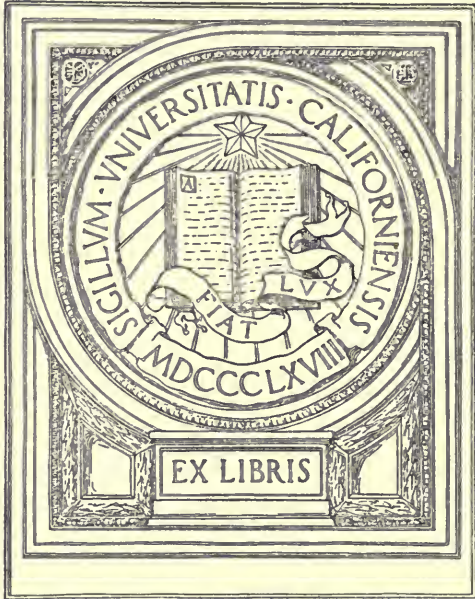
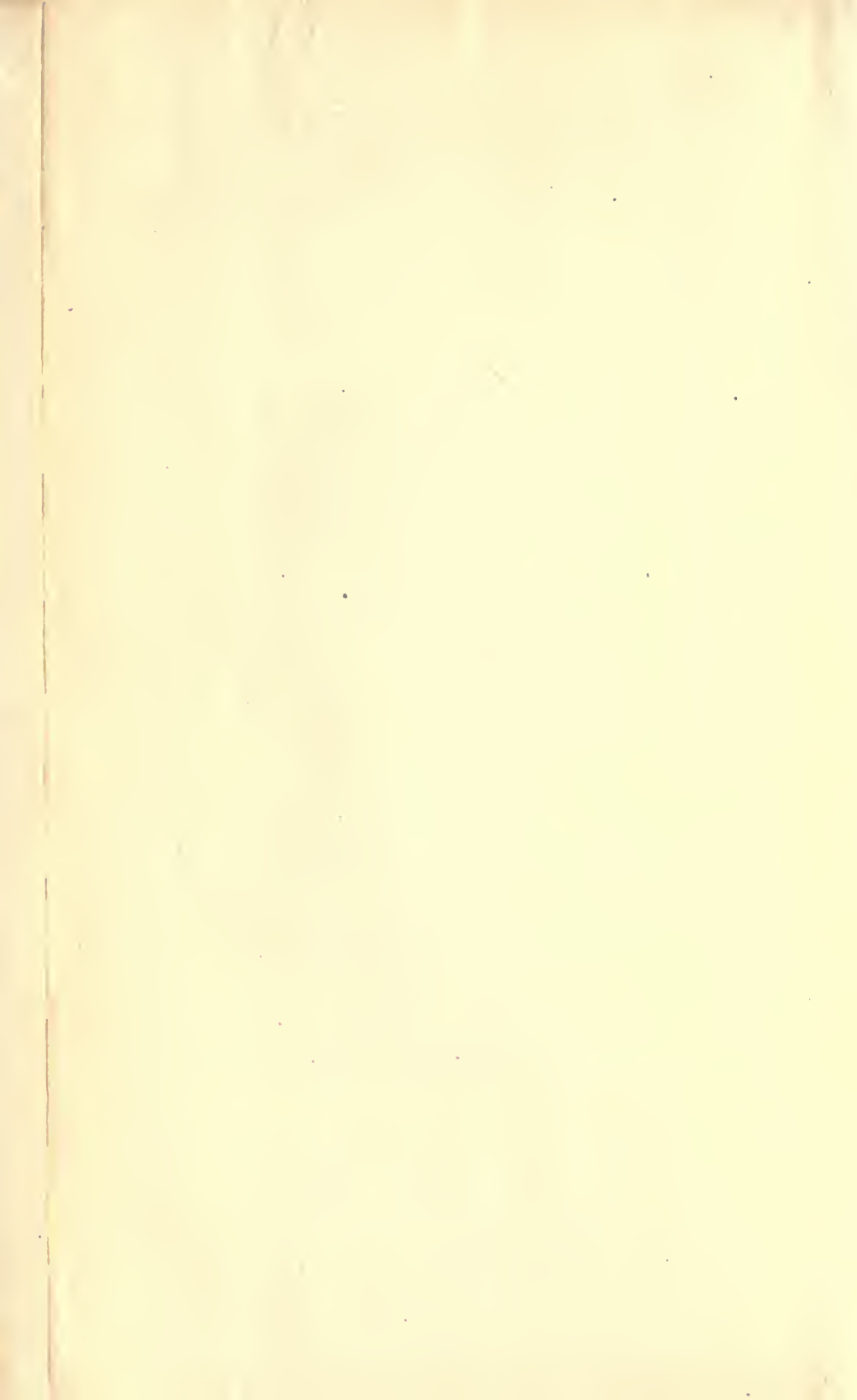


UNIVERSITY OF CALIFORNIA
LOS ANGELES



GIFT OF
Col. Glen F. Jenks



**TACTICAL
PRINCIPLES AND PROBLEMS**

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TACTICAL PRINCIPLES AND PROBLEMS

BY

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ARMY STAFF COLLEGE AND ARMY SCHOOL OF THE LINE
FORT LEAVENWORTH, KANSAS

*Adopted by direction of the Secretary of War for use in the
Garrison Schools*

THIRD EDITION

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PREFACE TO THE THIRD EDITION

The time has come for the publication of another edition of this book. The demand for it has steadily increased. It is being used with gratifying success in the Army Service Schools at Fort Leavenworth and Fortress Monroe, and by the National Guard of a number of states. It has been adopted for use in the garrison schools of the regular army, and will receive its first trial therein during the coming school term. Orders from abroad, especially from Great Britain, indicate that it is of value to foreign services. The service journals and scores of officers of the regular army and militia have subscribed to its merit. Only a few changes in the text have been suggested, and they are unimportant. Accordingly, this edition is published without change in the preceding edition.

