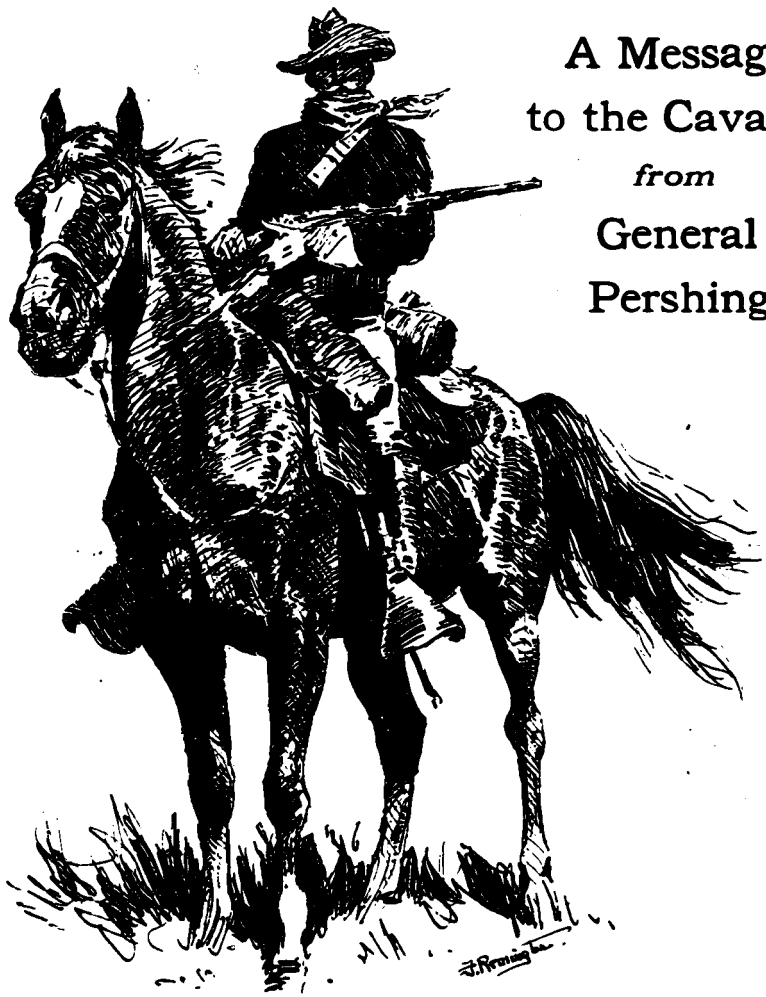
The CAVALRY JOURNAL



A Message to the Cavalry *from* General Pershing

APRIL 1920

THE UNITED STATES CAVALRY ASSOCIATION
WASHINGTON, D. C.

not. His notes "On Draught" are good also, and it is to be regretted that he did not go deeper into this subject, which is about the only one connected with horsemanship that has not been very much overwritten.

The attempt has been made to cover practically the whole subject of horsemanship and care of equipment, with the result that no part is thoroughly covered.

Some of the principles of equitation which he advances are not borne out by the recognized authorities and are absolutely at variance with what is taught in our service.

STANLEY KOCH.

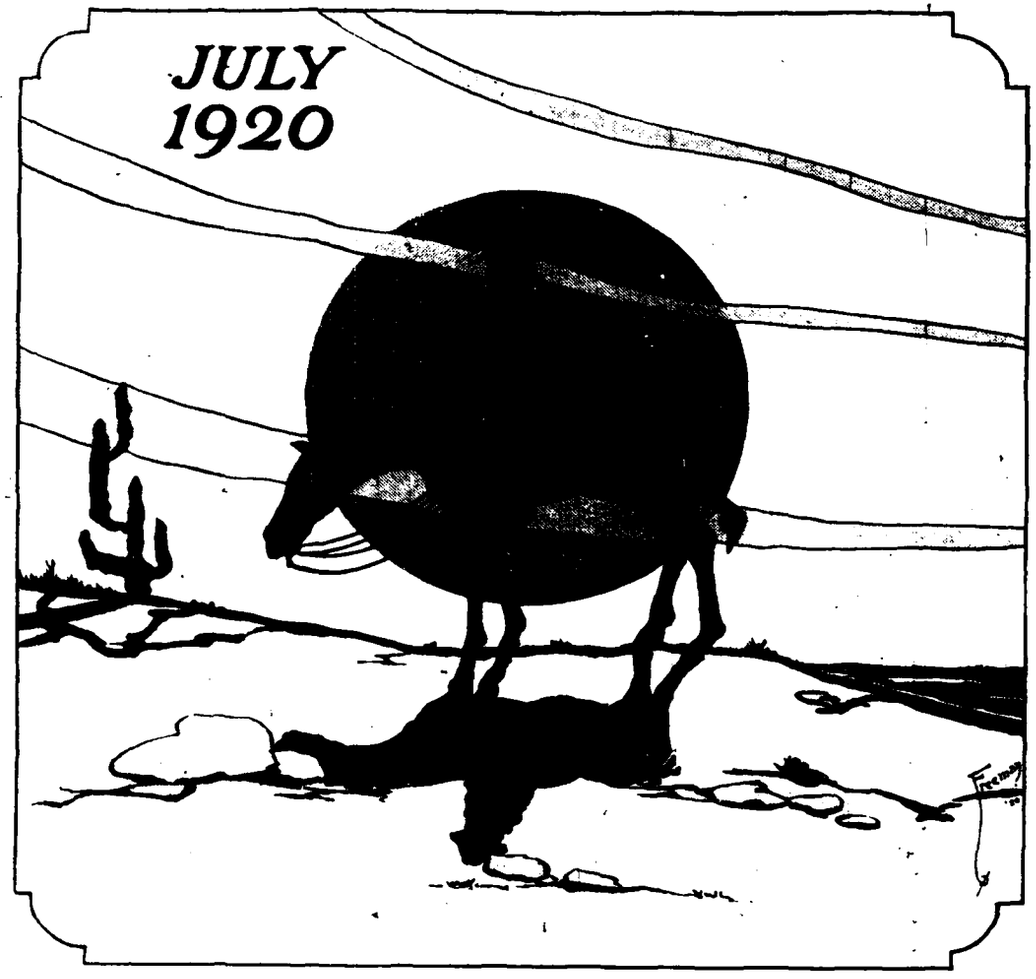
"THE ARMY BEHIND THE ARMY." By Major E. Alexander Powell. Charles Scribner's Sons, New York.

To the reviewer the omission of a preface or foreword is a serious handicap, and Major Powell has omitted both in his book, "The Army Behind the Army." But whatever he may have intended to do when he set out to write this volume, he has succeeded in portraying both the romance and the achievement of the Bureaus, the Procurement Divisions, and the Supply Corps; of all activities behind the firing line that made possible the successful fighting of our combat divisions. It deals in stupendous figures of production; but the author's comparisons are so picturesque and his illustrations so striking that the reader easily visualizes the nation's tremendous task and the epoch-making achievement of the army behind the army.

It is a relief at this time to find any account of the World War that is not a criticism or a knock. This volume errs on the other side; in some places its praise is overdrawn. But it holds one's interest, is written in Major Powell's bright, pleasant, conversational style, and brings back the old savor of dugout tales and trench gossip. There are some statements in the book that the hard-boiled overseas fighter may not agree with, and in the next edition it is hoped that the author will make a few corrections; these add personal interest to an evening's reading, for it is a stupid book in which you cannot disagree with the author. The book is bright and untechnical, but for the service there are many interesting items and figures concerning supply that are unknown to the average officer. For the civilian there is a wealth of information and a record of accomplishment that will make him proud that he is an American.

JOSEPH A. BAER.

The CAVALRY JOURNAL



GENERAL WOOD—Cavalry's Rôle in the Reorganization

THE UNITED STATES CAVALRY ASSOCIATION
WASHINGTON, D. C.

THE FIELD ARTILLERY JOURNAL

OFFICIAL ORGAN OF THE

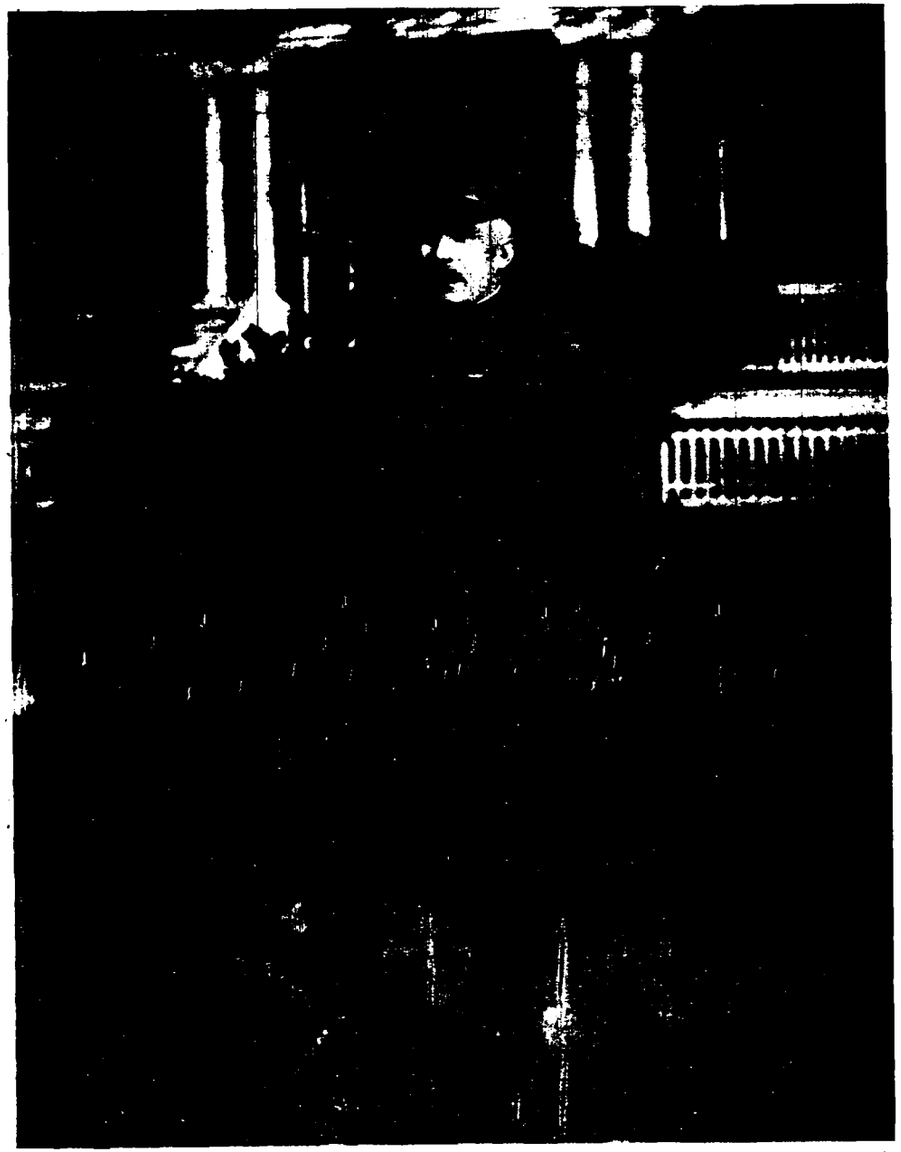
UNITED STATES FIELD ARTILLERY ASSOCIATION

The U. S. Field Artillery Association was organized in 1910, and is composed of officers of field artillery of the Regular Army, the National Guard, and the Officers' Reserve Corps, and other persons interested in field artillery.

The Field Artillery Journal is published bimonthly by the Association. Each number contains approximately one hundred pages of technical information of value to officers of all arms of the service, although of course of particular value to those who are interested in the development of field artillery.

Subscription price, $3 per annum, including all dues. Single copies of the magazine, 75 cents.

Address: The Secretary, U. S. Field Artillery Association, War Department, Washington, D. C.



MAJOR-GENERAL LEONARD WOOD

THE
CAVALRY JOURNAL

VOL. XXIX JULY, 1920 NO. 120

Cavalry's Rôle in the Reorganization

BY

Major-General LEONARD WOOD

IN CONSIDERING questions of army reorganization it is vitally important that the determination of policy be not largely in the hands of those who look at warfare from the standpoint of the Western Front alone. Especially is this important in considering matters pertaining to the cavalry arm. In normal warfare the cavalry still has its rôle to play, a rôle quite as important as in the past. Although aërial reconnaissance has assumed much importance, it has not replaced the cavalry in this field of work. The cavalry will still be needed for work in wooded country and under weather conditions which render observation from the air impracticable. The developments of the World War have added to the number of weapons employed, but have not replaced those we formerly had. The expense of cavalry is great, but it is fully justified by the work done by the cavalry on both sides in the World War. The lance has gone into the discard. In fact, it went into the discard before the war. The saber, carried upon the saddle, should be retained. Fire-power, by use of the rifle, automatic rifle, machine-gun, mountain artillery, Stokes mortar of suitable type, and rifle grenade, should be maintained at the highest possible point. The cavalry rifle must be as effective as that of the infantry. Nothing gives men better reason for falling back than the knowledge that they are equipped with inferior weapons. The cavalry must be provided with a suitable bayonet. Combat regulations and formations for dismounted cavalry should be essentially those of the infantry. The cavalry must know how

to fight mounted and on foot. The late war added to, rather than took away from, the requirements of cavalry. It has increased the demand for initiative, quick decision, and bold action.

The knowledge of horsemanship in the highest sense—how to take care of the horse, how to keep him in condition under hard service, how to get the most out of him—is as important, if not more important, than ever before; for, incident to demand for increased supply of ammunition, the load upon the horse will probably be heavier than before, rather than lighter. Horse equipment must be built with a view to maintaining the animals in the highest efficiency under difficult service conditions.

The regimental and troop organizations must be adapted to modern conditions, augmented and added to to meet the demands for the employment of new arms. Mobility will be at, perhaps, greater premium than ever, because of the large size of modern armies and great distances to be covered in enveloping movements and in attacks upon lines of communication. Night-work and movements under cover of darkness must be developed to the highest possible degree of efficiency.

The possibilities of the use of cavalry on the Western Front, some of which were improved, and the general use of cavalry by both the Allies and the Central Powers on the Eastern Front and in the Near Eastern campaign, especially by the Germans in the early stages of the war and by the English in the Eastern campaign, demonstrated the tremendous possibilities of cavalry under dashing and intelligent leadership.

The cavalryman must know how to use his saber. He may not have to use it often in shock action, but there will be many an occasion when contact between cavalry patrols will require use of the saber. Such occasions will also require the cavalryman to be familiar with the revolver or pistol. This weapon should be one which is thoroughly under control of the man using it and one which requires definite action for each discharge.

The horse is still not only a means of transportation, but the principal weapon in quick shock action, and great attention must be paid to his breeding. He must possess a large share of the galloping blood. This can only come through a certain proportion

of thoroughbred strain. He must possess courage, conformation, quality, hardiness, ability to carry weight, and to go across country and over obstacles at good speed. Indeed, he must still be the horse which we have pictured as the ideal cavalry horse.

The work of the French cavalry in the early days of the war and the possibilities open to the British cavalry at Cambrai, the work of the German cavalry against the Russians in the early days of the war, and the splendid and valuable service of the British cavalry in the Eastern campaign, all establish beyond question the importance of maintaining a properly organized, equipped, and thoroughly trained cavalry—trained for mounted and dismounted action.

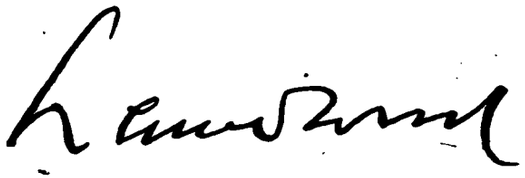
The possibilities and power of well-armed cavalry, as demonstrated by us in the Civil War, were confirmed in many campaigns in the World War.

The work of cavalry officers who became great leaders in various armies engaged in the struggle shows that cavalry training carries with it a development of great qualities of leadership.

When the entire theater of war is studied, we find nothing which should cause the cavalryman to feel that his arm is to sink back into a position of less importance in the future than it formerly occupied. Indeed, the lessons of the war should give to the true cavalryman a vast measure of encouragement, coupled with a determination to develop his arm to the highest point of all-around efficiency.

The principles of the military art are eternal, but the details as to the organization and equipment of the instrumentalities for carrying them out change from time to time. We still need the best cavalry which can be produced.

MAY 26, 1920.



Cavalry Organization

(Contributed)

SOMETIMES it is a good idea to "start something." That is what the writer of this article is trying to do in the present instance.

AXIOMS

(*a*) The Cavalry Division as shown by Tables of Organization is an absurdity.

(*b*) When cavalry dismounts to fight on foot, for the time being it has infantry work to do.

(*c*) Infantry combat formations are designed to be the best possible for doing infantry work.

(*d*) The main difference between the combat actions in which infantry and dismounted cavalry are called upon to engage is determined by the character of the missions respectively assigned them.

What is the matter with the Cavalry Division as given in Tables of Organization? To begin with, it is too cumbersome; in column, on a single road, it would require 30 miles of road space. Nevertheless, it lacks many of the essential elements to permit of its operation. It has no proper system nor the necessary personnel for keeping its ponderous parts in touch with each other. One system that has been proposed for this purpose would add over 1,000 men to the division. It has inadequate artillery for the number of rifles. To remedy this latter defect would add another 1,600 men. It has no intelligence service. To remedy this would add, let us say, 400 more to the personnel. Evidently, the search for proper organization does not lead in this direction.

Cavalry's action depends for its value on two essential features—maneuvering power and the ability to drive a combat through quickly. It is assigned the missions that require this kind of action. Infantry is assigned the missions that require

less mobility and maneuvering power, but more tenacity—that is, the ability to conduct a more stubborn and continuous fight. The fight will be just as violent in either case, but the infantry fight will be of longer duration. Usually the cavalry must accomplish its mission quickly or not at all.

Dismounted cavalry will have all the obstacles to overcome that infantry encounters, and it will need the same means for overcoming them.

If the World War has demonstrated anything, it is that thickening the front line does not add power. Power is added by skillful use of proper formations and of the proper auxiliaries.

All of this leads us to the conclusion that a dismounted cavalry combat requires for the front line exactly the formations and auxiliary means that are employed by infantry, but that it does not require the same depth of formation—that is, it will have less reserves.

THEOREM

Cavalry can employ infantry formations and means of combat when dismounted and still be so organized as to retain all of its essential cavalry features.

The infantry platoon contains 59 men. A troop of about 90 men would be able to dismount this number under all circumstances. Preferably the command or signal, to "Fight on foot," should mean that each odd number grabs his gun, falls off his horse, and takes position in combat formation in the direction indicated by the captain. The even numbers should each grab the reins of a led horse and follow the first lieutenant to a place of shelter. The first lieutenant should then take the necessary measures for the safety of the led horses (have them linked or otherwise controlled, post guards and observation patrols when the circumstances do not indicate that this is unnecessary, etc.), and then lead the remaining even numbers quickly back to the vicinity of the firing line for a troop support. When dismounting is more deliberate and the combat formation is assumed with more exactness, only slight modification of the above will be necessary. This may sound complex, but it is really most simple, and details could readily be worked out, so that a dismounted troop was the

exact equivalent, including special arms and apparatus, of a platoon of infantry, except that cavalry will not usually be called upon to attack dugouts, and hence will need no grenades.

Four such troops plus a squadron headquarters could dismount 250 men, armed and equipped to constitute a company of infantry. Dismounted, such a squadron needs the signal equipment of a company; mounted, it will need no more, for it will then use mounted orderlies. It will need more intelligence personnel, for it will cover a much greater area when mounted.

Up to this point there is no logical difference between the proper combat formation to be employed, no matter which arm is represented.

A regiment of three such squadrons and its machine-gun troop could replace a battalion of infantry, but would have only half the strength in the second line; thus:

INFANTRY		CAVALRY	
Company	Company	Squadron	Squadron
Company	Company	Squadron	

Ordinarily, this regiment would be without 37-millimeter guns and 3-inch Stokes mortars, but their equivalent could be attached when required, as is done for the battalion.

For its proper cavalry function, cavalry needs the three-unit system of organization; also, for its legitimate dismounted work, it does not need so great a strength of reserves as does infantry. So far, the organization proposed has not had to compromise in either respect. In the next step a compromise will have to be effected, but it is a logical one, in view of all of the essential features of the case.

A brigade acting alone needs three regiments for proper organization. On the other hand, it is the least likely of all the cavalry units to be acting alone; for, a mission that a regiment cannot accomplish will usually require the employment of the auxiliary arms which are part of a division. From any division, therefore, we may, by detaching some parts, obtain the equivalent of a three-regiment brigade, with the necessary auxiliaries attached, or the division may be split into two such forces.

Reasonably, then, the brigade is the place to depart from the three-unit system. Adherence to it is unnecessary, as has been shown; and, besides, it will result in making a division an unwieldly mass, far too cumbersome for the activities required of a cavalry division. So, for experiment, let us take the two-regiment brigade.

The task assigned an infantry unit larger than the battalion regulates the length of front assigned it. By assigning the dismounted cavalry brigade a shorter front than that assigned a regiment of infantry, in cases where unusually energetic action is desired, but otherwise treating it as a regiment of infantry, we get plenty of power in the action where extreme power is needed, as at a point selected for a penetration of the hostile line, and regiments may be deployed in three lines on a one-squadron (company) front. In emergencies, when dismounted cavalry is required to actually relieve infantry, this brigade could accomplish the mission, but it could not continue the combat for the same length of time as could a regiment of infantry.

The 37-millimeter and the 3-inch Stokes mortar pertain to the infantry regiment. It is probable that the Ordnance Department will soon present us with a single weapon to replace both. That weapon should pertain to the cavalry brigade. For use with cavalry, it should be capable of being packed. In the final summary at the close of this article we will add five officers and 150 men to the brigade as an estimated quota for this weapon. The brigade needs no machine-gun troop, as each regiment is supplied with one.

A cavalry division of three such brigades and its auxiliary arms and services can replace an infantry brigade and function in exactly the same manner that the latter does when supported by a regiment of light artillery. The only difference would be that three cavalry brigades would be assigned the front occupied by two infantry regiments, in cases when the necessity for so much reserve strength was apparent. When, however, such was the case, the led horses would be likely to be so far to the rear that they would be guarded by the location of other troops and a large proportion of the horse-holders could be sent forward and utilized as reserves.

As may be readily seen, no attempt has been made to finish the detailed organization. It is hardly worth while for a discussion, so long as the principles are clearly brought out.

RÉSUMÉ

	Officers	Soldiers	Animals
A (suggested) troop	3	90	92
A (suggested) squadron—four troops	15	365	379
A (suggested) regiment—three squadrons and machine-guns	64	1,551	1,884
A (suggested) brigade—two regiments and accompanying guns	138	3,274	3,980
The suggested division:			
Three brigades	414	9,822	11,940
One regiment horse artillery	69	1,561	1,845
One battalion engineers, mounted	18	411	503
Trains and military police	14	255	107
One field signal battalion (when motor)	15	473	...
Division headquarters and headquarters troop	50	238	164
Division machine-gun battalion (when motor)	18	419	...
Add for necessary intelligence personnel and additional agents of communication and information on motor cycles	25	425	400
Total for the division	623	13,604	14,959

It may be objected that the proposed organization gives a cavalry division that is too *large*. This is true, according to all precedents and to the views of all European authorities. Nevertheless, it is less than half the strength of the Tables of Organization, Cavalry Division, if the latter had the absolutely necessary auxiliary personnel added to it. I believe it is a workable organization, in the form proposed.

It will be noted that under some circumstances a proposed motorization of part of the auxiliaries is indicated. The theater of operations will always determine the extent to which motorization is practicable. Proposals to motorize can be greatly overdone,

when it is considered that conditions in France are never likely to be duplicated in our experience. In some theaters of operation tractor artillery might well be used with the cavalry division; in others mountain artillery on pack-mules would be what was wanted. In no case would the 6-inch howitzer be required for a cavalry division, for this weapon is for use against an enemy who is well dug in. On the few occasions when cavalry will meet such conditions, it will be possible to attach the necessary howitzers.

Air service will always operate in close co-operation with the cavalry division, but it may well be attached when needed, so it does not necessarily appear as a component part of the division.

Have I started something?

Fort Riley Notes

THE CAVALRY BOARD

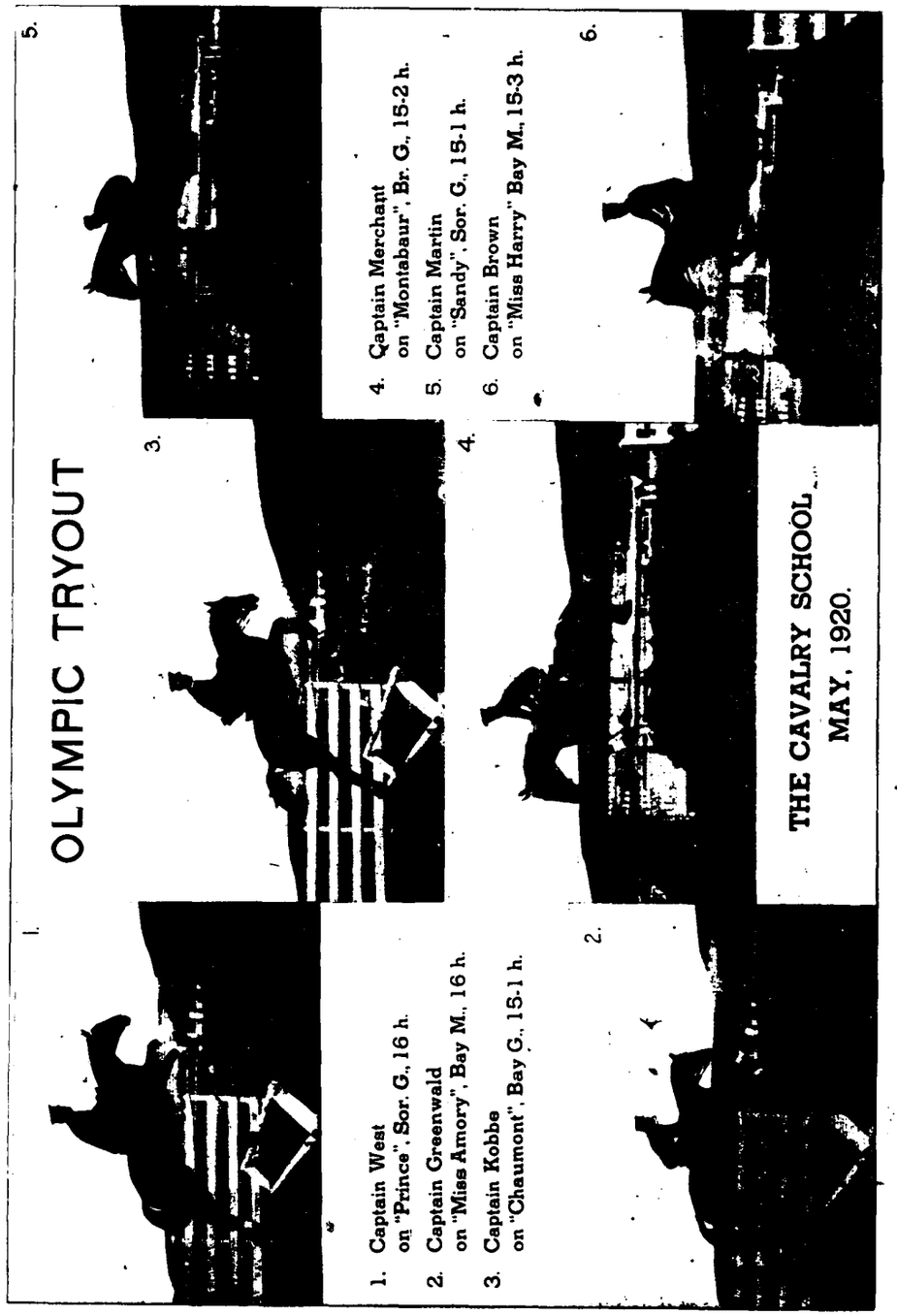
AFTER remaining dormant throughout the period of the World War, the Cavalry Board has been revived and its scope extended, through the operation of the provisions of Changes 22, Compilation of Orders.

Summarized, these provisions contemplate that the Cavalry Board shall be permanently stationed at Fort Riley, Kansas, and shall be composed of the Commandant and the Assistant Commandant of the Cavalry School, together with three other officers designated by the War Department, and drawn as far as practicable from officers assigned to organizations stationed at Fort Riley. The board operates under the direction of the War Department, but all communications to and from the board will be sent through the Commandant, the Cavalry School. The purpose of the board is to consider such subjects pertaining to cavalry as may be referred to it by the War Department, and to originate and submit to the War Department recommendations looking to the improvement of the cavalry service.

The members of the Cavalry Board as constituted at present were detailed on January 12, 1920, and consist of the following officers:

Colonel George H. Cameron, Cavalry (the Commandant, the Cavalry School).
Colonel John S. Winn, 2d Cavalry (commanding regiment).
Colonel Edwin B. Winans, Cavalry.
Lieutenant-Colonel Hamilton S. Hawkins, Cavalry (the Assistant Commandant, the Cavalry School).
Captain John B. Johnson, 2d Cavalry, recorder.

Liaison is maintained with the various bureaus and staff departments through Captain George B. Hunter, cavalry, the representative of the board in Washington.



The board first convened on January 19 and decided to hold regular biweekly sessions and such additional sessions as the pressure of work might necessitate.

Shortly after this initial meeting the specially detailed Infantry and Cavalry Board (since dissolved) visited Fort Riley for a week. A series of joint conferences was held with the Cavalry Board, as well as about fifteen of the senior cavalry officers stationed at Fort Riley, several of whom are instructors at the Cavalry School. At these conferences the modifications and changes of cavalry equipment indicated by the experiences of the World War were discussed in detail. The Infantry and Cavalry Board has since submitted its very carefully prepared and valuable report to the War Department.

With the departure of the above-mentioned board, the Cavalry Board resumed its own work. In general, this fell naturally into the following four broad divisions: Organization, equipment, training, and miscellaneous matters looking to the improvement of the cavalry service.

The problem of cavalry organization was referred to the board in March, in anticipation of pending legislation, and a careful study is practically completed. The detailed proceedings of the Cavalry Board, A. E. F., and of the Superior Board, A. E. F., with their thorough reports on the employment of foreign cavalry throughout the World War, form the basis of proposed tables of organization.

Probably half of the work of the board has to do with the development and test of equipment. In January five sets of officers' and twenty sets of enlisted men's model 1917 cavalry equipment were received. These had been given prior field test on the border by the 5th and 17th Cavalry, and after resulting modification were referred to the Cavalry Board for final test and recommendation. Additional equipment since referred for test includes such items as the Phillips pack-saddle, the Simons pack-saddle, steel helmets, the Keesler combat wagon, caliber .22 automatic pistols for gallery practice, caliber .45 automatic pistols modified to fire blank ammunition, rifle stocks, polo bridles, leather leggins, campaign hats, the Thomas pack cooking outfit, tent pins (the invention of Cor-

poral Marks Jedlinskin) and leather dressing. These serve to give a fair idea of the variety of articles received.

Under training, the board has completed an outline of the modification of the Cavalry Drill Regulations rendered necessary by changes of organization and by the addition of automatic arms in the troop.

A new pamphlet, "Pistol Marksmanship," is nearing completion, designed to replace those chapters of the "Small Arms Firing Manual" bearing on pistol firing. This is the joint work of the Cavalry Board and the Infantry Board. Major Alexander J. McNab, Infantry, ordered here from Camp Benning, personally submitted that portion bearing on dismounted firing; the text on mounted firing will be completed after the conclusion of tests now being conducted with the student officers in the basic course.

A careful study has been made of the tactical rôle of modern cavalry.

In such matters as are outlined above and in all matters looking to the improvement of the cavalry, the Cavalry Board wishes to make known its desire to receive help from any source. It asks for and will appreciate suggestions and ideas, and assures those co-operating that every communication will receive thoughtful consideration.

JOHN B. JOHNSON,
Captain, 2d Cavalry, Recorder.

THE OLYMPIC TRYOUT

AS INDICATED in letter from the Adjutant General of the Army, January 6, 1920, to commanding officers of all mounted commands and as explained in Circular 102, W. D., March 11, 1920, the following named officers are now at the Cavalry School competing for places on the Olympic Riding Team:

Captain B. T. Merchant, Cavalry,
Captain I. S. Martin, Cavalry,
Captain J. A. Barry, Cavalry,
Captain W. W. West, Cavalry,
Captain Sloan Doak, Cavalry,
Captain J. K. Brown, Cavalry,
Captain V. P. Erwin, Field Artillery,
Captain K. C. Greenwald, Field Artillery,
Captain Herman Kobbe, 13th Cavalry,
Captain E. W. Taulbee, Cavalry,
Captain H. D. Chamberlin, Cavalry,
Captain De F. W. Morton, Cavalry,
Captain D. O. Nelson, Cavalry.

Captain Merchant was selected as trainer, his duties being outlined by the War Department as "the collection and selection and training of suitable horses for mounted contests" and "the charge of the early training of army teams up to the time that the final composition of the team is reasonably assured."

The greatest difficulty experienced by army teams in the past has been to obtain suitable horses; hence there has been adopted the policy of "collection and selection." By gradual accumulations there will be assembled at the Cavalry School a group of horses not only capable of competing with those of foreign armies, but continually trained and kept in condition for that purpose.

In 1919 at the Interallied Games in Paris, the American team, with but little time for preparation and mounted on animals collected from all parts of the A. E. F., made a splendid showing, despite the difficulties under which it labored. The horses used by that team were sent back to the United States as a first step toward the policy of collecting.

As the school was closed during the war, no new horses were developed here; also it has been necessary to get rid of a large number of our horses, due to advanced age. Five selected horses from the Southern Department will arrive in a few days. Of the twenty-five animals now competing, twenty were sent back from France; not more than eight are consistently good performers for the Olympics.

If there were available a large number of equally good horses, the selection of a team would be a comparatively simple problem. An indifferent rider on a good horse will sometimes win, as will also a good rider on an indifferent horse. Even a good rider on a good horse will not always win, for the best of horses will occasionally make a costly mistake.

For these reasons it was considered neither advisable nor fair to specify that we would have a two days' test over the jumping course, and that the officers who scored highest would be selected for the team. It was decided that the committee, consisting of the Commandant, the Assistant Commandant, the director of horsemanship, and the trainer, would observe the daily work of the

various competitors and select the team as a result of this daily observation.

Horses have been tentatively assigned to riders, so that each competitor has one good horse and one still undeveloped.

The horses from abroad reached here March 25 and systematic work was begun on March 29. The horses had not been worked since July, 1919, when they were turned in to quarantine in France. Naturally, some little time was necessary to condition them enough to do any jumping whatever.

Jumping was begun on April 23. A large jumping pen was constructed on Republican Flats, in the immédiate vicinity of the jumping course, and the system followed has been, roughly, as follows: The horse jumps at liberty in the pen, the barrier being arranged to resemble a particular obstacle on the course. He is then taken to the jumping course and jumped through a chute, at liberty, over the obstacle itself. If he does it well, he is then ridden over the obstacle several times; the process is repeated with other obstacles. These steps, of course, are not all carried out in one day. Up to the present date, all schooling over obstacles has been done with wings and at reduced heights.

The accompanying photographs were made, not with the idea of showing performance, but rather to give readers of the JOURNAL a glimpse of the horses that will compete this year. Eight officers and their mounts, selected at Fort Riley, will be sent to join the American forces in Germany, where there will be further competition. Several American officers are known to be in training at Coblentz.

B. T. MERCHANT,
Captain, Cavalry, Trainer.

Trend of Thought in French Military Circles

THE CAVALRY

Translated from the French
BY
Captain HARRY L. HODGES, General Staff Corps

[EDITOR'S NOTE.—The translation which follows is an extract from a conference given at one of the military schools in France, and represents the trend of the best French thought on the subject of cavalry. It is of interest to our cavalry, as showing that the foreign cavalry is learning what we learned in 1861-1865, and that it is gradually adopting the theory of cavalry employment developed in the Civil War. With an impending reorganization of our arm about to take place, it is of especial interest, since we must study the practical application of the theory which we have called our own for so long.]

As is natural, our cavalry was in 1914, still more than our infantry, embued with the idea that movement and shock were the decisive actions of battle. It is with this thought that it undertook its double task—its missions of reconnaissance, of security, and of combat. It found before it a cavalry refusing all mounted collision and making systematic use of fire action (combat on foot or supported by advance elements of infantry).

It is true that by this play the German cavalry lost all offensive power; hence the complete overthrow of his cavalry divisions during our retreat to the Marne and even during "the race to the sea"; but, on the contrary, our cavalry encountered immediately extreme difficulty in grappling in conflict, being able to lay hold only of indefinite outlines. It saw itself paralleled in its work of investigation by aviation, which is able to reconnoiter from above. On the other hand, engaged upon the front of battle, either to cover or prolong a flank, or to close a breach, it learned immediately the violence of long dismounted combats for which its larger units were prepared neither tactically nor organically.

A change then took place the steps of which may be summarized as follows:

1st phase: The divisions of cavalry increased the number of their combatants on foot, which, until that time, had been repre-

sented only by the cyclist groups. At the very first, a few chiefs took the initiative of forming foot units with the troopers who were temporarily dismounted; then this measure became general by the creation in each regiment of the 5th (foot) squadron; finally the joining in a tactical group of the foot squadrons of each division of cavalry, giving birth to the "Groupe leger," a veritable battalion of reserves equipped with a platoon of machine-guns (August, 1915). Paralleling this, the armament and equipment were adapted to the exigencies of the service of the cavalry in the trenches.

2d phase: The tendency to form specialists in fighting on foot distinct from the combatants on horseback took definite shape in the form of the reduction of the effectives that the cavalry placed at the assistance of the artillery (men and horses). Some divisions of cavalry were dissolved. Six regiments of cuirassiers were dismounted and served with the "light groups," previously created, to form foot regiments after the model of infantry regiments. A foot regiment as an organic support was attached to each division of cavalry, the divisions of cavalry consisting henceforth of three mounted brigades, one foot regiment, one cyclist group, three horse batteries, and two groups of automatic guns.

3d phase: Finally, in December, 1916, there came into use a truly new principle, which caused the modeling of an organization, and instructions for all cavalry to practice combat dismounted, considered as the normal method of combat of that arm. The steps of the change were marked by four documents: Instructions of the 8th of December, 1916, upon the use of cavalry in battle, and the order of the 10th of December, 1916, modifying the tactical organization of the squadron (reduction to three platoons having each approximately the combatant strength and specialists of the section of infantry). Note of July 10, 1917, which established the squadron with four platoons, while increasing its strength.* Note of November 27, 1917, which gives to the squadron such a formation that henceforth the cavalry will be able to put on foot units of combat *identical with those of infantry.*

*This measure was based upon two reasons: 1st. Lack of flexibility in the squadron of three platoons. 2d. Insufficiency of total effective strength (140 men) to the exigencies for the formation of specialists.

Besides the fire strength of the large units of cavalry being considered insufficient, the General-in-Chief caused to be established at the end of 1917 a program which provided for the division of cavalry reinforcements by a cyclist group, by sections of regimental machine-guns, by A. M., A. C.'s,* and by horse artillery; for the corps of cavalry the creation of corps artillery.

At the beginning of 1918 the six foot regiments of the six divisions of cavalry then existing were grouped by threes in order to form two divisions of foot cavalry (D. C. P.). We had then two cavalry corps formed respectively of three divisions of cavalry (D. C.) and of a division of cavalry on foot (D. C. P.), each capable in consequence of dismounting a force equivalent to two divisions of infantry. It was the assimilation of the cavalry corps to the army corps.

A few words upon the question, often violently disputed, of the possibility of the use of the large units of cavalry (cavalry divisions and cavalry corps). It is necessary to start this discussion by recalling that a cavalry division is able to put in line only a number of foot soldiers equivalent to a regiment of infantry and in the space that a mounted cavalry division occupies in extent. Concerning the use of the cavalry division and cavalry corps in the battle of 1918, these large units were a very precious mass for strategic maneuver in the defensive phase of the battle. The armistice intervened too soon to have been able to use them in the offensive phase against an adversary who had reached the limit of resistance and was ripe for rout.

It has been desirable to consider these successive transformations in the small and large units of cavalry as a consequence of a fatal law which led that arm to the form and to the activity of a simple mounted infantry. This conception is in error; rapidity and mobility remain the distinctive qualities and the "raison d'être" of the cavalry. What it is necessary to have are units of cavalry having on foot a power of fire very nearly equal, man for man, to that of the infantry and endowed with those qualities of dash and flexibility when mounted that it has had in the past.

*Auto-mitrailleuses, auto-cannon.

It will be understood better when we have defined the characteristics and examined the actual capacity of its parallel arm, the aviation.

AËRONAUTICS

The War of 1914-1918 has made of aëronautics an "arm" of the service—that is to say, a force whose intervention in battle may be an element indispensable to success, and whose use (technical, tactical) can be made to conform to certain rules.

This is evidently a consequence of the fact that aviation maneuvers and operates in the "three dimensions." But this accession of aëronautics to the dignity of an arm certainly cannot be accomplished if the aëroplane remains a simple vehicle in the place of becoming, at the same time, an auxiliary and an instrument of the fire fight.

The rôle of aviation is double—missions of information and liaison and missions of combat.

Information, Liaison.—During the first operations of the campaign, conforming to peace-time ideas, aviation was employed only in strategic reconnaissance. It was a question, above all, of watching the "mobility" of the enemy.

In proportion as the front became stabilized and its task was increased, it was necessary to watch the activity of the enemy, either in position or in movement. The work of strategic reconnaissance losing immediate interest, aviation found its work increased by that, always more intense, of tactical observation. Hence follow the recourse to aërial photography and the establishment of numerous observation units operating, first, for the assistance of the command (reconnaissance, mission of liaison), and, second and above all, for the artillery (mission of fire).*

Combat.—The missions of combat aviation are of two kinds—aërial and the attack of objectives on the ground.

(*a*) An aërial combat has for its object the mastery of the air. It becomes necessary from the moment when each of the opposing forces of aviation has to protect its work of observation.

*Note at the armistice, November, 1918, there were 100 observation machines for 75 combat and bombardment machines.

Observation squadrons	148
Combat squadrons	80
Bombardment squadrons	32

The pursuit, born thus in 1915 under the form of single combats, developed from the beginning of 1916 (in Verdun, in February) into the tactics of the offensive by groups operating under the same command; it became during the battle of the Somme (July and October, 1916) one of the principal factors of our success by permitting our observation squadrons to work in all security with the artillery and with the infantry. The methods of execution of its missions of fire and of liaison reached, in the course of this battle, a high degree of flexibility and precision. In 1917 the lesson of the Somme was not lost sight of by the Germans. Our aviation groups, although reinforced and given strong and rapid apparatus, hurled themselves upon a hostile aviation, ardent, well equipped. Thus, 1918 is marked not only by a simple increase of our means of pursuit, but also by a tactical organization which guaranteed their action in mass leading to the formation of the aërial divisions.

1914.—(*b*) The attack of objectives on the ground took a continually increasing breadth from 1914 to 1918, as had aërial combat, but with less of continuity in its development, such as the beginning of day bombardment, the dropping of steel arrows, etc.

1915.—Day bombardment intensified in two forms—action in battle in connection with the other arms (projectiles of 90-155, without precision and without efficiency) and grand aërial raids on enemy territory.

The success of two large expeditions upon *Ludwigshafen* and *Carlsruhe* taught us to devote powerful means to these raids. The enemy countered by the pursuit and inflicted upon us costly checks (example, Sarreburck), so that the year 1915 finished with a dearth of day bombardment.

1916.—Beginning of night bombardment, which revealed to us the importance of night reconnaissance in order to learn the indications of the activity of the enemy.

1917.—Methodical development of night bombardment and the reappearance of day bombardment executed by Bréguet machines under the protection of pursuit groups.

1918.—Large raids were abandoned for moral, political, and tactical reasons; direct intervention in battle becomes the regular

thing (intensive use of the machine-gun in phases of operations—that is to say, in the crises). As a result, while in January we had six bombardment groups, at the armistice we had ten groups. The action in mass of these groups was assured at first by the division into squadrons; then by incorporation into an aërial division.

(*c*) The Aërial Division was created the 15th of May, 1918, by the union of two mixed groups (comprising pursuit and bombardment—a total of 600 flying machines, of which 370 were pursuit and 230 were bombardment). This creation answered at first the primordial necessity of defensive combat; then followed its use in reserve; finally, it guaranteed the concentration of efforts and the effect of surprise to the different phases of the strategic offensive. The importance of the equipment of the front with aviation fields became evident.

This survey of the development of aviation may be summarized in the following words:

Used at first exclusively by the command in strategic and tactical observation, the flying-machine was soon utilized for assistance in producing fire effect and began its observation for the artillery. As it maneuvered in the "three dimensions" and its radius of action continued to increase, it was able to escape, in a certain measure, the blows coming from the earth and to see those objects which escaped (on account of distance and other causes) the fire of artillery and of infantry. It armed itself then to fight its fellow-creatures in the air in order to prolong upon the objectives on the ground the action of the fire of the infantry and of artillery.

Thus its development is intimately tied to the problem of the use of fire. Certainly it has not reached its limit, and one can foresee a future in which the technical development in our aviation will transform profoundly the conditions of the fire fight.

But it must not be forgotten that the use of aviation in battle, at this time, is limited, above all, by the double necessity, first, of navigation while orienting itself upon the ground; second, of landing upon terrain especially prepared. Hence follows intermittent liberty of action (that is to say, subject to atmospheric conditions)

and lack of mobility (the use in mass is subordinated to the existence of and to the installation of landing grounds).

Aviation consequently is not ready to supplant either cavalry or artillery, the latter in the use of fire and the former in the mission of reconnaissance and of liaison.

The Essentials of Cavalry Training

BY

Colonel R. J. FLEMING, Cavalry

THE TRAINING discussed in this article applies only to the man in ranks, the training for officers, non-commissioned officers and selected privates not being considered except incidentally.

The statement has been frequently made that our ideas on the proper training for cavalry are the best in the world, and we pat ourselves on the back every time we read that other nations are adopting American ideas on this subject. But, as a matter of fact, have we actually trained in times of peace for the part we would probably play in times of war? Has our cavalry been properly trained to fight dismounted, supposedly the distinctive feature of American training? As a rule, our ideas as to the proper training of cavalry have been sound. It is when we come to our actual training, as usually conducted in the past, that we find that we have not practiced what we preached.

As individuals, we have been able to show good progress in the matter of target practice, but as to collective fire, as part of a team, we did not know the game. It may safely be said, without fear of contradiction, that in the average regiment of cavalry, 75 per cent of the training was in mounted work, and that of the 25 per cent devoted to dismounted work practically none of it was of any particular value, generally speaking. Officers and enlisted men had no knowledge of their particular duties, of the necessary team-work. Consequently the exercises usually consisted in getting off our horses and advancing against a position without any particular knowledge or orders as to target designation, distribution, range, rate of fire, or of the many other details necessary if we were to derive any benefit from the exercise.

It may also be safely said that in actual warfare the opportunities for mounted combat as compared to dismounted will be less than 1 to 3. Hence, if this statement is approximately correct, we

have been devoting 75 per cent of our time to instruction that may be of benefit in less than 25 per cent of our opportunities.

There was a certain amount of benefit derived from our mounted drills, in that they tended to condition our animals; and any training that does that is beneficial, even though the purpose of the training was not to condition our animals, but to perfect the organization in a multiplicity of formations and drill movements, only a small part of which had any practical value.

Now, if the principal use of the horse is for transport, and if most of our fighting is to be dismounted, then we ought to put dismounted work first in the order of our training, always assuming that our mounts are given sufficient work and training to keep them in the best of condition.

The Cavalry Drill Regulations state: "The fire fight for dismounted cavalry acting alone, as distinguished from that in which they participate with other arms, frequently presents points of difference that demand consideration." Also, "Occasions will arise, however, when dismounted cavalry, either acting alone or in conjunction with other arms, will have to drive home a determined attack. In such cases the principles and methods governing the employment of fire action by infantry must control." Granted. But the mechanics of dismounted work, the team-work, is the same, whether we engage in a normal cavalry attack with most of our men in the firing line for a quick decision, or whether we undertake with large supports and reserves to drive home a determined attack; and the only way we can learn the team-work is by adapting the methods used in the infantry to our cavalry organization, specifying the duties of every man (team-work), and then constant practice. If infantry must practice constantly the methods of dismounted attack, then cavalry must do the same; for efficiency can come only as a result of practice. In proportion to numbers engaged, cavalry should be as efficient in the dismounted attack as is infantry, and the only way cavalry can learn these duties is by constant, intelligent practice. And such practice in the dismounted attack has been lacking in the majority of our cavalry regiments.

Our present Drill Regulations were issued to the service in the spring of 1916, and the six regiments of cavalry at El Paso were busy from February to May of that year in learning them. No time was devoted to dismounted combat work, to teach team-work in the attack, nor did the new regulations go into any details as to how this would be done with the new organization. The cavalry regiments that had been in Mexico had been taught something of the fundamentals of musketry, but it is not believed that the other regiments had had any instruction along these lines.

The writer had no experience with the cavalry from May, 1917, to February, 1920. During this time "Musketry, 1917" (Document 631) was issued to the service, but naturally it was written for the infantry organization.

On joining his present station, in February, 1920, the writer found that no attempt was being made to learn and apply the principles contained in musketry. Very few of the junior officers had any knowledge of the subject, and the seniors had book knowledge only, no practical exercises having ever been attempted. The great majority of the enlisted personnel had absolutely no knowledge of the subject.

The statement that "constant, intelligent practice in dismounted work had been lacking in the majority of our cavalry regiments" is, therefore, true as far as concerns those regiments personally observed by the writer, and is believed to be true of the cavalry in general.

Believing, as he did, in the value of this training as compared to that usually given at the average post, the writer made an effort to adapt the instruction contained in "Musketry, 1917" to our present cavalry organization. Only a few changes were necessary to make this manual and the Drill Regulations agree, and these tentative changes have been authorized within the regiment until such time as a regular revision of our Drill Regulations is authorized. It is believed that such a revision is necessary in the direction of simplicity, elimination of unnecessary movements and explanations, and the inclusion of other necessary instructions, especially those relating to dismounted combat. Also, it ought to be possible to prepare a drill book in which the "meat" of nearly

every paragraph is not found in some other paragraph. And while our drill book is being revised, why not have a board from all arms get together and agree upon all those commands, formations, signals, etc., which could be made the same in all branches of the service?

Recent orders from the War Department require three hours daily instruction in vocational training; also, one-year enlistments have been authorized to a certain extent during the past two years, and it may happen that the number of such enlistments may be increased. Under such conditions the question of the amount of time we will be able to devote to purely military training becomes important. It is easily seen that we will not be able to find time to devote to much of the instruction heretofore considered necessary, but must confine ourselves to the *essentials*. It is up to us, therefore, to decide upon what constitutes the essentials of a cavalry soldier's training, upon the order of importance of the various subjects to be taught, upon what a soldier should be proficient in at the end of three, six, or nine months or other period of training, and then arrange our schedules accordingly.

With a proper system of individual rating cards and a proper system of inspections, both by the post or other immediate commander, and by inspectors from higher headquarters, the above will give us a better line on the state of training of our men than we have ever had in the past.

The essentials discussed in the article are those considered necessary for the ordinary enlisted man. The training for officers, non-commissioned officers, selected privates, and specialists is considered only incidentally. While such training is of great importance, it is what we have been able to get across to the man in ranks that is going to win battles, especially in dismounted combat. If we have employed most of our time in drilling in the usual mounted movements, as prescribed in the Cavalry Drill Regulations, and neglected combat exercises dismounted, then war will find us unprepared; for men cannot learn these duties, the necessary team-work, from a few perfunctory exercises, but must learn them from frequent practice. Neither can officers and non-commissioned officers expect to know these duties by learning them

only from a book. They must have as much actual practice as the man in ranks.

The following list of *essentials* in the order of importance is submitted for consideration:

(1) Care of the man—developing him physically, teaching him how to keep himself in good physical condition under all circumstances. Includes instruction in hygiene and personal cleanliness, first aid, cooking, camping, etc.

(2) Care of the horse—training in how to get the most out of his mount under all conditions; how to keep his mount in the best of condition. Includes thorough instruction in grooming, feeding, watering, shoeing, conditioning, and all measures tending to increase the animal's endurance; also includes sufficient knowledge of equitation to be able to ride the animal under march conditions at the various gaits, so as to get the most out of him, and to be able to execute the few movements necessary in the various forms of approach to the attack. It does not include many of the refinements of training in equitation now found in our Drill Regulations.

(3) Training in the use of the rifle, individually (target practice) and collectively (team-work, combat exercises, musketry).

For the cavalry soldier the three essentials just mentioned should be bracketed as equal in importance. For the infantry soldier Nos. 1 and 3 constitute the essentials, and the addition of No. 2 adds a knowledge of the horse and his care, and the three constitute the essential knowledge required by the cavalry soldier to make him efficient in dismounted combat.

With the three essentials mentioned should be bracketed a knowledge of scouting and patrolling, security and information, on the part of the officers, non-commissioned officers, and certain selected men.

(4) Training in the use of the pistol, mounted and dismounted. This involves additional training of the horse to fit him to take part in the mounted pistol fight. This includes ability to ride a horse across country at all gaits and to take such obstacles as are ordinarily met with.

(5) Training in scouting and patrolling, security and information, for the men in ranks. The training in these duties has usually been of very little value. Many text books give in detail what subjects should be taught, but none of those usually consulted by the average officer give in detail just how to teach these subjects. Suitable exercises are not given. Many pamphlets have been published by various headquarters, regimental or other, but no authorized text book, so far as known, has been published by the War Department.

It will be noted that up to this point there has been no particular horse-training required, other than ability to handle the horse at a walk, trot, and gallop; to take ordinary obstacles, etc.; but great stress has been laid on training to increase the endurance of the animal.

(6) Training in mounted drill up to and including the troop. (Remember, we are considering the essentials only for the men in ranks.) This will require a certain additional amount of horse-training.

(7) Use of the saber, mounted. This requires certain additional training of the horse.

Now, if we find time, we can train in all the subjects mentioned. If we do not find time, we should commence with the most important and learn them thoroughly, practice in the least important being confined to a few exercises. A man is a good cavalry soldier who has learned the first four. This knowledge, combined with a knowledge of scouting and patrolling on the part of certain selected men, will enable any cavalry to do what is required of it in a campaign; yet, in the experience of the writer, more time has been devoted to No. 6 and similar drills of the squadron and regiment than has been devoted to all the others combined.

The statement will probably be made that such training will make mounted infantrymen only. Well, let us suppose that it does. Any organization of cavalry that has fought as well dismounted as the best infantry should feel complimented by being referred to as mounted infantry; and, making due allowance for decreased strength on the firing line, no less should be expected from our cavalry.

We will in the near future receive a new manual on target practice and combat-firing. The manual on target practice has been noted, is along correct lines, and cannot fail to produce results, but, as explained by Major McNab in his article in the *Infantry Journal,* it will require a lot of hard work. So much the better. Now, if officers are judged and graded by results, we may get away from the old idea of a perfunctory target season, where the main idea seemed to be to get through as soon as possible. The writer has yet to learn of an officer being called to account for poor shooting by his organization.

The new manuals should provide for a certain amount of target practice and combat-firing throughout the year, and not confine such practice to the target season only. With combat-firing should be practiced all the principles enunciated in musketry. How often did we practice estimating the range in the old army? About once a year, generally when we could spare a few moments on the range. Unless we conclude that any preliminary practice in range estimation is worthless, we ought to devote a certain amount of time to it throughout the entire year. And the same with the other instructions contained in musketry. The only way to learn is to practice; book knowledge will not do.

During six months in 1916 the writer commanded three troops of the 10th Cavalry at Ojo Federico, in Mexico. The pamphlets on musketry from the school of fire were being received during this time and combat exercises were held two to three times per week. The terrain was favorable, as we could fire in any direction almost as soon as we left camp. The exercises were conducted according to the instructions contained in the musketry pamphlets, special attention being paid to the duties of each officer and enlisted man. As the ammunition allowance was not sufficient to permit firing with ball cartridges at every range, the director would announce at one of the halts, after fire orders had been given, that 5, 10, etc., ball cartridges would be fired. The particular halt at which these orders would be given would not be known to the troops in advance, and no additional fire orders would be permitted after orders to fire ball cartridges had been given. The result of the firing indicated the correctness of the

range estimation, target designation, and distribution of fire. The fact that at some particular range ball cartridges would be used added the interest necessary to prevent the exercises from becoming merely perfunctory. And yet, after six months of such exercises, it may as well be admitted that both officers and enlisted men were just about commencing to learn their duties. New questions were constantly arising, brought out by actual practice, and which could not have been foreseen from a study of the pamphlets. Therefore the repetition in this article of the necessity for constant, intelligent practice in combat exercises, if we expect to become efficient.

It is not intended to give the impression in this article that horse-training is of no particular value. Anything that increases the interest of officer and enlisted man in his mount is of value, and a well trained animal certainly adds to the pleasure of his rider; but it is believed that our cavalry would be more efficient today if much of the time devoted to training of the horse and to mounted drills had been devoted to practice in combat exercises. The knowledge of equitation acquired by cavalry officers at the mounted service school is of value, but too much time must not be devoted to the training of the men and animals *until the essentials* are thoroughly learned.

According to reports, the reservation at Camp Bennings is ideal for the practice of combat exercises of every kind. It is doubtful if the reservation at Fort Riley is equally favorable or if combat exercises with ball ammunition can be held except in certain restricted localities. The ideal arrangement would be to have cavalrymen go to Bennings for training in dismounted work and to Riley for training in mounted work. But whichever course is adopted, training in dismounted work should be exactly similar to that of infantry, making allowance for the difference in organization. The same signals should be used and the same duties prescribed for similar grades and units. Regulations governing dismounted combat should be prepared by officers from both arms. Our organization should be such that the dismounted strength of a certain unit of cavalry should be approximately the same as a unit (not necessarily similar) of infantry. For example, the dis-

mounted war strength of a regiment of cavalry might be approximately equal to the war strength of an infantry battalion. The commander of a mixed force would then have some idea of the relative strength of the two arms in those cases where it is necessary to use them together.

The question of the proper armament for cavalry has received considerable attention of late. The writer has had no opportunity to test the value of the new arms and other devices used by the infantry in the last war, but if they were found necessary for infantry, then they should be adopted for cavalry. In fact, cavalry should have a greater proportion of these accessories to make up for its decreased strength in man power. While it might be inadvisable and unnecessary to supply so great a proportion of these arms to the infantry, where the rifle and the bayonet must always be the chief dependence in the attack, special troops like the cavalry should be exceptionally well provided, in order to make up to some extent for the deficiencies in man power.

The ideal cavalry would be a force well mounted and armed with all the weapons that modern inventions have made possible.

The argument against the use of these weapons is that they will cause a loss of mobility. This would be fatal if true, but it is not true, or true only in the sense that our combat and field trains impair our mobility.

Let us keep our rifle platoon organized and armed as at present, or reduce the weight carried by each animal if possible. Then, if we wish to assign any of the new special arms to a platoon, let us assign them to a platoon headquarters squad; those assigned to a troop, to a headquarters platoon; and the same for the squadron and regiment. When the going is too fast, due to the speed, roughness of the terrain, or other reasons, the various headquarters organizations with the special arms will come along with the combat train, to be used when available. We do not discard the combat train because in some exceptional cases it may not be able to keep up; then why should we discard these special weapons because their weight does not permit at times of rapid transportation? Cavalry does not operate for any great length of time or at great distances from roads any more than the other arms, and

in nine cases out of ten these special arms would be up in time to take part in the action; and in those few cases where it is found impossible to use them we still will have our present armament and be as well off as if we had never adopted the new devices.

The statement was made in this article that "the ideal cavalry would be a force well mounted and armed with all the weapons that modern inventions have made possible." To this should be added, "and thoroughly trained in their use."

The improvement in motor transportation should render easier the problem of the transportation of these special arms, ammunition, etc., for cavalry.

Also why should not every cavalry regiment have a dismounted reserve, this force to be transported by motor and to furnish the additional necessary punch? This may seem a somewhat startling proposition, but it is worth considering. We have always been accustomed to have the mobile arm of the service, the cavalry, mounted on horses; but if, in these days of great inventions, we can perform our duties better and more economically by having part of our men transported by some other means, then we ought to get busy and make the change. At the present time the horse is the only certain means of transportation in some kinds of terrain; but, as stated before, cavalry must usually operate near roads, and in the usual case the motor transportation would be up when needed. And if it was not up, why, in that particular case, we would have to get along without the services of the dismounted men. There must always be a special mobile arm. Cavalry has been this heretofore, but if some other means of transportation is perfected we may find ourselves trailing for awhile and finally discarded, unless we adopt the new invention for our own.

To quote from Major Henry's article in the last CAVALRY JOURNAL, *"The war has demonstrated that the American theories for the training and use of cavalry are thoroughly sound."* That is true. With the exception of one or two minor lapses, our theories have always been sound. Emphasis should, however, have been placed on the word "theories." The trouble has been that while our theories have been sound, our training for the past twenty-five or thirty years has been the reverse of sound.

It is time for the cavalry to awake. When a half-baked, raw recruit can, with a modern machine-gun, spray bullets like a hose does water, it is time for the waving plume and the rattling saber to disappear.

The ideal cavalry is a force well mounted (animal and mechanical), armed with all the weapons that modern inventions have produced, and thoroughly trained in their use. Such a force may not agree with our previous conception of cavalry, but it will do the work.

And, finally, whatever program of training we adopt, let us see to it that our inspectors know their business, and that inspections really indicate the state of training of the command. As long as recruits are received at different times throughout the year, it will be difficult to set a standard, but it ought not to be impossible. Based upon the time of the year, the number of recruits and their length of service, it ought to be possible to arrive at some idea as to what should be the state of training in any command. The rating cards for each individual, which have been previously referred to, should be of great assistance to the inspecting officer. These cards should show the subjects instructed in, the number of hours, the date found proficient, etc. Testing a certain number of men of each organization would show whether the information on the cards was reliable.

Diagnosing Desertions

BY

Captain RANDOLPH C. SHAW, U. S. A.

THE WHIMSIES of government property accounting so appealed to the humor of Frederick Remington, when he had had occasion to see how in the days of the old army the ill wind of a desertion was often made to blow to the advantage of quartermaster sergeants and others perplexed with knotty problems of lost equipment and supplies, that he painted a picture which has since proved quite mystifying to the lay observer.

The painting, done in the best style of the master of frontier romance, represents a soldier struggling to surmount a hill near a western army post and bearing on his shoulders a burden which would have dismayed an Atlas. Conspicuous therein, as memory recalls, was a kitchen range, an anvil, several saddles, a rifle or two, various articles of tentage, and other objects which troop commanders know only too well have a penchant for disappearing unaccountably. The title was "The Deserter."

Times have changed, and while the present-day pilgrims of the hill may not be so heavily burdened in official records with articles of supply, they have added to the load of their crimes the weight of divers investigations and analyses of "the causes of desertions."

For several years prior to the late unpleasantness, it was very much the popular game to expound in chart and graphic form the latest theory as to why men desert, the causes ranging from the rise and fall of wages to the summer and fall of the year.

Recently an officer who had occasion to examine this collection of graphs on desertions worked diligently for an hour or so, and then, waving a new chart in the air, exclaimed in mock excitement, "At last I have found the true cause of desertion. It is the Republican Party!"

To substantiate his contention he exhibited a graph of the annual fluctuations of desertions, and in every instance the Re-

publican Party had been in power when desertions were highest, while during the years of Democratic administrations the outward tide was at its lowest ebb.

Before the partisan sentiments of any reader are alienated, let it be said that the instance just quoted was entirely in jest; and yet, in the opinion of the writer, as in many jests, there is possibly some truth contained therein. It is beyond dispute that the Republicans have usually been in office during the periods of greatest prosperity, and it is in such times that the high wages of commercial jobs prove a temptation to the man whose regard for his oath of enlistment is faulty.

So with many of the other theories expounded. They all contain part of the story; but the trouble is that there has always been a disposition to make them a complete diagnosis rather than a symptom. For instance, the fact that the ratio of desertions is considerably higher in the spring and summer than it is in the fall and winter has been often attributed to the fact that men leave during the warm months to take up more lucrative work in the harvest fields and in private employment.

But, with the exception of farming work, employment is more difficult to obtain in the summer than in the winter; and yet the same seasonal effect has recently been recorded in labor turnover, which would go to show that other elements than employment advantages are involved. According to figures which have been gathered by the Bureau of Labor Statistics, but not yet released for publication, labor turnover in large industries starts to climb appreciably in May, reaches its maximum in July, and its "low" in January. Exactly the same curve may be plotted for desertions from the army over a thirteen-year period, if account is taken of the months' delay necessary for their report. The remarkable feature of the latter curve is that it holds to its exact course for each year, whether the desertion rate for that year be above or below normal.

Another theory which has found its supporters from time to time is that the degree of leniency of punishment for the offense is the controlling cause. It is true that when more rigid measures are adopted for apprehension or punishment the desertion rate

temporarily falls, but that this also may be more largely symptomatic than controlling is indicated by the fact that the rate later returns to normal and frequently goes higher.

How, when a diagnosis is made, all symptoms are interpreted in the light desired may be gleaned from the following quotation of a report on desertions made several years ago, which to the writer seems a perfect example of "circular" logic:

> "It is well understood by those who know the facts, that the reason why desertion is treated so leniently in the British Army is because it occurs so infrequently, and not because leniency of treatment of deserters diminishes desertion."

One more illustration, albeit an exaggerated one, may serve to show the tendency to assign a general surface cause for desertions. It had reached the ears of a regimental commander that there was present near his camp an officer who was interested in the possible reduction of the offense. The Colonel sent for him and with the air of imparting valuable information said, "What's all this about studying desertions? Everybody knows why men desert. It's to get out of the army."

At least the colonel had hit upon a hypothesis against which there could be no rebuttal, and if the remedy was as simple as the diagnosis the offense would by now be a thing of the past; but, unfortunately, the problem is a more complex one, and it is because of its complexity that attempts to solve it by such general causes as have been ascribed in the past have resulted in so little effect.

There is no question but that many of the causes do operate largely to cause desertions, but their operation is so inextricably connected with other minor causes that general methods of remedy based in the general cause do not cure. That is why pay increases and changes in the apprehension or punishment of deserters have usually so transient an effect in reduction.

Recently the writer had occasion to analyze slightly over a thousand cases of desertion which had been tried by general court-martial during a year's period and in which in the review of the records of trial there had been noted such basic cause as was apparent in the record. In over two-thirds of the cases such cause was ascertainable and the results were summarized in the following table:

CAUSES OF DESERTIONS

Connected with Character of Deserter:		
Degeneracy	6	
Drug addiction	12	
Drink	37	
Ignorance	86	
Illness	17	
Irresponsibility	8	
Mental weakness	30	
Wanderlust	7	
Youth	9	
Weakness of character	40	
		252
Connected with Service:		
Belief of unjust treatment	8	
Discontent with station	5	
Dissatisfaction with organization	19	
Dissatisfaction with medical treatment	4	
Failure to appreciate seriousness of offense	11	
Failure to obtain discharge	2	
Failure to obtain transfer	2	
Failure to understand reasons for military discipline	24	
Fear of punishment for other offense	18	
Friction with non-commissioned officers	3	
General dislike of service	14	
Poor handling by officers	9	
Influenced by associates	9	
Non-carrying out of enlistment promises	2	
Refusal of furlough	7	
Unpopularity with associates	4	
		141
Connected with Family Matters:		
Expected birth of child	5	
Home difficulties caused by allotment non-payments	4	
Homesickness	21	
Illness or death of near relative	49	
Miscellaneous domestic troubles	15	
Poverty of dependents	37	
		131
Connected with Outside Matters:		
Desire to marry	14	
Entanglement with women	20	
Opportunity to earn more	5	
		39
Peculiar to War Conditions:		
Conscientious objectors	9	
Cowardice	35	
Desire for active service	8	
Ignorance of draft provisions	7	
Lack of loyalty	41	
		100
Cases where cause was noted		663
Cause not discoverable in court-martial record		380
Total		1,043

When it is realized that the foregoing table represents in itself a necessarily general classification of many complex causes, it is seen why attempts to reduce desertions by any broad method have invariably proved unsuccessful.

But, in such an article as this, generalities are required and perhaps excusable. In the light of the figures above, it would seem that the principal efforts of prevention should be directed toward adjusting the character of the recruit to his military environment rather than by any marked change in the latter. In other words, that the causes of desertion lie more largely in the offender and in his outside interests than they do in the service itself. As such, it is a problem of leadership and necessarily an individual one.

There are, of course, phases in which general methods would undoubtedly be of assistance. An obvious one is that of more rigid enlistment regulations and wider provisions for the elimination of the unfit. The most skilled and gifted leader would undoubtedly be unable to prevent the desertions of many of those offenders who were classified as being degenerates, drug addicts, or as possessing such defects of character as irresponsibility, mental weakness, instability and cowardice; but many of these could have been excluded from the service at the start if the same methods were taken to discover bad civil records before enlistment that are used after the man has committed a military offense.

The writer recently had occasion to study and tabulate the previous civil records of 1,871 military prisoners at the Disciplinary Barracks, Fort Leavenworth, Kans., and it was found that 44 per cent of the men had known criminal records in civil life, while 67 per cent had made such a bad general record that such fact was easily discoverable. When it is taken into consideration that such delinquents are many times more likely to commit military offenses than men whose civil life record was good, it would appear indisputable that whenever possible they should be barred from enlistment. So also intelligence tests might serve to eliminate some of those men whose low order of mentality the tables above show are frequently potential deserters.

It is with such cases as those ascribed to "ignorance," "failure to appreciate the seriousness of the offense," and "failure to understand the reasons for military discipline" that the application of individual methods would seem the most fruitful. Here, certainly, the problem is one of leadership—of knowing more intimately the strength and weakness of character of the individuals comprising the command, of ascertaining their problems which bear upon the military service, and of taking such measures as will minimize the chances of indiscipline.

When a man is below the average of intelligence, he requires more than the average instruction in the Articles of War, particularly in the seriousness of such an offense as desertion; and where he offends because he has not received such attention, his commander cannot escape part responsibility. Undoubtedly, also, many of the causes connected with family matters, as "homesickness," "illness or death of near relative," and "poverty of dependents," might have been avoided if more than average attention had been given individuals who through ignorance or other causes were subnormal. It is to the interests of the service as well as to those of the man that commanders go out of their way to insure such attention, which in no sense means "pampering."

That the qualities of leadership do affect desertions is a truism, but that it is one of the principal causes is apparently just being realized in its full significance. Appalled by the high rate of desertions now prevailing in the navy, an investigation was started by the Navy Department and is proceeding largely along the lines suggested by the discovery that, of two sister ships in the same port and with identical conditions affecting both, the desertions on one were three times those of the other.

If, then, as appears, the most effective methods for reducing desertions is by improving the quality of leadership, it is incumbent upon those officers who by special gift or discovery have found methods which are helpful to impart their knowledge to others less fortunate in gift or experience. That such suggestion is not merely an abstraction is shown by the receipt recently of a form letter which has been adopted at Camp Zachary Taylor for dis-

patch to the families of men who have absented themselves, pointing out the serious consequences of the absence if allowed to continue into desertion, both to the man himself and to his dependents, if he had made out insurance or allotments, and asking co-operation in his return. This letter has proved very successful.

Another method, which also has been used with success, is that of enlisting the assistance of the Red Cross Home Service in alleviating and furnishing reports on home difficulties and in urging the return of absentees. Some very effective ways of explaining and impressing upon recruits the seriousness of desertion have likewise been reported.

Desertions, like the poor, undoubtedly will be always with us, but the fact that one diagnosis does not suggest permanently corrective measures should not discourage other diagnosticians. From the collections of charts and graphs on hand, there would seem to be little danger of that.

A Few Words About European Cavalry

BY

Captain De LA VERGNE, French Cavalry
(Air Service Attaché, French Embassy)

I HAVE given myself the very hard duty of telling absolutely frankly what I believe. I know that very often it is not good to speak the truth; but is this the case when we must discuss whether or not cavalry has kept, and will keep in the future, the part she has played in the battles of the past?

In the Cavalry, we live upon wonderful examples of bravery, and as we are the guardians of tradition—it is the same in all cavalries of the world—we have a tendency to believe that the purpose of our arm is to illustrate the history of battle by brilliant deeds of heroism.

But heroism is a means and not an end. Thus we have in France the charge of Reischoffen, a wonderful rush to death, with men and horses dying in the hop gardens, saving their honor, but whose tactics lost the battle. Such heroism is consoling to dwell upon, but such a charge is evidently something to avoid.

We have the charge of General Margueritte's division at the end of the Battle of Sedan, over a terrain strewn with fences and walls, thus offering themselves as a target for the most horrible butchery.

On the other hand, we have the charge of Bredow's brigade at Resonville, which, it is said, won the battle; the charge of the Austrian dragoons at Custozza, which, we have been taught, was the decisive factor of the victory of the Archduke Albert. I will not dwell upon the very many evident examples of the battles of Napoleon, despite the attractive personalities of Murat and Lassalle, because at that time the range of the rifle was only eighty paces.

II.

With this preamble, I desire to demonstrate the following: That nowadays the rôle of cavalry as a fighting arm, with its two

weapons—the horse and the saber—is finished. The charge, the evolutions of large masses of men and horses in the open field, are closed pages of the tactical books. In stating here what I believe to be the truth, I must, however, give a few explanations.

First. I limit the field of my investigation to European warfare—that is to say, to operations in a country answering the following conditions:

1. A large network of good roads.
2. An extensive system of strategical and commercial railways.
3. Material, such as was used in the last year of the war, namely: (*a*) Light and heavy guns, machine-guns, automatic rifles, grenades; and (*b*) Transportation, trucks, armored cars, tanks, armored trains, and aviation of all kinds.

Second. I will confine my discussion to the use of cavalry, both combat and reconnaissance, armed only with the horse and the saber. With these two limitations in mind, no one can find in my arguments anything which is inconsistent with the marvelous campaign of Allenby in Palestine or with the remarkable operations of the German brigade of cavalry near Pinsk during the offensive of the Russian Army between Tarnopol and Czernowitz. Every one will agree that none of the above conditions in these operations was fulfilled.

A FEW REFLECTIONS—FIRST OPINION

The philosophical aspect of the war was as follows: A struggle between *movement,* which was to win the war, and *fire,* which stopped the *movement.* All of the war that we saw is contained in this sentence.

The infantryman, too weak with his poor human flesh to withstand the terrific means of destruction, constructed in the ground, as deep as he could, the dugouts where he might live. He had tried, however, to resist the shells, the bullets, the thousands of carriers of death which crossed the sky every minute. He had supported the overwhelming fatigue of the first battles and the

stupendous losses of which no one had ever dreamed. *Movement was impossible.* The infantryman was compelled to stop.

Thus, a man 5.5 feet tall, who could lie down and hide himself behind the smallest obstacle, acknowledged that *to recover movement* he had to be shut up in a moving beast, a new horse of Troy, not made of wood this time, but of very thick steel.

What, meanwhile, had become of the real horses and of the men on their backs? They had not been able, as the infantryman, to appear in the first battles of the war. Whenever they had tried to do so, they had been immediately mowed down by an invisible enemy, and, despite their rage, they had to admit finally that the tactics of the Roman mother who told her son to "take one more step if his sword was too short," was somewhat old-fashioned. The bullet is a saber almost two miles long and, although treacherous, it surely reaches its target. A French moralist said, "An idiot who can pronounce three hundred words in a minute has more chance to get the right word than the clever stammerer who can say only two words in the same time." The bullet is the idiot and the saber is the stammerer.

We saw this to be true many times in the war, and I shall remember all of my life a regiment of "Chasseurs à cheval" charging a German battery of 77's defended by one machine-gun. On the 23d of August, 1914, I learned that, despite the bravery and the enthusiasm that we had, a regiment of cavalry was powerless before one machine-gun. Out of 600, 150 of us remained upon the ground. The examples of regiments of our cavalry that were decimated because they willed "charger quand même" are too numerous to mention here. Honor to their memory.

Nor have I time to discuss, alas, all that I learned in the war while commanding more than twenty reconnaissances of cavalry, before and during the retreat of the French armies from Charleroi to the Marne.

May I be allowed, however, to relate this little story: After having ridden for two days, I reached, on the 12th of August, just before the Battle of Dinant, a little bridge over the river Lesse, which is a small tributary of the Meuse. As soon as I appeared

with my six men, a shot from a hole in the wall of a small house near the bridge stopped me. I tried to pass in full gallop, because I knew that across the river I should pick up some very valuable information. A volley of bullets caused me to renounce the project, and, realizing my helplessness, I remember saying to myself, "With a small armored motor-car, I should have passed with my men."

Thus I spoke, and yet I was a lover of cavalry. In peace time I used to dream of these charges of men and horses breaking heavily upon the enemy. I knew every motto of our arm: "If you have not the bravery of the lion, the clear sight of the eagle, and the virtuosity of the hawk, go back; you are not worthy of being a cavalryman." But bravery, clear sight, virtuosity were all annihilated by the bullet, and consequently cavalry, as far as its ability to fight with the saber was concerned, was withdrawn from the fight; it was only a supernumerary on the stage of the theater of the war.

This is a fact, and facts do not lie. They are what they are and nothing more. We must bow before them, for the present times are not those of the Middle Ages, the Napoleonic period, or the 1870 war.

On a modern battlefield, where death flashes from thousands of points; where battles are won or lost without the adversaries even coming into contact with each other; where, despite the greatest precautions, the losses are so immense, there is no place for the magnificent mounted cavalry fights of old.

SECOND OPINION

As hard as it is for me, who loved horses and who enjoyed for so many years this pleasant arm, I must say that cavalry in the future must be considered as infantry on horseback, and the horse as a vehicle, like the others—but the slowest.

