d and 60th Reserve Divisions, now attached to the Fourth Army, held the Meuse south of Givet.

General Lanrezac ordered the Cavalry Corps to reconnoiter the movements of the enemy north of the Sambre, to delay columns attempting to cross the Sambre between Namur and Maubeuge, and to maintain

connection with the Belgian field army and with Namur. The time at which the cavalry would cross the Sambre was left to the decision of the corps commander, because of the worn-out condition of the horses. The I Corps, reinforced by the 8th Brigade (which had been detached from the cavalry when the latter crossed to the west bank of the Meuse) had the mission of guarding the Meuse from Namur to Givet. A brigade of the cavalry corps at Saint Gérard maintained liaison with Namur.

Because of the preparations made on the fifteenth for the march and the fact that the heads of the main bodies were held back from the Meuse, the II and X Corps moved to the north with the X Corps on the right of the III Corps. The X Corps moved with its right along the general line: Charleville—Bourge—Fidèle—Gonrieux—Neuville—Stave; the left of the X Corps and the right of the III Corps followed the general line: Le Tremblois—Bourlers—Cerfontaine—Fraire; the left of the III Corps followed the general line: Signy-le-Petit—Eppe—Sauvage—Beaumont—Gozée. The swing to the left was caused by the wooded region just west of the Meuse between Mézières and Rocroi. The route along the valley of the Meuse was too exposed to the enemy to permit it to be used in the march to the Sambre. The zones of advance varied in width from three to nine miles. At the start, the X Corps had to pass through the defile of the towns of Mézières and Charleville, and the III Corps had to move through the area occupied by its own trains and convoys, which caused some confusion. The zones of advance given above were not laid down by the initial order for the entire march, but orders were issued daily by the army for the march of the next day, giving the corps zones of advance for that day, the lines to be reached by the advance guards, and the billeting areas for each corps and separate unit. The order for the first day's march was issued by the army at 10:00 P. M., the preceding night. On the other days, the orders were issued between 2:00 and 4:00 P. M.

The 37th Division, which had detrained near Rocroi, moved to Mariembourg on the seventeenth. The 38th Division was assembled in the region of Chimay. These divisions were attached to the X and III Corps, respectively, and as the army overtook them, they took their places in rear of the other divisions as corps reserves.

The British began their concentration in the vicinity of Le Cateau on the seventeenth.

On the seventeenth the French learned for the first time, that the German Reserve Corps were following closely behind the active corps in the march through Belgium. This information was obtained from an observer in an airplane which was brought down by machine-gun fire of the I Corps near Dinant. This officer stated that the Second German Army, commanded by Von Bülow, consisted of the VII, IX, X, and Guard Corps, plus three reserve corps which followed in the second line.

The XVIII Corps, which had been mobilized in the region of Bordeaux and concentrated with the Second Army in the vicinity of Toul, was sent north by the Commander-in-Chief and detrained south of Beaumont on the eighteenth to twentieth. The 51st Reserve Division, one of the group concentrated near Vervins, was moved on the eighteenth to twentieth to Rocroi to strengthen the forces holding the Meuse and protecting the right flank of the army.

The army artillery was advanced by group on orders issued each day by the army; two groups of three batteries each, of 120-mm. Baquet

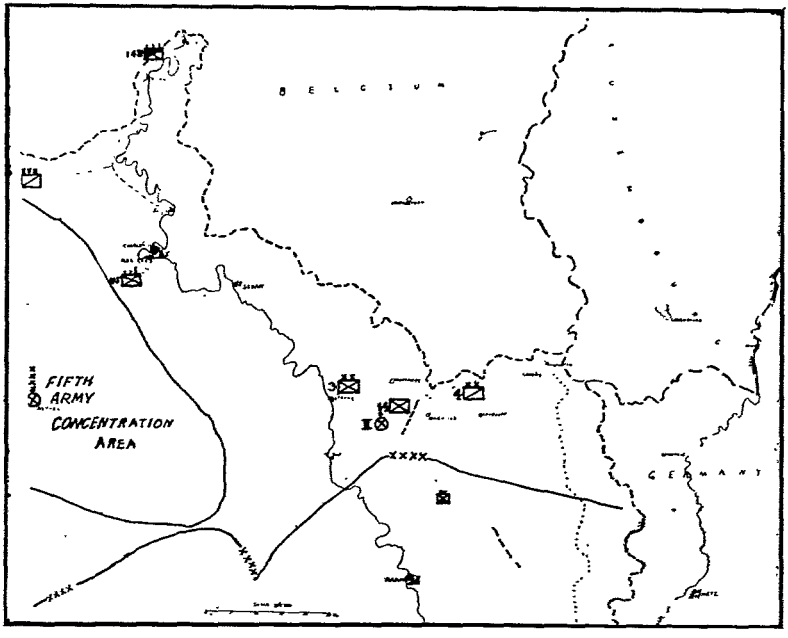


PLATE III

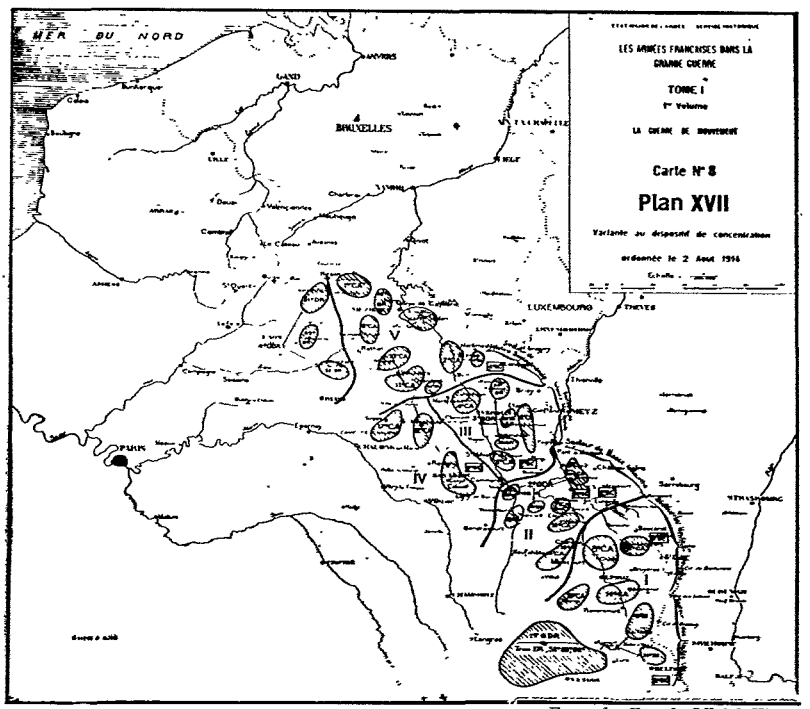
Disposition of Covering Forces During Concentration of Fifth French Army, August, 1914

howitzers and one group of four batteries of 155-mm. howitzers followed the III Corps to the region of Boussu-le-Walcourt, where it was attached to the III Corps on the twentieth. One group of four batteries of 120-mm. guns and one group of three batteries of 155-mm. howitzers followed the X Corps to the region of Neuville, where it was attached to the X Corps on the twentieth.

On the eighteenth there appear, for the first time in army orders, instructions for the army air service. Prior to this time all air service seems to have been operating under G. H. Q. Now four *escadrilles* are ordered by army from Hirson to Philippeville; the aviation park to remain at Hirson. Unfortunately the army order says, "For missions, see

special air service order," and that special order is not included in the official history. On the sixteenth and seventeenth unfavorable weather had prevented aerial observation. A report made by the army air service on August 20, covers a reconnaissance of the general area between Charleroi—Perwez—Eghezee—Namur, extending approximately twenty miles beyond the front of the army.

During the first two days' march the army made comparatively rapid progress. There were one good road and several second-class paved roads



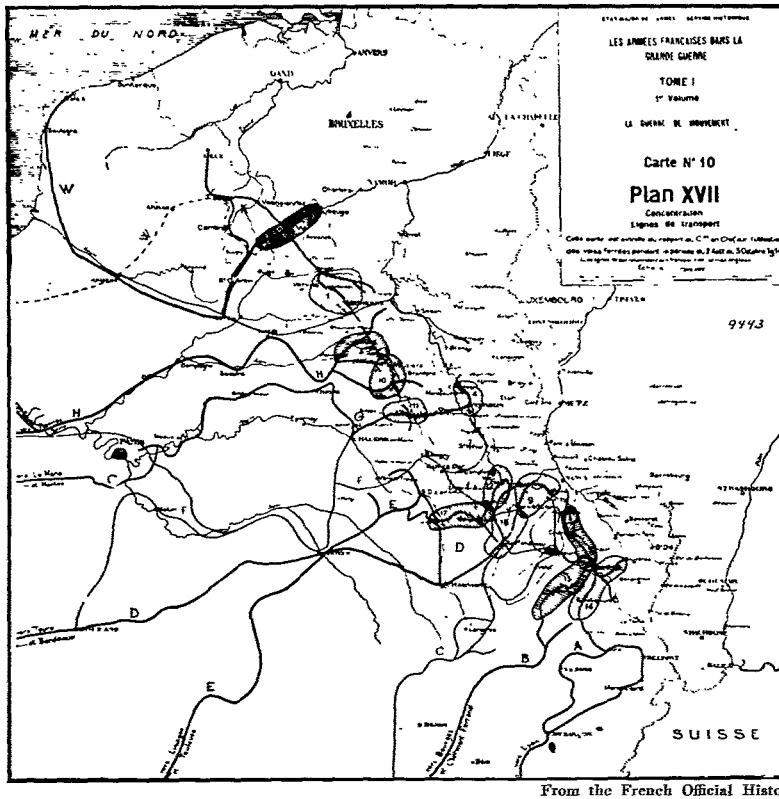
From the French Official History

PLATE IV

in the zone of each corps for the greater part of the march, but the direction of those roads was oblique to the general direction of the march and made the total distance marched much greater. The total distance marched by the III and X Corps and the Army Artillery was about seventy-five miles. On the first two days they made about twenty miles each day; on the eighteenth and nineteenth they marched about thirteen miles; and on the twentieth, they closed up the remaining distance to the Sambre—about nine miles. The leading infantry elements reached the Sambre on the twentieth and the main bodies were deployed south of that river.

The XVIII Corps began its advance from its detraining area near Beaumont on the twentieth and on the twenty-first moved up to the Sambre on the left of the III Corps.

The Belgian Army, withdrawing from the Dyle on the nineteenth to the forts around Antwerp, broke connection between the Belgians and the Cavalry Corps.



From the French Official History

PLATE V

Corps headquarters were advanced each day until the twentieth. Army headquarters moved from Rethel to Signy-le-Petit on the eighteenth and to Chimay on the twentieth. Both army and corps headquarters were habitually located along the line of the railroads. Communication was by telephone and telegraph—in France the main telephone lines follow the railroads and not the highways, as in this country.

By the morning of the nineteenth, German Cavalry divisions had reached Louvain—Perwez—Dinant; the heads of infantry and artillery columns had reached the line: Diest—Tirlemont—Avennes—Andenne—Bastogne. In short, considerable forces had crossed the Meuse and while

the larger part moved to the northwest, the remainder attempted to turn Namur from the north.

At 7:00 A. M. on the twenty-first, General Joffre issued instructions for the Third and Fourth Armies to begin their advance toward Arlon, and Neufchâteau, respectively, against enemy forces moving west through

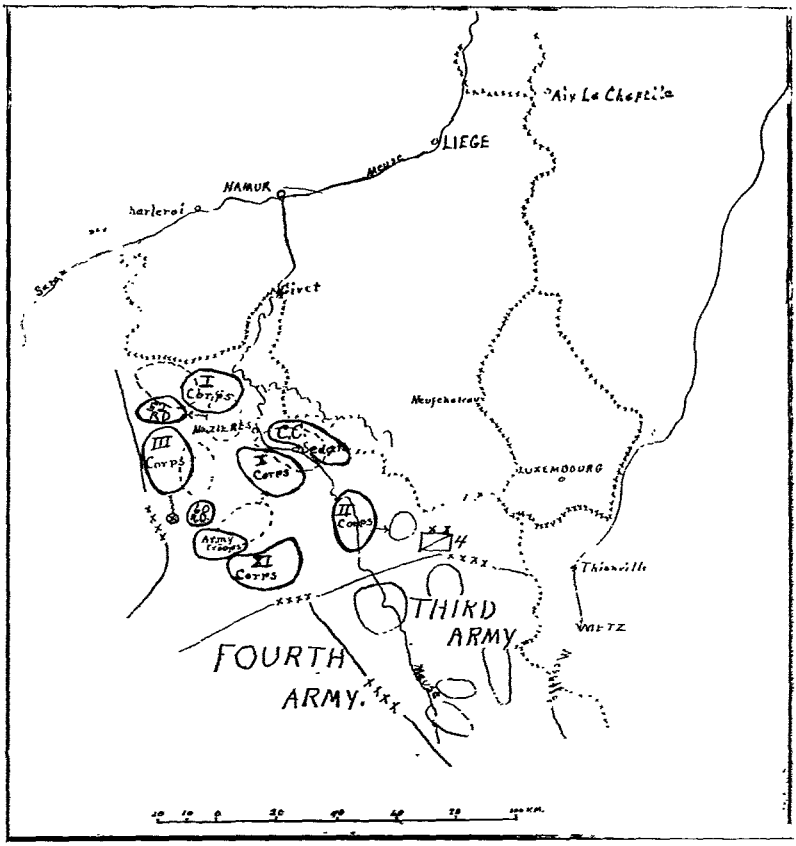


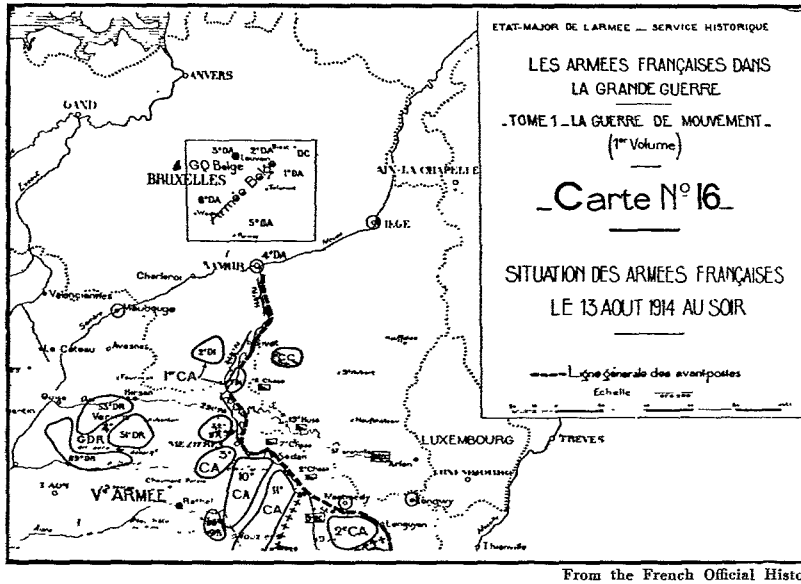
PLATE VI

A Suggested Concentration of the Fifth French Army

Belgian Luxembourg. The Fifth Army, acting with the British and Belgians, was directed to take for its objective the enemy group of the north. The British Army was asked to move toward Soignies. When this order was received by the Fifth Army, the leading elements of the Fourth Army were just debouching north of the Semoy. Only the advance guards of the British were at Maubeuge; their columns did not reach the Mons—Merbes-le-Château area until August 23. The Belgian Army was contained in Antwerp by two German Corps. Moreover, the

advance cavalry elements of the Fifth Army confirmed the presence of enemy detachments of all arms, estimated as from ten to fifteen thousand men, in the region: Balatre—Ligny—Saint-Amand, and reported that farther west other forces, estimated at fifteen thousand men, coming from the direction of Gembloux, seemed to have reached the line: Ligny—Mallet during the night of the twentieth.

General Lanrezac explained this situation to the Commander-in-Chief and stated that the Fifth Army was ready to cross the Sambre, but that if



From the French Official History

PLATE VII

he was to act in conjunction with the British and not expose the Fifth Army alone, it would be necessary to wait until the twenty-third or twenty-fourth. He also drew attention to the fact that his I Corps would have to be left south of the Sambre to guard the right flank along the Meuse, since the Fourth Army had not crossed the Lesse. General Joffre replied that he left General Lanrezac the sole judge as to when he should cross the Sambre.