WASHINGTON, D. C.,

THE AUTHOR.

July 31, 1911.

PREFACE TO THE SECOND EDITION.

The first edition of "Tactical Principles and Problems" has been received with such universal favor that it is necessary to publish a second edition to meet the steadily increasing demand from the Regular Army and National Guard, as well as from the British Service and elsewhere.

The author is indebted to friendly critics for a few suggested changes in the text, but it has been decided not to make these changes at this time, mainly because they relate to minor points concerning which slight difference of opinion is to be expected.

Except that this edition is accompanied by much improved maps, it differs in no essential from the first edition.

THE AUTHOR.

WASHINGTON, D. C.,

SEPTEMBER 9, 1910.

PREFACE TO THE FIRST EDITION

This book has been written in the hope that it may help junior officers of the regular service and militia who are beginning the study of tactics. In tactics, as in other sciences, the first steps are the most difficult to make, especially if the student has no instructor, as necessarily must frequently be the case. With this fact uppermost in his mind, the author has endeavored so to present the subjects herein treated that the book may be of special value to the student who is working without assistance.

The problems have been restricted to the simpler and more usual operations of small forces of infantry and of cavalry, and of these two arms united. Artillery has not been dealt with because it is believed that the student will make better progress if he becomes familiar with the tactics of infantry and cavalry before undertaking the much more difficult subject of the three arms combined. After the student has mastered this book, he may take up with advantage the study of the many excellent works on the applied tactics of the three arms, most noted of which is Gripenkerl's *Letters on Applied Tactics*.

The so called *applicatory method* followed in this text is so well understood as to need no explanation, and its superiority over all other methods of teaching tactics is well established; the method will give very poor results, however, unless the student pursue it

properly. This means many hours of close application with map, dividers, pencil and paper. This book is not intended for casual reading, and the student will derive but little benefit from it unless he study it in some manner such as will now be outlined.

For each subject herein discussed, there are at least two chapters. In the first of these a problem and its solution are given, together with a discussion of the ordinary tactical principles involved in the particular kind of operation that is being illustrated. In the following chapter, a similar problem and its solution are given, together with comments on the solution. The first chapter of any particular subject should be studied in the most painstaking manner in connection with the map, and not until the student thinks he is familiar with the tactical principles illustrated in the *Solution and Discussion* of this chapter should he proceed to consider the problem given in the following chapter. *For this problem he should make his own solution, PREFERABLY IN WRITING, before reading the solution and comments given in the text.* (*) This method will require work, but a method for learning tactics which does not involve labor has not yet been devised, and the student will find his reward in full measure in the progress he makes. If a single chapter is taken each week, the book furnishes the student

(*) Students who have had no previous experience in solving tactical problems should read a pamphlet entitled **Estimating, Tactical Situations and Composing Field Orders**, by Captain Roger S. Fitch, 2d Cavalry, which may be obtained on request made to the Secretary of The Army Service Schools, Fort Leavenworth, Kansas. Also, students who find it difficult to read military maps, should study **Military Map Reading** by Captain C. O. Sherrill, Corps of Engineers, which may be purchased of the U. S. Cavalry Association, Fort Leavenworth, Kansas, for 50 cents.

with a course he can complete in six months and yet have much spare time for study along other lines.

A word concerning the solutions given in the text. They are by no means the only good solutions for the respective problems given, nor are they faultless, nor are they necessarily the best. They are merely the best that occurred to the author at the time they were written. The aim has been to give solutions that violate no sound tactical principle, that are simple of execution, and that will accomplish the desired end if the troops are well led throughout the operation. Any solution that observes these three essential ideas is good, no matter how much it may differ from the one given herein. This point is deemed of such importance that it is frequently reverted to in the text.

The advance sheets of the revision of the *Field Service Regulations*, to which the author has had access, have formed the tactical basis for the work, and it is believed that the solutions are in accord with the principles therein laid down. Many books have been consulted in the preparation of this work, but most frequent reference has been made to the following, to all of which the author takes pleasure in acknowledging his obligation:

Griepenkerl's *Letters on Applied Tactics*,
Balck's *Modern European Tactics*,
Von Alten's *Studies in Applied Tactics*,
Von Bernhardt's *Cavalry in Future Wars*,
Von Verdy's *Studies in the Leading of Troops*, and
Clery's *Minor Tactics*.

The author finds it difficult adequately to express his gratitude to Major John F. Morrison, General Staff, Assistant Commandant and Senior Instructor,

Department of Military Art at the Army Service Schools; to Captain T. O. Murphy, 19th Infantry; Captain G. F. Baltzell, 5th Infantry; Captain LeRoy Eltinge, 15th Cavalry; Captain Roger S. Fitch, 2d Cavalry, Instructors, Department of Military Art, Army Service Schools; and to Captain A. E. Saxton, 8th Cavalry, Secretary, Army Service Schools, for the valuable criticism, suggestions and other assistance they have given him during the months this book was being written.

M. E. H.

ARMY SERVICE SCHOOLS,
FORT LEAVENWORTH, KANSAS,
MARCH 9, 1910.