I do not pretend to state something new and original. This is an eternal discussion. On one hand, the theory based on the idea of fighting mounted as opposed to the idea of fighting on foot. General de Regnier wrote, some eighteen years ago, a famous article in a leading French periodical, "Revue des Deux Mondes."

He had come to the conclusion that superiority of fire would be the main factor in battles of the future, and he urged the French cavalry to give up all of its old opinions and ideas obtained from the memoirs of Marbot, de Brack, and Murat. The time of the saber was over, and that of the rifle, the machine-gun, and the pistol had come.

His article attracted a great deal of attention, because it attacked an art, the art of equitation, which had become an *end* instead of a *means,* and which by a peculiar mistake of reasoning was the basis upon which all cavalry tactics was developed.

This is the same mistake which skillful pilots of aviation are making today. They wish to have their war for themselves alone, and a day will come when we will see beautiful and artistic aëroplane fights among the stars, without any connection with the ground. There, again, the art of the flier will beget wrong tactics, and when, for the love of their art, the pursuit machines engage in battle, in the third dimension, at tremendous altitudes, at the same time heavy aërial tanks will operate as they wish, at fifty meters from the ground.

Thus, I have showed that the war on the western front has rooted in my mind very deeply two strong opinions about cavalry. May I be forgiven for having dared to say what I really believe myself? To say that cavalry is good only for fighting on foot will arouse many opponents. I shall not develop the second opinion expressed above. Every one knows that cavalry fighting on foot can be of the most precious support in a battle. The examples of the services rendered by the cavalry in battle *without their horses* are as numerous as the examples of the mishaps encountered by the same cavalry in battle *with their horses.*

But, in conclusion, I cannot help regretting the passing of the saber and the lance. War was certainly more chivalrous then than now. And I remember with a certain feeling of sadness an incident where, having encountered with my platoon a score of twenty German dragoons, I killed with my pistol, at a distance of 12 meters, a splendid Boche who tried to reach me with his lance, which was three meters long. I do not know why, but I am a little ashamed of it.

If I have an opportunity to do so, some day I shall write of the aviation and tell what I think can be done with a corps of cavalry trained to fight on foot, but not otherwise, armed with pistols and machine-guns, not the saber, and accompanied by armored cars, numerous light artillery, and powerful aviation.

In my opinion, the above will be the ideal detachment for reconnaissance. I must thank, in conclusion, the editor of this distinguished magazine for having allowed me to express herein such subversive views.

Horses Fit for the Cavalry

BY

SPENCER BORDEN

HAVING for many years followed the development of ideas used in the most successful studs of nations where cavalry horses are bred, the writer begs to suggest that if we in the United States cannot at this time show an American horse the equal of any, we have only ourselves to blame. The present communication will be an effort to prove that we have had for a long time some animals fit for foundation stock.

When, in 1911, visits were made to many of the government breeding studs of continental Europe, it was found that, without exception, Arab blood was the basis on which all the best horses had been established.

Those that could not obtain all the Arab blood they might wish came as near to it as possible. Russia, Austria-Hungary, France, Italy, all were reaching out for Arabs, to be used in their government studs. Especial attention was called in the book written on the return from this trip, "What Horse for the Cavalry?" to the practice of the Hungarian Government, where horse-breeding is the most scientific to be found in any nation.

Later, in a communication to the CAVALRY JOURNAL, the methods of the French were described in detail. Few people realize what these, our brave and intelligent allies in the great World War, have done in providing horses for their cavalry. In 1906 the French Republic owned 138 pure Arab mares; also Anglo-Arabs, besides the brood-mares in the government studs in Algeria; and of stallions had 104 pure Arabs and 228 Anglo-Arabs. These latter, though less valuable than the pure Arabs, were very highly esteemed. The Anglo-Arab stallion Nelson cost the French Government 40,000 francs ($8,000), and every horse of that type that could be found was secured by the *Organization des Haras* for breeding purposes. We in America have seen the quality of these

KINGFISHER AT CAMP DEVENS, MASS.

KINGFISHER—AFTER THE RETURN FROM PARRAL, MEXICO

ASTRALED

MAIDAN AT 23

horses. All those sent to the Madison Square Garden horse shows were of these Anglo-Arabs. So were all the winners of the endurance rides in France, in the years preceding the World War.

A few horses of similar breeding have been produced in the United States. With the facilities at the service of our Department of Agriculture, there would have been a great number, had more intelligent methods been followed at our government breeding studs.

The history of one successful experiment in this line may be of interest. Its facts are known to many people and will be verified by army officers who know them.

In 1898 there was offered for sale in England a half-bred Arab mare, her dam a thoroughbred race-mare, daughter of the great Arab horse Maidan, whose history has been familiar to the writer for a number of years. Maidan was foaled in 1869, in the Nejd, brought to Bombay in 1871 by Abdur-Rhaman, and sold to Captain Johnstone, of the English Army, who commenced racing him, though only two years old. He was joined in the ownership of the colt by Captain Fisher and Major Brough. Having tested him, they accepted the long odds laid against him, an untried youngster, by the Australian sports. It is said that after he won the Punjab cup the Australians had hardly passage-money to get them home.

For three years, 1871 to 1874, Maidan continued his winning career. Then, at five years of age, as no further matches could be gotten for him, he was sold to Lieutenant-Colonel Brownlow, of the 72d Highlanders, as a charger. Brownlow was a heavy weight of nineteen stone (266 pounds) with his equipment; yet Maidan carried him for 12 years in campaigns through the mountains of India and Afghanistan. Brownlow was killed before Kandahar, after the famous raid from Cabul with Lord Roberts, 300 miles. Two years before that time the horse, at fifteen years of age, after ten years cavalry service, won the Ganges Hog Hunt Cup and also a four-mile steeplechase across difficult country.

At the death of Colonel Brownlow, Maidan, then seventeen years of age, was bought by Lord Airlie and again put to racing, where he proved a winner, both in steeplechases and on the feet.

He was then sold to Captain the Honorable Eustace Vesey, who bought him to take to England. Leaving India in the troop-ship *Jumna,* Maidan got as far as Suez, where the ship met the expedition going to the relief of Suakim, where Osman Digna was harassing the garrison. There the *Jumna,* with Maidan on board, was pressed into service as transport for troops to Massowah, near the lower end of the Red Sea. So the old race-horse and charger had his journey lengthened. He stood on his feet 100 days without once lying down, between Bombay and Marseilles; yet Captain Vesey raced him successfully at Pau and afterward in England. He won a steeplechase in the latter country when twenty-two years old, and when he had to be destroyed because of a broken leg, at twenty-three, he was absolutely sound.

In 1890 he was described in the *London Live Stock Journal* as "fresh and well, with immense bone below the knee (he measured eight inches, though only 14.3 in height) and as clean in the legs as a four-year-old, notwithstanding the fact that he was hunted in Suffolk last year."

The writer first heard of Maidan about 1892, when he was owned by that remarkable horsewoman, the Honorable Miss Ethelred Dillon, who, though a cripple, did not hesitate to go to Bombay to see Abdur-Rhaman; to Damascus to talk Arab horse with Abdul Kadir; to Algeria or anywhere else where she could get the information she desired. Then, in 1893, Mr. Randolph Huntington bought Nazli, by Maidan, and her foal, Nimr, by Kismet, from Rev. F. F. Vidal, who came to judge the Arab horses at the Columbian Exposition, Chicago. From Mr. Vidal still more was learned about Maidan; and when, in 1898, a daughter of Maidan was offered for sale by Miss Dillon, the writer bought her. This was the mare Heiress; dam, Legacy by Herbertstown, G. D. Crinksen (a famous Irish steeplechase mare) by Amusement. Heiress, like her sire, was a chestnut, about 14.3, yet she won the high jump at the Crystal Palace in London in 1897, and in America was a game and undying mare in the hunting field. She bred several foals, which brought returns of thousands of dollars.

The one on which I would fix the reader's attention was Halcyon, still doing duty as a brood-mare. She had a filly in 1917,

and another in 1918, by Segario, whose sire, Nimr, was from a Maidan mare. Segario is sire also of Captain (now Colonel) Vidmer's Scimitar. This year (1918) she has been bred to Rodan. Halcyon's sire was Hail.

In 1905 the writer went to England, visiting the Arab studs of both Miss Dillon and Lady Anne Blunt. At each place he secured valuable Arab horses, mares and stallions. Of Miss Dillon, Imamzada was purchased. She also made him a present of an old stallion named Hail, that he never saw till he got back to America, where the horse preceded him. The blood of Hail was what he was after. That horse was by Jamrood, a son of Maidan; his dam the great mare Hagar, that carried Wilfred Blunt through the whole of his journey in Arabia, as described in Lady Anne's book, "The Desert Tribes of the Euphrates."

It is, therefore, evident that Halcyon, whose sire was by a son of Maidan, her dam by Maidan, has a double infusion of the winning blood.

Having started out to breed a horse fit for the cavalry service, it was decided to try out the animals so bred. The writer has never sold a horse to a soldier, though by giving some to the right men he has been able to have them tested in actual service. Halcyon was one of several that was loaned to Norwich University, Northfield, Vt., in the years when Captain (now Colonel) Frank Tompkins, and afterwards Lieutenant (now Major) Ralph H. Parker were superintendents at that institution.

It was during the period of Lieutenant Parker's service, just succeeding that of Captain Tompkins, that the endurance ride under the auspices of the Morgan Horse Club was pulled off, in September, 1913.

The distance was 154 miles, starting at Norwich University and ending at White River Junction—a continuous performance—judged at the finish by General A. L. Mills, who was detailed for the service by the Secretary of War; 50 points in 100 to be awarded for condition at the finish—25 for weight carried, 25 for time consumed in the journey.

The Arabs were to be represented by Yaquis, a gray stallion, ridden by Lieutenant Parker; Halcyon and Razzia, ridden by

cadets of the Norwich Corps. The start was to be the morning of September 16, and the finish must be within 36 hours, on the 17th. Halcyon was the animal picked to pull off the prize, though Razzia had carried Captain Tompkins from Northfield to Fort Ethan Allen, 52 miles, in the morning, rested while the Captain took his examination, and brought him back to Northfield within the same day, 15 hours and 30 minutes on the road, covering 104 miles; also Yaquis was known to be capable of almost any test.

Late in August Halcyon was run into on the road by an automobile, knocked down, and so seriously injured it was thought she could not start. Coming to Fall River the last week in August, Lieutenant Parker chose a horse to take her place. He picked Rodan, a chestnut stallion, that had been in the stud all summer, not ridden, not even shod. He was shod August 30. September 1 he received his first work, 10 miles on the road. September 2 he was given 25 miles. September 3 he was started over the road for Northfield, covering 70 miles that day. In five days he was ridden 267 miles, reaching Northfield the evening of September 7, nine days before he was to go into the big race.

Meantime Halcyon had begun to improve. As these two were fast walkers, of about equal speed, it was decided to start them together, let the mare go as far as she could, and if she gave out, push Rodan to win the race, backed by Yaquis, who started five minutes behind the pair and was known to have such bulldog tenacity that once he caught a horse, the farther they went, the more certain it was he would hold him to the end.

The greater number of contestants started from Northfield at 6 a. m., September 16. Two that started at 2.30 a. m. were hopelessly out of the race from the beginning. They had been deprived of their rest before starting, must travel through the night following, and were not given their breakfast till 30 miles from the start. Halcyon and Rodan started at 6.15 a. m.; Yaquis at 6.20. The Arabs overtook the 6-o'clock horses about half-way through the journey. All caught those that started before daylight at a point 80 miles from Northfield. One of these never finished; the other came in three hours later.

The farther they went, the stronger Halcyon traveled, though she was carrying top weight—180 pounds. All progressed well until at about 2 a. m., September 17, the mare cast a shoe, between St. Johnsburg and Wells River. At that town a smith was roused from his bed, and shod her by the light of an automobile, the other horses not waiting, but continuing the journey. Fifty-five minutes were lost by the delay. Starting after the others, she overtook them seventeen miles from the end of the journey, and in spite of this terrible handicap won the race, covering the last seventeen miles in 2 hours and 54 minutes. Halcyon's time for the entire journey of 154 miles, including all stops, was 30 hours and 40 minutes. Rodan's time was the same; Yaquis' was four minutes less. As Halcyon carried 180 pounds, while Rodan and Yaquis but 160 pounds, the mare won the race, all three getting the full award of 50 points for excellent condition, judged at the end of the contest and confirmed by re-examination the next day. Two days later all three contended in the Officers' Charger Class at the Vermont State Fair in the morning, Yaquis winning first, Halcyon second, and they went back to Northfield, 51 miles over the road, in the afternoon.

Six weeks later Halcyon was taken in a box car to New York and entered in the broad jump at Madison Square Garden. She had never tried jumping by electric light; yet she won third place, covering 18 feet 6 inches, beating 32 others, representing seven nationalities, including all the English, American, and Canadian horses. She was beaten a few inches by the two Anglo-Arab horses sent by the French Government from Saumur and ridden as the French cavalrymen know how to ride.

Colonel Kenna, V. C., the British officer who came to represent that army, pronounced Halcyon a perfect type for a cavalry horse.

The next spring, May, 1914, Halcyon went from Fall River over the road to Grafton, Mass., 70 miles, and won the Grafton broad jump at Mr. Harry W. Smith's Grafton Hunt Club Horse Show, beating such good ones as Natty Bumpo and others nearly as good, returning home over the road the next day. In practice for this test she has jumped 32 feet.

Then for two or three years the mare was ridden for pleasure, and incidentally jumped at shows near home. Three years ago she was put to breeding; she has two fine fillies to carry on the breed, being now in foal to her race companion, Rodan.

Maidan, Heiress, and Halcyon would seem to be a pretty good line. The fourth generation is perhaps even better, if that is possible.

The year Halcyon went to Northfield she left behind her a yearling colt named Kingfisher. He was by Imamzada, the stallion bought from Miss Dillon in 1905, as already noted. Imamzada is also sire of Makia, the mare given to Major George Byram, ridden by him, barefooted, as a three-year-old, and afterwards, as long as he was in the cavalry. To Makia's good qualities Major Byram never tired of bearing witness. Colonel J. G. Fair, of the Remount Service, says she was the best horse he ever rode.

But Kingfisher! When Halcyon went to Northfield, Kingfisher went, too, the property of Captain Tompkins. When that officer was assigned to the 10th Cavalry, Kingfisher, then two years old, went to Texas and New Mexico with him.

At the time of the Villa raid on Columbus, in 1916, when Major Tompkins was ordered to take 100 troopers and get Villa, the horse he chose was Kingfisher, then four years old. Every cavalryman on the border at that time knows how the little Arab carried Major Tompkins. General Howze was then lieutenant-colonel of the 11th Cavalry and General Allen its colonel. The latter had been, up to that time, bitterly opposed to the use of small horses in the cavalry. In command of one of the supporting columns that followed Major Tompkins, Colonel Allen lost two of his big thoroughbred chargers on the road, dead from exhaustion; so that he, with the others, was compelled to recognize the wonderful performance of Kingfisher. Starting from Columbus, N. Mex., on March 16, 1916, Major Tompkins rode the little horse 584 miles, through the desert of Chihuahua and over a chain of mountains 7,000 feet high, to Parral, which was reached April 14, 1916. The horse not only carried Major Tompkins the whole route, but he carried full equipment for that officer—arms, ammunition, rations—and all rations for the horse excepting what he could get of frozen grass at the

end of a tether at night. The road was so bad and the pace so great that 40 horses died. Shoes from dead horses were removed to be nailed to the hoofs of the survivors. The troopers wore the seats out of their riding breeches. They used the hoods of their stirrups to mend their shoes and their bridles. Many times they had no rations excepting corn meal for the horses, parched in skillets over the fire.

At Parral the squadron was ambushed, and fought a rear-guard action till they reached the point where Major Brown came to their relief. Major Tompkins was shot in the shoulder, and the horse on each side of Kingfisher was killed, yet he never flinched. He brought his rider back the 300 miles from the front to safety, head and tail up, apparently none the worse for his performance of nearly 900 miles in continuous movement. The picture shown herewith, taken the day he returned to Santa Cruz Villegras, shows him about 50 pounds lighter than at the start, but fit to do the trick right over again.

Colonel Tompkins in sending a picture of Kingfisher for a Christmas present to the writer, in 1916, wrote the story of his performance on the back, ending with these words: "Twenty-five thousand dollars would not buy him today." The answer he got with the acknowledgment was: "I would rather have the satisfaction of putting a horse like that under a friend, an American soldier, than to have bred the greatest Derby winner that ever ran a race."

But the line ends with Kingfisher. When he was made colonel, to insure having his own tried horse to ride when he should go to France, Tompkins had Kingfisher made a gelding. Then came the decree that no officer could take his private mount across the ocean, ship space being needed for men, munitions, and commissary stores.

So Kingfisher remains on this side. He is today as sound and unblemished as the day he was foaled. At Camp Devens he was entered in the horse show held in May, 1918, and had no difficulty in winning the blue in a field of 20 big hunters, some of them more than seventeen hands high. Ridden by Colonel Tompkins, certainly not a featherweight, he took four jumps of four feet in a

canter, the only horse that made a perfect performance. He was ridden with a snaffle bit on his bridle, his field saddle, and took the jumps as all in a day's work.

So, Mr. Editor, the writer has no excuses to offer for his ideas of how to breed a cavalry horse or what kind of a horse to breed.

The ideas have "delivered the goods." Let us see some one else beat it!

ANOTHER CHAPTER

Since the foregoing was written various things have happened. General Mills, whose recommendation that the stud from which came the animals mentioned in the writing above be acquired by the United States Government, died. Mr. Vrooman, to whom the recommendation was made, has retired from office.

Vidmer, Howze, Harbord, Tompkins, and Parker, whose experience with Arabs was quoted in the recommendations of General Mills, promoted to ranks conformable to their soldierly qualities, served their country with distinction in the World War. Some of them have retained the insignia of their promotion; others, equally worthy, have come back to their military duties with lower rating, until the mere amateur hardly knows how to address them, though proud to know them all.

The stud itself, having become a burden after twenty years, was sold to a younger man than he who got the animals together, bred, culled, tested, and sorted them.

The new owner, eager to prove that the animals were superior, as they had already proved themselves, arranged a new test, which was pulled off in October, 1919, under new conditions believed to be more trying than the old.

Fourteen horses started from Fort Ethan Allen, Vt., to carry a minimum weight of 200 pounds, 300 miles over the road, in five days, to Camp Devens, Mass. The results were such as they had been in the 154-mile ride of 1913. The first four horses to finish were Arabs, pure bred or nearly so.

The winner was the pure Arab mare, Ramla, daughter of the little stallion that the writer owned and rode for several years, named Astraled. His picture is shown herewith, the writer in the

saddle, in front of the Bon Air Hotel, Augusta, Ga., where he was kept for two years as an *old man's mount*. Astraled is only 14 hands high. He is sire not only of Ramla (bred by Lady Anne Blunt, in England, before Astraled came to America), but he is also the sire of Kheyra, the third horse to finish in this 1919 ride. Besides these two, Astraled also got Halim, the Arab stallion Major-General Harbord has ridden since he was a major and is still riding. In 1917 Astraled was presented to Rev. Thomas Ewing Sherman, who still owns him.

The second horse in the race was our old friend Kingfisher, Colonel Frank Tompkins in the saddle. The writer attended the centennial celebration of Norwich University, at Northfield, Vt., the Saturday before the start of the race from Ethan Allen. Colonel Tompkins' duties at that place had compelled him to delegate the preparatory exercise of Kingfisher to his orderly. While the orderly was riding on the road the week previous to the time mentioned, a branch fell from a tree, almost hitting the horse, which jumped to one side to avoid the accident and landed in a bunch of barbed wire near the side of the road. When seen the Saturday aforesaid the horse was so badly lacerated that the writer remarked to Colonel Tompkins: "That horse cannot go in the race." "Perhaps not," answered Colonel Tompkins. "We shall see. I will ride him over to Fort Ethan Allen tomorrow or Monday (60 miles) and we will start if he is able" (on Tuesday).

Kingfisher went, and he started, doing 360 miles instead of the 300 of all of the others. He also finished, beaten only by Ramla.

The third horse in the race was Kehyra, another daughter of Astraled. The fourth horse to finish was old Halcyon. What she had done six years earlier was glory enough for any horse. The writer protested against her being sent into this race, inasmuch as since her first trials she had bred a foal in 1917, 1918, 1919, and was in foal again, due in 1920. It was criminal to enter her in this race. Yet this wonderful mare carried through, and in the dash across the parade ground at Camp Devens the morning after the finish distanced all of the others. There is not much more to be said, but it is not possible to close without one more punch at

the superstition that the "thoroughbred" (meaning the horse bred for racing) has any value in propagating horses suitable for cavalry.

From the time when I returned from Europe after investigating the breeding of cavalry horses in Europe (1911), I offered to race three of my Arabs against any three thoroughbred horses that could be found, with the whole country to choose from, competitors to be placed in charge of United States cavalry officers, and ridden from 150 to 300 miles, no horse to carry less than 250 pounds or be fed more than six quarts of oats in 24 hours. From that day to this no thoroughbred horse has been entered in any of the contests. Another ride of 300 miles is scheduled for 1920. It is safe to say that no thoroughbred will dare to show his head in that race.

Yet the "thoroughbred" men dominate the Remount Association. Broken down thoroughbreds are in use in the government breeding studs. Stallions fit for getting cavalry horses are offered prizes in horseshows, "thoroughbreds" being designated. That it is a fraud, every real cavalryman knows.

On page 95 of the April CAVALRY JOURNAL a German officer punctures the bubbles of Prussian Army ideas, not only showing the folly of lances, sabers, and big horses for shock action, but he says:

"If no further cavalry battles are to be fought, then we no longer need battle cavalry—that is, heavy shock troops. We shall require only a uniform type of troops, and these must be as mobile as possible—that is, with small, light horses and light riders, who are active and skillful in quick mounting and dismounting in every possible combat situation."

In plain English, big men on race-horses are *no good*. They never were.

Payment for Mounts Lost in the Service

BY

Colonel HERBERT A. WHITE, Judge Advocate

LAWS authorizing payment to officers for mounts lost in the service have been on our statute books since almost the beginning of the nation. The first act relating to this matter was the act of May 12, 1796 (1 Stat., 463). For the information of those who desire to study this matter I append a note giving the statutes covering the subject.* The early statutes authorized payment for

*NOTE.—The first act, that of May 12, 1796 (1 Stat., 463), allowed payment for horses killed in battle belonging to officers of the army. The act of July 5, 1797 (1 Stat., 527), extended the first act to the end of the next session of Congress. The act of April 9, 1816 (3 Stat., 261), authorized payment for property lost, captured, or destroyed by the enemy while in the military service of the United States. The act of March 3, 1817 (3 Stat., 397), extended the provisions of former acts to property lost, etc., in war with Indian tribes. The act of April 20, 1818 (3 Stat., 466), transferred the jurisdiction of all claims to the Third Auditor of the Treasury Department. The act of March 3, 1825 (4 Stat., 123), amended the act of April 9, 1816, by prescribing the course to be followed by those presenting claims for buildings destroyed during the late war. The act of February 19, 1833 (4 Stat., 613), provided for the payment of horses lost in the military service against the Indians on the frontiers of Illinois and Michigan territories. The act of June 30, 1834 (4 Stat., 727), extended the period, which under the act of February 19, 1833, had been limited to three years from date of passage. The act of January 18, 1837 (5 Stat., 142), while repealing the acts of 1833 and 1834, provided for the payment of horses and other property and also provided that it should remain in force until the close of the next session of Congress. The act of July 7, 1838 (5 Stat., 288), continued the act of '37 two years. The act of February 27, 1841 (5 Stat., 414), continued it two years longer. The act of August 23, 1842 (5 Stat., 511), provided for an appeal from the decision of the auditor to the Second Comptroller. The act of March 3, 1843 (5 Stat., 648), of June 15, 1844 (5 Stat., 673), and of March 2, 1847 (9 Stat., 154), were acts simply extending the time within which claims could be presented. At the expiration of the last period Congress let the act of 1837, five times extended, die and passed the act of March 3, 1849 (9 Stat., 414), which was incorporated in the Revised Statutes as section 3482; and the act of March 3, 1873 (17 Stat., 485), was incorporated into section 3489, R. S. The act of January 22, 1874 (18 Stat., 193), authorized payments for mounts purchased in States in insurrection, and the act of January 9, 1883 (22 Stat., 401), extended the time for filing claims; and the period was again extended by the act of August 13, 1888 (25 Stat., 437). The act of March 3, 1885 (23 Stat., 3503), was variously construed by various comptrollers as and as not covering horses. This question was put at rest by the Court of Claims in Andrews *et al. v.* U. S., referred to in this article at some length. The acts of March 4, 1915 (38 Stat., 1077), of March 28, 1918 (40 Stat., 479), and of July 9, 1918 (40 Stat., 880), complete the list of statutes relating to this subject.

loss in battle or due to wounds received in action. The latter acts are more liberal and have come to authorize payment for loss in the military service. But this does not mean that every loss may be paid for, since the expression "in military service" has come to have something of the meaning of the expression "line of duty" in our old pension statutes. This idea is clearly set forth in Andrews *et al. v.* U. S. (52 Ct. Cls., 373). See also Dig. Ops. J. A. G., April 1–December 31, 1917, pp. 26-27. Mounted officers are advised to read this case, as it clearly explains the opinion of the Court of Claims upon the subject. A brief résumé of the decision follows, and from it officers may form quite an accurate idea as to what reception claims will receive:

"It does not follow from what has been said that every horse privately owned which dies while its owner is in the military service can be paid for. Congress did not intend by the provisions of the act of 1885 to make the government an insurer against loss or destruction of a soldier's private property. The officer or enlisted man must be in the military service of the United States, and the loss of his private property must likewise have been in the military service, not merely while in the military service, but by reason of some exigency or necessity of the military service, and not incident to a horse out of as well as in that service. An analysis of the statute in this respect is most succinctly stated by Assistant Comptroller Bowers in 3 Comp. Dec., 636:

"'The loss must have been caused by some exigency or necessity of the military service, such as naturally would be attributed to and flow from such service. To establish a case under this act, the property must have been *lost or destroyed in the military service;* not merely while it was in use in that service, but *because it was in that service.* Being in that service must have been the proximate cause of the loss. The loss must *not* have been caused by the natural wear and tear or deterioration of the articles in ordinary use in the service. Inherent defects in articles, on account of which they are unable to stand the ordinary strain of the service, will prevent recovery.'

"Congress by the remedial legislation in issue was providing reimbursement for property lost by reason of the peculiar hazards to which it was exposed while in military service, and by so doing did not intend to cover the whole field of accidental loss or destruction in no way connected with the dangers incident to military service. Simply because the soldier had carried his private mount into the military service to be used by him in military activities, as his military duties required, such a use does not of itself render the defendants liable for its death if the same ensued from any cause not directly connected with or incident to military service. The fact that the horse is legally in the army does not determine liability; its loss must be directly caused by the performance of military service and in nowise attributable to the fault or negligence of the soldier. A horse dying from natural causes is obviously ex-

cluded from the benefits of the statute; one injured to such an extent that it must be destroyed, by purely accidental means in no way connected with the prevalent and well-known exigencies and dangers of military service, does not come within the act. Accidents and injuries are not peculiar to army life. Vicious, high-strung horses, animals physically unsound and otherwise blemished can claim no immunity from the innumerable causes of mortality and injury because they are taken by their owners into the military service. Again, quoting from Comptroller Bowers' decision, *supra:*

"'It must reasonably be attributable to the fact that it was held in the military service, whereby the owner was deprived, in some degree, of the control over it which he would have in civil life, and where it would be subject to dangers not ordinarily incident to its use in civil life. . . . If it be held that absence of fault or negligence is the only precedent to reimbursement, an officer would be entitled to payment for a horse dying from old age, or a uniform, side arms, or household furniture worn out in use.'

"This view of the law was approved by Assistant Comptroller Mitchell in 13 Comp. Dec., 838, in which he says:

"'I do not think the said act contemplates or provides indemnity for the loss of a horse by death from purely natural causes not produced by the military service and which is incident to a horse, whether he is or is not in the military service.'

"This has been the uniform holding of the Comptroller's Office, and to it we adhere. While the line of demarcation may in some instances be difficult of ascertainment, still the intendment of the statute is open and apparent. The term 'in the military service' has a settled and universally accepted legal meaning and would not appear in the act if it was not designed to limit liability for the loss and destruction of private property occurring by reason of and in the actual performance of military duty. A contrary construction can find no support because of the difficulty of administration. The right and the remedy have been prescribed, and it is not the instance wherein the application of the law depends upon the facts and circumstances of each particular case.

"The petition in this case must be dismissed. The findings fail to disclose a loss within the foregoing opinion. The claimant's horse was found in the quartermaster's pasture with a serious fracture of its foreleg, and it had to be shot. There is absolutely nothing in the record to connect the injury with military service. How, when, or in what manner the accident occurred is left to conjecture. The one indisputable fact, apparent and conceded, is that the horse was turned out to grass, and while so engaged cannot be said to be in the military service. There are a variety of ways in which the accident might have happened, and certain it is that nothing peculiar or incident to military duty caused the same. There is absolutely no connection between the loss and military service.

"The petition is dismissed. It is so ordered."

CLIFTON R. NORTON

"The claimant was a first lieutenant, Fourteenth Cavalry, United States Army, and was required to be mounted. The claimant's horse was in charge of the Quarter-

master's Department, being led by an attendant through the streets of Seattle, Wash., to be placed on board the U. S. transport *Dix* for shipment to the Philippine Islands. The asphalt pavements were wet and slippery and the horse accidentally slipped and fell thereon, injuring itself so severely that it had to be shot.

"The claimant cannot recover. The horse's death was purely accidental. It is asserted in the brief that the horse was frightened by a passing street-car. There is no proof to support the assertion, and, even so, the case is without merit. There is nothing in the record to connect the loss with the requirements of the act of 1885. Petition dismissed."

CONRAD S. BABCOCK

"The claimant in this case was a captain in the First Cavalry, United States Army, a mounted officer. In July, 1910, at the Presidio, Calif., the animal died. The evidence discloses that the horse had been fed upon unwholesome forage—barley with oats, the barley having awns on it—which produced acute enteritis. Two veterinarians testify positively that death was caused by feeding the forage mentioned. A post-mortem disclosed the cause of death and the nature of the illness. On November 26, 1910, a claim for the horse was filed with the auditor, but disallowed. A request for reconsideration was refused.

"We think the claimant is entitled to recover in this case. It appears from the record that not only this horse, but a number of others similarly situated, were made ill by the unwholesome food furnished by the government. The horse was lost in the military service—*i. e.*, the owner had, to the extent of being compelled to keep the horse in government quarters and feed him on government forage, lost that full control over him which would not have obtained in civil life. The cause of death is directly connected with the military service, an incident of a duty assumed by the United States, and it cannot be said the animal died from purely natural causes. It was one of the unavoidable infirmities of the military system of feeding military horses which caused the loss, and the record excludes the possibility of attributing the death of the horse to any other cause. The horse is shown to have been worth $200."

SAMUEL H. BELL

"The claimant was a chaplain, First Field Artillery, United States Army, a mounted officer. On December 12, 1911, at Schofield Barracks, Tex., the horse died from cerebrospinal meningitis. The depositions disclose that just preceding the horse's death he had been ridden by the claimant until, as the witness expresses it, 'he came in rather warm.' The same evening the horse became ill; next day he developed congestion of the lungs, which in the end caused the disease from which he died. It appears that the stall and stable accommodations at the barracks were not of the best, being somewhat open and exposed, but it is likewise proven that this exact condition obtained for some months prior to the horse's demise. It is asserted that death was caused because of lack of proper stall and stable facilities. The veterinarian who attended the horse does not corroborate the single witness who so

testifies. Upon the record before us the case is without merit and the petition must be dismissed. The horse obviously died from illness. At the time of its death it was not being used in the military service, performing no military duty or any duty incident to military service. On the contrary, it seems to have been returned to the stables by the claimant after a short but severe ride and its illness and death ensued almost immediately. The case is to be distinguished from a case like that considered and allowed in 12 Comp. Dec., 777, where the horse was necessarily overridden in the performance of a military duty.

"The petition is dismissed. It is so ordered."

THOMAS C. LONERGAN

"The claimant was a second lieutenant, Eighteenth Infantry, United States Army, serving as battalion quartermaster and commissary, and as such required to be mounted under Army Regulations, 1910, paragraph 1295. On February 27, 1913, his private mount was by proper military order shipped from Fort Mackenzie, Wyo., to Texas City, being at this time in good order and health. About the time of the arrival of the horse at Texas City a sudden and somewhat violent change in the temperature occurred, which, together with heavy rains, brought on a cold spell. The government afforded no stable or shelter room for the horse; he was entirely unprotected in the field, except by a tent erected by the claimant himself, and under these surroundings the animal contracted pneumonia and died. The horse was reasonably worth $175 and lost its life in the military service."

It is to be remembered that the Andrews case was decided by the Court of Claims under the act of 1885. That act was replaced by the act of July 9, 1918, the latter act being now the law governing claims for loss of private property. Passing upon the act of July 9, 1918, the Comptroller, under date of April 22, 1919, rendered a very restrictive decision (25 Comp. Dec., 815). Just what would be the effect of this decision upon any horse claim that might now be referred to the Comptroller it is impossible to state; but I think it may be assumed that, for the present, administration will largely be governed by the Court of Claims' decision, so far as concerns the question of loss of mounts. In the next issue of the CAVALRY JOURNAL I will discuss the acts of March 3, 1885, and July 9, 1918, as well as the act of March 28, 1918, and the general subject of "Loss of private property in military service."

The Rout of the Turks by Allenby's Cavalry*

Palestine Campaign

BY

Colonel GEORGE E. MITCHELL, General Staff Corps

(*Continued from the April number*)

IN THE APRIL NUMBER the campaign was described in detail from the capture of Beersheba to the fall of Jerusalem. In this issue an effort will be made to point out the lessons that we should draw from this remarkable campaign, and to give in detail a description of the methods that were employed so successfully by the British.

COMMENTS ON VARIOUS SUBJECTS

TACTICS

Mounted Attacks.—Mounted charges were made in three lines. A regiment would have a squadron in each line and the interval between troopers would be about four yards. It was found that the very old troopers, who had been accustomed to using the "cuts" in former instructions, were prone to cut in action rather than to thrust. The new men did better with the point. The lines were not kept especially well in charging. There was no definite period which could be described as the mêlée, since the Turk was always dismounted and either surrendered or ran away as a result of the first impact. There was, therefore, no reforming and charging through the enemy again. There was merely reforming for the purpose of pursuit or for the purpose of carrying out some new mission.

There was no fight of cavalry against cavalry, because, before these operations began, the Turkish cavalry, which was very poorly mounted, and armed with the lance, had some very unfortunate experiences with the Australians and New Zealanders. On several occasions in the Sinai Peninsula the latter had "shot them up" and taken all the spirit out of them. The Turkish cavalry thereafter kept so far out of the way that there was no opportunity for the action "Cavalry *versus* Cavalry." There were two or three instances of unsuccessful mounted charges by small bodies, say of 30 or 35 men. They were wiped out by the Turks.

Dismounted Attacks.—The discussion above relates to successful mounted attacks during the operations of the Palestine-Jerusalem campaign. They were exceptional cases. The habitual employment was in dismounted attack. One cannot at this time take up all the dismounted actions, because they occurred practically every day at some point or other, and two divisions or the major portion of the two divisions would generally be on the line. Throughout the campaign the rifles of the cavalry and the guns of their horse batteries were important factors in every advance. By a mounted charge the Australians captured Beersheba, and thus made the whole campaign possible; but it should be borne in mind that only one brigade charged mounted at Beersheba, while five other cavalry brigades fought all day long with the rifle, thus doing their share along with the infantry divisions. After Beersheba, the cavalry led the army northwest and north, although for four days the 60th Division (infantry) kept up with the cavalry fighting line, and later the XXIst Corps (infantry), having at that time two divisions, kept practically even with the cavalry fighting line for a week. At the end of this time two divisions of the cavalry broke ahead into the mountains northwest of Jerusalem. One of them, had artillery support been forthcoming in sufficient strength, might have captured Jerusalem. However, the Turk got his second wind, as it were, and even held off the entire XXIst Corps when it came up. Later, both the Cavalry Corps and XXIst Corps were withdrawn from the Jerusalem area, and the XXth Corps, entirely fresh, after a long rest, and under an exceptionally able commander, was sent in to capture Jerusalem, which it did in short order.

The cavalry was employed, as was the whole army, on the gen-

* This article is based upon accounts of the Palestine Campaign in Nelson's History of the War, "The Times History of the War," and upon the account of Colonel Edward Davis, Cavalry.

eral "principle of three." The army was divided into three corps, and, generally speaking, two corps were employed in breaking off the enemy's flank while one corps held him fast; or two corps were employed in pursuing him while the other corps rested.

The Cavalry Corps was composed of three divisions. Usually two divisions were engaged while the other division rested or was held in reserve. At Beersheba the Australian Division and the Anzac Division were employed, the Yeomanry Division being in reserve. Shortly afterwards the Yeomanry Division was brought in and the Anzac Division rested and found water for their thirsty horses. And thus during the pursuit one division was frequently held out while two were employed.

Each division was composed of three brigades, of which the division commander, especially during the pursuit over the almost waterless plains, employed two, while the third made every effort to water their horses. This system of relief was essential, because frequently the horses were without water for 24 hours. Even a deprivation for 48 hours was suffered by several regiments, and once there was an appreciable number of horses which were without water for 72 hours. These latter, although useless for several days, eventually got back into form and in a surprisingly short time were perfectly fit.

Each brigade was composed of three regiments, which the brigadier usually fought on the principle of two regiments in line and one in reserve. The regiments, being composed of three squadrons each, generally followed the same principle, with two squadrons on the line.

The type of dismounted action described below and developed by the Colonials has since been taken up officially by the headquarters of the Desert Mounted Corps and probably is now accepted by all the British cavalry officers on duty in the corps.

The squadron, being composed of four "troops" (each "troop" commanded by a lieutenant), fights in four lines. In each line the deploying interval is five yards between troopers. The distance between the lines is 100 yards. The first "troop" is the "first line," or "scouts." The "troop leader" is in the center of this line, with his Hotchkiss guns near him for purposes of control.

The second "troop" is the "second line," which merges with the scouts to form the "firing line" when the attack begins. The third and fourth "troops" are respectively the "support" and "reserve" and have the same formation as the first and second troops, except that the squadron commander is in the center of the third and fourth troop, according to circumstances.

Each troop leader, from his central position, can control his line and his Hotchkiss guns. He will have generally only 18 or 20 men in a dismounted line. The Colonials have a definite designated leader for each "set of fours," or "section." When they dismount, No. 3 is the horse-holder, so that on the firing line the "section leader" has only two men to command. As the sergeants are additional to these "section leaders," it will be seen that the lieutenant has plenty of control over his little "troop" of 18 or 20 men. The squadron commander, from his central position, has very definite supervision of both the third and fourth lines and can, therefore, entirely control the reinforcement of the firing line.

By starting with a five-yard interval, the successive lines can be fed in, until at the moment of the bayonet charge the squadron may have one man to a yard or two, allowing for casualties and for a squadron front of at least 100 yards.

The diagrams (see pages 178 and 179) illustrate the squadron formation used not only by the Australians and New Zealanders, who have the single-rank formation, but also by the British cavalry, who have the double rank.

The troop commander and squadron commander did very little signaling with the hands and fingers during the Palestine campaign, because to do so meant having hands and fingers shot off too frequently. The control of the firing line had to depend principally upon the ability of the "leaders" to work together for the common objective, carrying out the orders received at the beginning of the action. It was customary, at the beginning of an action, for the squadron commander to point out to troop commanders the objective of the squadron and to explain how he wished the action to proceed. He might also give the range. After that he depended very largely upon the troop leaders to use their own judgment and to work together instinctively. The Co-

lonials were remarkably good at this mingling of individual initiative with the general co-ordination of their unit's work.

The "advance by rushes" was found to be a poor method of attack and was seldom used. The troops walked briskly straight ahead and directly at the enemy, not halting nor lying down unless actually compelled to by losses. They found that their losses were less by following this method and the effect on the enemy was more marked. He did not like the steady advance. As a rule, troops walked right through to the final moment of the bayonet rush.

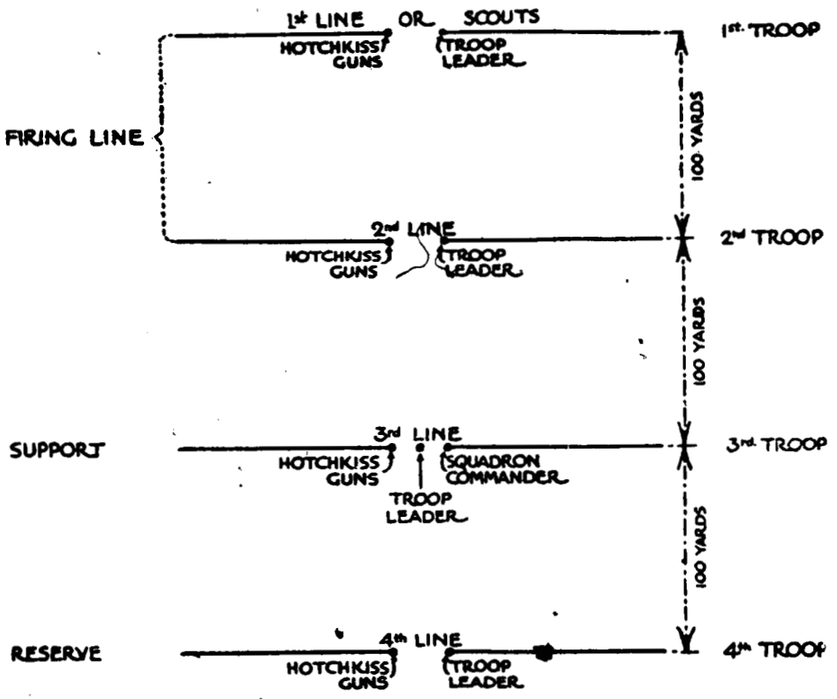


Diagram showing Australian or New Zealand Squadron, fighting on foot in four lines, the troopers having an interval of four to five yards, the distance between lines about 100 yards and the squadron front being about 100 yards. Each troop (our platoon) forms one line; each troop leader (a lieutenant) is in the center of his troop, with his Hotchkiss gun or guns. The squadron commander (a major) is in the center of the third or fourth line.

They expected their artillery and machine-guns to keep the Turk's head down, and they generally did. The Turks fight best behind well-prepared defenses, and during the Palestine campaign, after Gaza and Beersheba, they generally had to fight in the open.

All commanders found by experience that it was far better to hold their real attack until the enemy had been well shaken by

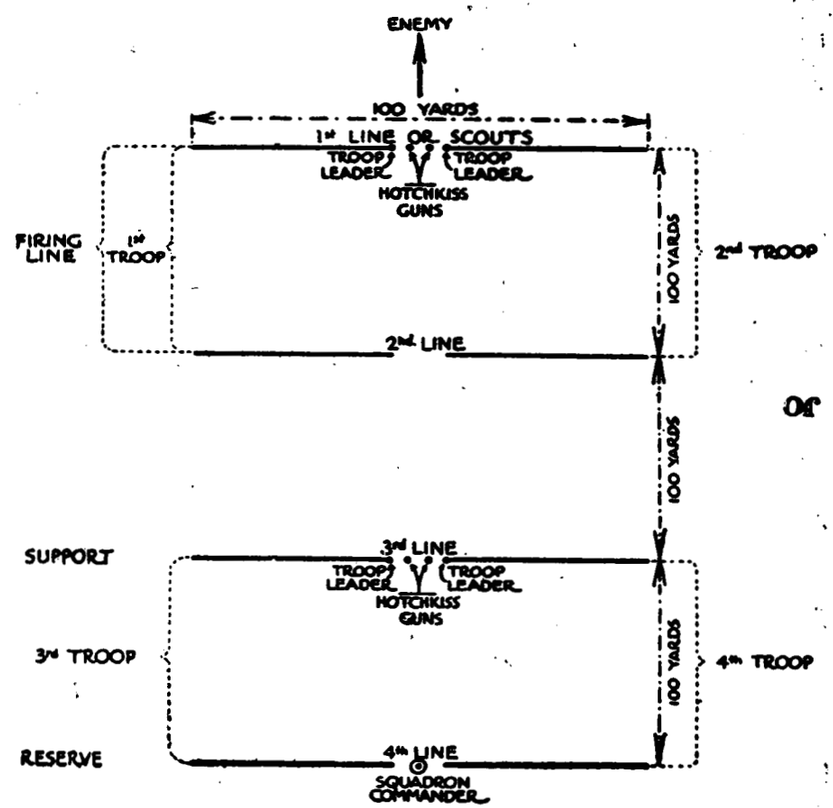


Diagram showing a British Yeomanry Squadron fighting on foot in four lines, with an interval between the troopers of four to five yards and a distance between lines of about 100 yards. Each troop (our platoon) is formed in two lines; two troops are abreast; troop leaders and Hotchkiss guns are in center of first and third lines. The squadron commander is in center of fourth (or third) line, according to circumstances.

artillery and machine-gun fire and by such rifle fire as could be brought to bear. Considerable ability was shown by the Colonials in attacking with just as few men as possible. It may be said, however, that the tendency throughout the entire Palestine army was very marked in this respect. They generally fought their battles with a comparatively small portion of their total effectives. Their strength was organized in "depth" rather than in "front." Thus they always had a good deal "up their sleeve" for the purpose of outflanking the Turk whenever he held on to a position stubbornly. As they had the superiority in number of men, guns, and equipment facilities, they could almost always turn the Turk's flank after he was ousted from the "Gaza-Beersheba" line.

Of course, neither the cavalry nor the infantry always had smooth going, and there were a few instances of great departure from the "principle of three," and times when comfortable reserves were not at hand by any means. One recalls several occasions when the Cavalry Corps had only one small brigade as corps reserve, and several other occasions where there were no corps reserves at all. The corps commander simply had to trust his division commanders to meet their problems with their own reserves.

PERSONAL RECONNAISSANCE

The most successful brigade commanders placed great stress upon personal reconnaissance before entering upon the attack—that is, careful reconnaissance by the brigadier in person, accompanied by his three regimental commanders, the battery commander, and the machine-gun squadron commander. If squadron commanders from the three regiments could be included, they were. In the meantime all the units were resting or coming ahead under "the second in command." This officer, always available, was a great help, in that the commander could always go forward for reconnaissance, feeling that his unit would come forward under the "second in command" without disturbing some subordinate unit commander, in order that the latter might temporarily command the next higher unit. During these personal reconnaissances the brigadier planned his attack and gave his orders to his regimental commanders, his battery commander, and machine-

gun commander, assigning each his sector, his objective, his task. Regimental commanders did the same with their squadron commanders, and the latter pointed out to their troop commanders everything about the enemy position and what the troop was expected to do. The troops were then committed to the action, and the results they achieved depended in great measure upon the care with which the reconnaissance had been made. It was important always to avoid a hasty reconnaissance. The ability to make a deliberate reconnaissance and to refuse to be hurried came with experience during the campaign.

EFFECTIVE RANGES

As a rule, there was no real danger from Turkish rifle fire at 1,000 yards. The decisive range was between 600 yards and 450 yards, and nearer the latter.

LED HORSES

The British secured their horses, in fighting on foot, by sets of fours. No. 3 was the horse-holder. Sometimes the "second in command" assumed charge of the horses; sometimes the squadron sergeant-major. It is his duty to keep in touch with the dismounted troops and at the same time to keep horses under best cover. Coupling horses by twos had to be abandoned, on account of enemy aëroplane bombing and machine-gunning. The same applied to tying horses in a circle. They have to be held in the old way, so as to have men enough with them to keep them quiet and move them about if a hostile plane comes along.

ARTILLERY SUPPORT

Each cavalry brigade had a four-gun battery of 13 pounders. This battery was considered rather as *belonging* to the brigade instead of merely being affiliated with it, as was the rule in the infantry. The infantry arrangement was better, it is believed, in this campaign, because with them, where a battery was merely affiliated with a brigade, the divisional chief of artillery could switch the battery about as he pleased without having to consult the brigade commander. He could place all of the batteries ac-

cording to the tactical necessities of the division; but with the cavalry this was not so easy, because brigadiers had more the attitude of ownership toward their batteries. On the other hand, a cavalry brigade must always be ready to move quickly to another position in order to take advantage of its mobility, and for this reason the brigadier wants his battery under his own orders.

The 13-pounder gun was substituted for the 18-pounder gun after the Sinai Desert operations and before the Gaza-Beersheba-Jerusalem operations. It was decided that the 18-pounder gun was too heavy for the horse artillery. Undoubtedly it was, in the desert. The corps chief of artillery stated that every battery commander except one had found the 13-pounder more satisfactory than the 18-pounder. It was powerful enough in its effect on the enemy and, of course, greatly superior as to mobility, not merely on the march, but especially when the pieces had to be manhandled. The corps chief of artillery stated further that, in his opinion, the 13-pounder gun would be just as satisfactory in the country north of the Jaffa-Jerusalem road as it had been south. The observer asked this question because south of the road mentioned there is much sand and mud, while north of it the terrain changes to a country of harder roads, where heavier guns are quite mobile.

In practically every case the horse artillery co-operation was satisfactory to the cavalry in both promptness and accuracy.

Most of the brigadiers in the beginning had an insufficient knowledge of their batteries and as to how they ought to be employed. A cavalry brigadier is only half a brigadier if he is lacking in a keen appreciation of his battery's value.

The extreme range of the 13-pounder is 6,500 yards, but the rule was to try to get within 3,500 yards, avoiding the longer ranges. The corps artillery chief felt the need of howitzers on many occasions and had tried to get 4.7 howitzers to use as corps artillery, but was unable to procure them. His function in the corps was advisory and he had no actual corps artillery except when the artillery of the three divisions was concentrated, and this happened only once, viz., at Beersheba. He was in charge of

all phases of artillery instruction and also supervised the question of ammunition supply for the corps.

The gunners were armed with revolvers. They had tried arming them with carbines, but found difficulty in properly handling their guns with carbines slung on their backs, whereas carbines strapped on the carriages were always too difficult to get at in a hurry, and if carried on the horses they were never at hand when wanted.

Battery commanders generally dispensed with a battery escort. The rule was that a battery commander had full authority to call on the nearest squadron for an escort, if he thought that an escort was necessary.

The problem of proper communication, of a reliable sort, between the brigadier and the battery commander was difficult. Much can be done with a semaphore, but it was the opinion of all commanders that "liaison officers" should be trained for this work and employed habitually as gallopers. If officers are not available, selected non-commissioned officers should be used.

MACHINE-GUNS

Under the head of artillery we may refer to the 12 machine-guns of the Machine-Gun Squadron. These guns, together with the machine-guns and the Hotchkiss guns of the three regiments, were sometimes handled as a brigade force in connection with the fire of the horse batteries.

On a considerable number of occasions cavalry brigade camps and bivouacs were bombed and machine-gunned by enemy aircraft, which paid especial attention to the picket lines, where the horses offered a large and vulnerable target. The danger to a cavalry brigade in this respect is obviously very great. It is thought that one, and preferably two, anti-aircraft guns should be attached to each horse battery. Unless such a provision is made, there will seldom be any anti-aircraft guns at hand and a disaster may result. A cavalry brigade in camp is easy pickings for hostile aircraft. Anti-aircraft guns will keep them up where they can do little damage.

The cavalrymen of the Palestine Army frequently felt the need of some sort of a small anti-machine-gun for use against the machine-guns. This was especially true when a brigade was operating on so wide a front that the horse-battery guns were too few in number to cover the front. What they needed was the French 37-millimeter gun, designed for this very purpose. The French gun has, however, only been employed in position warfare and would consequently have to be differently mounted for cavalry work. Besides, such a gun is too great a refinement for open warfare, where complexity of instrumentalities should be avoided on account of the difficulties of supply.

AMMUNITION SUPPLY

In most of the mounted regiments the trooper carried habitually 200 rounds of rifle ammunition, viz., 130 in a bandoleer worn over the shoulder, 60 in a bandoleer carried on the horse's neck, and ten stuffed in any convenient pocket or elsewhere in the clothing or equipment. This supply was found to be sufficient. The amount carried in the bandoleer of the soldier and of the horse could, of course, be varied according to the soldier's comfort.

Each regiment had a supply of 21,000 rounds of small-arms ammunition, carried in a limber in "The First Line Transport." All transport was, as a rule, brigaded.

BOMBS AND INTRENCHING TOOLS

The troopers did not carry individual intrenching tools. Each squadron had with its First Line Transport two pack animals which carried intrenching tools and one pack animal which carried 40 bombs, together with the signal supplies for the squadron.

RATIONS AND FORAGE

When the trooper started out in the morning he carried the unconsumed portion of the day's ration which had been issued to him and one iron ration. In addition, the First Line Transport carried one day's ration per trooper, and the ration reserves followed in the divisional train and the supply columns. One or two

days' grain was carried on the horse and one day's grain in the First Line Transport.

HORSESHOEING

They had for each "troop" of 25 to 30 horses one horseshoer. For each "squadron" (or four troops) there were both a sergeant horseshoer and a corporal horseshoer; so that for a total of 150 horses of all sorts they had six horseshoers. It follows that they kept their horses shod a little better than we did in pre-war days. They shod their horses every three to four weeks, using plain full-shaped shoes, without tips or other modifications.

Their regulations called for two hind shoes and two front shoes to be carried on the horse in active service. This provision was, however, abolished, and the trooper carried one fore and one hind shoe.

When the big push was started, field forges were left behind; but they came along later, with the heaviest baggage of the corps.

SORE-BACK HORSES

These were not numerous. It is my belief that the Colonials had fewer than the British Yeomanry. The difference was due to two causes: (*a*) The Australian and New Zealand regiments had a considerably larger proportion of men who knew how to ride before the war; (*b*) the Australians and the New Zealanders carried the rifle on the trooper's back, whereas the Yeomanry carried it in the regulation British cavalry rifle boot, which hangs from the off side of the cantle. The Australian and the New Zealand officers are positive that carrying the rifle on the trooper's back avoids giving the horse a sore back.

Another reason advanced for the small number of sore backs was, according to many officers in the campaign, the British service saddle and blanket. This saddle is now quite well known among American officers. It has a long record of efficiency behind it. It presents no problems of any kind in manufacture. The blanket is mentioned because it is made of good stuff and is of looser weave than ours.

An Australian officer of high rank and long experience stated that in the South African War the Australians used a stock sad-

dle of the normal type, which produced many sore backs. Since they adopted the British service saddle they have ceased to consider the question of sore backs as of importance.

HORSEMANSHIP

This was neither better nor worse than ours. The Colonials rode with a longer stirrup than the Yeomanry, and many of them stuck their feet out to the front quite noticeably. The Colonial is a loose-jointed rider; the Yeomanry trooper pays more attention to a stiff, upright seat.

CARE OF EQUIPMENT

They were much like ourselves in this respect. The British do a little bit better than we do in the care of leather; they have a certain tradition in this matter. One saw just about as many dirty bits and saddles, on the average, as one would see among American cavalry troops under like circumstances of active service. Clean equipment depends, the world over, upon the watchfulness, inclinations, and energy of commanding officers.

No difficulty was experienced in keeping the felt pads of saddle side bars clean. The saddle is merely placed on end, instead of putting the side bars on the ground or putting the saddle on its back. The matter is mentioned because in our service this point has been made in arguments against the use of these pads.

CARE OF HORSES

By this is meant the larger phases of the question from the remount standpoint. The British and Australians had a more farsighted system in this respect than anything we had in the United States Army prior to this war. In the first place, they were more rigid in their requirements as to feeding four times per day in camp and three times per day on the march. All hands were very earnest in carrying this out, and of course the general health of the horse was benefited thereby.

They were also rather quick to discard a horse on the march if he had lost in condition or health, so that he promised to become a drag on the command. Such a horse or a wounded horse would be

sent to the "Mobile Veterinary Section" of the division, where he would be treated and brought along by easy stages, or sent back to the veterinary hospital at the base if he seemed to need a long time for recovery.

RATE AND GAIT OF MARCHING

Most of the cavalry marching during the campaign was at the walk—four miles per hour. As heretofore stated, there was only one long approach march, and that was at night and practically in the face of the enemy outposts. This was the march to points of deployment southeast and east of Beersheba. From that time on, contact with the retreating enemy was so close that there were no long marches to make.

The Australian and New Zealand troops are practically unanimous in favor of the four-mile walk for a cavalry column advancing with its artillery, its wagons, and its ambulances. It must be borne in mind that they are not armed with the saber and have not been trained along the lines of the British regular cavalry, with its traditional adherence to the idea of the "galloping cavalryman" and the "arme blanche." The most experienced of these Colonial officers say: "If you trot or canter a good deal, you detach yourself from your guns, your ambulances, and your essential First Line Transport, which cannot keep up. You cannot fight effectively without them. Also, you knock out your horses too much. The thing to do is to march steadily, at the rate which will keep all the effectives of your brigade or division together, until you are so near the enemy that your reconnaissance reveals what positions are the most valuable, then use your mobility—that is, take up the trot, canter, gallop, or run—in order to seize the positions you want or get around the enemy's flank.

The Yeomanry, who are armed with the sword and who adhere to the traditions of the old British regular cavalry, state their case as follows: "By using the canter or trot freely, you reduce the time the horse marches with a heavy load on his back, and this is better for the condition of the horse. You also preserve the spirit of dash and aggression, which is essential to cavalry; you increase your opportunities for charging with the sword, which will gain you more enemy prisoners and guns captured in a shorter space of

time and will keep a faster pressure on the enemy, thus tending to demoralize him."

The above constitutes what these people have to say for themselves. The commanding general of a certain British infantry division, which did more substantial, brilliant, and consistent work than any other unit in the entire Palestine Army, remarked as follows: "The Australians and New Zealanders are the best attack troops of the Empire."

The Australian and New Zealand mounted troops had noticeably fewer sore-back horses than the British Yeomanry, had a smaller number of horses knocked out for other causes on the march, lost fewer men in action, and were much more certain to gain tactical and strategical advantages than were the Yeomanry. Not all of this superiority resulted, of course, from the fact that they had a different system of marching. Some of it came from the fact that they carried the rifle on the trooper's back, some from the hard common sense and shrewdness of their officers as applied to the game of man-hunting, and much of it from the quality of their troopers.

ARMS

The British Yeomanry officers have great faith in the saber, or sword, and in the possibilities and effectiveness of the mounted charge. They have accepted with great reluctance the lessons of warfare which have forced the cavalryman to learn to shoot a rifle effectively. They see the handwriting on the wall, but they have not yet succeeded in studying it out thoroughly, so that they really understand it. They say that the Colonials are brave fellows and mean well, but that they are "too slow;" that they ought to gallop more and make more mounted charges.

The Australians and New Zealanders almost to a man say that "the sword (saber) is not worth carrying and ought to be discarded; that in three years of warfare on this front there have been only eight mounted charges; that four of these were of no significance, aside from the fact that those who made the charge accomplished the feat without being wiped out, and that of the four important charges the most important was made by the Australians, holding their bayonets in their hands."

As the Colonials are not armed with the saber (sword), and have not been trained in its use, and have no historical appreciation of it, there is no factor to keep them from being perhaps unfairly prejudiced against it and too sweeping in their condemnation.

The bayonet is being issued to all British mounted troops in Palestine and Mesopotamia.

Bombs are issued to all mounted troops in Palestine, and they are prepared to use them when circumstances necessitate.

Neither the Yeomanry nor the Colonials have had any experience of any value with the pistol. Their opinions are either blank on the subject or they have that great faith and zeal for or against which sometimes comes from complete ignorance. Only officers and the highest ranking non-commissioned officers are armed with the pistol or revolver.

While the trench mortar is not of interest to a cavalryman in his normal employment, it is pertinent to remark that a certain infantry division, well known to fame locally, made their trench mortars mobile by lugging them about in any available transport and found them most useful in open warfare. They assist the artillery barrage most effectively and are especially good in denying the enemy the use of deep ravines and similar avenues of approach. Difficulty of ammunition supply is their greatest handicap.

The cavalry were as devoted to their Hotchkiss guns as the infantry were to their Lewis guns. Each "troop" had one Hotchkiss gun and sometimes two.

Signal Lines

CORPS COMMANDER'S LINES OF INFORMATION

In a command the size of a cavalry corps the question of the lines of information, upon which the control of the corps depends, is of the first importance. The corps at times would have a front of from five to ten miles and at other times it might be separated in two sectors—that is, on both flanks of the infantry—these two flanks being ten or fifteen miles apart and corps headquarters be-

ing several miles to the rear. Generally speaking, intercommunication between corps headquarters and the various elements of the corps was very satisfactorily maintained. The various means employed were:

(*a*) The buzzer, or cable.
(*b*) Wireless.
(*c*) Heliograph.
(*d*) Lamps.
(*e*) Flags.
(*f*) Motor-cyclists.
(*g*) Gallopers, or mounted officers.
(*h*) Mounted soldiers.
(*i*) Pigeons.

With the exception of the "gallopers," all of these means of intercommunication were under the direction of the "A. D. A. S.," or "Signals," or, as we would call him, the signal officer, and the personnel was supplied by the Corps Signal Company. The "gallopers," three in number, were directly under the orders of the "B. G. G. S."

The function of the signal service of the corps was to keep up communication with general headquarters, to the rear; with the divisions forward, and with other corps laterally. The responsibility for the maintenance of all this rested upon the corps signal officer, except that the army signal officer had the responsibility for the communication from general headquarters up to the corps.

The division signal service functions, relative to brigade and corps headquarters, in exactly the same way as the corps signal service functions with respect to army and division headquarters.

THE INSTRUMENTS OF INTERCOMMUNICATION

(*a*) The buzzer was used very successfully, as it is faster and more reliable than the wireless or visual signaling. Every effort was made during the campaign to keep constant buzzer connection with the divisions, but there was a time between Beersheba and Huj when buzzer communication broke down entirely and wireless had to be used. To maintain communication with each division, corps headquarters had for each division one cable section of two detachments. If at any time another corps sent a division for temporary duty with the Desert Mounted Corps, a cable section came with that division. Each of these two detachments of the division cable section had ten miles of cable. A section was

charged with maintaining cable to a certain division, one detachment staying at corps headquarters while the other went out to division headquarters. The officer commanding the section went with the detachment sent to a division or he stayed at corps headquarters, depending upon the circumstances. As the division went forward a cable-wagon laid out cable behind it toward the new location of division headquarters. If corps headquarters went forward, at the same time, the old station was kept open behind until the new lateral lines were laid, if necessary, between the new stations of corps and division headquarters.

The division cable-wagon should follow behind the division and not be up at the head of the column; but sometimes in the recent campaign a division commander thought it more convenient to keep the cable-wagon at the head of the column, near his staff. This practice frequently led to the cutting of the cable or the shortening of its life by the march of the division itself. The division cable-wagon should always have clear communication with corps headquarters while marching, so that it can be stopped or given other directions at any time. If it is marching at the rear of the division column, it can keep in touch with its own division headquarters by proper use of mounted orderlies.

As corps headquarters went forward, leaving its line in the rear, this line was, in principle, taken over as "army line" and was made, when practicable, into an "air line" for army use. The "air-line section" of the corps signal company is always at the disposal of army signals for the construction of this air line. The cable of abandoned stations was collected whenever possible, but sometimes the corps moved so rapidly that such process was out of the question.

(*b*) *Wireless.*—This was used with extraordinary success, due not so much to any special features of terrain or atmosphere as to careful preliminary practice of the operators and other personnel. The set which met the situation best is the pack set, with a range of 25 to 30 miles, carried either as wagon or pack set. Its portability is its greatest asset. Four Ford cars will carry the entire equipment and personnel with two days' rations and water. A larger set, with a radius of about 80 miles, followed with the heavy

baggage of the corps. Each division carried two wagon sets, using limbered wagons for transport; two sets are carried by each division, so that one can keep station open behind when the division leaves for a new station.

The trench sets, with a range of five miles, were not much used. They were considered as experimental for cavalry, on account of the difficulty in transporting accumulators. Inconvenience was experienced by reason of the spilling of acid out of the accumulators. However, these trench sets were used considerably by the infantry in the works around Gaza.

(*c*) *Heliograph.*—The heliograph was employed very satisfactorily, working continually during battle periods. The ranges used were not very great; generally 10 or 15 miles. Like other visual signaling, the heliograph was used only as *secondary* communication between *corps* and *divisions;* but its use between divisions and *brigades* was frequently the only available means of communication.

Some experiments were made in heliographing by moonlight. An exchange of heliograph signals between the town of Ramli and a camp about three miles distant was accomplished. With all conditions very favorable, moonlight heliographing can be done to a small extent.

(*d*) *Lamps.*—The night lamps, or electric signaling lamps, had too short a night range—that is, three to eight miles—to be useful; but what was known as the "daylight lamp," which had a night range of a little more than 15 miles, was used instead. This daylight lamp used electric light from accumulators and was employed as a substitute for the heliograph on cloudy days, up to a range of about six miles.

(*e*) *Flags.*—Flags were not used much by corps headquarters, because distances to divisions were always too great. On a few occasions they were used somewhat, when the corps reserve troops were camped near headquarters.

(*f*) *Motor-cyclists.*—The motor-cyclist service was invaluable. It was used regularly for long messages not of an urgent character, in order to relieve the buzzer and the wireless. Whenever corps headquarters settled for a stop of any length, a "despatch rider's

letter service," with two deliveries daily to each division, was generally in operation on the second day. There was frequently much for this service to do, as it really took the place of postal service for certain correspondence—the sort that always comes forward regularly from the adjutant and quartermaster branch. Strict control was maintained over the use of motor-cyclists; a special messenger could only go out by direction of the chief of staff or his senior assistant.

(*g*) *Gallopers.*—Three officers, each with three good mounts, were employed as gallopers when other means of communication had broken down, or when especially important messages, such as operation orders, for example, had to be sent out at night, or when the command was moving and an intelligent messenger was required in order to insure delivery. When moving into a new area, these gallopers were sent out frequently during the day, when they could be spared, riding over the roads and trails, in order to know the country in anticipation of night work.

The incidents of the campaign proved very clearly that all large cavalry units should be prepared to use gallopers, and steps anticipating their use should always be taken before a command goes into the field.

(*h*) *Mounted Soldiers.*—Mounted soldiers were used for local messenger service at corps headquarters, for night work instead of motor-cyclists, and for mounted relay posts. Motor-cyclists could not get around well at night in a country like Palestine. The roads were rough and the enemy sometimes so near that the use of the motor-cycle headlight was impracticable. Mounted relay posts were found useful. They require careful organization, and the authority for placing or moving them should also be responsible for feeding them. When one division of the Desert Mounted Corps got into the mountains north of the Jaffa-Jerusalem road, there was a period when mounted relay posts formed the only absolutely certain means of reasonably fast communication.

(*i*) *Pigeons.*—Pigeons were used frequently during the operations, and in fact had been used as far back as the days when the

army was in the Sinai Peninsula. The pigeons are kept with corps headquarters in baskets and are looked after by the personnel of the signal company.

DAILY ROUTINE AT CORPS HEADQUARTERS—ON THE MOVE

The daily routine at corps headquarters, as the army moved forward, was interesting and instructive. In order to avoid changing his headquarters too frequently—a change might mean a serious interruption in his lines of information—the corps commander would try to keep his camp headquarters in one place for three or four days, establishing each day his "battle headquarters" close up behind his divisions, utilizing the best available hill for this purpose. Early in the morning the entire staff, accompanying the corps commander, would leave the headquarters camp in automobiles and go to the "battle headquarters" selected for that day. The horses of the staff were saddled and taken to the "battle headquarters" by the grooms, for use if necessary. The three mess-cars also proceeded to "battle headquarters," with another light car carrying a few camp tables and office material. The signal cable-wagon, or cable-car, followed the staff, laying out cable from headquarters camp to "battle headquarters," and the wireless set likewise went along. Arrived at the hill selected for "battle headquarters," the corps commander seated himself at some point of vantage, with the "B. G. G. S." (chief of staff) and the "B. G. R. A." (chief of artillery) near him. The "B. G. G. S." selected points near by where he required the staff officers of the operations, intelligence, and signal services to set up their field tables and arrange their maps and other material for the day's work. The signal service was always the busiest spot, with messages constantly coming in by buzzer and less frequently by wireless from the divisions out in front. The divisions were working with their cables back to corps headquarters camp, from whence the messages came forward to "battle headquarters" over the cable which had been brought along. Out in front one could see heliographs flashing at many points along the front, keeping up communication between regiments, brigades, and divisions, laterally and in depth. The first messages in the morning were the

situation reports from divisions, telling what the various brigades had done during the night and just where their lines were at daybreak. A little later an aëroplane generally came over and dropped a message, giving the result of the early morning air reconnaissance by the army headquarters squadrons. From time to time during the day messages of various sorts were dropped by planes. No aëroplanes were regularly attached to Desert Mounted Corps headquarters, as they were all employed by the infantry corps and by army headquarters.

During the morning the buzzer brought in reports of progress from time to time, with now and then an anxious inquiry from some commander who wanted to know whether his flank was really being looked after, or a report from another that his horses could not be moved on account of lack of water, etc. Some frequent messages were that "the village of X is reported all clear;" "the —— brigade is held up along the Wadi Surar by machine-gun fire;" "enemy is reported intrenched on the line A-B-C, strength about ——;" "—— brigade reports enemy counter-attacked heavily with 1,000, but was driven back with casualties of about 400; our casualties, 120," etc.

At times during the day the corps commander would visit a division or brigade, leaving the "B. G. G. S." in charge of "battle headquarters." Sometimes both would be away at the same time, which always caused the staff to "kick" earnestly (after they had gone), because of the danger that something might come up requiring a very important decision, with no one present to assume the responsibility. The commander of the corps reserve troops would sometimes appear at "battle headquarters," though he generally kept away from it.

The Army Commander-in-Chief, who was habitually at the front, was a frequent visitor at corps headquarters, sometimes accompanied by the chief of the general staff. The neighboring corps commanders occasionally came for a conference.

Great freedom of action and the corresponding responsibility pertained to the functions of the "B. G. G. S." (chief of staff). He was assumed to be a specialist in operations and therefore was expected to submit daily, and did submit, a complete plan of oper-

ations for the following day, which the corps commander would adopt, modify, or disapprove, according to his own estimate of the situation. Frequently the "B. G. G. S.," at the end of the day, prepared and issued the operation order for the following day without even showing it to the corps commander. They had had a preliminary discussion, of course, but after that the corps commander consumed no time over commas, periods, and phraseology. The brigadier-general in charge of the supply service was likewise given the very greatest freedom of action. In decentralization, at least, the British are far ahead. It is one of the things the war has taught them.

At dusk "battle headquarters" would be broken up, or perhaps would become the site of the regular headquarters camp, all impedimenta having been brought up from the old site. Then the next day new "battle headquarters" would be established.

SELECTION OF SITE FOR CORPS HEADQUARTERS—ON THE MOVE

The commander of a cavalry corps must give serious thought to the selection of his headquarters camp from day to day, as the corps moves forward, because of the importance of keeping his lines of information in good working order. He naturally feels that he ought to be close to the front, in order to see everything himself; but this is a feeling which he must constantly oppose if it means a too-frequent move of his headquarters. At one period, early in the operations, the corps signal officer was in despair at the numerous complete moves of the headquarters camp, as a result of which his lines of information broke down, the signal personnel and material being unequal to the frequent shifts. The institution of the daily "battle headquarters," with cable connection back to the regular headquarters camp, was a practical compromise and it worked well, because cable communication with the divisions and separate brigades was never interrupted.

When the regular headquarters camp was to be moved, everybody packed up as nearly as possible the night before, and the camp itself was taken on to the next site, starting early the next morning, under the direction of one of the staff. A buzzer, or cable, station was kept open, however, at the old site, in order to

keep up communication with the divisions and with "battle headquarters" for the day, until a new cable station was opened at the new site of the headquarters camp. In the meantime the corps commander and his staff had gone to "battle headquarters" for the day, moving at dusk to the new headquarters camp, which had in the meantime been properly set up and arranged.

SUMMARY

The following notes, based upon the experiences of the cavalry during the campaign, are of interest and present the conclusions drawn by the British officers:

Staff Work.—1. In order to take full advantage of the mobility which mounted troops possess, it is necessary—

(*a*) To use warning orders freely.
(*b*) To think well ahead, as regards both reconnaissance and preliminary dispositions.

For instance, it can often be assumed that, whatever move is ordered, certain groupings will be required or certain detachments necessary, either as advanced or flank guards; yet formations not uncommonly wait to receive the orders before arranging such groupings or making such dispositions. Similarly, sometimes no effort is made to collect subordinates beforehand, in order that they may be ready to receive instructions when decided upon.

These are matters of staff work, but they apply nearly as much to commanders of regiments and squadrons as to those of higher formations.

Approach Work.—2. It does not appear that large formations of mounted troops can be expected, except under very favorable conditions, to move much faster than infantry formations. This is indicated, not only by recent events in Palestine, but also by experiences in France. Mounted troops are more tied down as regards routes than infantry and take longer to get on the move, unless they are kept in a state of complete readiness.

On the other hand, the rate of march can, of course, be maintained much longer. The chief advantage which mounted troops

possess in an approach march is, however, that they arrive fresh on the scene of action. The Battle of Beersheba provided a very good example of a long night march followed by a surprise attack—an operation which could only have been carried out by mounted troops.

Reconnaissance.—3. (*a*) In a pursuit where close contact with the enemy is maintained, there is small scope for the employment of reconnoitering detachments, and consequently we have gained little new experience in this direction during the recent operations.

Speaking generally, the nature of the Palestine plains is such as to preclude the possibility of concealment and stealth in the service of reconnaissance. Consequently one must be prepared to acquire one's information by the employment of force, and the squadron will ordinarily be the smallest body to whom it is advisable to entrust a reconnoitering mission; often a whole regiment will be required. Since in the mountainous districts small detachments are liable to be cut off, the same rule of large detachments for reconnaissance holds good here also.

In the sand-dunes, however, and for reconnaissance of hostile night outposts, small patrols give good results.

(*b*) There is a general consensus of opinion in favor of standing, rather than moving, patrols at night, except in very open country or on bright moonlight nights, when movement is possible anywhere. It is found that moving patrols are unable to hear, and that they can easily be avoided or captured.

(*c*) Visiting patrols along a line of pickets or outposts are not favored, for the reasons given above and because they enable the enemy to define the protective line.

(*d*) A sharp gallop at the flank of a suspected position usually made the enemy disclose himself.

Mounted Attack.—4. (*a*) Six mounted actions were undertaken by portions of the corps. In all six the objectives were gained with relatively small losses. In the majority of instances the action took place in close co-operation with the infantry.

(*b*) The following conclusions can be drawn:

(*i*) Mounted troops are capable today, as in the past, of crossing a fire-swept zone, so long as they move directly, quickly, and extended. In most of the attacks the squadrons of each regiment followed one another in a succession of waves. They were carried through at the gallop.

(*ii*) The normal effect of a mounted attack has lost none of its potency. On one occasion the horses were so exhausted after the long gallop that the enemy, if he had stood his ground, could have shot down our men with ease as they topped the crest.

(*iii*) It is in close co-operation with infantry, and not when acting independently, that mounted troops may expect to find the most favorable conditions and to gain the most far-reaching results.

(*c*) The importance of keeping the led horses close up was illustrated on more than one occasion. It was this alone which enabled the Turkish counter-attack on November 15 to be dealt with promptly.

Dismounted Attack.—5. (*a*) The delaying power of a few machine-guns against a dismounted attack was found to be very great. It is clear that operations by cavalry which involve a series of dismounted attacks will not progress any faster than infantry operations. The extra speed at which mounted troops can move is counteracted by the smaller gun-power. Moreover, the time necessary for previous reconnaissance and other preparations, including the artillery plan, is identical in both cases and is usually long in comparison with the time taken for the actual attack.

(*b*) It is, therefore, clearer than ever that mounted troops must only engage in a frontal attack dismounted as a last resort, and that before doing so they must be quite certain that they cannot obtain their objective either by a mounted attack or by a threat round a flank. As a rule, the only method of obtaining this information will be by trial.

(*c*) When, however, it is necessary to carry out a frontal attack dismounted, it must be organized, like an infantry attack, in

depth, and must be supported by concentrated artillery fire. This phase of cavalry tactics needs to be carefully studied.

Artillery.—6. (*a*) The necessity for close liaison between the cavalry commander and the artillery at his disposal, and also for prompt initiative on the part of battery commanders during a mounted action, is clearly laid down in instructions, and was unmistakably emphasized during the recent operations. Non-commissioned officers must be trained for forward observation, as officers cannot always be spared for this duty.

(*b*) Deliberate or desultory fire on a hostile position was found to have little effect. The destructive power of 13-pounders is very small. The aim must be to obtain moral effect by means of a concentration of gun-fire for a short period and at a rapid rate. Accuracy is a secondary consideration.

(*c*) There was a tendency to waste gun-power by leaving batteries with the brigades to which they are affiliated, instead of concentrating them in support of the operation which was at the moment most important.

(*d*) The value of enfilade fire, even by one gun, was proved to be great. In this case accuracy, of course, assumes great importance.

Machine-guns.—7. The official instructions on the handling of machine-guns are followed with success:

(*a*) In mounted attack the guns were used both in support of the attack and for pursuit by fire.

(*b*) In dismounted attack the necessity was proved for pushing them boldly forward to overcome minor resistance.

(*c*) Ammunition supply in no case failed.

(*d*) The distribution of guns was usually two with each regiment and six under the hand of the brigadier.

Hotchkiss Rifle.—8. (*a*) The Hotchkiss rifle proved itself very valuable in both attack and defense, and especially, as had been anticipated, in the defense of small tactical points. This last circumstance emphasizes the desirability of continuing to look upon the Hotchkiss as a troop weapon.