How shall we classify this march to battle? It certainly was not an advance with any predetermined maneuver in mind. In view of the lack of accurate information concerning the enemy's strength, location, and probable intentions when the march began, it was, of course, impossible to determine the maneuver which would be undertaken when the enemy was encountered. There was nothing but the vaguest sort of mission assigned in the army orders for the advance. General Lanrezac had asked authority to move the army north in order to be ahead of the Germans in

the turning movement which he believed they were making. In authorizing the march, General Joffre directed the army to move to the region of Mariembourg or Philippeville and there act in concert with the British and Belgians against the enemy's wing. The army order for the first day

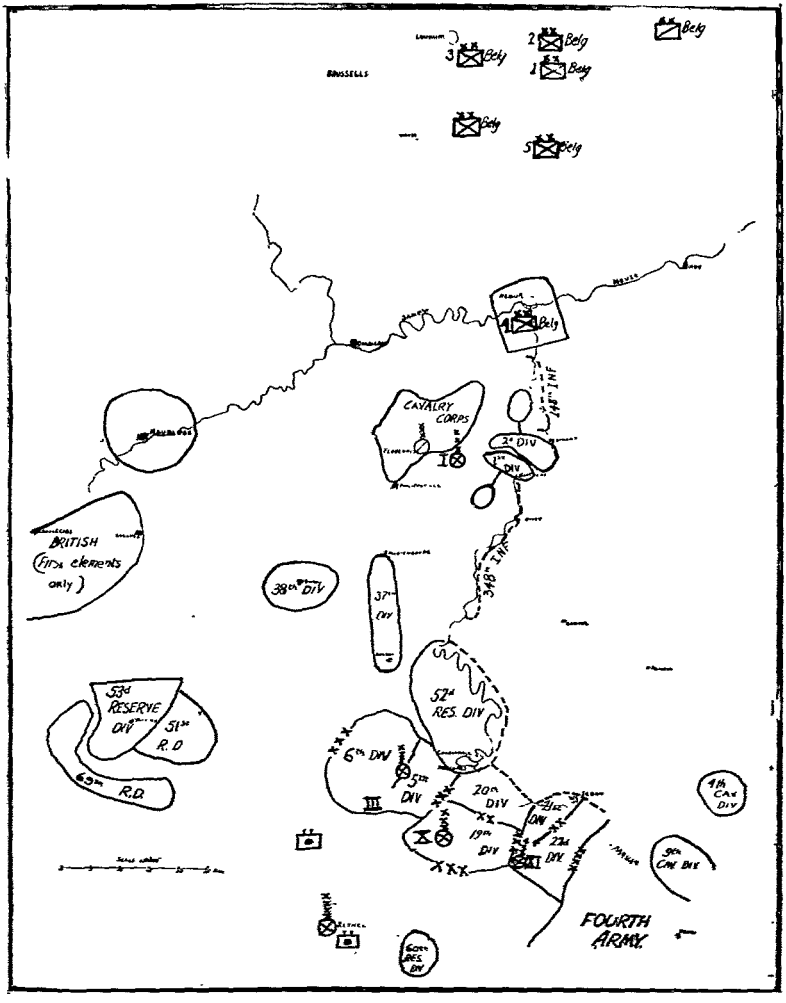


PLATE VIII

Situation of the Fifth French Army on the Evening of August 15, 1914

simply states that the army will move north—no mission, no final objective. The issuance of daily orders for the march also indicates a lack of fixed purpose and is contrary to the teaching that an army commander should look, plan, and order two or three days ahead. As late as August 18, General Joffre ordered that the Fifth Army should be prepared to

cross to the east of the Meuse and operate against the right of the Germans, if they should turn south in that region, and directed that a strong bridgehead be maintained east of Givet for that purpose. General Lanrezac appears to have paid no attention to that eventuality. His army

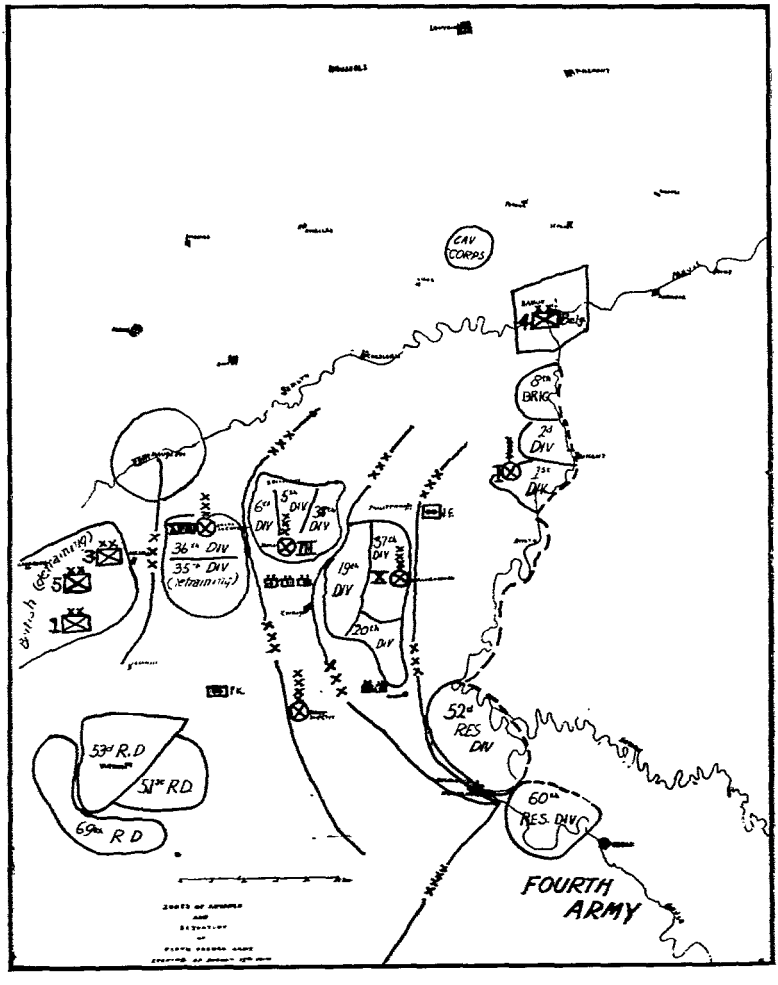


PLATE IX

was echeloned to the left rear which would have made a change of direction to the east very difficult.

At the beginning of the advance, the formation had some of the appearances of an army advancing with a strategic advance guard. The Cavalry and I Corps were out in front, two or three days in advance of the rest of the army, in position to reconnoiter the enemy, engage the

enemy so as to establish the zone of maneuver, cover and screen the main force, and act as a pivot of maneuver. But the I Corps was pinned down by the mission of guarding the Meuse and the Cavalry Corps, without infantry support, was unable to make progress against a superior force.

Considering the British as a part of the allied force, the advance was more of a concentration on the field of battle. General Joffre had a preconceived idea as to the form of maneuver which these armies should execute, that is, outflank or turn the German right wing. And all the things happened which the text books say are liable to happen in such a form of advance; the allies themselves were outflanked and the allied

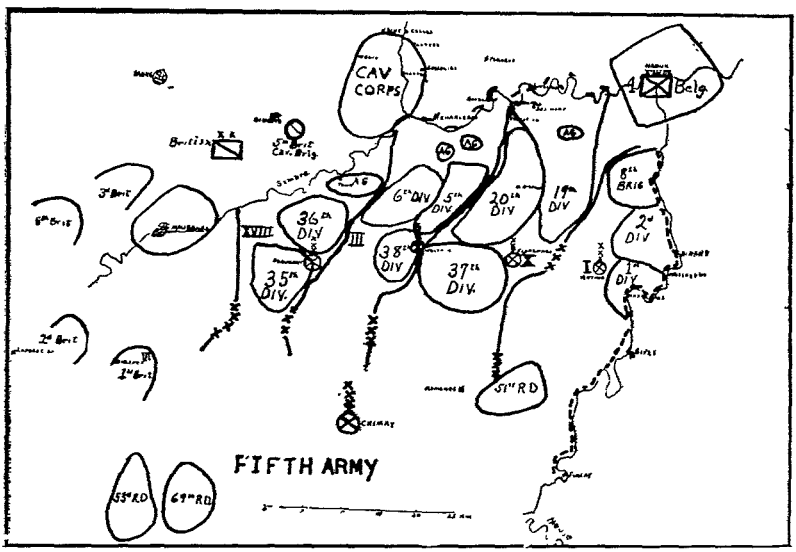
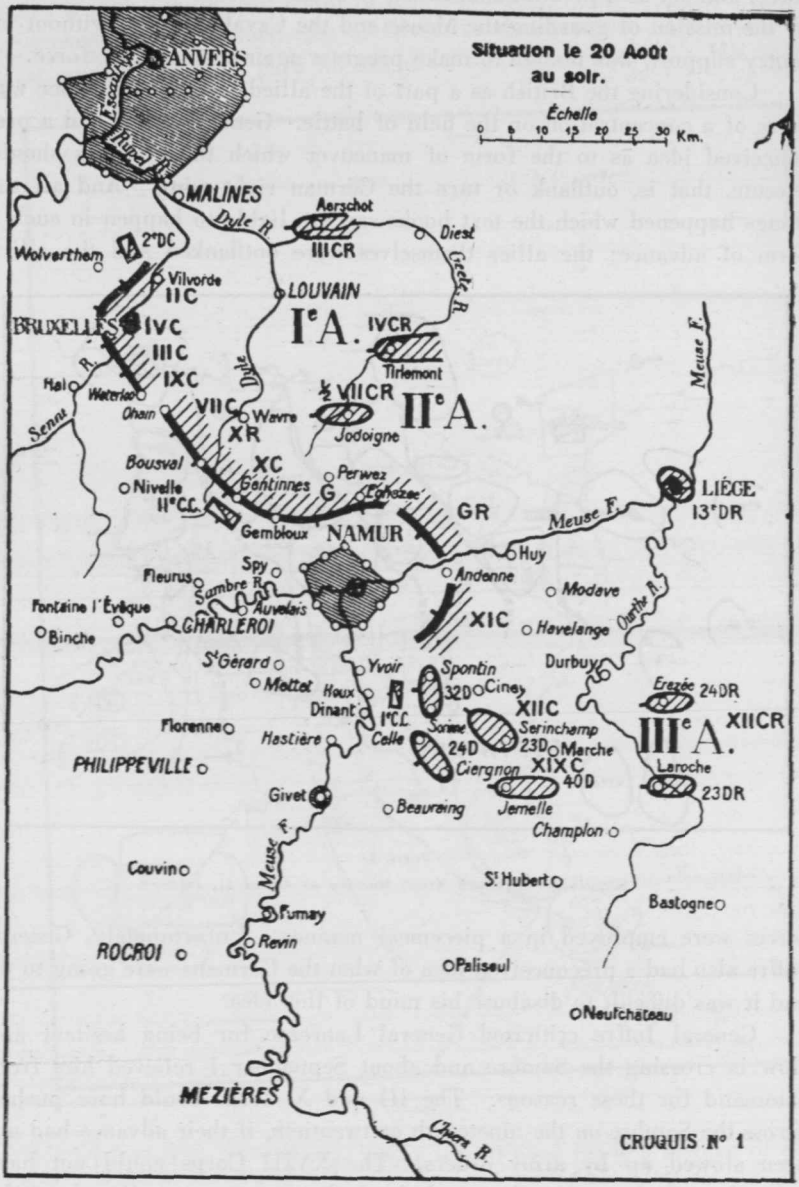


PLATE X

Situation of the Fifth Army, Morning of August 21, 1914

forces were employed in a piecemeal manner. Unfortunately, General Joffre also had a preconceived idea of what the Germans were going to do and it was difficult to disabuse his mind of this idea.

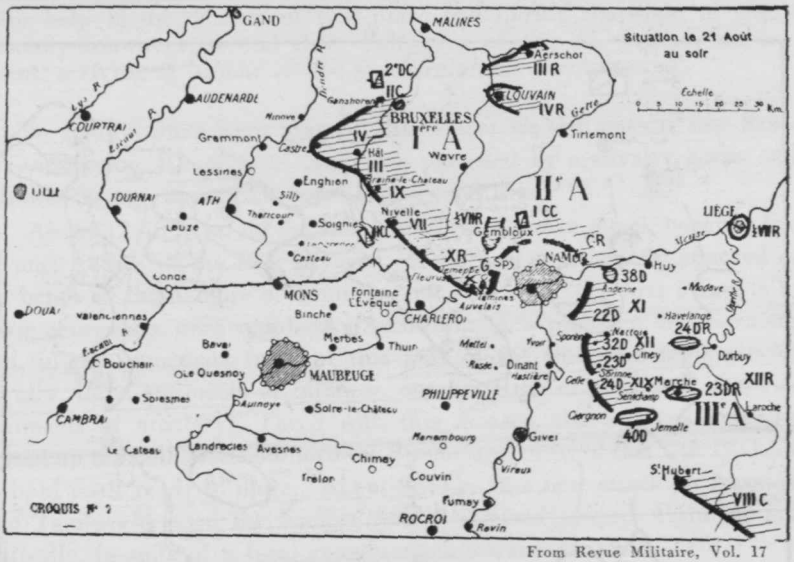
General Joffre criticized General Lanrezac for being hesitant and slow in crossing the Sambre and about September 1 relieved him from command for these reasons. The III and X Corps could have pushed across the Sambre on the nineteenth or twentieth, if their advance had not been slowed up by army orders. The XVIII Corps could not have crossed until the twenty-first and the I Corps was not relieved on the Meuse until the night of August 21-22. The British were not ready to cooperate before the twenty-third. If the Fifth Army had crossed the Sambre either on the twentieth or later, that army probably would have been destroyed. Had it started north several days earlier, or better still,



From Revue Militaire, Vol. 17

PLATE XI

had the Fourth Army been sent by rail on August 4, when the Belgians first asked for assistance, and had organized with the Belgians a line from Antwerp along the Dyle to Namur, the allies might have been able to defend such a line, the war kept out of France, and the initiative eventually regained. In other words—a proper estimate of the situation and of the best way to cope with it, whether offensively or defensively, and a prompt and determined execution of the plan decided upon, would have given a better chance for the success of the operation.



From Revue Militaire, Vol. 17

PLATE XII

THE BATTLE OF CHARLEROI

Fifth Army orders, issued at 8:00 P. M., August 20, provided for nothing more on the twenty-first than the completion of the deployment south of the Sambre. No mission, offensive or defensive, was stated in the order.

On the morning of the twenty-first the army was situated as follows: The I Corps, plus the 348th Infantry, still guarding the Meuse from Fumay to Namur and covering the right of the army, had the 348th Infantry between Fumay and Agimont; the 1st Division between Hermeton and Anseremme; the 2d Division between Anseremme and Anhée; the 8th Brigade between Yvoir and Profondeville. The 51st Reserve Division, attached to the corps on the preceding day, was in the region Olloy—Matagne-la-Petite and was under orders to move on the twenty-second and twenty-third to relieve the 1st Division on the Meuse. The X and III Corps made no change in their dispositions on the twentieth. The

XVIII Corps pushed its advance guard to the line: Gozée-Thuin and its headquarters to Beaumont. The 36th Division was in the area: Ragnies—Thirimont—Montignies—Saint-Christophe; the 35th Division in the area: Bousignies—Beaumont—Grandrieu—Hestrud—Cousolre. The Cavalry Corps, in front of the XVIII Corps, remained in the Fontaine—Lévêque area, with covering troops at Fleurus, Gosselies, and Nivelles, and covered the left of the army and the British concentration.

The British reached areas on the 21st, as follows: Cavalry Division, Givry—Fauroeulx; 5th Cavalry Brigade, Binche; II Corps-3rd Division,

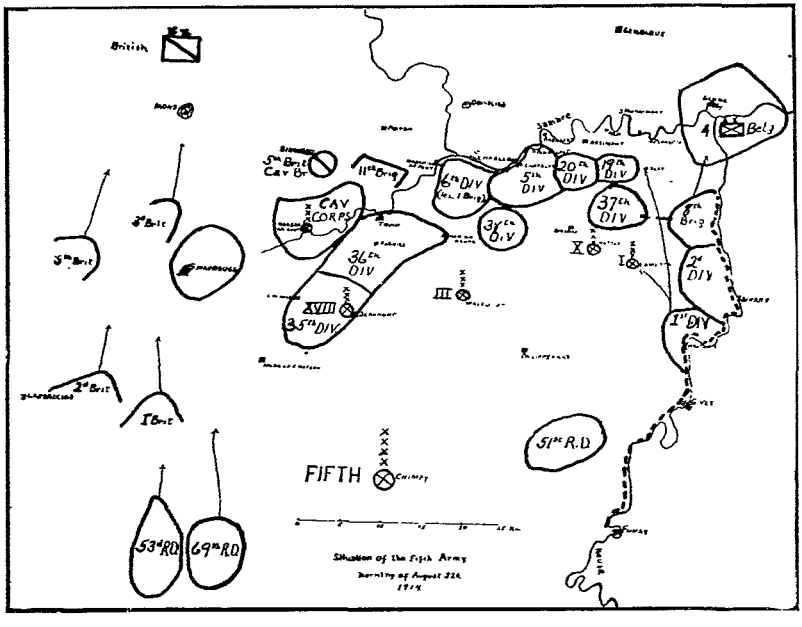


PLATE XIII

Goegnies; 5th Division, Bavai; I Corps-1st Division, Avesnes; 2d Division, Noyelles; Headquarters, Le Cateau.

On the left of the British, three reserve territorial divisions had established a line from Maubeuge through Valenciennes, Lille, and Tournai to Dunkerque.

In rear and at the left of the Fifth Army, the 4th Group of Reserve Divisions advanced the 53d division to the region of La Capelle and the 69th Division to the region of Mondrepuis.

The G. H. Q. estimate at this time was as follows:

> Six army corps and three cavalry divisions are north of the Meuse, according to information received by the British General Staff. These corps are apparently followed by others. In fact, new

German forces, without doubt Landwehr, have crossed the Meuse in the vicinity of Liège. In the afternoon of the twentieth two columns of at least one division each, have passed through Louvain and marched toward Brussels. Forces reported around Wavre have been put in march toward the west.

A part of the cavalry forces which have passed through Brussels has gone to Ninove and a part to Hal. The main bodies of cavalry which were in the region of Genappe have pushed detachments on Nivelles and Fleurus.

The investment of Namur has commenced on the front Dhuy—Leuze—Hingeon. The governor of Namur called on the Fifth Army for help in the defense of that place and during the night of the twenty-first-twenty-second three battalions of the 8th Brigade were sent, arriving at Namur on the morning of the twenty-second.

In reality, there were nine German Corps on the general line Brussels—Waterloo—Gembloux—Andenne, preceded by a cavalry corps and followed by two and a half corps in a second line.

About 12:45 P. M. on the twenty-first the German attack began. The advance guards of the 19th Division (X Corps) were heavily attacked at the bends of the Sambre at Tamines and Auvelais. The first attempts to force a crossing were repulsed. According to a prisoner, the Germans had, in the immediate front of this part of the line, five regiments of cavalry, three regiments of infantry, one battalion of chasseurs, and two regiments of artillery. Faced with this menace, the corps commander closed up the 20th Division north of Biesme and ordered the 37th Division to hold itself ready to move. About 2:00 P. M. a new attack on Auvelais and Tamines crossed the Sambre and progressed toward Arsimont and Falisolle, in spite of a local counterattack toward Auvelais.

On the front of the III Corps the advance posts were attacked about 3:00 P. M. and a crossing forced at Roselies.

General Sordet had reported in the morning that his Cavalry Corps was ready to move against the enemy cavalry to the north but needed an infantry support in order to meet the Germans on an equal footing. The 11th Brigade of the III Corps was attached, therefore, to the Cavalry Corps and moved to Fontaine Lévêque. During the afternoon the 3d Cavalry Division was forced back from Luttre and Pont-a-Celles to Guoy-les-Pieton. The 1st Cavalry Division was forced to give up Gosselies, but held Motte on the canal.

These early engagements were not reported promptly at the army. At 4:00 P. M. the army commander, not knowing that the advance guards of the X and III Corps were engaged with the enemy, issued orders for the next day. These orders directed that the army should hold itself ready to take the offensive, crossing the Sambre to place itself on the line: Namur—Nivelles. But since that offensive was to be made in conjunction

with the neighboring armies, the date on which it was to be undertaken could not be announced. Therefore, corps were directed to close up on their leading units and take positions ready to oppose a debouchment of the enemy across the Sambre.