CONTENTS

CHAPTER	PAGE
I. LEADING OF AN INFANTRY PATROL - - -	1 ✓
II. LEADING OF AN INFANTRY PATROL - - -	18 ✓
III. LEADING OF A CAVALRY PATROL - - -	28
IV. LEADING OF A CAVALRY PATROL - - -	43
V. AN ADVANCE - - - - -	57
VI. AN ADVANCE - - - - -	86
VII. AN ADVANCE GUARD - - - - -	96
VIII. AN ADVANCE GUARD - - - - -	118
IX. AN ADVANCE GUARD - - - - -	123
X. A RETREAT - - - - -	133
XI. A RETREAT - - - - -	154
XII. A REAR GUARD - - - - -	163
XIII. A REAR GUARD - - - - -	190
XIV. A PURSUIT - - - - -	201
XV. A PURSUIT - - - - -	224
XVI. INFANTRY ATTACK - - - - -	234
XVII. AN ATTACK BY INFANTRY AND CAVALRY - -	259
XVIII. INFANTRY DEFENSE - - - - -	278
XIX. A DEFENSE BY INFANTRY AND CAVALRY - -	302
XX. CAVALRY COMBAT (MOUNTED) - - -	322
XXI. CAVALRY COMBAT (DISMOUNTED) - - -	343
XXII. CAVALRY ATTACK ON INFANTRY - - -	358
XXIII. A HALT FOR THE NIGHT - - - - -	384
XXIV. A HALT FOR THE NIGHT - - - - -	400
XXV. OUTPOSTS - - - - -	413
XXVI. OUTPOSTS - - - - -	443

CHAPTER I.

LEADING OF AN INFANTRY PATROL.

SITUATION.

(See 4-inch map).

A small Blue infantry force in hostile country has just crossed the Missouri river at Fort Leavenworth, and is about to establish outposts for the night (September 29-30) on a general north and south line along Prison Lane.

A force of the enemy is reported advancing from the west, and is believed to be east of the Big Stranger (western edge of 2-inch map). Contact has not yet been established.

At 4 p. m., while the outposts are getting into position, Lieutenant A is given the following instructions by the outpost commander on Long Ridge: "I believe the enemy will camp near Salt creek to-night. Take a patrol from the support on Long Ridge, proceed to the vicinity of Frenchman and find out what you can about the enemy. A patrol will be sent out under Sergeant B to reconnoiter along Sheridan's Drive to the north, and another under Corporal C to reconnoiter along the Zimmerman road. It is especially important to determine the enemy's strength and locate his camp for the night. Send your reports to me here. Return when darkness prevents further reconnaissance."

Note—In addition to the requirements stated below, you

should write on the regular blank all reports that Lieutenant A would make during his reconnaissance.

Required:

1. (a) How many men will Lieutenant A take? Give reasons for the number selected.

(b) State the route and formation of the patrol for the first mile of its march, supposing nothing is seen of the enemy.

SOLUTION AND DISCUSSION.

(a) Lieutenant A will take a non-commissioned officer and three men with him. The patrol is meant to observe; it should accomplish its task by stealth, not by fighting, and consequently should be small. Every man added to the patrol makes it more difficult to conceal. With four men, two or three messages can be sent and still Lieutenant A will be left with at least one companion. It will not be necessary, in all probability, to send more messages than these, as the patrol will not be out very long, and the distance to be covered is not great.

Three, five, or six men would not be a wrong number to take, but should fewer than three or more than six be taken, the patrol would in one case be too small to send many messages, and in the other case it would be too large for easy concealment. Of course a patrol of ten or twelve men is quite unsuited to the mission given Lieutenant A.

(b) The patrol would move down the ravine on the southeast slope of Long Ridge in column of twos, and enter the bed of Corral creek about 150 yards west of XX. It would follow Corral creek, under cover of its banks and the timber along them, until

it entered the wooded ravine on the southern slope of Atchison hill. It would be in single file, with distances of about 20 yards; although other formations, easily concealed and furnishing protection against surprise, would do quite as well.

In this part of the march, the chief considerations are rapidly to gain the heights to the west, and to remain concealed during the march from any hostile patrols that may be in observation on those heights. The march of the patrol should not be delayed to reconnoiter the railroad cuts, ravines and high ground to the north and south of Corral creek. Such reconnaissance, in all probability, will secure no information of importance which cannot be obtained by the outposts, and may reveal the presence and route of the patrol. For similar reasons, the houses at 10 should be avoided, and the 14—16 road should be observed from the edge of the woods to the east of it.

The route along the north branch of Corral creek, via XXII and XXIII, is objectionable because of the 400 yards of open target range to be crossed; moreover, it infringes on the territory assigned to Sergeant B. However, were this route the better for reaching Atchison hill, time and invisibility considered, it would be perfectly proper to intrude on Sergeant B's territory for this purpose.

Continuation of the Situation.

At 4:40 p. m. Lieutenant A is on Atchison hill with his patrol, and observes a hostile cavalry patrol of five troopers turn north on the trail leading to Sheridan's Drive between F and E and disappear in the woods.

(c) What action does he take?

(d) What route will he take from this point? Give reasons.

Continuation of the Solution.

(c) He remains concealed with the patrol and sends the following message, after assuring himself that the hostile patrol is not followed by other hostile troops:

No. 1

To

Outpost Commander.

Officer's Patrol,

Atchison Hill,

29 Sept.—, 4:50 P. M.

At 4:40 p. m. a hostile cavalry patrol of 5 troopers turned north on the trail leading from the F—E road, and disappeared in the woods about 600 yards northeast of here. So far as I can see, it is not followed by other hostile troops. I will advance immediately to SENTINEL hill and continue my reconnaissance from there.