(*b*) There was a tendency to use the Hotchkiss at too long a range, though they were found to be effective, in the hands of experts, up to 1,200 yards.

(*c*) In dismounted attack they were used with success with the most advanced troops. They were able to work forward into positions from which they could cover the advance of the remainder of the squadron and of machine-guns.

(*d*) It was found to be very difficult to crawl with the rifle, which requires some sort of hand-sling.

(*e*) The falling out of Hotchkiss pack-horses in a mounted attack must be made a matter of drill.

Intercommunication.—9. (*a*) Visual signaling and wireless were used a very great deal. Both methods are slow and unsatisfactory compared with cable; so that every endeavor was made to keep up cable communication. It was found impossible, however, to maintain it continuously.

(*b*) Mounted relay posts have been found useful. They require careful organization, and the authority placing or moving them should also be responsible for feeding them.

(*c*) All formations must be prepared to use gallopers when all other means of communication break down. This is nearly sure to occur sooner or later. Gallopers should be sent out during the day to find the way, in anticipation of having to be used at night.

Conclusions

Armament and Training

(*a*) Our armament is correct—the rifle, pistol, and saber. We shall probably have to add the bayonet. It is unnecessary to dwell upon the reasons why the rifle is the principal arm of the cavalry; they are obvious. The cavalry soldier must do his share of the fighting, and in order to do so he must be able to shoot a rifle effectively. Armed with only lance or saber, he must wait for opportunities which are so infrequent that he will not be worth maintaining. With the rifle he is equal to all the ordinary situations, and with the saber he can meet the extraordinary situations.

We should continue the great attention which we have traditionally given to dismounted-fire action—a factor which made our cavalry at the beginning of the war vastly superior in efficiency to any European or other cavalry.

We should not discard the saber, but we should greatly reduce the time given to saber instruction, and we should not always be lugging it about with us on every practice march, great and small. A command should not indulge in fancy saber drills—musical, unmusical, silent, or otherwise—unles it has, as an organization, reached the highest state of efficiency in horsemanship and rifle and pistol shooting. It is upon these that we should put our time. There are those who believe that the fancy saber drills give the trooper a certain suppleness of the wrist. Not one of the mounted charges of the Palestine campaign owed its success to any refinement of swordsmanship or to suppleness of the wrist, but rather to rigidity of the soul and a determination to ride the enemy down. The Australians did it with a bayonet; the Yeomanry with the sword. Both attained success by fearlessly riding into the enemy.

The trooper should be taught that the saber is the great weapon of special opportunity. He should be taught that these moments are rare, but that they may be priceless when they do come. His instruction should be simple. In the words of a British army commander, "Point your sword right at your enemy's belly, and ride him down." That is short, if not sweet.

By reducing our saber instruction to the very simplest terms and by associating it invariably with fearless straight-ahead riding exercises, we shall be able to get full value out of it in the very few opportunities that are going to present themselves, and in the meantime we will have much more time for instruction in horsemanship and with the rifle and pistol. And we shall gain one more great thing—the soldier will respect the saber more than he does now, and he will have more faith in it. When you tell an American cavalryman that mounted shock action is the principal rôle of cavalry, you weaken his faith in the saber, because he cannot accept your proposition. Show him by facts that he must be ready for possible mounted charges of rare frequency; make a fearless rider out of him, because that is his job; refrain from belittling the saber in his eyes by futile, fussy drills; allow it to be drawn only for fast, hard, galloping work, and it will have friends even among those who are now impatient with it and who wish to throw it away.

It is very likely that we shall find it necessary to give a certain amount of instruction in the use of the bayonet. If some genius can devise a saber that will also serve as a bayonet, we shall have reason to be duly grateful.

Our cavalry brigades and their horse batteries should be in suitable brigade garrisons, so that the brigadier can take his brigade out and keep it in training, at the same time keeping himself in training. Of the many excellent brigadiers available to command our cavalry brigade, probably not one has ever seen a cavalry brigade in action with its artillery, its machine-gun squadron, and other auxiliaries.

There is one thing that the cavalry in Palestine never succeeded in working out successfully, and that was quick communication between a marching cavalry patrol and an aëroplane scout. They had the ordinary checker-board cloth square, which is portable and with which a great many combinations are practicable; but it is slow. They tried signaling by lights, but never devised a system which was fast and reliable and needed no large apparatus. As the air squadrons were really operated as an army headquarters feature, it can be said that the cavalry operated in connection with the air service, but was not employed with it. Our own cavalry has a great field for experiment in the matter of communication that will simplify the co-operation of cavalry and aëroplanes. After all, an efficient liaison between the scouting planes and the division headquarters of cavalry on the march will secure all the larger ends of co-operation between the services.

ORGANIZATION

(*b*) The rigid adherence of the Colonial cavalry to the idea of a "leader" for each "set of fours," or "section," gives the Australians and New Zealanders very good fire control, in spite of the fact that out of ranks they are not sticklers for discipline. The presence of a lieutenant as "leader" for each troop of 25 men is another good feature. Having a "second in command" for the "squadron" also proved a very useful feature.

The Australians used the single rank and the British Yeomanry the double rank. The former was simpler and more efficient.

The British double rank gives a section leader from three to seven men besides himself, and is not as good as the Colonial system, where a section leader has but three men besides himself.

Three squadrons in a regiment, three regiments in a brigade, three brigades in a division, and three divisions in a corps made an organization which worked very satisfactorily.

EMPLOYMENT

(*c*) Our general ideas as to the employment of cavalry seem very sound, when viewed in the light of the cavalry work in Palestine. However, we are very deficient in thoroughness as to the attack dismounted and we have not given sufficient attention to formations in depth. Most of our exercises in the attack dismounted seem very crude when compared with the work of the cavalry in Palestine. Of course, they had to learn by hard knocks. We do not have enough exercises of a thorough nature in battle reconnaissance.

At the conclusion of each war there seems to be a natural tendency on the part of the majority to shape and organize all military instrumentalities upon the theory that all the wars of the future will be exactly like the last one. The idea has a very plausible side to it and generally has the support of public opinion, because the latter is actually based only upon the most recent war, having no real knowledge of any other or having forgotten about the others. The idea is also supported, as a rule, by all those who always rally to the colors in such fine spirit and generous numbers for temporary military service during the war only. It is natural that they should attach the quality of finality to the lessons which they themselves helped draw to a conclusion. It is exceptional to find one of them who will apply to himself the rule that "a little knowledge is a dangerous thing."

Generally speaking, the United States cavalry today represents the best existing blend of all the good qualities of both the British cavalry (Yeomanry and Regulars) and the Australian and New Zealand mounted troops, and has fewer deficiencies than any of them. This remark pertains especially to armament, training, employment, and organization. It happens that this truth reflects

very favorably upon ourselves. However, we are far from perfect, and the foreign troops above referred to can give us points in certain matters. It is our duty to the service to acquire everything that will increase our efficiency, regardless of its origin, and to be duly thankful if the greater proportion of our system has a superiority which originated in our own common sense and our own experiences.

Editorial Comment

REVIEW OF THE PAY BILL

THE CAREER of the pay bill may be likened to the Pilgrim's Progress—slow, rough, difficult, with its bright spots and its sloughs of despond, but eventually triumphant. It never could have happened without the assistance of a few members of Congress and the determined will to conquer of the Morale Branch, Genefal Staff.

It was just about a year ago that this branch began its studies to show that the inadequacy of the pay was resulting in depreciated efficiency and was undermining the morale of the service.

The evidence accumulated in these studies showed that, if we intended to preserve the great army organization built up at such enormous cost to the country, it was imperative for Congress to take remedial action without delay. Accordingly, the matter was presented to Representative Walter Stiness, of Rhode Island, who at once introduced a pay bill last September and who throughout its perilous course stood by it loyally.

The equity of the increase was so apparent that it did not seem as if there should be any unusual delay in having the bill passed; but equity is only an element in the legislative game, and the great obstacle of political expediency had to be met and overcome.

To many in the service away from Washington the delay must have seemed inexplicable, but those who have ever attempted to father a bill through the labyrinthian congressional channels will understand. The real cause of the delay was the opposition of the Hough leaders, who were frankly against us from the beginning and whose stand was consistent. While their opposition was not understood by some in the service, in justice to them their point of view must be considered. The House is charged with the duty of procuring money for the Treasury, and the pressure of our claims for increased compensation was in direct conflict with their laudable and proper policy of retrenchment on government expenditures. Our needs were recognized, even sympathetically by many

of the members; but it must be remembered that we were only one group of many that were pressing for justice. We could not very well be considered separately, but only in relation to the whole.

After hearings had been granted and the equity of the army's claims proven, the solution of the problem lay in trying to persuade the Steering Committee of the House to allow some action to be taken on the favorable report of the Military Committee of the House.

In the Senate little or no opposition was encountered, as the Military Committee took immediate action, and it was found that the majority of the Senators were responsive to our needs.

In the House, many of the members, including all of the Military Committee, were sympathetic from the beginning; but, as all legislation follows prescribed methods, both committees and individuals must conform thereto. Rules had to be followed and party discipline observed.

The effort to obtain recognition from the leaders became a sort of war of attrition, a wearing down process, in which fortunately for the services, public opinion was a valiant ally. Not only the press became vocal, but individuals from all over the country sent in spontaneous appeals for action. The opposition finally gave way, and on May the 18th the President signed the bill.

The increase, while not ideal, is the best that could be obtained this year, and, although temporary, will alleviate the financial strain until a scientific pay schedule can be drawn up by the commission of Congress provided for in the bill.

It is regrettable that the general officers were excluded, not so much on account of the few dollars involved, but as an index of the attitude of those who control our destinies toward the group that reaches the top of their profession. Even more disillusioning was the unwillingness to include the retired officers. These gentlemen have an implied contract with the government when accepting a commission that, in return for the renunciation of their opportunities to earn money, they are to receive in old age a sum sufficient to maintain their accustomed standard of living. In other words, a certain purchasing power is inferentially guaranteed. No one will pretend that the former pay schedule fulfills the contract.

The strain, however, has been relieved where it was greatest, and, omitting consideration of individuals or groups, the effect of the pay bill has been universally good.

Without, however, the assistance of certain individuals "on the Hill," little could have been accomplished, and the pay bill, like so many other bills, would have become age-worn and yellow in the file of disappointments.

In the Senate, Senator James W. Wadsworth, Jr., was the army's guide and philosopher, our *Deus ex Machina,* to whom we appealed for counsel and aid. Under his masterful leadership the progress of the bill in the Senate was amazingly rapid, due in great part to his personality, which dissipated all opposition. Believing faithfully in the necessity for an increase of pay and possessing a truly remarkable grasp of the needs of the army, he presented the case to the Senate with convincing logic.

In the House, the burden of the fight against the opposition was borne by Representative Thomas R. Crago, of Pennsylvania, a highminded statesman, who championed our cause for no other reason than he believed that it was just and right. At one time, on the floor of the House, when the leaders had finally decided to appoint conferees, it was his patriotic and decided stand which assured to the army consideration in the conference.

No less interest in the measure was taken by Representative Richard Olney, of Massachusetts, who never missed an occasion to speak in its behalf and to offer the most helpful suggestions as to the course to be pursued.

Mr. Kahn, although extremely busy with the army reorganization and with every moment engaged, was never too occupied to give us the benefit of his advice and support. To these gentlemen the Army is mainly indebted for the consideration which it received at this session. There were others, of course, who gave their support to the measure, and to them, also, we render our most grateful thanks.

THE SINGLE LIST

No MORE beneficent measure has ever passed Congress than the single promotion list feature of the reorganization bill. All officers in the army with the exception of the medical officers will

hereafter be carried on the promotion list. This list does not attempt to adjust present inequalities in rank, but is formed solely for the purposes of regulating promotion. In a few years the gross inequalities that now exist will have disappeared, taking with them all of the jealousies, the self-seeking of the respective arms, and the efficiency-sapping legislation to which we have been victims.

To show the benefits of the single list, let us study the prevailing conditions as regards promotion. At the present time, medical officers stand highest for the least amount of commissioned service. After five years' service, they stand near the middle of the grade of major. Cavalry officers stand lowest except in the grade of colonel, where for the same number of years of service the engineers average lowest.

If we examine the relative standings of different branches of the service for any particular number of years of commissioned service, we find that for twenty years' service the infantry officer stands about 97 per cent up the list of captains, very near a majority; the cavalry officer is a major at the bottom of the list; the coast artillery officer is a major about one-sixth from the bottom of the list; the engineer officer is a major very close to a lieutenant-colonel; the field artillery officer is a major at the top of the list; and the medical officer is a lieutenant-colonel at the top of the list.

In the past ten years the average age in the respective arms upon reaching the field grades has been as follows:

Medical Corps.—Colonel, 49½; lieutenant-colonel, 43; major, 38.

Engineers.—Colonel, 48½; lieutenant-colonel, 43; major, 35.

Field Artillery.—Colonel, 47½; lieutenant-colonel, 45; major, 40½.

Coast Artillery.—Colonel, 50; lieutenant-colonel, 45; major, 43.

Infantry.—Colonel, 53½; lieutenant-colonel, 50; major, 44½.

Cavalry.—Colonel, 54; lieutenant-colonel, 50; major, 45½.

With the single list, inequalities such as the above will in time be done away with, and promotion should take place about as follows: Major, after 18 years' commissioned service; lieutenant-colonel, after 23 years; colonel, after 28 years. Promotion by the

single list will immediately work to the benefit of those reaching a majority in the cavalry, infantry, and coast artillery, of those reaching a lieutenant-colonelcy in the cavalry and infantry, and of those reaching a colonelcy in cavalry, infantry, and engineers.*

EDUCATIONAL OPPORTUNITIES FOR ARMY CHILDREN

NOT THE LEAST of the many problems that married officers and enlisted men must solve is the proper education for their children. In this respect the Service is at a great disadvantage, for the nomadic existence which its members lead prevent them from taking advantage of the privileges and scholarships of our local, State, or National institutions of learning, which are enjoyed by civilians of fixed abode. In addition, the expense of sending grown children to good secondary schools and colleges is frequently beyond the income of the average officer and man; so that they find it difficult to provide higher education for their children, or are able to do so only as a result of much anxiety, great economy, and deprivation to their families.

In very few instances are scholarships specifically set aside for army children, although in many places the children of clergymen, teachers, and others enjoy preferential assistance in obtaining an education.

Again, where scholarships are nominally open to the public, they are, as a matter of fact, often filled by students who are known to the authorities making the selection. Naturally, in such competition, army children, with their frequent change of station, lack of social ties and acquaintance, are at a great disadvantage; and, besides, too often officers and men are ignorant of the existence of such scholarships except in a very vague way.

To meet these conditions and assist the Service in the solution of this important question, the Morale Branch, General Staff, is in correspondence with our leading educators, the presidents of many institutions of higher education, and the principals of private secondary schools and academies, in order to ascertain if they

* For the figures and data contained herein indebtedness is acknowledged to Captain E. N. Woodbury, C. A. C.

will grant to the sons and daughters of officers and enlisted men of the army the same privileges as to scholarships, free tuition, and reduced fees as are enjoyed by the legal residents of their State. The response has been most gratifying.

When sufficient information has been obtained, it is proposed to advise the Service of institutions where the cost of tuition and the maintenance of the student, either wholly or in part, will be defrayed by outside funds available for that purpose. A list of vacancies in scholarships, existing and prospective, giving expenses and savings, will be sent out, so that parents may plan in advance for the schooling of their children.

It would seem appropriate, in this connection, to give to the children of the enlisted men the first opportunity of securing those scholarships which pay all or most of the expenses of tuition and maintenance.

The financial assistance thus secured for the Army is in no sense charitable in nature, but rather a legitimate diversion to the service of a share of the opportunities which it now enjoys but little or not at all.

This broad and enlightened work on the part of the Morale Branch calls for our unstinted praise and gratitude. Such sympathetic interest in the welfare of our officers and men cannot fail to be a factor in bringing about that tranquillity of mind which is so essential in the military profession. And, moreover, it all goes to show what can be done where there is a little imagination and a will. It points the way to the immense possibilities at the disposal of the service for taking care of itself other than by legislative means.

THE ARMY AND THE AMERICAN LEGION

EVER SINCE the inception of the American Legion, strange rumors stole on tiptoe, as it were, to the effect that the officers, and by inference the men, of the Regular Army were not welcome in the Legion. It all came about through an unfortunate remark made by a member of the Legion at one of the early meetings, and which was extensively quoted in the newspapers. But he is truly

sorry, we are informed, for having said anything to cause such an impression.

On the contrary, the officers and men of the regular service are not only welcome in the Legion's posts, but they are most earnestly urged to join or to form posts of their own.

We should regard it as a duty to identify ourselves, as individuals, with this great body of Americans whose code represents the ideals for which the war was fought. Certainly the eligibility of the army is unquestioned and the participation of our officers and men in the affairs of the Legion affords us the opportunity to fraternize with our former comrades in arms, and thereby promote a mutual understanding and a much-needed sympathy of viewpoint.

Although it is highly desirable that the members of the Regular Army should still retain that consciousness of unity among themselves which they have always possessed, nevertheless it is not right that they should revert to the tendency to separate themselves from the world at large, maintaining, so to speak, a holy place into which no stranger may intrude. They should join the Legion and study this wonderful cross-section of the nation's thought, bringing the army thereby into closer contact with the people and discharging a duty to themselves and to the service.

Topics of the Day

LUDENDORFF AND THE CAVALRY

In a recent conversation with General Ludendorff upon the subject of cavalry, he remarked as follows:

"The cavalry was of the greatest importance and service to me in all campaigns of movement. In the March, 1918, offensive in France, I felt very seriously handicapped by the lack of cavalry.

"As to the organization of cavalry, my idea would be to form what I would call 'light divisions,' not necessarily using the name cavalry divisions. The idea of the formation would be to combine reasonable extra-mobility with great firing power and I would, therefore, make up the 'light division' as follows:

Four regiments of cavalry.
One regiment of cyclists (3 battalions).
Twelve guns, 77.
Four guns, 105.

This is the way I would organize if I had to do it again."

THE LEATHER PUTTEE FOR THE ENLISTED MAN

THE LETTER QUOTED below will no doubt voice the sentiments of a large number of enlisted men of the cavalry. The writer urges that the canvas legging be abandoned, and that it be replaced by a leather legging for the men. It is certainly true and well known to all cavalry officers that the canvas legging has never been altogether satisfactory. We have in the past heard frequent complaints from the men, but these protests have never been sufficiently vocal to bring about a change. The subject of a proper legging is very important, and when it shall be considered by the proper officers (who, by the way, never have to wear this impractical article of clothing) it is hoped that they will weigh the views of those who suffer silently.

"FORT CLARK, TEXAS.

"SIR: In 1916, prior to crossing the line with the Punitive Expeditionary Forces, the War Department authorized the leather puttee for the cavalryman as a part of his personal equipment. These leather puttees were very much appreciated by the

men, for the reason that they were durable, easy to keep clean, and neat in appearance. Furthermore, they prevented insect wounds, which one was apt to encounter in country of that nature, not to speak of the protection that they afforded the cavalryman on patrol riding through the mesquite and the thorny cactus. As regards economy to the Government, I might say that I wore but one pair throughout the whole expedition, in contrast to the canvas legging, which wears out rapidly, in the proportion of six pairs to one of leather. Besides, the canvas legging is uncomfortable on horseback and very hard to keep clean. In riding in ranks, in close-order drill, they are a nuisance, as the hooks become entangled with those of the adjoining trooper. As far as appearance is concerned, they are a failure. A soldier could not look neat in them if he tried. It is the desire of every cavalryman to have leather puttees, for the reasons stated above, and it is hoped that the proper authorities will approve our request.

RALPH H. SCRUTON,
Acting First Sergeant, Troop "F," 13th Cavalry.

EXERCISE HARNESS

THE FOLLOWING METHOD of exercising horses is particularly interesting at this time, when so many of our organizations are lacking in men. The article below was contributed by Colonel Stanley Koch, Q. M. C. (cavalry), in a recent issue of the *Remount Association Bulletin:*

"With the present shortage of men with troops, the question of proper exercise of the animals of an organization becomes difficult. A riding-horse should be exercised under the saddle and a draft-horse in harness, but where this is not possible the next best thing is exercising by leading on the road. When one man attempts to lead more than one horse, accidents are always frequent, due to the horses crowding each other and stepping on each other's coronets.

"The English have used a system for leading horses on a long rope. Our Remount Service in France adopted the idea and used it almost exclusively with excellent results. The advantages of this exercise harness are its economy of men and the avoiding of accidents due to crowding.

"Where not more than twenty or thirty horses are exercised at one time, they can be easily handled at a trot. Where more than that number are led, the walk only can be employed.

"From twenty to fifty horses are placed in a column of two and a rope stretched from the leading pair to the rear pair. The leading pair is equipped with a regular set of harness and doubletrees. The front end of the leading rope is attached to a ring from which ropes run to each end of the doubletrees.

"The rear end of the rope is attached to a ring from which short ropes run to the singletrees of the rear pair, which are equipped with the regular harness supporting a singletree in front of each horse's breast, the singletree being connected with the

breeching. A spreading bar is used on these short ropes in order to make it pull straight to the front.

"The intermediate pairs of horses are fastened along the rope on each side to loops spliced into the lead rope at intervals of 11 feet. The near horse of the leading pair, the off horse of the fifth pair, and the near horse of the tenth pair, etc., are ridden. In this manner fifty horses can be handled by five men, assisted by two non-commissioned officers acting as outriders. Each man in the column has a short rope attached from the leading rope to his saddle pommel, or arm, to hold the leading rope up when it sags and in turning corners.

"Where not more than twenty horses are attached to the line, it may be advisable to use only one horse on each end of the line instead of a pair."

BATTLE EXPERIENCE DATA

THE WAR PLANS DIVISION of the General Staff has sent out questionnaires to all commanding generals of departments and to the Commanding General of the American Forces in Germany, asking for battle experience data. These questionnaires are to be distributed to selected officers and non-commissioned officers, and the information obtained is to be used for training and historical purposes. The War Plans Division would be glad to receive similar information from interested individuals who can contribute facts of interest in regard to battle participation. The Adjutant General of the Army will supply, upon request, the questionnaires.

THE ARMY HORSE ENDURANCE-TEST RIDE

THE CONDITIONS for the endurance-test ride for army horses were released on March 24th, too late for the April number. The ride will take place between Fort Ethan Allen, Vermont, and Camp Devens, Massachusetts, October 11th to October 15th. Briefly, the conditions require that the horse must be a stallion, mare, or gelding at least four years of age and, besides, must be owned in the United States. Each horse must carry a rider weighing not less than 145 pounds and the complete cavalry equipment of the cavalry soldier on field service, or a dead weight equivalent thereof. The total weight of such equipment, exclusive of the bridle, is considered to be 100 pounds. The minimum weight, therefore, to be carried by a horse will be 245 pounds. Blanks for entries can be obtained from Major Henry Leonard,

1741 K Street N. W., Washington, D. C., after July 1, 1920, and must be filed on or before September 15th with Major Leonard. The entrance fee is $5 for each horse. The judges will be Messrs. Benton, Smith, and Leonard.

AMERICAN HORSE-SHOW DATES SANCTIONED BY THE ASSOCIATION OF AMERICAN HORSE SHOWS

Islip, July 17.
Monmouth County, July 28-31.
Stamford, August 5, 6.
Greenbrier, Va., August 13, 14.
Newport, September 1-3.
New England Fair, September 3-7.
Rochester, September 5-11.
Delaware State Fair, September 6-11.
New York State Fair, September 13-17.
Piping Rock, September 20.
Eastern States Exposition, September 20-25.
Morris County Fair, September 23-25.
Mineola, September 22-24.
Bryn Mawr, September 29-October 2.
Boston Fair, September 30-October 2.
Brockton, October 5-8.
National Dairy, October 2-9.
Monmouth County Colt Show, October 16.
National, November (dates not decided).

FIRST DIVISION BATTLE MONUMENT

It is proposed to erect a Battle Monument to the heroic dead of the First Division similar to that at West Point. It will probably be at the National Capital, where it should become an inspiration to our people and to future generations. Any one desiring to share in honoring the dead of this famous organization is requested to send to Major-General Charles P. Summerall, Camp Zachary Taylor, Kentucky, his contribution. The record of this division in France has earned a place for it in the affections of the American people so deep-seated that the $100,000 needed for the monument should be obtained without difficulty or delay.

Regimental Notes

FIRST CAVALRY—Douglas, Arizona
Colonel Guy H. Preston, Commanding

That Oriental philosophy which induced the Shah of Persia to refuse an invitation from the Prince of Wales to attend the English Derby, explaining that "he knew one horse could run faster than another," finds no expression in the mental attitude of the American army officer. Sport for its own sake is deeply rooted in the recreational life of the military establishment.

A grotesque parade and a regimental field meet, January 1, ushered in the New Year for the 1st Cavalry, at Douglas, Arizona. Teams from each organization competed, Troop K winning the greatest number of points. Captain Frank L. Carr, commanding this troop, won the officers' jumping contest to establish the complete superiority of his troop in the way of military sports.

A more elaborate meet was held by the regiment February 23. General Frank R. McCoy, commanding the Arizona District, was chief judge, and officers of the 19th Infantry and the 12th Aëro Squadron were among the officials. Lieutenant Robert B. Jackson carried off the honors of the jump.

The Machine-gun Troop marched to Garden Cañon, Arizona, eight miles from Fort Huachuca, February 28 and 29, to take the prescribed work at the Machine-gun Center of Instruction, a departmental field school. Lieutenant Howard Espey is commanding the troop.

A test of the practicability of motor transportation for cavalry troops was given by the regiment in November. A march of 293 miles over water-soaked dirt roads was made by the first and second squadrons from November 10 to November 27. Aërial communication and mail service was maintained between camp and the marching column by the 96th Aëro Squadron. This was reported very successful, notwithstanding the fact that precipitated mail bags upset a rolling kitchen at the psychological moment of "chow-time" and wrecked the colonel's tent.

Further test of the gasolene mules was made by a march of 440 miles over a similar route from March 3 to March 18. In this hike the entire regiment participated, including the band and medical detachments, excepting, of course, Troop L and the Machine-gun Troop on detached service. An officer of the air service accompanied the column as liaison agent, and an elaborate and efficient co-operation between the air and the ground was established. A parachute leap from a height of 3,000 feet was successfully made at Fairbanks, Arizona, while the regiment was camped there.

The commissioned personnel of the regiment, Colonel Guy H. Preston commanding, consists of 11 emergency officers, five of which are staff officers, and 28 officers of the Permanent Establishment.

The regiment's social activities, beginning the year with a watch party at the Cavalry Club, New Year's Eve, have included two dances a month at the Douglas Country Club.

THIRD CAVALRY—Fort Myer, Va.

Colonel W. C. Rivers, Commanding

Under the management of Major Beverly Brown, the 3d Cavalry and the 19th Field Artillery combined their forces and presented a very interesting and instructive competition and exhibition on April 10. An immense crowd of both civilian and military folk packed the grandstand and the ground around the roped arena.

Secretary Baker and General March presented the ribbons to the winners of the events. The summaries follow:

SUMMARIES

First Event—Four-line team rolling kitchen and escort wagons. Dennis O'Brien, "Supply" Troop, 3d Cavalry.

Second Event—Polo Pony Conformation. First place, "Apple Jack," Lieutenant B. M. Creel, 3d Cavalry. Second place, "Baudine," Captain J. J. Waters, 19th Field Artillery.

Third Event—Draft Mule in Harness. First place, "Supply" Company, 19th Field Artillery, Sergeant F. W. Macker.

Fourth Event—Draft Horse in Harness. First place, Battery "E," 19th Field Artillery, Private W. J. Scully.

Fifth Event—U. S. Cavalry Horse. First Place, "Mobile," Corporal A. Harper, Troop "M," 3d Cavalry. Second place, "Powder," Sergeant Boyer, Troop "I," 3d Cavalry.

Sixth Event—Polo Bending Race. First place, "Jimmy," Lieutenant I. L. Kitts, 19th Field Artillery. Second place, "Duke," Captain J. J. Waters, 19th Field Artillery.

Seventh Event—Cavalry Squad. First place, Troop "I," 3d Cavalry, Sergeant Frank York; Privates Hilliary, Lucas, Baker, Boggs, Kospomsk, Scheuttenberg, and Saddler Brandon.

Eighth Event—Artillery Field Section. First place, Battery "E," 19th Field Artillery (French .75). Chief of Section, Sergeant Thomas Abel; Corporals Wm. F. Conway and S. B. Vinson; Privates Dowkcest, Bannon, Hallowell, Joye, Kaminsk, and Arnold.

Ninth Event—Artillery Show Section. Battery "E," 19th Field Artillery, Sergeant Alex. Selinger; Privates S. Tobiason, K. S. Lear, and Sobotka.

The Fort Myer basket-ball team won the District championship and was the runner-up in the Eastern Department eliminations.

The Fort Myer boxing team which went to New York to represent the post were Seifstein, Rodreguez, and Smith. Seifstein came back as the light heavyweight champion of the Eastern Department.

All the track teams in the Third District, Eastern Department, came to Fort Myer for their trials in the Olympic competition. Fort Myer had nine men winning places on the District team and these were sent to Camp Dix to compete in the Department eliminations.

Fort Myer has a very close race going on in their post baseball league, which is comprised of nine teams. "F" Battery, 19th Field Artillery, leads by one game, with Headquarters Q. M. C. and Troop "I," 3d Cavalry, tied for second place.

Cavalry from Fort Myer took part in the ceremonies of "Children's Day," Wednesday, May 5, parading in Washington.

At the entertainment given by the Veterans of Foreign Wars, in honor of General Miles, on May 25, four boxing bouts and a wrestling match were put on by the enlistment and recruiting officer, Fort Myer. The Fort Myer band, led by the bandmaster, Fred Fabri, added greatly to the enthusiasm of the evening. Sergeant Travis' comic songs

brought down the house. A rising vote of thanks was given to Colonel Rivers, commanding officer of Fort Myer, for his kindness in helping to make the entertainment a success.

NATIONAL CAPITAL HORSE SHOW

Fort Myer was well represented at the National Capital Horse Show, held at Arlington Park, May 18 to 22, and despite the keen competition gathered quite a few trophies and ribbons for the post collections. The showing made by the officers and men wearing the Fort Myer colors was very satisfactory, and in every event entered their horsemanship showed thorough training and was quite above the standard displayed.

The major military event on the program, the Charger Endurance Test, was won by Captain C. B. Amory, 3d Cavalry, Fort Ethan Allen, after a three-day grind. Fort Myer took second, third, and fourth honors in the performance of Captain Keyes, Captain Thayer, 3d Cavalry, and Captain Cole, 3d Cavalry. The test was conducted on three consecutive days and consisted of a 30-mile cross-country ride, to be made in prescribed time of 4½ hours, an exhibition of the horse's schooling, and on the final day an exhibition of jumping. The Army Challenge Cup was lost by a close margin to the Field Artillery team. Fort Myer, with two legs on the Challenge Cup, put up a pretty exhibition. The team jumping for Fort Myer included Captains Thayer, Cole, and Lieutenant Jones.

The military Roman race furnished a little excitement, the Fort Myer entries cleaning up. Private Bardella, "K" Troop, Corporal Bell, "L" Troop, and Private Burdette, "L" Troop, finished in the order named, after a hard run.

Fort Myer could easily be satisfied with the honors won last week, but next year intends to win every class entered.

FOURTH CAVALRY—Brownsville, Texas

Colonel De Rosey C. Cabell, Commanding

The usual life on the border has marked the activities of the 4th Cavalry for the past quarter, the only break in the routine being the change of station from Fort Ringgold, Texas, to Brownsville. The regiment was ordered to make the change on April 5, and, packing up its lares and penates, it marched to Brownsville, relieving the 16th Cavalry, on April 9. Naturally, the change of station, with the incident preparation therefor, interfered with the training schedules and with the athletic events of the command, but after a few days at the new station the schedules were all resumed with enthusiasm. The polo team is practising daily and giving an excellent account of itself.

SIXTH CAVALRY—Fort Oglethorpe, Georgia

Colonel Frederick Foltz, Commanding

Since the last issue of the CAVALRY JOURNAL the 6th Cavalry has been doing the usual routine garrison duty.

On the 26th of April the first and third squadrons went into camp at the target range, which is 12 miles distant, for instruction and record practise. Upon their return to the post the balance of the regiment will go to the range.

Our polo activity has been slight, owing to the inclement weather. We have just received 22 polo ponies from the Front Royal Remount Depot, which shape up very well. We expect to enter a team in the Department Polo Tournament.

Captain D. D. Tompkins suffered an unfortunate accident on the polo field on May 11, when his pony fell. Captain Tompkins was pinned to the ground and he sustained a slight fracture of his right leg.

We have a post baseball league organized, with seven teams entered. The schedule is well under way and a good deal of interest is being shown. We have in addition a post team, which has played several games with outside teams, and at this writing has sustained no defeats.

SEVENTH CAVALRY—El Paso, Texas

Colonel C. J. Symmonds, Commanding

In the Regimental Notes for April the 7th Cavalry is conspicuous by its absence. It is our belief that during the past twelve months this regiment has accomplished several things that are worthy of note in the pages of the CAVALRY JOURNAL. Under the leadership of its old and beloved commanding officer, Colonel S. H. R. Thompkins, the 7th has produced four championship teams, having won title to the basket-ball championship of the El Paso Military District, the boxing championship of the Southern Department, the football championship of the Southern Department, and a just claim to the polo championship of the Army.

Its football team went through the season of 1919 without a defeat and without a point being scored by their opponents. This team defeated the 5th Cavalry on New Year's Day for the Department championship by the decisive score of 18 to 0, and was particularly notable in that nine of the twenty men who played in the various games of the season were officers.

The present polo team started systematic work as a team in the spring of 1919 and during the past twelve months has played over 65 games, with but one defeat. It has met and defeated consistently teams from the 5th Cavalry, the 8th Cavalry, the 12th Cavalry, the 82d Field, and picked teams from the El Paso District.

The 7th won the right to represent the El Paso District and the Army in the California tournament by winning the Fort Bliss Christmas Tournament of 1919. The team made up of Lieutenant R. E. Craig, one; Lieutenant H. R. Gay, Captain and two; Captain J. W. Cunningham, three; Captain D. S. Wood, four, and Captain J. C. Short, as substitute, arrived at the Presidio of Monterey on February 4. The first game of the Del Monte Tournament was played against Del Monte on the afternoon of the 5th, the 7th winning by the score of 14½ to 14¼ goals. Two days later we defeated the famous Santa Barbara Whites, 11½ to 8¼. The last game at Del Monte was played on the 10th against the Eastern-British team and won by 18¼ to 8. This game carried with it the championship of the tournament.

Officers and ponies then traveled to Santa Barbara, where, on February 14, Colorado Springs was met and defeated, 6½ to 5½. The next game registered the one and only defeat of the past twelve months, the Santa Barbara regulars getting revenge for their defeat in the previous tournament, the score being 11½ to 7½. This team had been greatly strengthened by the arrival of Dr. Hugh Blackwell, who had been summoned from New York to brace up the teamwork. Santa Barbara toured the East last summer, losing but one game, and will go abroad in June to have a try at European polo. The final game was played on the 18th against the Santa Barbara Blues, the score being 8 to 4 in favor of the 7th. Due to rainy weather and the short leave allowed the officers, Army participation in the tournament was then terminated.

The teams that met on the coast were composed of some of the best players in America, among them Hugh Drury, Major Tate, and Colonel Nutting, of the British Army; Max Fleischman, Willie Tevis, Charles W. Dabney, Dr. Blackwell, Elmer Boeseke, H. C. Hunt, and Eric Pedley.

Money to ship the 21 ponies of the team to California and return not being available, the 7th Cavalry players and their El Paso friends entertained for three nights at the

Crawford Theater, in El Paso, and managed to raise about $1,000 for the expenses of the trip. Even this sum would have been insufficient to enable us to take part in the Santa Barbara Tournament if the members of that club had not generously expressed our ponies from Del Monte to Santa Barbara, in addition to paying all expenses of our stay at that place.

We are hoping that this year the long-talked-of Southern Department Polo Tournament will actually take place, and that we will have a chance to prove our claim to the Army championship.

EIGHTH CAVALRY—Fort Bliss, Texas

Colonel George T. Langhorne, Commanding

Activities in the 8th Cavalry since January, though of a different nature than those experienced by the regiment in the Big Bend District, have been numerous, thrilling, and entertaining, all forming a part of the contribution in making the regiment's esprit unequalled in the Army. The regiment needs no introduction to the readers of the CAVALRY JOURNAL, and our horn is being "tooted" every day outside of our own band.

General Pershing and his staff of inspectors visited us in January, and the regiment honored the distinguished visitor with a review and inspection and afterward with a military exhibit. The General appeared well pleased and was most profuse in his compliments to Colonel George T. Langhorne and to the regiment. Troop I won the competition for being the best turned-out troop for the review. The competition was very keen throughout the entire command and much interest and enthusiasm was manifested by all the troops concerned. During the afternoon the General viewed the military exhibits of the various organizations of the El Paso District. The 8th Cavalry won honors here, credit being due to Captain Fred J. Herman, who was in charge. Captain Hans E. Kloepfer was in charge of the 8th Cavalry exhibition drill, which won for the regiment another silver trophy, taking first honors against many competitors. Later in the afternoon a reception was tended the honored guest and his aids by Major-General and Mrs. Robert L. Howze, commanding officer of the El Paso Military District.

The regimental polo team is making rapid strides toward improvement, and it is believed that in a short time the team will be able to wrest the honors won by the 7th Cavalry. The team has triumphed over every organization in the district with the exception of the 7th.

One of the features of the regiment is the Ladies' Equitation Class, composed of thirty young ladies of the 8th and the city of El Paso. All kinds of rides, hunts, and paper chases have taken place during the past few months, and the social life of the post has been greatly benefited by these fair riders.

All troops are now firing on the range, with an effort to again establish a record for the cavalry, and since the middle name of the 8th Cavalry is "shooting," we expect to have more than our share of representatives on the cavalry team at the national matches again this year.

It is rumored that a squadron of the regiment will take over the border station, now held by the 7th Cavalry, on July 1. In doing this we are getting back to our own element, for the two years in the Big Bend has well acquainted us with the conditions of field service.

Major-General Dickman, the Department Commander, will arrive here about the 1st of June to inspect the troops of the district. He will be accompanied by Colonel Holbrook, who will conduct a test ride for the officers. A very sporty course has already been laid out by the regiment, and it is sincerely hoped that the Colonel will thoroughly enjoy his ride with the rough-riding officers of the 8th.

TENTH CAVALRY—Fort Huachuca, Arizona

Colonel F. C. Marshall, Commanding

Polo.—At a meeting of the 10th Cavalry Polo Association, on May 15, the following officers were elected: President, Colonel F. C. Marshall, Cavalry; Secretary and Treasurer, Major Jerome W. Howe, Cavalry; Team Captain, Captain Frederick S. Snyder, Cavalry; Polo Manager, Captain John A. Robenson, Cavalry. Four teams have been selected, and as the regiment has now forty ponies practise is held daily.

The Arizona District Field Meet was held at Fort Huachuca, May 17 to 21, the 1st and 10th Cavalry and 19th and 25th Infantry participating, each regiment having previously held its own meet in order to select contestants. From the Arizona District Meet contestants will be selected to compete in the Department Meet, all these meets being held with a view to selecting members of the U. S. Olympic track team. At the time these notes are written the preliminary heats only have been completed, but some excellent records have been hung up. The following are a few of the results, which would indicate the 10th has reasons to expect representation on the Olympic team: 100 meters, Sergeant Williamson, 10th Cavalry, 10 2/5 seconds; 200 meters, Private Moore, Veterinary Detachment, 21 seconds; 400-meter dash, Corporal Woods, 10th Cavalry, 49 seconds. The 10th Cavalry won the 1,600-meter relay race in 3 minutes 43 seconds, and the 400-meter relay in the exceptional time of 41 1/5 seconds.

During the past three months the regiment has done the usual garrison duty at Fort Huachuca, Arizona, and border duty at the outlying stations of Naco, Lochiel, and Arivaca, Arizona.

ELEVENTH CAVALRY—Presidio of Monterey, California

Colonel James A. Erwin, Commanding

March of 11th Cavalry.—The relief of the troops of the 11th Cavalry on the border was effected in April in compliance with G. O. 10, Hq. W. D. Briefly, Troop H from the Presidio of San Francisco, Calif., replaced B, C, and the machine-gun troops at Calexico, and E troop from Monterey replaced K troop at El Campo.

The usual routine preparations were made, after which the troops to be relieved were concentrated at Camp Hearn preparatory to their march northward to the Presidio of Monterey. Here two provisional troops were formed for the march, under the command of Captains Johnson and Holmes respectively.

The column was made up of two light wagons, 11 escort wagons, one motor ambulance and one motor-cycle, 153 horses and 57 mules. Full forage was fed on the trip, forage shipments having been synchronized with the beef and bread deliveries.

Roads, Gaits, and Rates of March.—The State highway coast route was followed practically all the way, on the assumption that it was the shortest route with the least grades, though the command marched on the beach on the second and third days. The highway in no way hindered the march, as on each side of the paved part of the road there was a dirt path, varying from one to three feet wide, practically all the way. This gave excellent footing for horses, and was better than macadam. The march was made in "column of twos," one file on either side of the road, and automobile traffic passed unchecked down the center.

Every effort was made to maintain uniform gaits of a 4-mile walk and an 8-mile trot, and to make the regular halts.

Throughout the entire march the command averaged five miles an hour, including halts, with one or two exceptions, as crossing mountains or passing through large towns where the street was paved to its full length.

The length of marches varied from 18 miles to 33 miles, and averaged 24.5, the shorter ones being in the first week of marching. The command commenced to march about 7.30 in the morning, and camp was reached from 12.30 to 2.30 p. m., depending on the length of the march.

Discipline, Civilian Contact, and Publicity.—In almost all towns the command was cordially welcomed, and the people went out of their way to welcome the troops by giving use of swimming pools, Elks' clubs, free moving-picture shows, dances, etc. On the suggestion of one Chamber of Commerce, letters were written ahead, advising newspapers of the date of our arrival.

Horse Shows.—Officers and enlisted men of the regiment won twenty-one (21) ribbons at the horse show held at Santa Barbara, California, April 7, 8, 9, and 10, 1920, and twenty-three (23) ribbons at the Pasadena, California, Horse Show, April 16 and 17, 1920.

TWELFTH CAVALRY—Del Rio, Texas

Colonel Sedgwick Rice, Commanding

On April 11, 1920, the 12th Cavalry (less 1st Squadron and Machine-gun Troop), arrived at Del Rio, Texas, for station, after completing a march of approximately 600 miles, the regiment having left Columbus, New Mexico, on March 13, 1920, under command of Colonel Lawrence J. Fleming. Colonel Sedgwick Rice was later assigned to the regiment and joined at Hot Wells, Texas, on March 23, 1920. Colonel Fleming left the regiment at Marfa, Texas. The march itself was a very pleasant one, as the weather and march conditions were excellent throughout the trip. The regiment made a wide detour to the north and crossed the Pecos River at Pandale Post-Office, forty or fifty miles above the Pecos High Bridge. This detour necessitated long marches over rough country, but the regiment made it without mishap. The condition of the men and animals during the march, and upon arrival at Del Rio, is thought to have been nothing less than remarkable. Eight animals were lost between Columbus and Del Rio, six of these being mules and the other two horses. No new cases of sore back or laminitis occurred, notwithstanding the presence of many recruits and the rough country over which the regiment marched. The fact that the march of the 12th Cavalry was a successful one is shown by the following letter from the Department Commander:

HEADQUARTERS SOUTHERN DEPARTMENT

FORT SAM HOUSTON, TEXAS, *April* 20, 1920.

MY DEAR RICE: Allow me to congratulate you on the excellent march made by your regiment and the fine condition in which the men and horses arrived at destination.

Cordially yours,
(Signed) J. T. DICKMAN,
Major-General, U. S. A.

The success of the march was largely due to the fine soldierly spirit and the strict attention to duty displayed by the officers and enlisted men, and the fact that the results accomplished merited the commendation of the Department Commander is a source of pride to the regimental commander, which he feels will be fully shared by all members of the regiment.

By order of Colonel Rice:
W. G. SIMMONS,
Captain of Cavalry, D. O. L., Adjutant.

The regiment is delighted with its new station and the citizens of Del Rio seem to be pleased to have the 12th Cavalry here. A number of delightful entertainments have been given by the citizens and returned by the regiment.

The 12th Cavalry Baseball Team has beaten all the teams in the district, and will very likely represent the district in the Department championship series. All of the officers are very much interested in polo, and, while no games have been played as yet, it is hoped that a creditable team will soon be perfected. The regiment is now in the midst of target practice, with the 3d Squadron on the range.

FOURTEENTH CAVALRY—Fort Ringgold, Texas

Colonel Robert A. Brown, Commanding

For the past quarter the regiment, with the exception of the Machine-gun Troop, has been engaged in the normal garrison duties, consisting largely of the new unit schools and a considerable amount of prison guard duty. The Machine-gun Troop has been pursuing a technical ordnance course at Camp Stanley, Leon Springs, Texas. The enlisted men of the regiment have shown a gratifying interest and enthusiasm in the mechanical training of the school of arms. However, the shortage of officers and the expiration of terms of service of the one-year men have proved a very great handicap.

On March 20 orders were received transferring the regiment to the Brownsville District for duty at the post of Fort Ringgold (Regimental Headquarters, 1st Squadron, Supply, Headquarters and Machine-gun Troops, and Medical Detachment), Sam Fordyce (Headquarters, 2d Squadron, and Detachments of the Supply and Headquarters Troops), Camp McAllen (Headquarters, 3d Squadron, and Detachment of the Headquarters and Supply Troops).

SIXTEENTH CAVALRY—Fort Sam Houston, Texas

Colonel Farrand Sayre, Commanding

On March 20 orders were received by the regiment to proceed by marching to Fort Sam Houston, Texas, for station. The 1st Squadron (less Troop B), plus Troop L, left Mercedes, Texas, on March 29, en route for Fort Sam Houston via Laredo and arrived on April 15.

On April 10, 1920, the second column, consisting of Regimental Headquarters, Headquarters Troop, Supply Troop, and 2d Squadron left Brownsville, Texas, at 1 p. m., en route for Fort Sam Houston. The 3d Squadron (less Troop L), plus Troop B, joined this column at Mercedes, Texas, on April 11. The total distance marched was 390 miles, covered in 20 marching days, or an average of 19½ miles per day.

On April 15, 16, and 17 the weather was intensely hot, the temperature on these days reading as high as 106 degrees F. This heat at this time of year was, so far as known, very abnormal. There was a hailstorm of terrific force on the night of April 26, at 2.00 a. m., while we were camped on the Nueces River at Cotulla. The hail, mixed with rain and wind, tested the spirit of the men, who broke forth singing "Pack up your troubles in your old kit bag."

The most difficult task presented on the march consisted in handling the wagon train over the rugged country along the Rio Grande and combating the intense heat. Captain George O. Marsh, Regimental Supply Officer, handled this task with exceptional ability and good judgment. The rolling kitchens furnished the cavalry, on account of their frequent breakdowns and burning out, were not considered as an improvement to the cavalry equipment, although the "fireless cooker" feature is considered a valuable asset if embodied in a more durable type of kitchen than the one used.

The garrison ration was used, and in general the men and animals were furnished the same supplies they would have received if they had remained in garrison.

A sales commissary with a personnel consisting of one lieutenant and 15 enlisted men, and equipped with transportation consisting of one Dodge automobile and two 2-ton trucks,

joined the column at El Tigre on April 16, and accompanied the column to Fort Sam Houston. It kept for sale soft drinks, candy, fruit, tobacco, toilet articles, etc., at moderate prices.

A motorized motion-picture unit, consisting of two enlisted men and equipped with one light truck, joined the column at Zapata on April 17, and accompanied the column to Fort Sam Houston. Moving-picture shows were given in camp every evening at 7.30 p. m. The shows were well attended and were very much appreciated by the officers and enlisted men.

On April 15, knowing that we would meet the first column of the 14th Cavalry, which was marching from Fort Sam Houston to Fort Ringgold for station, Colonel Sayre sent forward an advance guard to locate, report its strength and composition, and to take up a favorable position for checking their march. Thereafter, daily, with few exceptions, maneuvers were conducted which were given a practical form, involving a study of the ground passed over, the selection of positions, reconnaissance, writing reports, dispositions for attack, etc.

The column was accompanied throughout the march by an officer of the 8th Aëro Squadron, and aëroplanes reported daily for duty with the column after April 15. Captain John E. Selby, 16th Cavalry, acted as Liaison Officer for the Cavalry, and was assisted by Lieutenant Beam and Lieutenant Walthall of the Air Service, as well as a specially trained detachment of the cavalry. Twelve officers of the second column of the 16th Cavalry were used as observers in the aëroplanes and all the officers and men of the regiment were given a good idea of the uses of an aëroplane in reconnaissance and in the transmission of messages both from the plane and ground. Usually the enemy was picked up quickly from the air and reports would come in continuously at intervals of about ten minutes, reporting the exact strength, location, disposition, and movements of the enemy. Sketches of our own column, including the wagon train, and of the road to the front were frequently called for and were promptly furnished by the Air Service and were of value to the commanding officer.

The movement of the regiment from the border to Fort Sam Houston marks the end of three years of border duty and the first time in the history of the regiment that they have occupied permanent quarters in a permanent post. This is the first time since the organization of the regiment at Camp Wilson, in July, 1916, that all of the troops have been together, as they have been constantly separated by outpost and patrol duty on the border.

The Machine-gun Troop did not make the march with the rest of the regiment, they having been held in Brownsville to complete a course in machine-gun instruction now being held at that station. It is expected that they will rejoin the regiment at Fort Sam Houston in the early part of July.

Records of the regiment show that 24 emergency army officers upon their discharge from emergency commissions re-enlisted for special assignment in the Sixteenth. The grades held show, 1 major, 5 captains, 10 first lieutenants, and 8 second lieutenants. These ex-officers are now holding the higher grades of non-commissioned officers, and much credit is due them for the present high state of *esprit de corps* existing among the enlisted personnel of this regiment.

SEVENTEENTH CAVALRY—Schofield Barracks, H. T.

Colonel John D. L. Hartman, Commanding

The covering of approximately one hundred miles of rugged coast line with one regiment of cavalry, so organized as to repel effectively any attempted landing of troops from transports pending the arrival of reinforcements, was one of the many problems set for solution of the officers of this regiment during the past maneuvers on the island of Oahu.

With the exception of the sector in and around the city of Honolulu and Pearl Harbor, covered by the coast-defense guns, the entire coast line of the island, which is our naval base in the mid-Pacific, was left to the sole regiment of line troops now in this department.

The peculiar features of the island lent themselves in many ways to the solution of the problem. The maneuvers, arranged by Department headquarters, took cognizance of the fact that the number of troops was limited and the cavalry acted as if unsupported by any other troops than the air service. The "hostile" forces were represented by the submarine flotilla.

Beyond the fact that things were run on the latest systems of liaison and intelligence, the usual routine features of cavalry maneuvers were little changed. In the three or four days of the preliminary part the customary attention was paid to reconnaissance and intelligence. Command posts were placed at advantageous points, and sectors of defense were organised, so that a complete liaison existed over the entire hundred miles from post to post by means of Very lights and field telephone lines. Camps were placed in such localities as would make their observation difficult from the air, and in several tests of these places not one was noted by the observers in machines flying at low altitudes.

The question of supply and rapid shifting of troops was dealt with by taking advantage of the good system of roads on the island and the fact that plenty of motor transportation was available. Inasmuch as the number of horses was insufficient for the men at hand, it was found necessary to transport a part of the regiment in trucks. This feature was found to be of great advantage, although limited in its application.

Another feature of interest to machine gunners was the testing by a cavalry regiment of the infantry machine-gun cart, the machine-gun troop being issued 17 of these carts for the purpose. As opposed to the pack method of transportation for cavalry, however, it was found that the carts were far inferior. In the first place, when moving at a rapid gait, even over a good road, the light carts bounced about in every direction, and the resultant jolting and jarring proved harmful not only to guns, but to instruments as well. It was also found that ammunition packed in boxes for mule transportation, when carried on the carts, jolted loose from the belts and necessitated almost a complete refilling before going into action after practically a very short march.

When the carts were taken off the road, moreover, they were almost helpless. The narrowness of the trails in the mountains on Oahu precluded their use there. The rough nature of the volcanic ground made it immensely difficult to maneuver, and in going down a mountainous pass, easily negotiated by cavalry and pack animals, almost as much work was entailed as in moving a three-inch battery.

New Books Reviewed

SIR DOUGLAS HAIG'S DESPATCHES. Edited by J. H. Boraston. E. P. Dutton & Co., New York. Complete with maps, $15.00.

These despatches cover the period during which Sir Douglas Haig was the commander-in-chief of the British forces, from the end of 1915 to the first days of April, 1919.

They were written by him to his government, in accordance with an ancient British custom, and contain a summary of the principal periods of the campaign. As might be imagined, therefore, they are written with the most scrupulous regard for accuracy and truth; so that to the military student they represent as authoritative an account of the British operations as it is possible to have. Any officer who really desires to study the war seriously should have this book to appreciate the reasons underlying Marshal Haig's decisions, his strategy, and the tactical handling of the units by his commanders of subordinate units.

The sources of information upon which the despatches are based were the daily reports of the armies, corps, divisions, brigades, battalions, and even the companies, in the front line, supplemented by the personal reports of liaison officers sent out from general headquarters.

The despatches were compiled during the actual battle, and hence possess a definite historical importance. Briefly, they cover, first, the operations of St. Eloi, in the first half of 1916, while the French were defending Verdun, followed by a detailed account of the so-called "Wearing-out Battle," familiar to all American officers as the Battle of the Somme, in July, 1916. Next, the German retreat to the Hindenburg line is recounted and the campaign of 1917, the Arras offensive, the summer campaign, the Messines Battle, the Third Battle of Ypres.

Not less brilliantly told are the Cambrai operations, the great German offensive in 1918, and the Allied march to victory until the armistice.

Marshal Foch has written the introduction, in which he pays tribute to the accuracy, the breadth of view, and the loftiness of the despatches. He speaks highly of Marshal Haig's co-operation and credits him with having intervened with the British Government to place the British and French armies under a single commander.

Every American officer should, if possible, read these despatches, in order to perfect his perspective of the war.

THE EDITOR.

A LIEUTENANT OF CAVALRY IN LEE'S ARMY. By G. W. Beale. Boston: The Gorham Press, 1918. Pp. 231.

Who was this Lieutenant of Cavalry? Was he the author? Was he a line officer or a staff officer? With what regiment did he serve? Does he write from memory, from records, or from other sources? Neither the title page nor the foreword answers any of these questions. It would appear, however, from various references in the first four chapters, that the Lieutenant was in the 9th Virginia Cavalry; but if the reader is not satisfied that he was a line officer in this regiment, he should go

to Chapter V for better evidence, where we read: "It was on the 25th of June, 1862, while the regiment to which I was attached, the 9th Virginia, was encamped," etc.

The Lieutenant writes in easy, fluent, graphic style of what he saw in scouting, raiding, reconnoitering, and fighting during four years of active service between the north bank of the Potomac and the south bank of the James. His occasional admission of inability to remember and other features of his writing indicate that he draws his facts and dates largely, if not mainly, from memory. What the reader gets from his narrative is a procession of vague images of marching columns, charging squadrons, and surging battle lines. Not a map or diagram comes to help him out. The book should be read for minor operations, but unfortunately we do not find therein that which a military student would expect, namely, none of the details of the campaign, such as the gaits employed on the raids, how the sore backs of the horses are treated, the formation of columns, outposts, etc.

There are a great many typographical errors scattered throughout the text, such as "Job" Stuart for "Jeb" Stuart, Bloody "Angel" for Bloody "Angle," and "Pleasanton" for "Pleasonton." Again, the author seems prone to use constantly the word "left" in place of the word "right."

The book is really a series of reminiscences of a lieutenant of cavalry, and while vague and somewhat inaccurate in places, it will afford enjoyment to surviving members of the 9th Virginia Cavalry who can recall the scenes and the companions of their arduous and gallant services. It should be in the libraries of collectors of Civil War literature. We know of no other work in its field, and would welcome its appearance in a new edition, revised and enlarged, and supplied with maps and an index.

Colonel JOHN BIGELOW.

THE AMERICAN ARMY IN THE EUROPEAN CONFLICT. By Colonel de Chambrun and Captain de Marenches, French General Staff. The Macmillan Company, New York. Price, $3.00.

A clear exposition of the part played by the American Expeditionary Forces. The book deals solely with the military effort in Europe. It is refreshingly devoid of all comparisons and refrains from making any claims for the superiority of any one of the Allies. It is a sincere and sympathetic recountal of the development and accomplishments of the A. E. F., and astonishingly replete with facts the accuracy of which may be assumed, since the authors were attached to General Pershing's headquarters, where access was to be had to the official records.

Certainly no book has so far appeared which sets forth more completely and more authoritatively what was accomplished by the American Army under General Pershing.

THE EDITOR.

RUSSIA—WHITE OR RED. By Oliver M. Sayler. Little, Brown & Co., Boston. $2.50.

Mr. Sayler, dramatic editor of *The Indianapolis News*, has a most delightfully artistic touch in this narrative of his six months under Bolshevik rule in Russia. Unhampered by instructions, he studied the lives of the citizens of Moscow and painted his picture "aloof from the political welter of Petrograd." There is little record of matters strictly military, but many touches, here and there, portray the character of the peasant soldier. The appalling desertions from the Russian Army are explained thus: "When they got rid of their Tsar, they saw no reason why they shouldn't get rid of their Tsar's war, too." As they surged home from the front,

these heterogeneous hordes "were demobilizing themselves, and they were doing it with better grace and less friction than the tenderly nursed armies of the west. They swung along in an easy gait, wearing their uniforms and their gray wool turbans with an air that stamped them as individuals."

The author endeavored to find a middle group of substantial power and promise, but became satisfied that, in the relentless bitterness of social conflict, every one seems to be driven into one or the other of the extreme camps, white or red; in the final analysis, capitalist or socialist.

Mr. Sayler is absolutely unprejudiced. He believes that our American mission was personally conducted and did not see all those who represented the various classes in the Russian struggle. He makes no predictions, but he states very positively: "The most and the least that can be asked of our government is to keep its hands off the Russian situation and let it run its course to its legitimate end."

Colonel G. H. CAMERON.

THE TURN OF THE TIDE: American operations at Cantigny, Chateau-Thierry, and the Second Battle of the Marne. By Jennings C. Wise, late lieutenant-colonel of infantry, U. S. A. Henry Holt & Co., New York. $1.50.

The author has succeeded in his purpose of describing the American participation in the operations of the spring and summer of 1918 in its true relation to the entire Allied effort. He emphasizes the salutary effect of Cantigny on the Allied morale without disguising the fact that in itself this was only a minor operation. That the Americans would fight was further proved by the 3d Division machine-gunners at Chateau-Thierry and by the 2d Division, to the northwest of that point. The author points out that at this stage the Germans, who had pushed from the Chemin des Dames to the Marne, had about marched their legs off, and that the period of stabilization which must follow every considerable advance was due. In other words, while the American performance in early June was very creditable, he thinks it a trifle exaggerated to claim that it saved Paris.

Belleau Woods, as analyzed by the author, does not measure up to later and less well-known operations of the Marine Brigade of the 2d Division. Vaux was a well conducted minor operation.

The author states that "there is support for the belief that even as early as the middle of June Marshal Foch foresaw the development of the German plan and predicted a great success for the Allies, provided a sufficient mass of maneuver could be maintained at his disposal." In order to constitute such reserves, it was prescribed that the line of the Tenth and Sixth French armies should be held with as few troops as possible. "Whether the plan under consideration at this time embodied a mere offensive defense, of great but still limited magnitude, or whether it contemplated a definite transition to a general offensive, the available evidence does not disclose."

The attack of July 15th was foreseen by the Allied High Command, and Marshal Foch had written on the 14th that the second phase of the battle would be counter-offensive. The blow southwest of Soissons was prepared as soon as the Marshal had learned that Gouraud's Fourth French Army, east of Reims, had successfully withstood the German attack. Perhaps the single instance of American defensive action against an organized offensive in the World War was the splendid stand of the 3d Division south of the Marne.

July 18, 1918, marks the real turn of the tide. The drive of the 20th French Corps (working with the Third Corps, U. S.) was the knock at the back door that made the enemy turn around. This corps was made up of the 1st and 2d American

divisions and the 1st Moroccan Division, always given a front seat at all the good shows. It is doubtful if any resistance encountered later by attacking American divisions was equal to that overcome by the 1st and 2d on this occasion.

The book covers also the advance from the Marne to the Vesle, in which the 26th Division (1st Corps, U. S.), the 3d, 4th, 28th, 32d, and 42d divisions participated creditably. The author states that the American troops generally arrived at their objectives ahead of the French, and concludes that our infantry attacked more impetuously, while the French developed the opposition more deliberately and with fewer losses.

The final conclusion is that the presence of 250,000 combatant American troops decided Marshal Foch to assume the offensive, and that those troops tipped the scales of victory.

The book is well written and is an able historical treatise. More detailed maps showing division sectors and daily advances by divisions would add to its value.

It is, perhaps, beyond the scope of this review to emphasize the superior quality of the 1st and 2d divisions as assault divisions. The regular service considers it as axiomatic that this should have been so, since they had received the longest training. Axioms are, however, sometimes lost sight of, and it is not sufficient to stand on your record if the public does not take the pains to examine it. It has even been mathematically proved that other divisions were better; they took more ground; yet the public does not stop to inquire whether it was against resistance or not. If the operations of the World War are carefully studied, it will be found that these two divisions were given the hardest nuts to crack, and that they proceeded in a workmanlike manner peculiar to themselves. Their counterparts in the French Army were the Colonial divisions, in which the percentage of trained officers was the greatest and which came to be used almost entirely for offensive purposes.

Colonel Wise's book treats the operations of the various divisions in an impartial way and he writes the sort of history that every military man wishes to see studied—true history.

Colonel GEORGE M. RUSSELL.

THE EASTERN QUESTION. By Professor Jastrow. J. P. Lippincott, Philadelphia. Price, $1.50.

After having written on Near Eastern questions, Professor Jastrow was highly qualified to write about the solution of such a world problem, which at the present time concerns every country. It is of particular interest to France as that country played a splendid rôle for more than a century in the education of the people of the Near East.

Professor Jastrow reviews in a very clear manner the entire Near Eastern question, bringing out the "knot" of the same. Then he examines the value of the various ways contemplated by the different powers, in order to get out of the "muddle," and he affirms his belief that the right way lies in instituting international commissions.

We may think otherwise and criticize the efficacy of this way in the near future, but no one can find the argument of the author defective.

The style of Professor Jastrow is not made heavy by the technical terms which he was obliged to use. Its clearness and fluency render the reading of his book very easy for everybody, even for those who are but slightly acquainted with political questions.

Commandant DUBREUIL,
General Staff, French Army.

THE LIFE OF LEONARD WOOD. By John G. Holme. Doubleday, Page & Co.

A book treating of the life and career of a great national figure. The story of the life of Leonard Wood from the days of his early struggles against the red men on the plains of the great Southwest, through his trials and brilliant successes in Cuba, to the years before the war, when he preached the doctrine of preparedness and service, up to the days of his probably greatest achievement, when at Gary, Ind., he proved himself the great arbiter, who, without fear or favor, administered the law with justice and equity to both capital and labor.

A fascinating story, simply told, which holds the reader's attention from beginning to end.

Captain PHILIP MATHEWS.

LEADERSHIP. By Major Arthur Harrison Miller, C. A. C. G. P. Putnam's Sons, New York & London. 162 pages. $1.50 net.

Recently an American officer of many years' experience, a number of which have been spent in observation of European armies, wrote regarding the establishment of morale work in the United States Army:

"As far as I know, there exists no body of rules and no long age-formed habits calculated to stimulate morale amongst the men, and no recognized and established system for teaching the psychology of leadership to the officers of our service, and I hope I may be permitted to express the intense satisfaction with which I have learned of the new section of the General Staff which has been created in our service for this purpose."

If the subject of practical instruction in leadership has in the past been neglected to some extent in the training of junior officers, and the latter too often forced to acquire the knowledge possessed by more experienced officers only through the costly system of trial and error, there are evidences, in addition to the creation of the Morale Branch, that the subject is being given increased attention by the service.

The institution of courses in many of the service schools on the practical psychology involved in the scientific management of men may be cited, and also the fact that military writers are beginning to contribute to a subject which heretofore has found few entries in the library indexes.

The latest contribution of that nature is from the pen of Major Arthur Harrison Miller, C. A. C., and under the title of "Leadership" defines the elements which are indispensable or helpful in that quality. The last half of the book should be of particular interest to officers whose experience with troops has necessarily been limited by youth, for therein are given the practical experiences of older officers, whose success as leaders has been beyond question. The book bears the indorsement of Major-General Leonard Wood and contains a foreword by Colonel Edward L. Munson, in which the opinion is expressed that from its pages "All officers may benefit, each according to his needs."

Captain RANDOLPH SHAW.

LEONARD WOOD—SOLDIER, ADMINISTRATOR, CITIZEN. By Prof. W. H. Hobbs. Putnam's Sons, New York. Price, $2.00.

The book is divided into two parts, the first of which treats of General Wood's early career in the army, his service on the frontier, and later in the Spanish-American War. Particular emphasis is placed upon his excellent work in Cuba as a civil administrator and upon his friendship with Roosevelt. All of this part of the book serves as a background for the second part, which deals with General Wood's services to the nation in making a fight against pacifism and in preaching preparedness.

The author gives a brief sketch of General Wood's career, and his book should be very valuable for those of our citizens who have not had the privilege of knowing how remarkable his career has been. There is one reference in the book, however, which is entirely unworthy of the subject, and that is Professor Hobbs' unnecessary and venomous allusion to the officers of the Regular Army. On pages 249-250 he discredits the officers who held high command in the war, saying that "they were jumped to positions which were far outside of their experience and of which they knew next to nothing"; and then he goes on to relate an anecdote purported as coming from a colonel of the French Army, who, in reply to a question "What do you think of the American Army?" is alleged to have said: "There is no better army in Europe, from the captains down." Such a gratuitous insult to the officers of the Regular Army, who were in command and who organized our great American Expeditionary and Home Forces and administered them with the greatest success, stamps the author as incapable of treating, except in a sketchy way, so large a subject as General Wood, and places the author in the category of the man who, going down a path in the jungle, suddenly saw an elephant charging down the narrow trail. Frantically he turned to his native guide and cried out: "Guide, give me my fly-gun."

THE EDITOR.

The Reserve Officers Department

MINOR TACTICS

IN INAUGURATING a Reserve Officers Department the policy has been adopted of selecting the problems in the course of minor tactics from those given at the Cavalry School. Recent experiences in the World War have convinced us more than ever that we should have a uniform cavalry doctrine, and that we should get away from the diversification of views to which we have more or less leaned. The course in minor tactics at the Cavalry School is for the junior officers of cavalry and embodies the tactical principles and doctrines drawn from our own teachings and experiences. It will no doubt appeal to junior officers on the active list, as well as to the reserve officers. All of the map problems in the course are based on the Gettysburg 3-inch map.*

MAP PROBLEM No. 1, PART I

Gettysburg-Antietam 3-inch Map, Gettysburg-Bonneauville Sheets

GENERAL SITUATION

A Red Cavalry Division in Blue territory, twenty miles south of TANEYTOWN, is operating against the Blue line of communications which runs southwest from GETTYSBURG through EMMITSBURG.

SPECIAL SITUATION (BLUE)

You command Troop A, 1st Blue Cavalry, which with the rest of the squadron is at GETTYSBURG. At 6.00 o'clock a. m., May 1, 1919, the squadron commander issues the following verbal order:

"The enemy cavalry division is being held 18 miles south of TANEYTOWN, with the exception of small bodies, estimated at one troop each, which were reported last night at WESTMINSTER, 10 miles southeast of TANEYTOWN and at a point 10 miles east of SELLS STATION.

"Our division is opposing the enemy cavalry division.

"The squadron will guard the NORTHERN CENTRAL R. R. yards at LITTLESTOWN and TANEYTOWN and the station at BASHORE MILL on the LITTLESTOWN-HANOVER ELECTRIC R. R., in addition to the stores in GETTYSBURG.

* Copies of the Gettysburg Map and the Gettysburg-Bonneauville sheets, on which this problem is based, may be obtained from the United States Cavalry Association at 5 cents each, unmounted.

"Troop A will proceed at 7.30 a. m. to LITTLESTOWN to guard the important railway yards and property there, and to BASHORE MILLS to protect the smaller supply of stores at that point.

"Troop B will proceed at 7.30 a. m. to TANEYTOWN, to guard the railway yards and property at that point.

"Troops C and D will remain in GETTYSBURG.

"Combat and field trains will accompany Troops A and B.

"Squadron headquarters will remain in GETTYSBURG."

Required:

1. Your estimate of the situation, written in the first person.
2. Your orders.

AN APPROVED SOLUTION

I

Estimate of the Situation

1. *Mission:*

My mission is to proceed to Littlestown and to Bashore Mill to guard the important railway yards and property at the former place and the smaller supply of stores at the latter.

2. *The Enemy:*

The Red Cavalry Division is being held by our troops some 30 odd miles from Gettysburg. A hostile troop is reported to have been at Westminster, only 10 miles southeast of Taneytown, and another troop still closer, at a point 10 miles east of Sells Station last night.

While en route to my destination I may, therefore, meet the enemy in force equal, inferior, or superior to my own, and must be prepared for this; and I may find the enemy actually in possession of one or both of the points I am sent to guard and may have to drive him out.

The Red forces are operating against our line of communications, and while the two places to which I am ordered are not on the direct line, they are auxiliary thereto and are important. It is fair to assume that unless the Red Cavalry Division be defeated, attempts will be made against these points, possibly the small forces reported on the east have such mission; if they were merely reconnoitering groups, they would probably be smaller.

3. *Our Own Troops:*

My nearest supporting troops will be those at Gettysburg. Troop B, at Taneytown, will be too much occupied in its own mission to give me assistance. I shall have to depend upon myself, both on the march and after reaching destination.

4. *Terrain:*

The map shows that the distance to Littlestown via the Baltimore Turnpike is 10.7 miles and via Bonneauville and Whitehall 11.5 miles. The distance to Bashore Mill via the former route is 14 miles and via the latter 10.8 miles. The country is rolling, dotted with patches of trees and farms, and has many wire fences. It lends itself to surprises, both on the part of the enemy and on our part. It also lends itself to escape by a small force from a larger one. On the whole, I consider the terrain advantageous to me.

5. *Possible Plans:*

The proximity of the enemy leads me to believe I should get to my destination without unnecessary delay, and if this were the only consideration I would divide my troop in Gettysburg and send each portion to its destination; but more importance is attached to Littlestown, and if only one place can be saved, it should be the one. If as much as an enemy troop approaches Littlestown, I will need my entire troop to accomplish that much of my mission; and if prior to reaching Littlestown I should divide my troop, I might find each portion balked in its mission and nothing accomplished. If I march as a troop to Littlestown and find all safe there, I can proceed to the accomplishment of that portion of my mission that has to do with Bashore Mill. Moreover, the enemy may be encountered west of Littlestown, in which case I may need my whole troop to drive him off and get to the town.

Guarding Littlestown and Bashore Mill will require special consideration. I cannot decide now whether it will be better to locate a part of my troop at each one of these places or to locate the troop at a point between the two, or to adopt some other method. Those are points I shall consider during my ride toward Littlestown and upon my arrival there. After I am in possession of further information, I can estimate the new situation and reach a decision. I may get some information en route to or in Littlestown by the use of local telephones.

The smaller the body of troops, the smaller in proportion is the advance guard. A troop can deploy quickly. A single squad will suffice as advance guard to prevent surprise.

Field and combat trains accompany the troop, but if I find that the enemy has beaten me to Littlestown, wheel transportation may suddenly become a great encumbrance; whereas, if left some miles back, say at Germantown, it can be called for when needed. It is in friendly territory and can be guarded by its own personnel.

The automatic rifle squads may march with their respective platoons, in which case if a platoon is called upon for separate action the leader will have his squad with him; but, as I have a small isolated command and will probably act mounted if the enemy be met, the concentration of the squads under my immediate control will permit me to use their fire power with a minimum of delay. Also, if I have the auto-rifles in front, I will have them on my mind. If we meet the enemy I will be obliged to give these squads some orders, and am therefore more likely to use them with effect than if I had them at the rear of the column, where they might, in an emergency, be left to look out for themselves.

6. *Decision:*

To march entire troop on Baltimore Turnpike to Littlestown.
To have one squad precede the troop by 500 yards, as an advance guard.
To have all auto-rifle squads march at head of the troop.
To march at about 6 miles per hour.
To have trains march at a normal rate to Germantown and there await further orders.

II

Immediately upon my return to my troop I assemble the officers and non-commissioned officers and announce:

"This troop is ordered to LITTLESTOWN and BASHORE MILL to guard these places. Combat and field trains accompany troop. Lieutenant D will prepare troop for the march. Be ready to move at 7.20 a. m. Further orders will be issued then."

I then have time to make the estimate of the situation, reach a decision, and prepare the order for the movement.

The troop is ready to march at 7.20 a. m. and I read the following order to the troop, which I have grouped about me so that all can hear:

ORDER

Field Orders
No. 1

TROOP A, 1ST CAVALRY,
GETTYSBURG, PA.,
May 1, 1919—7.20 a. m.

Gettysburg-Antietam 3-inch Map, Gettysburg-Bonneauville Sheets

1. The Red Cavalry Division is being held 30 miles southeast of GETTYSBURG; two small parties, estimated at a troop each, were reported last night about 13 miles east and 14 miles southeast of LITTLESTOWN, respectively.

Our 1st squadron, less Troops A and B, remains in GETTYSBURG; Troop B proceeds to TANEYTOWN.

2. This troop will march today, via TWO TAVERNS and GERMANTOWN, on LITTLESTOWN to guard the railroad and property there. It will attack the enemy wherever met.

3. (*a*) Sergeant B's squad will be the advance guard and will precede the main body by 500 yards. It will march at 7.30 a. m.

(*b*) The troop (less Sergeant B's squad) will be the main body. The four automatic rifle squads under Corporal C will march at head of troop.

Troop will march when the advance guard has gained its distance and will thereafter regulate the gait.

4. Wheel transportation will march from camp in rear of the main body, will travel about 3 miles per hour, and will halt in GERMANTOWN until further orders.

5. *I will be at the head of the main body.*

A,
Capt. 1st Cav. (Blue).

Copy to C. O., 1st Sq.
Read to assembled troop.

Conference on Map Problem No. 1 by the Commandant

Your first problem was carefully drawn to bring out the two very common faults of *dispersion* and *anticipation*. Two objectives were so selected that two roads would tempt you to split your command. However, of the 60 solutions submitted, 31 failed entirely to consider the possibilities of these two roads. Of the remainder, quite a number, after a good discussion of possible plans, reached a wrong conclusion and decision.

Red forces, in the statement of the problem, were placed in such position that they threatened your objective. As a result, 33 officers prepared orders concerning the outposting of a position twelve miles distant, which there was no certainty that they would ever reach.

One solution ordered ten small observation groups to as many designated and widely separated hills. Another solution was a highly interesting narrative. The officer states that he arrives at Littlestown safely, pitches camp, goes out to inspect his outpost, finds it satisfactorily posted, and when he returns he finds the men have had dinner. We wish you to have imagination, but not to this extent. Remember, that it is not your function to draw up a new situation. If the instructor had planned to have everything quiet at Littlestown, he would have located your troop there in the first place. Another officer

wrote seven pages on the "second phase." There is never a second phase to a problem unless the instructor so announces.

F. S. R. states: "Orders attempting to arrange matters too far in advance may have to be recalled and others substituted; such changes impose needless hardships upon a command and injure its morale." In other words, your men will lose confidence in your judgment. "Never try to cross a bridge till you get to it."

ANALYSIS OF THE SOLUTIONS

1. *Mission.*—Generally speaking, the mission was properly announced. In F. S. R. is stated "the mission as set forth in the orders or instructions under which he is acting, *or* as deduced by him from his knowledge of the situation."

Observe that this says *or*, not *and;* that is to say, you make deductions only when you have received no orders or instructions. If you have received written instructions, you may be able to state your mission in briefer terms, but if you have received orders, the safe rule is to quote them as your mission.

Several solutions endeavored to elucidate matters, but wrote at great length. Aim at brevity.

Deductions from orders are not part of your mission, but are to be considered in the proper place in your plans and decisions. Thus, one officer says: "My mission is to get to Littlestown as soon as possible." His conclusion is correct, but it is not part of his orders. His squadron commander very properly left such a matter to the independent judgment of his subordinate.

Never introduce extraneous matter or soliloquies. One solution states in the mission: "I assume that this duty will continue until I am relieved some days hence." The author may have had his mind on necessary rations, but in his mission is not the place to consider them. Another opens his mission pessimistically: "I am confronted with a difficult task." This is a deduction and incidentally it does not give much assurance of successful operations. Above all, do not add a faulty deduction, such as "Avoid combat before reaching those two points."

2. *The Enemy* and, 3, *Our Own Troops* were well discussed—sometimes at too great length and often with unwarranted conclusions as to intentions and probable movements. Thus one solution is satisfied that the Red troop on the east will attack Bashore Mill with one platoon and Littlestown with the remainder of the troop. This is not only a bad case of anticipation, but it is expecting the enemy to play your game. In warfare, the rule is to estimate what action of the enemy would embarrass you most and to assume *that* as his most probable move.