The I Corps, continuing to guard the Meuse, was directed to organize and occupy with one brigade, a position at Sart Saint Laurent and to observe the crossings of the Sambre below Floreffe, gaining contact with Namur. The X Corps was ordered to organize a position on the general line, Fosse—Vitreval—Sart—Eustache and observe the bridges between Floreffe and Pont-de-Loup. The III Corps was ordered to organize a position which would permit it to oppose a debouchment either from Châtelet

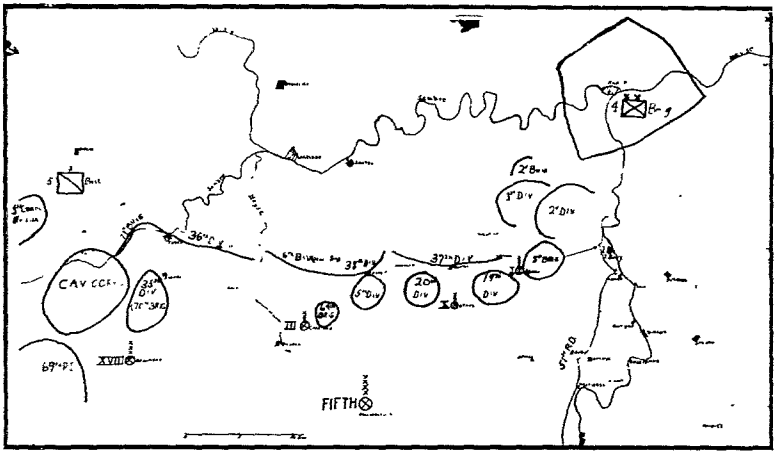


PLATE XIV

Situation of Fifth Army, 5:00 A. M., August 23, 1914

or by the Charleroi-Philippeville road, to hold itself ready to support either the X Corps or the XVIII Corps and to guard the Sambre from Pont-de-Loup to Marchienne-au-Pont. The XVII Corps was ordered to organize a position on the line, Ham-sur-Heure—Gozée—Thuin and to guard the Sambre from Marchienne to Thuin. Bridges were ordered to be held by advance posts, but these posts were not to resist, in the river valley, against columns of all arms, but were only for the purpose of stopping incursions of hostile cavalry. These detachments were to be strengthened when the order to cross the river was given. The cavalry corps, reinforced, was directed to continue its mission of covering the left flank. The 69th Reserve Division was directed upon Solre-le-Château, with a view to moving toward Beaumont or Cousolre, and the 53rd Division was directed on the region southeast of Maubeuge. Learning that three German Corps were in the region of Brussels and that Namur had

been attacked, the army air service was directed to learn if there were movements parallel to the Meuse from the region of Liège toward Namur and Dinant; to determine the direction of movement and size of the columns which reached the front: Louvain—Wavre—Gembloux on the twentieth, and whether or not they were followed by others coming from the region of Huy and Flone toward Tirlemont and Eghezee.

The attack on the front of the X Corps continued, and at 9:00 P. M. Arsimont was abandoned under pressure. The regiment which had been holding the bridges at Ham-sur-Sambre, Mornimont, and Franière then retreated to Fosse. The 37th Division was moved forward, one brigade toward Pontaury and one toward St. Gérard; while the 20th Division, to support the left of the 19th, was ordered to send one brigade to Vitreval and the other to the region of Aiseau—Falisolle. The engagement of the X Corps lasted from about 1:00 P. M. until well into the night. The Corps commander announced his intention of resuming the combat of next morning, cooperating with the III Corps to drive the enemy north of the Sambre. During the night of the twenty-first, Corps orders were issued for the organization of the position prescribed by the army. General Lanrezac telegraphed the situation to the Commander-in-Chief and urged that the action of the Fourth Army make itself felt.

Early on the morning of the twenty-second, the 2d Brigade (1st Division, I Corps) was taken out of the line on the Meuse and moved to Sart St. Laurent to organize a position there. The 51st Reserve Division arrived on the Meuse and relieved the 1st Brigade and that brigade was moved to Ermeton-sur-Biert ready to support the 2d Brigade or to occupy a withdrawal position on the line: Montigny—Bois-de-Neffe—St. Gérard. The 2d Division rearranged its forces faced to the north, while the 8th Brigade continued to hold the Meuse from Anhée to Profondeville. Repeated attacks on the bridges at Dinant and Anseremme were easily repulsed, but at 1:00 P. M. General d'Esperey requested authority to destroy all but the three main bridges at Givet, Hastieres, and Dinant, which was granted.

The X Corps launched an offensive at daylight on the twenty-second assisted by the 5th Division of the III Corps, which drove the enemy back to the Sambre. But at 9:00 A. M. the enemy attacked in force from Châtelet, the 5th Division gave away, and at 11:30 had withdrawn to the line just north of Presles—Binche. One brigade of the 38th Division (III Corps) was sent to assist the 5th Division and the 6th Division (less one brigade with the Cavalry Corps) was ordered a little farther east to occupy a position in readiness south of the Fourche and the Haies, backed up by the reserve of the 38th Division.

The XVIII Corps held the line Ham-sur-Heure—Gozée—Thuin with the 36th Division and was in liaison with the 11th Brigade (supporting

the Cavalry Corps) near Bonniers. The 35th Division remained at Beaumont—Cousolre—Hestrud. The morning was calm; only a small party of the enemy crossed the Sambre at Marchienne-au-Pont.

The Cavalry Corps, covered by the 11th Brigade near Pieton, withdrew during the night to Merbes-le-Château on the Sambre, where it was in liaison with the XVIII Corps and with the British 5th Cavalry Brigade near Binche. At daylight the 11th Brigade withdrew unmolested to the line: Bois-de-Leernes-Anderlues—Trieux, still covering the Cavalry Corps. About 10:00 A. M. the 11th Brigade was attacked in position north of Mt. St. Geneviève by a force of infantry and artillery coming from Pieton.

Early in the afternoon General Lanrezac moved to Mettet and established there an advance command post with that of the X Corps Com-

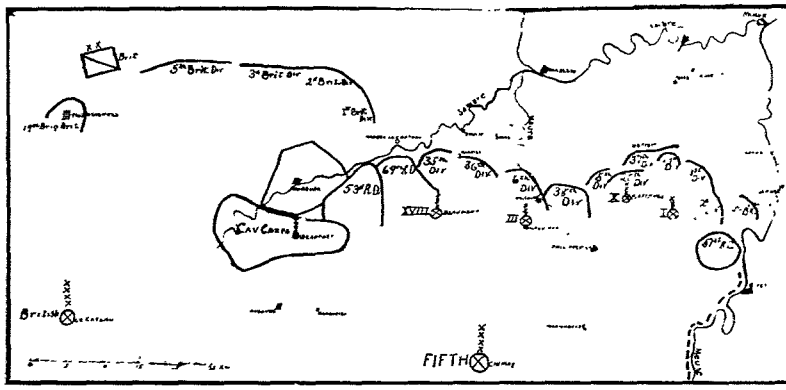


PLATE XV

Situation of Fifth Army, 9:00 P. M., August 23, 1914

mander and from there reported the situation to the Commander-in-Chief at 2:15 P. M. While at this command post he devoted himself to assisting the different corps in maintaining connection with each other and to giving support to the most severely tried units by orders on neighboring units. At 4:30 P. M. he ordered the I, X, and III Corps to continue their holding mission; the XVIII Corps to move its rear division to the vicinity of Ragnies, in order to be nearer the III Corps; the Cavalry Corps to act on the north bank of the Sambre in liaison with the XVIII Corps and the British; the 69th and 53d Reserve Divisions to move to the region of the Sambre between Beaumont and Maubeuge. The command post was ordered moved to Philippeville by 5:00 A. M., August 23.

At 8:00 P. M. General Lanrezac ordered the I Corps to withdraw the detachment from Sart Saint Laurent, and if necessary, the left of the corps to St. Gérard to joint the right of the X Corps. The Corps Commander, I Corps, ordered the 51st Reserve Division to guard the Meuse

from Hastiere to Anhée, beginning at 3:00 A. M. on the twenty-third. The entire I Corps would then be able to support the right of the X Corps at Bombois—Gonoy. At 4:00 A. M. the I Corps would have the remainder of the 1st Division between Lesves and Gonoy; the 2d Division at Lesves—Six-Bras; the 8th Brigade at Bioul, holding only one battalion and one battery in the sector Gedinne—Yvoir to guard the Meuse.

At 3:00 P. M. on the twenty-second, the 20th Division (X Corps) retired under pressure to Le Roux and then to Scry and Biesme, where it reformed and held Devant-les-Bois and Norvechamps with rear guards. This made it necessary for the 19th Division to be withdrawn, and at 5:00 P. M. it was ordered back to the hill north of Farm-Libenne—Bambois—Herbier and there to intrench. The 37th Division moved one brigade to the south of Biesme and the other to Mettet-Pontaury. At 11:00 P. M. the corps commander ordered the corps to establish itself on the line: Graux—south-edge-of-Mettet-Wagnée; this front to be held by the 37th Division after 4:00 A. M.; the 19th Division behind the right at Furnaux; the 20th Division behind the left in the region of Oret. The intention of the Corps Commander, as announced in the order, was to take the offensive at 4:00 A. M. on the twenty-third, together with the adjacent corps, and, in any event, to hold the assigned position at all costs.

On the front of the III Corps the attack also progressed in the afternoon. The Germans advanced southeast from Châtelet, and, in spite of counter-attacks, the III Corps was forced back. At 6:00 P. M. the withdrawal to the line: Hanzinelle—Tarcienne—Nalinnes was ordered, where a position had already been outlined and was ordered to be completed and defended with the last energy. At the end of the day the 5th Division was around Hanzinelle; the brigade of the 6th Division west of Nalinnes; and the 38th Division near Tarcienne. In rear, one brigade from the XVIII, now attached to the III Corps, arrived during the night at Somzée. The corps was in liaison with the X Corps on the line: Biesme—Sart Eustache and with the XVIII Corps along the bed of the Heure.

In the Cavalry Corps, the 11th Brigade, confronted by superior forces, withdrew at 2:00 P. M. south of the Sambre, where it held the bridges between Thuin and Fontaine Valmont. This drew the three cavalry divisions south of the Sambre that night. They took positions around Bersillies—l'Abbaye—Bousignies, guarding the bridges from Fontaine Valmont to Solre-le-Sambre.

The heads of columns of the two reserve divisions reached Solre-le-Château—Biergies and Faluamont—Avesnes.

The British continued in the direction of Mons.

At 11:00 P. M. the Army Commander learned that the Fourth Army had its left corps (XI) near Paliseul and that there had been quite serious fighting on the entire front of that army.

The enemy situation as known to the French at 6:00 P. M., August 22 was as follows:

> German couriers were in sight of Ypres and Courtrai; the 2d Cavalry Division near Ath, between the Lys and Dinder; elements of the 9th and 4th Cavalry Division near Lens, Seneffe, and Charleroi. Behind these, on the night of the twenty-first-twenty-second, the II Corps reached the region of Voorde; the IV, Tubize; the IX, Liellois-Witerzee; the X, Genappe; the VII, Sombreffe; and the Guard Corps, Tamines. All were moving toward the south, converging on the front Charleroi—Mons, and seemed to be followed by

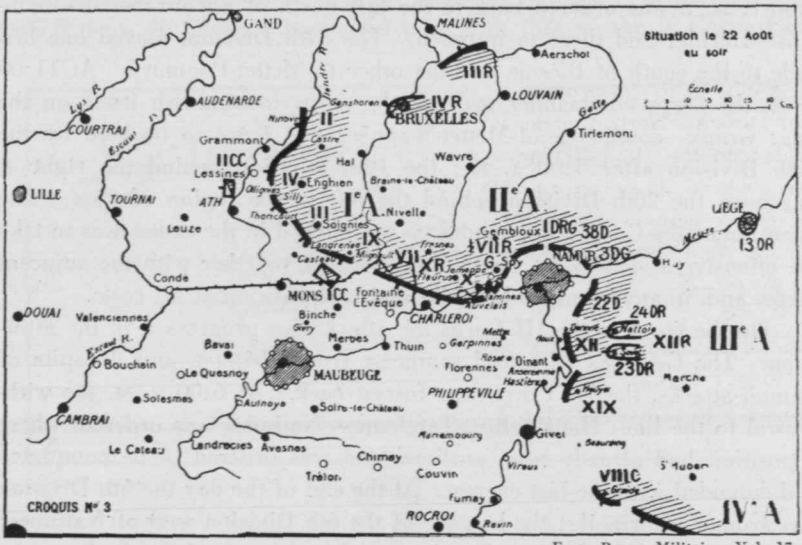


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PLATE XVI

> reserve formations of the II, III, and IV Corps. Two Corps were investing Namur. On the right bank of the Meuse, west of the line: Huy—Ciney—Beauraing, one column, which reached Andenne, had been reported. Troops of all arms were east of Dinant in the region Purnode—Sorinne. Arrival of reinforcements in the region of Houyet were reported. During the night it was learned that the Guard and perhaps the X Corps had attacked on the front of the French X and III Corps.

During the night of the twenty-second-twenty-third the Germans pressed their attacks on Namur, and General Michel (commanding that place) decided to withdraw to the Bois de Villers. Also during the night there were attacks on the bridges at Bouvignes and Dinant, then at Hastiere.

On the front of the Fifth Army there was no activity on the morning of the twenty-third. General Lanrezac ordered all convoys south of the

line: Ramousies—Robechies—Mariembourg, and informed the commander of the Fourth Army that if the Fifth Army were forced to withdraw, it would destroy the bridges from Dinant to Hastiere and added that it was of the greatest interest that the Fourth Army should make itself felt to relieve the Fifth Army of the danger of the enemy forcing a crossing between Givet and Namur. The southward movement of the convoys may have been the movement reported by German aviators to Von Hausen about 5:00 P. M., "that the enemy is retreating in the region of Philippeville." This encouraged Von Hausen to press his attacks on the Meuse.

The Cavalry Corps was ordered to move to Maubeuge and then to the left of the British Army. The 53d and 69th Reserve Divisions reached the line: Sartiau—Montignies-Saint-Christophe—Thure—Marpint.

Early in the afternoon of the twenty-third, attacks increased on the front Dinant—Hermeton-sur-Meuse; German infantry crossed near Lenne and forced the 102d Brigade of the 51st Reserve Division to retreat to Gerin, where it was stopped by the 101st Brigade. General Lanrezac ordered the commander of the I Corps to relieve this menace on his flank and rear and General Mangin was sent with two battalions of the 8th Brigade and the cavalry of the X Corps and of the 37th Division, toward Anhée. The 1st Division was ordered to withdraw to the crest north of Ermeton, extending toward Denée.

Before Mangin reached Anhée at 5:00 P. M., D'Esperey learned that Germans had crossed at Houx and Dinant and he decided to withdraw his corps and to face the Meuse on the general line: Ermeton-Anthée, where it would continue to cover the right of the army. Meanwhile Mangin had reached Anhée and launched his battalions and three battalions of the 51st Reserve Division against Onhaye. At 7:30 P. M. Onhaye was taken by the bayonet and the battalions of the 8th Brigade installed there. But during the evening the enemy infiltrated through the cut-up and wooded region south of the Dinant—Philippeville road and D'Esperey asked that troops be sent to Romedenne (10 kilometers northwest of Givet).

On the front of the X Corps, the Germans advanced on Mettet in the afternoon and reached Planson (three kilometers west of Saint Gérard), and later in the afternoon took Wagnée and Graux. By night the 37th Division was holding a line passing through the south part of Graux—south-edge-of-Mettet—les-Croisettes. A part of the 20th Division occupied the woods of Hanzinne; the remainder were reforming near Corroy. The 19th Division was in readiness south of Furnaux. The Corps was in liaison with the I Corps at Ermeton-sur-Biert, but had lost contact with the III Corps.

The Germans, driving strongly just east of the Heure against the left of the III Corps, forced the precipitate retreat of the brigade of the 6th Division about 4:30 P. M. The retreat was stopped, finally, on the line:

Berzée-Thy-le-Château. This withdrawal of the 6th Division carried with it the 38th Division and the left of the 5th Division to the line: Chastres—Fraire les-Walcourt—Marialme.

In the XVIII Corps, the right of the 36th Division was involved in the attack which drove back the 6th Division and after an obstinate resistance, was driven back from Gozée. The retreat of the 6th Division uncovered the right of the XVIII Corps and under pressure the line was brought back to Cour-sur-Heure—Ragnies; the 35th Division and the 11th Brigade held on the Sambre.

The 69th and 53d Reserve Divisions connected the XVIII Corps with the fortified place of Maubeuge and were prepared to support the left of the XVIII Corps.

On the evening of the twenty-third the entire situation seemed grave enough to General Lanrezac to necessitate the withdrawal of the Fifth Army at dawn the next day. At 11:30 P. M. he informed the Commander-in-Chief of that decision about as follows:

> The III Corps, attacked since 5:00 P. M., has not held and has withdrawn on Walcourt. The enemy menaces my right on the Meuse; a detachment of infantry fording the river north of Hastiere has succeeded in occupying Onhaye. Givet menaced; Namur surrounded. In view of this situation and the delay of the Fourth Army, I decide to withdraw the army tomorrow to the front Beaumont-Givet.

At the same time General Lanrezac ordered:

> Army withdraws tomorrow on the line Givet—Philippeville—Merbes-le-Château: I Corps to Vodecée,Vodelée, guarding the flank toward Givet; X-Corps to Philippeville-Daussois; III Corps to Silenrieux—Clermont; XVIII to Strée—Hantes—Wiheries. Movement will begin at 3:00 A. M under protection of strong rear guards, which will take care to maintain connection with each other. The group of reserve divisions will hold the Sambre from Hantes-Wiheries up to Maubeuge. Headquarters: Aubenton at 4:00 P. M. Command Post: Chimay during the twenty-fourth.

In this battle of Charleroi, the Fifth Army and British were overwhelmed by superior forces—at least two to one. By ordering the retreat when he did, General Lanrezac probably saved his army from a severe defeat and saved it for a not unimportant part in the victory of the Marne about two weeks later. Any suggestions, therefore, as to what might have been done on the Sambre, so far as stopping the ultimate advance of the Germans is concerned, would be unusually rash. But viewed merely as a problem of an army in the defense, we may perhaps find subjects for meditation—not models.