A.

Lieut.

This is the first time the enemy has been seen in this operation of the Blue force. *For this reason the information is important.* It is an easy matter for Lieutenant A to send it to the outpost commander and doing so will not interfere with the further execution of his mission. Under these circumstances, for him to trust to Sergeant B to forward information of the presence of the hostile patrol would be a mistake.

(d) Through the woods on the northern slope of Atchison hill, crossing the railroad tracks and wagon road between Schmidt and McGuire, and entering the ravine that starts at F. Thence down this ravine 600 yards to the point where it makes a sharp bend to the north; thence due west in the small swale to the top of Sentinel hill. This route, as far as can be judged from the map, affords as good, or better cover

than any other direct route to Sentinel hill. Good cover from the inhabitants and the hostile patrol might be found on a shorter line through the woods on the northwest slope of Atchison hill and across the road between Moore and Schmidt, but it is preferable to get the patrol in the ravine at F as quickly as possible.

Of course, all the houses in this settlement should be most carefully avoided. Their occupants are hostile and would give no reliable information; but, on the other hand, they probably would report the presence of the patrol, should they get an opportunity to do so. To move directly along the 16—G road is to expose the patrol to view with few compensating advantages.

By way of 16, 18, 20, and the trail and ravine to the northward via Frenchman, and then *east* to Sentinel hill, the patrol might find good cover and avoid houses, but the greater length of this route and its other disadvantages far outweigh its advantages.

The patrol might go to Hund hill or Eleven Hundred Foot hill for further observation, were it not that the outpost commander evidently intended Corporal C to observe from those points and wished Lieutenant A to observe in the territory between Corporal C and Sergeant B.

Continuation of the Situation.

Nothing further was seen of the Red patrol after it disappeared in the woods north of E, and at 5:30 p. m. Lieutenant A is on Sentinel hill with his patrol observing Salt Creek valley, when a troop of hostile cavalry coming along Atchison pike from the west

halts and dismounts at the Mottin house, while a squad of about sixteen men from this troop continues the march to Frenchman and dismounts there.

(e) Further intentions of Lieutenant A.

Continuation of the Solution.

(e) To continue his observations from his present position. If he wishes to risk weakening his patrol, he might send a message containing information of the presence of the hostile troop. This message would add so little, *under the conditions of this problem*, to the information contained in the first message sent, that there is no great necessity for hastening to send it back. However, if Lieutenant A had reached Sentinel hill with four, five or more men, as would be the case if he had started with five or more men, he could well afford to spare one or two of them to carry this message.

Continuation of the Situation.

Lieutenant A remained in unmolested observation on Sentinel hill. By dusk two regiments of infantry and a baggage train had halted in the field 1,000 yards northwest of Mottin and had sent small detachments towards Mottin and Hill 900 about 1000 yards south of 19. Ten more troopers from the troop at the Mottin house had joined the cavalry at Frenchman, and two patrols from this detachment had moved by G and disappeared in the direction of E and 16. The road from Frenchman to G was being constantly patrolled by two troopers. A message was sent to the outpost commander by the two remaining privates soon after the head of the hostile infantry column came into sight on Atchison pike.

(f) Inferences drawn by Lieutenant A from his observations.

(g) Further intentions of Lieutenant A.

(h) His route on returning to his camp, on the supposition that he decides to return as soon as it grows dark. State reasons for selecting route chosen.

Continuation of the Solution.

(f) That the enemy's whole force in this vicinity consists of 1 troop of cavalry and 2 regiments of infantry, and that he is going into camp and placing outposts for the night. Were this the advance guard of a larger force, we would expect it to have more cavalry in its front and most probably we would have seen artillery. However, conclusive deductions as to the total strength of the hostile force can not be drawn from these facts, nor from the additional fact that the force has been joined by its baggage train.

(g) To remain where he is until it is dark enough to conceal his movements and then to return to camp unless further developments in the meantime should warrant a different procedure.

(h) Due east until he enters the woods on Sheridan's Drive and then southeast by the roads to his outposts. He might return as far as McGuire's by the route over which he came, thence south of and along the railroads to the vicinity of 10, and thence east to Long Ridge. This route, however, is very dangerous and, if taken, great care should be exercised in crossing the road and railroads, and in moving along them; even then it is far less desirable than the route due east.

It is difficult, if not impossible, to follow compli-

cated routes in the darkness in an unknown country, and for this reason we prefer the simple route due east; it can be followed with ease and without the use of the compass, which usually can not be read at night without the risk that accompanies striking a match. Routes down Salt creek and up ravines to Wagner point or Bell point are unnecessarily complicated and roundabout. The same is true of routes to the south over Government or Southwest hills.

Before starting from Long Ridge Lieutenant A would inspect his patrol and give his orders and instructions. The inspection is mainly to determine whether the men are in fit condition, have serviceable arms and a proper supply of ammunition, and have taken the usual precautions to avoid the glitter of weapons and equipments. No regimental insignia or other devices that show the organization to which the patrol belongs should be worn, for an intelligent enemy well informed of our organization will get much valuable information from these should the patrol be captured.