Many solutions counted on the support of the balance of the squadron at Gettysburg, but the majority wisely considered that the troop must take care of itself. One officer repeatedly stated where his "principal danger threatened." This is an unfortunate expression. All chances must be weighed, of course, but objectives rather than dangers should stand out in a study of the map. It was refreshing to me to read the next solution, although the writer may have been a little too cock-sure. "I am confident," said he, "that I can do thus and so."

Opinions differed on morale. One said, the enemy's morale is good "because he is raiding." Another, that "our morale is better than the enemy's because we are in our own country." In this problem nothing on the subject is expected. Morale, equipment, training, etc., should be discussed only when the statement of the problem gives you a clue—*e. g.*, that either force has been recently defeated, has had much sickness, is composed of recruits or replacements, is a body of home guards, is short of rations and ammunition, etc.

Accordingly, if nothing affecting morale appears in the statement, consider the Reds and Blues as equal in all respects and make no comments.

One officer stated correctly: "My men and horses are fresher than the enemy's." However, it is doubtful if the difference could alter his plans and decisions.

4. *Terrain.*—Only a few solutions discussed the features of the terrain west of Littlestown. Quite a number paid attention to the defensive positions and configuration of the ground east of that town. Many map measurements were not sufficiently accurate. One officer, thinking he was using a 1-inch instead of a 3-inch map, gives the distance to Littlestown as 32 miles, and yet gives no thought to marching his loaded wagons that far in one day.

5. *Possible Plans.*—On the part of more than half of the class, as previously stated, this discussion was confined to the various means of defense of Littlestown and Bashore Mill, many solutions even stating: "There is only direct road."

In most solutions a platoon was detailed for advance guard—much larger than necessary—and a squad, and even a section, as rear guard *in our own country, with the enemy in front of us only.*

In nearly every case the train was ordered to march behind the main column, frequently "without distance." Only five solutions considered gaits carefully, and in one of these an officer who specified that he would march 6 miles an hour nevertheless directed the train to march with him. One solution made no mention of the train, and another, in spite of orders to the contrary, left it at Gettysburg. One officer ordered the train "to keep closed up *as nearly as possible.*" This form of expression will not do at all. Either the train will keep closed up or else it will proceed at a slower and specified gait. One officer stated that he would "advance by bounds."

Several officers were so impressed with the necessity of obtaining fresh information of the enemy that they sent patrols ahead—in one case a patrol on each road.

Aside from the fact that information can be expected to come in by telephone (which fact was noted in many solutions), such a patrol could accomplish nothing, if the enemy is encountered, other than to advertise your approach.

Another officer, in his eagerness, marched at 6.40 a. m. Unless he first obtained permission from his squadron commander, this movement was a disobedience of orders. In the preparation of this problem the time required to put the troop on the road in proper shape was given due consideration.

The automatic rifles were mentioned in only one solution, and then only in a defensive position. Where are they to march? F. S. R. states: "Before orders are issued they are carefully tested to see that the entire command is accounted for."

6. *Decision.*—The decision should be announced in brief, terse statements conveying conviction and determination. Do not say: "I believe I will do so and so." That conveys the idea that you are still in doubt. And do not say: "I adopt the third plan." The instructor has no time to look back to find your third plan. Write out your decision definitely.

The Order

Only four solutions made use of a warning order, although it is difficult to conceive of a more ideal situation for its use. Picture the troop at 6 o'clock on the morning of May 1st. The men have about finished breakfast and nobody has any idea that the troop is to move. The captain is suddenly summoned to the major's tent. After the captain has received his orders, he needs time to study his map and make his plans, but meanwhile everybody else must get ready. A short verbal warning order accomplishes the result.

In nine solutions orders were stated to be written. One was "typed with seven carbon copies." The remainder were verbal and in many cases followed no form. I will give you full credit that practically all of the orders were intelligible and would have doubtless secured the results that you intended, but many were not couched in military language.

When a young officer writes: "Put your head down and butt into them," we know what he means, but we are not writing football. Tactics has a language of its own.

In all subsequent problems your orders will be written in the form prescribed in F. S. R. The reasons for the adoption of this measure in our school policy are:

1. Only after long experience can an officer be sure that he has not overlooked important features in his verbal instructions unless he has first written them down in the accustomed form.

2. In case of sudden expansion of our forces, as in 1917, you will all be called to higher commands and duties, where you may be obliged to write orders.

3. It is essential that our non-commissioned officers be familiar with the forms of orders, not only so that they may replace you, if you are incapacitated, but also that they may be receiving training to become officers in a sudden expansion.

The Ending.—There was great variety in signatures. Two officers signed their own names, thus rendering the number at the head of the paper absurd. One solution was unsigned.

There is a well-recognized code of signatures. Captain A commands A Troop; Major C the 3d Squadron; Colonel B the 2d Cavalry, etc. Hence you should have signed simply, "A, Capt. 1st Cav. (Blue)."

In conclusion, one solution was headed "Tactics Quiz," and another "Tactics Examination." This indicates a wholly erroneous conception. In these problems you are free to make use of any data that you have received. You may have your F. S. R. open on the table before you. You would probably carry it in your saddle pocket in the field and would consult it, and hence why not here? I am about to read to you a solution of this problem written by Captain Lininger and approved by the staff. It is written in the form that you are to follow hereafter and you are at liberty to bring it with you when you solve your next problem. Later we shall probably require you to work without data.

COMPANY ADMINISTRATION

(Prepared by Major S. H. Middagh, Adjutant General's Department)

The course in company administration is based on Special Regulations No. 57, which should be studied in conjunction with the subject-matter given herewith. Copies of Special Regulations No. 57 may be had upon application to the Adjutant General of the Army or to the Cavalry Association.

Explanation.—The work, clerical and otherwise, involved in the building up of a company record for a period of ten days, had changes occurred as are shown by the remarks on the model morning report contained in Section III, Special Regulations No. 57, demonstrates the fact that as a factor in company administration the daily clerical work is determined only by events as they occur, making it impracticable to have any set rule for the performance of same further than the daily routine.

Any system of company record-keeping not adapted to field service is impracticable in garrison, and to meet both field and garrison conditions the records are filed in trays

equipped with suitable division cards for their separation in groups, as explained in Section K of Special Regulations No. 57, making it possible to keep the live file properly assembled, up to date, and available at all times.

There are seven of these groups, as follows:

1. *The Daily Record Group.*—Consisting of the
   Morning report,
   Duty roster,
   Ration return (book),
   Daily sick report book.
2. *The Individual Record Group.*—Consisting of the
   Service record,
   Extract from service record.
3. *Clothing Group.*—Consisting of
   Individual clothing slips,
   Requisitions (for clothing),
   Shipping tickets.
4. *Individual Property Group.*—Consisting of
   Individual equipment records.
5. *Company Property Group.*—Consisting of the
   Property loan record,
   Copies of requisitions,
   Copies of receiving reports,
   Copies of shipping tickets,
   Statement of charges,
   Copies of reports of survey,
   Copies of inventory and inspection report.
6. *Correspondence Group.*—Consisting of the
   Correspondence book,
   Document file.
7. *Company Fund Group.*—Consisting of the
   Company council book,
   Vouchers for company fund.

As an aid in the keeping of these groups of records up to date at all times, the filing system furnished with the company field desk was devised and the use of reminders, which should form no part of the record, authorized.

Individual Records (Section VII, S. R. No. 57).—Considerable unnecessary effort and useless administrative work is performed in the handling of company papers through lack of understanding as to proper procedure. This is especially the case in the preparation and maintenance of forms pertaining to the individual records of enlisted men, a portion of "administration" to which the following is confined.

When a soldier joins a company his *service record, individual equipment record,* and *pay-card,* already started at the recruit depot, mobilization point, or prior organization, should reach the company complete to date. The pay-card is a record pertaining to the personnel adjutant's office, but the service record and individual equipment record, from their receipt to their completion and final disposition, are records pertaining to the company. The company commander is responsible for the proper keeping of these two records, and familiarity in the co-ordination and disposition of the various blank forms and records, to conform with the remarks appearing from time to time on the morning reports, is as essential as is the knowledge of their preparation. Both of these requisites

to successful company administration may be had through careful compliance with the instructions contained in Special Regulations Nos. 57 and 58.

In the preparation of the following study the model morning report (Section III, S. R. No. 57) has been taken as a basis for an intimate and narrative discussion of the steps necessary to keep the company and individual records incident to each remark on the morning report. Familiarity with the preparation of the blank forms pertaining to the company, as provided in Special Regulations No. 57, is of primary importance. This is particularly true of the master records for company and individual, the morning report and service record respectively. The morning report and the extract from service record are permanently preserved in the company, the former comprising the company history and the latter affording an alphabetical file of extracts of the records of all enlisted men separated from the company, showing the status and statement of accounts of each at the time of his separation therefrom. The service record furnished a complete military history of each enlisted man on duty with the company. It follows the soldier throughout his enlistment, at the termination of which it becomes a part of the records of the Adjutant General's Office. Other records, such as the sick report and duty roster, are automatically disposed of according to their current use and importance, for the most part through the five-year file. Records pertaining to property are finally disposed of after the audits and inspections specifically described in each case in Special Regulations No. 57.

In order to obtain the desired co-ordination, the records must be assembled in groups, as provided for in the instructions for the use of the company field desk (Section X, S. R. No. 57), and the following illustrates the working relations between the records pertaining to the individual soldier comprising these groups, the administrative work pertaining thereto, and the manner in which they are kept up to date through the medium of the various authorized blank forms.

The tabulated list of blank forms shown in Section IX, S. R. No. 57, affords the organization commander an excellent check as to whether or not the company paper work has been completed in each instance cited.

Lesson No. 1

Covering the Work of July 1, 1920

Working Data.—(Copy to be furnished each student.)

1. Formulate and enter on your morning report, under date of July 1, remarks covering the following:

(*a*) Captain Marion L. Jones, commanding company, departed on a ten-day leave. First Lieutenant Norman A. Smith is senior officer left with the company.

(*b*) Sergeant Martin M. Capps departed on furlough for seven days at 9 a. m.

(*c*) Private Alfred Wilcox, who was for duty, is placed in confinement at 8 a. m.

(*d*) Orders are received publishing the appointment of Corporal Samuel T. Caswell to the grade of sergeant.

2. Enter the names on your blank duty roster in the order as borne on pay-roll.

3. Make the required notations on the guard roster as indicated by the remarks on the morning report in case of (*b*), (*c*), (*d*).

4. Make the required notations on the service record as indicated by the remarks on the morning report in case of (*b*), (*c*), (*d*).

5. Enter the required notation on the pay-roll as indicated by the remark on the morning report in case of (*d*).

6. Make notation on pay-card as indicated by the remark on the morning report in case of (*d*).

7. Make out report of change as indicated by the remarks on the morning report in case of (*a*), (*b*), (*c*), (*d*).

8. Make out the necessary memoranda of transmittal to accompany the reports of change.

The following, showing the proper entries to be made on the various forms during the day, is furnished as an aid in checking the work:

Remarks on Morning Report:

(*a*) "Capt. Jones duty to lv. 10 days, Lt. Smith assumed com'd."
Function: Permanent company record of date of departure on and duration of leave as granted.
Transmits change in status to local headquarters.

(*b*) "Sgt. Capps duty to fur. 7 days."
Function: Permanent company record of the date furlough is effective and the period for which granted.
Transmits change in status to local headquarters.

(*c*) "Pvt. Wilcox duty to conf."
Function: Permanent company record of the date of confinement.
Transmits change in status to local headquarters.
(When prisoners are rationed with the company the change in status would not affect the number present for rations.)

(*d*) "Corp. Caswell aptd. sgt."
Function: Permanent company record of appointment, with date.
Transmits change in status to local headquarters.

Notations on Roster:

(*b*) Enter the letter "F" in date column "1."
Function: One-year company record of date of change to furlough status.

(*c*) Enter the letter "C" in date column "1."
Function: One-year company record of change to confinement status.

(*d*) Note change in grade and duty status as indicated in Par. 34, S. R. 57.
Function: One-year company record of date in change of grade.

Notations on Service Record:

(*b*) Make notation "Jul. 1 to" opposite "Furlough," on page 5.
Function: Permanent individual record of the date furlough commenced.

(*c*) Enter "Jul. 1" in lead pencil under (*b*), page 6.
Function: Temporary notation of the date of confinement (Par. 189 (5), S. R. No. 57).

(*d*) Note "Sgt." and "Jul. 1" in spaces provided therefor.
Function: Permanent individual record of change in grade, with date.

Reports of Change:

(*a*) "Duty to lv. 10 days."
Function: Transmits change in status to the War Department for file with the captain's record.

(*b*) "Full 7 days."
Function: Transmits change in duty status to the War Department for file with the soldier's record.

(*c*) "Duty to conf."
Function: Transmits change in duty status to the War Department for file with the soldier's record.

(*d*) "Aptd. Sgt."
Function: Transmits change in grade to the War Department for file with the soldier's record.

Individual Equipment Record:

(*c*) Enter in pencil, in a vacant column, "Turned in," a record of the articles of public property collected and turned in to the company supply sergeant by the soldier.
Function: Furnishes a temporary record of the articles of clothing and equipment turned in at time of confinement (Par. 189 (2), S. R. No. 57).

Pay-rolls:

(*d*) "Aptd. sgt. fr. corp. Jul. 1/19."
Function: A five-year record of the change in grade and the date of increased pay.

Pay-cards:

(*d*) Enter "Sgt." and "Jul. 1" in space provided therefor.
Function: A permanent individual record of change in grade and the date of increase of pay.

Reminder:

(*b*) Place memorandum in the reminder, in front of date card "7," calling attention to the fact that the sergeant should report for duty on that date.
Function: A guard against error in case the sergeant failed to return during morning report day of the 7th.

(*c*) Place slip "Pvt. Wilcox conf. Jul. 1," retaining it in the reminder until the case is disposed of.
Function: A guard against error in record in case trial results in conviction. If acquitted or returned to duty without trial, erase the pencil notation on service record (Par. 189 (5), S. R. No. 57).

Explanatory Remarks.—For use in mutual clearing up of misunderstandings and erroneous interpretations.

(*a*) *Leave of Absence:*

Company Fund.—Prior to his departure on leave, the captain should have explained the status of the fund to Lieutenant Smith and had prepared a memorandum receipt therefor for the lieutenant's signature (191*a* (1). For an absence (leave or otherwise) for a period beyond three days and less than eleven days, the company funds are left with the officer acting in the place of the officer absent, who takes a memorandum receipt therefor (191*a* (2).

Company Property.—As company commander, Captain Jones would not transfer his property responsibility unless so ordered by competent authority (191*a* (4). Lieutenant Smith, however, becomes responsible for all public property used by or in possession of the company, whether he receipted for it or not (Par. 662, A. R.).

Status.—Leaves of absence are granted in terms of months and days and commence on the day following the day of departure of the officer from his station (191*a*). Captain Jones' leave would terminate on the 11th, as the day of departure is a day of duty and the day of return a day of leave.

(*b*) *Furloughs:*

Status.—As both days are inclusive in case of furloughs, the sergeant should report for duty at or before midnight of the 7th, and his failure to do so would result in forfeiture of any claim for commutation of rations. (Read Article XVII, A. R.)

Rations.—As commutation is drawn for inclusive dates, the company is entitled to no portion thereof, regardless of hours of departure.

(c) *Confinement:*

Status.—Every soldier who is confined for more than one day under sentence, or while waiting trial or disposition of his case, *if trial results in conviction*, will make good time so lost (107 A. R.), (189b (4), (5), (6).

Disciplinary Power of Company Commander.—Courts-martial and the disciplinary powers of commanding officers have their respective fields in which they must effectually function. The tendency, however, is to resort unnecessarily to court-martial. To invoke court-martial jurisdiction rather than to exercise this power of command in matters to which it is peculiarly applicable and effective is to choose the wrong instrument, disturb unnecessarily military functions, injure rather than maintain discipline, and fail to exercise an authority the use of which develops and increases the capacity of command. The commanding officer of any detachment, company, or higher command may, for minor offenses not denied by the accused, impose disciplinary punishments upon persons of his command without the intervention of a court-martial, *unless the accused demands trial by court-martial.* The punishment authorized may include admonition, reprimand, withholding of privileges, extra fatigue, and restriction to certain specific limits. (Read Chapter XII, Section 1, M. C. M.)

Closing the Day's Work:

Orderly Call.—At orderly call the first sergeant, at the time he obtains his morning report, should receive from the sergeant-major a blank morning report and a blank duty roster, to replace those opened for July, which are filed in front of the month card "October" (Par. 217, S. R. No. 57).

File the closed morning report for June with the new morning report for July in front of the reminder.

At the close of the day's work all records should be up to date, including the remarks for the day on the morning report for the morning report day of July 1.

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912

Of THE CAVALRY JOURNAL, Published Quarterly at Washington, D. C., for April 1, 1920.

DISTRICT OF COLUMBIA, *ss:*

Before me, a notary public in and for the State and county aforesaid, personally appeared Robert C. Richardson, Jr., who, having been duly sworn according to law, deposes and says that he is the Editor of THE CAVALRY JOURNAL, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, United States Cavalry Association, 316 Mills Bldg., Washington, D. C.
Editor, Robert C. Richardson, Jr., 316 Mills Building, Washington, D. C.
Managing Editor, Robert C. Hilldale, 316 Mills Building, Washington, D. C.
Business Managers, None.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

United States Cavalry Association, 316 Mills Bldg., Washington, D. C., owner,
President: Maj. Gen. Wm. H. Carter, U. S. A., retired,
Vice-President: Col. Malvern Hill Barnum, cavalry,
Secretary-Treasurer: Captain Robert C. Richardson, Jr., cavalry,
316 Mills Building, Washington, D. C.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a *bona fide* owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is —. (This information is required from daily publications only.)

ROBERT C. RICHARDSON, JR.

Sworn to and subscribed before me this 29th day of April, 1920.

[SEAL.] ADELAIDE SPRECKELMYER.

(My commission expires June 2, 1920.)

NOTE.—This statement must be made in duplicate and both copies delivered by the publisher to the postmaster, who shall send one copy to the Third Assistant Postmaster General (Division of Classification), Washington, D. C., and retain the other in the files of the post-office. The publisher must publish a copy of this statement in the second issue printed next after its filing.

Book Department

United States Cavalry Association

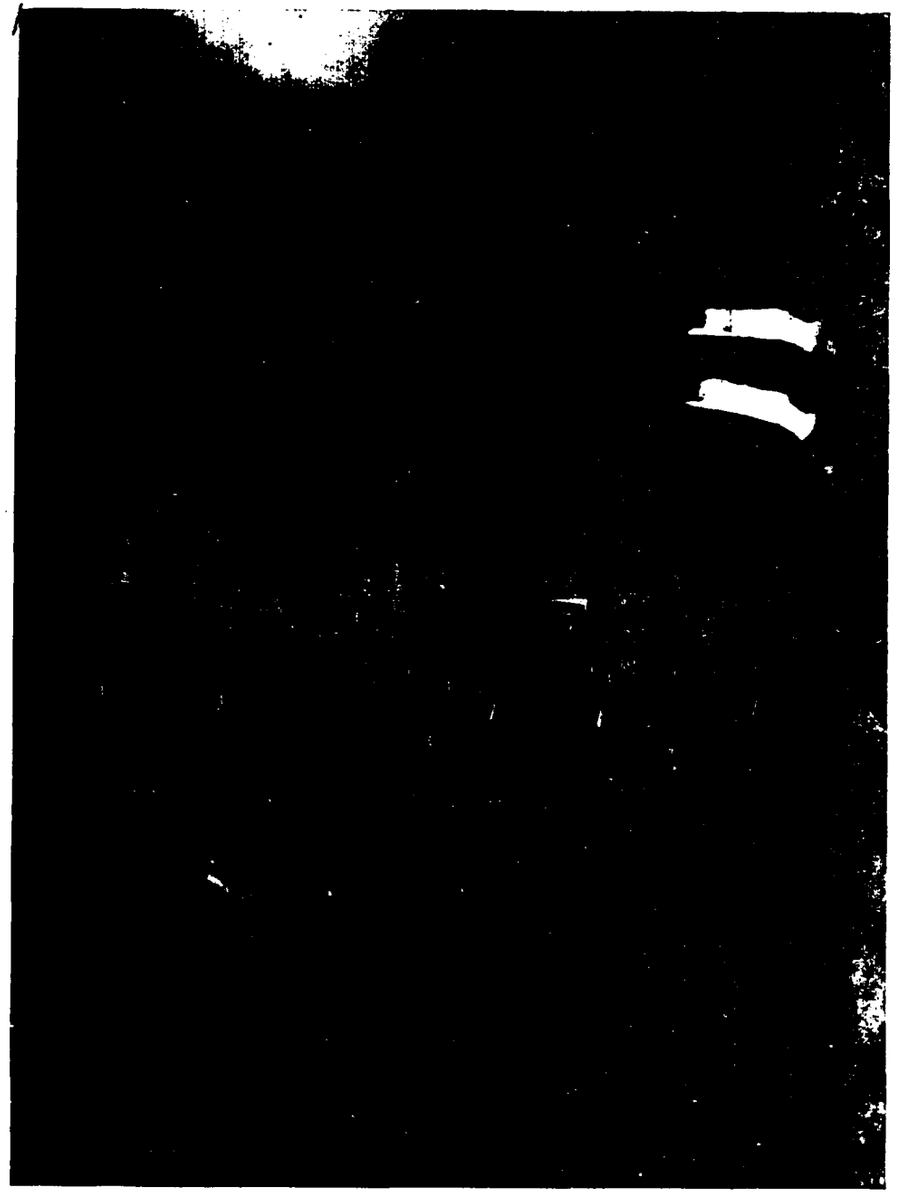
This department exists for the purpose of supplying members, subscribers, and readers of the Journal with the best and up-to-the-minute books on military or any other subject. Under our arrangements with publishers we are able to supply books at the lowest possible cost and more promptly than they can be obtained through the usual retail book sources.

We place subscriptions for any domestic or foreign periodical, guaranteeing as low rates of subscriptions as those given by any reputable subscription agency.

All books sent by Parcel Post insured or Express prepaid.

ORDER YOUR BOOKS THROUGH

The United States Cavalry Association
316 MILLS BUILDING
WASHINGTON, D. C.



A VERY GALLANT CAVALRYMAN

THE
CAVALRY JOURNAL

VOL. XXIX APRIL, 1920 No. 119

A Message to the Cavalry

FROM

GENERAL PERSHING

To the Officers and Men of the Cavalry:

THE CAVALRY of the French and British was vital to their armies at the opening of the war. The French cavalry, by its stubborn rear-guard fighting, aided the army commanders to regroup their forces and turn about to meet and defeat the enemy at the Marne. In the north, the British cavalry, screening the British armies, assisted their withdrawal. In the race to the sea, after Von Kluck had failed in his initial maneuver, again the cavalry played an important rôle by giving the corps commanders the necessary time to rush up the infantry to close the front.

Generally speaking, the character of the World War afforded little opportunity for the employment of cavalry as compared to the opportunities given to other arms. When one thinks of the World War today, it is usually in terms of trenches and devastated areas, over which was waged a bitter and tragic struggle, with the artillery and the infantry as the chief participants.

The contest became a war between entire nations, and all of the talent and genius of each was invoked to perfect implements that might turn the tide of victory. New mechanical appliances were invented and others already in use were developed to the highest degree. The use of gas, tanks, machine-guns, and aëroplanes and increased proportions of artillery and motor transport all marked the activities of the opposing forces to obtain the advantage. Lastly, as always, it was the infantry that assured the victory.

During this period all arms had a chance for development and

employment except the Cavalry, so that to some unthinking persons the day of the cavalry seems to have passed. Nothing could be farther from the truth.

The splendid work of the cavalry in the few weeks of the war more than justified its existence and the expense of its upkeep in the years of peace preceding the war. The American theory for the employment of cavalry is correct, and Allied cavalry would have been of even greater use in the early months of the war, if it had been trained as American cavalry is trained.

In our training the necessity for mobility must be strongly emphasized. All our cavalrymen should be trained alike and imbued with the same doctrines of tactics. It is essential that large cavalry commands be maneuvered in conjunction with the other arms, and teamwork with large units of the other arms developed. I have recommended to Congress that a Chief of Cavalry be appointed, and I hope that in the reorganization of the Army the cavalry will be no longer denied this office, which is needed for its proper development.

Due to lack of tonnage, we had little cavalry in France. Only a few regiments formed a part of the A. E. F., and they were necessarily engaged chiefly on remount duty. A squadron of the 2d Cavalry participated in the St. Mihiel attack with great credit. Once in the open, there were several occasions where cavalry would have been of great value to us in pursuit of the enemy northward toward the Meuse. In any future war on the American Continent, the use of cavalry will be as important as it has been in the past. It should be of due proportion to the other arms and be kept in a state of preparedness.

Individual cavalry officers gave every proof in this war of the highest military attainments and generally demonstrated that their professional knowledge was thorough in every respect. With their ripe experience, it is earnestly hoped that they will profit by the lessons of the war applicable to their arm, and that they will endeavor to keep up to its former standard the heretofore undiminished prestige of the cavalry.

JOHN J. PERSHING,
General, U. S. Army.

The Cavalry School and Its New Functions

Colonel GEORGE H. CAMERON, Cavalry
Commapdant

(Major-General, Commander of 4th Division and 3th Corps, A. E. F.)

BY THE time the first number of the resuscitated CAVALRY JOURNAL makes its appearance, cavalry officers throughout the service will have become familiar with G. O. 112, W. D., 1919, on "Military Education in the Army," and with the recently published Special Regulations of the Cavalry School. However, a few words of explanation and comment may help to bring about the thorough understanding and sympathy between our regiments and our school without which the institution cannot hope for unqualified success.

Many of our older officers have doubtless remarked: "Well! Here we go again! Another course in Military Art at the Cavalry School. I remember in 1904 and 1907 when all of that sort of thing was thrown out."

Their memory is correct; but there was a reason then and there is a reason now.

General Sheridan's "School of Application for Cavalry and Light Artillery," organized in the days of two-company posts, in the nineties, was a long step forward, at that time, in that it assembled a large combined command for training and exercises. With the advent of the garrison school and after the creation of numerous large mixed garrisons, the Riley School had no special features.

When the 4th Cavalry came to Fort Riley from the Philippines, in 1901, Colonel C. C. C. Carr, as commandant of the school, became convinced that its tour of usefulness was about over. Through his efforts, supported by those of Major-General W. H. Carter, the character and scope of the course of instruction were completely changed. The adopted specialty was the horse. Equitation, horse training, hippology, care of animals, horseshoeing,

etc., were taken up with a thoroughness never previously attempted in our Army.

It should be recalled that we were obliged to start from practically nothing. There was no plant, no accepted scheme of instruction, no qualified instructors, and no trained horses. The War Department called for manuals that the School Staff was by no means prepared to furnish, and last, but not least, there was strong opposition to overcome in our own branch. Instructors worked day and night. Realizing that the school must find and prove itself, they naturally desired as much of the students' time as possible in the development of the course to reach an unquestioned recognition in all matters pertaining to the horse, and they were consistently opposed to what they considered extraneous matter.

In 1904, when the late Colonel Arthur Wagner was present at fall maneuvers, the writer (then Secretary), hesitatingly broached the subject of ousting from the schedule of instruction "Security and Information" and "Organization and Tactics," on the ground that the subjects were taught in garrison schools and that the year at Fort Riley should be devoted to subjects that would probably not be as well taught elsewhere. In spite of the fact that he was the author of the text books in question, Colonel Wagner cheerfully concurred in the idea. The following year Topography also disappeared from the course.

In 1906-7, when General Godfrey was commandant, a short series of lectures and map maneuvers was introduced. It was not considered a success and was promptly dropped.

Meantime steady progress was being made toward systematic, intelligent instruction. Graduates were sent to Saumur who brought back the ideas and developments of the French Cavalry School. In the fall of 1910 a class of field officers were detailed for the first time and with the most beneficial results. Frank with their criticism and usually opposed to the so-called innovations of the school, they went back to their regiments converted, staunch advocates of our methods and friends who would back up our young graduates in their struggles as instructors in regimental classes.

In 1913 the school may be considered as having arrived. Methods and details of instruction were firmly and definitely established and a hard-earned recognition had been conceded throughout the Army.

The school was not expanded at this time because under the then existing system (or, rather, lack of system) in professional education there was no demand for such change. Instruction, as a result of improved methods, had become more intensive, but time thus gained was utilized in carrying the student further. There are no limits to advanced knowledge and experience in the military profession.

Due to the restrictions of trench warfare, American cavalry was not called upon to play a conspicuous part in the World War, but graduates of the Mounted Service School* were in great demand at home and in France in connection with the Remount Service. Many of them filled responsible staff and general staff positions and others were selected to train and command the new regiments of cavalry formed in Texas.

In the past, young officers of both infantry and cavalry acquired knowledge of minor tactics solely as a result of individual initiative and study. Later, the studious youngster derived assistance and great benefit from the Leavenworth mailing list.

The garrison school, inaugurated to give preliminary professional instruction, was, unfortunately, a hit or miss proposition. Only too frequently the instructor was selected according to rank instead of attainments; with his finger following a page of the text book, he conducted spiritless "speck" recitations without examples, problems, or exercises of any description. To the ambitious such work was a farce and to the easy-going an imposition; this latter sentiment was increased by constant repetition due to change of station and lack of system. Occasionally a Leavenworth graduate conducted map maneuvers with some success.

There will be little controversy if we set the garrison school down as a failure. As evidence of the fact, one needs only to con-

* The designation "Mounted Service School" was adopted after a conference between General Bell, Chief of Staff, and General Godfrey, Commandant, in which the latter pointed out that it had the same significance as "School of Application for Cavalry and Field Artillery" and was much shorter.

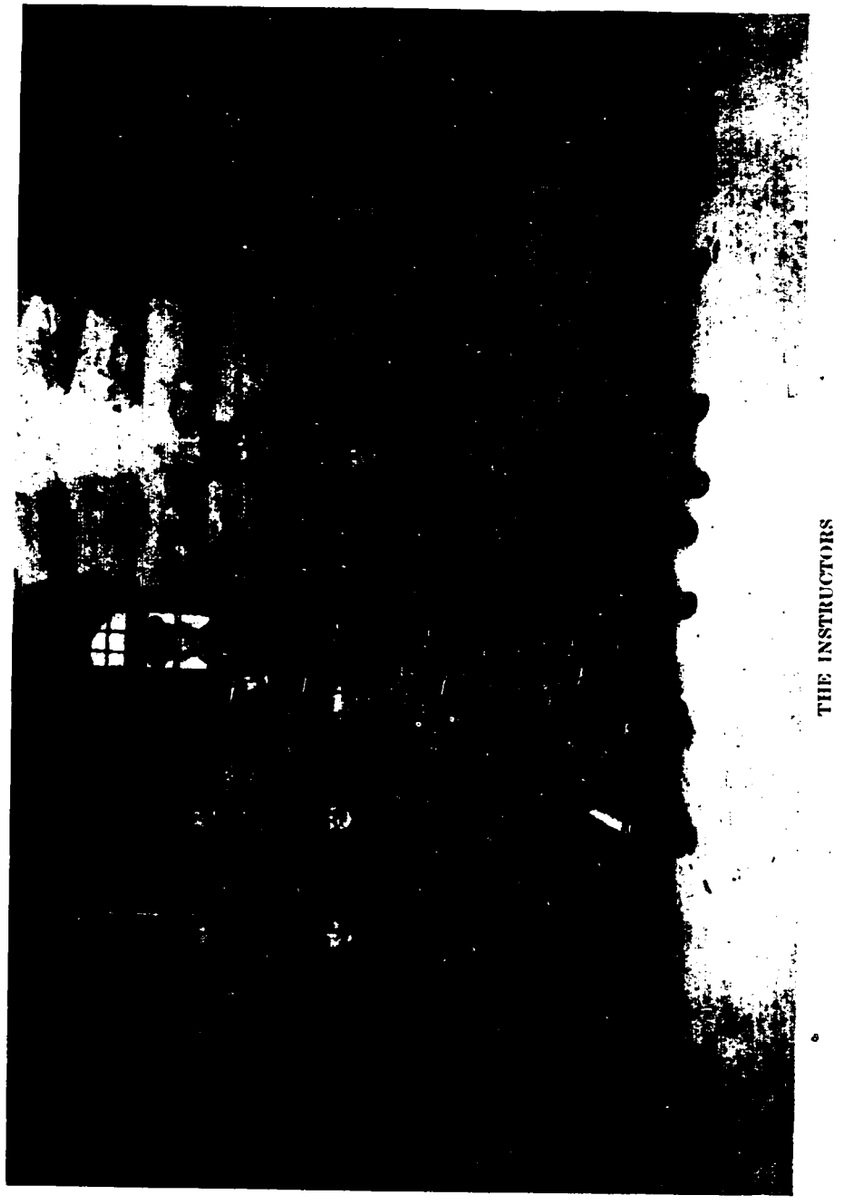
sider the elementary character of the subject of topography maintained as a necessity in the course at the School of the Line. And the reason for the failure is not difficult to find. Lack of interest on the part of the commanding officer; occasionally, lack of knowledge.

As a general rule, line officers received no systematic tactical training unless they were fortunate enough to be detailed to Leavenworth. Two-thirds of them were not so fortunate. In the cavalry, a large number became absorbed in the specialties of the Cavalry School and devoted little or no attention to other professional advancement.

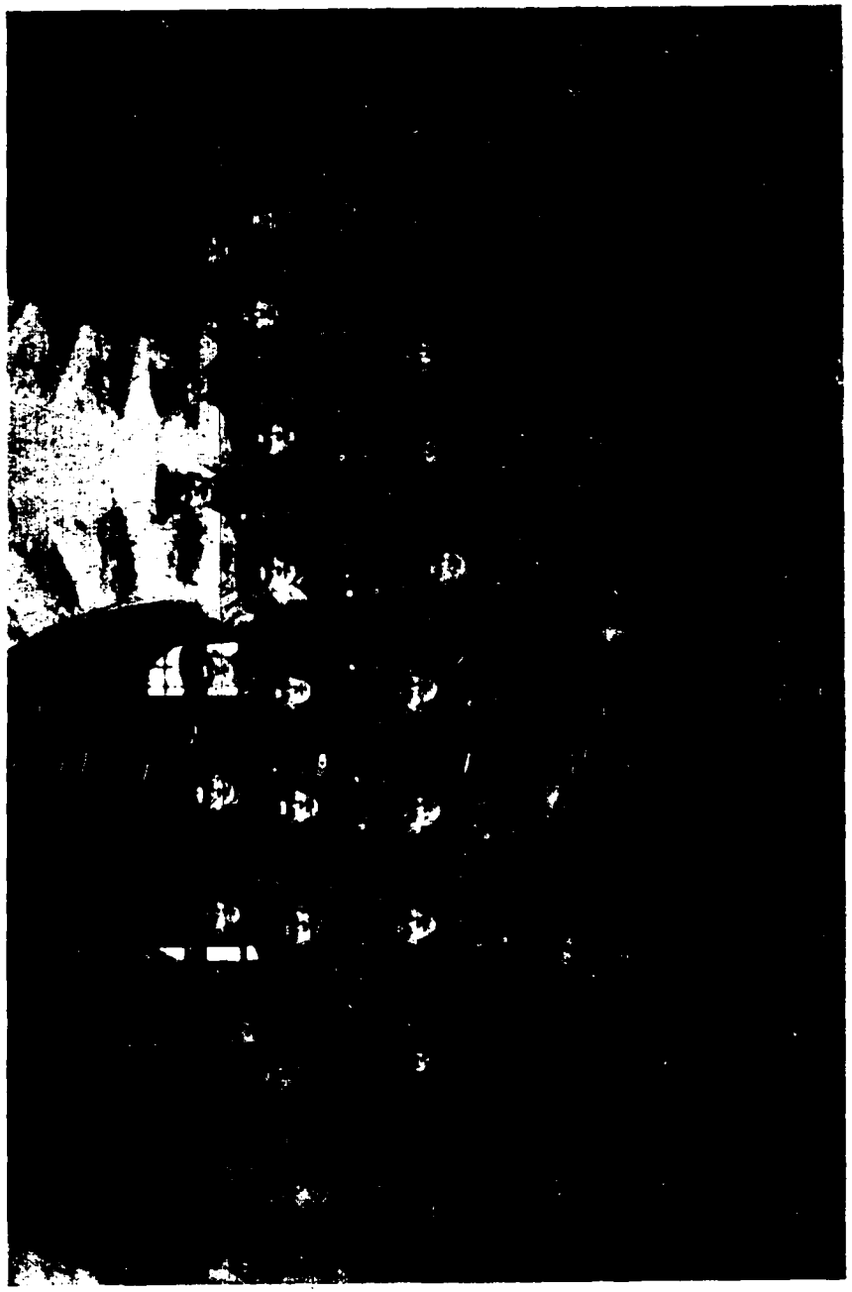
The deficiencies in our military educational system, quite fully appreciated five years ago, were emphasized during the recent war. Profiting by experience, a plan is now set forth in G. O. 112 that is not only rational, progressive, and far-reaching but that is also based on recognition of merit. Details to the more advanced schools and colleges will no longer be awarded by incomprehensible methods, but will fall to those who have distinguished themselves step by step. Under the new scheme, no cavalryman can reach the School of the Line until he has not only graduated at the Cavalry School but has shown marked ability here.

The only part of the system that appears somewhat weak is the unit school, in which "responsibility and initiative in development" rest on commanding officers. There still remain so many different kinds of commanding officers! If the "supervised delegation" means keen, close inspections by the department commander's staff and by the members of the Training Section of the General Staff, the unit school can be made to carry out its very important part in the general scheme. Otherwise we will have the apathy of our old garrison school and a consequent waning of interest at the most critical stage of an officer's career.

Undoubtedly the most interesting feature of our new system is the basic school. Here we have the youngster busily engaged, not in mastering the logistics of the division, but learning how to command a platoon of his own arm, how to instruct the enlisted men of that unit, and how to perform the various duties that usually befall a second lieutenant in the service. Another lottery



THE INSTRUCTORS



THE STUDENTS OF THE BASIC COURSE

eradicated! When a youngster joined his troop in the past, he ran the chance of encountering one of three kinds of troop commanders: 1st, the firm but interested instructor who made him serve an apprenticeship in the orderly room, regular tours in charge of the mess, and who gave him the actual responsibility of his platoon at all times; 2d, the old-timer, who preferred "to do things himself and have them done right" and who absolutely failed to realize his duty to instruct his subaltern; and, 3d, the indifferent captain, who turned everything over to the first sergeant and put up with his lieutenants as necessary nuisances.

A trained subaltern can not be developed in nine months, to be sure, but some thirty odd troop commanders will each receive next summer from this school a second lieutenant who will be able to instruct and supervise non-commissioned officers in nearly all parts of our professional work. At present, he fully understands that he has much to learn and is eager to gain experience, but when he reports for duty he will himself know that he needs no old non-com for a cicerone, as did many West Point graduates years ago.

A glance at the Special Regulations of the school shows the very large number of subjects in which the basic school graduate will be grounded. The school staff is still in doubt concerning two or three subjects, as to whether they should not be more properly taught in the unit schools. Time will tell, and paragraph 4 of G. O. 112 encourages proposals leading to improvement.

As previously pointed out, instruction in the Mounted Service School became so standardized about six years ago that it was possible to attain desirable results in horsemanship in less time. By this is not meant in a shorter period, but rather in less hours per day. Consequently, when the program for the Cavalry School was determined there was no real difficulty in finding time for the added subjects. After careful consideration, it has been decided to begin the school year in the future on September 1st instead of October 1st. The additional month will permit the adoption of a schedule with a better balance of in and out of doors work.

The troop officers' class of this year contains several young officers who, due to various causes (continuous service on the bor-

der, unusual conditions during the past two years, appointment from training camps, etc.) have had less than the customary schooling. In consequence, it has been necessary to make rather elementary beginnings. However, the visualized situation a few years hence is certainly appealing. When members of the present basic school return for the special course, instruction in all subjects will be resumed, not begun, and the possible advance in the tactical course, for instance, will be such that the School of the Line, in turn, will be able to plunge its entrants, without trepidation, into problems really appropriate to their length of service.

Some cavalrymen may be skeptical about accepting the teachings of our new departments. In our early days, one of the best of regimental veterinarians wrote an article for the CAVALRY JOURNAL in which he protested against sending enlisted men to Riley to be trained as farriers and claimed that these men could be equally well instructed in their regiment. In answer, he was informed that the school made no pretension of having the only instructors, but that the question was not *could* the men be instructed in the regiment, but *would* they be instructed there and was there a plant available? The case now is identical; the plants of the new departments are materializing rapidly and the courses are shaping themselves most satisfactorily. It should go without saying that the competition of a large class is necessary for lasting instruction and that intensive work can be accomplished only when students have no other duties.

The aim of the Cavalry School, under its new organization, is not so much to develop specialists along any line, horsemanship, tactics, or arms, as it is to produce *balanced* cavalrymen, *i. e.*, officers who can meet a tactical situation, handle their troops and machine guns properly, ride well, take good care of their animals in campaign, and see that the health of their men is safeguarded and that they are well fed.

The main purpose of this article is yet to be stated. Fort Riley is now the official cavalry training center. The Cavalry Equipment Board will be located here. Neither the School nor the Board can be really representative without free correspondence, frank suggestions, and open constructive criticism from our regi-

ments. It is therefore proposed that each student of the troop officers' class shall be the liaison officer of his regiment; that he shall keep his regimental commander posted on the development of the school, and that he shall obtain the authoritative opinion of the officers of his regiment on any matter where a decision is needed for the War Department. Thus, after a conference of the staff and students, at which a full discussion has been encouraged, the pros and cons of any matter will be assembled and put forth in printed form. The student will sign and send this form to his colonel with such added remarks as may seem pertinent, and at a subsequent meeting he will be expected to announce, expound, and advocate the views of his regiment.

It is hoped that all cavalry officers will form the habit of corresponding with the regimental representative concerning equipment. In the past it has been a standing joke that it was impossible to find two cavalrymen who would agree on saddles, bits or what not.

Let us get together. It is unreasonable to expect that we will all think alike, but, instead of indulging in heated arguments on the relative merits of devices, let officers send their views to the Secretary of the Equipment Board. A courteous reply is guaranteed. A suggestion may not be new; the Equipment Board may have previously reached an adverse opinion and made a recommendation based thereon. In such case the fact will be stated by the Secretary, who will also furnish the grounds that influenced the Board in rejection.

Similarly as regards subjects and methods of instruction. Suggestions from our regiments are earnestly requested.

In conclusion, it is a source of gratification to read in the latest views from France that: "the future of cavalry lies in its mobility." The school motto, "Mobilitate Vigemus," adopted in 1907, appears to be right up to the minute.

Review of Our Cavalry Situation

BY

Major Le ROY ELTINGE, Cavalry
(Brigadier General, Deputy Chief of Staff, A. E. F.)

THERE is little sound argument to be presented against a statement that the Cavalry of our Army emerged from the World War in poorer condition than any other arm of the service. As Cavalry we had practically no participation in the war; we had no chief to collect the cavalry data for co-ordination and draw from it sound conclusions as to the development of organization, armament, and tactics that the war proved necessary; and during the war we have lost rather than developed esprit de corps. We should frankly admit that unless we take drastic measures for improvement our Cavalry will soon die of dry rot, and we must act accordingly.

That our cavalry officers are able and competent is shown by their record of performance in the war as officers in all branches and departments of the Army, both at home and in the A. E. F. It is, then, in the system, and not in the personnel, that the greatest deficiencies exist. Let us enumerate some of these deficiencies:

1st. We are orphans. We have no one to look after, conscientiously and continuously, our training and general welfare; no one to propound a policy; no one to see that such a policy is carried out. Remedy: A competent Chief of Cavalry.

2d. We have no doctrine of tactics. Many elements are necessary to produce a remedy. Some of them are:

(*a*) Chief of Cavalry, whose office should collect all Cavalry data of the World War, study it, draw conclusions from it, and then, with the concurrence of the General Staff, enunciate a doctrine to the Cavalry and see that it is consistently taught.

(*b*) A Cavalry Tactical School. This school should give a thorough and efficient course in the details of cavalry

tactical instruction for all units, from the platoon to the brigade, inclusive. The Cavalry School at Fort Riley is undertaking to do this, but it is greatly handicapped and will probably not accomplish the desired result this year. The tactical course at that school must be enlarged and perfected.

(*c*) Co-ordination of the cavalry doctrine with the tactics of all arms into a clear cavalry tactical doctrine for cavalry co-operation with all arms. The General Service Schools at Fort Leavenworth, under the supervision of the General Staff, will attend to this factor.

(*d*) Organized instruction in the tactical doctrine until every cavalry officer knows its elements, why it is a sound doctrine, and how the doctrine is to be employed for the size of unit he commands. This requires a training system, a set of inspectors from the office of the Chief of Cavalry who shall see that it is efficiently executed, and a suitable number of troops and adequate terrain for practice.

When an efficiency engineer starts to rehabilitate a run-down industrial concern, he promptly introduces "standard practice" reduced to "written instructions." That is exactly what we need in the Cavalry.

3d. We do not agree as to armament. With the 1st and 2d accomplished, armament can be agreed upon without difficulty. The next thing is to see that the Cavalry receives exactly the armament it is to use. The Chief of Cavalry must have inspectors attached to the office of the Chief of Ordnance, and at several arsenals and factories to see that no cavalry armament comes out without the concurrence of the Cavalry, and that it is of proper design and quality. Instruction for the care of armament should come from the Chief of Cavalry with the concurrence of the General Staff, and should be based upon care of different materials in the field—not their care when in storage. I think we can say that the question of rifle *versus* carbine is settled. Other questions of armament demanding prompt solution are machine guns (number and pattern), automatic rifles (number and pattern), accom-

panying guns (number, design, and ammunition supply), and of course the ever-recurring question of saber, pistol, and bayonet.

4th. Horse equipment is in a most demoralized state. Remedy:

(*a*) Find out what we want and have enough observers in the manufacturing arsenals to see that we get it, both in design and quality.

(*b*) Learn how to take care of equipment and see that proper instruction is given in this regard. The Cavalry School at Fort Riley will give the necessary instruction. Inspectors—not the Inspector General's Department—should see that that knowledge is passed along to each cavalry officer, and that it is clearly and energetically applied.

5th. Great improvement can be made in the care and training of animals. Remedies similar to that in 4th; also, we require a properly developed remount system. Such a system must be developed and the people of the country educated to support it.

6th. We do not know what our signal equipment should be, nor how to use it if we had it. After learning what we can from the history of the World War and careful experiment with our own troops and conditions, the Chief of Cavalry and the General Staff could devise a suitable system of signal communications for the cavalry squadron, regiment, brigade, and division, and tell our officers how it should be employed.

7th. We have no system of Military Intelligence in the cavalry Division, where there is more reason for it than in any other unit of like importance. This must be worked out by the Chief of Cavalry, in consultation with officers of practical experience in field intelligence, together with the Intelligence Section of the General Staff, War Department. It is essential that it be done without delay. The work of G-2 is not the same with an infantry and with a cavalry division. The work of the Intelligence Service with a cavalry division is not well defined and must be carefully developed. Perhaps our observer with General Allenby in Palestine, who was a cavalry officer, is best qualified to direct this line

of research for the Cavalry. Whoever does it should be a man with experience in *field* intelligence.

8th. We have an incomplete organization. In working out a proper organization, tactical doctrine, armament, equipment, and staff duties must be considered before a complete organization can be accomplished. Hence organization has been placed late on the list of our deficiencies.

9th. Our officers do not know how to employ efficiently cavalry in conjunction with the other arms. Officers must be given opportunity to know about the other arms and must be able occasionally to see and maneuver in conjunction with the artillery, air service, and tanks. Brigade cavalry stations should include units of these arms, and every opportunity should be taken to hold maneuvers in conjunction with large bodies of all arms, particularly infantry.

10th. We know too little about gas warfare. Cavalry divisions will probably not employ gas themselves, except smoke and incendiary, but they will need to know how to avoid gassed areas and how to protect themselves when the enemy employs gas.

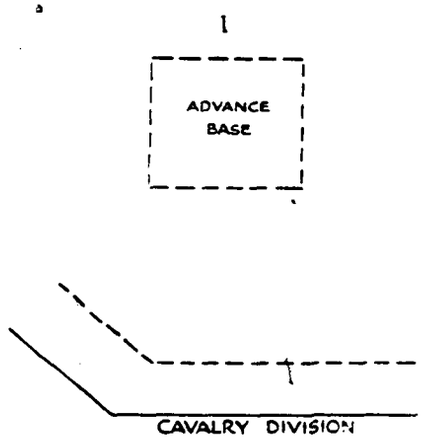
11th. Our dismounted tactics are not suitable for employment against a modern enemy. However, the deficiencies above mentioned, if corrected, will require new drill regulations anyway, and this can be corrected at the same time.

12th. We oppose each other in Cavalry matters and mill around in a circle, with no one to make definite and final decisions.

Remedy: A competent authority to pass upon all propositions of armament, equipment, organization, and tactics, and to render a decision, final for the time being. For final decisions an authority must have prestige sufficient to cause its decisions to be accepted without further bickering. Such an authority would be the Chief of Cavalry, acting in conjunction with the General Staff.

To show up some of our present weaknesses, I will outline below a few examples of the principal cavalry activities and ask a few questions under each. The questions cannot be answered, because they are not concrete cases. Under existing circumstances,

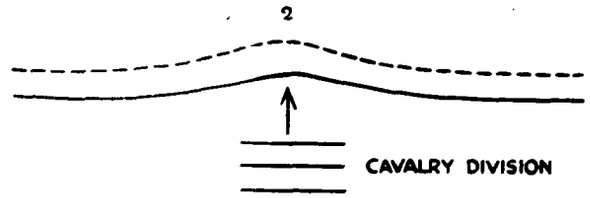
could you answer them if they were reduced to concrete cases, Where diagrams are used below, full lines indicate friendly troops, dotted lines enemy troops.



(*a*) The Commanding General, feeling confident of his ability to defeat the inferior enemy in his front, decides to send the bulk of his cavalry to cut the enemy off from his base, and thus capture his army (Allenby in Palestine). The cavalry is to move before the main infantry attack develops. The cavalry division commander wishes sufficient information of the enemy and the terrain to permit him to accomplish his mission and to supply his troops and care for prisoners during and after the action. Whom does he call upon for the desired information? How does the agent called upon get it, and through what agency? What means of communication with the army commander will he have during the movement? What with his artillery and brigade commanders?

The country is rugged and contains many excellent positions for the small hostile forces to delay the march of the cavalry column by machine-gun fire. Will rifle grenades be carried? If so,

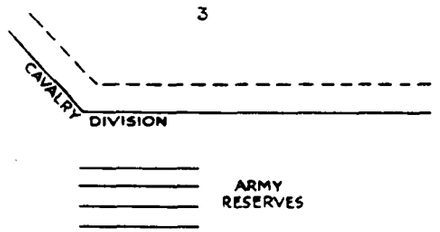
how? Will smoke ammunition be carried? If so, what kind and how much. Will he ask for light tanks to accompany his column? Armored cars?



(*b*) After a long and stubborn engagement, the army commander feels able to break through the enemy's center and moves a cavalry division to the rear of the place where the break through is anticipated, with a view to pushing the cavalry through the opening for the purpose of exploiting the success and creating confusion in the enemy's rear. What measure of concealment will be used while the cavalry is assembled in waiting? During the infantry attack, what measures will be taken to keep informed of the situation? To discover and mark routes for the advance? To prepare signal communications for use after the cavalry is through the opening? For prompt delivery of orders to subordinate commanders for the rapid advance through the opening?

The break through is made, but the enemy brings continuous artillery fire upon the whole area through which the cavalry advance must be made, and he may be expected to bring such fire upon the area beyond the opening. What formation will be used in marching forward? Will the advance into the enemy's area be by bounds, stopping for realignment and reorganization, or will the advance be continuous? What will be done with prisoners and captured material? How will touch be kept between division headquarters and subordinate units? Between the subordinate unit and units on its flank? Where will division headquarters be located? How will extra ammunition be brought forward? How will the troops be informed what areas have been gassed by

our artillery and must therefore be avoided? Through what agency would the division commander obtain this information? How will the division commander know what point or areas are the best objectives for his attack? How would he get the information necessary to enable him to reach a decision on these points?



Having by today's engagement brought the enemy to a halt and tied him to his position, the army commander decides to use all of his infantry reserves in an enveloping attack tomorrow at daylight. He will envelop the hostile right flank, bringing the reserves into place behind the screening cavalry during the night. As commander of the cavalry division, how will you make the necessary arrangements with the commander of the enveloping attack? What plan do you recommend for employing your men to guide his units into place without noise and confusion? What plan do you recommend for the further use of the cavalry division? Can the commander of the enveloping attack set up his advance wireless stations and have them opened much before daylight? If not, why not. What arrangements must be made to get your men and horses together after the enveloping attack has passed your front line? How will you feed your men and horses tonight and tomorrow? How get a re-supply of ammunition? How water your horses? Can lights (hand, automobile, or other) be allowed during the night in the area controlled by your military police? How and through what agency will regulation of lights and road traffic be accomplished?

Many other kinds of problems, very complex in their nature, will come before the commander of a large cavalry force. How

would such a commander, for example, go about any of the following with our present organization, armament and a staff if he were facing a modern enemy:

(*a*) Employing cavalry to pursue by a parallel route, the infantry following the enemy by the direct route. Would it make any difference if the enemy were poorly armed and organized?

(*b*) Cover a retreat which was slow and required him to fight a series of delaying actions. What would be his system for keeping informed about the enemy? For keeping constantly informed of location and situation of his own units?

(*c*) How would his units be instructed to go about the reduction of a series of machine-gun nests? Would he need any weapons not included in our cavalry armament?

(*d*) How would his troops act in the event of encountering hostile light tanks? Armored cars? Have his troops or officers been instructed in the tactics to be employed in such an event?

(*e*) What dismounted formation would be used for an attack against hostile infantry and machine guns? A hostile force of all arms? Does the Cavalry Drill Regulations give you any suitable formation?

(*f*) What formation would be adopted to cross an area when the area was under machine-gun fire? Artillery fire? Is there a difference? Do your officers know what formations are best? What formations and methods would be used for concealment from high-flying hostile airplanes when troops are caught in the open?

If the cavalry officer will consider any or all of the above examples and try to apply his ideas to concrete cases on the map, he will probably find some point of organization, armament, or drill training that is not suitable for the work he wants to do. The object of this article is merely to bring to the mind of the individual

cavalry officer some of the deficiencies of our branch of the service and to urge that we all join in an effort to remedy them.

In general, our theory of cavalry employment has nothing to reject in favor of some foreign substitute. Foreign cavalry is learning what we learned in 1861-65. On the other hand, we have learned little since that time and forgotten some things that we then knew. Times have changed; so has the character of warfare. While the main principles of employment of cavalry as illustrated in the Civil War are correct, minor principles and details are totally changed by modern developments, but we have not developed accordingly. In combating a scattered and poorly organized enemy, our Cavalry is as good as any, and perhaps superior to any, in the world. There is no reason why we should not come abreast of the times for dealing with a modern and concentrated enemy. Not only must we know how to go about obtaining the necessary teamwork for larger units, but we must have practice in the application of theories to concrete cases. For such practice it is essential that we have a complete cavalry division at all times, and that it be located where there is opportunity for its maneuver. Then all officers and regiments should take turns in serving tours of duty with this division.

Let us get busy and accomplish this result, but let us avoid the other extreme of becoming a victim to each enthusiast's fad and fancy. We must build on the theory of becoming a part of the whole military machine, and to do this we must know how all the other parts function, and our relation to the functions of all the other parts. There can be no sense of aloofness, no attempt to work alone. We must work sympathetically and unitedly with all the other branches of the service and fit into our indispensable place in the whole united Army.

Mobility

By

Major GUY V. HENRY, Cavalry

(Brigadier-General, U. S. A., Commander 15th Division)

AMERICA'S PARTICIPATION in the World War has taken most cavalry officers away from their arm and has brought many new ones into it.

The war is over and cavalry officers are returning to their arm, confronted with the problem of reorganization and the training and absorption of the vast amount of new material coming in.

The older officers charged with this reorganization are asking themselves, "What has the World War taught about cavalry, and how are we to bring our organizations to a standard required of the arm as shown by that war?"

The war has demonstrated that the American theories for the training and use of cavalry are thoroughly sound. It has shown that cavalry, to be successful in modern war, must have heavy fire power and great mobility, the most essential of these two being the latter, for without this the arm cannot fulfill its rôle when the supreme test comes.

If mobility has been proved so important, the question that we should ask is, "Was our pre-war mobility satisfactory?"

If we are honest with ourselves in answering this question, we must admit that, with the exception of isolated regiments or troops in a regiment, our mobility was far below what it should have been—our horses lacked conditioning, our officers and men lacked the will and the desire to ride.

Such being the answer to our question, we must seek the reasons which produced these conditions if they are to be corrected. They are many and various; but if we eliminate our lack of mili-

tary policy, undermanned organizations, and the indifferent remounts furnished our cavalry, the following resolve themselves, viz.:

Poor conditioning of horses, together with our stable management, which cannot be classed above average.
Indifferent shoeing.
Ill-fitting horse equipment.
Indifferent march discipline.
Lack of attention to feeding and watering in the field.
Badly timed commands.
Poorly gaited organizations.
Poor training of remounts.
Lack of efficient instruction in equitation.
Absence of both horses and men from mounted work.
Lack of real interest on the part of officers and men in their horses.

Until the above conditions are rectified, we can never hope for a maximum mobility, no matter what our military policy or the class of remounts furnished us may be.

Many will contend that the above condition of affairs did or does not exist. With these I beg to differ and insist that they do exist in numbers of our cavalry commands.

Conditioning is dependent upon rational exercise, feeding regulated according to work done, and proper grooming. In how many of our cavalry organizations are drills and marches based on the condition of the horses and conducted with a view of gradually building up their muscles and expanding their lung power until they are put and held in the condition of a hard, well-developed, athletic man? In how many of our organizations is the feeding varied with the work in view or at hand, and the feeding further graded according to the needs of the individual horse? Thousands of pounds of forage are annually fed to overfat horses and to underworked horses, which is simply doing the horse harm and which will cause him to drop down when called on for hard work, while, on the other hand, if properly distributed would be either a saving to the Government or a reserve on which to draw in time of need.

Indifferent shoeing is so frequent that most will admit it without comment.

In how many organizations is the equipment adjusted under the direct supervision of an officer and fitted so as to produce the maximum comfort in both man and horse?

Are rushing orderlies, horseplay, straggling, falling out, and slouching in the saddle completely eliminated during our marches? Do all organization commanders keep a qualified subordinate in rear of each column, who effectively eliminates the above abuses? Do group leaders inspect the shoeing and adjustment of equipment at each halt and during marches insist that accurate gaits and cadence be maintained?

In the field, do officers study ways and means and hours for feeding, so that every ounce of forage available will be consumed to advantage, none wasted and none trampled in mud or sand? Are all organizations so trained and supervised that each horse can quietly drink his fill?

Does each leader so give and time his commands that they are suitable to the gait, and give them so that they may be obeyed by every man and horse at the instant given?

Do these same leaders set correct and accurate gaits, and if such are set are the men and horses so instructed that they will keep them?

Are our remounts properly trained, and is our instruction in equitation efficient or sufficient? Great progress was made along these lines before the war, but there is still much to be desired.

Most of the commanding officers are very insistent that all men attend mounted work, but are they equally insistent that all horses do the same? If not, each unconditioned horse is a weak link in the chain of mobility when hard work is demanded.

Do our officers and men really take an interest in their horses, and do they really desire to ride them for pleasure and recreation? Is not the horse with many of these individuals an article to be put aside as soon as the prescribed day's mounted work is done?

Until each of our organizations can be classified as superior in everything which I have mentioned, we cannot lay claim to

proper mobility or to such mobility as the other branches of the service can rightfully expect of us.

If what I have said is true, why should such a condition of affairs exist? As previously stated, there are many reasons, the principal ones being that officers do not receive any systematic education in these matters and simply grow up in the service, absorbing such information and ideas as may come their way. Regimental and squadron commanders do not sufficiently supervise their troop officers and insist that all practice such things as increase mobility and make the soldier comfortable when on the horse's back. These same commanding officers do not arouse enthusiasm in their officers and men to participate in various mounted sports and contests, and thus make them look to their horses for recreation rather than as simply tools for work.

What is the remedy for our future Army?

Educate our officers. Establish at the Cavalry School courses of instruction in every subject, proficiency in which will tend to increase mobility.

The War Department should bend its efforts in organizing and maintaining at the Cavalry School an especially selected regiment of school troops, which should in every way be a model cavalry regiment for the Army.

Send to the Cavalry School for the next few years the largest possible number of officers.

Establish a corps of competent visiting instructors, who will visit for short periods every cavalry organization in the Regular Army, National Guard, and R. O. T. C. units and instruct by lectures and demonstrations officers of these organizations in all that is being taught at the Cavalry School, or in any subject that will tend to standardize instruction and promote efficiency.

Arouse interest in mounted sports and contests. Until officers and men look upon their horses as something more than tools for work, they will never take that interest in them that is essential for the highest mounted efficiency. Nothing will promote interest in all which pertains to the horse as keen rivalry in mounted sports and mounted military contests. Officers will procure good horses for these, will learn to condition them, to train them, and

to ride them. This enthusiasm will be passed on to the men who will spend their leisure hours in improving and training themselves and horses with the feeling that they are at play and with the resulting good that comes from enthusiastic voluntary work. The hours spent on a horse produce the rider ever eager for patrolling and whom long hard marches do not tire.

Appoint a Chief of Cavalry. Promptly appoint a Chief of Cavalry, or an Acting Chief pending legislation, who can establish standards for and who can co-ordinate and encourage all the subjects I have touched upon, together with the many others which are necessary for proficient cavalry—an officer who can be the leader, the careful mother, and the strict father of our arm; an officer who can surround himself with competent inspector-instructors, and who through them and by personal visits can continually keep himself in touch with every cavalry organization, so that there may be mutual understanding and an honest maximum efficiency demanded of all.

Only by the adoption of some such methods as suggested above will we improve on our pre-war general efficiency or will we arrive at a standard of mobility complimentary to ourselves, the only standard which the nation has a right to demand of its cavalry.

The Rout of the Turks by Allenby's Cavalry*

Palestine Campaign

By

Colonel GEORGE E. MITCHELL, General Staff Corps

THE THEATER OF OPERATIONS

EGYPT was formerly a dependency of Turkey, but the British in recent years displaced Turkish authority and assumed supervision of Egyptian affairs. When Turkey entered the war it became necessary for the British to protect their Egyptian interests and also the Suez Canal against attacks from Turkey by way of Palestine. From the beginning of history, Palestine has been the route of invasion of Egypt from Asia Minor, and *vice versa*.

In 1915 the Turks had assembled in the vicinity of Beersheba for an attack on the Suez Canal and an invasion of Egypt. A force of 20,000 Turks was driven back from the canal, losing 1,000 or more prisoners and many guns. During this year the Germans and Turks constructed many military roads and railroads, preparatory to another attack in 1916. The attack in 1916, however, was also unsuccessful.

On the other hand, the British under General Sir Archibald Murray advanced from the Suez Canal to El Katia, El Arish, and in the spring of 1917 were at Wadi Ghuzze, near Gaza. Great difficulty was experienced in the supply of water and other necessities. In March and again in April the British attacked the Turkish position at Gaza without success, after which they withdrew to the Wadi Ghuzze. For six months thereafter the British were occupied in improving their lines of communication. Meanwhile General Sir Edmund Allenby had relieved General Murray in com-

* This article is based upon accounts of the Palestine Campaign in Nelson's History of the War, "The Times History of the War," and upon the account of Colonel Edward Davis, U. S. Cavalry.

mand in June, 1917. The summer, however, was unfavorable to operations, as it was the dry season, and the scarcity of water was greater than ever. To overcome this difficulty a pipe line was built from Egypt to bring in water, and a light railway was next constructed, so as to accumulate supplies for use during the operations which were contemplated for the fall of the year. Later on this light railway was extended along the Wadi Ghuzze to Karm and toward El Buggar.

The country through which the British had advanced from Suez to the Turkish position is sandy and dry. To the south and east of Beersheba it is little more than a wilderness, but to the north and northwest the land is cultivated during the spring, producing grain and fruit. Beersheba itself lies in a valley, called Wadi-el-Khalil, extending south from Hebron. At Beersheba this valley turns westward, under the name of Wadi-es-Saba, and still farther west it is called Wadi Ghuzze. About three miles east of Beersheba is a lofty hill, called Tel-es-Saba, which was the site of ancient Sheba.

The main Turkish position extended from Beersheba northwest to Gaza. Beersheba was established by the Turks a few years before the war as a frontier military post, and after the entry of Turkey into the war it became the depot for the forces operating against Egypt. It was strongly fortified. An excellent road was constructed along the Palestine watershed from Beersheba to Hebron and Jerusalem. A newly constructed railroad connects Beersheba to Jerusalem and Damascus and extends south of Beersheba to El Auja. North of Beersheba the country is hilly, and as one approaches Bethlehem the country becomes mountainous and difficult.

Gaza, at the other end of the Turkish position, was on a fortified hill about three miles from the sea. A good road connects Gaza with Er Ramleh, on the main road between Jaffa and Jerusalem, and a railroad recently constructed extended from Deir Sined (Beit Hanun), five miles north of Gaza, to El Tineh, a station on the Beersheeba-Jerusalem Railroad.

The remainder of the Turkish line followed a road on the high ground north of the Wadi Ghuzze, with strong points at intervals

of about five miles. These strong points in general occupied ridges commanding the ravines branching off from Wadi Ghuzze. The strongest of these positions were Atawineh Ridge; Hereira and Rushdi in the center, and Abu Irgeig nearer Beersheba.

The country along the seacoast consists of sand dunes for an average distance of three miles inland. The country then becomes higher and more fertile, till it culminates in the mountains lying between the Dead Sea and the Mediterranean. This land between the sea and the mountains is called the Philistine Plain. The plain is broken in general by valleys, or wadis, extending from the mountains to the Mediterranean Sea. They are dry except in the rainy season. Near their mouths these wadis have steep banks and are in reality small ravines. The principal valleys, as one goes north from Gaza by the sea road, are first Wadi-el-Hesy, 10 miles north of Gaza; second, Nahr, 22 miles north; third, Wadi Surar, 32 miles north; fourth, the historic vale of Ajalon (Nahr Alija), leading to Jerusalem from Jaffa.

THE PLAN OF CAMPAIGN

By the fall of 1917 the British had successfully defended the Suez Canal, but had not gained decisive results. Falkenhayn had assumed charge of Turkish operations, with orders to regain the territory which had been lost to the Turks. The British could not stand fast and await the Turkish attack. They had to advance. In Jerusalem they had a tangible objective. Its capture would have a depressing effect on Turkish morale and would be felt in the Mohammedan world. An attack by the British on the Turkish position was necessary.

A frontal attack was not likely to succeed, because the Turkish position had been strengthened since spring with men, guns, and by works constructed between the two flank fortresses of Gaza and Beersheba. Although the Turkish position was apparently a fortified line, there were gaps in this line, of which the most notable was that between Hereira and Beersheba. This gap was so great (about 15 miles) that Beersheba was virtually a detached fort.

If the enemy position was to be turned, the eastern end offered the greater prospect of success. It required the prompt capture of Beersheba at the beginning of the campaign, then an attack on the Hereira-Tel-esh Sheriah line, and a further attack against Gaza from the east, along and behind the ridge extending from Gaza toward Hereira. To make the attack on Beersheba a success, it had to be sudden and its capture must be accomplished before reinforcements could reach the place.

This plan of attacking the left of the Turkish line had been considered by General Murray in March, but had been rejected because of the difficulty of supply. These difficulties had been reduced by the extension of the British railway to Karm and by the improvements in the lines of communications extending from Egypt. There was good water at Beersheba, Hereira, and at Sheriah, but nowhere else in the immediate vicinity. Motor and wheel transport were unsuitable for the country south of the Gaza-Beersheba line and camels would have to be used.

The country around Beersheba is cut by numerous deep watercourses, of which the Wadi Sabi is the most notable. In the angle between the Wadi Saba and the railroad to El Auja lies Hill 1070. This hill was well fortified and commanded the town and the country southwest of Beersheba.

THE CAMPAIGN

In order to draw the Turks' attention away from Beersheba, a heavy bombardment of the Gaza fortifications was begun on October 27th, while the British were moving their troops to the east preparatory to their attack on Beersheba. The British took precautions to conceal this movement by marching at night. On the 30th the bombardment of Gaza was assisted by the fleet in the Mediterranean. On the night of October 30-31, the troops for the attack of Beersheba started in the moonlight for their attack positions. The attack was begun at daybreak by the 53d Division (Welsh). This infantry division had taken Hill 1070 by 8.45 a. m. Two other infantry divisions about noon attacked the Turkish

positions between Wadi Saba and the Khalasa road. This attack was not progressing well, and in the afternoon consideration was given the question of breaking off the engagement, when it became known that Beersheba itself had been entered by the cavalry, which, starting the night before, had circled the town to the east and attacked from the northeast. The infantry attack was, therefore, continued, and by nightfall the last of the Turkish redoubts on this part of the field had been captured.

CAPTURE OF BEERSHEBA BY THE CAVALRY

While the infantry were attacking southwest of Beersheba assisted by the Imperial Camel Brigade, the main body of cavalry, composed of the Australian Light Horse, the New Zealand Rifles, and the Yeomanry, had started from their bases at Sha'uth and Shellal on the night of October the 27th and had ridden in a southeasterly direction to Kha Lasa and Ashuj. Remaining at these places until October 30th, they again set out that evening, and after a night ride of over thirty miles they reached by 5.00 a. m. on the 31st the high ground east of Beersheba. No enemy had been encountered, and, seizing the advantage which they had gained by completely surprising the Turks, dispositions were at once made for an attack.

The Australians and the New Zealanders were ordered into action and the Yeomanry Division held as a reserve. One detachment was sent north to secure positions on the Hebron road and a second detachment was dispatched from the Anzac Division to attack Tel-es-Saba. Both of these detachments fought all day, succeeding in a general way in accomplishing their missions, especially the attacking force sent against Tel-es-Saba, which by a dismounted attack captured the town late in the afternoon.

Various attempts meanwhile had been made to force a way into Beersheba itself, but without success, until just before dark the 4th Brigade of Australian Light Horse, after having cleaned up the village of Saba, charged across the open plain into the town.

TROOPS ENGAGED

The cavalry which had thus played such a decisive part in the capture of Beersheba was known as the Desert Mounted Corps. It consisted of

(*a*) The Australian Mounted Division,
(*b*) The Anzac Mounted Division,
(*c*) The Yeomanry Division,
(*d*) The 7th Mounted Brigade, and
(*e*) The Imperial Camel Brigade,

a total of approximately 18,000 horsemen.

A few words of explanation of each of these units will aid the reader in understanding better the composition of the Expeditionary Forces in Palestine.

The Australian light horse and the New Zealand mounted rifles are classed as mounted infantry. The British yeomanry are armed with the sword and rifle in the same manner as the British regular cavalry. Their general status corresponds to that of the cavalry regiments of our organized militia.

The Australian Mounted Division consisted of two brigades of light horse and one brigade of British yeomanry; each brigade consisting of three regiments of three squadrons each. It was commanded by a British regular.

The Anzac Mounted Division consisted of the New Zealand Mounted Rifle Brigade and two brigades of Australian Light Horse, each brigade consisting of three regiments of three squadrons each. It was commanded by a New Zeanland major-general pertaining to the permanent establishment of New Zealand.

The Yeomanry Division consisted of three brigades of Yeomanry, each brigade having three regiments of three squadrons each. It was commanded by a British regular.

The 7th Mounted Brigade consisted of two regiments of yeomanry of three squadrons each. It was commanded by a British regular. It was carried as a separate brigade merely because there were no other brigades with which it could be combined into another division.

The Imperial Camel Brigade was organized as a brigade of three rifle battalions and the men rode camels. It was commanded by a British regular.

We should bear in mind the following table of approximate equivalents:

A British troop equals one of our platoons.
A British squadron equals about two of our troops.
A British regiment equals a large squadron in our service.
Their brigade equals one of our regiments.
Their division of three brigades equals about two of our brigades.

The word "cavalry" has been applied to all the horse mounted troops of the Desert Mounted Corps because they are in effect cavalry. It is a waste of time to say mounted this and mounted that, when speaking of troops which are really cavalry and which in this campaign performed cavalry functions, even to the extent of delivering mounted attacks.

ATTACK OF THE 4TH AUSTRALIAN LIGHT HORSE AT BEERSHEBA

The brigade was assembled in a valley, with the exception of the 11th Light Horse Regiment, which was on detached duty about two miles away.

The brigadier and brigade major, accompanied by the commanding officer of the 4th and 12th Light Horse Regiments, went forward to reconnoiter the most suitable ground for the approach of the brigade to the point of deployment.

The brigade was ordered to move as soon as ready, which it did shortly after 4.00 p. m.

The charge was made with the rifle slung on the back, its customary place, each man holding his bayonet in his right hand and leaning forward in the position of "charge saber." The length of the blade of this bayonet is 17 inches. They charged in three lines with four yards' interval between troopers. They covered the distance of 1½ miles over gently rolling ground at the gallop.

They were under machine-gun fire on their left flank, but their battery silenced this in less than two minutes, after the first shot was fired. A certain amount of shell fire and rifle fire met them, but it was all high. An officer examined the captured Turkish rifles after the charge and found three-fourths of them sighted at 800-900 yards and higher. In the excitement the Turks had neglected to lower their sights.

The action in detail was as follows: The 4th Light Horse Regiment was on the right and the 12th Light Horse Regiment on the left, the 11th Light Horse Regiment coming along later as a reserve. It was delayed on other duty, as a matter of fact. The leading squadron of the 4th Light Horse, or right regiment, jumped the Turkish trenches in their front and went on. The Turks in the trenches signified surrender, but after the squadron jumped over them they picked up their rifles and began shooting the Australians in the back. Just at this time the second squadron galloped up and dismounted (some of them of the parapet) and finished these Turks with the rifle. In the meantime the leading squadron, which had jumped the trenches, encountered what was the bivouac of the enemy's reserve at this point and had to fight them among their tents and dugouts. By this time the third squadron had come up, galloped around the right of these trenches, and gone to the assistance of the first squadron among the tents and dugouts.

In the meantime the first squadron of the left regiment galloped up to within about 100 yards of the trenches in its front, dismounted, and sent horses back with the horse-holders; then assaulted the trenches on foot.

The second squadron of the left regiment galloped through an interval in the trench system, right into the town of Beersheba, and fought it out in the streets, being quickly supported by their own third squadron, and somewhat later by the entire 11th Regiment.

The 11th Light Horse Regiment, which had arrived at the point of deployment after the battery had come into action, was moved forward, together with the Notts Battery and a Battery H. A. C., to Beersheba.

On reaching that point the commanding officers of the 4th and 12th Regiments reported that they had captured the place. The 11th Regiment was accordingly ordered to push through the town and hold it against any counter-attacks by the Turks from the north, west, and southwest.

This was carried out and the 11th Regiment captured about 400 prisoners, who were retreating from the southeast.

The 4th and 12th Regiments were ordered to withdraw from their line and reorganize.

When this was done the 4th A. L. H. Regiment took up an outpost line from the Wadi-es-Saba to the mosque, and the 11th Regiment from the mosque to the Khalasa road, the 12th Regiment being held in reserve near the railway viaduct.

The two batteries were placed in position near the bank of the wadi south of the town, so as to co-operate in driving back any counter-attacks by the Turks.

The brigade remained disposed as above until relieved by the 7th Mounted Brigade and the infantry the following morning.

All ranks behaved in a most admirable manner and fearlessly charged several successive trenches at a gallop, in many cases in the face of severe machine-gun and rifle fire.

The rapidity of the attack seemed to demoralize the Turks and also avoided their artillery fire. About 5.00 p. m. two enemy planes passed over, dropped bombs, and on returning one flew low and machine-gunned brigade headquarters personnel, signal troops, and pack riders, doing no damage, however, beyond one horse wounded.

The Australian casualties were 64 killed and wounded. The Turks lost 700 men captured, 10 field guns, and 4 machine-guns.

The charge was a perfect example of that type of cavalry action which seeks to use the swiftness of the horse to cross a fire-swept zone with a minimum loss, and then to defeat the enemy with rifle fire. It must be borne in mind that these trenches had no wire in front of them. They were a part of the trench system on the extreme left of the Turkish Palestine front, and no doubt the Turk believed no troops would be able to march around that far and be able to deliver an effective attack against the troops which he

could concentrate by using his interior lines. He overlooked the marching power of cavalry, the surprise attack, and the mounted charge.

THE TURK FALLS BACK

The general plan of the campaign contemplated that Beersheba must be captured in one day if the subsequent operations were to be developed to the maximum of success. It was this charge which captured Beersheba and made it possible to continue further operations according to the original plan.

On November 1 Irish troops moved to Abu Irgeig, on the road to Sheriah, and the 53d Division and the Camel Brigade moved due north from Beersheba about 12 or 13 miles. The Yeomanry, Australian, and New Zealand Cavalry were sent up the Hebron road. There was a great deal of fighting in the hills on November 2d and 3d. By the evening of the 3d it had been determined that the Turks were entrenched along the line Tel Khuweilfeh to Ain Kohleh. The Turks made several strong attacks in this part of the field on November 4th and 5th, in an effort to draw British troops to this front. These attacks were beaten off by the cavalry, which had been stationed to protect the left flank of the British.

Meantime, on the 3d and 4th, the British attacked Gaza in order to conceal the next phase of their campaign, vig., the attack on the line from Sheriah to Hereira.

On November 6th the infantry from Abu Irgeig attacked toward Sheriah, while the 53d Division attacked Tel Khuweilfeh. The Yeomanry were engaged at Sheriah dismounted, at the north end of the position. Most of the casualties of this fight were suffered by the Yeomanry, who early in the day carried the trenches in their front. By evening Sheriah was in the hands of the British, Tel Khuweilfeh was captured, and the Turks were in retreat from this line.