It would seem that the first thing essential to a successful conduct of the defense would have been a clear-cut, decisive, defensive frame of mind. But as we have seen, the Fifth Army came to the Sambre under orders from G. H. Q. for an offensive, and that idea was hard to shake off. The army orders of the twenty-first for the organization of a position

began with the statement: "The army will hold itself ready to take the offensive at the first order." The next paragraph states that the time for that offensive can not now be announced, and the third and succeeding paragraphs direct the corps to organize positions of waiting (d'attente). The III Corps orders, as an example, repeat the directions to hold itself ready to take the offensive later, until which time it will oppose any debouchment of the enemy and then states that the corps will organize *itself* along the given line. Nothing is said about the organization of the ground. The position was not strengthened by trenches or other works, and there has been much discussion as to where the blame for this should lie. A frank acknowledgement by the army commander that the defensive

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PLATE XVII

had been forced upon him and a more definite order for the organization of a defensive position, probably would have brought about the desired digging and greatly increased the opposition offered to the German advance across the Sambre. In meditating on this and attempting to apply it to our own use, it should be remembered that this was the first engagement of the army and the necessity for cover had not been brought home to the officers and men.

The army commander had insufficient information of the situation of his own army—on the twenty-first when at 4:00 P. M. he did not know that his III and X Corps had been engaged with the enemy since shortly after noon, and again in not learning of and correcting the failure of the army to intrench properly. This may have been due to a lack of staff

officers to assist him in keeping in touch with the situation. Possibly the fact that Army Headquarters were at Chimay, nineteen miles from the nearest corps headquarters and thirty miles from the Sambre, had something to do with the lack of information.

The army commander had little or no influence on the battle. The army artillery had been attached to corps; all corps were in the line or moving to the line on the twentieth and, by the evening of the twenty-third all divisions were in line. On the twenty-first there were eight

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PLATE XVIII

divisions on the 32-mile front between the fortified places of Namur and Maubeuge, or an average of four miles to a division. The number of divisions was increased to twelve and one-half on the twenty-third by the introduction of the I Corps and the two Reserve Divisions, or an average of a little less than two and one-half miles to a division. With both flanks resting on fortified places and with the British coming up on the west of Maubeuge, a front of three or four miles to a division does not seem excessive for the early stages of the battle. The German attack was not a concentrated one, but a progressive attack from east to west as the turning movement rolled around on the Sambre with Namur as a pivot. On the twenty-first and twenty-second, the X and a part of the Guard Corps attacked. On the twenty-third this was extended by the attack of the X and VII Corps, and on the twenty-fourth by the attack of the IX and III Corps against the British. Had defensive areas been organized and some force been held in army reserve for counterattacks, it may at

least be said that a greater loss and greater delay could have been imposed on the German armies. Even as it was, Von Bülow was calling for help from Von Kluck and Von Hausen on the twenty-third. Von Bülow was in possession of a copy of Lanrezac's order of the twentieth and therefore knew the organization and disposition of the Fifth Army. Had the defenses of the Meuse been more highly organized and held by the I Corps, the advance of Von Hausen's army of six divisions on the twenty-third could have been longer delayed. But here again, the idea of the offensive north of the Sambre entered into the matter, for Lanrezac relieved the I Corps on the Meuse primarily for the purpose of having that corps in position to make the main effort in his proposed attack. Yet none of these suggestions would have prevented the Germans from enveloping the left of the allied line; nor, in view of the withdrawal of the Fourth Army on the twenty-fourth, would they have prevented a penetration between the Fourth and Fifth Armies.

Another subject for meditation here is the old one of a unified command. The British Army was not under the orders of Joffre, who could make suggestions and requests only. The Fifth Army and the British were supposed to cooperate. Lanrezac was not a cooperator. There was friction over the boundary between the Fifth Army and British, and a request from Lanrezac that the British Cavalry Corps operate with the French Cavalry Corps north of the Sambre was met by the refusal of Sir John French, who said that since a part of his force had been retained in England, he proposed to use his cavalry corps as a reserve. And Lanrezac's order for withdrawal on the twenty-fourth became known to the British in a roundabout way only.

To sum up: the operations of the Fifth Army during this period illustrate and emphasize the importance of

1. A correct G-2 estimate.
2. Supporting the adopted principles of war by the means necessary to carry them through.
3. Flexible plans and formations.
4. A clear understanding and statement of the immediate mission.
5. An elastic system of defense, with some force retained under control of the commander until the time comes to use it.
6. Unified Command.

Colonel John Roger Fenwick
Commandant of the Artillery School, February 1—July 31, 1825

Summer Training Camps*

CAPT. L. E. SCHOONMAKER *and* LIEUT. L. P. VANE

INTRODUCTION

TRAINING camps of one form or another were developed by other nations before they were established in the United States; England, for example, established two large training centers at the close of the Crimean War.

The Presidents of the United States, almost without exception, have pointed out the need of a certain degree of preparedness in the way of a trained citizenry, with adequate arms and equipment, as a means for insuring peace with other nations. Most of them recognized that lack of preparedness for national defense was in itself a temptation to aggressive and predatory nations. They also recognized that, unorganized, untrained and unequipped, the United States could not hope to exercise that weight in the councils of the world to which its position and importance entitled it. Nevertheless, prior to the outbreak of the World War very little had been done in preparation for National Defense. The only facilities for training civilians at that time were certain camps for the National Guard, which were started in 1901, and the Student Military Instruction Camps, which were established in 1913 by Major General Wood at Gettysburg, Pa., and Monterey, Cal., with a total enrollment of 244 young men. In 1916 the number in attendance reached 16,000. The largest training center was located at Plattsburg, N. Y.

The World War shattered the illusion that National Defense was sufficiently secured by the maintenance of a small navy and a diminutive army, a delusion which was extremely costly in men and money. As a result of this lesson, the Defense Act of 1920 was drafted. Under the provisions of this act, the War Department annually holds five classes of Summer Training Camps: The Regular Army, the National Guard, the Organized Reserves, the Reserve Officers' Training Corps, and the Citizens' Military Training Camps.

In discussing the operation of these camps our topic has been divided into two parts: Administration and Training. Under each of these subheads, the subjects of preliminary preparation and conduct during the camp itself will be considered. The proper administration of a camp is a matter of such importance that it will be discussed first.

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* Conference No. 15, Coast Artillery School, 1925-26.

Administration of Summer Training Camps

There are five classes of camps, differentiated according to their principal personnel; and these must occasionally be considered separately, because each presents a somewhat different problem in administration. With the Regular Army camp most of us are familiar; when separately held it generally coincides in time with a war condition period; it seldom requires great changes from the all-year routine in administration; and it is now frequently omitted from the Army's training program, because, with the Regular Army's depleted strength, it is often necessary to use the entire permanent personnel of a post to assist in the camps of the civilian components.

The National Guard camp is almost self-sustaining; it provides its own administrative system; to it the Regular Army adds only the necessary supervision to make cooperation complete and furnishes the location for the camp and some of its supplies. We do not hand out to the National Guard, like food on a platter, the assistance it needs; we place that assistance where the National Guard may come and get it.

The Organized Reserves now come to large camps as regimental units; but these regiments are composed entirely of officers. These officers bring with them their own equipment and a fund of past experience; they are ordinarily attached to Regular Army units for duty and training, and their administration is so divided among these units that it ceases to be a separate problem.

The Reserve Officers' Training Corps has the longest camp training period—six weeks every summer. Its camp routine is for the most part carried out by the same instructors—officers and noncommissioned officers of the Regular Army—who have been on duty with this Training Corps at the various institutions of learning from which the personnel of the camp has been drawn. They find in camp, however, conditions different from those they knew at a school; they meet students and instructors from schools other than their own; they have to live together in barracks or tents under conditions of military discipline; and they have to maintain a separate mess.

The Citizens' Military Training Camps present the biggest problem of all from the standpoint of administration. Their camps are the largest, and their personnel are the least trained in camp administration and discipline.

Preparations for the camps of each summer begin with the estimates and instructions of the War Department and the appropriations by Congress. To each camp is allotted a certain sum of money; the camp commander and his superiors have the duty of making that money do as much work as possible. Each year, while the training of each individual in

camp has somewhat improved, the cost of training him has somewhat decreased; in other words, the training camp cost is less per man, and more men can be trained without increase in total expense. The size of the camps in successive years has thus increased far beyond any increase in the size of the appropriations. Last year the attendance at the various citizens' camps was about thirty-nine thousand; this year will doubtless see many more.

The places and dates of camps for this year will be announced in orders from the various Corps Area Headquarters. Last year in the Third Corps Area alone there were camps at eleven different places, and they continued from the twenty-sixth of April to the thirty-first of August. The other Corps Areas had similar camps, similarly distributed.

The orders, when issued, will include the names of the camp commanders. The camp commander at one post is likely to be in command of all the camps that are held there during the summer. He will have to begin his duties early, for he is responsible for the necessary estimates, requisitions, and arrangements which must precede the opening of the earliest camp. He must apportion housing facilities; he must list the officers and enlisted men available to him from various sources; and from them he must appoint the administrative, supply, and mess officers for all the camps, using the prescribed organization as a guide.

These officers also must begin their work early. The supply officer prepares estimates for funds for maintenance and operation, making a single estimate for the entire camp, but showing the cost of each project separately. He prepares requisitions for necessary equipment and supplies, separately for each component. In both estimates and requisitions he must show the proportional amounts for each quarter of the fiscal year. The mess officer must begin early to find and arrange to obtain for his camp the very best mess sergeants and cooks in the post; and he may need to get some training himself.

Each camp will be administered to some extent by Regular Army personnel. The first to be considered is the post commander. He may be, but generally is not, the camp commander. He is a part of the post's regular personnel, as the camp commander need not be; so that in a small post which becomes important only during the camp season he may be far inferior in rank to the camp commander. In any case, he is responsible for the post's services to the camp; he must maintain a certain supervision over the camp, as laid down in published regulations; and some administrative duties, such as issuing travel orders at the end of the camp, will fall to him.

The camp commander is primarily responsible for Organized Reserve and Citizen camps; he is responsible through the senior instructor for National Guard camps, and through the director of training for

the R. O. T. C. camps. He must keep his staff to the minimum possible for maximum efficiency. For a large camp, his staff will be somewhat like this: executive officer, adjutant, personnel adjutant, surgeon, finance officer, chaplain, recreation officer, athletic officer, post exchange officer, supply officer and assistant supply officer, mess officer and assistant mess officer—some of whom will be the regular harbor defense or post or battalion personnel with additional duties.

The supply officer, besides the preliminary work already noted, looks after the quartering of the officers and men in camp; he opens supply depots; he collects supplies, clothing, and equipment, and arranges for their issue. The mess officer's job is, perhaps, the most important of all, for good food is so great a factor in camp morale that the camp will be unsuccessful if he does not properly feed the men. The personnel adjutant is responsible for a large number of records, and the camp period is so short that he has no time to correct mistakes, so he must make none. The organization commanders have administrative duties similar to those in Regular Army organizations. The duties of all officers are generally laid down in orders in great detail.

The men who come to the camp for instruction—men whom we shall call "trainees"—present individual problems in administration. Omitting consideration of the National Guardsmen, who are permanently organized, we will consider what happens to these trainees on arrival in camp. The C. M. T. C. is fairly typical.

First the trainee is assigned to an organization. This is done by orders from Camp Headquarters, the locality from which he comes being an element in the choice of his assignment. If he has had previous military or camp service, with an above-average record, he is likely to be appointed to a position of special responsibility for the period of the camp, perhaps becoming a camp officer or a camp noncommissioned officer. Such an appointment is made by the camp commander upon the recommendation of the organization commander.

The trainee must become subject to camp discipline, which has the dual function of administration and training. A high standard of correctness in salutes, bearing, military demeanor and address, obedience, and courtesy is insisted upon. For an offense against camp rules he is liable to punishment, which may vary in magnitude between reprimand and expulsion from the camp. For an offense which amounts to a crime he will be turned over to civil authority.

The trainee must comply with sanitary regulations, which must be more than ordinarily strict. The dire effects of an epidemic of disease among men who are soon to be scattered among many communities is easily imagined. Sanitary regulations have their educational effect also.

The trainee must do his share of police duty in barracks or tents and ground. He must take his turn as kitchen police, once during the camp, and as waiter in his own mess as often as necessary.

Every effort is made to promote a high degree of morale in the camps. The administrative system does its share, by giving the trainee a comfortable place to sleep, by giving him wholesome food to eat, by exhibiting strict fairness in discipline, by corresponding with the trainee's parents to secure their good will and cooperation, and by furnishing the means of enjoyable recreation. On this morale, as much as on the training given, depends the ultimate success of the summer camp system.

Training

The training of the various civilian components of our army is at the present time, one of the most important duties of our regular establishment. The War Department, from time to time, issues orders and bulletins which prescribe in a general way the training policies which will be pursued in the conduct of the camps. The actual organization and conduct of the camps is a function of the Corps Area Commander. Several months prior to the opening of the camps, the Corps Area issues a training memorandum, which states the duration of each class of camp, designates the Camp Commander, and prescribes the subjects to be taught.

We will assume that the Camp Commander is also the commander of the regular troops stationed at the locality where the camp is to be held, and that during the course of the summer, there will be held camps of the four other components of the army. The first preliminary duty is the organization of the instructing staff. A Senior Instructor is detailed for each class of camp, who is responsible for the preparation of schedules of instruction. In the case of National Guard, Reserve Officer, and R.O.T.C. camps, this officer is usually the senior regular army instructor on duty with these organizations. The Senior Instructor for the C.M.T.C. camp is usually specifically detailed for the duration of the camp. The Senior Instructor may be assisted by directors of training. In Coast Artillery camps there are usually two directors of training,—one for Infantry subjects and one for Artillery.

The schedules of training are prepared by the senior instructors or by the directors of training, under the supervision of the Senior Instructors, at least three months in advance of the opening of the camp, and are submitted to the Corps Area for approval. These schedules are carefully worked out to make full utilization of the time available, state definite major and intermediate objectives, and provide for progressive training. Before being submitted to the Corps Area for approval, it is usually the practice to send the various schedules to the Camp Commander to be coordinated and, if necessary, modified to suit local con-

ditions. In some cases in the past the Camp Commander has been provided with a schedule duly approved by the Corps Area, which, on account of some local condition, was impossible to carry out. This necessitated last minute revisions, which always tend to produce a bad impression on candidates undergoing instruction.

The junior instructors come from three sources: those regularly detailed with the organization which is to be trained, those specifically detailed for the duration of the camp, and the balance which the Camp Commander must provide from his own command. The instructing staff should be completely organized well in advance of the camp, so that its members may have the opportunity to study the schedules and prepare themselves for their work.

The camp for the Regular Army is usually held first. This has the dual function of completing the tactical training of the troops themselves and of training them to serve as a model for the other components. The success of the subsequent camps depends, in a large measure, on the quality of the assistance given by the troops of the Regular Army.

National Guard camps are similar to the Regular Army camps, in that the organizations attending are complete units. The primary objective of these camps is the development of aggressive combat teams. As training is a function of command, National Guard officers are held responsible for the proper instruction of their subordinates, under supervision, however, of Regular Army instructors.

As the period of the camp is very brief,—fifteen days, every effort should be made by the organizations to complete in their armories, before coming to camp, as many phases of preliminary training possible, such as preliminary work in small arms and, where facilities exist, marksmanship. For full utilization of the time available at the camp for important subjects, close order drills and ceremonies should be restricted to a minimum. Artillery training should include service practice. Camp sanitation should not be overlooked. Training in troop leadership should be stressed, and maneuvers involving movement and employment of the unit should be frequent.

Until a few years ago it was the custom to order groups of Reserve Officers, irrespective of their assignments to Reserve units, to fifteen days of active training at some camp, or to attach individual officers to Regular Army units for a like period. Under this system, the Reserve Officer imbibed a certain amount of technical and tactical information. It trained him in his individual duties, but did not show him where his task fitted into the general scheme.

The present policy is to order the Reserve Regiments to camp as units. The primary objective of the training of Reserve units is the organization and functioning of regiments and smaller units, so as to

produce homogeneous teams, commanded, led, and administered by their respective commanders and staffs. The secondary objective is the combat training of these units. Another valuable kind of training that can be given is mobilization training. The units are ordered to camp one week before the opening of the C.M.T.C. During their second week of training the Reserve Officers take over the duties of the organizing, administration, and instruction of the incoming C.M.T.C. candidates, of course under careful supervision.

The training at R.O.T.C. camps is supplementary to that given at the institutions. Tactical training is stressed, as many institutions lack facilities for such practical instruction.

The object of the C.M.T.C. camps is to qualify young men to be good American citizens. Three courses are given at C.M.T.C. camps. These are known as the red, white, and blue courses, and are taken by the candidates progressively in successive years. Lectures on citizenship, training in command, and athletic instruction form an important part of the training.

In the conduct of instruction at all camps, schedules should be rigidly followed to avoid confusion, and to accomplish the objectives set forth. The applicatory system is followed where possible. What you teach a man he usually forgets, but what he learns by experience he generally remembers. Candidates are trained in performing the desired operations until doing them in the proper manner becomes a habit. Properly to train candidates, an instructor should not only be thoroughly conversant with his subject, but he should know how to impart his knowledge to others.

There are three classes of training carried on at camps—military, educational, and recreational. While purely military training is of prime importance, not more than six hours a day is usually devoted to this. It is now the generally accepted view that other classes of training contribute also to a soldier's military efficiency. Educational training in non-military subjects broadens his outlook by making him more mentally alert; recreation makes him more contented, and athletics increase his fighting ability by teaching him the principles of teamwork.

It is for this reason that the duties of the Recreation Officer and the Athletic Officer are given so much prominence at summer camps. Theaters, reading rooms, and Y.M.C.A.'s are established, and hostess houses provided for the accommodation of the candidates' friends and relatives. Full opportunity is given a man to engage in various forms of supervised athletics. His moral welfare is looked after by the chaplain.

The various reports required at the termination of each class of camp are too numerous to mention. While some are of undoubted value, as they indicate the amount of training accomplished, it is believed that

others could be eliminated as they do not appear to convey any useful information.

We have endeavored to show how summer training camps are organized and administered, and what provisions are made for the conduct of the instruction. The all-important point which we wish to bring out is that the success of the camp depends on full and adequate preparation both for administration and training. Officers who are detailed on duty with these camps should regard this as an opportunity to give our friends the civilians a favorable impression of the army and its methods of operation.

There are times when it is impossible to keep out of war without shame and disgrace, to say nothing of the possibility of the destruction of our national integrity. I am no militarist, but just a plain practical citizen who would profit by the experience of the past and not indulge in day dreams. We as a people wish peace with the world and have always declared ourselves strongly of that view. We have been leaders in advocating thorough understanding between nations and we have decried militarism the world over. We do not want war; none of us would seek it; but complete disarmament on our part will never prevent it.—*General John J. Pershing.*

EDITORIALS

Wanted, A Picture

BEFORE the eyes of the Commandant of the Coast Artillery School is a long row of pictures of his distinguished predecessors. Each passing Commandant leaves behind an addition to the collection as a memento of his own service. The line starts with Colonel Abraham Eustis, who started the School one hundred and two years ago, and is complete with a single exception.