The orders, which would be given to *all* the members of the patrol, would be about as follows: "A force of the enemy is reported advancing from the west (indicating the points of the compass) and Major A (the outpost commander) believes it will camp near Salt creek to-night. Here is Salt creek on the map; it is about a mile west of that ridge (pointing towards Atchison hill). We are to go to the vicinity of this bridge over Salt creek (indicating Frenchman bridge on the map) and find out what we can of the

enemy. Major A is specially anxious to know the enemy's strength and his camping place for the night. All messages are to be sent to Major A, here, and we are to stay out until it is too dark to reconnoiter. Sergeant B will reconnoiter on our right along that ridge (Sheridan's Drive ridge) to the north, and Corporal C is to reconnoiter on our left along this road (pointing out the Zimmerman road on the map). Atchison hill (indicating on both map and ground) will be our first objective, and we will reach it by following up that creek (Corral creek)."

If Lieutenant A's patrol is composed of experienced soldiers, the above orders will be sufficient, but, if he has one or more inexperienced men, he may have to add instructions regarding signals to be used, the necessity for concealment, firing pieces, and other matters depending on the training of the men. It is not necessary to designate a second in command, for that duty naturally falls to the non-commissioned officer, and it is too soon to prescribe a point where the patrol will assemble in case it is scattered.

The orders received by commanders of larger bodies of troops are not explained in such detail to the individual soldier, but in the case of small patrols it is important that each may be fully informed, for the reason that the duty requires the exercise of individual knowledge and judgment; moreover, in the event of the patrol leader being captured or killed, or of the patrol being scattered, each man should have a complete understanding of the situation so as to be able to act independently and intelligently under the circumstances.

We should not make the mistake of concluding that

the formation of the patrol in single file as it moved up Corral creek is the only suitable one, or one that will best fit all cases. In any case, we should seek a formation that favors rapid marching, facilitates concealment and observation, renders surprise difficult, and makes probable the escape of at least one man, in case the patrol is surprised. The marching formations of patrols are governed by this general principle and they will vary with the terrain and other conditions.

It may be asked, Why did not Lieutenant A go alone on this mission? In truth he might well have done so, had he thought there would be no occasion for sending a message back before he had completed his reconnaissance. Alone, his single pair of eyes could have seen everything that was to be observed, and there would have been less chance for his movements being discovered by the enemy. If a patrol has with it a single man unskilled in scouting, it is in constant danger of having its whereabouts disclosed by his stupid blunders. To this extent the efficiency of a patrol is measured by that of its least trained member. If this fact is fully appreciated, the wise patrol leader will select the men who are to accompany him with the greatest care allowable under the circumstances, and he will reduce the strength of his patrol rather than take along a man whose presence is a constant menace.

A patrol leader, as well as the commander of larger forces, should make his decisions and movements dovetail into what he considers the most probable intentions of his enemy. This the lieutenant did when he took careful precautions against discovery while approaching Atchison hill. An intelligent hostile patrol

on this or adjoining hills should be able to detect any movement not made under cover on the low ground to the east. Naturally, the lieutenant was eager to reach Atchison hill which promised a view to the west, but he realized that his patrol must be as well concealed during this part of the journey as later on, even though its march was somewhat delayed. As an additional precaution, it would have been well for the patrol, as soon as it entered the woods on the slope of Atchison hill, to move 300 or 400 yards to the right flank and then ascend the hill; if the enemy had observed the previous march of the patrol and set a trap for it, the trap might thus have been avoided; in general, it is well for a patrol thus to move to a flank, or otherwise to change the direction of its march on entering a woods.

It might have been better for the patrol to ascend Atchison hill along the spur which is about on the line connecting the words "Atchison hill" with the number "XXV", instead of following up the ravine. The latter is apt to be rocky or overgrown with dense underbrush; noises would *rise* from it to the enemy, were he on the hill above, and to be caught in it would be embarrassing. As a general rule, it is better to follow along spurs or near the ridge line *in traversing woods*, if such a route is available and open to the patrol.

Lieutenant A might have passed through these woods with his patrol extended in a line of skirmishers with wide intervals. Such a formation might be excellent if he wished to beat up the woods to determine whether small parties of the enemy were hiding in them; but such was not the lieutenant's purpose; on the contrary, his object was to reach the top of the hill

without being seen, and this he could best do by keeping the patrol in a more compact formation.

Having arrived near the western edge of the woods, the lieutenant approached the top of the hill with the greatest possible caution, making sure before leaving the woods that the enemy was not already in possession of the hill as an observation point. The patrol, except the man who was observing the 14—16 road, was left in the edge of the woods and the lieutenant alone crept to the top of the hill without exposing himself on the sky-line; there, lying flat, with only his head showing above the crest, he closely searched the visible country through his field-glass.

It is difficult at maneuvers to get men on reconnaissance to observe even such simple precautions as these, unless we in some way stimulate their interest in the game. There are many ways in which this can be done. One good method which can always be employed in the preliminary training of the company in patrolling is to have the patrols operate against each other from opposite directions along the same road. As many pairs of patrols as there are roads available can thus be trained at the same time. With three or four roads, it should be an easy matter to put the entire company through this exercise in a single morning. Later, the exercise may be varied in numerous ways that will readily suggest themselves to the mind of the enthusiastic officer. If our men are properly taught correct methods of scouting in time of peace, we may be sure that they will employ those methods when in the face of an enemy and constantly menaced by death or capture.