The mounted troops had been held ready for the pursuit, but the fighting had not opened the way on the 6th, but on the 7th the cavalry moved out, following the Turks toward Huj and Jammameh. The Turkish resistance which was encountered during

this pursuit was the flank guard of the Turkish army, which was withdrawing from the entire position.

On November 8th the Turks were pressed hard from both Sheriah and Gaza. Hardly had the British entered Gaza on the 7th than the Indian cavalry moved toward Beit Hanun, which place was the terminus of the Jerusalem-Gaza Railroad. It had been the headquarters of the Turkish army.

The Indian cavalry and Scotch infantry drove the Turks out of Beit Hanun, while the Yeomanry and London infantry entered Huj, which was the advance depot of the Turks. The infantry commander, observing a Turkish column on the march about 2,500 yards away, ordered the Yeomanry to charge.

The charge was made by about 300 of the Yeomanry (10 troops) over 1,000 yards of very gently rolling country, treeless, like Beersheba. They charged in three lines, using the regulation British cavalry sword. Twelve guns, Krupp 77's, were opposed to them, and eight of these guns were in action. Supported by artillery and infantry fire, they charged in among the gunners and put them to the sword, capturing eleven of the guns. Then they continued on to another crest, about 500 yards beyond, and captured four machine-guns which were in action against them. The Yeomanry lost 60 men, killed and wounded.

This charge was an example of using cavalry mounted action and a bold surprise stroke to clean up rear-guard artillery, which had been holding up the infantry advance. There was no wire in front of the guns. The Turks were retreating too rapidly to put down wire and probably at this time had no wire with them. The charge was ordered by Major-General James Shea, a division commander, who was himself a cavalry officer and saw the opportunity.

Huj and Jammameh were captured on November 8th and the mounted troops established contact with the British forces advancing from Gaza.

On the 9th, 10th, and 11th of November the pursuit of the Turks continued. The Indian troops and the 52d Division advanced along the coast, preceded by cavalry screens. The Londoners and Yeomanry were more to the center, while the Australians and other mounted troops of the Desert Mounted Corps were on the right of the line. The 53d Division remained at Khuweilfeh, on the Hebron road, and did not move for nearly a month.

By the 12th the British left wing had crossed the Sukereir Wadi and in the center the Yeomanry had reached Gath (Tel-es-Safi). At this place the Yeomanry were attacked by the Turks before the infantry had caught up. With odds of 10 to 1 against them, the Yeomanry held their position until the infantry arrived and relieved them. Farther east the Australian Light Horse took up a wide front and stopped all Turkish counter-attacks.

The defense of railroad junction centered around Katrah and El Mughar. The 52d Division and the Yeomanry attacked, but were not making satisfactory progress until the Yeomanry were sent to attack El Mughar from the north.

THE ATTACK ON EL MUGHAR

This was a remarkable and very successful charge, made by 1,000 Yeomanry (6th Brigade) against about 1,200 Turkish infantry, intrenched on the top of a range of hills about 150 feet high. The Turks had two field guns (Krupp 77's) and fifteen machine-guns. All the guns, machine-guns, and 1,096 Turks were captured. The loss of the position itself affected definitely the whole Turkish line. The Yeomanry loss was 129 killed and wounded, and about 150 horses killed.

The charge was made on the left of the 52d British Division and in co-operation with that organization, which was itself attacking the adjoining village and ridge of Katrah.

The Yeomanry in charging El Mughar Hill had to cross a flat plain about 4,000 yards wide, doing the first half of the distance at the trot and the second half at the gallop; then up the hill 150 feet high, the slope being about twenty degrees. The ascent is difficult, even in quiet moments. About twenty horses, wounded going up the hill or on the crest, did not fall until they had passed some twenty yards over the crest.

For this charge the Yeomanry had in line two regiments, each in three lines, with the third regiment in support. The total front was 1,500 yards, with four yards between troopers. The weapon used was the sword. They were under shell, rifle, and machine-gun fire, all of which was wild as they crossed the plain, although while crossing about fifty horses dropped. Near the foot of the hill their losses began to increase. One troop dismounted right at the foot of the hill to fight on foot against a certain machine-gun, but their horses were caught by another machine-gun and thirty of them went down in a heap; some six or seven men were hit also at this place.

The artillery and machine-guns of the Yeomanry co-operated very effectively. The guns of the 52d Division may possibly have fired onto this hill. One is not positive about this and is inclined to doubt it, because just at this time the 52d was finding Katrah a very hard nut to crack, especially with El Mughar on its flank. The 52d was in fact held up for the time being, and this charge was a desperate way to smash the resistance of a tenacious enemy. That it succeeded is most remarkable, and the more one studies the El Mughar position the more one is astonished; but it shows what can be done with luck, dash, and courage.

The Turkish officers, when questioned after their capture, made the following comment on the charge: "We were amazed and alarmed, because we could not believe our eyes. We had been taught that such a thing was impossible, and that no one would even dream of attempting it; yet now we saw this very thing being done. We did not know what to do."

One should bear in mind that the Turks were intrenched on top of this range of hills, but had no wire in front of their trenches. They had been retreating at least every other day for two weeks. They were not well fed and probably were low in spirit.

After the loss of El Mughar the Turkish resistance weakened on the whole line. By evening they were in general retreat, part going north and part east, toward Jerusalem. El Tineh had been captured by the Australians. The British moved into Junction Station on November 14 and the Turkish army was definitely

split in two. Only on a line considerably north could the two parts be united. A distinct stage in the campaign had been finished. A Turkish army of nine divisions and one cavalry division had been defeated and pursued. Over 9,000 prisoners and large quantities of supplies had been captured.

JERUSALEM IS CAPTURED

Jerusalem was the next objective of the British. It was necessary, however, to first make the British left flank safe. The occupation of the country up to Jaffa was essential. The Turkish forces which had gone north had retreated only a few miles and their artillery was shelling Junction City. Accordingly, on November 14 mounted troops, followed by infantry, marched toward Ramleh and Ludd. On November 15 there was the fourth of the mounted charges of this campaign in which the British showed that cavalry was not an arm of the past. A ridge 750 feet high covered the main road from Ramleh to Jerusalem and flanked the advance of the British to Ramleh. On this hill, in the village of Abu Shuseh, a Turkish rear guard was established. Infantry attacked the position from the west, while the Yeomanry moved to the south and attacked mounted. This was another instance of galloping a steep hill; but the distance covered was very short compared with that at El Mughar and the approach was over rolling ground with good cover. About 800 of the Yeomanry charged with drawn sword against about 1,000 riflemen, 10 machine-guns, and 2 field guns. The Yeomanry had 36 killed and wounded. The Turks had about the same number killed and wounded and lost 360 men, 1 field gun, and 3 machine-guns captured. The charging Yeomanry were well supported by the fire of four field guns in the beginning and by from 8 to 12 guns later; also by about 1,000 riflemen and 12 machine-guns. It was an instance of a mounted charge employed in co-operation with dismounted rifle fire and artillery fire. The principal feature of the affair was that the Yeomanry had, in the first place, gone forward dismounted, with led horses following closely, when their commander discovered that the Turks were preparing a counter-attack. Seeing the op-

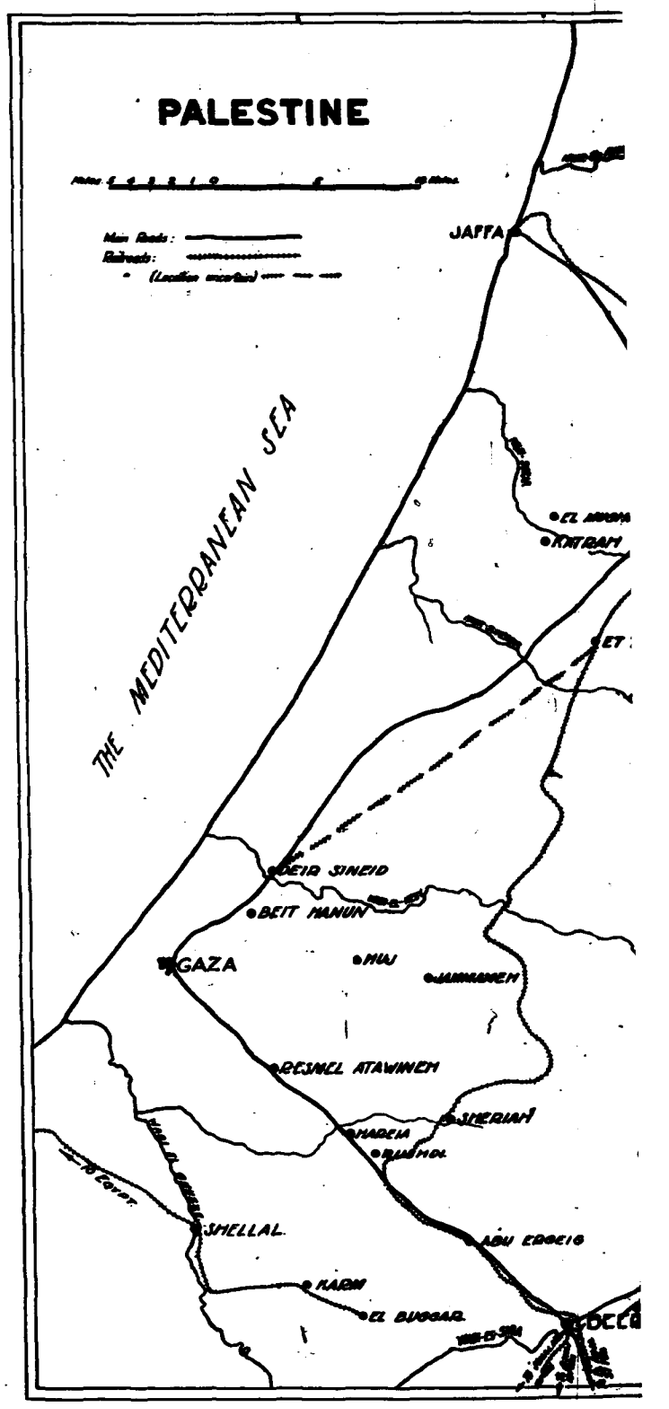
portunity, he quickly brought up his led horses, mounted, and charged the Turks when they came out from their positions.

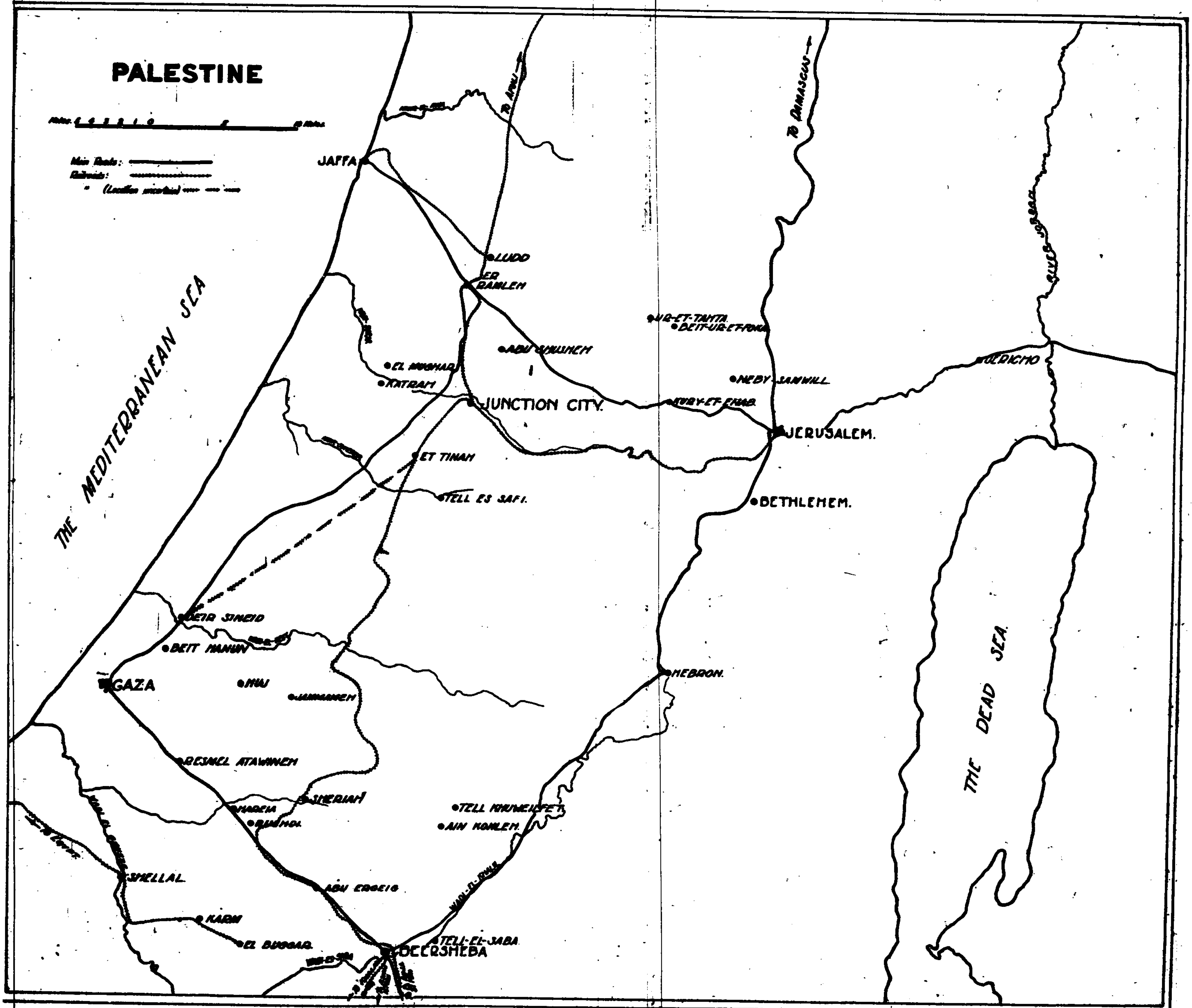
The capture of Abu Shuskeh marked the end of the Turkish resistance in the coast region for a few days. Ramleh and Ludd were occupied. The former had been the Turkish main headquarters, and in both towns large quantities of munitions were captured. On November 16 Australian and New Zealand cavalry rode into Jappa without meeting resistance. On the following day Yeomanry were sent from Ramleh into the Judean hills toward Jerusalem. This was only a covering movement to protect the British center while munitions and roads were being prepared for the advance on Jerusalem.

The west side of the Judean hills consists of numerous spurs running generally east and west. The spurs are separated by deep valleys through which the roads run. Only one good road traverses this range, viz., the Jappa-Jerusalem road.

The Yeomanry moved out from Ramleh so soon after the defeat of the Turks at El Mughar that little opposition was met, and by the night of the 18th they had reached Beit-ur-el-Tahta (Beth Horon the Lower). On the 20th they moved toward Beituna, where they encountered such stiff resistance that their advance was stopped. Meanwhile the infantry began their advance on the Jappa-Jerusalem road, and on the 20th they had reached Kuryet El Enab. Between the 20th and 24th the British captured, and held against strong counter-attacks, Nebi Samwil and Beit-ur-el-Foka (Beth Horon the Upper). The British artillery had been delayed and the infantry were unable to make progress until the roads had been repaired, supplies brought up, and the artillery put in position to support the infantry. The British used the intervening time in consolidating their positions. It was not until December 4th that the infantry renewed their offensive.

The 53d Division had remained at Khuweilfeh, eleven miles north of Beersheba, since November 11th. On December 4 this division, with a cavalry regiment attached, moved north on the road to Hebron and Jerusalem. They encountered little resistance, entering Hebron on the 6th without opposition and occupy-




PALESTINE
Main Roads:
Railroads:
THE MEDITERRANEAN SEA
JAFFA
LUDD
ER RAMLEH
TO DAMASCUS
RIVER JORDAN
JERICHO
NEBY SAMWILL
ABU SHUSHEH
EL MUGHAR
KATRAM
JUNCTION CITY.
JERUSALEM.
ET TINAH
TELL ES SAFI.
BETHLEHEM.
DEIR SNEID
BEIT HANUN
GAZA
HUJ
HEBRON.
THE DEAD SEA
SHERIAH
HAREIA
TELL KHUWEILFEH
AIN KOHLEH
SHELLAL
ABU IRGEIG
KARM
EL BUGGAR
TELL-EL-SABA
BEERSHEBA

ing Bethlehem on the 8th, after a show of resistance by the Turks. This column was delayed by bad weather.

The British forces to the north and west of Jerusalem were engaging the Turks while this column from the south were extending their lines to the east. The road leading to the north was closed by the British, but the road to Jericho was not. The Turks vacated the city on the 8th, and thus ended the campaign against Jerusalem.

(To be continued)

The Operations Division, War Department General Staff

BY

Colonel WALTER SCHUYLER GRANT, General Staff Corps

I

IT FELL to my lot not long ago to make a study of the workings of the Operations Division, General Staff, at the War Department. The object of this study was to suggest modifications in its existing organization, and the transfer to other divisions of the War Department General Staff of such functions performed therein as did not seem to properly belong there, and a similar transfer to the Operations Division of functions performed by other divisions.

In approaching the problem the attitude was adopted that the organization of the Operations Division was wrong, and that it performed many functions which should be performed by other divisions of the General Staff or by the services.

With such a mode of attack every principal function of the Operations Division was illuminated by the cold light of criticism. As a result three facts emerged in bold relief:

The first was: That the Operations Division was not an artificial organization, to which various duties and functions had arbitrarily been assigned, but was a hand-fashioned organization which had been gradually developed to perform certain functions closely related and quite inextricably intertwined.

The second fact was: That some functions now performed by the Operations Division, and which seemed at first glance to be manifestly the duty of some service, were the ghosts of some very real and highly important General Staff functions which had existed during the war and which should remain in the Operations Division in time of peace as a germ for expansion to their proper proportions in war.

And the third fact that stood out was: That for every main function there are a number of dependent ones, so closely related to the parent function that smoothness of working demands that they all be handled by the same agency; but, as the dependent functions increase in distance from the main function they become identical with dependent functions springing from a main function controlled by some other agency. In other words, there is a twilight zone between the General Staff Divisions in which many matters crop up that can be handled by any General Staff section with equal propriety.

II

We might briefly run over the history of the development of the present Operations Division of the War Department General Staff.

When the war started the General Staff in Washington was divided into two parts—those members of the General Staff at the War Department, who might be termed an Executive Branch, and those on duty at the Army War College at Washington Barracks, who formed the War College Division of the General Staff. The War College Division was itself divided into committees, viz., the Organization Committee, Equipment Committee, Training Committee, Legislative Committee, and Operations Committee. The last-named committee was interested in problems of national defense and strategy, including the making of recommendations as to the utilization and movements of existing organizations—in other words, in recommending troop movements in the United States and to and from our outlying possessions. When we entered the war we concentrated all our efforts on whipping Germany. At the same time all strategic plans connected therewith became a function of the General Staff of the American Expeditionary Forces or of the Supreme War Council, and other plans for national defense remaining under the jurisdiction of the Operations Committee were not of pressing necessity or importance, except as they dealt with our seaboard or southern frontier. Consequently the Operations Committee found itself chiefly occu-

pied with questions connected with shipment of troops abroad and their procurement in the types of organization desired.

In line with these duties, about the middle of September, 1917, the Operations Committee of the War College Division, acting under instructions from the Chief of Staff, had drawn up a schedule for the shipment of certain specially designated divisions. In this schedule the shipment of certain numbers of unspecified auxiliary troops in each of the months of September, October, and November, 1917, was included.

In carrying out this small military program there were, aside from the services, several agencies involved, viz.:

(*a*) The Operations Committee, War College Division. This committee amplified its original schedule by designating specific units of auxiliary troops to go in September, in October, and in November. It organized tactical divisions and other units to go by designating the organizations in the United States which were to compose them, and it organized new types of units that were to go, such as the trains, by designating the manner in which men and officers would be drawn from existing organizations for amalgamation into these new type units.

(*b*) The office of the Chief of Embarkation Service, in which the principal assistant was a General Staff officer, who was considered as a member of the Operations Committee, War College Division.

(*c*) A board of three officers at the War Department, which controlled the priority of equipment of troops and of which the executive member was also a member of the Operations Committee, War College Division.

(*d*) A committee of three officers at the War Department, which controlled, under the close supervision of the Chief of Staff, the calling and assignment of the draft, and which was composed of a member of the Operations Committee, a member of the Equipment Committee, and a member of the Organization Committee, War College Division.

The last two of these agencies developed partially as the result of an attempt to cut down the time taken in handling papers and partially as the result of a desire on the part of the Chief of

Staff to have the assistance of a group of staff officers that could work under his close supervision and direction in the solution of many new and unforeseen problems. All four of these agencies constituted the germ of the present Operations Division, which ultimately absorbed the Equipment Committee of the War College Division, became reorganized at the War Department, and, with certain readjustments, became charged with the function of carrying out our enlarged military program.

III

The Operations Division of the War Department General Staff is now divided into three branches, viz.:

Operations Branch,
Personnel Branch, and
Equipment Branch.

The Operations Branch is divided into the Troop Movement Section, the Enlisted Personnel Section, and the Miscellaneous Section.

The Personnel Branch handles only commissioned personnel; it has nothing to do with enlisted and civilian personnel.

The Equipment Branch is also divided into three sections, as follows: The Construction Section, handling matters connected with construction and real estate; the Equipment and Invention Section, handling matters connected with the investigation of inventions and with the types and allowances of equipment, and a Miscellaneous Section.

The Personnel Branch is divided into the Procurement and Discharge Section, the Administration Section, and the Promotions and Assignments Section.

IV

Those whose experience abroad has led them to the belief that the Operations Division of the War Department General Staff corresponds to the Operations Section, or G–3, of the General

Headquarters of the American Expeditionary Forces in France must correct that impression. It does not. The Operations Division in Washington corresponds quite closely to the G–1 of our General Staff in France. The only seemingly striking point of similarity between the Operations Division here and the Operations Section (or G–3) as it existed abroad is in the matter of troop movements handled by both of them.

But even this striking point of similarity, if closely examined, will be seen, as a matter of fact, to be not a point of similarity at all.

In France, as we have said, troop movements were a function of G–3; but military police were handled by G–1. The troop movements, presided over in this country by the Operations Division, are in the main military police movements, pure and simple; and the troops that are moved are, with the exception of those placed at ports of embarkation for an overseas war and those placed at concentration camps, where they come under the control of a commanding general in the field, for a continental war, military police organizations for domestic uses.

There are other reasons why troop movements are fixed as a function of the Operations Division of the General Staff of the War Department.

It may be remembered that earlier in this paper it was shown that the Operations Committee of the War College Division recommended and prepared orders for troop movements in the United States and to and from our outlying possessions. When the Operations Committee became absorbed in the newer Operations Division, this function was naturally also absorbed, and conditions that arose made it most unwise to transfer the function to any other General Staff division. These conditions had reference to the problems of transportation.

The Operations Division superintended the calling of the draft, its organization into units, and their shipment to the ports. To distribute the successive increments of the draft to the cantonments from the local boards was a problem in transportation of more than local dimensions; but this problem was further complicated by the necessity of making at approximately the same times

considerable transfers of men from camp to camp, transporting to the ports organizations destined for overseas, transferring specialists, etc. The ordinary troop movements, based on domestic requirements, or those of our overseas possessions were completely swallowed up in the immense movements of men, animals, and material of war required by the emergency. All these movements created a very complex railroad transportation problem. To simplify the solution of this problem it was essential to have all requirements for troop movements come to the Transportation Department from a single General Staff agency.

It would therefore seem as if the Operations Division is the proper agency for handling such troop movements as are supervised by the War Department. But there is no reason why the G–1 of an army should therefore have to handle them instead of G–3. The War Department problem of troop movements is entirely different from that of a combatant unit, such as an army.

It is interesting to trace other analogies between the G–1 overseas and the Operations Division at home. Take the following case:

From the moment we adopted the policy of sending troops abroad, the Operations Division, or one of the agencies from which it sprang, supervised their procurement, whether it was from existing organizations of the National Guard or Regular Army or whether it was from the raw material obtained through the draft. The supervision of the draft, or mobilization, became one of the principal functions of operations, and with the supervision of procurement came, as a closely dependent function, the supervision of the places where the draft could be housed—in other words, the supervision of camps, posts and stations, including matters connected with construction and real estate.

If the Operations Division were to procure men, they must have a place to put them. The situation corresponded to "purchase and storage," in which, again, the term "storage" corresponds to the old expression "billets and billeting," so common in the various tables showing the distribution of duties assigned G–1.

V

The Enlisted Personnel Section of the Operations Branch and the Personnel Branch handle two very important duties of the Operations Division. The first controls matters connected with enlisted and civilian personnel; the second supervises the commissioned personnel.

One very interesting feature of the work of the Enlisted Personnel Section that developed during the war was in the matter of handling specialists for the hundreds of units of special and technical troops that had to be formed in a hurry.

The draft naturally brought many men of specialized knowledge and training into the Army. In order that round pegs might be put in round holes, it became necessary to classify these men in such a way that they could be matched against requests from organizations for different types of specialists. A Committee on the Classification of Personnel was organized as a part of the Adjutant General's Department. This committee devised a scheme for classifying the men received through the draft in terminology that was made standard, both for purposes of requisition and supply.

Accordingly, when men were brought in under the draft they were classified in the Depot Brigades which constituted the gates through which the raw material was passed into the organized forces, and reports showing these classifications were sent to the War Department. Here these reports were tabulated by the Committee on the Classification of Personnel, which operated under the immediate supervision and direction of the Enlisted Personnel Section of the Operations Branch of the Operations Division. To this same committee came all requisitions for enlisted men, and, based on the priorities as established by the Enlisted Personnel Section, the committee drew up the orders of assignment after matching the requisitions against the tabulated reports.

The Personnel Branch was made necessary by the tremendous increase in the number of officers. The sources of supply were so diverse, the requirements so exacting, the matter of assignment of so broad a scope, and the problems of policy so many and varied that a centralized and uniform control was necessary.

Crossing of Streams by Small Detachments of Cavalry

BY

Colonel N. F. McCLURE, 11th Cavalry
(Brigadier-General, National Army)

THIS SUBJECT is one of extreme importance to the cavalryman of today. On almost every reconnaissance occasion will arise where streams must be crossed under unusual circumstances, while in time of war a cavalry detachment would be confronted with some problem of this kind almost every day and often several times in the same day. In this discussion, unless otherwise stated, it will be assumed that pack-mules will be able to follow the horses. The subject will be considered under four heads: *Fording, Swimming, Ferrying, Bridging.*

FORDING

This is the simplest and probably the most primitive method of crossing streams. The following conditions must exist in order that the crossing may constitute a ford:

(*a*) The water must be shallow enough to admit of crossing without swimming.
(*b*) The bottom must be free of quicksand and not boggy.
(*c*) The current must not be too rapid.
(*d*) The approaches and points of egress must be good.

Before entering deep water the animals should be watered; otherwise they may stop to drink *en route,* thus producing delay, disorder, and even danger, if the stream has a muddy or quicksandy bottom. The depth of water should not in any case be over five feet, and this must be less if the current is strong and there are dangerous rapids below. In a very swift stream, full of

boulders, three and one-half feet is about the greatest depth that can be passed without danger of horses falling and being swept down-stream. Pack-mules are sometimes overturned in such a stream by the current striking the packs and rolling the animals over. Where there is danger of this, each mule should be led with a lariat about his neck. Unless this is done, he will be very liable to drown if he loses his footing. With the rope around the neck or snapped in the halter ring, the animal can be towed ashore.

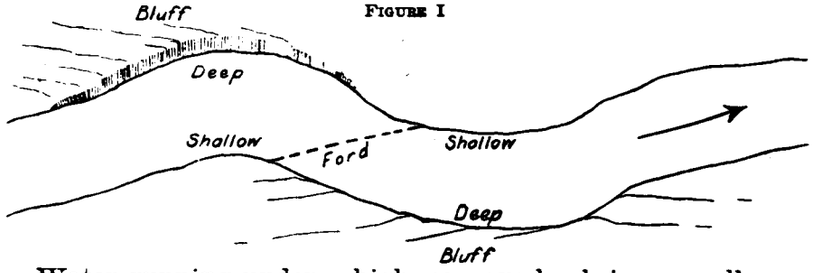
The difficulty of fording is much increased by the danger of bogging in muddy places or of getting into quicksands. If there be time to reconnoiter, a place can generally be found in almost every stream where these dangers are lacking. They are rarely present in mountain streams, which generally flow over boulders and beds of coarse gravel. Even where there is fine sand, if it be interspersed with particles of gravel as large as a hazelnut, it may generally be assumed that the bottom is safe to ford. The danger from quicksands is much lessened if animals are pushed along and not allowed to loiter. Clear streams are somewhat deceptive as to depth. Great care must be exercised in boggy streams, which are usually also muddy and the nature of their bottoms uncertain. In such cases it is often advisable to send in a good swimmer to investigate. He may be mounted on a well-trained horse or go afoot. If afoot and the stream be swift, he should have a rope fastened about his waist or held in his hand and held by some one up-stream on shore, so that if swept off his feet he can be towed ashore.

In rapid streams, if any attempt is made to march directly on the point of egress, the horses will unconsciously work down-stream with the current and may get into deep water below the ford. In such cases, each man should keep his eye fixed on a point 30 degrees or more up-stream above the intended point of egress, the horses being in echelon in oblique formation, their heads pointing 30 degrees up-stream above said point. If there are pack-mules, each should be led by a well-mounted trooper. If infantry is to use the same ford, and is at hand, it should cross first. Where streams are so that infantry can ford them, the

cavalry can generally find another fording place a little above or below the main ford, and thus save time and avoid damaging the infantry ford.

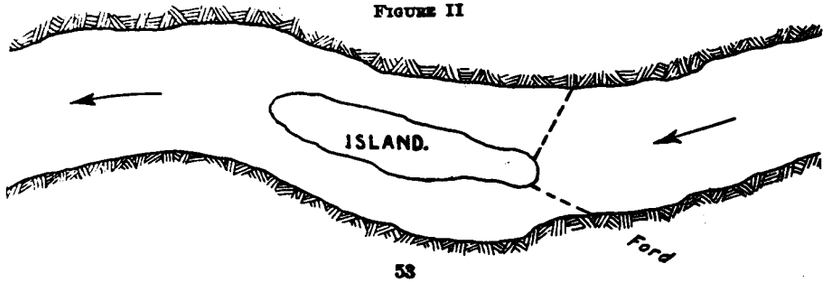
A similar course of reasoning applies to fords to be used by wheeled vehicles. The swifter the current, the more shallow must be the ford to be passable. Approaches can generally be found. The main difficulty is to find points of egress nearly opposite those where the ford begins. In many cases the banks are so high and steep that this is a difficult problem. The best place to ford is usually at a rapids free from large boulders. An island in mid-stream often simplifies the matter considerably. The shallow water generally runs over a rapid beginning at a point on shore at a distance up-stream above the island equal to the distance of the island from the shore and extending diagonally down-stream to the upper end of the island. It then turns and goes diagonally up-stream to the opposite shore (Fig. I).

FIGURE I



Water running under a high, concave bank is generally very deep, while that running around a low convex point is usually shallow. Advantage is often taken of this to cross a stream diagonally that would be unfordable in going directly over (Fig. II).

FIGURE II



In wide or muddy streams the route of the ford must be in some way indicated. Boulders sticking up in the stream, trees or stones on the shore, stakes driven in the bottom, sandbars, islands, rapids, and mounted men on quiet horses stationed at intervals along are some of the methods used for this purpose. In short fords, over comparatively narrow streams, the ford is sufficiently indicated by tracks of wheels and horses' hoofs, particularly at points of entrance and egress.

The ordinary woodsman or mountaineer will cross a stream which he knows, making half a dozen changes of direction, without wetting his horse's belly, while one unacquainted with the place would probably be over his depth before he was well under way. One point about fords to be guarded against is the fact that they often change after freshets. In such cases they should be newly reconnoitered. Crossing fords with wagons will be mentioned under the head of bridges.

SWIMMING

In cases of narrow, deep, swift streams, one of the easiest methods of crossing is by towing. A suitable place is selected with a tree handy on the opposite bank. Two men then cross. This may be accomplished by a foot-bridge, foot-log, boat, each riding a barebacked horse that understands swimming, or swimming with a rope around the waist or held in the hand. A rope is tied around the neck of an animal to be taken over and a half turn is taken with it about the tree by the two men on the opposite shore, who have already crossed. The animal is then forced in, and the current and his own swimming swings him over, one man assisting him to land while the other takes up the slack and keeps the rope taut. The saddles, packs, etc., can generally be left on the animals. The men may be towed over in a similar manner. If there is much danger, packs had better be removed from pack-mules before putting them in the water. Things which it is desired should be kept dry may be slid over on a rope stretched between two trees or may be wrapped in a good slicker and towed over quickly. The method here described can be used over small

streams only. A foot-log can often be constructed by felling a tree across the stream at a suitable point, or one may be found which has been washed down or blown down. If the stream is wide and deep and no ferries or bridges exist, then it will generally be necessary to resort to swimming. Horses will usually follow a leader across any ordinary stream. A single man riding a swimming horse will often be followed by a whole herd. The men, saddles, equipment, etc., are taken over in boats. If there are no boats available, then men swim alongside their horses on the downstream side with one hand on the mane, using the other to guide the horse by pulling on the cheek-piece of his bridle or halter. Should the horse turn too far, the rider must slip over his back and pull the opposite cheek-piece. A good sensible horse must be in the lead; better two or three. In case there *are* boats, horses may be led, and thus cross, swimming alongside of the boat, a man on board leading them by a halter. In this case articles of equipment and arms that might be damaged by the water can be put in the boat. In swimming, curb bridles should generally be removed and no loose ropes, lariats, reins, or halter shanks left dangling to catch the horses' feet.

Well-trained horses with light packs can swim short distances with the rider in the saddle. This is not true if horses are not trained or packs are heavy or distance great.

FERRYING

I shall here consider all methods of crossing by means of boats, from the ordinary steam ferry-boat to the most primitive raft. The steam ferry-boats and steam and naphtha launches need no explanation. The commonest type of ferry-boat is that found along our rivers in the Western States, it being operated by the force of the current. A flatboat large enough to hold a wagon and six mules is used. A rope fastened to each end of the boat runs over the lower wheel of a double pulley. The upper wheel of this pulley runs on a cable stretched across the stream at a considerable height above the water. The boat is provided with a strong rudder, and the best results are obtained when the keel of

the boat makes an angle of 55 degrees with the direction of the current. This is brought about by the proper use of the rudder. In sluggish streams flatboats, pushed by men using long poles against the bottom, are often available. Rafts so constructed of logs, casks, old timbers, etc., may also be used and, if time admits, can be made large enough to carry wagons and animals. It is usually best to let the animals swim beside the raft, or else have them swim after a trained leader, as described under the head of "swimming," above.

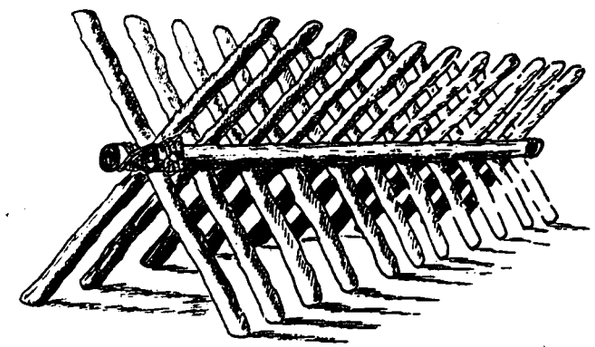
BRIDGING

On account of the element of time, this method is generally resorted to only after other methods have been found impracticable. It will usually be unnecessary to bridge streams encountered unless there are wagons along with the detachment. This increases the difficulty very much, especially if fording be the means selected for crossing, and, on account of the element of time, this is the method that should be used if a suitable ford exists. In such cases the water and mud together must not be over three feet in depth; there must be good approaches, both to and from the ford, and the bottom must be firm and free of bogs and quicksands. If the place is very bad, it may be necessary to unload the wagons, carry their contents over on foot-logs, foot-bridges, in boats, or, in extreme cases, even by hand. If it be necessary, on account of the depth or swiftness of the stream, to unhitch the animals, then an empty wagon may be dragged over by means of ropes attached to it and pulled by either the men or horses. The lariats carried by the cavalrymen are very useful for this purpose as well as for towing animals, lashing trestles, rafts or bridge timbers, etc. Field picket lines may be used for a similar purpose. If two logs can be felled near together across a stream, a bridge may be constructed by filling in between the logs with brush and earth or by cutting short poles and laying them crosswise. Troopers may cross on a single log, towing their mounts, which swim alongside. Trestles composed of timbers lashed together and weighted down with rocks are often used for supports. Sometimes an empty wagon run

into the stream forms a center pier for a bridge of two spans. If boats are available, an improvised pontoon bridge may be constructed.

Colonel C. A. P. Hatfield, of the 4th Cavalry, once made use of a peculiar bridge under circumstances that are considered worth mentioning. He was in charge of a wagon train and came to a stream that could be approached only at the point where he encountered it. Hills and side cañons interfered with his going either up or down stream very far. The creek in question he found to be about three feet deep, but the banks eight feet high and twelve feet apart and very crumbly.

FIGURE III



There was too much water to make a dam and it would have required 100 cubic yards of excavation to have dug approaches in ground that would not have held up a heavy load, even had he possessed the necessary tools. Cottonwoods thirty feet in height grew along the stream, and Colonel Hatfield selected a number of these and cut them into strong poles about 16 feet in length and made a hurdle, as shown in the figure, strengthening it by two poles crossing the crotches and having the ends lashed together two and two. This was made eight feet wide and put across the chasm. The loose ends of the poles abutted against the banks on either side. On top the hurdle was filled in with the cottonwood branches, some earth was thrown on top, and in two hours after arriving on the ground the wagon train was across and *en*

route. If additional strength had been required, forked branches could have been placed under the center of the hurdle, the lower ends resting on flat rocks on the bottom of the stream.

It is not the intention of this paper to consider the more elaborate military bridges, which would generally require materials not at the disposal of small detachments, besides taking more time in their construction than could usually be spared. Opportunities will often occur on practice marches for instructing both noncommissioned officers and men in the principles laid down in this paper, and all advantage should be taken of such occasions.

CONCLUSION

The above discussion shows the paramount importance of teaching men and horses in the cavalry to swim. This should never be neglected. It will add much to the efficiency and boldness of cavalry patrols and other mounted detachments to feel that they have nothing to fear when it becomes necessary to cross a stream. Previous training will give them that confidence that comes only with practice and training.

Automatic Weapons

BY

Lieutenant-Colonel **HOMER M. GRONINGER, Cavalry**

AUTOMATIC WEAPONS in our service are divided by G. O. No. 91, 1918, into five general classes, as follows:

Self-loading rifles.
Automatic rifles.
Machine rifles.
Aircraft machine-guns.
Machine-guns.

SELF-LOADING RIFLES

Self-loading rifles are those in which the recoil or powder gases are utilized to actuate the mechanism in ejecting the fired case and *loading* a fresh cartridge, but the trigger must be pulled for each shot. They have no cooling device, tripods, or rests. No weapon of this type has yet been adopted or issued in our service.

AUTOMATIC RIFLES

Automatic rifles are those in which the ejecting, loading, and firing are done automatically. Their construction and weight are such that they are, or may be, fired from the shoulder, in the same manner as the ordinary magazine rifle. Automatic rifles are usually so constructed that they can be operated either as a self-loading rifle (trigger pulled for each shot) or as an automatic rifle (continuous fire to full extent of magazine while pressure is maintained on trigger).

The automatic rifle differs from the self-loading rifle in that it possesses, in addition to the self-loading action, in which the trigger must be pulled for each shot, the power of full automatic

action, in which the rifle fires continuously to the full capacity of the magazine while the trigger is fully compressed.

In the case of the typical *self-loading* rifle, the cycle of operation consists of the unlocking of the breech mechanism, the extraction of the fired case from the chamber, the ejection of the fired case, the insertion of a loaded cartridge from the magazine into the chamber, and the locking of the breech mechanism ready to fire by pressure on the trigger.

In the case of the typical *automatic rifle,* the cycle of operation consists of the closing of the breech mechanism and at the same time the insertion of a loaded cartridge into the chamber, the locking of the mechanism, the discharge of the rifle, the unlocking of the mechanism, the extraction of the fired case, the ejection of the fired case.

It will be noticed that the typical self-loading rifle is ready to fire with a cartridge in the chamber, rifle ready and unlocked, and that it fires instantly in response to the proper pressure on the trigger. Therefore there is nothing in the self-loading feature which prevents its being fired with any less degree of accuracy than the ordinary magazine rifle.

In the typical automatic rifle, however, even when used as a self-loader only, when the trigger is pressed, the breech block first moves forward, the mechanism closing and locking, and the cartridge is then discharged. This loading and locking occurring upon the pressure of the trigger, and before discharge, sets up vibrations in the rifle, and to a certain extent disarranges the aim and hold of the marksman, and thus materially decreases the accuracy of fire as compared with that of a typical self-loading rifle or a magazine rifle.

It should be noted that an *automatic rifle* must be made to remain open without a cartridge in the chamber at the end of its cycle of operation; otherwise a heated barrel would probably cause the discharge of the cartridge in the chamber after the marksman had suspended fire. A marksman cannot fire a good self-loading rifle so rapidly and for such an extended period with the ammunition carried as to cause the barrel to heat up to that temperature which will discharge a cartridge lying in the chamber.

In order to give any weapon this additional power of full automatic action, it is necessary to add several intricate parts. Full automatic action also requires that other parts of the rifle be made heavier, in order that the rifle may be fired a short time with this type of action without overheating. The Browning automatic rifle will not fire with this type of action more than 450 rounds continuously without overheating.

Types of automatic rifles are:

Browning (used in our service).
Chauchot (used in the French Army).
Hotchkiss, light (used in British and French armies).

MACHINE RIFLES

Machine rifles are automatic weapons of an intermediate class between the automatic rifle and the machine-gun. The cooling system of the machine rifle is more effective than that of the automatic rifle, as the automatic rifle has no cooling device. Hence the machine rifle is capable of maintaining a sustained fire of longer duration than the automatic rifle. Its cooling system is not of great enough efficiency, however, to permit long-sustained fire at rates of 150 or more shots per minute without an undue increase in dispersion. The weight of the machine rifle or its construction, or both, usually are such that habitually it cannot be, and is not, used as a hand arm, as is the automatic rifle. It is provided with a rest which gives increased accuracy and permits its effective use at ranges much longer than the self-loading or the automatic rifle.

The best-known type of machine rifle is the Lewis. Machine rifles might be constructed either by adding the Lewis or some other cooling device to the Browning automatic rifle or by replacing the water jacket of the Browning machine-gun with the Lewis cooling device. In any case, a light mount or rest would have to be provided. In case of the Lewis or a modified Browning automatic rifle or a modified Browning machine-gun, we have a weapon weighing about as much more than the automatic rifle as the automatic rifle weighs more than the self-loading rifle. The machine

rifle is capable of firing with full automatic action about three times as long as the automatic rifle. The light mount permits its use with good effect at longer ranges. This increased weight with increased fire power merits our study of this weapon as a possible weapon of a cavalry regiment.

Types of machine rifles are:

Modified Browning (automatic rifle or machine-gun).
Lewis (used in the British army).
Benet-Mercier (formerly used in our service).
Hotchkiss, heavy (used in the French Army).

AIRCRAFT MACHINE-GUNS

Aircraft machine-guns are automatic weapons especially designated for mounting and use of aircraft. They will not be discussed.

Types of Aircraft machine-guns are:

Browning, Vickers, and Marlin (all used in our service).

MACHINE-GUNS

Machine-guns are water-cooled automatic weapons, which, because of the efficiency of their cooling systems and the stability of their mounts, are capable of the most accurate and long-sustained fire at rates of 150 or more shots per minute, and this without any increase in dispersion that would endanger friendly troops over whose heads their fire may be directed.

The machine-gun is comparatively heavy when compared to other automatic guns. This increased weight is taken up to a large degree by the water jacket and the tripod. The wafer jacket is necessary in order that the barrel can be surrounded by water, thus giving the gun the power of *long-sustained* fire not possessed by other automatic guns. The tripod gives a fixed mounting, thus reducing the personnel factor during firing and permitting the gun to be laid for direct, indirect, overhead barrage and night firing. The rigidity of this mounting increases accuracy to such

an extent that the machine-gun can be used effectively to the maximum effective range of the ammunition. It also reduces the amount of overhead clearance required. The amount of clearance varies directly with the rigidity of the mounting.

Types of machine-guns are:

Browning (used in our service).
Vickers (used in the British Army).
Maxim (used in the German Army).

The question now arises as to what automatic weapons we should have in the Cavalry Service. Do we want all of these weapons, the self-loading rifle, automatic rifle, machine rifle, and machine gun? If not, which weapons should be a part of the cavalry armament? In the study of this question, we must thoroughly comprehend the characteristics of each one and consider how each one would increase or decrease mobility and fire power and thus cavalry tactics.

Mobility and Fire Power

SELF-LOADING RIFLE

The self-loading rifle would weigh about the same as our service rifle and would, therefore, have the same mobility mounted and dismounted. The fire power would be about equal to three riflemen or one automatic rifleman. The accuracy is the same as the magazine rifle and more than the automatic rifle. No increase in the amount of ammunition carried would probably be necessary. This weapon would be carried by each soldier and be an integral part of our dismounted firing line. Its use would hasten the decision of the action, which is especially desirable in dismounted cavalry combat.

AUTOMATIC RIFLE

The automatic rifle, though capable of both semi and full automatic action, is nearly always used as a single or self-loading weapon. It weighs nearly twice as much as the self-loading rifle, thus reducing its mobility, either mounted or dismounted. If it

has to be carried on extra-led animals, it will certainly reduce cavalry mobility on the march and reduce the speed with which it can change from mounted to dismounted action, and the reverse. An average automatic rifleman will fire 40 aimed shots per minute and an excellent automatic rifleman 60 shots per minute, using single action. In a given unit of time, more hits will be made by the use of single action than by the use of full automatic action, and this with unlimited ammunition in both cases. The fire power of this weapon using single action is the same as for the self-loading rifle. The only advantage, so far as fire power is concerned, of the automatic rifle over the self-loading rifle is the difference in moral effect produced by firing it with single action, about 60 rounds per minute, and full automatic action. Does this amount of increase in moral effect outweight the amount of decrease in mobility caused by increased weight which may require additional pack animals in each troop? In this connection, the increased accuracy of the self-loading rifle over the automatic rifle must also be considered.

MACHINE RIFLE

The machine rifle—for example, the modified Browning—weighs more than the automatic rifle and considerably less than the machine gun. As in the case of automatic rifles, pack animals would have to be provided, thus reducing the mobility of mounted troops by practically the same amount. The fire power of this weapon, on account of the cooling device, would be about ten times that of the service rifle and three times that of the present automatic rifle. Due to stability of the light mount, the effective ranges will be greater than those of either the self-loading or the automatic rifle. This characteristic indicates that the machine rifle could either be used in the firing line or in the rear of the firing line, firing through intervals, or, in special cases, from higher ground, over the heads of the firing line. It would be light enough to accompany the firing line for a reasonable length of time. Its mobility dismounted would certainly be much greater than that of the machine-gun and about the same as the automatic rifle. The tactical use of this weapon would be as follows:

a. To increase the fire power of the firing line in order to gain fire superiority by direct fire and in special cases by overhead fire.

b. Echeloned in depth to resist counter and flank attacks.

c. To assist in the consolidation of positions won.

MACHINE-GUN

The machine-gun, due to its weight and the amount of ammunition necessary, requires special transportation. If machine guns were assigned as an integral of a platoon, troop, or squadron, the mobility of these units would be decreased. This is one of the reasons why we have machine-guns organized into machine-gun units as the machine-gun squad, platoon, etc. In dismounted action, it is evident that the machine gunner carrying a tripod weighing 45 pounds cannot keep up with a rifleman carrying a rifle weighing nine pounds. In dismounted action, the machine gunner must utilize every opportunity to transport his guns and ammunition by pack animals, whenever possible, otherwise in a long advance he will not keep up. The rate of advance of the firing line should not be regulated by the speed of the machine-guns. The machine gunners will have to pack their guns and ammunition after their particular mission is accomplished, and then, by increasing their speed, assume their normal place until another mission is presented. This same result may be obtained by having the machine-gun units leap-frog. In any case, during a long advance or in a pursuit, the machine gunner will be compelled to rely on his pack transportation to a great extent.

Machine-guns add greatly to the fire power of cavalry. The heavy fixed mount permits effective fire up to about 3,500 yards, delivered direct, indirect, or overhead. Machine-guns do not have to be in the firing line in order to deliver this fire. Their principal role in the advance is to *support* by fire power the advance of the firing line. This fire is delivered from positions so selected that overhead fire or fire through intervals will not endanger friendly troops. These positions may be close to the firing line or some distance in rear, depending in most cases on the amount of overhead clearance necessary. Usually they fire from positions in rear of

the advancing firing line, taking full advantage of their ability to deliver a sustained fire accurately at long ranges with a minimum of overhead clearance for friendly troops.

CONCLUSION

In so far as the weapons described in this article are concerned. the following gives the present general armament in the Cavalry Service:

(*a*) Each cavalry soldier, except the automatic rifleman and machine gunner, is armed with the service rifle.
(*b*) Four automatic riflemen in each troop as an integral part of the troop.
(*c*) A Machine-Gun Troop for each regiment as an integral part of the regiment.
(*d*) A Brigade and a Division Machine-gun Squadron.

It is believed that the following armament would be an improvement over the present, and it is suggested for the study and consideration of all interested:

(*a*) Each cavalry soldier in the troop to be armed with a self-loading rifle.
(*b*) A Machine Rifle Troop assigned to each regiment.
(*c*) A Brigade and Division Machine-gun Squadron.

The Future of Cavalry

BY

First Lieutenant A. J. TITTINGER, 6th Cavalry

THE NATURE of the warfare waged in the recent World War should not be taken to mean that cavalry is henceforth obsolete, nor should it be considered as minimizing its importance in future wars.

It is well to recall the great German advance in 1914. This advance was made possible only through the use of cavalry, and, conversely, the German retreat and subsequent defeat at the Marne were due to an insufficient amount of cavalry in the army group of Von Kluck (1st Corps of Cavalry), who was opposing Foch near Mailly (9th Army and 9th Cavalry Division). Had the Germans possessed more cavalry, they might have penetrated the gap between the 4th and 9th French armies with very disastrous results to the French. But unfortunately for them, their numerical inferiority as well as their inferiority of dash and spirit spelled their defeat. The French outnumbered them by at least one division, for Foch had nine divisions and one brigade, whereas the Germans had only two corps (from two to three divisions in a corps) and two separate divisions—a maximum of eight divisions.

Even the French cavalry was insufficient for any offensive action, but it was enough when they were on the defensive.

The Germans, however, who were the offensive troops, failed in their great offensive plan. Their project was shattered when victory was almost won, simply because they did not have enough cavalry to carry out their ambitious and pretentious scheme of overrunning France.

The lesson to be derived from this phase of the campaign is that in the future any nation which adopts a policy of national defense will be obliged to maintain a large cavalry force, other-

wise the plan is unsound; for cavalry cannot be improvised to the same extent as the other arms.

There is every reason why it is essential to have a large proportion of cavalry. In the first place, a country with a weak cavalry force might just as well do without any at all, thereby saving itself from entertaining any false hopes that would otherwise be placed in it.

Again, the employment of large cavalry forces will eliminate or render impossible the so-called position warfare. The expense of maintaining cavalry is insignificant in comparison to that of stabilized warfare. Plenty of cavalry means, therefore, *open warfare.*

The claim is made that the development of aviation and radio-telegraphy, as well as the invention of poisonous gases and tanks, will relegate to oblivion any future operations of cavalry on a large scale. Such a conception is, of course, both warped and wrong. Aviation and radio-telegraphy will, on the contrary, greatly increase the value of cavalry, since they will be most efficient aids; but as for gas and tanks, their use will be restricted to siege operations or to the kind of warfare that the present war brought about, but which will hardly ever occur again.

The rôle of the Air Service and that of the cavalry go hand in hand. The mission of the former is to maintain supremacy of the air and to prevent the detection and presence of friendly troops by the enemy. *Vice versa,* it is charged with discovering the enemy's whereabouts and observing its movements. If such be the case, the arm that will benefit most materially from the activities of the Aviation Service will naturally be the cavalry, due to its position in advance and to its proximity to the enemy. If we, then, equip our cavalry with radio sets and have our aëroplanes similarly equipped, the transmission of information gained by the aërial scouts is very much simplified, and the result is that we are enabled to extend over a very much larger area the radius of action of our large cavalry forces. We thereby enhance the success of the undertaking and facilitate direction of action in the accomplishment of the mission. To be more specific, we should equip all units of the size of a squadron and larger with two radio

sets (pack), in order to enable the commander, the advanced troops, and the troops adjoining to maintain uninterrupted communication in the theater of operations.

As for the tanks, their invention has no effect whatsoever on the future of cavalry. They are invaluable in trench or siege warfare or, with our overseas garrisons, to prevent landing parties, but they have a limited radius of action and have a limited fuel capacity, furthermore, which restricts their use to local activities of either an offensive or defensive nature.

In conclusion, it can be said that the mission of cavalry is to strike deep into the invaded country with overwhelming numbers and with great rapidity, so as to reach the capital and disorganize the functions of government.

The cavalry must prevent the enemy from mobilizing his reservists by occupying immediately large portions of the enemy territory, and at the same time eliminating the resources that may be obtained by the enemy from that part of the country, so as to impose upon him an undesirable economic situation. The accomplishment of this mission will be the deciding factor in the early termination of the war; but a mission of this magnitude can only be accomplished with a large peace-time force of trained cavalry.

The nation which draws this lesson from the recent war will win the next war in which it may be engaged.

The Reserve Officers Training Corps

BY

Major PEARSON MENOHER, General Staff Corps

THE RESERVE Officers Training Corps is organized under authority of the act of Congress approved June 3, 1916 (National Defense Act), as amended by the acts of Congress approved September 6, 1916, and July 9, 1918, respectively. This legislation was prepared by the War College Division, General Staff, following the principle, for the first time laid down in military legislation, of an officer reserve for the Regular Army.

The primary object of the Reserve Officers Training Corps is to provide systematic military training in civil educational institutions for the purpose of qualifying selected students of such institutions as reserve officers in the military forces of the United States. It is intended to attain this object during the time the students are pursuing general or professional studies, with the least practical interference with their civil careers, by employing methods designed to fit them physically, mentally, and morally for the pursuits of peace as well as the pursuits of war. The general policy adopted by the War Department is to give to all students of the Reserve Officers Training Corps a thorough physical training, to inculcate in them a respect for all lawful authority, to teach them the fundamentals of the military profession, leadership, and the special knowledge required to enable them to serve efficiently in the various branches of the military service.

As there are some 570 colleges in the country, with an enrollment of 170,000 male students, the probability of obtaining a large number of trained officers from this class, superior in education and training to the average citizen, can be readily grasped.

The Reserve Officers Training Corps is divided into two divisions.

(*a*) A senior division, organized at civil educational institutions which require four years' collegiate study for a degree; and

(*b*) A junior division, organized at any other public or private institution.

An institution which desires establishment of a unit submits an application and agrees to conform with the regulations prescribed by the Secretary of War; and, after an inspection by an officer detailed for the purpose, the application may be approved and an officer of the Army detailed as professor of military science and tactics. This officer then becomes a member of the faculty of the institution to which he is detailed.

A unit of the Reserve Officers Training Corps in any educational institution is the military organization of students pursuing the same course of military instruction: infantry, cavalry, field artillery, coast artillery, etc. The units of arms and corps other than infantry may be organized at educational institutions where the *senior* division is authorized, but such institutions must be capable of furnishing the special type of instruction required.

No unit can be established or maintained at any institutions unless there are enrolled in the military department at least 100 physically fit male students. A certificate of physical fitness is required of each student entering the R. O. T. C., as a result of an examination made by civilian physicians or medical officers of the Army specially detailed to the institution for this purpose. Physical qualifications have been outlined in an appendix to S. R. No. 65, prepared in the office of the Surgeon General.

Upon completion of the first two years in the R. O. T. C., students may sign a contract with the Government to continue the two remaining years in the R. O. T. C. while at the institution, and in return receive commutation of subsistence at the rate of 40 cents per day during the remainder of their term at the institution.

Ample equipment has been provided for units of the R. O. T. C., in accordance with Tables of Equipment contained in Appendix IV, Special Regulations No. 44. The latest model equipment is

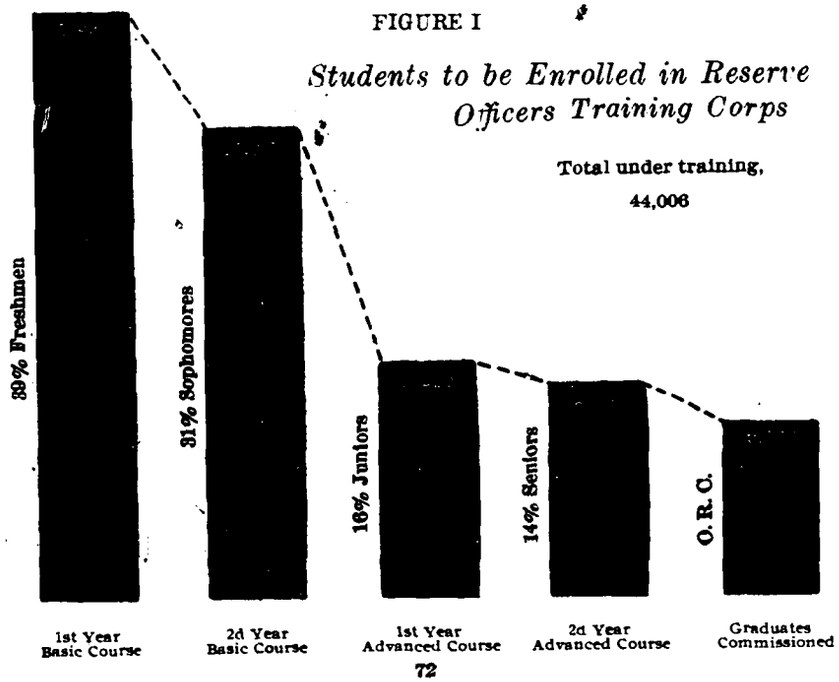
issued. Uniforms are furnished to students of the R. O. T. C. while at the institution, and an additional uniform is furnished while at the summer camps.

For administrative purposes, the R. O. T. C. has been placed under the control of department commanders, with officers detailed as inspectors under the officer in charge of the War Plans and Training Section of the Department General Staff. An administration section has been formed in the office of the Adjutant General of the Army at Washington, known as the R. O. T. C. Section. This section handles all matters of administration connected with the R. O. T. C., in conformity with policy outlined by a branch of the War Plans Division, General Staff, known as the R. O. T. C. Branch.

Figure I is based on the National Defense Act, which limits the number of graduates that may be commissioned in the Officers Reserve Corps to 50,000. As members of the Officers Reserve Corps may serve a period of ten years under this act, approximately five thousand should be commissioned each year.

FIGURE I

Students to be Enrolled in Reserve Officers Training Corps



The percentage reduction shown for each year of a four years' academic course is based on the report of the Commissioner of Education and the estimated number of students who will elect to take the course at the end of the sophomore year.

The desired output of the R. O. T. C. has been apportioned among the several branches of the service in accordance with existing needs (see table below)—the percentages form the ratio of the number of officers in each branch recommended by the War Plans Division.

The percentages for the several branches of the service may later have to be changed to conform to the needs of the several branches, as shown by casualties in the late war. For the present, however, these percentages are believed to be approximately correct.

Graduates of Reserve Officers Training Corps to be Commissioned Each Year

Branch	Number	Per cent of total
Infantry	2,000	40
Field Artillery	900	18
Coast Artillery	700	14
Cavalry	450	9
Engineer	300	6
Motor Transport	300	6
Signal	150	3
Ordnance	100	2
Tank	100	2
Total	5,000	

It is thus seen that by far the largest proportion of the graduates are assigned to the infantry, which, of course, is as it should be; but from the viewpoint of the cavalry it might be argued that our proportion is too small. It is certainly much less than the proportion of cavalry to infantry provided in the National Defense Act, and all indications are that this law, with some modifications, will be the basis for any reorganization of the Army during the ensuing year. As far as cavalry is concerned, we have a special problem in the American Army, and it is not good judgment to adhere to strictly theoretical proportions.

The number of students undergoing instruction in each branch needed to produce the desired output each year is shown in the table below.

Students to be Enrolled in Reserve Officers' Training Corps

Branch of service	Percentage for each arm	Total students undergoing instruction	Students in first year basic course	Students in second year basic course	Students in first year advanced course	Students in second year advanced course	Students commissioned each year
Infantry	40	17,625	6,875	5,500	2,750	2,500	2,000
Field Artillery	18	7,928	3,092	2,474	1,237	1,125	900
Coast Artillery	14	6,166	2,405	1,924	962	875	700
Cavalry	9	3,948	1,540	1,232	616	560	450
Engineer	6	2,641	1,030	824	412	375	300
Motor Transport	6	2,641	1,030	824	412	375	300
Signal Corps	3	1,301	507	406	203	185	150
Ordnance	2	878	342	274	137	125	100
Tank Corps	2	878	342	274	137	125	100
Total	100	44,006	17,163	13,732	6,866	6,245	5,000
Per cent loss	...	.....	.....	20	50	9	20

In order to secure the necessary output for each branch of the service, the following number of units has been recommended:

Cavalry	15	Signal Corps	12
Field Artillery	22	Motor Transport Corps	0
Infantry	—	Ordnance	10
Coast Artillery	20	Junior	—
Engineer Corps	19		

Because of the existing commitments of the War Department, it has been found impracticable, up to the present time, to make the infantry units correspond to the percentages recommended.

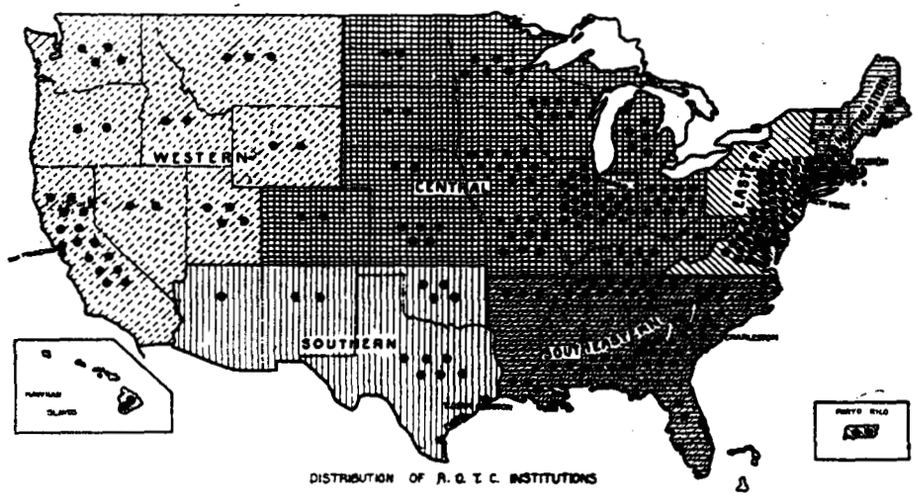
No policy was adopted to determine the number of junior units of the R. O. T. C. that should be established. The number is limited because of the limitation placed by the National Defense Act of the number of officers that may be detailed to educational institutions. For the present, the establishment of junior units has been discontinued. The number of applications became so large that it was impossible for the War Department to detail a sufficient number of officers to properly conduct training.

In carrying out the foregoing policy, the following number of units have been established to date:

Cavalry	11	Motor Transport Corps	9
Field Artillery	22	Ordnance	2
Infantry	129	Junior	127
Coast Artillery	20		
Engineer Corps	18	Total	350
Signal Corps	12		

The distribution of units of the R. O. T. C. by departments is as indicated in Figure II.

FIGURE II



Department	Number of institutions	Number of units		
		Senior	Junior	Total
Northeastern	17	18	6	24
Eastern	48	50	15	65
Southeastern	52	38	28	66
Central	88	81	49	130
Southern	13	10	10	20
Western	33	25	17	42
Hawaiian	2	0	2	2
Total	253	222	127	349

Although the Reserve Officers Training Corps was authorized by the National Defense Act in June, 1916, no great development took place until after the Armistice, in 1918.

Since that time there has been a great expansion; and, although it requires three years to obtain the enrollment necessary to approximate the original requirements established by the War Department (Figure I), it is believed that present conditions are very favorable, and that the original requirements will be met within the next few years.

The enrollment in the R. O. T. C. at present is as indicated below:

Senior units	Students enrolled	Per cent of total
Infantry	46,424	78.6
Field Artillery	5,389	9.1
Coast Artillery	3,142	5.3
Engineers	2,055	3.5
Signal Corps	799	1.3
Cavalry	741	1.3
Motor Transport Corps	524	.9
Ordnance	13	...
Total	59,087	
Junior units	57,278	
Aggregate	116,365	

The enrollment in the senior division by courses is indicated herewith:

Students Enrolled in Senior Units, by Courses

Course	Number	Per cent of total
Basic	54,519	92.3
Advanced	4,568	7.7
Total	59,087	

The National Defense Act limits the numbers of officers that may be detailed to educational institutions to 300 officers of not less than five years' commissioned service. Legislation authorized for detail during the emergency 1,000 officers of not less than one year's commissioned service, but with the early prospect of an official peace advantage cannot be taken of the additional number authorized.

The policy with reference to the assignment of officers is as follows:

a. At least one officer is assigned to each senior unit and junior unit of the Reserve Officers Training Corps. The number of senior units of any branch of the service and the number of junior units may not exceed the number at which the desired standard of instruction can be maintained with the number of officers allotted.

b. The number of officers allotted to any branch of the service for duty with the senior units of that branch of the service is based upon the percentage of the total output for that arm.

c. Not more than one officer is assigned to junior units until the needs of all institutions maintaining senior units of the R. O. T. C. are provided for.

d. No officers are detailed at institutions operating under section 56, National Defense Act of June 3, 1916, until the needs of all institutions maintaining units of the R. O. T. C. are provided for.

e. In the case of the larger institutions, where two or more senior units are maintained, one of the officers detailed is of field rank.

f. In the relief and discharge of officers, it is the policy to retain officers of all arms, so that there may be in the R. O. T. C. at all times the same proportion of officers of each arm and of each grade as exists in the several arms of the service, viz: Infantry, 40 per cent; Field Artillery, 18 per cent; Coast Artillery, 14 per cent; Cavalry, 9 per cent, etc.

g. The policies in the preceding paragraphs indicate the ultimate objective which it is desired to attain, but for the present existing commitments render it necessary to distribute the personnel in such a manner as to prevent an undue disturbance of the existing situation.

The non-commissioned officer authorized by the National Defense Act for detail to duty with units of the R. O. T. C. are additional in their respective grades to those authorized for the Army, but the total number so detailed may not exceed 500. Other enlisted men so detailed are not additional in their respective grades to those authorized for the Army and must be carried on detached service. The number of non-commissioned officers allotted to each arm of service is as follows: Infantry, 200; Cavalry, 45; Field Artillery, 90; Coast Artillery, 70; Engineer, 40; Motor Transport Corps, 30; Signal Corps, 15; Medical Corps, one per unit. In allotting non-commissioned officers to educational institutions of the R. O. T. C., preference is given to those maintaining units of the Senior Division.

The status of the personnel in the R. O. T. C. at present is shown below:

Officers, by Grades

Grade	With schools	Supervisors	In Washington	Total	Percentage
Major	126	5	2	133	31
Captain	109	.....	.....	109	25
Lieutenant-colonel.	82	11	2	95	22
Colonel	38	12	4	54	13
First lieutenant	34	.....	1	35	8
Second lieutenant.	3	.....	.....	3	1
Total	392	28	9	429	

Army Personnel at Schools Compared with Number of Students Enrolled in Units

Students	116,365
Enlisted men	900
Officers	392

Students per officer, 297; per enlisted man, 129.

Army Personnel Compared with Number of Schools

Enlisted men	900
Officers	392
Schools	260

Officers per school, 1.5; enlisted men, 3.5.

Provision is made for practical training of the members of the R. O. T. C. in summer camps in two periods of not to exceed six weeks each. The first camp is voluntary and takes place between the freshman and sophomore years. The second takes place between the junior and senior years, and is compulsory for those students enrolled in the advanced course of the R. O. T. C. The camps last year had an approximate enrollment of 4,000 students, while this year provision is being made for 10,000.

This year's camps will be conducted for a period of six weeks beginning June 17. Infantry R. O. T. C. camps will be located as follows:

Camp Devens, Mass.—Attendance from the Eastern and Northeastern Departments.
Camp Benning, Ga.—Attendance from the Southeastern Department and from Texas and Oklahoma.
Camp Custer, Mich.—Attendance from the Central Department.
Presidio of San Francisco.—Attendance from the Western Department and from Arizona and New Mexico.

Cavalry camps will be located at Fort Ethan Allen, attended by R. O. T. C. cavalry units from Culver, Ind., St. John's, Manlius, N. Y., and Norwich, Vt., and at Fort Oglethorpe, Ga., from all other cavalry units.

Camps for R. O. T. C. units of other arms and services will be as follows:

Field Artillery	Camp Knox, Ky.
Coast Artillery	Fort Monroe, Va.
Signal Corps	Camp Alfred Vail, N. J.
Engineers	Camp Humphreys, Va.
Motor Transport Corps	Camp Holabird, Md.
Ordnance Department	Aberdeen Proving Ground, Md.

The camps are generally located at training centers. Infantry units of the Southeastern Department will be particularly fortunate in coming under the influence of the Infantry School at Camp Benning. Cavalry units will receive the stimulation of training at established cavalry garrisons.

Courses of thorough military training have been provided for the camps, to be conducted by selected officers. Every effort will be made to make these camps profitable to the Government in the

development of competent reserve officers and profitable to the students in the development of mental and physical attributes, especially confident and aggressive leadership.

The importance the War Department attaches to the Reserve Officers Training Corps is clearly indicated by the following extract from an address by the Secretary of War, at Lehigh University, in connection with the R. O. T. C. at that institution:

"American education in the past has been inclined to overlook the necessity of emphasizing that phase of its manifold activities which deals with the subject of preparation for national defense. A college education which has left untouched the fitting of its subject for active service under his country's flag is and must be incomplete. In the R. O. T. C. the college finds this vital addition to its curriculum, and the student who pursues the training which it offers finds the opportunity for physical and mental development which completes his equipment for the battles of life. Educational institutions have not been slow to recognize that with the establishment of the R. O. T. C. their own resources have been enriched. The great variety of the subjects taught in this work, the enthusiasm of the students and instructors, and the close affiliation with the Central Government tend to indelibly impress upon the minds of students and college authorities alike the extent to which the modern army is in reality the nation in arms."

Editorial Comment

THE CAVALRY JOURNAL REAPPEARS

AFTER A SUSPENSION of publication for two years the CAVALRY JOURNAL, in new and revised form, again comes forth to take its place among the service magazines.

It is eminently appropriate that it should make its second literary bow in the spring; for, like the season that ushers in the rebirth of nature, its reappearance signifies the refulgence of the cavalry light which for five years has remained obscured by the fog of trenches, wire entanglements, dugouts, raids, hand grenades, trench mortars, and all of the other paraphernalia brought into the military game by the peculiar situation on the Western Front.

But, as we of the cavalry know, the prominence of the new weapons and of the other services only dimmed our light, and did not completely extinguish it, as many people, not too thoughtfully inclined, would have it appear.

It was not given to the cavalry to play a spectacular part in the war except at the beginning—a period so long ago that its events are already forgotten except by the historians. Hence we get little credit for the achievements of our arm in the early days, and therefore the CAVALRY JOURNAL has undertaken, as a part of its mission, to enlighten the non-believers.

Even a casual reading of this first issue will be sufficient to convince all doubting Thomases that cavalry was a factor in the war, and a study of the articles will stimulate the faith of the cavalry in itself.

Sir Douglas Haig's faith in his mounted troops never wavered, and their readiness for combat was always a matter of great consideration to him. Without them, his decisions must certainly have been different.

The French likewise hold their cavalry in high regard, realizing, with their unerring logic, the vital necessity of cavalry in a

well-balanced army. They know, moreover, that had it not been for the cavalry, there never would have been a Battle of the Marne. What the Germans think may be gleaned from the able translation of General Dickman under "Topics of the Day."

American sober thought is in complete harmony on this subject with foreign ideas; but many officers, true to the American national characteristic of too ready adaptability, would change their apples for Dead Sea fruit by substituting the tanks and aëroplanes for the cavalry.

It will therefore be the aim of the JOURNAL to present the work of the cavalry in its true light; for as cavalry itself, our arm in the foreign armies, played a most distinguished rôle. It was not vouchsafed to American cavalry to give proof of its training, but the part played by individual cavalry officers is a record of which any arm might be proud.

Cavalry officers will appreciate that such a mission is not a one-man task, but calls for the support of the whole Cavalry Service.

The editorial policy contemplates keeping the JOURNAL at a standard of excellence second to none, and an appeal is here made to all cavalry officers to contribute to the columns. It is not necessary to write a treatise, in order to produce quality. The finest goods often come in the smallest packages.

As for the class of articles, all subjects of general interest, as well as topics technical to the cavalry arm, are desired.

It would not be fitting in this first issue to omit mention of the valuable services of the former editor, Colonel Ezra B. Fuller, cavalry, who for many years was Secretary and Treasurer of the Association and Editor of the JOURNAL.

Colonel Fuller gave his labors unstintedly to the upbuilding of the JOURNAL, and brought it to its enviable position when the war forced a suspension of publication. The thanks of the Cavalry Service are due Colonel Fuller for his devotion to the Association and for his achievements as an editor.

The CAVALRY JOURNAL was established in 1885, and therefore is older than the other service magazines put together. It has a flavor like old wine, and although good, it can be made better.

Undivided support, honest criticism, and suggestions are wanted and requested, all of which will be forthcoming if we do not lose faith in ourselves. Remember, "Faith reads a bracing gospel."

A CHIEF OF CAVALRY

HURRAH! A Chief of Cavalry at last! After all of the pleadings, the representations, the cajolings, and the exhortations of years, the cavalry is at last to come into its own and have a real Chief, who will supervise its needs, both present and prospective. It is gratifying to see the work of years about to be realized. Despite the fact that as cavalry we did not get into the war, the appointment of a Chief is a cause for thanksgiving and a restorer of morale. Both of the reorganization bills of the Senate and the House contain a proviso for the creation of this office, and, although it may be sometime before Congress is able to decide definitely upon the reorganization of the Army, it is safe to say that the Chief of Cavalry has come to stay and will be authorized. In the hearings before the Military Affairs Committees of the Senate and the House emphasis was laid upon the necessity of such an office, and no one could have heard the testimony of the able and experienced officers upon this subject without feeling impressed with their sincerity and conviction that it was for the best interests of the service. The members of the committees, who are remarkably well informed of the Army's needs, are unanimous in the belief that the cavalry as well as the infantry can only attain their maximum efficiency under the direction of a leader who supervises carefully its training, instruction, and equipment. Neither the cavalry nor the infantry have ever had their needs properly represented at the War Department.

If there was anything required to convince Congress of the desirability of this important and constructive piece of legislation, the testimony of General Pershing before the joint committee of the Senate and House was sufficient. Speaking from his ripe experience and with his indisputable prestige, he said:

"The appointment of a Chief of Coast Artillery has proved very beneficial to that arm. It provides a competent head to supervise instruction, equipment and training, and I think this same provision should be extended to the field artillery, infantry, and cavalry, under the designation of Inspector of Field Artillery, Inspector of Cavalry, and Inspector of Infantry. These men should become advisers to the Chief of Staff and the General Staff in all that pertains to their particular arms."

It is astonishing that it has taken so long to secure this office, and the great pity is that it did not exist prior to the war, so that there could have been collected all data with reference to our arm, in order that we might draw therefrom the conclusions that we should have today regarding proper organization and correct armament and tactics. As General Eltinge ably points out in his article in this number, the lack of a chief has been a great handicap to our development; but we must not look to the past, but to the future, and lay our plans to get the best results from the boon that will soon be conferred.

There is little or no talk at the Capital of prospective candidates, but it is to be hoped that the appointment will be made for recognized ability and fitness for the office. We must have a Chief of broad vision and sympathy, a capacious soul, able to understand —one who has the intendant gift, the ability to turn and look within, to seize, or rather sense, the viewpoint of his subordinates, down to that of the humblest private. Only such a Chief can really be successful. Otherwise he is apt to get the viewpoint of the bureaucrat. What is admirably appropriate from the vantage-point of Washington is oftentimes singularly inappropriate along the border. Our service is peculiarly arduous, more so than that of the other branches in this country, so that its needs cannot be standardized, so to speak, but must receive the care and attention that we ordinarily give to individual questions. But, whoever he may be, he can rest assured that he will have the support of the cavalry, wholeheartedly and unreservedly. Never before has a candidate taken office attended by a greater amount of good will and sympathy in his task.

THE ROTATION OF CAVALRY ON THE BORDER

IT SEEMS REMARKABLE, upon reflection, that although the cavalry has for years been doing border duty, no definite policy governs the length of this disagreeable service for the regiments. Officers and men have experienced considerable discomfort in being obliged to live on indefinitely in border camps, where it is impossible for them to have their families with them, or, if this privilege is possible, then to provide any educational facilities for their children. A regiment which is ordered to the border goes there with an indefinite sentence hanging over its head and with no hope held out that after a period of arduous service relief will come. The state of affairs is unintelligent and destructive of efficiency, but it comes from the fact that the cavalry is without a chief; and that no one in particular is charged with the important duty of watching these regiments and studying their needs. It is the old story of "What is everybody's business is nobody's business."