A search through the files of the Coast Artillery School, the Library, and Fort Monroe has failed to disclose a picture of Colonel James House, who was Commandant of the Artillery School in 1828-29 and again in 1830-31. The JOURNAL requests that its readers send in any information they may have concerning the location of any portrait or printed picture of Colonel House.

To identify him, we give the following summary of his service.

James House was, prior to entering the military service, a portrait painter by profession. He had no particular adaptation to military life and no special military training. He was appointed to the army as a lieutenant in the First Artillerists and Engineers on February 22, 1799, at the age of thirty-nine years, becoming regimental paymaster in 1799 and district paymaster in 1802. Retained as a lieutenant in the Artillerists in 1802, he was promoted captain on November 1, 1805; assistant deputy quartermaster general, April 3, 1812; lieutenant colonel, Third Artillery, March 3, 1813; transferred to the Corps of Artillery in 1814 and to the Second Artillery in 1821; and promoted colonel, First Artillery, May 8, 1822, in which capacity he served until his death at Georgetown, D. C., November 17, 1834, at the age of seventy-four. He received the brevet rank of brigadier general on May 8, 1832, for ten years faithful service in one grade.

Books

The JOURNAL desires again to bring to the attention of its readers the book-review section. Each month this section includes notation of a number of books which are or should be of interest to Coast Artillery officers. In general, the books reviewed are those strictly professional in

character, those pertaining to activities or interests common to Coast Artillery personnel, non-military books involving some features of leadership or of the overcoming of obstacles, biographies and histories, and occasional books on other subjects.

The facilities of the JOURNAL are at the disposal of its readers in obtaining these or any other books. The manager of the Book Shop, maintained by the JOURNAL prides himself on being able to secure any book in print, usually at a saving in cost. He is, moreover, in close contact with most of the reputable second-hand book stores of the country and some in Europe, and can obtain many a book no longer in print. JOURNAL readers are recommended to communicate with him on any matter concerning the location or the purchase of any desired book or books, whether in print or not.

Universal Service in Principle and Application

Universal service and mobilization are terms at which some delicate-minded Americans jump. To such any reference to the principle that citizenship implies a military obligation is shocking. Yet that principle is clearly recognized by American law and has been applied in America's wars; it ought not, therefore, to startle when it is proposed to make that application more prompt and more effective by peace-time legislation.

That proposal is discussed by Secretary Davis in the *Forum*. He makes it plain that the only way to avoid the delays and inequalities that marked the application of the universal service principle in the World War is to provide the machinery for mobilization, of both man power and industrial resources, before war comes. This is no more than good sense and precaution dictate. If it be conceded, as it must be in the light of all experience, that wars must be fought by armies raised by conscription, it is hard to understand why there should be opposition to measures to make conscription effective at the moment it becomes necessary.

That is all that is involved in the War Department's preparedness policy. Yet it is a gap between the universal service principle and actual mobilization that never has been bridged in this country's wars. We fight wars by making military service compulsory, but we never admit to ourselves that we are going to do it and never make any preparations for doing it, with the result that we go into our wars unready and with no legal or other machinery for doing what we know perfectly well we are going to have to do.

Secretary Davis admits that in the application of the universal service law in the World War there was inequality and favoritism; those persons liable to service who were kept at home in the industrial preparation had great advantages over those who were put into the fighting

line. That was one result of a mobilization made without prepared plans. There were no plans because there was no law under which they could have been made in advance of the emergency—we had universal service, but no means of putting it into prompt effect with equal justice to all classes of the population. In modern war the whole population is combatant; it takes about ten civilians to keep one soldier in the field. Unless the capacities of those civilians are known in advance—unless it is known what they can do most effectively to support the soldier at the front—the armed forces cannot be ready for their part.

This, then, is mobilization in the modern sense—the organization for instant effectiveness of the entire man power and industrial power of the nation. That is universal service. But the War Department cannot utilize these forces in a sudden national emergency unless there has been long and careful preparation for setting them in motion. That requires legislation in peace time, and it is such legislation that the War Department is now planning to ask of Congress.—*Kansas City Times.*

Still At It

Since the close of the World War American people have listened to all manner of propaganda for and against all manner of things. Not the least active in the matter of spreading propaganda have been the various societies and associations that have sprung up to combat "militarism."

It has been the opinion of many that the members of these societies were not concerned so much over the "militarism" (whatever that is) of the United States as they were in giving their reform complex some good exercise. Finding all other lines of proposed reform filled to overflowing with seekers after soft jobs, what could these poor souls do but take up the matter of disrupting all things military, in so far as they were able? Reformers must work, although it has been noted that they best serve who draw the largest check.

Quite recently the press has been filled with many stories (in this instance that word is polite for propaganda) about how the poor, downtrodden high school and college boys and men were being oppressed by enforced military training. That's pure, unadulterated bunkum. Military training never hurt anyone and it has in every case built up the trainee to a physical stage he never would or could have reached in any other way. True it does interfere greatly with those whose daily dozen consists of hard exercise such as waving at every girl who passes, lifting the right hand smartly to the mouth to remove a cigarette, posing in front of store window-mirrors, hustling to meals, etc. To the he-man, who enjoys the out-of-door living which makes for permanent health and well-being, a course of military training is a real pleasure. It is gratify-

ing to note that many prominent women are going after the matter hammer and tongs. They don't mean to have our entire male population degenerate to the wheel-chair bandit these propagandists seem to have in mind.

It is likewise gratifying to learn that those seemingly most interested in bringing about the abolition of military training have never and will never experience any part of "evil" they are trying to down.—*Deming* (N. M.) *Graphic.*

It Is Necessary

The highly imperfect nature of man makes impossible an always impeccable system of military training in public schools either through the agency of the R.O.T.C. or any other medium. Undoubtedly in some places, unfortunate features develop and are emphasized. But this is true in connection with every branch of education, and it is unfair and foolish to make a campaign against preparedness for national defense as a general movement among the young because some flaws and errors exist.

The point to consider is whether the underlying idea is sound. And beyond all reasonable question it is. Only vapid sentimentalists who persistently shut their eyes to the facts of life and to the tendencies of human nature can think otherwise.

War may be wicked and silly. But hundreds of millions of men are wicked and silly, and those who have a proper solicitude for their own safety and for the safety of those they love will take every precaution to guard themselves accordingly. Indeed, knowing what they know, they are criminally negligent when they fail to do so.

In the present state of the world, it is as necessary to give the young men of America an elementary military training as it is to give them instruction in a trade or in a profession or in the academic, technical or scientific branches, and even more so. For the latter may easily become all waste, unless there is a competency to preserve the freedom and civilization and progress which they build up. It is as reasonable to say that we should not take careful precautions against an invasion of pestilence from abroad as it is to say that we should omit taking every precaution to be ready to forestall a predatory attack.—*Detroit Free Press.*

If Never Won a War

The serious setback suffered by the Wilkins-Detroit airplane dash into the unknown North in search of a possible polar continent as large as Australia, gives us something to think about.

Had the expedition been under government auspices—had it been an army or navy venture—Col. William Mitchell probably would have used

it as another illustration of mismanagement, unsuitable equipment and general inefficiency.

But it was a private enterprise. Led by hand-picked men equipped with the best of everything that money could buy, its three latest-model, brand-new, specially-built planes, one by one, met with accidents until now none is left intact.

So, pending repairs, the expedition has been indefinitely postponed.

It takes something like this to bring us down out of the pink clouds where our enthusiasm leads us when we listen to the limitless possibilities of aircraft. "Limitless possibilities"—there you have the truth in two words. Neither the plane nor the dirigible can yet be depended upon regardless of wind or weather and, until they can be, we would be foolish to make them the backbone of our national defense.

The aerial arm is vital to any army or navy. And the time will probably come when aircraft will scoff at the elements at their angriest. But that time is not yet.

Our country's cue now is to spare no expense not only to keep abreast of aircraft development, but as much ahead as our money and brains will permit. But we must be practical. If never won a war.—*Washington News.*

Military Training and the Schools

It seems a bit peculiar that military training in various schools and colleges should suddenly be opposed by many of the students. The training has been a part of the work of many of the institutions, particularly the land grant colleges, since they were founded. It has been accepted by both the students and school authorities as essential and desirable. Why the sudden opposition now?

Regents of the University of Nebraska throw light on the phenomenon. In ruling unanimously that compulsory training remain at the university, in spite of the move of certain students to have the training made optional, the regents declare that the opposition has been engineered by outsiders. They ask that social welfare and religious organizations sending their workers to the institution "select only those who will cooperate with the university authorities." The situation revealed at the University of Nebraska is similar to that at various other institutions where the question has arisen in the last few months.

It would be an amazing spectacle, indeed, if selected groups of young men, such as those in the colleges and universities, should of their own accord express an unwillingness to engage in a type of training which has an important relation to national defense. The principle involved is as old as tribal organization. The necessity of defense has not been

seriously questioned in America or any other nation. Students who are required to engage in military training are asked to do a very reasonable thing. Where performance of the duty interferes with work a few students must do in order to get through school, adjustments may be made.

College and university authorities have recognized all these facts. The question, wherever it arises, will no doubt be settled properly and with the approval of a great majority of the students themselves.—*Kansas City Times.*

Military Training Poisons "Communism"

Assaults on military training in American colleges and universities—especially the compulsory phase—has largely arisen from designing individuals and societies outside college circles. These sources would inflict their own opinions on college affairs and bamboozle us to blindly follow them as the rats did the Pied Piper of Hamlin. Many of these so-called peace and uplift societies are positively identified as decoys set afloat by Soviet Russia—that scoff at religion, the institution of marriage, and property rights.

First of all there is no such thing as compulsory military training here, because no man is required to attend this school against his will. Strangely, the students who take R.O.T.C. work generally claim it beneficial to their peace pursuits. Moreover, the O. D. uniform is the greatest single factor contributing to Aggie democracy and good will.

While there is an apparent assault on military training in colleges, it is also an attempt and an entering wedge to tear down and destroy all discipline and authority. We are flooded with insidious propaganda that glorifies personal irresponsibility and lawless individuality. In contrast, the R.O.T.C. performs a real mission of citizenship by inculcating discipline, the power of confidence, the value of self-control, the requisites of leadership, respect for authority, and the care of mind and body. These cardinal principles in our leaders in peace is our greatest bulwark in defense. And the enemies of this Government are uncomfortably aware of it.

So let us look with justified suspicion on these "big hearted" benefactors of our "mistreated and abused" students, and who for pernicious reasons of their own are discontented with an admittedly effective system of national defense. There are too many people in this country who "neglect the barber and call themselves intelligentsia," as the *Daily Kansan* aptly pictures it.—*The Rocky Mountain Collegian* (College paper, Colorado A. & M. College).

PROFESSIONAL NOTES

An English Officer's Impressions of the French War Academy

By COL. GEORGE RUHLEN, *U. S. Army*

[Translated from the *Militär-Wochenblatt*]

The English Lieutenant Colonel of Engineers, E. Guy Waterhouse, was instructor of languages at the French War Academy, 1922-23, and gives the following report based on his two years observations.

The *Ecole Superieur de Guerre* lies on the Field of Mars in the center of Paris. It is, architecturally, a handsome building of the time of Louis XIV. The very simple equipment of the lecture rooms consists of wooden chairs, tables, large wall boards, and appliances for producing cinema and photographic illustrations.

The French Academicians are very largely married men and, in consequence of great housing shortage, reside mostly in the suburbs. Since there is no common casino (officers' assembly and club room) comradeship is to some extent at a disadvantage. It is not at all unusual that many participants of the same year's course do not know one another by name. The situation also becomes more confined by assignment to the institution of many officers of the former allies and of neutrals, of whom there are, in each year, about forty. I met, on the average, about four Americans, Poles, Tschecko-Slovakians, and Serbs, while the other countries were represented by one or two officers. These officers participate in all services except instruction in French mobilization. They are treated with kindness but with reserve.

The Body of Instructors consists of the *Direction des Etudes* and the actual instructors or teachers. To the first named belong: The Director of the Academy, his representative or Assistant, and eight to ten Staff Officers. They work out the courses of instruction and oversee their execution, in addition to certain duties pertaining to organization and administration.

The instructors and their assistants (*professeurs adjoints*) take charge of the instruction. This is divided into ten courses, namely: for general staff service, tactics of combined arms, infantry, cavalry, artillery, instruction in fortification, air arms, war history, horsemanship, and foreign languages.

Each course has its own plan of instruction, lectures, etc. At the head of each such course there is a *professeur*, usually a colonel. The pupils are divided, for every kind of service, into groups of about ten French and three or four foreign officers.

Entry into the War Academy depends, for the French officers, upon passing a written and oral entrance examination. In the written test greatest emphasis is placed upon the outcome of a written thesis which, in 1923, was handed to candidates on the day of examination and which treated of "The relation between France and Germany in the time from 1871 to 1914, on the basis of diplomatic actions." The final selection is made upon the result of the oral examination, in course of which severe tests are made of military knowledge and foreign languages, and there is, at the same time, an inquiry into the capability of the applicant in the special arm of

service to which he belongs. Those who have passed the entrance examination, about one hundred in each year, remain for a course of two years at the War Academy.

Aside from the summer months, which are taken up with practice marches and leaves of absence, the daily service is about as follows: Three times in each week there is riding from 7:00 to 8:00 A. M. and, following it, instruction in languages, mostly German or English.

There is, almost daily throughout the entire year, a major lecture in the large lecture room from 10:00 A. M. until noon. There is an extended pause for the *déjeuner*, taken by the majority at their homes. Twice per week there are from 2:00 to 5:00 P.M. map exercises (*exercises sur la carte*) and exercises in giving orders (*travail en salle*). The war situations for the first named exercises are given several days in advance. On the day when the map exercises take place each participant must be thoroughly familiar with the situation and be able to find his way. The order exercises are not liked. The academicians receive tasks to accomplish in three hours for which officers in war time would require five hours. The younger men are accustomed by this means to work rapidly under difficult conditions.

In the winter months each of the principal courses sets out a home task (*travail à domicile*) that usually requires from twenty to fifty hours hard work. Thus, in 1923, participants in the Artillery Course had to work out the artillery plan, in all its minute details, for the offensive of an Army Corps of two divisions, with details of gun positions, direction of fire, ammunition replacement, etc. It is, therefore, not surprising to find one or more workers over-doing and appearing in a drowsy condition at their morning service duties. The beginning of the summer season in May is longingly looked for.

While up to this time only a few tactical excursions have taken place, the travel training excursions are now begun. The earlier course of instruction comprises three such journeys in the form of practice rides, which are also called *voyages d'armes*, and which are conducted by the infantry, cavalry, and artillery courses. On such a ride they work in the field (terrain) from 6:00 A. M to 12:00 noon. About 5:00 P. M the work done is discussed, with the inclusion of a common dinner, after which most of the officers, in view of their early start in the morning, are ready to seek their beds. These practice rides last about eight days. In the infantry course two days were taken for practice in the defense; one for the approach to the fight; two for preparation for and carrying out the attack; and one for the pursuit. The artillery and cavalry courses were similarly divided.

Three weeks are applied for travel along the eastern frontier, from Lake Geneva to Belgium. Among the most interesting are the so-called "war historical excursions" for study of the great battles of the war. Thus, there was discussed in 1922-23 in the first year, the battle on the Ourcq, and in the second, the battle of July 18-22, 1918. These excursions are not made on horseback, like those of the practice rides, but in motor vehicles.

In the second year's course the tour along the boundary is completed and closes with the fifteen days final journey (*voyage de tactique générale*). Later application of the use made of this last excursion becomes of significance to the academicians. Four or five instructors are continually engaged in working together with from twenty-five to thirty pupils. Tactical situations are played through in every detail, in the course of which the student has to take up every position, from the commanding general down.

In the middle of August all go on leave of absence up to the beginning of the winter schedule. Those who have gone through the senior course successfully are assigned to the higher staffs as applicants for staff positions. those of the junior year begin their second-year course. We must note here that the students hear lectures

in winter, delivered by prominent politicians and literary and educated men, but little is heard about sport in its English acceptation.

The impressions in regard to the work of training of its students by the French War Academy may be summarized as follows: France takes into account a continental war on a large scale. All training at the Academy has that for its purpose. While the first year is taken up with the division, one is busied in the second exclusively with the Army Corps. It is to be noted that the division and corps are almost always taken as being associated with one another. One takes into account in the problems the presence of ammunition as in the spring of 1918, and exercises are also made with numerous flyer squadrons. The students undoubtedly learn much but they burden their memories with an enormous mass of figures about ammunition expenditure, carrying capacity of vehicles, bringing up reserve supplies, etc.

One may question whether or not this method of learning is worth the industry devoted to it. There was attained, at any rate, an impression, on the part of the foreign officers, of the superior value of the French Army. In conclusion one is justified in saying that, while the methods of learning are handled in a manner somewhat too methodical, the French Academy is near the purposes of Moltke, which had for its aim so to train the great general staff that, by setting to a group of general staff officers the identical situation, there would be evolved a number of sets of solutions so similar that they could be worked out on the same line of direction.