The message sent from Atchison hill, written on a field message blank, would be as follows:

U. S. ARMY FIELD MESSAGE	No.	Sent by	Time	Rec'd by	Time	Check
	[These spaces for Signal Operators only]					
Communicated by BUZZER, PHONE, TELEGRAPH, WIRELESS, LANTERN, HELIO, FLAG, CYCLIST, FOOT MESSENGER, MOUNTED MESSENGER. (Underscore means used)	From	<i>Officers</i>		<i>Patrol</i>		
	At	<i>Atchison</i>		<i>Hill</i>		
	Date	<i>29 Sept. -</i>	Hour	<i>4:50 P.M.</i>	No.	<i>1</i>
	To	<i>Outpost Commander.</i>				
	<i>At 4:40 p.m. a hostile cavalry patrol of 5 troopers turned north on the trail leading from the F-E road, and disappeared in the woods about 600 yards north-east of here. So far as I can see, it is not followed by other hostile troops. I will advance immediately to SENTINEL hill and continue my reconnaissance from there</i>					
	<i>A.</i>					
	<i>Lieut.</i>					
Received						

If Lieutenant A had not been supplied with message blanks, as will often be the case, he would have written the message on a leaf from his note book, or on any other piece of ordinary paper; in that case the message would have been worded as in the solution, without any attempt to reproduce the ruled lines, etc. of the blank form. The object of the message blank, when it is furnished, is merely to prevent the sender from forgetting some important part of the message.

The lieutenant was careful not to state the location of the outpost commander, or the organization to which the outpost belonged. This would add nothing to the value of the message, but would give the enemy important information should the message fall into hostile hands. The messenger, however, is told where and to whom he is to take the message. The lieutenant intrusted the message to a single messenger,

and informed him of its contents before starting him off; the envelope (if one was used) was left unsealed so that the messenger might further study the message, if he saw fit. This was a wise precaution, for a messenger may have to destroy a message at any moment to prevent its falling into the hands of the enemy; consequently, he should be familiar with its contents, when practicable. Information is sent by one, or by two or more messengers, depending on its importance, the dangers of the road, distance to be traveled, etc. A single messenger is not so confident and something may happen to him, or, if he is mounted, to his horse; but the lieutenant was so near his outpost line that he did not believe it necessary to weaken his patrol further by sending two messengers.

The lieutenant took his time in writing the message, without being unduly deliberate. Ten minutes elapsed from the moment he saw the hostile patrol to the moment he finished the message. A part of that time he was observing the country in every direction, but especially along the Atchison pike, to see whether the hostile patrol was followed by other hostile forces; at the same time, he was deliberating on what he would say in the message. Before he could complete the message he had also to decide what his further movements were to be, for his commander would want to know of them.

It is suggested that the message be carefully copied to see how long it takes to write it. It will take about 4 minutes to make a legible copy, unless one writes a legible hand with more than ordinary rapidity. But it is not the writing alone that takes time, although this is generally done under great difficulties in

the field. For every minute spent in writing, we probably will spend one or two minutes in considering what we will say, and in re-reading the message to see that we have omitted nothing. The message might be made shorter and say all that should be reported; even so, it does not follow that the shorter message can be more quickly written. Our Field Service Regulations say that a message should be brief and *clear*, resembling a telegram; but this does not mean that clearness shall be *sacrificed for brevity*. "Searching for the shortest form of expression might take longer than rapidly writing several longer sentences, and might result in ambiguities. It is most appropriate to say 'Please excuse this long letter; I haven't time to write a shorter one.'"

Yet this is time valuably spent. How frequently at maneuvers have we seen messages so carelessly composed that it was well nigh impossible to get any definite information from them, and so illegibly written that it was exceedingly difficult to read such incomplete information as they contained! We have seen a patrol leader work with great patience for hours in leading his patrol to a point from which he got a perfect view of the enemy, only to send in an incomplete and garbled account of his discovery, written in an illegible scrawl; whereas, had he spent five minutes more on the preparation of his message, he could have written a complete and easily understood report of inestimable value to his commander.

The lieutenant realized that he was running a risk, in taking his patrol to Sentinel hill, of having it cut off and captured. At the first glance, this lone high hill appealed to him strongly as an observation point,

but he reflected that the enemy's patrols might search its top and sides in the hope of discovering him. He thought of choosing some less conspicuous point, as Eleven Hundred Foot hill, but for the reasons given in the solution, and because there were many "back doors" through which he might escape from Sentinel hill, he finally chose the latter.

What should our lieutenant have done had he observed the glow of camp fires to the westward of the hostile force he had seen? This would be an indication that the force he had observed was but the advance guard of a larger column. We have seen that the patrol leader based his conclusion that he had seen the enemy's entire force on the rather scant facts that he had seen but one troop of cavalry, and no artillery, and that the infantry was followed by its field train. What appear to be the most convincing signs are at times deceptive. The lack of cavalry and artillery might be explained in many ways. In general, the field train of an advance guard does not follow immediately in its rear, but accompanies the rest of the baggage in rear of the main column; but this instance may be an exception, or the baggage may have been pushed ahead to join the advance guard for the night.

Under this supposition, should our lieutenant have continued his reconnaissance? His orders do not require him to return at dark and he has the whole night before him in which to work. By sending back the non-commissioned officer to report the result of the reconnaissance thus far made, and pushing on alone, he would, if successful, be able to return by morning with a more complete report of the enemy. Of course, in so doing, he would entrust the delivery of the im-

portant information already in his possession to the non-commissioned officer, whose skill is inferior to his own, but he could not be censured if his zeal should lead him to undertake the hazardous enterprise of a night reconnoissance within the hostile outposts.