The same uncertain state of affairs is similarly true for the cavalry regiments that are fortunate enough to be in the posts. No one has any intimation of how long he will be there, with the result that an officer is unable to make any plans for the future, either for himself or his family.

It is not known whether any definite plan for the rotation of cavalry regiments has been followed in the past, but at any rate the impression is pretty general that there has been no plan. The only thing to do, therefore, is to eradicate that impression by publishing a policy of rotation between the border and the posts and faithfully living up to it. It should be announced in orders devoid of all ambiguous, vague, and meaningless expressions, such as "It is hoped that the situation will soon permit the return of the regiment to its station." When a regiment is ordered to the border, the order should announce a definite period of service, as, for example, two years, as formerly in the case of tropical service.

The order should name each of the regiments and state that the rotation is to take place on *definitely announced dates.* It may be, of course, that some unforeseen circumstance will inter-

fere with the program; but if it is really a military necessity, the officers and men will accept it philosophically and suffer no more from disappointment, or as much, as they do from the present uncertainty.

It so happens that half of our regiments are occupying posts and half of them camps, so that the mechanics of arranging a transfer of regiments would offer no great obstacle. We have the following posts: Riley, Ethan Allen, Bliss, Oglethorpe, Huachuca, Sam Houston, Russell, and Monterey, where some degree of comfort may be had; and then the camps: Douglas, Ringgold, Bliss, Marfa, Columbus, Clark, Brownsville, and Southern California. It would seem feasible, from this distribution of our regiments, to announce that on, say, June 1 the First Cavalry will exchange stations with the Second; on July 1 the Third Cavalry will exchange stations with the Fourth, and so on. Let me hasten to remove the shivers of horror that the Second and Third Cavalry will feel by saying that these numbers are used only to illustrate the thought, as the justice of these exchanges has not been investigated. By such an announcement, made months in advance, every officer will know approximately where he stands and will not be mentally harassed with the thought that out of a clear sky some day he will awake to find his life disorganized once again.

This is a subject that merits the most careful and intelligent study on the part of the War Department, if we are to preserve the loyal spirit of our officers. Times have changed, and it is no longer fashionable to give orders arbitrarily, vouchsafing to oneself all of the omniscence in the world.

We have been told for years to be patient about the border service, and to accept it philosophically, as an exigency of the service; but let us remind the counselors "that there was never yet a philosopher who could endure the toothache patiently."

WEST POINT

DUTY—HONOR—COUNTRY

The words of General Pershing, in his hearings before the joint committees of Congress relative to West Point, are so full of good sense and wisdom that they should be of great weight with

the lawmakers at this time, when many ill-informed people are advocating drastic changes in our National Military Academy. To quote from the hearings:

"I should regret to see any steps taken that would impair the efficiency of West Point. This institution has furnished the Army for more than a hundred years with officers upon whom has fallen the training of our armies and the maintenance of our military traditions. While it does not necessarily follow that a graduate of West Point is, *per se*, better equipped than officers who have received education at other institutions, yet there is in that training such a solid foundation of character, discipline, and patriotism, in addition to the education and purely military features, that it should be given every encouragement. We should continue to give it every encouragement, as we have in the past."

Whatever else may be said against the Academy, it cannot be denied that West Point has always been one of the most efficient institutions of this country. It was never intended by its founder, George Washington, that it should be a three months' training camp, but that it should be an Academy for the training of officers. Yet every effort was made during the war to change this fundamental idea of the Academy and turn it into a training camp in order to swell the grand total of one hundred thousand emergency officers by the addition of a few hundred youths barely twenty years old! It was done, so it was said, that in order West Point might not be lagging behind the other universities of the country which had, to reverse the metaphor, turned their plowshares into swords and the beehives into helmets. There were some who wished the parade ground dug into trenches and barbed wire stretched around the reservation, who raved that the idea of a cadet in the English course reading the poems of Amy Lowell was absolutely incompatible with the fact that the United States was at war, and because a few of the conservatives held tenaciously to the century-old idea that the cadet must first be educated before he is fit to be an officer they were accused of being old fogies and with one grand mental sweep relegated to keep company with the ghosts of a past age. It was overlooked that for a century West Point had been doing thoroughly what the training camps were attempting to do hastily during the war, and that the Academy had been turning out a product that had been tested as well as human standards can test a man.

But the hysteria of the country had to be satisfied and cadets were graduated after a half-digested course. The close of the war brought forth added clamor for changes in this great institution. Every officer or man with a grievance against the Army got very excited about the West Point methods, and as a taxpayer claimed the right to decide its future destiny. Even so well-informed a man as Frederick Palmer came out in Collier's Weekly with a misleading article on "What is the Matter With West Point?" But we should not be led astray by the ignorant talk of the uninitiated and imagine that a radical change is necessary in our National Academy. On the contrary, we would be lacking in our duty to the nation did we not stand up courageously for the principles for which this Academy has always stood and make only those changes which the war has demonstrated as wise.

Nearly all graduates deplored the change in the course from four to three years, but happily a reversal to the four-year course will occur if the proviso to this effect in the Military Academy appropriation bill becomes law.

It is noted with great satisfaction that hereafter the summer training of the cadets will be given at one of the large camps of the country, where there is more room and where the Corps will be able to live under the same conditions as do the soldiers of the Army. The summer camp at the Academy was all very well when the Corps was small and before the Army developed and broadened, but today it is inadequate and besides it is rather a camp *de luxe*.

It would be more desirable if the cadet could serve in the ranks of the Army before receiving his commission, for then he would actually obtain the enlisted man's viewpoint by hard experience and his familiarity with the life of his men would ripen his judgment at an earlier period in his career than now occurs.

Such an experience, coupled with more frequent contact with the world while a cadet, would soften the rigidity of his viewpoint. As it is now the cadet lives a life of monastic seclusion, and it is this very seclusion which in the past has had a tendency to make the graduate alien in thought to the average American. And his entry into the service did not help matters any for the

system kept him usually from as frequent contact with the people in general as is desirable.

Yet in the liberalizing of the cadet's education there is one thing which it is hoped will not be destroyed or impaired. I refer to the beauty of his discipline and his unquestioning response to the orders of his superiors. He has an elevated sense of duty developed through constant insistence upon attention to the small things of life, on the theory that "what is good and venerable to hear when a child forever retains its authority over the mind."

This sort of discipline and obedience are essential to any Army which hopes for success, even though it may not be exactly in harmony with the modern Soviet spirit, which recognizes precious little discipline and certainly no superiors. At present the cadet is carefully guarded from this malign influence and perhaps too much so; therefore it is best that he be less of a monk and more of a man of the world.

The changes so far made are in the right direction; but when making changes in an institution which has successfully fulfilled its mission for one hundred and eighteen years, conservatism should be the policy.

Topics of the Day

SIR DOUGLAS HAIG AND THE CAVALRY

IN HIS OFFICIAL REPORT, "Features of the War," Sir Douglas Haig gives his opinion and views on the value of cavalry, describing the splendid rôle played by the mounted troops under his command during the war. But let the reader judge for himself the attitude of a great British general toward the cavalry after reading the following extract from the report:

"From time to time, as the war of position dragged on and the enemy's trench systems remained unbroken, while questions of man power and the shortage of shipping became acute, the wisdom or necessity of maintaining any large force of mounted men was freely discussed. In the light of the full experience of the war, the decision to preserve the cavalry corps has been completely justified. It has been proved that cavalry, whether used for shock effect under suitable conditions or as mobile infantry, have still an indispensable part to play in modern war. Moreover, it cannot safely be assumed that in all future wars the flanks of the opposing forces will rest on neutral States or impassable obstacles. Whenever such a condition does not obtain, opportunities for the use of cavalry must arise frequently.

"Throughout the great retirement in 1914 our cavalry covered the retirement and protected the flanks of our columns against the onrush of the enemy, and on frequent occasions prevented our infantry from being overrun by the enemy's cavalry. Later in the same year, at Ypres, their mobility multiplied their value as a reserve, enabling them rapidly to reinforce threatened positions of our line.

"During the critical period of position warfare, when the trial of strength between the opposing forces took place, the absence of room to maneuver made the importance of cavalry less apparent. Even under such conditions, however, valuable results may be expected from the employment of a strong force of cavalry when, after there has been severe fighting on one or more fronts, a surprise attack is made on another front. Such an occasion arose in the operations before Cambrai, at the close of 1917, when the cavalry were of greatest service, while throughout the whole period of trench fighting they constituted an important mobile reserve.

"At a later date, when circumstances found us operating once more in a comparatively open country, cavalry proved themselves of value in their true rôle. During the German offensive in March, 1918, the superior mobility of cavalry fully justified their existence. At the commencement of the battle, cavalry were used under the Fifth Army over wide fronts. So great, indeed, became the need for

mounted men that certain units which had but recently been dismounted were hurriedly provided with horses and did splendid service. Frequently, when it was impossible to move forward other troops in time, our mounted troops were able to fill gaps in our line and restore the situation. The absence of hostile cavalry at this period was a marked feature of the battle. Had the German command had at their disposal even two or three well-trained cavalry divisions, a wedge might have been driven between the French and British armies. Their presence could not have failed to have added greatly to the difficulties of our task.

"In the actions already referred to east of Amiens, the cavalry were again able to demonstrate the great advantage which their power of rapid concentration gives them in a surprise attack. Operating in close contact with both armored cars and infantry, they pushed ahead of the latter and by anticipating the arrival of German reserves assisted materially in our success. In the battle of October 8 they were responsible for saving the Cambrai-Le Cateau-St. Quentin Railway from complete destruction. Finally, during the culminating operations of the war, when the German armies were falling back in disorganized masses, a new situation arose which demanded the use of mounted troops. Then our cavalry, pressing hard upon the enemy's heels, hastened his retreat and threw him into worse confusion. At such a time the moral effect of cavalry is overwhelming and is in itself a sufficient reason for the retention of that arm.

"On the morning of the armistice two British cavalry divisions were on the march east of the Scheldt, and before the orders to stop reached them they had already gained a line ten miles in front of our infantry outposts. There is no doubt that, had the advance of the cavalry been allowed to continue, the enemy's disorganized retreat would have been turned into a rout."

A GERMAN VIEW OF CAVALRY IN THE WORLD WAR

THE CAVALRY ASSOCIATION is indebted to Major-General Joseph T. Dickman for the translation of recent German views on the cavalry of the future. In his letter dated at Coblenz, Germany, January 18, 1919, General Dickman wrote:

"It is, perhaps, not too early to do something to stimulate our cavalry. I therefore inclose a translation of an article that I ran across in a publication which for obvious reasons probably has not been circulating very freely in our country in the last few years. It is very interesting, as showing the trend of opinion in the German cavalry resulting from experiences in the Great War.

"You may know that I made some experiments with automatic rifles to be used by cavalry in the St. Mihiel campaign. I borrowed four Browning automatic rifles for experimental purposes and issued them to Colonel Hazzard, in command of a

squadron of the 2d Cavalry. He carried them in the boot, just like any ordinary rifle, and used them effectively. I am convinced that the future armament of our cavalry must provide for a considerable number of automatic rifles and ammunition carried by the horses, or else on handy pack animals.

"I have not heard a word from any of the advocates of double rank and mass formations for cavalry, who tried to upset the American cavalry between 1911 and 1915. I guess the course of events has given them some food for reflection and they are content to keep quiet."

No officer of his generation has rendered more valuable service to the cavalry than General Dickman. At a period when there was a determined effort to abandon the valuable lessons of the Civil and Indian wars, and to reorganize the cavalry in a way to sacrifice its fire action, to a great extent, General Dickman remained steadfast. In 1913 the advocates of mass action had succeeded in securing the abolition of the pistol as a cavalry weapon. As the commander of the Second Division, then preparing for service in Mexico, I entered serious objections and the order was revoked. It is now probable that the pendulum may swing to the other extreme, through the abandonment of the saber, and thus permit all efforts to be concentrated upon training cavalrymen to a more perfect use of automatic pistols, in connection with the magazine rifles.

The time is ripe for full and free discussion of the future of the American cavalry. What other nations are discussing in connection with cavalry service is at all times of interest. With the recent World War fresh in mind, there are an infinite number of experiences worthy of recital and discussion. We need only to guard against drawing general conclusions based on exceptional and isolated examples. It is entirely probable that German opinion has been much influenced by the magnificent service rendered by General Allenby's cavalry in the 1914 campaign, before the armies had settled down to a state of siege and trench warfare.

WILLIAM H. CARTER,
Major-General.

(*Translated from "Militär-Wochenblatt" No. 77, Berlin, December 25, 1918*)

HEADQUARTERS THIRD ARMY, *January* 13, 1919.

A WORD TO THE CAVALRY

(By Captain LUDWIG DREES)

In "Militär-Wochenblatt" No. 60, the old master, Plinzner, after a prolonged silence, again appears in public with a rather long article, in which he recommends another practical execution of his old method of the complete collection of the forehand by a body of troops especially organized for this purpose.

As is only to be expected from so esteemed a personage as the author, the article has undoubtedly been read with widespread interest and has afforded abundant food for reflection.

Especially interesting is the fact that in paragraph 3 a cavalryman of the old school openly admits that the time for the attack by cavalry in mass has definitely passed, and that consequently the principal function of the horse no longer is to carry the rider in battle, but rather to the battlefield, and that the selection and training of the horses must be effected with these considerations in view.

It is a source of much satisfaction that this opinion has gradually made its way, although with bleeding hearts on the part of many supporters of the old cavalry battle. But the other arms of the service have had the same experience as the cavalry; the long war, with its many technical discoveries, has demonstrated clearly to all of us that everywhere the progress of technical science has greatly reduced the poetry of existence.

We are, however, permitted to assert quite positively that all the other arms adapted themselves to this fact before the war and made deductions therefrom to a much greater extent than the cavalry. Time and again the rules and regulations of the cavalry demanded the primary solution of all problems from the saddle with the *arme blanche*, and although considerable space was devoted to dismounted action, it was only done begrudgingly, which was wrong. In the modern high state of development, the firearm is in every form the only decisive weapon. In comparison, the importance of fireless weapons—and this cannot be emphasized too often—sinks to a minimum, even in the cavalry. It would be "carrying coals to New Castle" to attempt to elucidate such a commonplace fact to participants in the four years' war. I think we have all had ample personal opportunity to gather experience on this subject.

As with so many other things, it is a question of clearing the decks thoroughly and of building up anew on principles recognizing only the most modern conditions.

In this matter, Pastmaster Plinzner has taken a step in advance, and the army is indebted to him for it. It is also desirable that his training method be subjected to an exhaustive test.

A well-known general once made the following remark about a new army unit which was developing with remarkable rapidity: "Yes, they are not burdened with traditions." In this expression there is much profound truth. Now that we, if under painful circumstances, are in a similar situation, we should seek to discover and utilize the good that may be concealed therein.

If, however, there is an arm of the service that has a prospect of securing for itself a position for the future, it certainly is the cavalry. This position offers, in addition to its great importance on the field of battle, a specially interesting and diversified service. But the cavalry itself must not look backward, but take into account only the new conditions, and, without splitting up its strength and opinions, march in closed ranks towards reconstruction.

. . . . . .

I do not hesitate to make the statement that a large part of the cavalry had not accepted the fundamental notion of the supremacy of the firearm and refused to adopt it. In this they were encouraged by higher authority, which in every direction supported the *arme blanche*. Many had at bottom probably quite modern views on this subject, but the existing current of opinion was too strong for them. It is of no use to argue that in the cavalry there were also supporters of dismounted action; for example, General Von Bernhardi, who not only in a practical way, but also in his talks and writings, insisted upon dismounted action. It is fortunate that such leaders were in existence, so as to furnish at least some resistance to the prevailing current. However, they could not make a lasting impression, for the false idea was too deeply rooted, that extensive adoption by the cavalry of dismounted fire action would injure the cavalry spirit. Every individual rider was instructed with that idea in view, and it was thoroughly drilled into him, and the regulations prescribed that he was to ride at anything and in that way solve his problems. How soon did our cavalry have to learn anew, at the expense of severe losses, that they should not ride into villages, woods, etc., to reconnoiter them, but would have to dismount and with rifle and grenades in their hands attack them as infantry? Exceptions will, of course, often occur, but they will only prove the rule.

. . . . . .

In short, it may be said that it will be the principal duty of the cavalry, after a quick dash to a threatened point, to hold a position against superior numbers and to fight until the slower infantry can arrive to furnish support and relief.

It goes without saying that the inferiority in numbers must, as far as practicable, be counterbalanced by skill with the rifle, and that, if possible, every rider and every rifle must be actively employed in the combat. This requires a type of organization and equipment which, in dismounting to fight on foot, whether with or without movable horses, permits the reduction of horse-holders to a minimum. If this principle is to be carried out, the clumsy lance, which in nearly every situation is a great inconvenience, must disappear. The disadvantages, which especially in dismounted action are apparent, are so great that we shall not go far wrong in

the assertion that its retention is in great measure to blame for the aversion which cavalry soldiers have for dismounted action, especially in time of peace.

In campaign I have addressed a large number of cavalry soldiers and asked the question, whether they had ever brought an enemy down with their lance; the answer was always in the negative. I believe it is not saying too much when I state that in this war the lances were carried mostly for show, and not always with pleasure for the horse and the rider. On the other hand, we have had the experience that squadrons which had been a long time in the East, and gotten rid of their lances in their cavalry service, when they came back to us in the West were quickly re-equipped with lances and received positive orders to ride with the lance, even in difficult country. The object of these orders was not understood by the cavalry, nor by the other troops, and probably was due to an effort to carry out the regulations, and perhaps also to the fact that a visit was expected at the front from higher authority.

The lance must disappear, for only in that way can the cavalry arrive at thorough instruction with the carbine and place complete reliance thereon. Intimately connected with this question is the selection of man and horse. If no further cavalry battles are to be fought, then we no longer need battle cavalry—that is, heavy shock troops. We shall require only a uniform type of troops, and these must be as mobile as possible—that is, with small horses and light riders, who are active and skillful in quick mounting and dismounting in every possible combat situation. Recently there appeared in the "Artillery Monthly Review" an article on the question "Horse Breeding After the War." I paid special attention to this question and insisted that in later peace times the artillery should receive the benefit of the horse-supply, on which it has a good claim and which heretofore has disappeared in the cuirassier stables. Cavalry with modern ideas will not shed tears over the loss of these animals, for they are quite unsuitable for the cavalry service of the present day, as are also the heavily booted and raw-boned cuirassiers themselves.

It might be carrying the matter too far to enter into further elucidation of facts which are so evident; yet I would call to mind the difficulties of feeding, sheltering, and keeping these large animals; their lack of endurance at rapid gaits, and their deficient adaptability in difficult country.

With the fall of the lance admitted, the saber* must come into its own again, for the rider must have a handy weapon for the mêlée and the pursuit.

I am of the firm conviction that the saber, which when not in use burdens neither man nor horse, is amply sufficient. Proof of this should be found in the fact that the cavalry of Frederick the Great and Napoleon, at their most flourishing period of cavalry battles, fought their combats for the most part with the saber. Frederick the Great and Napoleon would certainly have armed their cavalry with the lance if they had considered it the correct thing to do. What was then unneces-

* Carried on the horse, this small side-arm must, of course, during the fighting on foot, remain attached to the pommel.

sary, according to the judgment of these two great soldiers, should certainly not find a place today, when firearms have been developed to such a remarkable extent.

Reduction in the period of service makes the disappearance of the lance welcome, for the training of the soldier without a lance is considerably simplified, and its disappearance also is of benefit to the legs of the horses, which can be ridden to a much greater extent in the open country and with both hands.

All in all, I see only advantages in the abandonment of the lance. I am quite sure that if the cavalry, to include the last private, is firmly convinced that the horse is for riding and the carbine for fighting, then the cavalry itself will make the largest contribution to the destruction of the view which has gradually developed in lay circles, namely, that cavalry is superfluous and has outlived its usefulness. The origin of this false conception is largely due to the cavalry itself, because of its inopportune attacks with the *arme blanche*. The cavalry can really not render itself a better service than by unreserved acknowledgment of its dependence on firearms.

COMMENTS

The author of this article does not seem to be aware of the fact that cavalry of the type now advocated by him has been in existence in America for more than half a century; also, he says nothing about the automatic pistol as a weapon for mounted troops.

It is safe to predict that European cavalry will be reorganized, and that the change will be in the direction of increased mobility and greater fire power. In our own Army the labor of various boards during the last seven years, resulting in two sets of drill regulations, may as well go into the discard. A fresh start should be made, and in the revision the mobility and carrying power of cavalry should be utilized in the rapid transfer of automatic rifles and ammunition to the scene of action.

J. T. DICKMAN,
Maj.-Gen'l.

COBLENZ, GERMANY, 18 *Jan.*, '19.

STOEKS MORTARS AS A CAVALRY WEAPON

THE USE OF STOKES MORTARS as a part of cavalry equipment should not be overlooked in determining the proper weapons for the cavalry in modern combat. Our cavalry problem on the

southern frontier and the conditions that we must face need special consideration, independent of mere theory. In France the Stokes mortar was an efficacious weapon, especially against machine-gun nests; but often in the advance, as at Soissons, inadequate and improper transportation facilities prevented its maximum use. It is generally regarded as an infantry weapon, but there is a place for it in certain kinds of cavalry employment.

Writing in the Journal of the United Service Institution of India, Lieutenant-Colonel B. Abbay, 27th Light Cavalry, has the following to say of the Stokes mortar. His interesting conclusions afford food for thought and consideration:

"No one who has not pursued raiders all day over the burning sands and beneath the brazen skies of the frontier, with a temperature of 120° in the shade and a water-bottle of tepid chlorinated Epsom salts, can imagine the chagrin when, after surrounding the enemy in some stronghold towards evening, it is found that the guns are so far behind that they cannot come up in time to finish off the 'show' at once, and a line has to be drawn round the enemy's stronghold which is as capable of holding them, once darkness falls, as a sieve is of holding water, and the knowledge is forced home that at dawn the enemy will be many miles away.

"The reissue of the withdrawn bayonets to cavalry on the frontier has opened again the possibility of pressing home a dismounted attack, but only with heavy loss of valuable lives—a course every soldier will adopt reluctantly when the quarry is vermin.

"Even the arrival of the guns may be of little avail, if the trajectory is too flat to enable them to hit the lair of the tribesmen, and some device must be thought of to bolt the pursued.

"Now the advantages of arming cavalry regiments on the frontier with a Stokes mortar are as follows:

"(*a*) Stokes mortars are easily carried on a pack-horse; 12 shells go to a load. The section is as mobile as a Hotchkiss gun.

"(*b*) Cavalrymen can be turned into Stokes gunners in a month.

"(*c*) Stokes mortars can be used for high-angle fire, and to hit a target in a nalla or in dead ground that a gun could not reach.

"(*d*) They can also be used as a gun for direct fire. It has frequently been stated that Stokes mortars are of no use on the frontier, because they will not blow down towers. The people who make this statement forget that every tower has a door, and that every tower has a roof, and that the Stokes mortar is so accurate a weapon that shells can be dropped onto a roof or fired into a doorway with certainty, if a team is fighting that has specialized in the handling of the Stokes mortar."

"Now a 10.2-pound shell dropped on a roof and exploding there has a very different effect to one bursting on the side of a mud tower; also, a shell bursting in a doorway is very effective. I will give some examples.

"A village was subjected to trench-mortar fire. It was found that where the shells fell on a roof, they either went through it and burst, wounding everything in the room below, or they blew a hole in the roof.

"Nine raiders were surrounded in a village. As the result of a Stokes mortar, they fled to the masjid. A shell fell on the masjid roof, went through, killed two and wounded six. The effect was excellent, as their rifles were at once thrown out into the street and they surrendered.

"To sum up:

"Stokes mortars can keep up with cavalry.

"They are effective if used against frontier buildings, nallas, etc.

"The personnel can be easily trained.

"The following is suggested as a detachment:

"N. C. Q.'s, 1 }
"Sowars, 4 } for one mortar.

"Transport: (*a*) With squadron—Gun and bipod on one horse.
24 shells on two horses.
(*b*) With 1st line—36 shells on three mules. Transport.

"A squadron recently got into difficulties in very bad country; a Stokes mortar came into action and fired 8 shells, on which the enemy (Mahsuds) fled hastily."

THE MILITARY ENGINEER

THE SERVICE is to be congratulated upon the revised appearance of the service magazine of the Corps of Engineers. The title has been changed from "Professional Memoirs" to "The Military Engineer," and the nature and scope of the periodical hav undergone a metamorphosis.

The first issue under the new era is in general appearance a book of artistic balance, the result of excellent typography, clear illustrations, and high-grade presswork.

The articles, as might be taken for granted, are of the same high order as everything done by our Engineer Corps. They are professionally interesting and discuss the engineering problems and methods, both civil and military, that are engaging the thought of engineers of today.

FEDERAL AID TO SOLDIERS

MANY REPORTS have been spread broadcast that men who are entitled to free treatment by the Government are spending their own money and not getting the attention that they should have. The reason seems to be an unfamiliarity with their rights under the law. The public Health Service has been designated to care for all such cases, providing medical, surgical, hospital, and sanatorium care. If any of our readers know of any discharged soldiers, sailors, marines, or war nurses suffering from some injury or ailment which dates back to service in the Army, encourage him to take his troubles to the Government.

The Public Health Service maintains a chain of hospitals, combining with them recreation, vocational training, and wholesome entertainment.

A large number of soldiers are not yet aware that the Government offers them free treatment. Please tell them to write to the United States Public Health Service, Washington, D. C.

Regimental Notes

THIRD CAVALRY—Fort Myer, Va.

Notwithstanding the bitterly cold weather, the officers and men of the 3d Cavalry have not relaxed their efforts to maintain their efficiency at the very highest standard. The morale of the personnel is in excellent condition and the entire command on its toes, so to speak, due to the able leadership of General Lloyd L. Brett, our regimental commander, who was retired from active service after a distinguished career as an officer.

Among the various activities at Myer, the weekly equestrian exhibitions stand out very conspicuously. Visitors, who are familiar with the horse and his possibilities, having remarked time and again that a marvelous success has been obtained with the raw mounts and men—the drill instructors feel very much encouraged. The drills are given every Friday afternoon at 2 o'clock. Fortunate in the possession of a good gymnasium and a splendid riding arena, intensive work in preparation for these feats goes on from early morning to late evening, so that the program is varied with every performance. Although the snow and rain and severe cold have prevented the public of the Capital from coming in large numbers, the attendance has been all that could be expected, and at each entertainment special guests from the War Department and near-by posts have been noticed in the audience.

Nor has polo been neglected at this station, for, with the efforts of Major Browne, an atmosphere has been created and a training squad formed that will make this one of the finest of polo centers. It is stated that many officers of the War Department will soon organize a team that will test the prowess of this outfit. Besides the Artillery commander himself, prominent players who are conditioning themselves in the riding-hall and on the "wooden horse" are Lieutenant-Colonel Millikin, Major Swing, Captains Edw. Keyes, Diehl, Waters, Durant, Thayer, Wood, Williams, and Baylies; also Lieutenants Jadwin, Sibert, Creel, Hayman, Walsh, Greene, Daniels, Hanson, and Kernan.

To the delight of all interested in polo, it was lately announced in the Washington papers that Potomac Park is to be immediately rolled and thoroughly conditioned for games in the early spring. This is not a field of any mean quality, even when it is at its worst, so that enthusiasts are full of hope for the polo future.

Mounted service enlisted men were pleased some months ago with the announcement from the Education and Recreation Branch that polo mallets are to be issued to the regimental organization, and now they await with anxiety their arrival.

Spring is almost at hand and the diminutive mounts are impatient for a chance to break out into the open and onto the polo campus—to "get on the ball," so to speak. In the meantime devotees of polo are watching for press reports of the Grand

Tournament of March 27 to April 15, which is to be under the patronage of Mr. Foxhall Keene, who ranks as one of the greatest players produced by America.

Finally, at the Spring Horse Show that is to be held at the south end of the Highway Bridge, the Fort Myer contingent will not be among the "also ran," for already, both among the officers and enlisted men, the deepest interest is evinced in running, jumping, and other events.

FOURTH CAVALRY

The 4th Cavalry boasts of having the champion football team of the Brownsville District, having succeeded in getting through the schedule without meeting a single defeat. For its great work it has been awarded a championship cup.

A great amount of enthusiasm has been aroused by the organization of a post of the American Legion at Ringgold. The post has been named in honor of Lieutenant-Colonel Edmund M. Leary, 4th Cavalry, who was killed by a fall in an aëroplane at this post on September 27, 1919.

The organization of a polo team for the enlisted men is in progress. The men are very much interested in the sport, and with the aid of the instructors it is anticipated that an excellent team will be produced. An excellent polo field, rated the best in this section of the Southern Department, has recently been completed and there is no reason why the polo played here should not be of the highest quality.

FIFTH CAVALRY

The 5th Cavalry is covering the entire Big Bend District, a distance of 420 miles of boundary line between the United States and Mexico. Headquarters of the regiment, and Troops G, K, L, M, Headquarters and Supply, are stationed at Camp U. S. Troops, Marfa, Texas; Troop A, Candeleria; Troop B, Hollands Ranch, Valentine; Troop C, Indio; Troop D, Glenn Springs; Troop E, Polvo (Redford P. O.); Troop F, Ruidosa; Troop H, Lajitas; Troop I, Hesters Ranch, Sierra Blanca.

Daily patrols are being made by all troops at river stations, in addition to regular camp duties.

A number of organizations of this command are organizing or have organized troop polo teams from the commissioned and enlisted personnel.

SIXTH CAVALRY

During the past three months the 6th Cavalry has been stationed at Fort Oglethorpe, Ga. For a part of this time the guard duty was very arduous, as it was necessary to patrol the numerous and extensive National Army cantonments surrounding the post. About two months ago these cantonments were sold to a firm from Chicago, which is now tearing them down. Since the guard has been relieved, we are holding the regular troop and squadron drills. Six officers of the regiment, with parties of enlisted men, have been detailed on a recruiting campaign in the

five adjacent States, and many compliments have been received on the appearance, conduct, and general activity of these parties. It has been necessary for the 6th Cavalry officers to take command of the Motor Transport Corps, stationed here, and the War Prison Barracks, where about a hundred and fifty alien enemies are still interned. Owing to the rainy weather and soft ground polo activity has been slight. There is an abundance of promising material for polo and it is hoped, when conditions are favorable, to turn out a good team.

EIGHTH CAVALRY

The commanding officer of the 8th Cavalry, Colonel George T. Langhorne, which has its headquarters at Fort Bliss, Texas, has recently been the recipient of two very complimentary letters concerning the conduct of his men while on duty at various places along the border.

In a letter from Gallup, New Mexico, the Community House secretary writes: "I wish to commend their courtesy to one and all while here. A finer bunch of men than the members of Troop 'K' would be hard to find," and the county clerk of the same town expresses his opinion of the members of the 8th Cavalry in the following terms: "It is indeed gratifying to know that we have such a splendid type of manhood in the United States military forces, and it cannot help but create a feeling of greater security to us civilians when we see such men as are the proud members of the 8th United States Cavalry. I want to assure you that the conduct, morale, and general appearance of the members of the 8th Cavalry while in Gallup was of the very best."

From 1915 to 1919 the 8th Cavalry has been engaged in protecting the border. During this service troops of the regiment have crossed into Mexico ten times and have had ten engagements with Mexican bandits who raided American territory, not to speak of the numerous small engagements of patrols. This service was marked by long, arduous marches, extreme heat and shortage of rations and forage. Approximately 400 miles of river front were protected by the regiment, which occupied thirteen stations. The last crossing of the troops in August, 1919, was to punish the captors of two Army aviators. On this expedition 285 miles of rough country were covered in five days without the loss of a single horse. The following extract from an official report made by an officer of the Morale Branch of the War Department shows the standing of the regiment:

"The appearance and general morale of the 8th Cavalry in this, the largest and most isolated of all border districts, is so remarkably good that special report is thereon made.

"I have never seen such a perfectly appointed command before in my service: the condition and appearance of horses, equipment, and men of the cavalry; of mules, harness, wagons, and carts of the trains and the pack train, was such as to make a profound impression. Every buckle and strap was cleaned and oiled and in place; the gaiting of the horses was remarkable. The entire command, with the

exception of rolling kitchens, passed in review at the walk, trot, gallop, and extended gallop in nearly perfect formation.

"The regiment has been commanded for the last three years by Colonel George T. Langhorne, whose headquarters are in Fort Bliss, Texas."

TENTH CAVALRY

On July 26 and 27, 1919, the 10th Cavalry won the Arizona District Field and Track Meet, held at Fort Huachuca, Arizona, by the margin of 14 points. The 25th Infantry placed second, with 31 points, followed by the 19th Infantry, with 3 points. The 1st Cavalry scored 2 points. Ware, of the 10th Cavalry, won the 440-yard dash in the excellent time of 47 4/5 seconds, and in the 220-yard dash Williamson, of the 10th Cavalry, carried off first place in 21 1/5 seconds. Second and third place in this event went to 10th Cavalrymen. A large silver trophy was the team prize for this meet, and the usual gold, silver, and bronze medals went to the contestants who placed in the various events. Baseball and boxing concluded the events.

In August, 1919, the 10th Cavalry Polo Team challenged the 1st Cavalry for the Arizona District polo championship. Three games were played, all of which were won by the 10th Cavalry.

ELEVENTH CAVALRY—Presidio of Monterey, Cal.

Horse Shows.—In November officers and enlisted men of the regiment won 33 ribbons at the Horse Show, held in San Francisco by the California Live Stock Association.

Regimental Birthday.—On February 2 the regiment celebrated its 19th birthday by appropriate exercises, including an address by the regimental commander, a résumé of the history of the regiment, and the making of the day a holiday at all stations of the regiment.

Equitation.—Equitation at the Presidio of Monterey was started the latter part of October, held on Mondays, Tuesdays, and Fridays, Lieutenant-Colonel G. M. Lee, 11th Cavalry, in charge. The officers having been in the service comparatively a short time, it was decided that the class would be more to teach officers to ride than school work in equitation. The school work embraced only enough to teach the proper aids and "hands" under all conditions.

The equitation class took part in a paper chase a few days ago, given at Del Monte Lodge. The run was about four miles and fairly stiff. The first rider to reach the hare was Captain John Pierce, Jr., 11th Cavalry, who was presented with a handsome silver cup.

Polo.—Polo has been started at the Presidio of Monterey, with Lieutenant-Colonel G. M. Lee and Captain Charles L. Clifford in charge. There are about ten officers trying out ponies and practicing daily. Polo equipment has been requisitioned for, and we soon expect to practice and play games with the Del Monte Polo

Team, who have fine polo fields about two miles from the post. A polo tournament between Del Monte, Santa Barbara, San Mateo, Coronado, the 7th U. S. Cavalry, and the British American Eastern Team is now in progress on these fields.

TWELFTH CAVALRY

Stations: Headquarters and auxiliary troops and the third squadron at Columbus, New Mexico; the second squadron at Hachita, New Mexico, and a border patrol of one troop at Culberson's Ranch. After a four years' tour at Columbus, the regiment has received orders to march overland to Del Rio, Texas, a distance of about 600 miles.

The great need of the regiment is men, and a recruiting party has been sent to Baltimore and Richmond to assist in the general recruiting drive and in the hope of filling the regiment.

One platoon of the regiment participated in the exhibition drill that was held at Fort Bliss in honor of the visit of General Pershing. The regiment will make use on the march of hay nets and thereby avoid feeding hay on the ground, a practice that has in the past resulted in great injury to our animals. These nets were used by mounted units of our Army in France and with excellent results.

THIRTEENTH CAVALRY

Station. Fort Clark, Texas. The regiment now stationed at Fort Clark has a personnel of 37 officers and 996 enlisted men, and with five recruiting parties of one officer and four enlisted men each canvassing the State of New York, it is hoped to have the regiment to authorized strength by April 1, 1920, although only about 50 recruits have been received to date.

Recent movement of troops: The 3d Squadron, in command of Major Roy B. Harper, ordered to McAlester, Okla., on December 3, 1919, for duty in the coal-mining district during threatened trouble; but fortunately the strike was settled and the squadron returned to proper station on December 23. While in McAlester several days were devoted to recruiting, and while no direct results were recorded it is considered that the time was not wasted.

On December 12 Troops "A" and "G" were ordered to Camp Del Rio, Texas, people in that locality hearing rumors that Mexican bandits were in the vicinity and intended making raids on the American side of the Rio Grande. These troops were kept on patrol duty at Del Rio until December 29, when they were returned to this post. Both of these movements were ordered at night, and the quickness with which they were executed was noted in a personal note from the Department Chief of Staff, addressed to the regimental commander, dated December 30, 1919.

In October, 1919, a sector of river patrol, consisting of two outposts at Pinto and Lehman's Ranch, were taken over from the 3d Infantry, troops alternating with

intervals of one month. Troops "I," "F," "C," and "H" in turn with Troop "L," at present stationed at the outpost. All troops report having enjoyed their tour and are anxious for another tour of duty on the river.

SIXTEENTH CAVALRY

Stations: Headquarters at Brownsville, Texas, San Benito, Texas, and Mercedes, Texas. The quarter of the new year has been given over to target practice chiefly, the 1st and 3d squadrons conducting their practice in February and March and the 2d Squadron in March and April. This has offered the troops an opportunity for marching from the various stations to the range, the distance varying from 20 to 40 miles.

The 1st Squadron, at Camp Mercedes, Texas, has its outpost at the San Benito Pump, on the Rio Grande. Polo teams which have been organized at this station have done a great deal to arouse the interest of both officers and men, each group having teams in the field.

New Books Reviewed

THE LAST FOUR MONTHS. By Major General Sir F. Maurice, K. C. M. G., C. B. Little, Brown & Co., Boston. $2.50.

An excellent book for the purpose for which it is written, viz., as a résumé of the operations during the decisive period of the World War, the last four months. The author begins with a general outline of the operations and strategy from the beginning of the war down to the spring of 1918 and points out briefly the lessons learned and how these lessons affected the operations during the decisive period. Beginning with the German offensive of March 21, a more detailed account of all operations is given, the positions described, and the designation of divisions taking part stated.

The book is valuable for the reason that it sets forth the vast operations of the last four months briefly and shows how the various operations by different armies fitted in the victorious whole, thus furnishing the student of the war with a groundwork on which to base more detailed study.

The book is printed in large, clear type, easily read. The author treats of his subject in a manner which holds the interest, and, as General Maurice certainly had ample opportunity to obtain the facts, it should be an accurate history. The amount of space devoted to the part played by the American forces is quite flattering, coming from an English author.

VAUGHN COOPER.

THE CADENCE SYSTEM OF CLOSE ORDER. By Lieut. Colonel Bernard Lentz, General Staff (Infantry). Menasha, Wis.: George Banta Publishing Company, 1919. Paper, 124 pages, with numerous plates. Price, 50 cents.

The subject-matter of this volume was originally mimeographed for limited distribution by the War Plans Division of the General Staff and appeared in the *Infantry Journal* of December, 1918, under the title "The Minutiæ of Close-Order Drill."

The pamphlet gives a system which is considered an amplification of the old "by-the-count" or "count-out-loud" method of drill, and impresses upon the reader the value of having the men in the ranks giving the commands in unison in order to keep their minds alert.

Minute explanations are given and an excellent outline for method and system in giving commands at drill.

In addition, there are plates showing the different positions of the feet while giving the different commands and counts in marching movements. The method, however, of chalking the blouse of a man who makes a mistake is not considered sound.

The success which Lieut. Colonel Lentz has attained as a close-order drill-master is well known.

The pamphlet contains an appendix giving all paragraphs in the Infantry Drill Regulations, 1911 (corrected July 31, 1918), pertaining to close-order drill.

The pages are not numbered up to page 14 and skip from page 40 to 57.

Acknowledgment for the original idea is given to Lieut. Colonel H. J. Koehler, U. S. A., and for assistance to Captains F. A. Paul, G. S., and H. B. K. Wallis, Infantry.

The pamphlet contains an introduction by Brigadier General Charles King (Major, U. S. A., Retired).

E. E. LEWIS.

RECRUITER'S HANDBOOK. Compiled by Lieut. Colonel Wm. J. Connolly under direction of Colonel John P. Wade. Apply to the Adjutant General.

An excellent little book, which contains extracts from lectures by various officers and business men as to the most efficacious method of obtaining recruits. It draws an analogy between successful recruiting and the success that is accomplished through advertising properly and the correct methods of salesmanship. It also points out the necessity of the recruiting party getting in touch with all civic organizations and avoiding an isolated status in a community. The material in the pamphlet is good, but it is not attractively presented to the reader.

EDITOR.

THE STORY OF THE GREAT WAR. By Roland G. Usher, Ph. D. The Macmillan Co., New York, 1919. Price, $2.50.

A non-technical history of the World War, written by a civilian for civilians; intended to give a bird's-eye view of the war that may be easily understood. To a certain extent it does this, but the view is obscure and somewhat distorted.

A popular work, with all that the name implies, as note this quotation:

"This was the first great war fought with the new weapons which science had provided. The Russo-Japanese War, to be sure, tried them out somewhat, and the Boer War had shown some things, but in the main the result upon warfare of the new artillery and the new rifle was not fully appreciated, even by the Germans. One of the discoveries was shrapnel. This was a shell thrown from a short-range gun—and a gun firing no more than three miles was short range—timed to burst in the air and scatter over a wide area a great number of bullets or jagged fragments of iron. Flesh and blood could not resist it.

One of the great German surprises was the high-explosive shell loaded with one of the super-powders or super-dynamites. The explosion was so tremendous that one shell falling upon a regiment would annihilate it; landing upon a trench, it would simply wipe it out."

It may be noted in conclusion that while an entire chapter is given to Belleau Wood, no mention is made of the Meuse-Argonne. The reader of the book would believe, though not so specifically told, that the only action of the American Army as an army was St. Mihiel.

LE ROY ELTINGE.

"NOTES ON RIDING AND DRIVING." By Major R. S. Timmis, D. S. O.

This text covers, rather sketchily, practically everything connected with the horse world, from photography of horses to tandem driving. The valuable parts, as far as our service is concerned, are the chapters on "The Back," "The Saddle and Saddler," "Care of Harness and Saddlery," and "On Draught."

His instructions on care of leather, as is usual in most English publications, are very good and worthy of attention of any one, whether in the military service or

The CAVALRY JOURNAL

OCTOBER
1920

THE UNITED STATES CAVALRY ASSOCIATION
WASHINGTON, D. C.

MAJOR-GENERAL WILLARD A. HOLBROOK
Chief of Cavalry, U. S. Army

THE
CAVALRY JOURNAL

VOL. XXIX | OCTOBER, 1920 | No. 121

A Few Words to the Cavalry

BY

Major-General WILLARD A. HOLBROOK, Chief of Cavalry

RECENT CONGRESSIONAL action compels reorganization of the cavalry. It is hoped that the organization, adopted as a result of much study on the part of various boards, will be accepted as a reasonably satisfactory solution of a difficult problem, and that all will get into the game with the spirit of co-operation and helpfulness so essential to success.

The cavalry has at this time a wonderful opportunity to demonstrate its efficiency by making itself ready to meet the demands of any emergency, in spite of a limited personnel.

Leaders of the World War agree that cavalry remains, as always, an essential part of a well-organized army; that it has played an important part in every war of modern times, and that it will continue so to do. This is clearly shown in the report of the A. E. F. Cavalry Board, convened after the signing of the Armistice. Its notes on "Operations of Allied Cavalry" are an inspiration to every true cavalryman, confirming him in the belief that his part in the team-play is essential, and that it is up to him to know the game and to play his part helpfully and with greatest effect.

Mobility and fire-power must be maintained at the highest standard, as well as readiness for mounted action. Proficiency in any one of these rôles must not be to the detriment of the others, but rather an inspiration to excel in all. It is generally found that a well-turned-out troop shows a corresponding excellence all along the line.

Duty with troops should be sought as furnishing the best opportunity for professional excellence and advancement. Such assignment, especially of officers in the higher grades, may be taken as evidence that such officers have, in the opinion of the Classification Board, records which justify their selection for the most important of all duties, that of command. While much will be ex-

pected of commanders, it will be the purpose of this office to equalize the assignment of specialists in the several regiments, so that there may be equal opportunity for efficiency in training.

The Chief of Cavalry, in entering upon the duties of his newly created office, sends his cordial greetings to all members of the service and bespeaks their hearty co-operation in all matters tending to build up the morale, esprit, and efficiency of this corps.

A Plea for the Saber

BY

Major-General JOSEPH T. DICKMAN, U. S. A.

(Commanding General, Third Army, A. E. F.)

THERE WAS a mounted charge, with the saber, by a portion of the 6th Cavalry against the Boxers near Tientsin, in 1900—nearly 20 years ago. There may be a few American soldiers who have served in the British cavalry, and we have one or two officers who have been on duty as observers with the cavalry of foreign armies during the World War; but, as a general proposition, it may be stated that no American officer or soldier now in the army has ever wielded a saber in battle. Accordingly, we find an abundance of positive opinion and vigorous assertion as to the worthlessness of the saber in modern war.

Some of those who approach consideration of the subject of armament of cavalry with less assurance prefer to consult with distinguished officers who have actually used the saber in battle and with able observers in campaigns where mounted troops took a prominent part.

Several French cavalry officers have stated that one reason for the scarcity of cavalry battles on the Western Front was the fact that the German cavalry avoided mounted combat, preferring to use their cavalry as a lure, taking refuge behind wire, other obstacles, and machine-guns. During the period of trench warfare there was no opportunity to use mounted troops; and when the Allies assumed the offensive, in 1918, the Germans had practically no cavalry left. We turn, therefore, to the campaigns in Asia Minor, which furnish brilliant examples of all forms of cavalry action, accomplished under very difficult conditions as to water supply and transportation.

During the dry season, April to October, 1917, the British, in their position along the Wadi Ghuzze, were occupied in improving their lines of communication and supply. It is to be regretted that during this period a brigade of American cavalry, with pack-trains, machine-gun squadrons, motor trucks, and caterpillar tractors, was not sent to form a part of the command known as the "Desert Mounted Corps," for it is believed that experience in the Palestine Campaign and comparison with the armament of other mounted troops would have enabled us to arrive at a definite decision as to the value of the saber.

In the "Desert Mounted Corps" there were 15 regiments from Australia and New Zealand armed only with rifle and bayonet, 14 regiments of yeomanry armed with rifle and several similar to our saber, and a mixed brigade armed with rifle and bayonet. In the opposing force there was one division of cavalry, the

pected of commanders, it will be the purpose of this office to equalize the assignment of specialists in the several regiments, so that there may be equal opportunity for efficiency in training.

The Chief of Cavalry, in entering upon the duties of his newly created office, sends his cordial greetings to all members of the service and bespeaks their hearty co-operation in all matters tending to build up the morale, esprit, and efficiency of this corps.

A Plea for the Saber

BY

Major-General JOSEPH T. DICKMAN, U. S. A.

(Commanding General, Third Army, A. E. F.)

THERE WAS a mounted charge, with the saber, by a portion of the 6th Cavalry against the Boxers near Tientsin, in 1900—nearly 20 years ago. There may be a few American soldiers who have served in the British cavalry, and we have one or two officers who have been on duty as observers with the cavalry of foreign armies during the World War; but, as a general proposition, it may be stated that no American officer or soldier now in the army has ever wielded a saber in battle. Accordingly, we find an abundance of positive opinion and vigorous assertion as to the worthlessness of the saber in modern war.

Some of those who approach consideration of the subject of armament of cavalry with less assurance prefer to consult with distinguished officers who have actually used the saber in battle and with able observers in campaigns where mounted troops took a prominent part.

Several French cavalry officers have stated that one reason for the scarcity of cavalry battles on the Western Front was the fact that the German cavalry avoided mounted combat, preferring to use their cavalry as a lure, taking refuge behind wire, other obstacles, and machine-guns. During the period of trench warfare there was no opportunity to use mounted troops; and when the Allies assumed the offensive, in 1918, the Germans had practically no cavalry left. We turn, therefore, to the campaigns in Asia Minor, which furnish brilliant examples of all forms of cavalry action, accomplished under very difficult conditions as to water supply and transportation.

During the dry season, April to October, 1917, the British, in their position along the Wadi Ghuzze, were occupied in improving their lines of communication and supply. It is to be regretted that during this period a brigade of American cavalry, with pack-trains, machine-gun squadrons, motor trucks, and caterpillar tractors, was not sent to form a part of the command known as the "Desert Mounted Corps," for it is believed that experiences in the Palestine Campaign and comparison with the armament of other mounted troops would have enabled us to arrive at a definite decision as to the value of the saber.

In the "Desert Mounted Corps" there were 15 regiments from Australia and New Zealand armed only with rifle and bayonet, 14 regiments of yeomanry armed with rifle and sword similar to our saber, and a camel brigade armed with rifle and bayonet. In the opposing force there was one division of cavalry, but

it was so worthless that it never made appearance in mounted action. The use of the sword in this campaign was limited to action against Turkish infantry and artillery.

While the habitual action of the cavalry was dismounted, with the rifle, there were six distinct and successful mounted charges, all of which attained their objectives and achieved important results. The charge near Huj was against rear-guard artillery. In action against Beersheba the Australians charged with bayonet in hand. It stands to reason that a 36-inch sword would have been a more satisfactory hand weapon than a 17-inch bayonet.

All the charges were made in successive waves, in open order, corresponding to our mounted skirmish line. Against cavalry in ranks, the form of attack would probably have been different.

As a result of the experiences in campaigns of the World War, the abandonment of the lance is contemplated in various countries because it is a great handicap to effective use of the rifle, but the abolition of the saber is not even being considered in any of the European armies. Neither Field Marshal Haig, nor General Allenby, nor his chief of staff, General Howard-Vyse, makes the slightest suggestion to that effect.

In the charge and the consequent imminent bodily contact with the enemy, it is necessary for the soldier, mounted or dismounted, to have something in his fist on which to concentrate his physical energy and divert his mind from the dangers to which he is exposed. I believe that the trigger of a pistol does not provide this outlet for physical energy. That in the excitement of combat the pistol might be dangerous to its friends is seen in the extreme precaution attending instruction in mounted pistol practice in time of peace.

Moreover, while with a simplified course fairly good efficiency can be attained with the saber in a few weeks, it would take a relatively long period of training for green troops, such as would swell our ranks in time of war, to make the pistol a dependable weapon.

Without going into psychological reasons for the retention of the saber, I will have to be shown examples of successful use of the pistol in actual combat with other mounted troops before I can agree to its substitution for the saber in all forms of cavalry charge. For the charge against infantry, our cavalry would probably have used the line of foragers, with the pistol; yet we must have some misgivings about that form of charge when delivered in successive waves, eventually merging into one line as the objective is attained.

During the 40 years preceding the Russo-Japanese War, the bayonet had been used in our army in campaigns of the Western country, in Cuba, the Philippines, and China as little as the saber, and to many, especially the experts in target practice, its abandonment seemed a logical procedure. During the incumbency of Lieutenant General Bates as Chief of Staff, the bayonet was reduced to a mere remnant consisting of a cylindrical rod projecting about 10 inches beyond the muzzle of the rifle, and equipment of the entire army with

that manner of weapon was in process of execution. However, when our observers came back from the Manchurian campaigns and submitted their preliminary reports, there was a hurry-call for the rehabilitation of the bayonet. This weapon now is considered indispensable, not on account of casualties inflicted therewith in battle, but on account of its moral effect and inculcation of the aggressive or offensive spirit through bayonet training.

What the bayonet is to the infantry, the saber is to the cavalry.

To sum up, therefore, I agree with our able observer in the Palestine campaign, that the armament of our cavalry—rifle, pistol, and saber—is correct, and I pronounce myself as opposed to the total abolition of the saber at the present time.

I would, however, not insist upon carrying it as ballast, but in case of field service involving no possibility of its useful employment would leave it at home.

"Touching on the rôle of cavalry, it has been proved that cavalry, whether used for shock effect under suitable conditions, or as mobile infantry, has still an indispensable part to play in modern war."—*Haig.*

Intelligence for Cavalry

BY

Major GEORGE M. RUSSELL, Cavalry

(Assistant Chief of Staff for Military Intelligence, Southern Department (A. C. of S., G-2, 5th Army Corps, A. E. F.)

MILITARY INTELLIGENCE is information about the enemy. If it had been called that in the first place, much misunderstanding would have been avoided. The name "intelligence" lends itself rather too readily to the quips of the jocularly inclined. Intelligence officer—"intelligent" officer—what punster has ever been able to resist the temptation, though the very obviousness of this overworked wheeze should have deterred him?

One cause for misunderstanding was the fact that before going overseas the average individual came in contact with negative intelligence only—counter-espionage. Another chance for the joker—gumshoes, false whiskers, hist!

The fact is that counter-espionage is only a small part of military intelligence. During operations no echelon below the Army had anything to do with negative intelligence, and it was only a sub-section at the Army and at G. H. Q. The lower echelons were wholly, and the higher echelons chiefly, engaged in positive intelligence—the collection and coördination of information about the enemy's forces in the field.

In war of positions, intelligence developed a considerable importance. Captured prisoners gave the designation of the units in the enemy lines and usually talked freely about other units they had seen. Airplane photographs showed new work and revealed the tell-tale paths that gave away the enemy's camouflaged batteries and his most populated trenches. Men with telescopes scanned the sector for movement that would betray any intention beyond the normal life of every day. Intelligence patrols made themselves familiar with No-Man's Land and took prisoners frequently, from whom much of importance was learned about enemy intentions. All the efforts of a specialized personnel were utilized to study the enemy's habits and to watch him unceasingly.

In sector, the means for this careful watch took on a more or less permanent character. Observation posts were located in dugouts with good overhead cover, so that observation could be continued even if the posts were bombarded. These posts were connected by phone with the intelligence offices, and, in the French lines, many of the observers had been in the same sector for long periods. They knew the country opposite to them as a man knows his own back yard, and could report accurately by coördinates any happening that could be seen in enemy territory. The "plan directeur" maps were kept up to date and the construction of a new segment of trench revealed by an airplane photograph was at once plotted on the map.

A successful offensive was, in a certain sense, a severe trial to the intelligence personnel of a well-organized sector. The observers were at once confronted by unfamiliar ground and had to install new posts; the intelligence patrols also had a new No-Man's Land with which to familiarize themselves. The topographical sections were busy plotting entirely new front lines on the "plans directeurs."

In the Meuse-Argonne operations it was futile to attempt to keep the "plans directeurs" up to date. Neither side dug any trenches worthy of the name. The ground was pitted with individual shelter holes, some of them occupied for one night only. The observation posts were not installed in dugouts, but in the open, wherever the view was good. It was something of a problem to keep up telephone communication with them. The enemy outpost zone of some depth was extremely difficult to penetrate, and intelligence patrols encountered prohibitive machine-gun fire. During periods of movement, prisoners flowed in in gratifyingly large numbers, but during periods of stabilization, which are inevitable, it was next to impossible to secure any. The conditions were quite unlike those in sector; it was still position warfare, with many analogies to open warfare.

Now, Intelligence, despite the jar to its carefully worked-out organization, was able to produce much of value under these new conditions. The battle-order data continued to be valuable. Identifications of prisoners established, just prior to November 1, 1918, among other facts, the important one that practically all the fresh or rested enemy reserves west of the Meuse were engaged. Obviously, the time had come for the Allies to press their advantage. There was stabilization at the time, a condition that can rarely be changed into forward movement without a well-coördinated artillery preparation. Airplane photographs showed what areas were occupied by the enemy. The areas occupied were plotted on the map by intelligence, and these maps were furnished to the artillery as a guide for its concentrations. It is obviously better to know where the enemy is and to concentrate your fire there than it is to distribute that fire impartially all over the map. On November 1 the artillery concentrations were most effective.

These various conditions have been taken up with the idea of showing how the cavalry may make use of intelligence. Cavalry is *per se* an intelligence organ. Intelligence is enemy information, and the cavalry's task in the early stages of operations is security and information. Theoretically, then, cavalry is already an ideal intelligence source. But it has been demonstrated that a personnel specialized in collecting and coördinating information gives results that are invaluable to a commander. Why not, then, have such a personnel within the cavalry to insure the maximum benefit being derived from information obtained by that arm?

Both Operations and Intelligence are interested in efficient scouting, and when a force is on the move it would be difficult to draw any distinction be-

tween a combat scout and an intelligence scout; but if an enemy individual is killed or captured, intelligence is interested in knowing exactly to what he belongs. For intelligence purposes, the report of contact with the enemy should state, if practicable, exactly what units of the enemy have been encountered; so, while it is hardly feasible to call a man in the point of an advance guard an intelligence scout, intelligence would like to train him to send in exact enemy identifications.

The relaying of information from the advance units is of immediate interest to the cavalry commander, for his plans for combat depend on it. If he is about to fight, he will hardly be preoccupied about just whom he is going to fight. But, as stated before, Intelligence has a legitimate interest in just whom. Consequently, some intelligence representative in squadron headquarters should see that full information is sent to the regiment. Similarly, a representative in the regiment transmits the information to the brigade; from there it goes to the division, and from the division to the army.

As hinted at above, the contact troops will hardly have time to separate an operations report from an intelligence report. Likewise, at squadron headquarters no attempt would be made at separation; the whole grist would be sent to the regiment. The intelligence officer of the squadron may very well be the squadron adjutant.

At regimental headquarters, however, there should be an intelligence officer who has no other duties. In this echelon, intelligence information is extracted from the squadron reports and coördinated before transmittal to the brigade.

The regimental intelligence officer should have under him, in addition to his office force, some 30 or more scouts who may be used for advance patrols on the march, for observers while the command is not moving, and for delicate missions involving separation from the command. The forerunner of the observer is the Indian, who used to lie for hours on a hill watching the country. Telescopes in the hands of observers will give them even better eyesight than the keen-eyed Indian. Observation stations should be on high ground within the line of outposts if practicable; beyond it if necessary.

It is not considered necessary to coördinate habitually information about the enemy, in a formal way, at more than one echelon between the troop and the division—that is to say, the regimental intelligence officer need be the only intelligence officer in these lower echelons who writes a daily formal report embodying the reports of the smaller units. This involves the checking of these reports against one another and calling on the lower units to explain points that are not clear. For instance, the cavalry command is in camp. The left regimental observation post, say, reports a body of enemy cavalry moving to the right across the front, so that it might presumably be seen by the next observation post to the right. This latter post has reported no such movement. The regimental intelligence officer, before reporting the move-

ment, calls on this right post to find out if it has not seen dust or other indication of such a movement. If there is telephonic communication, he can, perhaps, warn the right observation post to be on the lookout for such a movement.

Some unit states that it is reported that there is a concentration being effected in the front of another unit. Very evidently the intelligence officer has something more to do than merely to pass that information on to higher intelligence sections. He must warn that other unit through its intelligence officer and exhort the latter to use his means to find out more about the matter.

The regiment in its search for bandits has detached its three squadrons to act independently. We will suppose that each of the three squadrons reports that it has had contact with small parties and taken prisoners who state that the chief bandit is in the immediate vicinity. If the regimental intelligence officer merely repeats the reports of the squadrons, the result will be nothing but confusion at the division. However, in all probability, the regimental intelligence officer has information from other sources that will enable him to pronounce which one of the reports is correct.

Though the squadron intelligence officer does not normally render a periodical report and forwards the reports of troops without undue delay, he should make every effort to clear up points that it appears to him might be obscure when they arrive at the regiment. By reason of his proximity to the front, he may hold the clue to something that would puzzle the regimental intelligence officer at first sight. If reports do not make sense or are ambiguous, it is obviously useless to pass them on without an expression of opinion as to what is meant or the frank statement that they are not understood. Sometimes the higher echelons are in possession of information that will clear up such dubious points, and it is well to pass them along for what they are worth. In order to save time, when a demand for an explanation may be foreseen, the lower echelons may be called on for further precision, so that further information may be given in a later report or be ready when called for from higher up. With experience, the intelligence officers will be able to sense what the higher echelons will want to have explained more fully.

Sometimes, during operations, Division G-2's would tell the Corps that they were not submitting any reports because they had received none from their regiments. They meant that they had not received any formal written reports. On the other hand, they had received innumerable messages and had heard a lot of things that would have enabled them to write a report. Their failure to do so made it necessary for the Corps to piece together such fragments as it had received during the day. The moral to this is, that during operations every intelligence officer who normally renders a report should render one, whether he has received formal reports from lower echelons or not. In such circumstances, for instance, the regimental intelligence officer would use his scouts to get him material for his report. He would likewise make a

few observations to the squadron intelligence officers (the adjutants) on the fact that not enough was coming in from the advance elements. Here we have the obligation of the squadron adjutant; he must see that the troops report, even if they report only that they have no contact.

Similarly, the brigade intelligence officer (the adjutant) would assure the transmittal of the reports of the regimental intelligence officers to the division.

If the brigade were acting alone, some of the division intelligence section would be detailed to assist the brigade adjutant in his intelligence duties, which would then include the rendering of intelligence reports. Similarly, the regimental intelligence officer would furnish the adjutant of a detached squadron the means of compiling his own reports and detach with him a number of the regimental intelligence scouts.

It should be recognized as a principle, that every cavalry command should have its intelligence officer, some one responsible for communicating information about the enemy. This applies to every troop sent across the border into Mexico, even now. They have a fight with Mexicans. What Mexicans? How many? Who commanded them? Where are others of the same stripe? What Mexicans (by name) were friendly to our little expedition and what ones would make good guides if we ever really went in there? Even if not a living soul is seen, the maps should be checked up, water-holes noted (stating for how large a command suitable), location of any supplies of hay or grain, fuel, condition of roads (suitable for trucks, good in all weathers, etc.), river crossings—anything the detachment would want to know if it had to plan on going over the route again.

In war of positions the infantry battalion had a specialized intelligence personnel for patrolling the lines, for capturing prisoners, and for furnishing guides to combat patrols. Owing to the fact that there was an element of permanence to these lines in sector and to a certain extent, also, in the war of positions without trenches of the big offensives, it was necessary to have some men especially familiar with the particular ground in the battalion front. For cavalry troops on the move, making rarely more than over-night camps, the necessity for this particular specialization disappears. All cavalry troopers ought to be trained in obtaining enemy identifications, in locating enemy positions, in observation, and in executing raids for obtaining prisoners. When men are needed for any particular delicate missions, they should be chosen from the regimental intelligence scouts.

It will be seen from the above that the troop officers have an obligation with regard to the collection of information as well as with regard to combat. If cavalry is to justify the saying that it is the "eyes and ears" of the army, it must see all there is to be seen and hear all there is to be heard. Efficient intelligence for cavalry is dependent, then, largely upon the instruction of all the officers in the importance of certain kinds of enemy information. They must see to their means—that is, instruct all their men in scouting, observing,

and securing of enemy identifications. Familiarity with maps is essential, so that enemy positions may be accurately reported.

Airplanes are going to be invaluable to both operations and intelligence; to operations by reporting the positions of our troops, to intelligence by reprting the positions of the enemy.

The relaying of information and the maintenance of touch between units were among the preoccupations of the Operations Section in the A. E. F., and very properly so. These functions have to do with combat. Intelligence is, of course, vastly interested in having "liaison" work well done, but it is better to have it supervised by operations. Every commander is made to realize his obligation with regard to "liaison" and to feel that it has a large bearing on the success of the action.

It should not be assumed, however, that the commander has no obligation with respect to intelligence. Some commanders have been known to consider their intelligence officers as unavoidable nuisances, engaged in some occult research of no immediate interest to the commanders. Did it never occur to the latter that some of that information about the enemy which was being sent back might be of vital interest to them? Did they read the intelligence reports? Did they consult their intelligence officers before deciding just where to deliver their attacks? And, if not, was the attack any the less costly for that omission?

Of course, the commander himself does not necessarily have to consult personally the purveyor of enemy information, if he is sure that his operations officer is doing so, or that he is, at least, reading his warning memoranda and the daily intelligence reports. The point is that this intelligence officer is one of his staff officers, a member of his team, and is entitled to the coöperation of the other members. For his part, this intelligence officer must realize his own obligation in this respect and not devote all his time to the collection of information for the higher-ups of the intelligence section, to the detriment of the local problem.

Intelligence exists for the enlightenment of operations about the enemy. Every casualty saved at the front, as a result of its activities, is a source of satisfaction to intelligence. This economy is no less gratifying to operations, of course; and so the two should work together for the common end—inexpensive victory.

The Rôle of Cavalry

BY

Colonel HAMILTON S. HAWKINS, Cavalry

WHILE THE future use of American cavalry will be in most respects in accordance with the doctrine that was accepted before the World War, its rôle should now be somewhat extended and also made more precise.

Success of cavalry is dependent upon a knowledge, on the part of the commanders of units to which cavalry is assigned or attached, of its qualities and how they may be utilized. In the past many failures to utilize cavalry, or failures on the part of the cavalry itself to accomplish what was expected, were due to lack of clear understanding on the part of high commanders as to its strategical and tactical possibilities and limitations.

A commander must understand his cavalry as well as he does his artillery. He must not attempt to use it for some hazy and undefined purpose, in accordance merely with some set formula. He must have something definite for it to do, which is clear in his own mind and which will be an indispensable service.

Cavalry is a delicate arm, whose strongest and most useful attribute, mobility, is easily destroyed by ill-considered, unnecessary, or indefinite missions. For example, widespread tasks of reconnaissance to undetermined places, to seek undefined information, and merely in accordance with some formula for the use of cavalry, is certain to fritter away the strength of the arm and to immobilize it without accomplishing any useful result. Missions of reconnaissance should prescribe where the cavalry is to go and what definite questions are to be answered.

In the exploitation of a success, or in pursuit, or in screening, or in assisting the infantry by attacking in flank or rear, or in other missions, the commander must likewise give definite, clear orders as to where he wants his cavalry to go or just what it is to do, together with sufficient explanation of his plans to enable the cavalry commander to realize the importance of the cavalry mission.

If the cavalry commander is forced to deduce his own mission, he is handicapped, and every difficulty he meets is likely to cause indecision as to what his mission really is.

This does not mean that he should not be consulted before orders are given to him. On the contrary, he should always be consulted when it is possible, and he should be taken into the confidence of the commander and his staff.

The Field Service Regulations prescribe that great latitude must be given the cavalry commander. But that should not be interpreted as freeing his commander of the responsibility of assigning a clear mission in order to accomplish some definite purpose.

To send cavalry through a gap in the enemy's lines just because the gap exists, and with a hazy idea of doing something not previously decided upon, with the hope that in some way the cavalry will perhaps do some or all of the things that are laid down in formulas for the use of cavalry, but no one of which is paramount and necessary as a mission justifying all effort and all risk, is to destroy a useful adjunct to the command and to bring about a certain failure. On the other hand, to send it through the gap with a definite mission to seize a certain position before the enemy can bring up his reserves to occupy it, or to seize a certain river crossing, to capture certain important stores known to be located at a certain dump, or to close a certain avenue of escape to the hostile artillery or infantry withdrawing before our own infantry, or a similar, clear, well defined, and very important mission which will materially aid in gaining a favorable decision, would often be proper and justify all risk involved. From the very nature of the arm, cavalry must often take a chance and assume great risks to accomplish any important results. But its mission must be important and there must be no doubt as to exactly why the risks are to be assumed.

The cavalry should not be ordered to do something just because it is available, any more than artillery should be ordered to fire its guns in the air without some definite target. In the absence of some important result to be attained, for which the commander would ask for cavalry if he did not already have it in his command, he should not hesitate to allow it to rest, recruiting the strength of its horses and men and storing its energies for some positive and indispensable service which may at any time become of paramount importance.

Under commanders who know cavalry and who know how to use it as well as they know how to use their infantry, their artillery, or their engineers, the use of American cavalry will be extended and made more important than ever.

The usefulness of cavalry is dependent upon its mobility and its fire-power. Mobility—to arrive quickly at the designated scene of action, to maneuver, to spread out over wide spaces if necessary, to concentrate quickly, to attack suddenly and swiftly and by surprise, or, after striking a blow, to escape from superior numbers of the enemy. Mobility—to cross rapidly fire-swept zones, so as to present a difficult target, and to arrive, without destructive losses, at close quarters with the enemy. Fire-power—to take full advantage of the situation in which its mobility has placed it.

Maximum mobility and maximum fire-power are incompatible. Cavalry organization and equipment must be such as will permit great mobility and sufficient fire-power to reap the fruits of its mobility.

In combat the action of cavalry will be dismounted more than mounted; but the spirit of mounted combat and the inclination to use it should be carefully fostered. In any case, a cavalry leader should not resort to dismounted combat until he has first considered the feasibility of mounted combat. Against dismounted troops mounted attacks will be made by cavalry units as

large as a brigade or possibly larger. Against mounted cavalry mounted attacks will probably be made by units as large as a squadron and rarely larger than a regiment, although it would be unwise to be unprepared to use larger units.

The combination of dismounted fire action and mounted attack will be always sought and frequently employed.

The dismounted combat of cavalry must follow the tactical principles of infantry, but its depth of deployment will not be as great. Great depth should be furnished when necessary by the infantry which follows in support. The led horses will usually be kept close to the dismounted troops. To leave the led horses some miles in the rear and to march dismounted cavalry up to engage in combat essentially as infantry is a use of cavalry which is possible, but which should rarely be resorted to.

The use of cavalry may be briefly described as follows:

Security and Information.—Reconnaissance still remains one of the important duties of cavalry. Aëroplanes may modify this rôle and may be of assistance in its performance; but, except in those situations where the opposing armies have become stabilized in long lines of highly organized trenches with impassable flanks, the air service will not relieve the cavalry of important missions of reconnaissance.

Isolated units of infantry and artillery in open warfare situations, regiments, brigades, or divisions, need cavalry for *advance guard, flank guard, or rear guard duty*. Improvised mounted detachments have never been sufficiently well trained for this duty.

Cavalry is always needed to *protect the flanks and rear* of an army or smaller unit acting alone. It does this not only by providing information of hostile movements in these directions, but also by resistance to the enemy, offensively or defensively.

Screening.—The screening duty of cavalry is very important. Not only does the cavalry screen the movements of a whole army by widespread detachments, but also a concentration of cavalry is of great value to screen those infantry units which are advancing to make an enveloping attack on the hostile flanks. Hostile aëroplanes are often prevented by our own air service, or by rain, fog, or darkness, from discovering these movements behind the cavalry screen.

Delaying Actions.—Cavalry will be used to delay the advance of the enemy for strategical or tactical reasons. This use of cavalry is often very important, and is made more feasible by the improvement in its fire-power weapons. Its mobility is an essential quality for this duty. Containing certain elements of the enemy or harassing his columns are duties, of a nature similar to that of delaying actions, which are frequently assigned to cavalry.

Cavalry Sent in Advance to Seize Important Locations.—Cavalry will often be sent in advance to seize important positions, defiles, or river crossings, and to hold them till infantry can occupy them or use them. Similarly, cavalry may hold these positions to delay the advance of the enemy.

At the beginning of a war the situation may be such that a numerous cavalry may be able to overwhelm small hostile garrisons on the frontier, or pass around them and seize important towns, cities, strategical points, defiles, river crossings, railroad junctions, and to interfere with mobilization.

Combination with Other Arms in Battle.—To assist the infantry and other arms to gain a favorable decision in battle is *the most important use of cavalry.*

Cavalry may aid in bringing about this decision as follows:

(*a*) By attacking the flanks and rear of the enemy.

(*b*) By reinforcing or relieving some sorely pressed unit of infantry which is about to give way and thus permit the enemy to penetrate into our lines, there being no available infantry close enough to arrive in good time to perform this duty.

(*c*) When the enemy is trying to withdraw under protection of covering detachments, or when his morale is poor, and where the terrain does not afford our infantry sufficient cover from fire of machine-guns and artillery to permit its advance over rather long stretches, and it is stopped by such fire, cavalry may often successfully execute a mounted attack in open order and successive lines across these open stretches, and thus capture the enemy's position. Destructive losses are avoided by the suddenness of the attack, the open order, and especially by the speed of the advance, by virtue of which the attacking lines become very difficult targets for the hostile machine-guns and artillery. Even though the first line has sustained serious losses, the succeeding lines are likely to reach the enemy with very little loss.

The cavalry is closely supported by infantry, which takes advantage of the opportunity to follow close on the heels of the cavalry and thus to secure the ground gained. Artillery supports the attack in the same way as it does the usual infantry attack.

Such use of cavalry in battle in combination with other arms may often gain, in a short time, results of the greatest importance, and success will almost always lead to the capture of large numbers of machine-guns and cannon.

This attack should, if possible, be made in the nature of a surprise or sudden "coup de main." It cannot be made against highly organized and long-established positions with many accessory defenses.

Exploitation of a Success.—In the exploitation of a success, where a sufficient gap has been made in the enemy's lines, cavalry may be thrust through the gap with one or several of the following missions:

(*a*) When it is anticipated that other portions of the enemy's lines will

give way and be followed by our troops, cavalry may be sent through the gap already made to seize positions closing the avenues of escape of the enemy's infantry and artillery, and thus causing large captures or the destruction of large units.

(*b*) To seize railroad junctions and depots, thus cutting railroad sources of supply and reinforcement; also to seize important road junctions for similar reasons.

(*c*) To capture important dumps.

(*d*) Cutting of lines of communication between fighting units at the front and their reserves, headquarters, or supplies; also cutting lateral lines of communication between units and between several headquarters.

(*e*) Seizing of important positions before enemy can bring up reserves to occupy or organize them.

(*f*) Seizing of important bridges or river crossings and the establishing of bridgeheads.

The Pursuit.—When the enemy has been badly defeated along his whole front and not merely along a limited portion of his front—that is, his whole line gives way instead of only a gap being created—cavalry is used for the pursuit to reap the fruits of victory and not merely to exploit a success.

Since the enemy will usually succeed in the formation of some kind of a rear guard or covering force, the cavalry will be called on to execute the parallel pursuit, attacking the retreating columns in flank or even interposing itself between them and further retreat.

Covering a Retreat.—When our own forces are retreating, cavalry will be used to prevent hostile cavalry from exploiting the success of the enemy or from executing a successful pursuit. Cavalry is useful not only to prevent a hostile parallel pursuit, but also to act as the rear guard in opposition to the pursuit of hostile infantry or other troops.

When our troops are trying to withdraw from action, cavalry is often very usefully employed in relieving hard-pressed infantry units and allowing them to extricate themselves and escape from closely pressing and superior forces of the enemy.

To Defeat the Hostile Cavalry.—Whenever the hostile cavalry becomes active in the performance of important missions, or whenever it commences to interfere seriously with the execution of like missions by our own cavalry, it will be necessary for our cavalry to seek out the enemy's cavalry and to defeat it wherever found.

Minor Wars in Sparsely Settled Countries.—In minor wars or small campaigns in sparsely settled countries, the importance of cavalry compared to that of other arms will be very great, as in the past.

Under such conditions the enemy will usually resort, after the first defeats, to guerrilla warfare. Cavalry is especially well qualified to deal with such cases and to materially shorten such campaigns.

In the above outline of the rôle of cavalry it is stated that to assist the infantry and other arms to gain a favorable decision in battle is *the most important use of cavalry.* There were undoubtedly many occasions during the World War when cavalry was so used. The retreat from Mons, the extension of the flanks toward Ypres, and many occasions on the Eastern Front of which we have no authentic account, all illustrated this use of cavalry. But the most interesting and important events were those which proved the entire feasibility of the cavalry mounted attack against dismounted troops in position. These events were enacted in Palestine, where the British cavalry made strikingly successful mounted attacks against infantry supported by machine-guns and artillery and in intrenched positions without wire entanglements.

There is no doubt that some positions of the Germans on the Western Front, the taking of which cost us many casualties, could have been taken in a comparatively brief time and with comparatively small losses by a suddenly launched cavalry attack supported by the fire of artillery and machine-guns.

The development of artillery concentrations of fire and of machine-gun indirect fire during the World War has increased, instead of diminishing, the possibilities of cavalry action on modern battlefields. This is true because artillery and machine-guns can be used to support the mounted attack, and thus prevent the enemy troops from exposing themselves sufficiently to repulse the mounted attack with fire action. The enemy's fire is kept down until the cavalry has arrived at a line not over 150 or 200 yards from the hostile position. Movement under fire is the great thing, and cavalry moves so rapidly through the hostile artillery and machine-gun fire that its losses are not destructive. Successive waves of cavalry deployed at about five-yard intervals and with about 150 yards' distance between lines may thus sweep forward under conditions that would be very costly to slower-moving troops.

The striking fact in all this is that modern artillery and machine-gun fire has not wiped mounted cavalry off the slate, but, on the contrary, has made cavalry attacks possible in situations which before the war would have been considered impossible. Support by our own fire and rapid movement through the enemy's fire will often bring amazing success wherever there is the will to take a chance.

A Cavalry Charge

BY

General GOLOVINE, Russian Army

(A Russian Regimental Commander on the Eastern Front in the War, 1914-1918)

[EDITOR'S NOTE.—The following interesting impressions were written for the CAVALRY JOURNAL by General Golovine, of the Russian Army, who fought all through the World War, holding many high positions. He was awarded the Cross of St. George for conspicuous bravery, which decoration corresponds to our Medal of Honor and to the British Victoria Cross. At the beginning of the war, General Golovine was in command of the regiment whose charge he describes in this article. The translation from the Russian was made by Colonel Alexandre Nicolaieff, Russian Military Attaché at Washington.]

THE SUN was nearing the horizon. The warm day was drawing to a close. It was a beautiful Polish fall—the end of August, 1914. A cavalry column consisting of thirty-two squadrons and twelve guns came into contact, near the village of Opole, with the Austro-Hungarian cavalry, which was followed by advance infantry units.

Our task was simple: to hold up as long as possible the advance of the enemy, in order to enable our infantry, which was being transported by rail, to concentrate for a general advance.