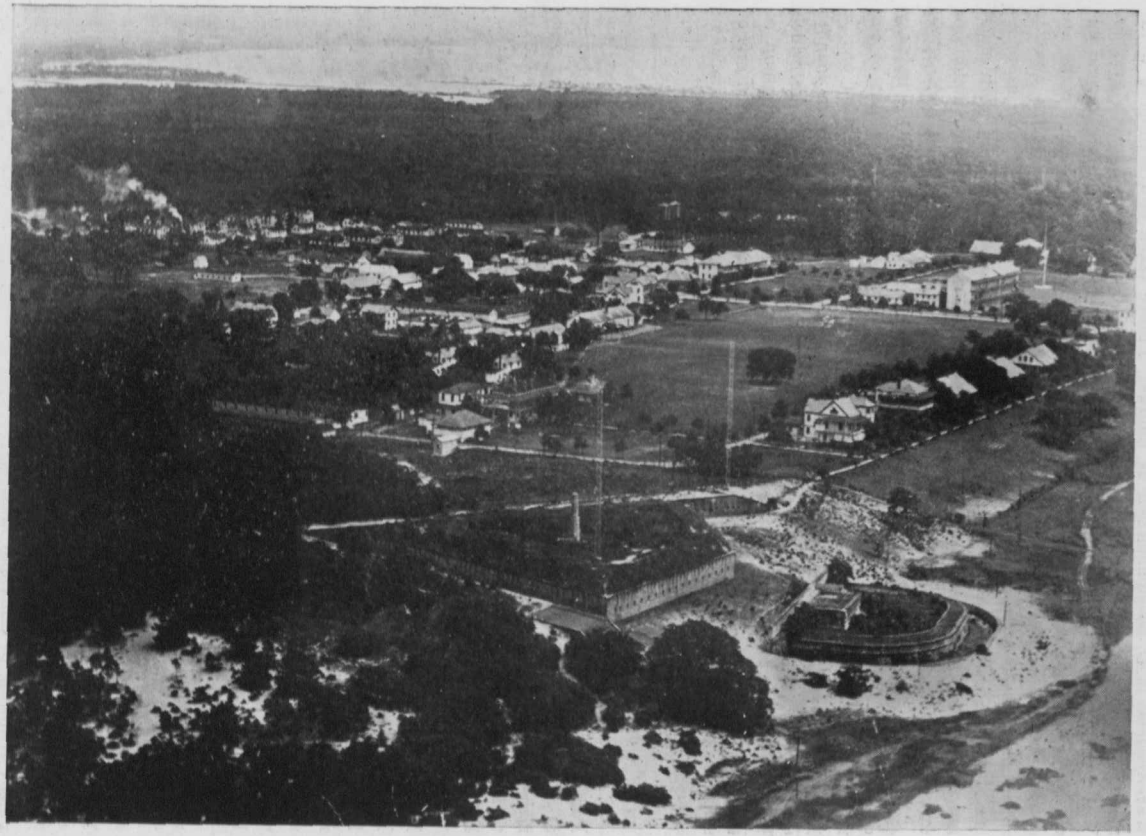
Fort Barrancas, Florida

Pensacola Bay was discovered in October, 1528, by a Spanish adventurer, one Panfilo de Narvaez, who landed on Santa Rosa Island. Narvaez had previously landed at or near Tampa Bay, and, becoming separated from his fleet, had constructed some rude ships of yellow pine, with which he attempted to reach Mexico. It was during this attempt that he landed on Santa Rosa Island, although there is no record of his fleet having entered the bay.

The next recorded visit of white men was made by Moldonado, commander of De Soto's fleet. Under orders from De Soto to find a suitable harbor on the Gulf of Mexico, Moldondo entered Pensacola Bay, carefully examined it, and named it Puerto d'Anchusi. Moldonado returned to De Sota, who was west of Apalachicola, made a very favorable report as to the advantages of Pensacola Bay as a base of supply, and was sent to Havana for supplies. His instructions were to return to Pensacola in October, 1540 (the same year) and await De Soto, who was to travel there by land. De Soto never met him, however, and, after months of waiting, he left.

Nearly twenty years elapsed before the bay was again visited. In 1559 a fleet under Don Tristram de Luna entered with the object of founding a settlement to "secure gold, enlarge the territory of Spain," and to spread the Christian religion among the Indians. This expedition consisted of fifteen hundred soldiers with many priests. A town was founded—in all probability at or near where Fort Barrancas now stands. This settlement was not at all successful, due to absence of gold, and the lack of resources of the country. The settlement was finally abandoned in 1562, the colony returning to Cuba and Mexico.

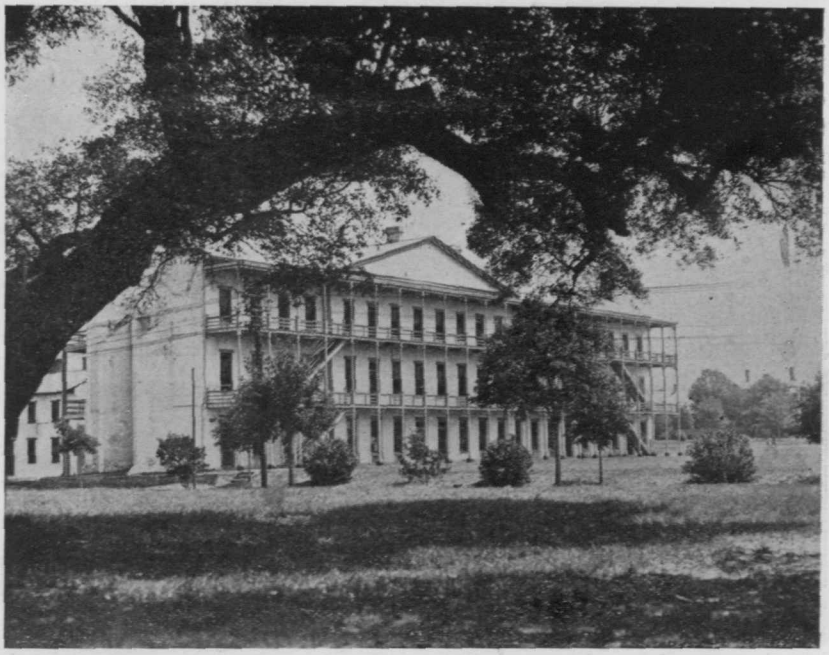
After the abandonment of Pensacola, or Santa Maria de Galva Bay, by de Luna's colony, the bay was visited at various times by Spanish explorers who were searching for a French colony supposed to have been founded at Espiritu Santo Bay, or the Mississippi River, but no colonization was attempted. Among the most prominent of these explorers was one Juan Enriquez Barroto, a pilot. Based largely upon Barroto's



Fort Barrancas, Florida (Fort San Carlos and Old Fort Barrancas in Foreground)

reports, in 1689 Andres de Pez, a man high in the naval service of Spain and a favorite of the King, advocated the occupation of Pensacola Bay—pointing out the general advantages of the region and its abundant products of fruit, buffalo, and timber. It was, he said, the best harbor on the Gulf of Mexico and could be easily fortified. The primary object of a settlement was to forestall its occupation by France, a rapidly growing rival to Spain's supremacy in the New World.

Accordingly, in 1693, De Pez and Dr. Carlos de Siguenza y Gongora, a noted scientist, were ordered to visit Pensacola Bay and thoroughly explore it. This exploration was made in the summer and fall of the same year, and the reports of both



Old Barracks Constructed 1847-1851

De Pez and Siguenza advised the immediate occupancy of the bay, chiefly to forestall France. However, it was not until 1699 that expeditions under Arriola and Captain Juan Jordan were sent to occupy Pensacola. These expeditions, with a total of 270 men, arrived in the fall of 1699. Captain Jordan's expedition arrived from Spain on November 27, De Arriola's from Vera Cruz, Mexico, on November 21. Immediately upon arrival, troops and supplies were landed at Barranca de Santo Tome, at or near the site of the present Fort Barrancas. Timber was cut, quarters erected, and within six days, Franck, an Austrian engineer in the service of Spain, had a battery of sixteen guns in position. This presidio was named San Carlos de Austria and was built of logs in the form of a square with bastions on each corner. It was approximately 278 feet long on each side.

That the settlement was not to be entirely peaceful was soon made apparent, for in 1700 a fleet of five French vessels entered Pensacola Bay and requested permission to land and secure fuel and water. This request was refused, and after three days the fleet left.

There seems no doubt that this French force intended to seize and occupy Pensacola Bay, as the Spanish feared they would do, for after leaving Pensacola, the French proceeded to Biloxi, where a fort was built.

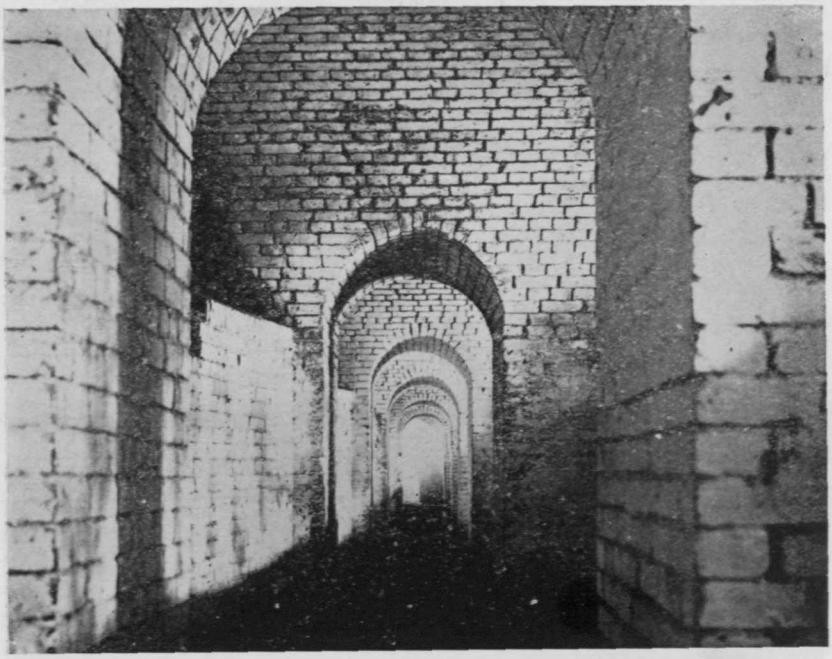
The settlement at Pensacola was so alarmed at the visit of the French, that De Arriola left at once for Vera Cruz to obtain supplies and reinforcements. These he did not obtain and no active steps were taken to destroy the French colony. As a matter of fact, relations between the French and Spanish settlements were most friendly, the French often furnishing supplies to the ill-equipped and poorly supplied Spanish soldiers.

Fort San Carlos

These relations were broken in 1719, however, when France declared war against Spain, and as a result Bienville, commanding the French forces at Mobile, surprised the Spanish at San Carlos de Austria on May 14, and captured the fort without a struggle. The Spanish were transported to Havana in French ships, which the Spanish governor general in Havana promptly captured. On August 6, the same year, a Spanish fleet attacked San Carlos, and after an ineffectual bombardment, the French surrendered. The Spanish did not hold the fort long, however, for in the next spring Bienville again captured Fort San Carlos, and this time burned the fort and town. The Spanish removed to the western end of Santa Rosa Island and there established a town. Of the exact location of this town little is known, but it is presumed to be near the present site of the present Coast Guard Station. This settlement was destroyed by a hurricane in 1754 and the few survivors moved to the present site of Pensacola.

The site of Fort San Carlos was returned to the Spanish upon the signing of a peace treaty in 1723. From that time until 1763 there is little or no authentic history

of the Post. All that can be said is that it was of so little importance that it was never molested during the Seven Years' War, which was ended by the Treaty of Paris in 1763. By that treaty the post of Fort Barrancas became English territory, although no fort existed there and no troops were stationed at that place. At about 1774, however, the British constructed a fort known as Red Bluff, supposedly near the site of present Fort Barrancas, as it is described as being about a half to a quarter of a mile from the powder magazine of the old Spanish fort (Fort San Carlos de Austria, destroyed by Bienville in 1721). This fort consisted of two batteries, "one on top, and the other at the foot of the hill."



Interior of Fort Redoubt

On March 19, 1781, Pensacola was attacked by a large fleet of Spanish ships under Don Hernando de Galvez, Governor of Louisiana. In this action the fort at Red Cliff was bombarded by the Spanish fleet. Pensacola fell on May 9, and Fort Barrancas again became Spanish territory.

Under Spanish rule, Fort Barrancas was again rebuilt, between 1781 and 1796. This time the fort was built of brick and stone and is the present semi-circular stone fort below the square American fort. Apparently at this time Fort Arrinnado was constructed. This was a brick fort on Santa Rosa Island about opposite the point of land on which the Navy Yard is located. The exact location of its ruins has not yet been determined, as they are now under water.

In 1814 both of these forts, as well as Pensacola, were surrendered to a small British force without a struggle, the British using Pensacola as a base to incite the Indians to rise against the American forces. Consequently, an American force under General Andrew Jackson was sent against Pensacola. The town was captured on

November 6, 1814, and the British, in evacuating Fort San Carlos, spiked the guns and blew up the fort.

After the War of 1812 Pensacola and Fort San Carlos were returned to the Spanish, who apparently repaired the fort and put it in good condition. Florida was always a seat of Seminole Indian uprisings, however, and in May, 1818, Jackson was again before Fort San Carlos demanding its surrender. This, the Spanish commander refused, and it was not until a bombardment that the fort surrendered to Jackson on May 27. When the Seminole Indians were somewhat quieted in 1819, Fort San Carlos and Pensacola were returned to the Spanish, and did not pass finally into the hands of the American troops until Florida was formally ceded to the United

ENTRANCE TO FORT BARRANCAS

States in 1821. Then, on July 17, 1821, Fort San Carlos was turned over to the Fourth U. S. Artillery with appropriate ceremonies.

Old Fort Pickens was built between 1833 and 1842; Fort McRee, now almost completely demolished, was constructed between 1839 and 1844; and about this time the brick fort and redoubt at Fort Barrancas was erected.

During the Civil War the forts now included in the Harbor Defenses of Pensacola were held in part by both the Union and Confederate forces, the Union forces holding the fortification on Santa Rosa Island, consisting of Fort Pickens and its defenses, while the Confederates held Forts Barrancas and McRee.

Several attempts were made by the Confederates to capture Santa Rosa Island, but despite night attacks, etc., the position was courageously defended and on the eighth day of May, 1862, the Confederate forces abandoned Pensacola. Fort Pickens was the only Army post within the limits of the Confederate States over which the Stars and Stripes flew during the Civil War.

Coast Artillery School Library

BOOKS CATALOGUED

Unless noted thus " * " these books may be obtained by any Regular Coast Artillery Officer; Warant Officer, A. M. P. S.; or Noncommissioned Officer (Grades 1-3), C. A. C., upon request to the Librarian, C. A. S. Library.

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The Emblem of Freedom Recognized

The West Coast Lumbermen's Association offers new masts for rebuilding "Old Ironsides," the historic battleship *Constitution* that some would see go to the junkman. The gift is worth $20,000; and almost nowhere else on earth but in the great Northwest could spars be cut adequately to supply the splendid old warrior craft.

The West Coast Lumbermen make a prosaic business of selling lumber for houses, barns, fences, pigpens, every commercial use to which lumber can be put. But they have a vision of something better than mere trade. They see a stuggling little nation building a home-made ship, armed with a few home-made cannon manned by fishermen and ferrymen, facing the seas of the world in defense of the rights of the individual against the strangling hand of autocracy; of the right to build a business and a future, as against having it handed down as a dole or a sop. The picture of the *Constitution* appeals to them as the emblem of freedom from political impoverishment.

Ten Commandments For the Company Commaner

1. To feed my men as well as is possible under the conditions existing.
2. To see that they are well and properly equipped.
3. To inculcate the spirit of wanting to do the right thing because it is the right thing.
4. To see that they are properly housed and as comfortable as conditions permit.
5. To see to their comfort before my own.
6. To treat each man as a human being and be interested in him and his affairs.
7. To teach them that privileges may be extended to those who are dependable and to see that they get those privileges.
8. To make them think they have the best company in the Army.
9. To keep them up to high standards in all things.
10. To set the example myself.

Coast Artillery Training Regulations Printed and Mimeographed to Date

The following list of Training Regulations applying particularly to the Coast Artillery is published for the information of all officers who have not received copies of TR 1-10, "List of Pamphlets Published to Date and Distribution Thereof."

PRINTED

435-20 Emplacement and Tactical Employment of Coast Artillery in Harbor Defense.
435-25 Tactical Employment of Railway Artillery Employed Outside of Harbor Defenses.
435-30 Tactical Employment of Antiaircraft Artillery (including Machine Guns, Guns, and Searchlights).
435-51 Mine and Submine Target Practice.
435-55 Analysis of Drill and Analysis and Reports of Target Practice.
435-56 The Schloming Film and Tangent Scales.
435-75 Searchlight Battery, Antiaircraft Artillery.
435-85 Machine Gun Battery, Antiaircraft Artillery.
435-90 Gun Battery, Antiaircraft Artillery.
435-95 Service Battery, Antiaircraft Regiment.
435-98 Separate Battalion, Antiaircraft Artillery (75-mm., 3-inch, or 4.7-inch Guns).
435-100 Battalion Headquarters and Combat Train, Gun Battalion, Antiaircraft Artillery.
435-105 Battalion and Battalion Headquarters, Machine-Gun Battalion, Antiaircraft Regiment.
435-110 Battalion (Gun) Antiaircraft Artillery.
435-115 Headquarters and Headquarters Battery, Antiaircraft Regiment.
435-120 Antiaircraft Regiment (Artillery).
435-160 Gunnery for Antiaircraft Artillery.
435-161 Identification of Aircraft.
435-185 Battery Command, Tractor Drawn Coast Artillery.
435-205 Gun Drill, Fixed Mount, Antiaircraft Artillery.
435-210 Gunnery for Antiaircraft Machine Guns.
435-211 Antiaircraft Machine Gun Marksmanship.
435-220 The Battery Command (Fixed).
435-221 Fire Control and Position Finding.
435-250 Gun Drill, Mobile Mount, Atniaircraft Artillery.

435-255 Service of the Piece, 12-inch Mortar (Fixed Armament).
435-260 Service of the Piece, 12-inch Gun (Barbette Carriage).
435-265 Service of the Piece, 10-inch Guns (Disappearing Carriage).
435-266 Service of the Piece, 6-inch Guns (Disappearing Carriage).
435-267 Service of the Piece, 6-inch Guns (Pedestal Mount).
435-270 Service of the Piece, 12- and 14-inch Guns (Disappearing Carriage).
435-280 Gunnery for Heavy Artillery.
435-290 The Fire Command.
435-295 The Fort Command.
435-300 The Coast Defense Command.
435-310 Examination for Gunners.
435-325 Orientation.
435-330 Tactical Use of Searchlights in Harbor Defense.

MIMEOGRAPHED

435-26 Tactical Employment Against Naval Targets of Tractor Drawn Coast Artillery Sited Outside of Harbor Defenses.
435-30 (Revision) Tactical Employment of the Antiaircraft Service .
435-175 Regiment, Railway Artillery.
435-225 Battery, Railway Artillery.
435-240 Service Battery, Railway Artillery.
435-310 (Revision) Examination for Gunners.

Active Officers, U. S. A.

Only 3134 or 27 per cent of the 11,786 officers in the Regular Army on December 31, were graduates of the Military Academy at West Point, statistics just compiled by the War Department show. The largest single group of officers, by appointment, were 3708 emergency officers of the World War, who later were commissioned in the regular establishment.

Almost as many officers, as those commissioned from emergency status, were commissioned from civil life, 3678 of these having been granted commission in the regular service. Three hundred and sixty-seven volunteer officers of the Spanish-American War, most of them now colonels and lieutenant colonels, were still on the active list. Eight hundred and ninety-nine officers on the list had worked up to commissions from the ranks.