No doubt it may be thought strange that we would approve, even in a guarded way, of the return journey being made in part over the route by which the patrol went out, apparently in violation of what our Field Service Regulations say on the subject. The regulations do not establish an absolute rule to be followed under all circumstances. It is the danger of ambuscade on the old route that makes it more dangerous than a new one, and for this reason the old route, generally, should be avoided. General Baden-Powell says that the only time he violated this rule he lost his hat and very nearly lost his life by the bullets of a hidden party of the enemy. But the route along the railroad from F is suggested as practicable, although lined with danger, for the following reasons: There is no hostile infantry east of Frenchman; the hostile cavalry patrols will probably confine their movements to the roads during the night, and in order to observe our camp, standing patrols probably will be on the high ground only at E and 16. Even so, our patrol would have to thread its way very carefully through the dangerous section between F and 10.

CHAPTER II.

LEADING OF AN INFANTRY PATROL.

PROBLEM.

(See 4-inch map).

On September 1, a Blue regiment in hostile territory is advancing on Leavenworth via the Kickapoo—17—H—G road. Small detachments of hostile infantry are known to be in the vicinity of Leavenworth.

At 11 a. m., after 6 hours of forced marching, the column is halted for a rest of 45 minutes, when the advance party reaches the Taylor house (about one-half a mile south of 17). The advance guard commander had previously given Lieutenant A the following orders: "When the column halts to rest, take two squads from the advance party and determine whether the enemy occupies Sentinel hill and the ridge to the south and east of it. Leave your packs under guard at the Taylor house to be picked up by your company wagon when it passes. Send your messages to me with the advance guard."

Note—Salt creek is very low and can be crossed by infantry dry shod.

Required:

(a) What route will the patrol take for the first mile and a half of its journey? Give reasons.

SOLUTION.

The mission of the patrol is, in part, to determine

whether Sentinel hill is occupied by the enemy, and the only certain way of doing this is to reconnoiter the top and slopes of the hill. Consequently, Sentinel hill becomes the first objective of the patrol, and, if practicable, it should be reached under cover.

There are four available covered approaches to the hill. (1) South along the road as far as the stream between the Dolman house and the Burns house, thence along this stream to Salt creek, thence up the creek and through the woods bordering the northern spur of Sentinel hill to the top of the hill. (2) South along the road to the stream-crossing 350 yards north of Frenchman, thence down this stream to Salt creek, thence across the creek and through the same woods as before to the top of the hill. (3) South along the road to the bridge over Salt creek at Frenchman, thence along the right bank of the creek and through the woods to the top of the hill as before. (4) Directly east from Taylor's, keeping on the north side of the hedge until Salt creek is reached, thence along the creek and through the woods to the top of the hill.

There is not much choice among the first three of these routes. Route 4 is fairly well concealed, but is much more roundabout than any of the others, and is entirely across country; hence progress by this route will be slow. By routes 2 and 3, the patrol will remain longer on the road, and may reach its destination more quickly and with less fatigue. On the other hand, the first route has the advantage of better cover, for the low-cut hedge along the road forms but imperfect cover for so large a patrol. Consequently, Lieutenant A decides to take the first route.

Continuation of the Problem.

(b) On the supposition that the patrol takes the route first described above, and does not encounter the enemy, what will be its formation until it reaches the top of Sentinel hill?

Continuation of the Solution.

While on the road, a non-commissioned officer and three men will form a point; the non-commissioned officer will send one man 50 yards in advance of himself and the other two. The remaining twelve men will march in one body in single or double file, depending on the cover furnished by the hedge, and will follow the point at 200 yards. The files will follow each other at a distance of about 10 yards, thereby making it more difficult for an observing enemy to determine the full strength of the patrol. Two men will be sent to the Dolman house to examine the country to the east of there not visible from the road, and then to return to the patrol.

On leaving the road the point does not change its formation. Two of the twelve men fell back 100 yards and follow as a rear point. The remaining ten men keep the formation they had while on the road, half observing to the right and half to the left. This formation is preserved until the patrol enters the larger wood about the bends in Salt creek. From here to the top of Sentinel hill, the wood is thick and about 250 yards wide and dispositions should be made for observing from both its edges. Accordingly, two men are sent out to each flank to follow along the edges of the wood, and the six men in the main body of the patrol are closed up to the usual distances between files.

Lieutenant A has remained with or near the main body of the patrol throughout the march. The route of the patrol, after it reaches the top of the hill, will depend on the amount of cover furnished by minor features; it may be necessary for the patrol to continue along the east slope of the hill under cover of the narrow strip of wood.

Continuation of the Problem.

(c) On reaching the top of Sentinel hill at 11:40 a. m., Lieutenant A halts his patrol under cover, with two men observing each of the four slopes of the hill while he carefully scans the surrounding country, particularly the ridge to the south and east. His search reveals no indications of the enemy. His own column is not in sight and apparently has not yet resumed its march. What action should he now take? Give reasons.

Continuation of the Solution.

He should send a message giving the result of his reconnaissance up to this time, and then continue his advance along the best available route towards the ridge to the southeast. That Sentinel hill is not occupied by the enemy is important information for the advance guard commander and this information should be sent to him without delay. It tells him that he has nothing to fear from this commanding position on the flank of the Blue line of advance. But Lieutenant A's reconnaissance can not stop here, if he accomplishes his full mission. He must definitely determine, by a closer inspection than he can make from Sentinel hill, whether the ridge towards Leavenworth is occupied by the enemy.

His message is simple and reads as follows :

Officer's Patrol,
Sentinel Hill,

To

1 Sept.—, 11:50 A. M.

Advance Guard Commander.