The village of Opole itself had no special military importance. Like all the villages in this part of Poland, it consisted of crowded, dirty brick houses in its center, mostly inhabited by peasants. This noisy center, with its crowded, narrow streets, was surrounded on all sides by peasant huts of wood, which differed little from the ordinary hut of a Russian village. On one side of the village of Opole was situated the farm of a well-to-do Polish landed proprietor, with a large brick house, granaries, barns, cattle sheds and stables. The village itself, except the park of the landed proprietor, was situated in a valley. The country all around was hilly. The soft slopes of the hills reminded one of the ocean surface which suddenly had become still. All was covered with well cultivated fields, on which here and there were stacks of corn not yet removed.

Woods were seen farther ahead. Their edge, in connection with the distance, was either outlined clearly or looked like indistinct strips of a grayish or a violet shade.

Farther, near the woods, were "they"—the enemy.

One who has taken part personally in even one single battle is well acquainted with the feeling of some invisible line which is drawn between him and "them."

Beyond that line is uncertainty, perhaps death. That line either comes near to you or draws back from you—sometimes you are making efforts to break it, sometimes it squeezes you—but you can feel it always.

Every one of us before the war read descriptions of different battles. On them our idea of battle was built. The reality appeared entirely different from what it was pictured by the greater number of authors.

During the first period of fighting, I could notice that all the officers were experiencing a sort of disappointment. But the word "disappointment" does not convey exactly the meaning of the feeling which we were experiencing. When you come near either a big phenomenon or event, it always looks different than you thought it would look. This causes a certain vexation. You thought it was simple, but in fact the canvas of an enormous picture is being unrolled before your eyes. You get such a scale of new impressions that for a time you are quite at a loss.

The greatest mistake made in all the stories and descriptions of war is that the authors picture their characters as if they were heroes who are not afraid of shells and bullets and who cool-headedly consider the most complicated strategical combinations, which are executed also by cool-headed subordinates.

The first encounters in battle shatter that self-delusion. You don't see such heroes. But afterwards, when you get acquainted with the situation, you learn how to find true heroes and you learn that there is such a thing as control of the situation. It may be compared to a man who, going from the bright light into the twilight, requires a certain time to distinguish the real outlines of the surrounding objects. But the heroes whom you will find are not like the "fearless" heroes of the novels and of the historical descriptions. They are men of little conspicuousness in ordinary life.

The line which is drawn between you and the enemy is the line of death. No one likes to approach this line, and the always obliging human mind finds a thousand good reasons to avoid a further approach.

The Grodno Hussars Regiment of the Imperial Guard, which was under my command, formed a part of General T.'s cavalry and was designated as reserve. The hussars had dismounted and the squadrons were standing in groups along one of the outskirts of the village of Opole. Taking advantage of the rest, the regiment was watering and feeding the horses; some of the men were eating, while "over there" was heard the barking of the guns and the rattle of rifles and machine-guns.

Near one of the ends of the landed proprietor's farm, which end was situated on the nearest hill, a group of senior officers was standing behind big trees. They were the commander of the cavalry column, General T.; the Chief of Staff, and some liaison officers. I also was with them, being the commander of the regiment which was in reserve.

It was becoming clear from the incoming reports that the general task set for us for today, viz., to stop the Austro-Hungarian cavalry and the advanced infantry, and thus force the enemy to lose time in deploying strong forces, had been fulfilled. The day was coming to an end, and it was possible now to give

the tired men and horses some rest; it was already the fifth day of heavy battle encounters.

But the mood of the leader of the cavalry column was not a quiet one. General T., a very brave man, who many times showed presence of mind in dangerous situations, was worried and depressed. He had received from the army headquarters several reprimands, not very courteously styled, placing blame on us for not acting energetically enough. The headquarters of the army, part of which army we formed, was one of those headquarters of the first period of the war, where inexperienced officers were of the opinion that it was possible to move army units like pawns on a chessboard, and when the work of the officers commanding the troops did not correspond with their invented ideas of a battle, they would rebuke, on behalf of the general commanding the army, those who disobeyed.

In one of the instructions just received by General T., it was stated that the general commanding the army had noticed that General T.'s cavalry does not charge the enemy on horseback "in order to smash them with lance and saber." It looked as if the army headquarters, which was some forty miles back, considered themselves more in a position to decide the means of achieving the task which had been given us.

Instructions of this sort are most harmful. They put the leader out of the equilibrium which under war circumstances it is so difficult to maintain. They even cause him to make prompt and sometimes not logical decisions, and on account of them a battle, over which in general it is so difficult to have control, assumes an entirely casual character. In such cases many lives are lost in vain.

General T., a stout man of fifty-five years, was sitting on a stump. His coat was unbuttoned. One could see how agitated he was. His sense of honor was hurt because he saw in the instructions a reproach for personal lack of boldness. It was painful to see this dear old man in such a state. The other officers standing near tried to console him, but they also felt the bitterness of an injury which had not been deserved.

Firing on the whole front was still going on. On our left, where one of our batteries was in position [illegible] rifle fire grew more and more intense. An orderly whose horse was foaming came from the commander of the battery and brought a report saying that the battery was beginning to be fired upon with rifle fire, which was directed from the edge of the nearest wood.

On several occasions I noticed how the artillerymen, though remaining calm under the enemy's artillery fire, became somewhat nervous when the batteries became subjected to the enemy's rifle fire. In this particular case the fire could not be of any great importance; the edge of the wood was more than a thousand yards away; it was already time for us to fall back, and the folds of the country enabled us to hide our movements from a distant bombardment.

But this insignificant event, which practically should not have had any influence on the conduct of the battle, acquired all of a sudden the greatest importance. Logical thought, which had been put out of balance involuntarily, clung to the impression which had been produced by the report of the commander of the battery while he had been momentarily alarmed. There was the opportunity for a cavalry charge, for the lack of which we had just been rebuked.

You are surprised, my readers. You, of course, think that you would consider first whether a cavalry attack in such a case was necessary; for, if it was not necessary, why hazard the material and the morale destruction of the regiment? After an unsuccessful charge, a regiment becomes morally "sick" for some time and gets timid. But you reason in this way while you are quietly seated in a chair, perhaps after a good dinner. Now just imagine that during two weeks you have not had enough sleep; that you did not eat regularly; that every day you rode over forty miles on horseback; that your nerves are strained all the time; that you are surrounded by men who also are tired and whose nerves are strained, and I assure you that your logic will be different. Do not be severe, and also bear in mind that the events in war do not follow a strictly logical course, as it is often told by historians, but have their own course. There is an internal logic in these events which is based more upon the feeling of the men than upon reason.

It was decided to add to the five squadrons of the Grodno Hussars two squadrons of His Majesty's Lancers, which also were in reserve, and to direct all seven squadrons to charge on horseback the edge of the wood from which our battery was subject to the enemy's rifle fire. After receiving this order I experienced for a few seconds a struggle within myself. It seemed to me that, as all of our cavalry was to fall back in about half an hour, it was of no use to risk such a large mass of cavalry. In case of success, this mass would be out of control, and it would be difficult to get it assembled again, on account of the late hour; but the main thing was that the result would not be equal to the risk.

I hesitated, wondering whether or not I should tell the cavalry commander my doubts. Objections of that sort are too often placed by the subordinates before the chief in order to avoid decisive action, and, to tell it frankly, the danger with which they are connected. Involuntarily I was examining myself. In this particular case, was it not on my part a desire to escape danger? But the sense of responsibility for my hussar regiment and their lives made me throw aside questions of self and go up to the General and tell him my opinion.

General T. answered me to the effect that at Begli Akhmet the Nishni Novgorod Dragoons charged the enemy when it was dark. General T. had taken part in the Russo-Turkish War of 1877 and he liked to remind us of that charge.

Now, since the charge was decided, the chief chance of success lay in its prompt execution. Having sent an order to the regiment to tighten the girths and to line up, and having told the officers to assemble to receive my instructions, I was studying the map and checking it with the country while on my way to join the regiment.

We had to cover a distance of from 1½ to 2 miles to get at the enemy. The first 600 yards we could make hidden in a valley covered with bushes; after that the country became open. It was cut by two shallow valleys running in a direction parallel to the front of the attack. One would suppose that these valleys would cover us from the fire, and I made up my mind to use these valleys in order to rest the horses. I decided to send from the front five squadrons in a deployed formation "lava."* From the left flank, where there was a small approach covered by bushes and leading to the back part of the wood, I decided to send one squadron. One could expect that in case the edge of the wood was occupied by dismounted cavalry a menace to the horseholders would certainly have an effect on the units forming the firing line on the edge of the wood. Finally I held up the 7th Squadron to serve as my reserve until the deployment of all my squadrons was accomplished.

Having come up to the regiment, I explained my plan of action. Then I waited a while to give time to the squadron which was sent out by me to get farther ahead.

Afterwards I directed the senior officer to deploy all the five squadrons and to lead them in such a way that they should pass through the valleys at a walk. I also told him that after the last valley was reached I would put myself at the head of the regiment, but in the meantime I would keep back in order to follow the movements of the squadron sent to flank the wood.

Have you ever heard the noise of a cavalry regiment getting on its horses? There is a certain poetry in this noise; it is composed of a thousand different sounds—the clanking of spurs, stirrups, sabers, and lances. It has something threatening and majestic in it. The serious faces of the officers and the soldiers reminded one at once that they were not at maneuvers, but that it was something much more serious.

The regiment deployed in the customary way and went forward, soon being hidden by the bushes. I galloped to the nearest hill. I saw at once that my flanking squadron was moving too much to the left; at the same time my liaison officer, who had been sent by me to watch from a stack of hay, with strong glasses, the edge of the wood, sent to me a report that without any doubt the edge of the wood was occupied by dismounted cavalry, and that according to some indications the enemy's men holding the horses were in the very neighborhood where the flanking squadron was ordered to go.

I decided to send in this direction another squadron which was in my reserve, and I myself went at an extended gallop to join my regiment.

*As foragers.

When I reached the valley, the long line of the "lava" was already there.

Though the sides of the valley were gently sloping, it turned out to be deeper than I thought it was; it gave a good cover, not only from the front fire, but, thanks to the topographical features of the country on our right, also from the flanking artillery fire. The horses were panting, and my senior officer stopped the "lava" in the valley.

Presently we had to go up from the bottom of the valley and cross the open country as far as the edge of the wood.

The decisive moment had come! I confess it was a frightful moment. I could feel that the eyes of all my hussars were fixed upon me. At the time I was crossing the line of the hussars, there happened a small incident, which is very characteristic and which shows the spirit of the soldiers of the former imperial army. I recollected that my saber was not sharpened. I told my aide-de-camp, "My saber is not sharpened." My words were heard by the hussars standing near, and I heard a distinct and firm voice coming from their rows, "All the sabers and lances of the Grodno Hussars are for you, sir." The words, pronounced in a decisive moment before the attack, made a very strong impression on me. Who said them? I never found out. It was one of the true heroes, who usually pass unnoticed in the pages of military history, but who in reality form those hidden springs which move the most important side of the war events—the morale side.

Having given the command, "Sabers for battle!" and the signal that the regiment should follow me, I began to go up the slope of the valley.

For a few seconds we still were covered from the fire directed from the wood, but after that we were quite in the open. I looked back. The broad line of the hussars was moving as at maneuvers. The commander of the battery told me afterwards that he never would forget this scene.

We were going at an extended gallop. The characteristic buzzing of the bullets was heard around us. Some shrapnel burst over our heads. The conscience became dull. I remember only one thing, that I had a boundless desire to get over the distance which separated me from the wood as soon as possible.

Very soon after the charge had begun, I noticed that the rifle fire grew weaker. As it was learned afterwards, the enemy saw the dash of our charge and, having received the news of the movement of the flanking squadron which threatened the men holding the horses, began hastily to retreat. I felt with all my senses the lessening of the danger, and it seemed to me that my horse was feeling it also. He by himself increased the speed of the gallop. I noticed a few hussars who were passing me. There arose in my senses, which were somewhat obscured at that moment, an unfriendly feeling towards them, as if they were getting in my way, and I must confess that I was not as sorry as I ought to have been when I saw some of them falling.

I have not a clear recollection of the moment when I got into the wood. I remember that a Hungarian hussar with a carbine in his hand was running upon me, and I could not understand why he was not shooting at me. When he had come up close to me, he suddenly threw up his hands; then by my side I saw a hussar who had pierced the Hungarian with his lance.

My first distinct recollection goes back to the moment when I was standing surrounded by a group of officers and men all dismounted. I at once was struck with the idea as to why every one was shouting and gesticulating in such a way, but, looking upon myself, I saw that I also was gesticulating and trying to say something at the top of my voice. I got control of myself and was calm again.

Looking around, I saw standing near me my aide-de-camp, the orderlies, and the troop with the regimental colors. I noticed also how some of my hussars, partly in groups, partly singly, were going farther ahead into the depths of the wood. One could hear a dull noise, a tinkling, the trampling of horses and their snorting, and occasionally the reports of shots resounding in the wood.

The regiment got out of my hands. Every hussar must have experienced the same feeling I did and was now like a bullet shot out of a gun.

The situation troubled me much because, according to orders received by me, we had to limit our action to the chasing away of the enemy from the wood, and I had to assemble the regiment in order to join General T.'s cavalry and withdraw farther back.

The setting sun lighted with its red rays the edge of the wood. Here and there were lying killed men and horses. A considerable number of fallen horses were lying also on the field across which we had charged. In the wood were wandering horses without horsemen, and scattered about were rifles, sabers, and parts of equipment. But still I was surprised to note how comparatively small was the number of killed and wounded men.

I ordered the troop with the colors to stay at the edge of the wood and busy themselves with bringing together the wounded and killed; also to get together the prisoners, because many Hungarians who were thought to be killed or wounded turned out to be alive and entirely unhurt. The ambulance and the medical help were sent for.

I myself started to get hold of my regiment.

It could be seen on the map that in about one verst from the edge the wood was cut by a swampy brook, the crossing of which could be made only by two roads leading through the wood. Evidently the squadrons had to come together at these crossings. Having come up to one of the roads, I followed it at a gallop in the direction of one of the crossings.

What a force is concealed in a thoroughbred horse! My horse, in spite of his weariness, recovered again and, full of energy, carried me ahead; he seemed to understand what was going on.

Nearing the crossing, I began to catch up with my hussars, as I thought I would, and found at the crossing itself two squadrons going over the brook. A third squadron was already on the other side of the brook and had followed the enemy, who were speedily retreating, in the way that a pack of hounds chases a beast.

Thus I succeeded in getting control of two squadrons and in falling upon the track of another. The remaining four squadrons were out of my hands. To stop under such conditions the forward movement was impossible; the four squadrons which broke away from me might easily come across new enemy forces.

Darkness was falling quickly. Fortunately the moon was to come out soon. I decided to lead the two squadrons which were now with me out of the wood speedily and to send out patrols to get information about our situation.

It was fully dark when we got out of the wood. Here I found my two remaining squadrons; they came out of the wood following another road.

The immediate contact with the enemy was lost. They partly dispersed in the woods, partly disappeared in groups in the darkness. Only one thing was clear, that on the heels of the enemy, retreating in disorder, we penetrated deeply into their zone. The inhabitants of the village near which we stopped told us in what disorder, shortly before, the units of Austrian infantry and artillery were retreating. They had shot to death the local priest, whom they suspected of signaling to us.

The situation which now confronted us was as follows: Having penetrated into the enemy's zone, we ourselves could be surrounded, because General T.'s cavalry itself by this time might have been forced to withdraw from Opole.

To return was, in my judgment, more risky than to continue going forward, and veering to the left, where it was possible, to get across through other woods into the zone of our troops.

The scouts sent in reports that in all the villages of this neighborhood occupied by the Austrians there was alarm. I was waiting for reports from three patrols which had been sent out to the most advanced points. As to the regiment, I gave it a rest. In the meantime a Pole from one of the villages occupied by the Austrians came up speedily to tell us that the Austrians were going to take the offensive immediately.

The moon was rising, but still it was so dark that to use our rifles was difficult. It was necessary to profit by this situation.

Having ordered the regiment to mount, I distributed the squadrons in echelons; the head echelon was standing with its exposed flank against a village which was spread out in a long line. I wanted to let the enemy come up as near as 300 to 400 paces and to fall upon them in darkness on horseback, having as the axis of my attack the white stretch of highway on the right flank of our deployed formation. Each flank I covered with half a squadron, which were under the command of the best officers.

I have not a clear recollection of the moment when I got into the wood. I remember that a Hungarian hussar with a carbine in his hand was running upon me, and I could not understand why he was not shooting at me. When he had come up close to me, he suddenly threw up his hands; then by my side I saw a hussar who had pierced the Hungarian with his lance.

My first distinct recollection goes back to the moment when I was standing surrounded by a group of officers and men all dismounted. I at once was struck with the idea as to why every one was shouting and gesticulating in such a way, but, looking upon myself, I saw that I also was gesticulating and trying to say something at the top of my voice. I got control of myself and was calm again.

Looking around, I saw standing near me my aide-de-camp, the orderlies, and the troop with the regimental colors. I noticed also how some of my hussars, partly in groups, partly singly, were going farther ahead into the depths of the wood. One could hear a dull noise, a tinkling, the trampling of horses and their snorting, and occasionally the reports of shots resounding in the wood.

The regiment got out of my hands. Every hussar must have experienced the same feeling I did and was now like a bullet shot out of a gun.

The situation troubled me much because, according to orders received by me, we had to limit our action to the chasing away of the enemy from the wood, and I had to assemble the regiment in order to join General T.'s cavalry and withdraw farther back.

The setting sun lighted with its red rays the edge of the wood. Here and there were lying killed men and horses. A considerable number of fallen horses were lying also on the field across which we had charged. In the wood were wandering horses without horsemen, and scattered about were rifles, sabers, and parts of equipment. But still I was surprised to note how comparatively small was the number of killed and wounded men.

I ordered the troop with the colors to stay at the edge of the wood and busy themselves with bringing together the wounded and killed; also to get together the prisoners, because many Hungarians who were thought to be killed or wounded turned out to be alive and entirely unhurt. The ambulance and the medical help were sent for.

I myself started to get hold of my regiment.

It could be seen on the map that in about one verst from the edge the wood was cut by a swampy brook, the crossing of which could be made only by two roads leading through the wood. Evidently the squadrons had to come together at these crossings. Having come up to one of the roads, I followed it at a gallop in the direction of one of the crossings.

What a force is concealed in a thoroughbred horse! My horse, in spite of his weariness, recovered again and, full of energy, carried me ahead; he seemed to understand what was going on.

Nearing the crossing, I began to catch up with my hussars, as I thought I would, and found at the crossing itself two squadrons going over the brook. A third squadron was already on the other side of the brook and had followed the enemy, who were speedily retreating, in the way that a pack of hounds chases a beast.

Thus I succeeded in getting control of two squadrons and in falling upon the track of another. The remaining four squadrons were out of my hands. To stop under such conditions the forward movement was impossible; the four squadrons which broke away from me might easily come across new enemy forces.

Darkness was falling quickly. Fortunately the moon was to come out soon. I decided to lead the two squadrons which were now with me out of the wood speedily and to send out patrols to get information about our situation.

It was fully dark when we got out of the wood. Here I found my two remaining squadrons; they came out of the wood following another road.

The immediate contact with the enemy was lost. They partly dispersed in the woods, partly disappeared in groups in the darkness. Only one thing was clear, that on the heels of the enemy, retreating in disorder, we penetrated deeply into their zone. The inhabitants of the village near which we stopped told us in what disorder, shortly before, the units of Austrian infantry and artillery were retreating. They had shot to death the local priest, whom they suspected of signaling to us.

The situation which now confronted us was as follows: Having penetrated into the enemy's zone, we ourselves could be surrounded, because General T.'s cavalry itself by this time might have been forced to withdraw from Opole.

To return was, in my judgment, more risky than to continue going forward, and veering to the left, where it was possible, to get across through other woods into the zone of our troops.

The scouts sent in reports that in all the villages of this neighborhood occupied by the Austrians there was alarm. I was waiting for reports from three patrols which had been sent out to the most advanced points. As to the regiment, I gave it a rest. In the meantime a Pole from one of the villages occupied by the Austrians came up speedily to tell us that the Austrians were going to take the offensive immediately.

The moon was rising, but still it was so dark that to use our rifles was difficult. It was necessary to profit by this situation.

Having ordered the regiment to mount, I distributed the squadrons in echelons; the head echelon was standing with its exposed flank against a village which was spread out in a long line. I wanted to let the enemy come up as near as 300 to 400 paces and to fall upon them in darkness on horseback, having as the axis of my attack the white stretch of highway on the right flank of our deployed formation. Each flank I covered with half a squadron, which were under the command of the best officers.

The men, tired by the day's events, were not quiet. I slowly rode along each squadron, explaining to them that in this case all the advantages were on our side, and asking them just to imagine how the enemy would feel when the hussars would fall upon them in the darkness as a bolt from the clear sky; but the main thing now was to be as quiet and still as possible, and that no one should move except at my command.

In the complete stillness which was kept after my words, every one felt the presence of 800 horsemen gathered together in a small area in order to dash forward as soon as the signal was given. One could hear in the breathless air of the night the barking of the dogs in the villages, the rumbling of wheels, and the noise of bivouacs which were breaking up.

The beauty of the night mingled with the beauty of the approaching storm.

Suddenly we heard a distant trampling of many horses on the highway. Every one was on the lookout. There emerged from the darkness the figure of a hussar on a panting horse, who hastily reported, "Austrian cavalry is moving along the highway." How many? An idle question. How could we succeed in finding it out in darkness and in reporting it in time? It was necessary to solve the problem, as, by the way, is always the case in cavalry actions, without waiting for full information.

To throw forward the whole mass immediately was not wise, for it was possible that the Austrians were not so many. On the other hand, the charge of one-half a squadron along the highway, which was bordered by ditches, would produce the same result. As to the bold execution of the charge, I had no doubt, because at the head of it was an excellent officer.

The whole difficulty was that the men who got excited might break away and go forward without the command. I had to raise my voice.

My order, sent out to the half squadron on the flank, did not reach it in time. Without waiting for it, the officer began the charge himself. The Austrians were only some 150 paces from us. There was heard the trampling of the half squadron moving forward; then a dull noise, which was followed by a scream; then the trampling of the horses moving away. The Austrians turned around and fell back in disorder. How many there were we never learned. The encounter was decided by the mere clashing of the heads of the columns in the darkness of the night.

A liaison officer sent by General T. joined us. General T. requested that I bring my regiment back immediately. Under the pressure of the enemy, all our cavalry was forced to clear the village of Opole, without waiting for me to come back, and to withdraw behind the river Khodel. The General was sending me his order by his liaison officer to join the main forces, following some other roads in the wood and not going through Opole. He strongly requested that I should begin my movement immediately after getting his order, because his cavalry had received a new task.

In pursuance of the order, we got squadron after squadron into the wood, taking roads which were not on the map, and after a long march joined at dawn the main forces of General T.'s cavalry.

The following day our infantry units, which came up to us, shot down an Austrian airplane. A dispatch was found on the pilot which was addressed by the commander of the Austrian corps to the German General Woirsch, who was on the other side of the Vistula. It was said in this dispatch that yesterday the Austrians had an encounter with considerable Russian forces, and, in spite of a strong resistance, masses of Russian cavalry penetrated far into the rear. Further, that, thanks to the energetic action of the Austrian troops, the Russian cavalry, with heavy losses, was chased away. (So history is written.) The most interesting thing, however, was, as was evident from the dispatch, that the message was sent out from the village of Kluchkovitse, which was only three versts distant from the spot where our whole regiment had passed that night. So it had happened that we had been only three versts away from the Austrian Army Corps headquarters.

Training

BY

Major KINZIE BATES EDMUNDS, 8th Cavalry

AN EXCELLENT article, written by Colonel R. J. Fleming, appeared in the July number of the JOURNAL, under the heading "The Essentials of Cavalry Training." It may be worth while to continue the discussion. With most of the ideas expressed in Colonel Fleming's article I am in hearty accord, but there are some I cannot subscribe to, and I wish first to discuss the few points where my point of view does not coincide with his.

Colonel Fleming first endeavors to establish the point that we spend too much time on mounted training; that much of the time so spent could more profitably be spent otherwise, and particularly in training for dismounted combat. . . . "it is believed that our cavalry would be more efficient today if much of the time devoted to training of the horse and to mounted drills had been devoted to practice in combat exercises." Without entering into a discussion as to whether horse-training and mounted drills are of comparatively minor importance, let us consider this from one side only—*the condition of our horses.*

It takes from two to three hours' daily exercise, preferably under the saddle, and one hour at stables to keep a horse in good condition. No one spends more than this; in fact, we are often compelled to do with less. Given that much time, a cavalryman fairly well trained in all mounted work can be developed from a recruit in six months. It is certainly more than time enough to teach "sufficient knowledge of equitation to be able to ride the animal under march conditions at the various gaits, so as to get the most out of him, and to be able to execute the few movements necessary in the various forms of approach to the attack." As we must spend the time mounted, it appears to me foolish not to carry the education of the man and horse further than this, even if those "few movements" do not include nearly everything in the schools of the troop and squadron. Few regiments now average three to four hours a day with their horses throughout the year. Cut the time still further and our horses will no longer be able to carry us in the field and we will cease to be even mounted infantry. Unless our horses can be taught to exercise themselves, we must find some other way of getting the time for combat exercises than by taking it from our mounted work.

Considering the question of armament, Colonel Fleming says: "The writer has had no opportunity to test the value of the new arms and other devices used by the infantry in the last war, but if they were found necessary for

infantry, then they should be adopted for cavalry. In fact, cavalry should have a greater proportion of these accessories to make up for its decreased strength in man-power." All of these arms and devices I can think of are: Machine-guns, automatic rifles, Stokes mortars, one-pounders, hand-grenades, trench knives, gas and gas masks, flame-throwers, demolition outfits, a variety of Very signals, barbed wire, bayonets, and intrenching tools. Of these, and in addition to the horse, saber, rifle, pistol, and wire-cutter, we already have the machine-gun and automatic rifle. We are flirting with most of the rest. Most of them are adapted to special and unusual conditions of war only, and their place, if anywhere, is in the ordnance storehouses, for issue when the occasion calls for them. Yet I have seen nearly all of them mentioned at various times as desirable for issue to the cavalry.

In one of Lewis Carroll's books, I think "Alice Through the Looking-Glass," Alice encounters the White Knight. Admiring his equipment, she notices that his horse is provided with spiked iron anklets. Answering her inquiry about them, the White Knight says: "They are to guard against the bites of sharks."

Let us not guard too much against the bites of sharks; we will seldom meet any.

If I understand him correctly, Colonel Fleming advocates cutting our already small troops in two, and loading half with some of the equipment mentioned, trusting they will arrive before the end of an action. We are told that the principles of strategy never change, and "Strategy," said General Forrest, "is getting there first with the most men." With a hundred men armed with rifles, I would engage to defeat fifty, also armed with rifles, who expected hand-grenades and Stokes mortars in two hours, and I think I could take the hand-grenades and Stokes mortars into camp later. Machine-guns and automatics can travel with us; we can leave other support to other arms.

Returning to the question of training in combat firing, I agree that it is of vital importance. The problem is how to get it done. The way usually followed is for some one to have an order issued to this effect: "Hereafter each organization will spend one hour daily in combat exercises"; and inasmuch as there are half a dozen orders similarly worded prescribing drills in first aid, visual signaling, athletics, hand-grenades, packing, automatic rifles, etc., we can never get very far in any one subject. The troop officers are bewildered by the number of requirements, can make no decision as to their relative importance, and in any case can be held responsible only for the drills, and not for the much more important results.

No doubt our training in all lines leaves much to be desired, but I am not inclined to put the blame for it on lack of vision in our officers. They are quite up to date in their ideas, and there is little "saber rattling and plume waving" among them. They are handicapped by conditions over which they have no control, and if the conditions under which they work could be improved, the

training of their troops would improve likewise. Let me show, briefly, what the most disadvantageous of these conditions are:

Lack of Time—meaning the time a unit commander can spend in training his organization. Take any unit you wish, check over its work during the last year, and see how few days and how few hours in each day its commander has had with it. Courts-martial and boards, orderly room, garrison school, non-commissioned officers' school, vocational school, morale lectures, physical examinations, inoculations, border patrols, strike duty, marches, change of station, and guard interfere with training constantly; so that if a troop commander can keep his horses in condition and teach his men to ride and shoot he has accomplished about all that can be expected of him. He may have the best intentions in the world, but one day his troop is "hors de combat" with a typhoid inoculation, the next on guard, the next some one higher up has ordered a practice march, and so it goes until the qualification course starts, or a change of station is ordered, and he must start all over again.

Lack of Men.—Our troops, much of the time, have barely enough men to exercise and groom horses, cook meals, and wash dishes. There is no one to train.

Lack of Instructors.—Our shortage of officers serving with troops is too well known to need discussion. An officer hardly gets to know his men before he is transferred to fill a gap or sent on a detail. Few of our non-commissioned officers now have the knowledge and experience necessary to instruct.

Lack of a definite statement of results desired, with a corresponding holding of unit commanders responsible for those results.—Colonel Fleming's article is the first attempt I have seen in our service to correct this condition, and his seven essentials are well chosen. By all means let us concentrate on these essentials and postpone training in first aid, visual signaling, and the like, until we can make a good showing in them. I take it that the method would be to inform a unit commander that at the end of a named period, say three months, his unit would be inspected as to its training in the "essentials" or part of them, and that its showing would be reflected in his efficiency report. The amount of time to be spent on each subject, the order to be followed, and the method of instruction should then be left entirely to him. He is the best judge of where his command needs instruction and in what it is proficient, and in whatever degree his initiative is lessened his responsibility for the result is correspondingly decreased.

A quotation from another writer may make this matter clearer: "This giving of full responsibility to a young officer is the keynote of the whole German system, and is undoubtedly the point to which they owe the excellence of their officers as a body. The captain is responsible for every detail of his company, the only condition being that, at the completion of the training, it must attain a certain standard of excellence, which is laid down by order. But the method of bringing it to this standard is left entirely in his hands.

In practice, of course, certain methods have approved themselves by long experience, and hence there is a certain appearance of routine about the training; but the captain is in no way bound to adhere to that routine, and no colonel or major, still less an adjutant, would dare to interfere with him, except, perhaps, by a few words of friendly counsel. He delegates his responsibility similarly among his subalterns, having due regard to their age and experience; and within those limits the subaltern is practically as independent as his captain."*

The book from which this extract is taken was published in 1888. Apparently, in some respects, we are still years behind our late adversary.

It follows, then, that anything we can do toward increasing the time devoted to training, securing more instructors, securing more recruits, and systematizing our work will improve our training. Following are some of the lines we might work on to attain these ends. They cannot be discussed at length within the limits of this article because they bring up subjects other than training, and each one demands an article for itself:

Secure more officers to serve with troops.

Keep organizations up to strength. The system of local recruiting has proved very effective in some instances.

Have recruit replacements join at least a month before time-expired men leave. Now they join depleted organizations and are so urgently needed for duty that they do not get sufficient recruit instruction, and there is a shortage of instructors.

Abolish our obsolete guard system and substitute watchmen and overseers. Our present system neither accomplishes its purpose, viz., the efficient guarding of property, nor trains for anything we may have in the field. It is a survival of walled and ditched forts. Troop guard loses a day's training at periods varying from four to twelve days.

Make the grade of sergeant more attractive by increasing pay, allowances, and privileges. There should be more inducements for good men to re-enlist. We need more competent non-commissioned officer instructors.

Establish permanent circuit courts-martial and relieve line officers of this duty.

Design our posts with a view to economy in men for supply, guard, messengers, prison guard, upkeep of grounds, and repair of buildings. Study the continental systems in this connection. The French quarter a brigade in the space taken by one of our squadrons.

Publish the standards required to be reached in training. Then hold unit commanders responsible for results only. Verify results by inspections. Eliminate those whose units are persistently below standard.

---

*Tactics and Organization, Capt. F. N. Maude, R. E.

Turning Illiterates into Efficient Soldiers

BY

Major BERNARD LENTZ, General Staff

SINCE THE War Department began to enlist illiterate and non-English-speaking men, the question has been asked, "What do we want with men who don't know English? What do we want with the 'hunkey' and the 'wop'?"

Before the World War and in accordance with an old law, now repealed, men who could not speak, read, and write the English language were barred from enlisting. It would be more nearly correct to say that the law prohibited the enlistment of illiterates, but that in actual practice if a man could write his name he was pronounced literate, and if he passed the physical examination he was "taken on."

Then the war with Germany came along and the draft made no distinction between the literate and the illiterate. Some 24.9 per cent of the draft could not read a newspaper or write a letter in the English language. About 167,000 illiterates went to France. They fought bravely by the side of their literate comrades. Many, as the War Department records show, were killed or wounded because they understood little or no English. During the six months preceding the Armistice, illiterates were gradually segregated in development battalions; schools in English were established, and when the war closed these schools were in progress in all the large camps and good results were being obtained. It was found that in three to six months, depending on native intelligence, illiterates could be trained into good soldiers by coupling with recruit training a thorough course in elementary English.

When voluntary recruiting was resumed, early in 1919, we soon found ourselves up against the old problem, "How to get the necessary number of recruits to fill the army." Profiting by our experience during the war, the War Department decided to enlist illiterate and non-English-speaking citizens and also aliens who declare their intention to become citizens. The arguments for taking this step were, briefly, these:

The draft showed about 25 per cent illiterate or near illiterate in the English language. By permitting men in these classes to enlist, the army would open a heretofore-untouched recruiting field amounting to almost one-quarter of the population of the United States. By enlisting these men for three years only, the War Department could afford to combine a course in English with recruit instruction covering a period of four or even six months, for at the end of this period these men would serve from 2½ to 2¾ years in their permanent organizations and would, economically, be at least twice as

valuable as men enlisted for one year. The army had special inducements to offer these men. They were assured a thorough course in English as soon as enlisted. The "Earn While You Learn" slogan could be carried out literally, as far as these men are concerned. Then there was the additional advantage for non-citizens, viz., full citizenship at the end of a three-year enlistment. By solving the problem of illiteracy in the army in time of peace, the War Department felt that it was furthering real preparedness, because in the event of another great war we shall no doubt again use the illiterate and the non-English speaking. This is simply solving in time of peace a problem that is bound to come up in time of war.

Again, if the illiterates and the non-English speaking were good enough to fight for the country, in all justice they are entitled to the peace-time educational advantages that the army has to offer. Last and most significant, no doubt, was the argument that this educational and Americanization work would help to convince the people that the army, in addition to being an insurance against war, is also a real peace-time asset.

Profiting by the experience gained during the war and preceding the war, in so far as our near illiterates were concerned, it was decided to segregate these men as soon as enlisted, in order that an intensive course in English could be carried on hand in hand with recruit instruction. For this purpose there was organized the Recruit Educational Center. The first one was established May 1, 1919, at Camp Upton, New York, and recruiting officers in the Eastern and Northeastern Departments were instructed to accept for enlistment illiterate and non-English-speaking recruits, these to be sent to Camp Upton as soon as enlisted.

The question was asked, "Why segregate these men in a particular area in camp and provide separate training cadres when these men might at once be assigned to permanent organizations, the men taking advantage of such schools as might be organized at the stations to which they might be assigned?" Segregation was provided for because all other methods failed during the war.

We are all familiar with the treatment that was accorded many of these men during the early part of the war. Understanding little or no English, they were called "wops" and "hunkeys" and were usually employed to do the dirty work. Many were accused of being disloyal. Some were put into the guard-house simply because they could not understand the orders and instructions they were told to carry out. Methods other than segregation failed, even before the war, with our near illiterates, and they are failing right now in organizations that have either themselves enlisted illiterates or have had illiterates sent them by recruiting officers, all in violation of War Department instructions. One regiment on the border, as reports show, has a good many men of Mexican origin. The army is hard up for men and these were taken in. The result is that now this regiment is called a "Greaser outfit," and old soldiers won't enlist in the regiment. Segregate these men in a Recruit Educa-

tional Center for a thorough course in English, in civics, in American history, and in the ideals of our democracy and there will be a different story to tell.

At this writing there are gathered at this school some 1,700 students, representing some 45 racial groups. Almost one-half are American-born illiterates. They hail from every State east of the Mississippi River. Classes are graduated every two weeks, and when upon graduation these men join their permanent organizations they do so as self-respecting, English-speaking, American soldiers.

This article was undertaken primarily with the idea of giving a description of the details of the work as it is being carried on at the Upton Center. This, I feel, will be of interest to the readers of the CAVALRY JOURNAL. Since the repeal of the old law mentioned above, the work has been extended to include the whole United States. Five new Recruit Educational Centers are now functioning at Camps Jackson, Pike, Travis, Grant, and Lewis, respectively.

The military organization in the Recruit Educational Center resembles that of a training battalion used in the depot brigades during the war. On the staff of the center commander (in addition to the usual staff) are a medical officer, a dental surgeon, the director of schools, and the corps of teachers.

When the men arrive in the center they are sent for ten days to the classification barracks. Here the men are issued their uniforms and equipment. They are examined by the medical officer and the dental surgeon. The former gives instruction in personal hygiene and the latter arranges for dental treatment, wherever necessary. The men are given an intelligence test, and on the basis of this test they are assigned to a place in a class. The men are also assigned to companies during this ten-day period. On the eleventh day the men join their companies, fully equipped and ready to go to work. On the morning of the following day the men start to school. The day is divided equally between military instruction and class-room work, three hours being devoted to each. The work is further divided into 1½-hour periods, so that the soldier gets a period of class-room work and one of drill in the forenoon and like periods in the afternoon. In this way both the training cadre and the teachers do double shifts, half the men being engaged in class-room work while the other half is on the drill-field.

In the company the men first join the fourth platoon. They are advanced, in turn, to the third, second, and first platoons, as they progress in their military work. The principal subjects taught are physical drill, close-order drill, to include the school of the platoon; care of arms and equipment, courtesies, military appearance and deportment, making pack, and guard duty.

The normal course in English is four months. The bright men finish the course in less time and some of the dull scholars may take as long as six months. When a man cannot finish in six months he is usually discharged. A simple psychological test given prior to enlistment keeps the number of men so discharged at a minimum.

The basis of the course is performance and not any particular period of time, so that the designation "normal course" simply means that the average man completes the course in four months. The course is divided into six grades. These do not correspond with the grades in our public schools. They are simply six divisions which have been found satisfactory as a result of considerable experimentation. Each grade is subdivided into sections. For example, in the first grade there are four sections—a bright section, a dull section, and two intermediate ones. This insures promotion of students in accordance with demonstrated ability. Men who for one reason or another do not get along well in the regular sections are assigned to a special class presided over by a teacher who has made a special study of the subject of backward pupils.

The men's interest becomes aroused on the first day, when they are told (often through interpreters) that their first task will be to learn to write a letter in the English language. This task is finished in the second grade, where the last lesson requires the student to write a simple letter unassisted. Invariably the men are very proud of this first letter. It is their first real educational accomplishment.

Having no old prejudices to overcome, as is often the case in schools that have been established for a long time, those in charge have adopted the latest teaching methods and have through the development of new methods made a worthwhile contribution to the art of teaching grown-up illiterates. For example, to teach writing, instead of following the old copy-book method, which has the model at the top of the page, and in which the student's last effort, near the bottom, was always worse than the preceding ones, strips of cardboard about six inches long; having one line of written letters, words, or sentences on them, have been prepared. The student moves the model strip down the sheet of paper each time he completes a line, and in that way always has the model immediately above the line on which he is writing.

Each lesson in reading and writing is also a lesson in civics, American history, numbers, current events, or in some subject that concerns the duties of a soldier.

The learning of English does not cease when the soldier leaves the class-room. In the squad-room, at mess, and in the drill-squad the men are assigned regardless of nationality; so that when a Greek finds on his right an Italian and on his left a Jugo-Slav he will naturally do his best to acquire sufficient English to enable him to talk with his bunkies. This is simply taking advantage of the psychological fact that all human beings are more or less talkative and are instinctively inclined toward sociability.

Much English is also acquired on the drill-ground. In close-order drill and in physical exercises the men drill under the cadence system. This system requires the men to give the commands which they are to execute and brings into play not only the voice, but also the sense of hearing, both of which are so important in the learning of a language. Twice a week the men go to

singing school and each patriotic or popular song sung by the men becomes also a lesson in English. In the evening teachers are on hand in the reading-room to assist the men in writing letters or in reading story books of current periodicals. From reveille until taps the men live in an American atmosphere; they soon forget all racial distinctions and acquire the American viewpoint.

During the first month of a recruit's stay at the Recruit Educational Center he does no fatigue duty of any kind. He drills and he goes to school all day every day. During the second month he is detailed on fatigue duty within the center area. It is explained to the recruit that fatigue work is a duty that falls to the lot of every soldier and which is least irksome when it is done promptly and efficiently. During the third and fourth months recruits may be detailed outside the center area not to exceed one day a week. This novel treatment of recruits, this so-called "easing-in" method, may not meet with the approval of those who believe that the new men should be handled in a "hard-boiled" manner by giving him all the K. P., etc., he can stand, but it is bringing about splendid results in the Recruit Educational Centers.

What do the people think of this Americanization scheme? Last fall I had the great pleasure of taking a detachment of these men on a tour of fifteen large cities. Fourteen nationalities were represented in the detachment of twenty-eight men. The "Americans All," as this detachment was called, drilled before chambers of commerce and clubs, in theaters, and in foreign-speaking sections. Great industrial plants turned out their men during noon hours to see these men perform. Wherever they went, the work of these men was unanimously approved.

I spent a couple of days recently at the Upton Center, and some of the things I saw and heard were most astonishing. I visited the reading-room at night. In spite of a very strenuous day in school and on the drill-field, I found many men hard at work acquiring English. One of the teachers had a group of about fifteen. They were reading stories and discussing topics of the day. In one corner two men were seated at a table. I talked to these men and found that one who had been at the school about three months was assisting the other, recently arrived, in writing a letter home.

A few days before my visit to Camp Upton a lawyer from a small Southern city came to Camp Upton for the purpose of effecting the discharge of a young illiterate recruit on the ground that he was under eighteen years of age. The commander of the center took the visitor through the school, and when the inspection was completed and the boy had been interviewed, the lawyer said: "Well, I've changed my mind. This boy not only wants to stay here, but he belongs here. I'm going back home to tell his mother that he's in good hands, and that he is getting an education such as he could get nowhere else; and, what is more, I'm going to send you a lot more of illiterate boys from my section of the country."

A novel means of bringing the army, with its ideas of education, into

closer touch with the people of the country has been arranged by the War Department through the medium of the Chautauqua plan. Five "Americans All" detachments have been on tours with the Radcliffe-Chautauqua Bureau since June 1. The circuits of this company cover some 1,700 towns of 300 to 3,000 population. These detachments were organized at Camp Upton. I visited a class in public speaking which was organized especially to train men for the Chautauqua. The sincerity and feeling that these men put into their talks cannot be adequately described. One must hear these talks to appreciate them fully.

One fine big boy from Charleston, South Carolina, told in his talk of how he worked as a fireman on the Seaboard Air Line. He was a good fireman and could also run a locomotive. Several times he had an opportunity to become an engineer, but he could not read and write, and this kept him from promotion. He decided to enlist in the army to get an education. He now reads and writes very well. He's ambitious. I have learned since that he made a place on the Chautauqua. When his enlistment is over he is confident that he will soon be master of a big Seaboard Air Line locomotive, which position was and still is the height of his ambition. He fully appreciates that the army is making it possible for him to realize his ambition.

Another Southern boy got up and said: "I always knew that February 22 was a holiday, but I did not know why. I had never heard of George Washington." I heard men who were born in foreign lands make speeches on America and what America stands for.

The comprehension of the ideals of our democracy that these men put into their speeches is truly gratifying.

These men make the finest kind of soldiers, because they are all in earnest and anxious to learn. One company commander told me that of his non-commissioned officers six sergeants and several corporals are graduates of the center. They were illiterate in the English language when they enlisted, but now they are occupying positions of responsibility in the army.

In my opinion, the introduction of educational and vocational training into the army will give us more varied interests, which, when thoroughly harmonized with strictly military training, will undoubtedly make the army more consistently progressive. If this work is to be carried on in the biggest and broadest way, we must begin at the bottom; we must educate and Americanize the illiterate and the non-English speaking.

Efficient War Soldiers

BY

Major CHARLES BURNETT, Cavalry

(Military Attaché, Tokyo, Japan)

IT WOULD not speak much for the intelligence of the officer personnel of our service did we not learn some valuable lessons from the World War, and it would not speak much for our energy did we not proceed to put them into effect or clamor for authority to do so. One lesson that has been forcibly impressed upon me may be begun immediately, by even a lowly troop commander, without the necessity of any legislation, orders, or even permission from higher authority. I refer to the necessity of training enlisted men (and officers) for war as well as peace.

Many regular officers will recall their feeling of humiliation when the training cadre of regular non-commissioned officers arrived at national army cantonments. These men were intended not only for use as instructors, but to serve, as well, as examples to newly drafted men of what a soldier should be, and the standard to which they should aspire. Some of the new and inexperienced company commanders were fortunate enough to draw good men—and blessed their lucky stars in consequence; but it must be confessed that many—far too many—were worse than useless and had to be gotten rid of as expeditiously as possible. Of course, it is true that the great majority of the older and better non-commissioned officers, for various reasons, had not been included in these cadres; it is true, too, that many of these men had only been non-commissioned officers for a short time. This is but a feeble excuse, after all, and there is no escaping the fact that we company commanders and ex-company commanders were directly responsible—far more so than the men themselves.

To appreciate this fact fully, it is only necessary to look back for a moment at one of our companies before the war. In those far-off days it was pretty well understood that a good first sergeant usually meant a good company. Having secured such a treasure, the organization commander bestirred himself to corral competent heads of bureaus—a good troop clerk, mess sergeant, cook, blacksmith, etc. With this staff functioning smoothly, life became comparatively easy for the company commander. Non-commissioned officers were given some casual instruction in drill and firing regulations and hippology, and a few of the brighter ones could make a passable road sketch. The privates learned a little about drill regulations from their daily drill and played a bit with the semaphore, but their minds were not burdened with much of anything else. Rarely did they ever lead a squad or platoon or actually command anything. Yet such an organization was considered a "good" outfit—

well disciplined, well drilled, good on the target range, horses in good shape, and the men, as a usual thing, well fed and well contented. The inspector, upon his annual visit, was quite sure to say that it was a "good" outfit—and it was, for peace, but not for war.

Those who had experience with combat troops in France will recall the condition of an organization after a few days in the line—officers and non-commissioned officers killed, wounded, or sick and the whole outfit shot to pieces generally; yet what was left of this organization often had to go into the line again within a few days. Then comes the test as to whether or not the company has been trained for war. Has the second lieutenant had the training and practice to step into the captain's shoes with the full confidence of the men? If the old first sergeant is gone, will the men recognize another "master's voice"? How many privates can lead a squad or platoon and know that they can before they are shoved into the job? Has the battalion and regimental commander any intelligent idea of what the company can do under such circumstances? The whole problem lies in the answers to such questions.

The remedy is simple and obvious. Every man should be trained to fill a job higher than his rank calls for—how much higher depends on the man and the one who is training him. Kill off some of the officers and non-commissioned officers for a period of time, occasionally, and let others develop their ability and self-confidence. It may disturb the even tenor of routine peace life, but you will be beginning to have an outfit trained for war.

The Diary of a War-Horse

BY

Major WILLIAM P. HILL, Veterinary Corps

I WAS JUST a horse. I was raised in Oregon and pastured as a colt on the luxuriant grasses of that State. My master was kind to all his stock and I, with others, was well taken care of in winter as well as in summer. Here I stayed until my country declared war against the greatest tyrant the world has ever known, and until a call went out to all farmers to help Uncle Sam in every way they possibly could, as horses were needed to pull our guns. I was taken to a near-by city stock-yard, where I was offered to a Government purchaser of horses, who, after looking me over and having judged me with the critical eye of the veterinary officer, accepted me. The letters "U. S." were branded on my left shoulder, and from that moment I became the property of the United States, and here is where my real war history begins.

How well I remember that day! I was put in a large pen with a number of other horses, all branded the same as I. We ran around the edge of the pen with our heads in the air and our tails up, as if to say, "We are going to war and die, if necessary," in order that the guns may be taken into the thick of the fight or that food may be taken to the advanced trenches at night, regardless of the stream of lead or the crash of shells.

You know a horse will go wherever his master bids him. So naturally we had some right to be proud that we had been chosen out of thousands to fight for our country. That night we were fed the first food that I had eaten furnished by the Government, and many times since then I have longed for such a feed while standing in harness up to my knees in mud, the rain slashing my face and the shells bursting on all sides of me. But I am getting ahead of my story.

The next morning I was put on a stock car and shipped to Newport News, but before being put on the car I was given a hypodermic injection under my skin to prevent me contracting influenza, a disease which has been the cause of so many deaths in horses destined for service "overseas." Fortunately for me, I did not contract the disease and I was unloaded safe and sound at Newport News, where I was taken to a large Remount Depot to await the first available transport for France.

After ten days or so the long-looked-for time came. I was taken down to the veterinarian, who tested me to see that I was free from glanders, and two days later I was on the Atlantic bound for a port in France. I had been given a nice stall on deck, where the air was fresh and also where I could reach over and steal an occasional extra bite of oats and hay from supplies piled up outside my stall. Submarines were my only fear, as I could imagine the hopeless chance a horse would have on a torpedoed ship, unable to do anything to save one's life. I was thankful the sea was calm, as I was told that on one voyage

the stalls and their holdings on the upper deck had come unfastened from the rough seas, and that the horses were pitched or thrown in huge numbers, like a great avalanche, from one side to the other and were dashed to pieces against the relentless steel sides of the boat; and this fate, needless to say, I did not wish to experience; hence my comfort at the calmness of the sea.

After a voyage of sixteen days, during which we had done much zigzagging to escape the submarine, we sighted the coast of France, and, having passed Belle Isle, we slowly approached the locks of St. Nazaire. Here we passed into the inner basin and docked alongside the huge sheds erected by the Government for the storage and shelter of the many articles of war disembarked at this important seaport. The docks were lined with the people of St. Nazaire, who, when they heard that American boats were coming in, came down to the landing to witness the sight of help from the great American people coming from over the seas. Our attendants on the trip over were composed of a veterinary hospital unit trained at home for service in France, consisting of seven veterinary officers and 300 men. You can infer that we had the best attention from the fact that none of us were on "sick report," and that there were no losses on the voyage.

Here was I on French soil! Oh! the thrill it gave me, opening up new vistas to my equine eyes. How long was I to be kept at the base before being sent to the front? How long would I be there before a shell blew me to atoms? Who was going to be my soldier master? How would he treat me? Was there a hospital to send me to in case I got wounded? These thoughts and many more, I remember, went through my mind as I was being led through the streets of St. Nazaire on my way to the Remount Depot, a mile the other side of the town, facing the sea.

Upon my arrival at this depot I was again tested for glanders, and then turned loose in a large, sandy lot, where I could take the first roll in the soft sand that I had seen since leaving the States. How I enjoyed that night, lying down full stretch and sleeping, free from the rolling and pitching sensation of the transport. Here they kept me for two weeks, when one morning I was caught up and formed into line with many others and led toward the station.

The thought of at last going to the front made me prance and buck in sheer joy; but little did I know how often I would long to be back. To all of my friends in America I send this message: Never travel in a French horse-car if you can avoid it! Eight of us were placed in the smallest box-car arrangement you ever saw in your life, four on a side, with heads toward the middle. In the space left in the center was piled our hay and oats for the journey. Besides, our soldier attendant lived, ate, and slept in the same car with us for the four long, dreary days of our trip.

He watered and fed us well, but the slowness of the train, the many stops, the rough track, the long waits on sidings, were things I will never forget. My legs swelled up and my whole body was cramped and stiff from the close confinement.

At last we came to our journey's end and we were unloaded at G——, a little French village in the Meuse, 25 miles from the front, and assigned to the Artillery Brigade of the Division, which had its headquarters there. My soldier led me through the narrow, winding streets of the quaint old village, where I passed many horses in the French carts; this was the first time I had really seen a French horse. They looked so strange in their huge collars, covered with a mass of black, curly hair, which looked very warm and uncomfortable to me.

Here I was assigned to Battery "B," Field Artillery. My driver was called "Red" by all the men of the Battery. His real name was a long one and hard to spell and pronounce, so it was found much easier to give him the sobriquet "Red"; this was on account of him having bright red hair. I immediately began to love him. He was kind to me from the first, always handing me my nose-bag filled with grass that he had gathered by hand, which he had found growing in some shaded spot where the dust had not been able to penetrate. He never went to the village without bringing me back an apple, and his pocket always had a lump of sugar in it, which, after nosing him, I managed to get after a little persuasion.

About this time he christened me "Dixie." I suppose he picked this name from his love for that part of his dear home country. Every morning he would hitch me up and with the others of the team I worked with; he would go out to the firing range for gun practice. I soon got accustomed to the roar of the guns and began to long to go nearer the front, where we could fire our shots into the enemy lines. For this I did not have to wait very long, as we received orders that night to take up a certain sector on the front. We started off in the dark, the whole regiment strung out a mile in length along the road, and when the day was breaking our guns were in position and with my team-mates we were hidden behind the crest of a hill.

I will never forget the appearance of the country which we passed over. The fields, as far as the eye could see, were pockmarked with shell-holes, and every few yards was a hole so large and deep it was necessary to go around it with our wheels. The ground was strung with telephone wires, which constantly wrapped around our legs. Machine-gun belts, broken rifles, and machine-guns were lying all around. All trees had their tops blown off; nothing but the stumps left. German helmets and discarded clothing were scattered here and there. At times we would pass large ammunition dumps, acres of shells, gas, shrapnel, and high explosive varieties.

Once we crossed a deep-cut road, and here I saw a sight that made me realize my probable fate. A German gun and its carriage had received a direct hit; they were both upside down; the wheels were smashed to atoms; the harness had been piled in a heap at one side, and two large shell-holes, recently filled in with fresh dirt, told a gruesome tale. A board was stuck up in the dirt of one of the holes, with a sign, printed, "Dead horses buried here," and the contents of the other hole, judging from the tremendous force of the explosion

of the shell and the strips of clothing seen around, can be imagined. Where villages had been standing, with their church and town hall towering above the little French houses, all now was flat to the ground and overgrown with weeds. Such villages, well known in the history of this World War, were invisible at fifty yards' distance, being practically wiped out.

I was taken back to the picket lines every night, near a small stream, some 2,000 yards from the front-line trenches. In France it rains nearly all the year. "Red" gave me a blanket, but after a night's rain it was soaked through. The mud was so deep that we sank up to our knees, and it was necessary to move our lines frequently. Nights were spent standing in the pouring rain, long-distance shells bursting too close for comfort at all times and aërial raids every few hours. I was about as miserable as a horse could be. One of those nights, after a hard day's work dragging the guns through the mud, lives vividly in my memory. An aërial squadron was above our lines dropping bombs. One of them struck at the other end of the line to which I was hitched. It killed seven of my companions and wounded fifteen. Yet there we had to stand, with no dugout to hide in, trusting to Providence that we would be spared.

The veterinarian with my regiment was at once on the lines. Those of us who were hopelessly mangled were put painlessly out of misery and the rest were carefully dressed and started to the Division Mobile Section, to be sent by them to the railhead for shipment to the nearest veterinary hospital at the rear. Those too lame to walk were put in a horse-drawn ambulance and taken to the railhead. This Veterinary Service is certainly a Godsend to the war-horse, who is willing at all times to give up his life for man. How we appreciate its timely aid when a large artery is pouring forth our life's blood on the field of battle. One of those veterinary officers is there, ready to take up the vessel and to dress our wounds and give us a hypodermic that stops the pain and suffering.

Surely the money that has been spent to organize and equip such a service is well spent, and I ask all lovers of the horse who read this to uphold the Army Veterinary Service, and to insist, whenever they have a chance, that it be one of the best organizations of an army as long as it is necessary to use "man's noblest friend" in war.

To "carry on," as "Red" is always saying, with my story: Several nights after this slaughter of my team-mates, I had the satisfaction of seeing one of those German bombers brought down. It was about midnight when one fokker was plainly heard up in the moonlit but cloudy sky. I and all the rest of us were restless and nervous, pulling on our halters and longing to be able to break away. Five searchlights were searching the sky, when all of a sudden a large light on our right picked him up, and immediately the other four on the left got on to him and crisscrossed their bright rays, lighting him up so that we could see him plainly. In less than a second one of our planes was right behind him, and then ensued an exciting chase. Machine-guns were rattling in the air, and finally our plane got a shot into the Hun's tank and he went up

into a burst of flame, his colored signal lights catching fire and making it look like the burst of a large rocket at a pyrotechnic display. "Red," who had been lying flat on his back watching the fight, got up with a look of intense satisfaction, thinking, I am sure, that that Hun aviator was the man who had tried to clean up our picket line a few nights ago. Incidentally he was looking for "Red" and his pals just as much or more than for the horses of the battery.

My luck thus far had been of the best, but, alas! it did not last long, for the Huns made a big attack some nights after and "B" Battery was ordered to change its position to reinforce another battery that was coming in for more than its share. We were quickly harnessed and hitched and were soon in a full gallop across the field toward our new position, shrapnel bursting all around us and many of our drivers and horses going down. I felt a burning pain over my quarters, but our blood was up and we dashed on through the rain of steel, unlimbered our guns, and opened up with all that we had to give the onrushing human tide of fighters. They wavered and fell back; we had stopped the gap and saved the line. By this time I became faint and I realized that I was losing a quantity of blood, which was pouring in a stream down my hind legs. "Red" saw my plight at once, whipped out his first-aid packet, put iodine into my wound, and then plugged the hole with gauze, thereby clotting the blood and stopping the hemorrhage. They found that a piece of shrapnel had struck me and had torn a large wound into the muscles of my quarters, where it had become imbedded.

I was anxious to stay with my battery and dreaded to think that I might be evacuated, but at first sight of me the veterinary officer said, "Hospital for you, Dixie." I was tagged with a metal disk stamped "Surgical," and in the morning I started on my trip back. "Red" gave me a lump of sugar and a kiss on my nose and threw his arms around my neck and whispered in my ear, "Come back to me, even if you have to break a dozen halters in doing it." Poor "Red" was all broken up at my departure.

After passing a day at the Mobile Station, where they dressed my wound again and removed the piece of shell splinter, I was taken to the railhead with about fifty other wounded and arrived at an advanced veterinary hospital that evening. What a surprise it all was to me; 300 men and 7 veterinary officers were working day and night with the wounded. The hospital, holding 2,000 sick, was divided into sections or wards, each for its own class of disease—catarrh, pneumonia, lameness, surgical, etc. I was placed in the latter section, where I had a fine straw bed and was once again under a roof and out of the wind and rain.

By this time my leg was badly swollen from the wound, and hot packs were applied by the attendant. I also received a hot feed, which in time began to make me feel like a new horse, and all pain left me. Stretching myself full length on the bright, warm straw, I again blessed the Veterinary Corps and slept the rest of the night in absolute comfort. The next morning I was taken into the operating room and my wound was thoroughly examined and dressed.

I stayed at the hospital three weeks, when I was evacuated to the near-by Remount Depot, wound healed, fit and sleek, and feeling my old self once more.

As luck would have it, I was sent back to my old battery, and so joined "Red," who was the happiest man at the front when he got me back. But, alas! my stay at the front was again of short duration. A skin disease called "mange" was very prevalent in that sector, so that I soon became covered with the vile parasite. The itching was so intense that sleep was impossible, the hair dropped off me in large patches, and I was isolated with a number of others and started once more for a mange hospital, specially equipped for this class of disease. I was tested for glanders, and then what remaining hair I had on me was clipped off. By this time I was an awful-looking sight and feeling equally miserable. I was then taken to a long concrete swim bath composed of hot lime and sulphur. I was led along a narrow passageway which ended in an abrupt drop. I went completely under and had to swim 15 feet before striking bottom, near the exit up which I walked. I was given this bath three times a week for a month, at the end of which I was cured. My hair was growing again. I was exercised and was soon ready to face the hardships of the front once more. So back again to the Remount Depot I went, and after some days I rejoined my battery and "Red." I have always thought he must have used some special plea to the Battery Commander for him to request that I be sent back to them instead of to a new organization, for all of which I was truly grateful.

I am writing this last part of my diary in a hurry, as "Red" has volunteered to carry food to a small patrol of men that have been cut off last night from returning to our lines; they are practically surrounded in "No Man's Land." I am praying that "Red" will ride me, as the rations are too heavy for him to carry—at least I can take them as far as it is safe to advance above ground; so good-bye, my dear diary, for the present. I hope I will live to finish the account of this escapade.

P. S.—By first sergeant, in charge of cut-off patrol:

"2.00 A. M.—A riderless horse, badly wounded, being shot by machine-gun fire and shrapnel, ran toward the shell-hole in which we were hiding. Slung on his back was enough water and food to last us two days, which was undoubtedly the cause of saving our lives, enabling us to gain strength and to hold out till the following night, when we fought our way back to our own lines. The horse, in spite of all the attention we could give him, soon succumbed to his injuries, being actually riddled with bullets; and how he ever managed to reach us is a mystery. In the saddle pocket was a note. I copy it as it was written.

"NO MAN'S LAND, 1.30 A. M.

"I have done my bit. I have got mine. We are near the patrol and I hope 'Dixie' can reach them. A shell burst so close to us that we were both well plastered. We die for our country. Tell the captain good-bye and all my pals and give the horse I loved a hero's grave.

"(Signed) 'RED,' *Private, Battery 'B.'*"

Training Polo Ponies

BY

Major JOHN K. HERR, General Staff Corps

THIS BRIEF article is not advanced as a thorough study of the subject, but merely to offer a few suggestions drawn from the writer's experience in the game of polo.

Let us assume, to start with, that the pony is broken to ride and obey the direct rein. The whole problem is then to so train him as to enable the player with the minimum physical effort to put the pony where he wills at such speed as he desires. I say minimum physical effort, because every ounce of strength expended in overcoming defects of training subtracts from the efficiency in play. A pulling pony or one that must be continually forced will wear out the rider, unsteady his stroke, and near the close of the game he will be lacking in the aggressive energy which spells for his team victory in the final chukkers.

The beginner, and, for that matter, many old-timers, must be fully alive to the fact that every endeavor to perfect the pony before he is put in actual play will be repaid a thousandfold on those days of joyful conflict on the field of play.

How to Train the Pony.—In the first place, get a real prospect, one with some thoroughbred blood—the more the better. You cannot, these days, play any real polo without the speed. You might as well be off the field altogether as mounted on a scrub. You cannot hit the ball unless you get to it. Therefore, speed, speed, speed! The day of handy, quick turning, slow ponies is past. Select a close-coupled one, with bone and substance if possible, as the long-coupled ones are much more difficult to turn and are unlikely to possess the requisite stamina. Much useless rot has been written about training polo ponies. It is really a simple matter, requiring only common sense.

1st. The pony must be up against the bit.
2d. Turn on the haunches.
3d. Swerve either way on indications of the reins.
4th. Run true in absence of indications.
5th. Graduate his speed in response to rein indications.
6th. Take the proper lead.
7th. Break quickly.
8th. Be unmindful of stick and ball.
9th. Fearlessly ride off.

To insure having the pony up against the bit, start with the snaffle, keep the reins stretched with a light feel of horse's mouth, and use the legs to put him to it. During this period, which will vary, of course, with different ponies, being quite brief in many instances, give him simply straight gallop at varying speed and breeze him along now and then at full speed. As soon as this is accomplished, put on a standing martingale. This will aid in training, especially after the curb bit is put on, counteracting the frequent tendency to evade the action of the bit by throwing up the head. Training may now be pursued in three simultaneous phases each day: 1st, circling; 2d, swerving; 3d, stick and ball work.

Circling.—Put the pony first on large circles until he goes quietly without pulling. Be sure he takes the proper lead, using the diagonal aids—that is, elevate slightly the inside rein, following with light pull on same, which will lighten the forehand on that side; close back the outside leg powerfully and use both legs strongly to furnish necessary impulsion, shifting at same time your weight to outside hind. Use smaller circles as he progresses in training, using always the outside leg to bring the haunches in a bit. Work on small circles will cause the pony to get his hind legs under him. The outside leg should be closed back to hold the haunch and utilized to decrease the circles. This will help accustom the pony to turning on the haunches, which is most desirable. Circling should be varied with straight gallops at varying speed. Be sure not to keep the pony too long on any one exercise.

Swerving.—Swerving the pony is the best exercise in training after he learns to take the leads. Personally I have never waited to teach the pony the change of lead by the niceties of equitation, as I regard it as unnecessary and inadvisable for polo purposes. He should be taught to change direction by use of direct rein reinforced by bearing rein against the neck, first at walk, then at trot and gallop. Abandon this as soon as he responds, and repeat with reins in left hand only. Put him at the band gallop and swerve him to the half right, closing back the left leg and using the left bearing rein strongly, at the same time lunging the weight of your body to the right front. Straighten him and repeat to the left, reversing aids. He will soon change with facility. Do not prolong this exercise, especially at first. The use of the aids and shifting of weight may be modified as he progresses, and he will soon learn to change without other indication than the ordinary use of the outside leg and rein in changing direction. From the very beginning, after he is up against the bit and simultaneously with the circling and swerving, begin to accustom him to the stick and ball. This is the easiest part of training, if done cautiously. First, carry the stick about and wave it a bit. Then push at a few tufts of grass or weeds. When he doesn't mind that, push a ball about, just tapping it, gradually working up to striking it with full stroke. Be sure to place the rein hand on the withers in making stroke, to prevent any possible jerking on mouth. Vary short periods of this with the circling exercises and swerving previously mentioned. Remember not to keep the pony on any one exercise long.

Bits.—In the first three phases of training just described, no rule may be set as to how soon to pass to the bit and bridoon. Some ponies will require it

sooner than others. If the pony pulls, put it on, and, if necessary, go back to snaffle when he quits. Some players prefer the half-moon Pelham to the bit and bridoon, and I have known a few ponies to handle nicely on the snaffle. This is very exceptional, though; as a rule, the bit and bridoon are most satisfactory. I favor using a curb bit with revolving branches of medium length. In the first use of curb bit, leave the chain off, and later adjust it loosely, gradually bringing it to desired adjustment. One must be very light in the first use of the curb, as it is very easy to get the pony behind the bit. Any such tendency must be combatted by changing back to the snaffle until his confidence is restored.

Fourth Phase—Starting and Checking.—When he has responded to this training well, begin to cause him to break suddenly, first from slower gaits and then from the halt. To do this, give him the legs, slack the reins a bit, and lean forward suddenly at the same time; also, begin to check the pony at the gallop and then at speed by half stops or full stops—that is, a series of pulls, closing the legs to bring the haunches under. As soon as he checks up sufficiently, close back the outside leg and rein him about until he is going in the opposite direction. Practice him over the side-boards and near them until he is thoroughly accustomed to it. Practice him in riding against other ponies, jostling them and pushing a bit, so that he will ride off fearlessly. Try all manner of strokes at varying speed, remembering to permit him seldom to turn or swerve after you make a back stroke, and then only upon your indication by the aids. If, after making a back stroke, you immediately turn your pony, he will soon get the habit and will do it when you want to continue on. Work the pony a little every day, but not too long. The time is dependent, of course, on his age, condition, temperament of the pony, and the weather. Be always calm and good-natured with the pony. If he frets, turn to another exercise or stop for the day. Encourage him when he does well.

Lastly, imagine you are in a game and ride him accordingly, picturing to yourself the changing incidents of play and racing him here and there at speed, checking him, turn about, swerve, start him suddenly, to fit the game of your imagination. If he stands the test to your satisfaction, put him in the game for a short period.

The Surplus Animal Problem

BY

Lieutenant-Colonel ROBERT STERRETT, Q. M. Corps

THE PRESENT depleted strength of a great many organizations is a source of hardships to the mounted branches, where the animal strength is constant and the enlisted strength a disappearing quantity. This difficulty is further increased by the present Vocational Training School, which takes the majority of the personnel for afternoon work and leaves only a few, if any, for the afternoon care of the animals. In view of the above, the method used by Colonel F. C. Marshall, Cavalry, in handling the situation, as published in the letter to the Adjutant General, would seem to go a long way toward a solution of this problem:

HEADQUARTERS, FORT HUACHUCA, ARIZONA, *July* 3, 1920.

From Commanding Officer.

To the Adjutant General of the Army (through Commanding General, Southern Department, Fort Sam Houston, Texas).

Subject: Pasture at Fort Huachuca.

1. On my arrival at this office, on May 1, 1920, I found the troops of the 10th Cavalry were caring for their war-strength number of horses with a rapidly diminishing personnel. The care of these horses so encroached on the training time of the men that training had to be in a measure neglected. The morals of the men were lowered in consequence.

2. There was already a large tract of land fenced in for a pasture. By salvaging an old fence no longer needed and by the purchase of a small amount of barbed wire and staples, I extended this pasture toward the post, so as to include 2,500 acres in all. I ran a water pipe into some large cement troughs that I had built there. The cost of materials and labor was $272.50. The pasture did not furnish sufficient grazing, so the horses were issued ten pounds of prairie hay—the cheapest grade here—per animal per day.

3. There resulted a saving of 44.45 cents per day per animal for forage. There are now nine hundred animals in the pasture, all in splendid condition and health. The daily saving of forage is four hundred dollars. The pasture is guarded and the horses fed by a detail of one non-commissioned officer and five privates.

4. The working out of this idea is admirable. When a soldier is to be discharged he has the shoes taken from his horse and turns him into the pasture. When a soldier joins he goes to the pasture, gets a horse with his troop's hoof brand, and takes him to the stable.

5. The saving in forage and care is enormous; the value of the pasture for recuperation and rest is very great. The horses are here for replacements at a cost of, at the present contract price of prairie hay, eight and one-half cents a day.

F. C. MARSHALL,
Colonel, 10th Cavalry.

There is not a cavalry or artillery officer of any length of service who has not been faced by the difficulties confronting Colonel Marshall, namely, a shortage of men and a full animal strength, and all realize the difficulties of keeping up efficient training with a large surplus number of animals in the troop stables. In addition to the great advantage of this scheme for the training side of the question, the matter of the saving in the forage ration is tremendous, amounting to some $400 a day for nine hundred animals. The Remount Service has gone into this side of the question as a matter of economy, their idea being to feed the animals as cheaply as possible and still keep them in good condition. In following out this, where possible, pasturage has been secured for the animals which would keep them by the grazing afforded; but, as this is generally impossible, it has been found necessary to supplement their feed, to a certain extent, generally by a grain ration.

In the event that pastures have not been available in the vicinity of remount depots, and due to the great shortage in personnel and large number of animals, the corral system has been adopted. This system keeps the animals loose in corrals, where they have constant access to water and are fed in racks provided for that purpose, and requires, as figured out by the Remount Service, one man to every twenty or twenty-five animals in the depot, which includes all men on administrative and other work, it being estimated that one man to every forty animals is sufficient for the actual work connected with caring for the animals in the corrals. It is not believed that pasturage to the extent necessary for the method used by the Remount Service will be available around any post or garrison occupied by a combatant unit. The corral system also is subject to a great deal of criticism, due to the amount of work necessary in building and cleaning the corrals; but in case no pasturage is available it might be used to a limited extent, each troop or organization being furnished its own corral and made responsible for the care and feeding of the animals. This method, while not resulting in a large saving in the forage ration, would leave many more men available for the training and other work, and would also save on the expensive part of the ration, namely, the grain, as cavalry animals in corrals, are generally fed some three pounds of grain, one pound of bran, and eighteen pounds of hay.

In both the pasture and corral systems the fact should not be lost sight of that animals are not kept in condition for hard field service, due to lack of exercise. In view of this fact, the Remount Service has plans prepared for the furnishing of a separate stall for every animal in time of war, in order that it may receive proper care and exercise to keep in shape for field duty.

When practicable, and it is believed that in a number of posts occupied by mounted troops it is so, the method adopted by Colonel Marshall would seem to be an ideal one for the care of surplus animals, as by this method not only a large saving is made in the forage, but a large cut is made in the number of men necessary for caring for these animals. In case this is not practicable, due

to insufficient ground or other reasons, a form of the corral system could be used which, though not making a large monetary saving, would necessitate a comparatively small personnel for the care of the animals and would allow the more efficient training of the command.

"After the Austrian rout on the Piave, in the last week of October and first week of November, 1918, four cavalry divisions, mounted, rendered most important and effective work in pursuit, riding around the retreating Austrian infantry, intercepting them at river crossings, and capturing thousands of prisoners. At one spot, upon their appearance from the rear, an Austrian division with 20 batteries was captured."—*Report of the Cavalry Board, A. E. F.*

Editorial Comment

A FEW REFLECTIONS

OFFICERS WHO have given the matter any serious thought must be impressed with the growing dislike on the part of our officers for service with troops. Prior to the war such service was regarded as the natural and logical kind, whereas detached duty was looked upon as exceptional. With the ending of the war, however, a transformation has occurred and we see on all sides the most strenuous efforts being made to secure any kind of duty rather than that with a regiment, not only by older officers, but even by subalterns who have just entered the service and upon whom the idea of other service than that with troops should not even have dawned.

In former days, officers, after a period of duty with a regiment, sought detached service as a relief from the monotony of garrison life, with all of its dull routine; but the same reasons surely cannot actuate the new army, where the activities are sufficiently numerous to satisfy the most energetic. There must, therefore, be other and more serious causes into which it is desirable to inquire.

First of all, it seems to us that the lack of suitable living quarters for the families of officers is the fundamental reason for the avoidance of troop duty and for the scrambling for preferred details. The greater part of our troops are in divisional camps, hastily built for war purposes, but completely lacking in any accommodations for the families of officers in times of peace. During the war everything was accepted *pro bono publico,* but it is easy to understand that, with the return to normal living, officers are unwilling, especially after the separations entailed by the war, to serve now in places where they must again be called upon to be separated from their families, and that they should seek berths where living conditions more closely approximate those of civilized communities.

Then, again, from reports that we receive, it would appear that service with troops is shunned on account of the multiplicity of the routine duties exacted of officers and men. Such duties frankly wear upon one and are in many cases unnecessary. A plethora of orders pours down from higher headquarters upon the troops, requiring them to be proficient in fifteen different kinds of weapons—in drill, in combat firing, in horsemanship, in educational and vocational training, in morale work, and so on—without regard to the eternal fact that the day has but twenty-four hours and to the utter bewilderment of the conscientious troop officer. As a result of all of these requirements, no one

job can ever be completed and the officer has the impression of never getting anywhere or accomplishing anything; so that he soon comes to regard himself like a squirrel in a cage, going round and round and round; but, being an intelligent squirrel, he makes his plans to escape as soon as possible.

However, not the least of the reasons impelling officers to leave the regiments and their proper commands is the tremendous emphasis which we are placing upon the staff and the great prestige with which we are surrounding the General Staff. The great prize which is dangled before the eyes of our best qualified officers is graduation from the General Staff College and assignment to staff duty—that is, to *office employment*—with almost no emphasis on assignment to *command*. What is the result? The ambitious officer has come to feel that his career is ruined if he is not on the eligible list for the General Staff, and naturally he looks upon service with troops as a period of transition and drudgery, to be gotten through with as quickly as possible, so that he might prepare himself for his more important career. Those unable to qualify for the schools seek relief in other forms of detached duty, commonly known as "coffee-cooling."

The training of staff officers is admittedly extremely important, and all officers should strive for the courses at the schools, but the prizes for proficient performance thereat should be assignment to command. As it is, those who remain with troops, seeing the haste with which so many good officers try to escape and seeing the honors reserved for them when they get away, naturally decide that the royal road to success in the Army is not, in time of peace at least, the one traveled by the regiments.

It follows, from a consideration of the above facts, that we should seek to bring about a readjustment of conditions and to place the greater prestige upon *command*—the highest and most important duty of the profession; and we should not omit to cultivate in the minds of the staff and the service the conviction that they exist only for the troops, and that the needs of the latter are their first consideration.

And what a privilege it is to be the guardians and leaders of the fine men who make up our ranks! Any officer who has ever taken the trouble to interest himself in the personal welfare of his men knows what a capacity for devotion they possess and what affectionate regard they feel for the officer who has won their confidence. They give evidence of it in a hundred little ways, especially if they feel that he will unflinchingly share their hardships and privations. After all, it is the human element which is the attraction of the service; so that duty with troops should be the most prized of all assignments. We sincerely believe that the majority of officers really prefer this service, if only they could live a normal and peaceful life and not be mentally harassed with their private affairs, destructive of harmony and efficiency.

In such a wonderful country as ours, living conditions should be the least of our difficulties, and there is no reason why the Army should not be quartered

in the most desirable surroundings. It behooves us, therefore, to study this question sympathetically and intelligently, always remembering that peace is the normal state for an army, and that its officers and men should not be asked to live under war conditions.

SUPPORTING THE JOURNAL

THE EXTENT to which the JOURNAL may be developed depends entirely upon the support which it receives primarily from the Cavalry. In this branch lies our greatest potential field for subscribers; and yet it is surprising how many of the cavalry officers, for reasons best known to themselves, have not joined the Association or subscribed for the JOURNAL. It is true that we have many subscribers in other branches and in organizations, but unless the cavalry gives the JOURNAL 100 per cent support, it can never reach its maximum development. It should be a matter of professional pride with every officer to take the JOURNAL of his arm and to encourage those under his command to do likewise. We like to feel that such is the sentiment among our officers, but it is nevertheless true that some of them allow other things to interfere with their good intentions. In this connection it is a matter of pride to record that the fault does not lie so much with the officers on duty with troops as with those on detached service. The former group have individually shown much interest in the JOURNAL and their support has been greatly appreciated.

There is, however, one way in which officers with troops can materially aid the subscription list and thereby directly increase the effectiveness of the CAVALRY JOURNAL as an advertising medium. *Every troop commander should subscribe for the Troop Library or Reading Room.* There are many articles in the JOURNAL of interest to the men, especially to the non-commissioned officers. Frequent invitations to join have been sent to the various troops, but so far the response has not been such as was anticipated. Out of the 255 separate organizations in the cavalry, only 45 have to date subscribed for the JOURNAL. The subscription price is so modest that it cannot be a lack of funds.