MILITARY NOTES

furnished by

THE MILITARY INTELLIGENCE DIVISION, G. S.

France

Basis of French Infantry Organization.—For years it has been customary in measuring the strength of armies and smaller military units to speak of them in terms of men or of rifles, sabers, or guns. These various units served the purpose quite well when armies or smaller units were fairly uniform in size and equipment. For the infantry component, at any rate, a unit of men, rifles, or bayonets can no longer be used since the adoption by all modern armies of the light machine gun and the automatic rifle as essential weapons of the small infantry unit.

As might be expected, France, with the greatest modern army in existence today, is the leader in the adoption of a new unit expressing not simply the potential power of the individual men but their collective power grouped into units of combat. This unit in the French Army is the group (*groupe*) of twelve men formed around the automatic rifle. The strength of a French infantry company is no longer one hundred and eighty-five men or one hundred and sixty rifles or the same number of bayonets; it is twelve automatic rifles.

First of all, there is no "authorized strength" in the French Army as there was for so many years in our own. It will be recalled that our Army bills used to specify that the infantry would consist of so many regiments of so many companies of such a strength. In France, the strength of the army is the budgetary strength. The Chamber of Deputies annually notes an amount of money to maintain the army. The War Department, in disbursing this sum, distributes this in an endeavor to get the best results. In consequence, at some times there are more men in the various organizations than at others.

As stated before, the French infantry company consists of twelve automatic rifles with the necessary number of officers and men to direct, fire, protect, and supply them; to advance them and to cover their withdrawal. This is, of course, a tactical affair, having nothing to do with authorized or budgetary strength.

The word squad (*esconade*) is no longer in use. The basic cell of the company organization is now the automatic rifle crew or *équipe* composed of five men and a corporal. For each one of these crews, or *équipes*, there is another crew, likewise composed of five men and a corporal, whose duty it is to assist, aid in the advance of, protect, inform, and reconnoiter for the automatic rifle crew. To accomplish this, the second crew is armed with rifles, pistols, and grenades.

The two crews—twelve men in all—constitute a group (*groupe*), commanded by a sergeant. Three groups compose a section under a lieutenant, and four sections a company under a captain. In addition to the four sections, each company has a headquarters composed of trumpeters, orderlies, and officers' servants, commanded by a sergeant major. This headquarters section is called the *Section de Commandement*, and it habitually accompanies the captain. However, it should be remembered that the strength of this is not so many men but, rather, twelve automatic rifles.

The *groupe* of two crews has the following composition:

The Group Elements		*Arms*
1 sergeant, *chef de groupe*		rifle
A crew of *fusiliers mitrailleurs*	1 corporal, *chef d'équipe*	carbine
	1 layer	automatic rifle
	1 chief loader	pistol
	3 assistant loaders	carbines
A crew of *grenadiers voltigeurs*	1 corporal, *chef d'équipe*	rifle
	1 *grenadier lanceur*	carbine and pistol
	1 *grenadier V. B.*	rifle
	3 *voltigeurs*	rifles

The two crews mentioned above are known respectively as "*fusiliers*" and "*voltigeurs.*"

The battalion is composed of three companies of *fusiliers-voltigeurs*, one company of *mitrailleurs* (machine guns), a headquarters group, and a section of accompanying "engines."

The Commander of Divisional Infantry.—The French still retain their three-infantry-regiment divisions, although it is believed many of their general staff officers prefer a four-regiment organization.

The infantry of the division has its own commander. The functions of this officer have never been definitely laid down. In general, it may be said that he coordinates the action and regulates the fire of the infantry regiments.

In recent problems at the *Ecole de Guerre,* the divisional infantry commander has been used in the following rôles: The infantry in the *ligne de combat* is under the orders of the commander of divisional infantry; that in reserve is under the division commander. The commander of divisional infantry usually commands the outposts or the main line of resistance in defense with most of the divisional 75-mms. in direct support; in the latter case, the division commander retains only one or more battalions as division reserve and the artillery supporting the defense as a whole. In the offensive, the commander of divisional infantry always commands the *ligne de combat.* The division order itself for an attack usually goes into complete detail as to the maneuver of the regiments.

The "Groupe de Reconnaissance."—The French use a *Group de Reconnaissance* as an integral part of their infantry divisions. This consists of:

1 troop (*escadron*) of cavalry
1 cyclist company
1 platoon of auto machine guns.

The *groupe* forms part of the advance guard, usually advancing by bounds, maintaining a considerable distance in advance of the advance guard proper until contact with the enemy is gained. During a halt for the night, it forms part of the outpost. During an attack or defense, it is usually kept in division reserve.

Killed and Wounded Statistics, 1914-1918.—Mr. Gaston Cadoux, former president of the Statistical Society of Paris, has compiled the following interesting statistics concerning the losses sustained by France during the World War.

Out of her 39,600,000 inhabitants, France mobilized 8,140,000 men in her army and 215,000 in her navy, and lost in battle a total of 1,363,000 men. This figure is

one-sixth of the mobilized forces, one-seventh of the male population, and one-twentieth of the entire population.

A comparison of France's losses with those of other countries shows that:

France	lost one man killed or missing for every	28	inhabitants
Germany		35	
Austria-Hungary		50	
Great Britain		66	
Italy		79	
Russia		107	
United States		2000	

The losses of each trade or profession were as follows:

Trades or Profession	*Killed, Missing, or Disabled*	*Total Men Engaged in the Profession*
Farmers	699,210	5,608,971
Business men	159,977	1,327,156
Food supply	95,780	400,375
Manufacturing	274,344	2,800,652
Public works and building trades	168,747	915,686
Transportation	60,972	665,029
Liberal professions	40,423	235,320
Office holders	21,426	582,825
Proprietors, annuitants, men of leisure, and retired men	9,493	291,661
Students, prison inmates, and men of unknown trade	80,190	5,957,193
Ecclesiastics	2,712	63,545

Japan

Distribution of Officers by Rank.—To those who have long contended that our army should have its proper number of officers in the higher grades in time of peace, a word as to how this matter is handled in Japan should prove of interest.

Since the retirement of the General of the Armies, we have returned to our peace-time status where the rank of major general is the highest attainable rank regardless of the responsibilities which assignment to duty may entail. The Chief of Staff, the Chief of Branch, the Corps Area Commander all have the same rank.

In the Japanese Army, the question of rank and command is looked upon in quite a different light. The Japanese Army Register shows 14 full generals, 52 lieutenant generals, and 159 major generals. They have no such rank as brigadier general, conforming in this matter to the present practice in our Navy where all flag officers are rear admirals since the grade of commodore was abolished. The officers of the Japanese Army holding the grade of full general are assigned to the following duties:

1 Minister of War
1 Aide to the Emperor
4 Board of Marshals and Admirals
4 Military Councillors
1 Chief of the General Staff
1 Commanding the Army of Formosa
1 Commanding the Army of Korea
1 Commanding the Army of Kwangtung.

All Chiefs of Branches and Bureaus, all Division and Area Commanders are lieutenant generals.

The following tabulation gives a comparison of the assignment of Japanese and United States army officers by grades:

	Japan		*United States*	
Grade	*Number*	*% of Total Officers*	*Number*	*% of Total Officers*
General	14	.10	None	
Lieutenant General	52	.37	None	
Major General	159	1.14	22 }	.59
Brigadier General	None		47 }	
Colonel	475	3.40	501	4.26
Lieutenant Colonel	813	5.82	690	5.87
Major	1,885	13.49	2,190	18.62
Captain	4,602	32.95	4,170	35.46
1st Lieutenant	3,943	28.23	2,723	23.16
2d Lieutenant	2,026	14.50	1,416	12.04
Total	13,969	100.00%	11,759	100.00%

Persons imagine that infantry, armed with the modern long-range magazine rifles, can go into battle and shoot large numbers of an enemy, and that, if the infantry is numerous and daring enough and brave enough, they will be able to whip the enemy without the support of field artillery. This is a grave error. An army of a million men, consisting entirely of infantry, armed with modern shoulder arms, would be completely overmatched and easily defeated by an army of 25,000 amply equipped with modern field artillery. The infantry would be wholly unable to get within musket range, because they would all be destroyed by the shrapnel of the enemy before they could get near enough to fire a single effective shot.—*Hudson Maxim in* DEFENSELESS AMERICA.

COAST ARTILLERY BOARD NOTES

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

Projects Initiated During the Month of April

Project No. 459, Mead Predictor.—Captain Edwin C. Mead, Coast Artillery Corps, has designed a set of prediction scales which are placed on a sheet of transparent celluloid with slots for targ, enough scales being drawn on the sheet to care for all times of flight. Instead of numbering the scales with time of flight figures the ranges themselves are used so that the plotter does not have to refer to firing tables. The Coast Artillery Board is of the opinion that the predicting device submitted by Captain Mead possesses no particular advantage or disadvantage as compared to the average predicting device at present in use; that it is much inferior to the Stephens Predictor (C. A. B. Project No. 419); and that it is not suitable for adoption as a standard for Coast Artillery use.

Project No. 460, Number Strips and Prediction Scales for Cloke Plotting and Relocating Board.—The Chief of Ordnance has requested information as to the number and scales of strips to be issued with each Cloke Board in the future, taking into consideration the fact that it may be desirable to vary the strips to suit the armament served. The question of the desirability or necessity of issuing prediction scales to suit each set of number strips provided, was also raised. These questions are now under study by the Coast Artillery Board.

Project No. 461, Investigation of the Accuracy of the Wind and Parallax Computer.—The accuracy of wind correction values read on the wind and parallax computer has been in doubt for some time. It was known that the basis for the values lay in formulae which were taken over from the French and which were probably based on a study of the 75-mm. gun firing tables. The 75-mm. gun shoots at a much lower velocity than, and uses a different projectile from the 3-inch guns, Model 1918 or 1917. Target practice reports have recently brought up this question again. This subject is now under study by the Board.

Project No. 462, Sighting Equipment on Antiaircraft Searchlights.—Battery "A", 61st Coast Artillery, has improvised front and rear sights for searchlights to check the accuracy of day practice. The Coast Artillery Board has been directed by the Chief of Coast Artillery to investigate this subject to determine whether or not it is desirable to send out a description of such apparatus to all other antiaircraft units.

Completed Projects

Project No. 419, The Stephens Predictor

I. HISTORY OF THE PROJECT.

1. Many predicting devices have been considered by the Coast Artillery Board and many types are in use by the Coast Artillery. There are at least four types in use

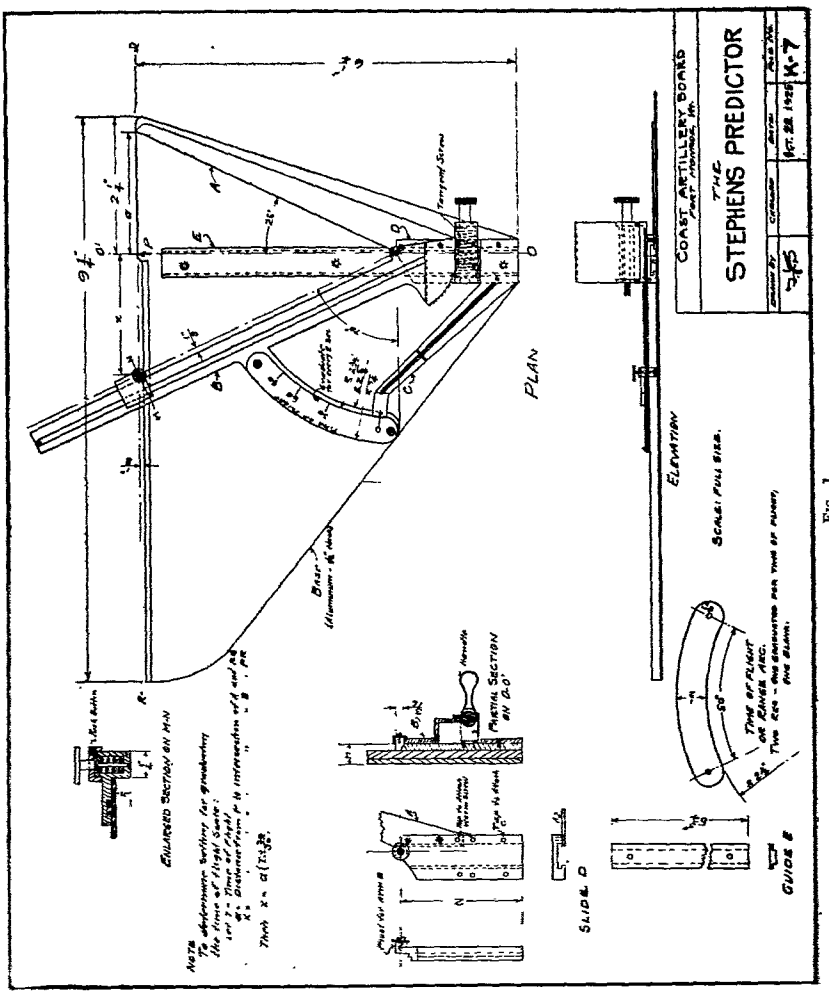
COAST ARTILLERY BOARD
FORT MONROE, VA.
THE
STEPHENS PREDICTOR
OCT. 22 1926
K-7
PLAN
ELEVATION
SCALE: FULL SIZE.
ENLARGED SECTION ON H-H
PARTIAL SECTION ON D-D
SLIDE D
GUIDE E
Brass (Aluminum - 16" Hub)
Tangent Screw
Handle
Pivot for arm B
Top Hub Hub
Bottom Hub
TIME OF FLIGHT OF RANGE FIND. TWO SEC - ONE ADDED PER TIME OF FLIGHT, ONE BLANK.
NOTE
To determine settings for gunnery
The time of flight (seconds)
let T = time of flight
x = distance from P to intersection of A and BC
y = " " " " B : PR
Then x = a(T+2)/2

FIG. 1

at Fort Monroe and Fort Eustis at as many batteries. None of the predicting devices previously considered are believed by the Coast Artillery Board to be thoroughly satisfactory for adoption as a standard for Coast Artillery use.

2. In an endeavor to produce a predicting device that will be satisfactory as a standard for Coast Artillery use, Technical Sergeant Thomas J. Stephens, C. A. C., has designed the Stephens Predictor.

II—Discussion.

3. Figure 1 shows the construction of the Stephens Predictor.

4. The design and operation of the device will be understood from Figure 1. It consists essentially of a base plate, to which is attached a guide which is normal to the edge PR of the base plate. Two arms, A and B, are attached to a guide block which can be moved along the guide; these two arms have a common center which is always on the normal to the edge PR of base plate through P. The arm A is rigidly fastened to the guide block and its fiducial edge makes a constant angle with the normal to the edge PR of base plate through P. The arm B can be rotated by means of the tangent screw, thus varying the angle made by the fiducial edge of the arm and the normal to the edge PR of base plate through P. The time of flight scale is graduated so that for any setting the following relation will be true.

$$\frac{\text{Tan angle made by arm B with normal thru P}}{\text{Tan angle made by arm A with normal thru P}} = \frac{\text{Predicting interval} + \text{time of flight}}{\text{Observing interval}}$$

An extra scale is provided which may be graduated in range and substituted for the time of flight scale.

5. The operation of the device is as follows:

a. The time of flight scale is set by means of tangent screw.

b. The edge PR of base plate is placed along the track of target with the arrow P opposite the last plotted point.

c. The two arms are moved along the guide until the fiducial edge of arm A intersects the edge of base plate at the next to the last plotted point.

d. The setforward point is plotted at the intersection of the fiducial edge of arm B and edge of base plate by moving the guide block carrying push button along guide on arm B until the pin is in contact with edge of base plate and pressing on push button.

6. The advantage of this device is that it has but one scale—the time of flight scale, which can be set during the interval between plotting operations. The last plotting point having been plotted, it is unnecessary for the plotter to read any scale in order to determine and plot the setforward point.

III—Conclusion.

7. The Coast Artillery Board is of the opinion that the Stephens Predictor is superior to other predicting devices as yet considered by the Board and that it gives sufficient promise of being acceptable as a standard for Coast Artillery use to warrant arsenal construction of a limited number of the devices and subsequent service test thereof.

IV—Recommendation.

8. The Coast Artillery Board recommends that four Stephens Predictors be constructed by the Ordnance Department and subjected to service test.

V—Action by the Chief of Coast Artillery.

The Chief of Coast Artillery has approved the recommendation of the Coast Artillery Board, and four Stephens Predictors will be constructed at Frankford Arsenal and subjected to service test.

BOOK REVIEWS

The Origin of the Next War. By John Bakeless. The Viking Press. 1926. 5¼"x 8". 318 pp. $2.50.

This is an arresting book. It is fortunate for the profession of arms that a civilian wrote it. Otherwise it would be condemned, offhand, even more than was General von Bernhardi's famous pre-war treatise.

Mr. Bakeless offers scant support to the pacifists. What is worse, he bases his estimate of the existing international situation on an analytical study of the causes of modern war—a labor which no pacifist society has so far undertaken. When a man who has written as sound a book as *The Economic Causes of Modern War*—almost the only basic study in all the recent welter of pacifist palaver—comes out with a flat statement on the world situation of today, it is at least worthy of serious notice. In the book under review he says: "When we have given full weight to all optimistic arguments, the regrettable fact remains that the world we live in is quite as charged with tension, quite as filled with national desires still unappeased, and bristles with quite as many threats of war as the outwardly peaceful world we dwelt in so thoughtlessly and happily in 1914."

This sentence sums up his findings, based on a review of the causes of war and on the failure of the World War to eliminate those causes or to evolve a positive method of preventing war. "The increase of population," he says, "in every part of the globe and the rise of the industrial system—together with the complex system of imperative needs that every nation necessarily feels as soon as it becomes thickly populated and is fairly well advanced on the road to individualism—are the primary causes of all modern wars." Then, chapter by chapter, he examines the situation of today and finds the old tensions still existing, if not augmenting.

Of rivalry in the Pacific he says: "To the Americans the difficulties due to Japanese fecundity, which have narrowly missed producing war on two or three occasions, are of immediate and intimate significance. There is not the least reason why a Japanese-American war need ever take place; but there is the best reason in the world why we should not ignore or minimize its possibility."

The "Book Review" of the *New York Times*, perhaps the most read literary review in this country, recently gave this book its front page attention. Would that the sentimental pacifists might follow that example! But I fear they would not get beyond the map published on the front page of the book—"The Danger Spots of the Modern World." On the left of this map lie Eastern Asia and Australia, with four red danger spots (including the Philippines). On the right are Europe and Northern Africa, with fourteen spots. And in the center lies America, its white purity unspotted—the home of pacifism.—S. M.

Mobilization in Retrospect. By Lieutenant Colonel T. M. Coughlan, Cav. G. H. McCallum Co., San Francisco. 1926. 5"x 6½". 106 pp. $0.50.

This little work explains, in popular fashion, the detailed steps necessary in the preparation and mobilization of a company of the Organized Reserves. All officers—Regular, National Guard, and Reserves—should know the principles of mobilization,

and Colonel Coughlan, who has had considerable experience, makes these clear by using a concrete example. The book should be in the hands of every officer who may ever be concerned with the details of mobilization of the Reserves or of the National Guard.

Radio Theory and Operating. By Mary Texanna Loomis. Loomis Publishing Co. 1925. 5½"x 8". 848 pp. Ill. $3.50.

The first part of this book contains a good elementary course in electricity and magnetism including alternating current. Following this the author discusses electric waves, coupled circuits, spark gaps, and storage batteries. The second part is devoted to the principles of receiving radio waves by means of circuits containing crystal detectors. The third part is devoted to vacuum tubes and continuous wave transmission and reception. This part includes a rather complete chapter on "Modern Vacuum Tube Receivers and Amplifiers" which is of interest to the radio fan. The fourth part is devoted to the radio operator and contains valuable information as to the installation and care of radio apparatus.

The book is profusely illustrated and contains many useful tables. The appendix contains the different codes and a list of four hundred and fifty questions for the use of the candidate in applying for a government radio operator's license. This work should be useful to the amateur radio fan as a reference book and to anyone preparing to be a radio operator.—R. W. A.

Our Flag. By Dosia Head Brooks. Harold Vinal, New York. 1926. 5¼"x 7¼". 168 pp. Illustrated. $2.50.

This excellent little book, in which the underlying note is patriotism, should be in every library, particularly those of schools. In it the author has given, without too much detail, many of the essential facts relative to American flags. The history and evolution of American flags, descriptions of many historic flags, Confederate flags, flag customs and courtesies, and the proper uses of the flag make up the greater part of the volume. As must be expected in a work of this sort, there are some minor errors and omissions. The flag of the Secretary of the Navy is described, but that of the Secretary of War is not included. The reasons for the sixteen "perpendicular" bars of the Coast Guard flag are not given. We learn that every one in the army "is required to stand with head uncovered whenever" *America* or *The Star Spangled Banner* is played. We also find that, in signalling, "The United States Navy prefers a single flag and the Morse alphabet," and the author recommends that it adopt the semaphore code. The book covers a somewhat wider field than does Kerrick's *The Flag of the United States,* but it lacks the profuse illustrations in color to be found in Kerrick's work and is no more authoritative.

Buffalo Days. By Colonel Homer W. Wheeler. The Bobbs-Merrill Company, Indianapolis. 1925. 5¾"x 9". 361 pp. Ill. $4.00.

From 1868 until the last Indian war of 1890, Colonel Wheeler was in and of the West. As cowboy, rancher, post trader, scout, and Army officer he roamed the frontier trails, learned to know the Indian, and saw the buffalo exterminated. He commanded a company of Indian scouts; he built frontier posts; he knew Sheridan Crook, Jesse M. Lee, Mackenzie, Lawton, Crazy Horse, Spotted Tail, Wild Bill Hickok, Buffalo Bill Cody, Jim Bridger, and other famous men of the West.

Colonel Wheeler's book is a narrative of the hardships, excitements, and battles among these people of the west. Part One covers his civilian experiences in the west; Part Two tells of his army career; Part Three describes some famous western char-

acters; Part Four is a short section devoted to his command of Indian scouts; Part Five is descriptive of Indians and their ways; and Part Six closes the book with his service in Porto Rico and his retirement. Colonel Wheeler led an active life and in his engrossing tale, written in simple language, we roam in imagination with him the Rosebud, the Washita, the Little Big Horn, Sappa Creek, Powder River, and the Arickaree Fork of the Republican. These events are only a short span of time behind us, but, so rapidly has the world moved in recent years, they seem to belong to the distant past. Colonel Wheeler, in his interesting book, forms one of our last links with the days of the old frontier.

Trailing Geronimo. By Anton Mazzanovich. Gem Publishing Company, Los Angeles. 1926. 5"x 7½". 277 pp. Ill. $3.00.

The title of this book is somewhat misleading, in that the story of the text centers more about the life and activities of the author during the time that Geronimo was at large. The author enlisted in the band of the Twenty-first Infantry in 1871, at the age of nine years nine months, and was discharged in 1873. He re-enlisted in the Sixth Cavalry in 1881 and served about a year in active warfare against the Indians. From his discharge until the capture of Geronimo in 1886 he served most of the time as a packer with the Army. During these years he participated in much of the constant Indian warfare of the southwest, in which Geronimo figures strongly, and he speaks from first-hand knowledge except as to the actual surrender of Geronimo.

The viewpoint, being that of an enlisted man, is necessarily narrow, and we do not get a good idea of the broader aspects of the Apache wars of 1881-86. The book is, however, interesting, as showing the conditions under which the Army existed at that time; it has the fifty-nine full pages of illustrations; and it adds one more account to our record of those adventures and exciting days of the "Wild West" which now seem so far in the past. Mr. Brininstool, who edited the present volume, is doing a real service in securing the records of the veterans of the Indian wars while they are still available.

War Abolition. By Harry P. Gibson. Robson and Adee, Schenectady. 5"x 7¼". 192 pp. $2.00.

In these days of dangerous pacifistic propaganda, one takes up with reluctance any volume dealing with the abolition of war, and in the first part of Mr. Gibson's book one's worst fears are apparently confirmed. The greater part of the book is devoted to an arraignment of war—scarcely necessary in these enlightened days, since war for war's sake has no longer any considerable number of advocates. Without disagreeing in principle with the author concerning the desirability of universal peace, we find that he arouses a sense of antagonism through his summary rejection of all anti-pacifistic arguments as fallacious without demonstrating the fallacy, through his statements of fact, which may be questioned, and through his emphasis of the value of a "will to peace." Unfortunately, space limitations prevent consideration of these points, particularly since Mr. Gibson is here merely trying to demonstrate an admitted fact—the undesirability of war.

However, when we reach the second—and, incidentally, the less original—half of the book we come to a constructive section which should be studied carefully. In the end we credit Mr. Gibson with four things: he has a real and laudable desire to promote international peace, he does not openly advocate a policy of non-resistance, he urges the practice of the teachings of Christianity between nations, and he offers a positive program for the United States which would go far in serving

to reduce international friction. In recommending disarmament to a "police" rather than a "defense" basis, we feel that he is making haste too rapidly, for disarmament, unlike charity, should begin only at home. On the whole, the book, while not entirely fair to the advocates of preparedness, is constructive, which is more than can be said of most books presenting the pacifist viewpoint.

Elmer E. Ellsworth and the Zouaves of '61. By Charles A. Ingraham. Chicago Historical Society. 1925. 6"x 9¼". 163 pp. Illustrated. $2.00.

The wave of enthusiasm for Zouave and Cadet military organizations which swept over this country shortly before the outbreak of the Civil War was due largely to the excellence and the fame of the Chicago Zouaves while under the command of Ellsworth in 1859 and 1860. The greater part of the book is devoted to this organization, and the title is therefore misleading. The New York Fire Brigade Zouaves which Ellsworth organized in 1861 appear first on page 127, and never approached the discipline and drill efficiency of the Chicago organization.

The book is based mainly on original sources, and is authoritative, typographically excellent, interesting, and well written. It is, however, seriously defective in the absence of dates, locations, and identification of most of the source material. Newspapers, used frequently, are seldom identified or dated, and in some cases the language of the newspapers is employed without quotation marks or other acknowledgement. Finally, we can not approve of the inclusion, in the closing sentence, of John Brown, Elmer E. Ellsworth, and Abraham Lincoln as a "patriotic and prophetic triad of martyrs who still breathe inspiration into the hearts of this Republic."

An American Peace Policy. By Kirkby Page. George H. Doran Company, New York. 1925. 5¼"x 7½". 94 pp. $1.00.

International peace is to be desired; any step taken to improve international understanding and good will tends to promote international peace; the World Court, outlawry of war, and the League of Nations will promote international understanding and good will; hence, the United States should enter the World Court, cooperate with the other nations in outlawing war by declaring it a crime, and join the League of Nations as soon as it is stripped of its armed sanctions. Such is the theme inadequately developed by Mr. Page in his little book. However worthy may be the steps urged by the author upon the United States, his arguments are far from convincing. In his desire for brevity, perhaps, he has not fully developed his points, he has not presented both sides of his arguments, and he leaves much to inference. Mr. Page's recommendations are discussed more fully—although not in combination—in *Ways to Peace,* edited by Miss Lape.

Roving Through Southern China. By Harry A. Franck. The Century Company. 1925. 5¾"x 8¾". 649 pp. Ill. $5.00.

With this volume Mr. Franck adds another to his series of travel books. This story, coupled with his *Wandering in Northern China,* completes the author's contribution toward a description of the Chinese people, their living conditions, and their mode of life. The book titles are particularly appropriate; the author wanders and roves far from the beaten tourist path and directs his main effort to the portrayal of modes, customs, and peoples where they are least touched by foreign influence.

In southern China he followed largely his usual custom of traveling alone except for a native servant. He traverses the country in wheelbarrows, sitting chairs, or afoot, along the winding flagstone trails. The rivers he negotiates in sail boat, row boat, "slipper" boat, or whatever the native conveyance may be. We are told the

story of the scarcity of material and the abundance of man power. The potter spends the better part of his life moulding and decorating a few pieces of clay. He may, and often does, become an artist of merit, but rarely does he earn more than a meager sustenance. The wheelbarrow is used as a truck and the sitting chair serves as a taxicab. Streams and trails mark the lines of communication. Roads are lacking. We also hear of the entire lack of sanitation—the provision of garbage receptacles for dead babies, not always dead when deposited.

The reader follows the author on his journeys in the order in which he made them. By a winding route he covers that part of China which includes the valley of the Yang Tze and to the south. The book is extremely well illustrated, with one hundred and seventy-one photographs taken by the author. These photographs in themselves tell a convincing story of the Celestial Republic.—C. S. H.

The Travels of Marco Polo (the Venetian). Revised from Marsden's translation and edited by Manuel Komroff. Boni & Liveright, New York. 1926. 6"x 8". 369 pp. $3.50.

Marco Polo was the first traveler to describe the life and customs of the people of China, Thibet, Burma, Ceylon, India, and many other places. His spectacular narrative, however well-known, is always fascinating, and should now be re-read in conjunction with Sven Hedin's *My Life as an Explorer*, in which we get a modern impression of some of the lands visited by Marco Polo.

Mr. Komroff has chosen Marsden's translation, published in 1818, as the basis for the edition which he has prepared. Removing all encumbering notes and discussions and making considerable use of Yule's extensive studies of the Marco Polo manuscripts, he lays emphasis upon the narrative itself, rather than upon notes substantiating the observations of Marco Polo. The type is large, the editing has been carefully done, and the book will make a very presentable addition to any library.

A Map of the World of Knowledge. By Sidney Morse. The Arnold Company, Baltimore. 1925. 5"x 7¾". 106 pp. $1.50.

The author might very well have called this present work a "Guide to Education." He has prepared a chart covering the whole field of knowledge, with an explanatory text and a list of recommended books. He shows that knowledge, far from being chaotic, can be classified and charted in a simple way so that the seeker after culture may see at a glance the relationship existing between the several sciences and can formulate a plan of reading which will be ever progressive. Beginning with mathematics, the key to the natural sciences, we are led to astronomy. Our interest in the universe naturally centers on the earth, hence we come to geology. In studying the earth we see primarily its surface and take up geography. These two sciences arouse a curiosity as to the phenomena of nature (physics) and the composition of matter (chemistry). Perceiving life in matter, we pass to biology and, man being the highest form of life, to anthropology. In man we perceive the mind (psychology) and are thereby led from the study of matter to the study of humanity—the historical sciences—of which the key subject is linguistics. In a similar manner, the author shows how we pass from primitive and social histories through the various stages of man's contact with man to the histories of art and of education. The next step, of course, is into the ideal—the normative sciences, of which logic is the key subject, leading to aesthetics, ethics, and metaphysics.

The book and its map are easy to understand and are recommended to any officer who would create a background to enable him occasionally to get out of the rut of military science, which occupies a tiny place in but one corner of the map.

Rhythmic Prose. By John Hubert Scott. University of Iowa. 1925. 6"x 9½" 192 pp. $2.00.

Students of modern rhythmical theory may be, in general, divided in two groups. The first of these, embracing by far a large majority of contemporary authorities, tends to accept the dictionary definition of rhythm as synonymous with meter and to require, for rhythm, a temporal periodicity—accents appearing at equal or apparently equal intervals of time. This group is further divided into two classes: one that requires uniformity of stressed and unstressed syllables (meter), and one that requires an exact time interval, which, however, is not necessarily syllabic.

The second group places no stress upon time but seeks rhythm in the shape—the sound pattern—which the idea assumes when placed in language form. This group also may be divided into two classes. The first of these finds rhythmical effects in the rounding out of a phrase at its close—in "end glides." The second class to which Professor Scott belongs, makes rhythmic units and thought units (of eight syllables or less) coincident, and looks for rhythm in the symmetrical arrangement of accented syllables within a rhythmic unit.

This theory of rhythmic phrasing Professor Scott develops, in his book, with an almost convincing multitude of examples. He first presents a brief outline of some of the theories of rhythmical expression, both ancient and modern, and then takes up his discussion of the rhythmal theory, with chapters on "Parallel Structure as a Factor in Rhythm." "The Quadral Theory," "Faulty Rhythma," and illustrations and examples. The book is interesting and well presented (adherents to the theory of periodicity might say "ingeniously presented"), but it is scarcely a book for beginners in the study of rhythm in English prose.

Niagara in Politics. By James Mavor. E. P. Dutton and Company, New York. 1925. 5½"x 7½". 255 pp.

This book is an arraignment of the Hydro-Electric Power Commission. The author discusses the development of hydro-electric power under private enterprise on the American side of the Falls and contrasts the growth of industry on the American side with the absence of growth on the Canadian side. He then takes up the initial development of power on the Canadian side during the period from 1885 to 1902. During the four following years Niagara attracted the attention of the politicians and the Hydro-Electric Commission came into being. Tracing the history of the Commission, the author concludes that it now dominates Ontario, that it "is much larger than its promoters ever dreamed of; it is a great deal larger than they can manage. In point of fact, the Hydro cannot be controlled; it controls its own officials and the Government." He compares the Hydro to the *cangue*—wooden collar—worn by Chinese prisoners. This *cangue* the Prime Ministers of Ontario have worn until "To the wearer it has become an almost intolerable burden."

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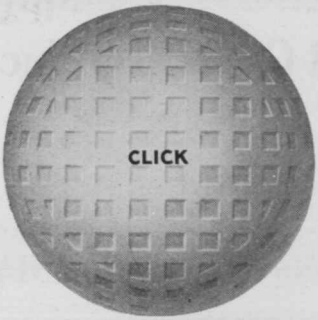

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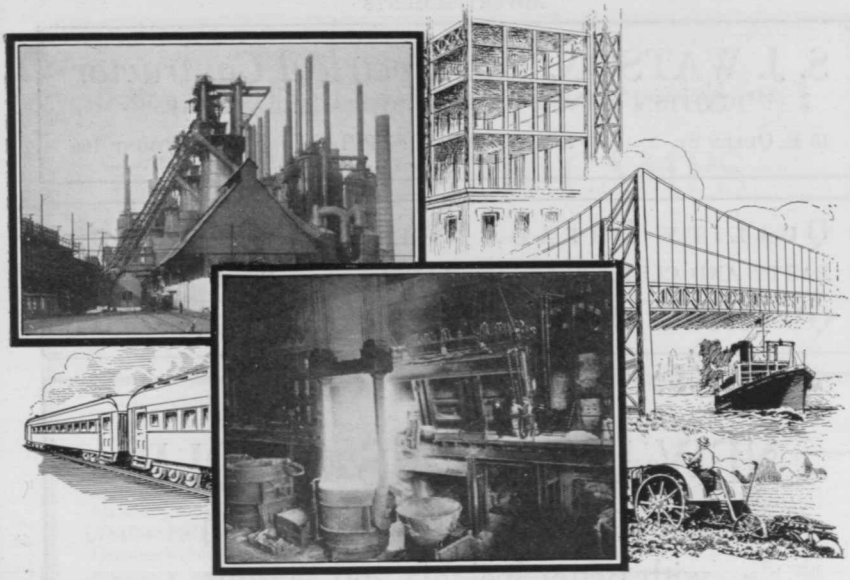

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UK-2	Army Quarterly.
UK-3.5	Canadian Defence Quarterly.
UK-8	Engineer.
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UK-21	Royal Engineers Journal.
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Fort Monroe—8-17-26-300

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SUBJECT: A description of a preparation for and conduct of a target practice, or any phase or feature thereof.

PURPOSE: To secure for publication in the JOURNAL, the experiences and viewpoints of officers who recently have trained for, engaged in, or reported upon the results of target practices.

NOTE: This Competition is additional to and not in place of the JOURNAL'S Annual Prize Essay Competition.

CONDITIONS

(*a*) The competition is open to any officer of the Coast Artillery branch of the Regular Service, National Guard or Organized Reserves.

(*b*) The articles must be descriptive of practices held between November 1, 1925, and September 15, 1926, at batteries of 3-inch guns or larger caliber.

(*c*) Articles may relate to Fixed Artillery, Tractor Drawn Artillery, Anti-aircraft Artillery or Railway Artillery.

(*d*) Articles must not exceed 3000 words in length (approximately eight typewritten, double spaced pages of legal cap paper). Photographs, drawings, etc., may however, be submitted in addition if desired.

(*e*) All articles entered in the competition become the property of the JOURNAL.

(*f*) No competitor may submit more than one article.

(*g*) Articles must be received on or before October 1, 1926, and be addressed to the COAST ARTILLERY JOURNAL.

(*h*) Award will be made by a Committee of Award consisting of three officers to be nominated by the Editor.

(*i*) Articles must contain nothing to indicate authorship. They must be signed with a *nom de plume* and must be accompanied by a sealed envelope containing the *nom de plume* and the name of the person submitting same. These envelopes will remain in the hands of the Editor of the JOURNAL until after the award has been made by the Committee. They will then be opened by the Executive Officer of the Third Coast Artillery District.

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