Every new subscriber enhances the possibility of obtaining advertisements, for when it comes to selling space to advertisers, they consider only circulation. It is upon the advertising that we depend to pay the expenses of publishing the JOURNAL, for the subscription price does not meet the cost of paper and printing. The JOURNAL is purely a professional magazine and must not be confounded with the commercial magazines which sell for a nominal sum. Necessarily, therefore, the single issue of the JOURNAL cannot compete in price with magazines of popular appeal. This statement is thought necessary, inasmuch as several officers have recently canceled their subscriptions on the ground that we were the most expensive magazine on the market. We are not on the market at all, but are the professional organ of a scientific association.

Let all of us get behind the JOURNAL and boom the subscription list. Ask

your fellow cavalry officer whether he has joined and urge him to do so. See that all of the troops have the JOURNAL in their barracks.

It is to be regretted that so much excellent manuscript received by the Editor cannot be published; but, as we are only a quarterly, some of it must be omitted. From a literary standpoint, we have enough contributions to make the JOURNAL a monthly publication, but we are prevented by lack of funds.

THE REORGANIZATION

FOR THE past two months the War Department General Staff has been engaged in putting into effect the reorganization of the army as contemplated by the act of June 4th. As yet, the only approved plans which have been announced are the territorial organization of the army into nine corps areas, the selection of the War Department General Staff, that of the General Staff with troops, and the creation of the single list. A close study of the bill, however, shows that, for the first time in its history, the army has been placed upon a sound organizational basis. Through the efforts of an interested Military Committee of the Congress and of certain officers of the War Department, we have succeeded in having made into law a set of fundamental principles that are vital to the efficiency of the service and for which we have been hoping and striving for years.

It must not be taken for granted, however, that because they are law they are unchangeable, and it is consequently desirable to indicate some of the lurking dangers that may threaten this excellent piece of legislation in the future. No one not intimately connected with every step of the writing of the bill can appreciate what a struggle it was to obtain recognition for these principles, and especially to keep them in the bill against the opposition which sprang up from many places in the service.

The adoption of the single list has completely divorced the question of organization from that of promotion, so that it should now be possible to organize the army on a sound basis from the standpoint of combat efficiency. In the course of two or three years the sentiment of the army will be so thoroughly crystallized against any proposition to revert to the old interdependent relationships of promotion and organization that it will be impossible to get the law changed; but the army must be on the alert for attempts in this direction, inasmuch as there were tremendous efforts made to amend the bill before it was signed by the President, so as to violate some of the fundamental principles contained in it, and this effort was defeated only after a very determined and stubborn fight made against it by some of the members of the Military Committee of the House.

Aside from the single list, the present act contains other features that will be subject to attack. It does away entirely with all temporary advanced rank in time of peace. For example, it abolishes advanced rank in the Ordnance

Department, at the Military Academy at West Point, and in the Bureau of Insular Affairs. Likewise, detailed majors of Philippine scouts are abolished; aids to the President and to the General of the Army will no longer hold the temporary rank of colonel, and in general no officer will in future be given advanced temporary rank due to his detail, assignment, or rating. This provision of the bill was fought very hard and will undoubtedly be amended at the earliest opportunity, if the parties interested can possibly have it done.

We must, therefore, be ever on our guard against unwarranted and selfish changes in the law, especially until such time as the sentiment in the service has been fortified against such amendments. The present Military Committee of the House, it is believed, thoroughly understands the necessities for adherence to what has been made law; but, after the election, changes in the committee will occur and every new member will have to be convinced of the necessity of keeping the law intact.

During the past year the army was particularly fortunate, as the members of the committee were greatly interested in the reorganization of the army and traveled extensively, both abroad and at home, to familiarize themselves with conditions and to meet officers of all grades and in all branches of the service. The opportunity for such intimate contact between the committee and the service will probably not occur again in years; but if the army itself is united in opposition to special legislation for particular branches and for particular classes of officers, it will not be difficult to prevent dangerous amendments to the present law.

Topics of the Day

VALETE ET PLAUDITE

As the old order passeth it leaves to the new a heritage of which the latter may well be proud, and sets for it a standard the superiority of which is illuminatingly set forth in the order below. With what regret do we say good-bye to the old, but with what pride do we record its achievements!

General Orders
No. 6.

Headquarters, Thirteenth Cavalry,
Fort Clark, Texas, *July* 23, 1920.

1. Instructions dated War Department, July 15, 1920, direct the retirement of First Sergeant John F. De Swan, Troop "C," 13th Cavalry, on account of 30 years' service. In announcing the retirement of First Sergeant De Swan, the Regimental Commander desires to call attention to his distinguished services.

First Sergeant De Swan has eight "Excellent" discharges. For distinguished bravery in battle at Santiago, Cuba, July 1, 1898, in rescuing wounded from in front of the lines under heavy fire of the enemy, he was awarded, by direction of the President of the United States, a Medal of Honor. Before another year had passed he was on the other side of the world fighting. First Sergeant De Swan served in the Philippine Insurrection from May 9, 1899, to February 8, 1902, participating in four engagements with the enemy. During the World War he served as second lieutenant of the 20th Cavalry and first lieutenant of the 78th Field Artillery. Discharged as first lieutenant October 28, 1919, he re-enlisted the next day as first sergeant in his old regiment, the 13th Cavalry.

First Sergeant De Swan is a splendid soldier, a leader of men in every line of endeavor, an inspiration to all true Americans. First Sergeant De Swan takes with him in his retirement the best wishes of all officers and men of the 13th Cavalry, with which he has served so faithfully and long.

By order of Colonel Anderson:

N. N. Rogers,
First Lieutenant, 13th Cavalry, Acting Adjutant.

FAMOUS ENDURANCE RIDES

The endurance-test ride for army horses, which takes place this month, from October 11 to October 15, between Fort Ethan Allen, Vermont, and Camp Devens, Massachusetts, recalls to mind some famous endurance races. One of the most renowned of these was the ride between Berlin and Vienna, in which 140 German and Austrian army officers started simultaneously, one group leaving Berlin as the other left Vienna. They were mounted on picked horses, among which were thoroughbreds, half-bred Prussians and Hungarians, and some native ponies from the uplands of Austro-Hungary. The animals had been thoroughly trained and conditioned. The roads were the best and the weight was a little more than a race-horse takes up, the winner having carried

128 pounds, plus saddle and bridle. The distance covered was about 350 miles.

Count Stahremberg, who was the first to arrive, made the journey in a few minutes less than 72 hours, or at the rate of 4.9 miles per hour. Lieutenant Teitzenstein, the first of the Germans to arrive in Vienna, did the distance in a trifle more than seventy-three and one-half hours. Both horses died from the effects of the journey and many others were permanently disabled. It was the ponies which sustained the least injury, though they did not make the race in the shortest time.

Many rides of excellence were made by individual horsemen in the United States in the days when the Army was engaged in keeping the Indians on their reservations in the trans-Missouri country. Colonel Richard I. Dodge tells of an express rider in Texas who carried mail from El Paso to Chihuahua, a distance of three hundred miles, with a weight of two hundred pounds, taking a week to go and a week to return and using the same pony continuously for six months without diminishing either his flesh or his fire. As the country was infested by Apache Indians, the man had to ride by night and hide by day, doing one hundred miles at a stretch and resting his pony four days between trips.

In 1879 several single couriers of General Wesley Merritt's command rode from Thornburg's rat hole to join the main column, one hundred and seventy miles, in a little less than twenty-four hours, or at the rate of seven miles per hour.

There are some wonderful feats of endurance by men and horses recorded in the War Department, considering that the more members engaged the slower the pace. Captain A. E. Wood, of the 4th Cavalry, rode with eight men one hundred and forty miles in thirty-one hours in pursuit of a deserter at Fort Reno, Indian Territory, in September, 1880, or at the rate of four and a half miles per hour. Neither horses nor men were specially selected. The report says that they rode continuously at a walk and a trot.

Four men of Company H, 1st Cavalry, in 1880 carried dispatches from Fort Harney to Fort Warner, one hundred and forty miles, in twenty-two hours, over a bad road, or at the rate of 6.4 miles. The horses were in good condition at the end of the ride, and after one day's rest made the return trip at sixty miles a day.

MR. SPENCER BORDEN ANSWERED

AMERICAN REMOUNT ASSOCIATION,
OFFICE OF THE SECRETARY, 922 17TH STREET N. W.,
WASHINGTON, D. C., *August* 5, 1920.

Mr. H. S. BORDEN,
Fall River, Massachusetts.

MY DEAR MR. BORDEN: I have just read your article in July issue of the CAVALRY JOURNAL with a great deal of interest, and I therefore wish to explain

to you the ideas and plans of the Remount Service and the American Remount Association for the conduct of breeding.

As assistant to Chief of the Remount Service, in charge of the Animal Division of the Remount Service, and as chairman of Breeding Committee of American Remount Association, it is my duty to conduct the work in connection with the acceptance and placing of stallions.

The sum of $250,000 was appropriated by Congress for the fiscal year 1921 for the encouragement of breeding. The plan for the conduct of this work is as follows:

(*a*) Five purchasing and breeding headquarters have been established, as follows: Lexington, Ky.; Kansas City, Mo.; Oklahoma City, Okla.; Boise, Idaho; Sacramento, Calif. A remount officer at each of these headquarters, assisted by a veterinarian, is to make a complete survey of the territory assigned to each headquarters and determine the localities where stallions should be placed. These localities are to be termed "breeding centers." Breeding centers are carefully selected, in sections of the country where suitable mares are available and where the leading citizens and farmers show interest in breeding of riding horses.

(*b*) A breeding center having been located, a person who desires to operate a stallion, and who is well known and influential in the community, is employed by the Government and paid a salary in proportion to the work actually done in breeding. This person who is to breed the stallion is known as "local agent." The stallion is transported and fed at Government expense. The agent cares for, grooms, feeds, and exercises this stallion at his expense and breeds him to the mares selected by the remount officers and under such instructions as may be issued by this officer.

Now, all expense connected with this plan must be paid out of the $250,000, including maintenance of personnel at headquarters, pay of agent, and feed and transportation of stallions. This amount, therefore, is a very modest sum for such a large undertaking, and the above expense precludes the purchase of many valuable stallions and renders importation of others impossible.

For the foregoing reason the donation of good stallions has been most acceptable, from whatever source, and the thoroughbred and Arab men have been most generous with their donations. The thoroughbred men dominate the American Remount Association only in number and the amount of interest shown in the activities of the Association and at no time have I heard any of them discredit or attempt to discredit the Arab. On the other hand, I have heard many members of the Association express their admiration of the Arab and the Anglo-Arab, and regret that there were not more of them available in this country for use as sires.

The statement in your article in the CAVALRY JOURNAL that "broken-down thoroughbreds are in use in the Government breeding studs" is correct, if you are using the term "broken down" as it applies to racing. If this expression

creates the impression that these stallions are now incapable of work or unsuitable as sires, it is doing a great injustice to these stallions and to the men who presented them, and is harmful to the breeding plans of the Remount Service. For instance, one stallion, "Fashion Plate," accepted a short time ago, was "broken down" for racing. At the time of acceptance he had just been ridden 350 miles overland in ten days. He came in with head and tail up and was going absolutely sound. Another stallion, "Perkio," although retired from racing because he was "broken down," has been standing in Virginia this season and averaged 25 to 30 miles each day in serving mares. Having served about fifty mares in an equal number of days and having done during this time an average of 30 miles per day on the road, he was ridden 55 miles in one day into Washington and shown the next day in the National Capital Horse Show. He was in excellent working flesh, full of life, going absolutely sound, and showed nothing but excellent qualities of gameness and stamina.

Again, as you know, many horses known as "broken down" for racing are bought and used for years in the hunting field, where many horses which are bought and start as sound are unable to stand the strain.

There has just been completed, and published as an appendix to the Bulletin of the American Remount Association, a list of stallions now on hand in the Remount Service. This list shows the stallions to possess plenty of bone and substance, and they are, with only one exception, quiet, gentle, and of excellent disposition. Practically all of them are capable of doing a good day's work and are used for riding pastures, patrol work, and can and do drill in close cavalry work. A large majority of them, although technically "broken down" for racing, could go in a cavalry regiment and outmarch cavalry horses known as sound.

I am writing this to you in a perfectly frank manner, asking and desiring encouragement and co-operation from all sources and from the advocates of all breeds of horses. We must admit, too, that all breeds have their good qualities, and even what we consider poor for our purposes are most useful in producing mares for crossing with the proper breed of stallion.

I wish again to add and impress the fact upon all persons interested in the plan for breeding, that at no time have I heard or seen any one connected with any breed of horses attempt to dominate the work of the American Remount Association. As a matter of fact, the breeding committee includes men interested in all breeds of horses, and the thoroughbred members of this committee have advised the use and encouragement of all breeds of horses. The Remount Service is now standing Arabs, standardbred, saddlebred, and thoroughbred stallions.

I am sending a copy of this letter to the CAVALRY JOURNAL, requesting that it be published, in order that every one connected with the cavalry may know that no advocates of any breed of horses are dominating the American Remount Association, and that the stallions in use by the Remount Service are superior animals.

Thanking you for the interest which you have always displayed in the improvement of the cavalry horse and for the interest which you have also shown in the plans for breeding of the Remount Service, I am,

Sincerely, C. L. SCOTT,

Chairman, Breeding Committee, American Remount Association.

RECORDS OF THE WORLD WAR

THE WAR DEPARTMENT is now preparing for publication the Records of the World War. There have already been prepared and sent to the printer the following volumes:

Field Orders and Annexes, 1st Army, Records of the World War, Class A, Section II, Vol. 1.
Summaries of Intelligence, 1st Army, Records of the World War, Class A, Section II, Vol. 3.
Field Orders, 2d Army Corps, Records of the World War, Class A, Section VI, Vol. 1.

Others will follow as soon as their preparation is complete. These records are being published in accordance with the following plan:

1. The publication will be divided into three classes, viz.:
   Class A—Records of Military Operations Overseas.
   Class B—Records of the Service of Supplies Overseas.
   Class C—Records of Military Activities in the United States.

2. Each class will be subdivided into sections and each section into volumes corresponding to the scheme of organization and record files of the War Department and American Expeditionary Forces. A numbered volume may be issued in two separately bound books if the records pertaining to that volume are numerous, or more than one volume may be published under one cover if the records pertaining thereto are meager.

The War Department will print only a very limited number of sets for the official use of its service. The Public Printer will, however, provide the sales edition to take care of the outside demand. It is recommended and suggested to officers and men that any one interested in obtaining copies of these valuable historical documents place his name on file with the Superintendent of Public Documents, so that he may receive notice as each volume appears.

THE AMERICAN REMOUNT ASSOCIATION

BY THIS time, it is firmly believed, the American Remount Association and its aims are familiar to the major portion of the officers of the army, certainly to those of the mounted services.

Organized less than nine months ago by a few officers and former officers of the Remount Service, the American Remount Association has grown by leaps and bounds, until its membership is now close to 1,000, and its scope as well as its influence are nation-wide. The directorate is a representative body,

composed of officers and former officers of the army and of prominent civilians representing many States of the Union. The officers of the association are, without exception, officers or former officers of the army, thus insuring a policy of sympathetic interest toward everything that pertains to the welfare of the service. The association has dedicated itself wholeheartedly to the service of the army in every way possible within the objects that led to its organization. It has no selfish motives to serve. No officer of the association receives one penny for his services, thus rendering all the resources of the association available to meet current expenditures, such as clerk hire, postage, stationery, etc., and the purchase and donation of cups and trophies for military horses or events or for horses being bred for military purposes.

The association having been organized for the army, with the avowed purpose of using all its influence toward assisting the army in securing more and better horses and in the promotion of mounted sports, why should not every officer who is interested in the things that the association stands for be a member?

If you are interested, write to the Secretary, 922 17th Street N. W., Washington, D. C., stating membership desired. Membership dues are as follows: Life membership, $5 initiation fee, $50 life dues; regular membership, $5 initiation fee, $3 annual dues; associate membership, no initiation fee, $1 annual dues.

CAVALRY ESPRIT

SOME ONE has said that "it takes esprit de corps to win objectives," and it is believed that this spirit, put into the work, greatly aided the Cavalry in winning its recruiting objective in record time.

When the United States entered the World War, the difficulties of ocean transportation for horses and forage were so great as to preclude a large participation of cavalry in the conflict. Only three regiments were sent overseas, and they were mostly used in handling the Remount Service. However, one squadron of the Second and one troop of the Third were effectively engaged in the St. Mihiel offensive. Other regiments were converted into artillery.

The greater part of the cavalry was compelled to serve on the border, while their more fortunate comrades in arms were engaged in the great struggle overseas. Yet, notwithstanding the almost overwhelming bitterness of disappointment, they served where duty placed them, with characteristic cheerfulness and efficiency, in a situation ofttimes trying and sometimes critical.

When the demobilization sadly depleted their ranks, every man and officer heartily put his shoulder to the enormous and difficult task of recruiting up to the authorized strength, not merely with men, but with men of the type that can perform the exacting duties required of the Cavalry Arm.

The usual friendly rivalry existed between organizations, but when one regiment happened to be less fortunate than another in respect to the allocation

to States for recruiting purposes, the commanding officers and representatives of the more fortunate regiments took the broad view of working for the arm as a whole; consequently the Cavalry Arm, almost as a single unit, has grown until today it is partially closed to enlistment, being filled to authorized strength.

Incidentally, it shows that men are still joining the Army primarily for the love of "soldiering." It is generally believed that on the Mexican border, owing to the nature of the duties and small garrisons, educational and vocational training cannot be carried on so effectively or extensively as in the larger garrisoned posts and cantonments.

Even so, the regiments stationed along the border experienced the least difficulty in recruiting to authorized strength.

Although the present Cavalry recruiting phase is practically completed, it is imperative that the Cavalry take a still wider view, considering itself as an integral part of the whole Army, in which it is vitally interested, and that the organization representatives, who helped the G. R. S. canvassers bring the Cavalry up to strength, should remain "in the field" for the purpose of carrying on team-work of procuring recruits for the Army in general, and in order to be in a position to secure needed specialists for their own arm.

Let all arms get together as a team and push this recruiting campaign to a successful issue.

Esprit will win.

AMERICAN RIDING TEAM VICTORIES

AT THE Inter-Allied Concours Hippique, held August 23, 1920, at Weisbaden, the American team "cleaned up" in great shape. On the first day, with 13 horses out of 165, representing all nations, in the jumping contest America's winnings were as follows:

Major Sloan Doak, Cavalry, 1st.
Captain H. D. Chamberlain, Field Artillery, 4th.
Major J. W. Downer, Field Artillery, 5th.
Captain V. P. Erwin, Field Artillery, 11th.
Major W. W. West, Cavalry, 12th.

On the second day, at Weisbaden, limited to the 60 high horses of the previous day, the American team won six places, as follows:

Major W. W. West, Cavalry, 3d.
Major Sloan Doak, Cavalry, 7th.
Major W. W. West, Cavalry, 8th.
Captain H. T. Allen, Field Artillery, 9th.
Captain H. D. Chamberlain, Field Artillery, 12th.
Major John A. Barry, Cavalry, 13th.

First and second honors on the second day at Weisbaden went to the French team.

Fresh from their victory at Weisbaden, the American Army Riding Team left Coblenz August 30 for Antwerp, Belgium, to compete against the crack horses of all the great nations in the Seventh Olympiad, being held in the Belgium seaport town.

As a preparatory event, the riding team competed in the Inter-Allied Horse Show at Coblenz in July, where they won the first prize in the team competition for horse championship, each rider on the same mount during the entire meet, which lasted three days.

THE ARMY RIDING TEAM AT THE OLYMPIC GAMES

JUST AS WE are going to press, we learn that although handicapped by the injury sustained by Major John A. Barry when he broke his right hand in a fall and the elimination of Major Sloan Doak through the disqualification of his mount for lameness, the United States Army Riding Team finished fourth in the military horse riding match which closed the Seventh Olympiad at Antwerp. Sweden won deservedly first place, with a score of 5,057.50 points out of a possible 6,000. Italy was second, with 4,735, and Belgium third, with 4,560 points. The American score was 4,477.50. Individual ratings (maximum, 2,000) of the three high contestants in each team, the sum of each trio making the national score, were as follows:

1.	Lieutenant de Morner	Sweden	1,775.00
2.	Lieutenant Lundstrom	Sweden	1,738.75
3.	Major Caffaratti	Italy	1,733.75
4.	Lieutenant Moeremans	Belgium	1,652.50
5.	Lieutenant Spighi	Italy	1,647.50
6.	Captain Chamberlin	U. S. A.	1,568.75
7.	Major W. W. West, Jr.	U. S. A.	1,558.75
8.	Captain de Bron	Sweden	1,543.75
9.	Captain Gisler	Norway	1,537.50
10.	Lieutenant Lints	Belgium	1,515.00
11.	Lieutenant Johanson	Norway	1,428.75
12.	Lieutenant Bonvalet	Belgium	1,392.50
13.	Captain Saint-Poulof	France	1,387.50
14.	Captain Cacciandra	Italy	1,353.75
15.	Captain de Sartigues	France	1,352.50
16.	Major Barry	U. S. A.	1,350.00
17.	Colonel Vilcana	Finland	1,282.50
18.	Lieutenant Missonne	Belgium	1,282.50
19.	Captain Asnari	Italy	1,245.00
20.	Lieutenant Sirtena	Holland	1,035.00

The military match was not the only one in which blood counted. Sweden, with thoroughbred entries, well trained, walked away with first, second and third in the dressage event and won first place in the international team jumping. In the individual jumping, Lieutenant Lequio and Major Valerio, both of Italy, won first and second places respectively, third going to Captain Lewenhaupt, of Sweden.

One has not far to go to find the reason for the success registered by Sweden in these matches. Their mounts were thoroughbreds. For the past year the contestants have worked incessantly to achieve the results attained in Antwerp. One of the mounts, purchased with the Olympics in mind, is reported to have cost $30,000. All Sweden was combed over to obtain the best material, and during the long period of training the stables of the King have been open to the team. Consensus is that the Swedes had horses better trained than those of any other nation, and in quality were a close second to Italy, whose mounts always are superb.

The military match was a three-day event, teams being made up of four men, the three best scores to count. The American team was under the charge of Colonel Walter C. Short, Cavalry, and was captained by Major Berkeley T. Merchant, Cavalry. It was made up of the following officers: Majors Isaac S. Martin, John A. Barry, William W. West, Jr., and Sloan Doak, Cavalry, and John W. Downer, Field Artillery, and Captains Harry D. Chamberlin, Cavalry, and Vincent P. Erwin, Karl C. Greenwald, and Henry T. Allen, Jr., Field Artillery. Majors Barry, West, and Doak rode in the military match.

The meet was opened on Monday, September 6, with a road ride of 50 kilometers, combined with a 5-kilometer cross-country run obstructed with 20 obstacles (time allowed, 3½ hours). This was run over a muddy road in a drizzling rain, and it was in this ride that Major Barry fell and broke his hand, necessitating his riding during the remainder of the meet with his hand in splints. Twenty started.

Time for the run:

Name.	Nationality.	Time. H. M. S.
Colonel Vilcana	Finland	3.19.00
Major Caffaratti	Italy	3.21.00
Captain Chamberlin	U. S. A.	3.19.00
Lieutenant Moeremans	Belgium	3.09.00
Lieutenant Sirtena	Holland	3.25.00
Captain de Bron	Sweden	3.22.00
Captain Vicart	France	3.06.30
Captain Gisler	Norway	3.16.30
Captain Cacciandra	Italy	3.18.30
Major Barry	U. S. A.	3.22.00
Lieutenant Bonvalet	Belgium	3.26.00
Lieutenant Dyrch	Sweden	3.20.30
Captain Saint-Poulof	France	3.19.00
Lieutenant Bjornseth	Norway	3.16.00
Captain Asnari	Italy	3.26.00
Major Doak	U. S. A.	2.20.00

Name.	Nationality.	Time. H. M. S.
Lieutenant Misonne	Belgium	3.19.30
Lieutenant Lundstrom	Sweden	3.21.00
Captain de Sartigues	France	3.08.00
Lieutenant Johanson	Norway	3.05.00
Lieutenant Spighi	Italy	3.22.30
Major West	U. S. A.	3.17.30
Lieutenant Lints	Belgium	3.17.30
Lieutenant de Morner	Sweden	3.23.15
Captain de Vregille	France	3.11.30

The competition on Wednesday, September 8, consisted of a road ride of 20 kilometers (time allowed, one hour), followed by a 4,000-meter steeplechase, with a rest period of thirty minutes intervening. At the finish of the road ride mounts were examined to determine their fitness for the steeplechase. Major Doak's mount, the only thoroughbred in the American string, came in lame from the road run and thus was eliminated.

Time for the road run:

Name.	Nationality.	Time. H. M. S.
Colonel Vilcana	Finland	1.04.00
Major Caffaratti	Italy	58.08
Captain Chamberlin	U. S. A.	1.02.02
Lieutenant Moeremans	Belgium	57.52
Lieutenant Sirtena	Holland	1.04.28
Captain de Bron	Sweden	1.00.50
Captain Gisler	Norway	1.01.15
Captain Cacciandra	Italy	1.03.06
Major Barry	U. S. A.	1.04.19
Lieutenant Bonvalet	Belgium	57.45
Lieutenant Dyrch	Sweden	1.05.45
Captain Saint-Poulof	France	1.03.24
Lieutenant Bjornseth	Norway	1.02.02
Major Doak	U. S. A.	59.42
Lieutenant Misonne	Belgium	55.03
Lieutenant Lundstrom	Sweden	58.52
Captain de Sartigues	France	56.29
Lieutenant Johanson	Norway	59.25
Lieutenant Spighi	Italy	1.02.06
Major West	U. S. A.	1.01.44
Lieutenant Lints	Belgium	58.25
Lieutenant de Morner	Sweden	1.02.33
Captain de Vregille	France	1.01.53

Jumping, in the Stadium, on Friday, September 10, closed the military match. In this Colonel Vilcana, of Finland, suffered a broken right arm in the only spill of the day.

Major Barry, a native of Tennessee, at present Instructor of Equitation at the Cavalry School at Fort Riley, was commissioned from the ranks in June,

1902. He was on duty in the United States during the World War, and at the time of the signing of the Armistice was Adjutant General of the Eleventh Division, then in process of organization at Camp Meade, Md. His mount was "Raven," a veteran of the American Expeditionary Forces, shown in competition in the Interallied Games in Paris in 1919.

Major West is a native of Georgia and was graduated from the Military Academy at West Point in 1905. He was originally commissioned in infantry, but transferred later to his present arm. He was with General Pershing in the Mexican campaign and was with him in the A. E. F. Major West is a member of the instructional staff of the Cavalry School at Fort Riley. His mount was "Black Boy," also a veteran of the A. E. F., who was in work harness, pulling a wagon during the last days of the war, in the Meuse-Argonne Forest drive.

Major Doan is a Texan, a graduate of West Point, class of 1907, and is an Instructor of Equitation at Fort Riley. He was on duty in the Philippine Islands during the World War. His mount was "Deceive," an old timer, to whom Olympics is all in the day's work. "Deceive" is a thoroughbred, 18 years old, and is reputed to have won a carload of cups for jumping. He won the United Hunts Racing Association steeplechase in Belmont Park in 1910, and two years later carried Colonel J. C. Montgomery (now chief of staff of the American Forces in Germany) in the Olympic games at Stockholm. Unfortunately, he developed lameness in the second day's road ride, which barred him from further competition.

Captain Chamberlin is a native of Illinois, and was graduated from West Point in 1910. He was instructor in equitation at West Point for a time, and now is instructor in the use of the pistol and saber at Fort Riley. He rode "Nigra," the same mount he rode in the Interallied Games in Paris in 1919. There, as in Antwerp, he made the best American score.

Major Martin was doubly unfortunate in being kept out of the competition. Upon being made a member of the team he paid a long price for a thoroughbred to ride in the meet. On the way over the horse became sick and was eliminated as a possible starter. With his own horse in the hospital, Major Martin was trying out another, which fell with him, injuring the Major's knee so badly that it was impossible for him to ride.

The Riding Team were recipients of many social honors during their stay in Antwerp. These included a banquet by Count Henri de Baillet Latour and Lieutenant-General Joostens a dinner and concert by the officers of the Antwerp Polo Club; a banquet by the officers of the 2d Regiment stationed in Antwerp; a dinner and dance by Count and Countess de Baillet Latour at their country seat, the Chateau du Donck; a dinner by Monsieur and Madame Alfred Grisar, and a dinner by Lieutenant-Colonel Leon Osterreith (who was chief of the Belgian Military Mission in America during the war).

Major-General Henry T. Allen, commanding the American Forces in Germany, and several members of his staff went from Coblenz to Antwerp to see some of the riding.

Lieutenant-Colonel George Lee crossed the American continent and the Atlantic Ocean in order to watch the match. He was accompanied by Mrs. Lee and their son and daughter.

Major William A. McCain, Cavalry, changed station in time to get to Antwerp for the riding.

Major Thomas H. Cunningham, Cavalry, who had been on duty with the French Cavalry School at Saumur, went to Antwerp for the match. He was accompanied by Mrs. Cunningham.

NOTES FROM THE CAVALRY SCHOOL

THE COURSES for the Troop Officers' and National Guard classes at the Cavalry School began this year on September 1. There are 31 officers in the Troop Officers' Class and 11 officers in the National Guard Class. The National Guard Class will take a course of three months.

In addition to the two classes mentioned, there will be a large class to take the Basic Course this year. From West Point, 51 graduates from the last class reported on September 15 to take this course. Later on in the fall about 100 officers recently appointed into the Cavalry Service will report to take the same course, making a total of 150 officers in the Basic Class.

It is expected that a Field Officers' Class of 10 or 15 members will be formed here in March for a four months' course. Another National Guard Class will report for a three months' course in the spring.

Thus the Cavalry School will have expanded so as to pass through its courses about 200 students per year instead of the 55 of last year.

This expansion has required many more instructors, enlisted men, and horses. The students of the Basic Class are quartered in a barrack which has been fitted up to be very comfortable for the purpose. Those who are married are to have quarters in a building constructed during the war for a hospital.

All courses of instruction include horsemanship, tactics, cavalry weapons, and general instruction. Horsemanship will be taught as in the past, with a great deal of attention to the use of pistol and saber. Cavalry weapons will include not only the pistol and the saber, but also an extensive course in musketry, machine-guns, and automatic rifles. These last three subjects will receive more attention than was possible last year. Minor tactics for the cavalry units, from the squad to the squadron, will be taught to all classes. In certain classes it will include the regiment and the brigade. Much attention will be paid to mounted action against both mounted and dismounted troops. The lessons from the World War, and especially Allenby's famous cavalry operations in Palestine, will be carefully studied, and lectures and problems, based on these lessons, will be given to the students. Dismounted attack and defense will be carefully taught, following the principles taught at the Infantry School. Field fortifications and liaison will receive careful attention. The marching

of cavalry will be an important feature of the course, and it is expected to develop this study more and more each year.

Under "General Instruction" will be taught map-reading and sketching and military history pertaining to cavalry, as well as demolitions, riot duty, law, hygiene, administration, and mess management. Some of these last-mentioned subjects will be taught to the Basic Class only, as there is not time nor necessity to teach them all to the Troop Officers' Class. The Troop Officers' Class will be chiefly concerned with horsemanship, the use of weapons, and tactics.

To teach all of these subjects in ten months will require hard work on the part of instructors and students; but, with the spirit which is taught at this school and the cavalry enthusiasm, it is hoped to accomplish the task in a satisfactory manner.

Above all, at the Cavalry School are taught a respect for other arms, a generosity toward all, and that gayety in the performance of even arduous duty that should characterize "the happy warrior."

GERMAN CAVALRY EQUIPMENT

IT HAS been decided that the new army cavalry shall carry lance, carbine, and short side arm. The sword is, provisionally, abolished.—*Militär-Wochenblatt.*

New Books Reviewed

A SHORT HISTORY OF THE GREAT WAR. By William L. McPherson. G. P. Putnam's Sons, New York. Price, $2.50.

The attempt to condense the history of the World War into a single volume is manifestly a difficult task and one which must necessarily subject the author to criticism of omission if not of commission; yet it is precisely a complete story of the whole in a single volume which will be of the greatest value to the military student as well as to the historian, for it is only against the background of a complete picture that the details can be profitably studied. The military student should, therefore, welcome the efforts now being made to give a bird's-eye view of the war, even though such attempts, including the book under review, are so far both inaccurate and insufficient.

The author of the present volume has made a happy choice of the subject-matter covered by his book, but his success in connecting cause with effect and his freedom from bias are not so clear-cut. The military student learns from facts, not prejudices, and our disapproval of the German should not blind us to the causes of the war, much less to the strength and defects on either side in the conduct of the war. In other words, both the historian and the military student must, if they would draw all the lessons to be had, approach the study of the World War in a perfectly cold-blooded way. This the author fails to do. In his very first chapter he clearly brings out the fact that the murder at Sarajevo was only the pretext of the war; but, lest there be a weak spot in his effort to throw the entire onus of the war on Germany, he fails to mention the development of the Entente, the Anglo-French Naval Agreements, or the French-British General Staff Agreements of 1906-1912. So, too, the reader is led to infer that the Germans possessed an enormous superiority throughout the war. It may be remarked that Marshal Joffre has exploded the legend of Germany's numerical superiority in 1914 by his testimony before the Briey Commission. Another exploded legend, set down as a fact by the author, is the alleged attack of the 42d French Division and its decisive effect on September 9, 1914. The truth is that the 42d Division did not attack on the afternoon of September 9th, and on the 10th, when it gained contact, the Germans were in full and orderly retreat.

The author thinks (page 50): "As things turned out, German calculations were not greatly disturbed by the premature Russian invasion of East Prussia." The fact is that the German plans were so disturbed that immediately following the Battle of Charleroi two German divisions and one cavalry division were sent to East Prussia from the right flank of the Western armies, and many authorities believe that this weakening of German strength at the critical point had a decided importance on the outcome at the Marne. No one knowing the importance of the region of Maubeuge as a railroad center and the effect on von Kluck's supplies of the French resistance at the fortress of Maubeuge can agree with the author that the only effect of this resistance was keeping "three or four German divisions" out of the Battle of the Marne.

The German attack on Verdun, the Russian offensive of 1916, and the Somme form an interesting and indivisible study in military cause and effect, but the author

considers these events separately and barely attempts to point out any relation between them.

In the author's opinion, the Somme marked the end of the "Attrition Theory," but he fails to tell us his idea of the theory underlying the attacks of 1917. In undertaking to explain the German method of attack of 1918, the author appears to be on totally unfamiliar ground and his reference to "von Hutier's Wave System" is unexplainable.

The absence of maps makes it necessary for the reader to supply himself with a separate set at extra expense.

The author has a great deal to say about unity of command and comparatively little about the American Expeditionary Forces. On page 321 he says: "Assured of a free hand, Foch could stop the first Ludendorff offensive or any succeeding Ludendorff offensive." There is no doubt as to the importance of unity of command, but the fact remains that it was the American soldier who stopped the Ludendorff drive of May 27.

It is, of course, impossible to include a great deal about the American effort in a single volume, undertaking to sketch the entire war, but in this case the elimination of America seems, for an American book, to be carried to an extreme. On page 327 the author states that the monthly arrivals of Americans in France was raised to 200,000. We like to think of the more than 310,000 Americans who reached France in September, 1918, and of the American soldier, who alone made an Allied victory possible.

FOX CONNER,
Brigadier General.

THE MAINTENANCE OF PEACE. By Colonel S. C. Vestal, U. S. Army. G. P. Putnam's Sons, New York and London. 8vo, 564 pages and index. $5.00.

The author spent many years in collecting the material for this book, which, according to the alternative title, is: "The Foundation of Domestic and International Peace as Deduced from a Study of the History of Nations." The history of the entire world, Eastern and Western, from the dawn of history to the present time, in relation to those matters producing external and internal conflict and peace, is sufficiently reviewed, and logical deductions are made therefrom. The author has, in addition, covered a wide range of reading, including the best authors and material on political economy, anthropology, et cetera. The book has a good index, has been carefully proof-read, and errors have been eliminated.

The balance of power, whether called by that name or otherwise, in its relation to peace and war, is traced throughout recorded history. The maintenance of the balance of power has always made for peace, its attempted overthrow has always produced war, and its overthrow produced the subjection of all others to the dominant nation. The Roman Empire, the governments of Charles V, Louis XIV, and Napoleon, and more recently Germany, all fought to overthrow the balance of power, and in doing so each became the enemy of all other nations.

The relation of command of the sea to the balance of power is well shown. "England has been allowed to have the command of the sea without serious protest from the world at large because the weaker nations have feared to allow such command to fall into the hands of a great continental military State like ancient Rome, which should be at once the strongest on land and the strongest on the sea. The nations have been content for England to have command of the sea because she has kept no more troops than were necessary to maintain domestic peace within her dominions. They would not be willing for the command of the sea to pass into the hands of any nation which could put 100 veteran army corps, completely equipped,

into the field" (p. 344). The nation that has command of the sea but maintains weak land forces is never a menace of the world peace in the larger sense; but the world peace is threatened and the balance of power is endangered when one nation becomes preponderant both on land and sea. It is shown that in all attempts against the balance of power one nation, the aggressor, attacks one or more of its neighbors, and ultimately the entire coalition is against it.

As is but natural to the historian, the author, in tracing peace and war, comes in frequent contact with the pacifists. The arguments presented by this class are set up and, under the fire of facts of history, are battered down, one and all. As an example of this, reference is had to the action of Germany, which, in preparing for the World War, subsidized peace propaganda in all potential enemy countries. Pacifists, wittingly or otherwise, thus became the tools of the German Government in its overweaning ambition of world war and world domination.

The World War being in progress while the book was being written, frequent applications are made of the teachings of history in relation to the war. The repeated warnings to Belgium and her fate in failing to prepare are adverted to and the futility of treaties guaranteeing neutrality is amply shown in this and other cases, in respect to which the words of Alexander Hamilton are quoted: "The rights of neutrality will be respected only when they are defended by an adequate power. A nation, despicable by its weakness, forfeits even the privilege of being neutral" (p. 420).

The course of Germany since the days when Bismarck and Von Moltke rode at the head of that country down to date is traced. Germany in the World War ran true to form of all predatory powers, and, in the light of the precedents narrated, the outcome could, in general terms, be fairly well predicated. In a similar manner the action of Great Britain from the inception to the end of the World War could have been predicted. The outstanding features of British world policy are shown, being basically the same today as they were when Napoleon was bent on subjugating Europe.

The League of Nations, as an instrumentality for the preservation of peace, is nowhere mentioned in the book. However, as one reads the book he becomes conscious of a cumulative array of facts and arguments against the League of Nations. The arguments throughout the book find their principal application in determining what should be the proper policy of the United States in relation to domestic and international peace.

The author's style is fluent and readable. He makes a logical presentation of his subject. His deductions are clear. The work is a direct contribution to the literature on preparedness, worthy of the consideration of all thoughtful men, particularly of those whose duty or task is to shape legislation or to mold public opinion.

HOWARD R. HICKOK,
Colonel, Cavalry.

MY CHESS CAREER. By J. R. Capablanca. Macmillan & Co., New York. Price, $2.50.

It has been said that there is much in common between the campaigns of warfare, the strategy and the outguessing of the enemy, and the campaigns and strategies of the chess-board. This was perhaps more broadly true of the tactics practiced half a century ago than of the tactical operations in the World War. Through its magnitude and complexity, modern warfare has, in a measure, outgrown the chess-board phase, although there is still a tangible similarity or kinship between the modern major operations of open warfare and the manipulation of the forces of the

chess-board. One must, however, conceive pawns as divisions and the scope of the board as measured in hundreds of kilometers.

To all officers interested in the historic game, and it is assumed that most officers are, the book, "My Chess Career," by J. R. Capablanca, the phenomenal young Cuban chess champion, will prove intensely absorbing. They will find in it not only a record of the brilliant games played by Capablanca at many important tournaments and exhibition plays, but the frank and often naïve comments of the author and his truthful analysis of the games, positions, and other things. Through its pages the chess student will be able to trace, in a broad way, the development of Capablanca's genius and the growth of his strength and mastery through what are styled his periods of evolution, transition, and full development. Incidentally, there are true glimpses of the man himself, which reveal him as a real sportsman, a perfectly normal, well-educated, broad, sport-loving individual, and not merely a chess genius with a lop-sided, single-track mind. He says: "In writing this book I have endeavored to tell the truth, what I think of certain games, positions, and other things, at the risk, at times, of appearing extremely conceited to those who don't know me well personally. Conceit I consider a foolish thing; but more foolish still is that false modesty that vainly attempts to conceal that which all facts tend to prove. . . . There have been times in my life when I came very near thinking that I could not lose even a single game. Then I would be beaten, and the lost game would bring me back from dreamland to earth. Nothing is so healthy as a thrashing at the proper time, and from few won games have I learned as much as I have from most of my defeats. Of course, I would not like to be beaten at a critical moment, but otherwise I hope that I may at odd times in the future lose a few more games, if thereby I derive as much benefit as I have obtained from defeats of the past." How few have been these "defeats of the past" is shown in the record of ten master tournaments, from which Capablanca emerged with a total of 99 won games, 32 drawn, and 8 lost. and nine exhibition plays, in which his remarkable record was 24 won, 5 drawn, and one lost.

The mention of "positional play," which should be placed in a class apart from "attacking play," suggests a subject of extreme importance for the consideration of chess-players and one upon which much enlightenment can be gained from the study of Capablanca's games. According to popular belief, the "positional" player is content to play for small tactical advantages, in order to win in the long run by numerical superiority, while the attacking, or "imaginative," player thinks little of position, but devises grandiose, dashing, and spectacular attacks in order to score an early victory. Capablanca is often said to belong to the former class, and yet we find him winning brilliancy prizes in every tournament in which he takes part, and by means of most magnificent, deep, and far-seeing combinations.

The student will find that Morphy's brilliances almost invariably occurred after positional superiority had been established. But to attempt an attack before that stage has been reached argues want of elementary knowledge and can only win against inferior play. A combination embarked upon without justification by position is positively painful to the real chess-player, and even more so if the venture succeeds. Sacrifices are largely a matter of opportunity. A typical example of what is meant by this kind of brilliancy is afforded in the game (No. 29) between Capablanca and Schroeder in the Rice Memorial Tournament. At the 27th move Capablanca had worked out a long and brilliant combination against what would have been Schroeder's best line of play and resulting in an inevitable win. Schroeder chose another line of play, which resulted in a far simpler win for Capablanca, but the committee, when shown Capablanca's variation, awarded him the second brilliancy prize of the tournament. The last game of his match with

Marshall is a splendid example of Capablanca's genius. Commenting on this game, Dr. Lasker, the world champion said: "His play is an example of how slight advantages should be utilized." The above-mentioned games are picked at random from the book, which is replete with games presenting intense situations, masterful play, and thrilling brilliancy. It would prove a valuable addition to the library of any officer interested in chess. Although a chess genius might not prove a military genius, I do not know that the experiment has ever been tried; still the converse is true, that the study and play of chess will aid in the development of the highly essential military qualities of strategy, resourcefulness, foresight, circumspection, caution, and perseverance.

ARTHUR HARRISON MILLER,
Major, C. A. C.

MY A. E. F. By Frances Newbold Noyes. Frederick A. Stokes & Co., New York. 57 pages. Price, $1.00.

In a few brief pages that fairly overflow with the milk of human kindness and understanding, Miss Noyes has recorded the great primitive emotions of the most wonderful event in our history. There never was an A. E. F. before and there never will be one again. It grew and grew until it was "so vivid that it seemed eternal," and then, like a dream, it vanished forever, leaving only the richest and sweetest memories for those who were fortunate enough to belong.

Already these memories were growing dim, shoved one side by the mad, onward, blind rush of this complicated civilization of ours; but in this little book the author brings them back with a vividness and intensity that makes you live them all over again, thrilling you with sensations which you imagined could never be felt again.

"My A. E. F." is a spiritual treatment of the great adventure, in which a doughboy personifying the A. E. F. is told by a charming "Y" girl all of his faults and all of his virtues, his arrogance, intolerance, his "taking-everything-for-granted spirit," his chivalry, his generosity, and his delicious sense of humor; but most delightful of all is the spirit of American youth, with its stalwart physique and its laughing eyes, that seem to radiate from every page. With a few big strokes of the brush in the hands of a genius, Miss Noyes has made the A. E. F. live forever.

BOOKS RECEIVED

LIFE OF LORD KITCHENER. By Sir George Arthur. The Macmillan Co., New York and London. Three volumes. Price per set, $12.50.

THE AMERICAN GUIDE BOOK TO FRANCE AND ITS BATTLEFIELDS. By E. B. Garey, O. O. Ellis, and R. D. V. Magoffin. The Macmillan Company, New York and London. Price, $3.50.

THE WAR WITH MEXICO, 1846-1848. By Justin H. Smith. The Macmillan Co., New York and London. Two volumes. Price per set, $10.00.

MY THREE YEARS IN AMERICA. By Count Bernstorff. G. P. Putnam's Sons, New York and London. Price, $5.00.

Reviews of the above books will appear in a later issue of the CAVALRY JOURNAL.

Regimental Notes

FIRST CAVALRY—Douglas, Arizona
Colonel Francis le J. Parker, Commanding

At its border station at Douglas, Arizona, the 1st Cavalry has performed the usual garrison duties during the quarter ending October 1, 1920. With the E. and V. Schools closed, the entire period has been devoted to combat firing and field training.

During the last target season, two remarkable records were made by organizations of the 1st Cavalry. The Machine-gun Troop, Lieutenant C. H. Espy, commanding, finished first in marksmanship at the District Machine-gun School, held at Fort Huachuca, by qualifying 10 experts, 8 sharpshooters, and 22 marksmen out of a total of 52 men firing. Troop K, firing the prescribed automatic rifle course, qualified 2 experts, 7 sharpshooters, and 3 marksmen out of a total of 12 men firing.

Since the last test of the motor transportation, with which the 1st Cavalry is equipped, the gasoline mules have performed the ordinary garrison duties. However, everything pertaining to the transportation is being made "shipshape" for another test, which is to take place when the roads have been made unfit by Arizona's annual rainy season.

In athletics the usual interest has been shown. The Officers' baseball team, playing in both losing and winning form, has lost two games to the 19th Infantry and one to the 10th Cavalry and has won two games from the 19th Infantry.

The enlisted men won a "clean-cut" victory in a track and field meet held July 30, all units stationed at Camp Harry J. Jones participating. The 1st Cavalry won 46 points, the 19th Infantry 35 points, and the other units 15 points.

A keen interest in polo is being developed, although a little late to make much of a showing, should the regiment be represented in the Southern Department Polo Tournament. On August 20 the new polo field was completed and the Polo Association awakened from a long sleep. Major Edgar Whiting has been elected president of the Polo Association.

The regiment's social activities have included a dance at Fort Huachuca as the guest of the 10th Cavalry, a return dance in honor of the 10th Cavalry, and two dances a month at the Douglas Country Club.

THIRD CAVALRY—Fort Myer, Virginia
Colonel W. C. Rivers, Commanding

Preparation for the various horse shows at and about Fort Myer has occupied during the summer months most of the spare time of the officers and men of the third squadron, 3d Cavalry. The 3d Cavalry Horse Show, held at Fort Myer on July 30, was a complete success. Summaries follow:

Event I.—Inspection of material and animal-drawn transportation; inspection of stables. Prize, silver cup. Winner, Troop "I," 3d Cavalry.

Event II.—Equitation and drill, eight recruits from each troop. Prize, silver cup. Winner, Troop "I," 3d Cavalry.

Event III.—Officer and eight men per troop. Drill and equitation, including jumping. Prize, silver cup. Winner, Troop "L," 3d Cavalry.

Event IV.—Best trooper's horse. Prize, silver cup. Winner, Sergeant York, Troop "I."

Event V.—Jumping for enlisted men, eight non-commissioned officers or men per troop. Prize, silver cup. Winner, Army War College Detachment, First Sergeant Lindsay.

Event VI.—Troop officer, jumping. Jumps 3 feet. Prize, silver cup. Winner, Captain John R. W. Diehl.

Event VII.—Rescue race. Prize, silver cup. Winners, First Sergeant Wallace and Private L. C. Baker, Troop "K."

Event VIII.—Roman race. Prize, silver cup. Winner, Sergeant Kremetzki, Troop "L."

Event IX.—Saber work, mounted. Prize, silver cup. Winner, Sergeant Manley, Troop "L."

Event X.—Beer wagon and team, 4th line escort. Prize, silver cup. Winner, Supply Troop, Wagoner O'Brien.

At the Clarendon Fair one flat race at five furlongs was put on for officers. Madelle, owned and ridden by Major Charles L. Stevenson, 3d Cavalry, got home a length and a half ahead of the U. S. Government's Bell Beach, ridden by Lieutenant Cunningham, of General Pershing's Staff. Trooper, owned by the U. S. Government and ridden by Lieutenant Davis, 3d Cavalry, was just good enough to save third money.

A detachment composed of Major C. L. Stevenson and ten enlisted men of the 3d Cavalry visited the Upper Marlboro Fair and Race Meet during the middle part of August.

In the officers' flat race, an affair at six and one-half furlongs for a purse of $500, Major Stevenson's mare again took the measure of the U. S. Government's Bell Beach, ridden by Lieutenant Cunningham. Jubilant, owned by Major Stevenson and ridden by Lieutenant Jadwin, 3d Cavalry, beat Major Tate's Yesterson for the show end of the purse. Captain Week's Hand Running and the U. S. Government's Proctor ran fifth and sixth respectively.

A purse of $75 for a Roman race was won by a team from Troop "L," 3d Cavalry, ridden by Sergeant Bell. Private Deschamp's team was second and Private Mill's team third.

A detachment of the 3d Cavalry, under Captain Tupper Cole, visited the Prince William Fair and Horse Show at Manassas, Va., on August 18 and 19.

In the military classes, Captain J. T. Cole, 3d Cavalry, won second place with his light-weight charger Grand Dad. In the Roman race the winners were as follows:

1. Team from Troop "L," 3d Cavalry, Sergeant Kremetski.
2. Team from Troop "I," 3d Cavalry, Private Garrity.
3. Team from Troop "K," 3d Cavalry, Private Baker.

From Manassas the detachment went to Marshall, Va., to participate in the Fauquier County Agricultural Fair and Horse Show. The following are the summaries of military classes:

Troopers' Mount Class:

1. Grand Dad, Sergeant Kremetzki, Troop "L," 3d Cavalry.
2. Apple Jack, Sergeant York, Troop "I," 3d Cavalry.
3. Sister, Private Sharpe, Headquarters Troop, 3d Cavalry.

In the handicap jump, Asthma, ridden by Lieutenant Creel, 3d Cavalry, made a clean performance the first time over the course, but was eliminated in the jump off.

In the open races Major Stevenson's stable accounted for one second and one third. Birdman, left at the post in the first race, got away fifty yards behind his field, but was good enough to run second and would have been first in another hundred yards.

In the soldiers' race Private Markle, Veteran Corps, landed Major Stevenson's Jubilant first, and Sergeant Clarke, on Chari Babe, from the same stable, was second. Lieutenant Taylor's Yesterson, ridden by Sergeant Garret, Troop "I," was third.

Living peacefully and happily out in "Happy Hollow," a small village near Fort Myer, Va., is Sergeant James Quinn. What is distinctive about this fine old man is that he served all of his time in one regiment, the 3d Cavalry. Fifteen years of this period was spent in Troop "I" and fifteen in Troop "F." Moreover, the sergeant has been retired for 19 years

and he had three sons in the recent war, two of them having had commissions. He is a Medal of Honor Man. Probably some old "mounted rifleman" may remember him.

FIFTH CAVALRY—Marfa, Texas

Colonel J. J. Hornbrook, Commanding

Although the main part of the regiment has been at Marfa for the past quarter, the guidons, however, of Troops "B," "C," "E," "F," "H," and the Machine-gun Troop have been planted respectively at Holland's Ranch, Indio, Polvo, Ruidosa, La Jitas, and the Presidio, the outlying posts of the border patrol. Despite their dispersion, all of the troops completed the target season in small-arms firing, combat practice, proficiency tests, and automatic rifle firing, with the gratifying result of a qualification for the majority of the regiment in either rifle, pistol, or automatic rifle. In addition, the annual swordmanship test was held at Marfa on August 2, 1920, and was attended by all of the troops at that station.

Due to the activity of our allocated recruiting representatives in North Carolina, the regiment has been almost filled to its authorized strength. Their work has been splendid. Thanks to the presence of a large garrison, the town of Marfa was saved from destruction on August 4 by a most disastrous fire. The troops succeeded in overcoming the progress of the flames, but only after great effort. Their gallant work was much appreciated by the citizens, who, to give an outward expression thereof, entertained the regiment at a lawn fête, where unbounded hospitality was dispensed and enjoyed.

The interest in polo continues, with games played daily by the officers. An excellent team is being developed, so that on its visit to Fort Clark, on October 1st, for the contest with the 12th and 13th Cavalry respectively, it may win the right to participate in the Southern Department Tournament.

SIXTH CAVALRY—Fort Oglethorpe, Georgia

Colonel Frederick Foltz, Commanding

Although the Sixth Cavalry has been somewhat handicapped because of shortage in personnel, combined with heavy guard duty, it has succeeded in keeping up its athletic and regimental activities remarkably well. The former is being rapidly overcome at present and recruits have been joining at the rate of from two to six per day during the latter part of August.

The course of instruction for the training of the 6th is complete and systematically arranged in weekly schedules, which are published four days in advance, so that all instructors may become fully conversant with the subject before attempting to teach it and in order that perfectly correct principles may be worked out. The instructors, officers and non-commissioned officers are required to familiarise themselves thoroughly with the work and to give demonstrations of their fitness to be instructors. The work begins with the rudiments and goes through, in progressive lessons, to the completion, as contemplated. The instruction is verified by frequent tests made by field officers. The program is being energetically and enthusiastically followed with excellent results.

For instructional purposes only, the personnel is divided into regimental and recruit units (squads, platoons, troops). The recruit units are formed of all recruits of three months' service or less and those men who have not had any cavalry training. The regimental unit consists of all other men of the regiment. Officers and selected non-commissioned officers are distributed among the units as instructors and assistant instructors. They are present at all instruction and report with their units at assembly. Punctuality

is insisted upon. All officers start the day's work by synchronizing their watches with those of the squadron commanders at 6.30 a. m.

The heavy rainfall has interfered greatly with baseball and polo, but both men and officers grasp every opportunity to turn out and practice. The Camp Gordon baseball team made a trip to Fort Oglethorpe and played two games, both of which they won. The visitors played good ball, and because the post nine had lost several good players, by reason of recent discharge from the service, the home team was hard pressed to hold to its previous excellent form.

The Regimental Polo Association holds the interest of most of the younger officers at the present time, and from twelve to sixteen officers turn out at each practice. A first and second team has been organized and a very instructive and efficient system of training, both for men and ponies, is being carried on under the supervision of Major Daniel D. Tompkins.

The training time is divided into five periods, the first four of about ten minutes each, the latter varying from twenty minutes to half an hour. The first three periods are devoted to training of ponies; riding at will, stopping, turning, and use of the aids the first period, riding off at a walk and gallop the second, and rapid turning in and out among stakes set for the purpose the third. The fourth period includes passing the ball up and down the field, on the off and near sides respectively, by each team, and the necessary stick work. Instruction and practice in team-work, followed by scrimmage at moderate gates and several short periods of fast work, completes the work for the day. The whole system is carried out somewhat like instruction in a troop, and is not only interesting in the extreme, but holds fair to bring up a powerful foundation of polo material for this fall and next season. Instructions from the Southeastern Department were recently received informing the team of its entry in the tournament at Camp Knox, Kentucky. It is expected to send five officers, seven enlisted men, and twenty-four ponies, to leave on or about September 25, 1920.

TENTH CAVALRY—Fort Huachuca, Arizona

Colonel E. B. Winans, Commanding

A day which will always stand out in the regiment was July the 28th, when, with appropriate and interesting ceremonies, Regimental Day was celebrated. Colonel F. C. Marshall, the commanding officer of the regiment, reviewed its history and traditions in an exceptionally sympathetic address, following which was a brilliantly staged pageant depicting many events in the history of the regiment. The audience relived the encounters which the 10th had had with the Indians, the Filipinos, and the Mexicans, and for the time being were immersed in the atmosphere of the old frontier days. By way of contrast, various troops then demonstrated the work of the soldier in modern warfare, and, in order that the day might not suffer an anticlimax, a brilliant dance and barbecue closed the festivities, where we "laughed and joked, and talked and smoked, and turned to boys again."

The interest in athletics has maintained its high standard. The track team of the Arizona District, of whom approximately half were from this regiment, won the track and field championship of the Southern Department in June. Williamson and Moore won first and second places in both the 100 and 200-meter dashes in the Interdepartmental Meet in July. No less successful has been the polo. In the Polo Tournament held at this post, the White Team, Captain Heffernan, rode away with the honors.

To the regret of the regiment, Colonel F. C. Marshall left on August 5 for duty in the office of the Chief of Cavalry. He is succeeded in command by Colonel E. B. Winans.

ELEVENTH CAVALRY—Presidio of Monterey, California

Colonel Claude B. Sweezy, Commanding

Since July 1, 1920, the regiment has performed the usual garrison duties.

On July 28, 1920, Troop A, three officers and seventy enlisted men, left the Presidio of Monterey for a four months' tour of duty at Camp John H. Beacom, Calexico, Calif.

On August 16, 1920, Troop D, two officers and seventy enlisted men, left this station for El Campo, Calif.

It is expected that Troops H (Calexico) and E (El Campo) will be shortly returned to this station.

Recruits are arriving daily and the regiment is rapidly approaching the authorized minimum strength.

Polo.—A polo detachment has been formed, under the supervision of the polo representative, and all polo ponies have been assigned thereto for conditioning and training.

Practice games are played Wednesday and Sunday at the Del Monte Polo Field, and a strenuous effort is being made to develop a team to enter the winter tournament.

FOURTEENTH CAVALRY—Fort Des Moines, Iowa

Colonel Robert A. Brown, Commanding

After the transfer of the 14th Cavalry from Fort Sam Houston to the Fort Ringgold Sector, mention of which was made in the last issue of the JOURNAL, the regiment was stretched out for about 80 miles. Its territory extended from below Hidalgo north to the Arroya El Tigre, with the units distributed at Fort Ringgold, Sam Fordyce, and McAllen.

On May the 30th the Brownsville District was discontinued and the sector became the post of Fort Ringgold, with sub-stations and outposts. All during the spring and summer we have been occupied in improving our stations and in carrying out the arduous duties of border patrol. These activities, together with the target season, have kept us all so busy that we have not had time to worry and fret about our surroundings and the heat. It was hard to leave Sam Houston, but we determined to get all that we could out of our new environment, and with this mental attitude we soon found ourselves comparatively happy.

Just as the target season was nearing completion, the regiment received orders to proceed to Fort Des Moines, Iowa, and although we had been eight years on the border, it was with a little regret that we packed our plunder and moved on. Some of our lives had been spent amid these surroundings, and as we were about to depart only the pleasant features of our sojourn stood out, bringing with them a feeling of regret. Just before we arrived at Des Moines all of the regiment except the 1st squadron was diverted to Camp Dodge for temporary duty in connection with the closing of the camp. The regiment arrived at its new station on August 19.

SIXTEENTH CAVALRY—Fort Sam Houston, Texas

Colonel W. C. Short, Commanding

Military.—The regiment regrets the loss of their commanding officer, Colonel Farrand Sayre, who had been ordered to Corizal, Panama. Colonel Sayre has been with the 16th Cavalry for the past three years and has endeared himself as a leader to both the officers and enlisted men of this regiment.

In token of their appreciation of the services of Colonel Farrand Sayre, the enlisted men of the 16th Cavalry, represented by the first sergeants of the regiment, met Colonel and Mrs. Sayre to bid them adieu, and presented them with a beautiful sterling silver tea set.

For the first time in the history of the regiment, we have been having regimental

drills and parades. One hour each day is devoted to regimental drill and regimental parade is held once a week.

Athletics.—In the summer polo tournament for the championship of San Antonio the first team of the 16th Cavalry came out victorious. Six teams were entered in the tournament and it was only by hard playing and excellent team-work that the 16th Cavalry team won. Our team defeated the Second Division team 12 to 11, the Department Headquarters first team 7 to 6, and the Freebooters' team by a score of 13 to 7. The tournament was for the San Antonio Light Cups, consisting of one large cup, which went to the winning team, and individual cups for the members of the winning team. The 16th Cavalry first team consisted of Captain J. P. Yancey, No. 1; Captain H. J. M. Smith, No. 2; Captain H. E. Taylor, No. 3; Lieutenant-Colonel P. W. Corbusier, No. 4, and First Lieutenant J. V. McDowell, substitute.

Social.—The 16th Cavalry band plays a concert at the Fort Sam Houston Staff Post every Wednesday night and at the Infantry Post on Thursday night.

Two dances a week are held at the open-air pavilion in the Cavalry Post. The enlisted men have one on Monday night and the officers one on Tuesday night.

SEVENTEENTH CAVALRY—Schofield Barracks, H. T.
Colonel John D. L. Hartman, Commanding

The 17th Cavalry covered itself with glory on May 28, 1920, when its drivers swept the card at the Hawaiian Department Transportation Show, held at Schofield Barracks, H. T. In every contest in the Animal Transportation class in which they were entered the cavalrymen won place, and in some instances captured the entire event.

This show, the first of its kind in the Hawaiian Islands, attracted a deal of attention, not only from service people, but from civilians. It took the form of a field meet, open exclusively to all classes of army transportation, from pack-mule to motor truck. Events included races between escort wagons, packing contests, driving contests for field wagons, and contests in wheel-changing, pole-changing, harnessing, unharnessing, and a mule race, which was won by the Supply Troop, 17th Cavalry.

The Supply Troop drivers got a place in every event in which they were entered, scoring five firsts, four seconds, and two thirds in seven competitions. Buskirk proved the champion individual skinner of the afternoon, winning two firsts and being disqualified through a technicality from gaining a third. Thomas, of the same outfit, also showed well, with two firsts and a second to his credit. Probably the most prized victory of all of the animal contests was that in which wagons, harness, and equipment were judged for condition. Nearly an hour was consumed by the judges in arriving at a decision, so close was the competition, the Supply Troop finally being given the prize for first and second places, third going to the 3d Engineers. Following the competitions, 20 wagons of the Supply Troop, under charge of First Sergeant Davenport, gave a stirring and unusual wagon drill for 15 minutes.

Wagon Events.—1. Field-wagon race—Wagner, Honolulu; Thomas, 17th Cavalry; Metzler, 17th Cavalry. Time, 1.31.

2. Packing contest—Davenport and Millard, 17th Cavalry; Senge and Long, 3d Engineers; Dadesman and Hughes, 3d Engineers. Time, 2.05.

3. Field-wagon driving contest—King, Schofield, Metzler, 17th Cavalry; Wade, Coast Artillery. Time, .40.

4. Field-wagon contest—Deal, 17th Cavalry; Smith, 17th Cavalry; Folk, 3d Engineers.

5. Wheel-changing contest—Buskirk, 17th Cavalry; Wagner, Honolulu.

6. Pole-changing contest—Thomas, 17th Cavalry; Wagner, Honolulu; King, Schofield.

7. Harness and unharness contest—Buskirk, 17th Cavalry; Thomas, 17th Cavalry; Fales, 17th Cavalry.

Summary.—17th Cavalry, 39; Honolulu Quartermaster, 11; Schofield Quartermaster, 6; 3d Engineers, 5; Coast Artillery, 1.

The Reserve Officers Department

MINOR TACTICS

THE PROBLEMS which appear in the Reserve Officers Department are taken from the course of minor tactics at the Cavalry School. Recent experiences in the World War have convinced us more than ever that we should have a uniform cavalry doctrine, and that we should get away from the diversification of views to which we have more or less leaned. The course in minor tactics at the Cavalry School is for the junior officers of cavalry and embodies the tactical principles and doctrines drawn from our own teachings and experiences. It will no doubt appeal to junior officers on the active list, as well as to the reserve officers. All of the map problems in the course are based on the Gettysburg 3-inch map.*

MAP PROBLEM No. 2, PART I

Advance Guard

SITUATION

Small Red cavalry and infantry detachments in friendly territory are reported on the line Gettysburg-Emmitsburg. The latter place is said to contain considerable quantities of foodstuffs and forage.

During the night of March 25-26, 1920, the 1st Cavalry Brigade (Blue), less 3d Cavalry, in hostile territory, camped as follows: 2d Cavalry at Georgetown; Brigade (less 2d Cavalry) at Kingsdale; first squadron, 1st Cavalry, in meadow west of railroad and south of Kingsdale—599 road. The third squadron, 1st Cavalry, furnished the outpost along the general line Oakgrove S. H.—road fork 566—Piney Creek.

The remainder of the 1st Cavalry Division camped on the line Littlestown—Whitehall—Square Corner.

At 6.00 a. m., March 26, 1920, the Commanding General, 1st Cavalry Brigade, issued the following order:

Field Orders No. N.

HEADQUARTERS 1ST CAVALRY BRIGADE (BLUE),
KINGSDALE, PA., *March* 26, 1920—6.00 a. m.

Map: Gettysburg 3".

Troops:

(*a*) Advance guard:
Major A.
1st squadron, 1st Cavalry.

(*b*) Main body in order of march:
1st Cavalry (less 1st squadron).
2d Cavalry (less 1 troop).
2d Machine Gun Battalion.

1. Red cavalry and infantry detachments of unknown strength are reported on the line GETTYSBURG-EMMITSBURG.

* Copies of the Gettysburg Map and the Gettysburg-Bonneauville sheets, on which this problem is based, may be obtained from the United States Cavalry Association at 5 cents each, unmounted.

The 1st Cavalry Division (less 1st Brigade) marches on GETTYSBURG today.

2. This brigade marches on EMMITSBURG today via KOON—HARNEY—CUMPS MILL.

3. (*a*) The point of the advance guard will march from road fork 566 at 8.00 a. m. The advance guard will attack the enemy wherever met.

(*b*) The main body will march when the advance guard has gained a distance of about 700 yards and will thereafter regulate the gait.

(*x*) The outpost will stand relieved at 8.00 a. m. and will join its regiment on the road.

4. Combat trains will follow their squadrons without distance.

Field trains will assemble on road, with head of column at road fork 566, in order of march of their units, after main body has marched. They will proceed to HARNEY and there await further orders. One troop, 2d Cavalry, will act as escort.

5. I will march at the head of the main body.

B,
Brig. Gen.

Distribution:

C. G., 1st Cavalry Division.
C. O., 1st Cavalry.
C. O., 2d Cavalry.
Major A.
Staff.
File.
C. O., 2d Machine Gun Battalion.

Required:

1. Major A's warning order: Give reasons for contents of order. (He received the brigade field order at 6.15 a. m.)

2. Major A's advance guard order: Give reasons, briefly, for dispositions therein. (Assume that the field order, 1st Cavalry, did not contain anything new for Major A.)

3. Tracing of disposition of advance guard when head of main body is at road junction 508, 1,100 yards east of Harney: Tracing to show all subdivisions (except connecting troopers) of advance guard, strength of each, strength and location of patrols now out, element from which sent out, points at which detached and to which ordered, and place of return. Patrols that have returned to and are on axis of movement need not be shown.

Assume that nothing yet has been seen of the enemy.

A SOLUTION

I

WARNING ORDER

Major A assembles captains and staff and gives following warning order:

"Our brigade marches on EMMITSBURG today via KOON—HARNEY—CUMPS MILL.

"This squadron will be the advance guard.

"Squadron will be formed ready to march at 7.45 a. m.

"Troop A will be the support.

"Combat train will follow squadron without distance.

"Field trains will join and march with field trains of regiment.

"Captains and staff report for orders at 7.45 a. m."

REASONS

Major A issues a warning order for the purpose of having his command ready to march at a prescribed hour, properly equipped and prepared for its mission. He need

communicate it only to his captains and staff in order to insure this. He has not had time to prepare the formal field order, but he can give out a synopsis. He therefore states the day's objective, the general duties of the squadron, and when he wishes it to be formed ready to March. He designates the troop for duty as support, so that the captain may make such preliminary preparations as are possible. In order that the trains may prepare to march, he mentions them in the warning order. He decides now when to issue his field order and directs the captains and staff to report at that time.

He issues this order verbally. The official order for the day's duty will appear in the filed order later.

Ommitting sentences 1, 2, and 4 might have accomplished the purpose of the warning order, but the officers present will be very glad to get the information contained therein. It may make their immediate tasks easier. Furthermore, there seems to be no good reason why it should be withheld.

II

Field Orders
No. N.

HEADQUARTERS 1ST SQUADRON, 1ST CAVALRY.
KINGSDALE, PA., *March* 26, 1920—7.00 a. m.

Map: Gettysburg 3".

1. Red cavalry and infantry detachments of unknown strength are reported on the line GETTYSBURG-EMMITSBURG.

The 1st Cavalry Division (Blue) (less 1st Brigade) marches on GETTYSBURG today. Our brigade marches on EMMITSBURG today via KOON—HARNEY—CUMPS MILL.

2. This squadron will be the advance guard and will precede the main body at about 700 yards.

3. (*a*) Troop A, Captain A, will be the support and will precede the reserve at about 700 yards. The point of the advance guard will march from road fork 566 at 8.00 a. m. It will attack the enemy wherever met.

(*b*) The squadron, less Troop A, will be the reserve. It will march when the support has gained its distance and will thereafter regulate the gait.

4. Combat trains will follow squadron without distance. Field trains will join and march with field trains of regiment.

5. I will march with the reserve.

A,
Major.

Distribution:

C. G., 1st Cavalry Brigade.
C. O., 1st Cavalry.
Captain A.
File.
Read to captains and staff.

REASONS FOR DISPOSITIONS IN FIELD ORDER

Paragraph 1 of the field order is almost a copy of the Brigade Commander's field order, and contains information the squadron should have.

Paragraph 2 gives the general duty of the squadron and its position with reference to the main body and indicates that the main body will establish the rate of march.

Paragraph 3 (*a*) designates one troop for support and paragraph 3 (*b*) places the remainder of the squadron in the reserve. This follows the converse of the idea expressed in F. S. R. 49, which states that whenever the advance guard is less than a battalion there

is no reserve. However, the military situation and not a fixed rule should govern. By placing one troop in the support, Major A maintains the integrity of units and places upon a captain, a responsible officer, the duty of flank reconnaissance up to one-half mile, and the further duty of pushing aside light resistance. By maintaining three troops in the reserve, Major A keeps the bulk of the combatant strength united under his immediate control. Reconnaissance beyond one-half mile can be done by the reserve, and the squadron Adjutant, as operations officer, can order out patrols at suitable times.

A distance of 700 yards (at times increased probably to 1,400 yards) from support to reserve will allow the latter ample time to prepare for combat, if the enemy be found advancing, and will not be so great that the support cannot be reinforced in time.

Major A relies upon Captain A to subdivide the support properly and give it suitable detailed instructions.

In paragraph 4 Major A gives the final instructions concerning the trains and in so doing follows the brigade field order.

In paragraph 5 Major A states he will march at the head of the reserve. It is from that point that the rate of march will be regulated and from which measures will be taken to overcome enemy resistance too great for the support.

The United States Cavalry Association

NOTICE

IN ACCORDANCE with the terms of the Constitution, notice is hereby given that the regular annual meeting of the United States Cavalry Association will be held at Washington, D. C., on the third Monday in January, 1921. At this meeting will take place the election of officers of the Association to replace the officers who have been serving as an emergency body under appointment by the President of the Association. The Constitution states: "The election shall be by ballot, and a plurality of all votes cast in person or by proxy shall elect" (Sec. 4, Art. VI). Seven vacancies are to be filled, namely, President, Vice-President, and five members of the Executive Council. Every member of the Association, regular or associate, is entitled to a vote. Only regular members shall be eligible to hold office. For convenience of members, a proxy is printed below. Cut this out and send it to the Secretary.

PROXY

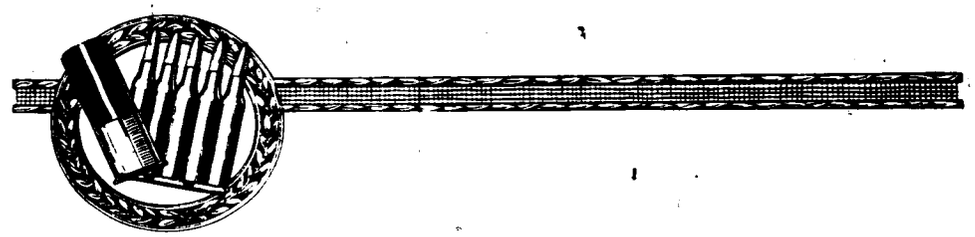
To the Secretary, United States Cavalry Association:

I hereby designate ----------, or the Secretary of the U. S. Cavalry Association, to act as my proxy and cast my vote at the regular annual meeting of the Cavalry Association for the election of officers, to be held in the city of Washington, D. C., on the third Monday in January, 1921.

Name----------

Rank----------

Witness:

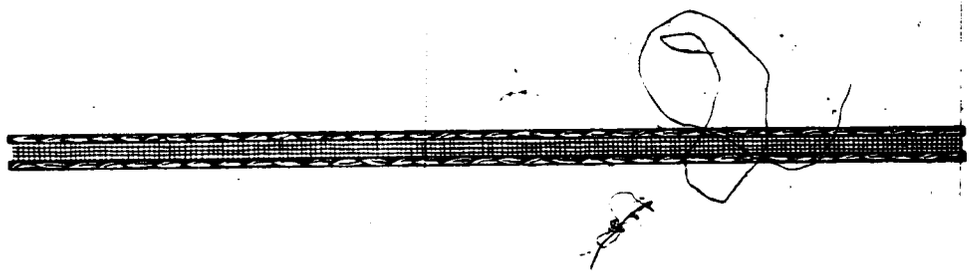


DU PONT

Powder - makers for all
sporting and military uses

E. I. du Pont de Nemours
& Company, Inc.

Wilmington
Delaware



THE FIELD ARTILLERY JOURNAL

OFFICIAL ORGAN OF THE

UNITED STATES FIELD ARTILLERY ASSOCIATION

The U. S. Field Artillery Association was organized in 1910, and is composed of officers of field artillery of the Regular Army, the National Guard, and the Officers' Reserve Corps, and other persons interested in field artillery.

The Field Artillery Journal is published bimonthly by the Association. Each number contains approximately one hundred pages of technical information of value to officers of all arms of the service, although of course of particular value to those who are interested in the development of field artillery.

Subscription price, $3 per annum, including all dues. Single copies of the magazine, 75 cents.

Address: The Secretary, U. S. Field Artillery Association, War Department, Washington, D. C.

VOLUME XXIX APRIL, 1920 NUMBER 119

THE CAVALRY JOURNAL

Devoted to the Interests of the Cavalry, to the Professional Improvement of Its Officers and Men, and to the Advancement of the Mounted Service Generally

EDITED BY

ROBERT C. RICHARDSON, JUNIOR

COLONEL (T.) OF CAVALRY

Published quarterly by the United States Cavalry Association, 316 Mills Building, Washington, D. C. Editor, Robert C. Richardson, Junior, Colonel of Cavalry. Managing Editor, Robert C. Hilldale. Application pending for entry as second-class matter at the post-office at Washington, D. C., under the Act of March 3, 1879.

The subscription price of the Cavalry Journal is $2.50 per year.

PRESS OF JUDD & DETWEILER, INC.
WASHINGTON, D. C.

VOLUME XXIX JULY, 1920 NUMBER 120

THE CAVALRY JOURNAL

Devoted to the Interests of the Cavalry, to the Professional Improvement of Its Officers and Men, and to the Advancement of the Mounted Service Generally

EDITED BY
ROBERT C. RICHARDSON, JUNIOR
CAPTAIN OF CAVALRY

Published quarterly by the United States Cavalry Association, 316 Mills Building, Washington, D. C. Editor, Robert C. Richardson, Junior, Captain of Cavalry. Managing Editor, Robert C. Hilldale. Entered as second-class matter March 29, 1920, at the post-office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized May 29, 1920.

The subscription price of the Cavalry Journal is $2.50 per year.

PRESS OF JUDD & DETWEILER, INC.
WASHINGTON, D. C.

VOLUME XXIX OCTOBER, 1920 NUMBER 121

THE CAVALRY JOURNAL

Devoted to the Interests of the Cavalry, to the Professional Improvement of Its Officers and Men, and to the Advancement of the Mounted Service Generally

EDITED BY
ROBERT C. RICHARDSON, JUNIOR
MAJOR OF CAVALRY

Published quarterly by the United States Cavalry Association, 316 Mills Building, Washington, D. C. Editor, Robert C. Richardson, Junior, Major of Cavalry. Managing Editor, Robert C. Hilldale. Entered as second-class matter March 22, 1920, at the post-office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized May 29, 1920.

The subscription price of the Cavalry Journal is $2.50 per year.

PRESS OF JUDD & DETWEILER, INC.
WASHINGTON, D. C.

The Scientific Wonders of a Puffed Grain

Each Puffed Wheat Bubble is a whole grain puffed to 8 times normal size. A hundred million steam explosions have occurred in it.

Puffed Rice is whole rice puffed in like manner. Puffed Corn is broken corn puffed to raindrop size.

Every food cell in these grain foods is exploded, leaving an airy, toasted morsel, as flimsy as a snowflake.

These delightful bits are fitted for digestion as grains never were before. In all ways they are like flavory confections, yet they are supreme foods.

Millions now enjoy them, serving them with cream and sugar, mixing them with fruit, dousing them with melted butter.

No other grain food can compare with them.

Puffed Wheat Puffed Rice Puffed Corn

Also Puffed Rice Pancake Flour

The Quaker Oats Company

Chicago

Sole Makers