SENTINEL hill is not occupied by the enemy, and there is no sign of the enemy on the ridge to the south and east. I will proceed at once to ATCHISON hill.

A.

Lieutenant.

Continuation of the Problem.

(d) The above message was sent by two messengers. Soon after their departure, as Lieutenant A is about to resume his advance, the non-commissioned officer, observing toward G, reports a hostile patrol of four men coming through the wood up the hill from the direction of G. What should be Lieutenant A's action in this situation? Give reasons.

Continuation of the Solution.

For several reasons, the lieutenant should attempt to capture the hostile patrol. His own patrol is so large and the east and west slopes of Sentinel hill are so open that he probably could not avoid being seen, unless he retraced his steps to the large wood on the north slope of the hill, and from there he could not reach the ridge to the east under cover without making a wide detour. His own reconnaissance would be blocked and the hostile patrol would be permitted to observe the Blue column. Lieutenant A was given a strong patrol in order that his reconnaissance might not be checked by small hostile patrols, and the important thing for him now is to push on to Atchison hill and discover the exact situation along that ridge and in the open country towards Leavenworth. This

he can hardly hope to do without colliding with the small hostile patrol, and it will be to his advantage to bring about the collision in such a way, if possible, that he may capture the entire patrol. This appears the more probable since the hostile patrol, apparently, is not aware of Lieutenant A's presence.

Continuation of the Problem.

(e) Lieutenant A hastily prepared an ambush and captured three of the hostile patrol, but the fourth man escaped towards G. There are no other signs of the enemy. It is now 12 o'clock and the head of the Blue column is passing the Burns house. What disposition will he make of the three prisoners?

Continuation of the Solution.

After disarming and searching the prisoners, each is questioned out of the hearing of the other two, and subsequently they are not allowed to communicate with each other. They are then placed under the guard of a non-commissioned officer and one man and are sent back to join the column. The bolts are removed from their rifles and they are required to carry their arms and ammunition. The non-commissioned officer was present when the prisoners were questioned, and he is directed to report their answers and the circumstances of their capture to the advance guard commander. Lieutenant A does not delay his reconnaissance in order to send a written message embracing the answers to the questions asked the prisoners.

Continuation of the Problem.

(f) From the prisoners, Lieutenant A learned that the enemy is attempting to concentrate his scat-

tered detachments at Leavenworth and that no hostile forces are along the ridge to the south and east of Sentinel hill. The Blue patrol (now reduced to 12 men) continued its advance at 12:12 p. m., as the advance party of the Blue column was crossing Salt creek bridge. At 12:30 p. m., the patrol is near 16 and the Blue advance party is approaching G. Lieutenant A observes about a battalion of Red infantry advancing in column on the 72—14 road, the point of its advance guard being at the railroad crossing just east of 14, while the tail of the column is concealed by the Penitentiary walls. What action should Lieutenant A take?

Continuation of the Solution.

He should deploy his patrol in the edge of the woods southeast of 16 and open a vigorous fire on the advancing column. The two hostile columns are about equally distant from the top of the ridge near 16, and the one that reaches it first will have a great advantage of position. There is no good reason why Lieutenant A should try longer to conceal his presence, and his fire may check the Red column sufficiently to permit the Blues to get easy possession of the ridge. Moreover, opening a rapid fire is the quickest way of informing the advance guard of the necessity for haste.

COMMENTS.

It should be observed that Lieutenant A allowed no member of his patrol, excepting those who carried the message and escorted the prisoners, to get more than 200 to 300 yards away from him at any time. During the reconnaissance, the patrol was under his

immediate control, and all its members that had not been sent to the rear could be assembled in less than a minute for any action he might wish to take.

Throughout this book, much will be said of the evil consequences of dispersion—of scattering a command on a front so broad that its full strength can not be opportunely united at the decisive point—for experience has shown this to be a very frequent, if not the most frequent, tactical mistake made by those beginning the application of tactical principles to practical problems. The principle *in concentration of forces there is strength, in dispersion there is weakness*, is simple enough. It requires no demonstration to convince one that eleven football players dispersed at equal intervals across the gridiron would make a sorry showing against the attack of the concentrated wedge of their opponents. The game of war, in this respect, is not unlike the game of football. The difficulty, however, lies not so much in learning the principle as in recognizing what constitutes dispersion with commands of various strengths, and this difficulty we hope to clear away, little by little, as we go through this book.

The principle applies, whatever the size of the command. Even a single man, fighting alone, must concentrate his efforts in the proper direction, if he is to secure the maximum benefits for the energy expended. We are liable to fall into the error of saying the principle does not apply to a very small command, certainly not to a command so small as a patrol. *From this very weakness of the patrol springs the greatest necessity for utilizing every particle of its strength.*

Now let us see what would constitute dispersion in

this particular case. As a general rule, every member of a patrol will accompany the patrol leader, and detachments should be sent no farther away than is necessary to protect the front, flanks, and rear of the patrol, while it is marching or halted, or to make observations from points *very* close by. Of course there are exceptions, but we will make fewer mistakes, if we adhere closely to the rule until we have mastered the difficulty; later, we will have but little trouble in recognizing the exceptions; whereas, if we search for them in the beginning, we are liable to consider every case an exception.

For example, Lieutenant A was told to reconnoiter "Sentinel hill and the ridge to the south and east of it." He might have tried to perform both these tasks at the same time, by sending a part of the patrol over Sentinel hill while the remainder followed along the road, or some other route, to the ridge. Had he done so, he would have dispersed the patrol. Or, he might have kept the patrol together as far as the top of Sentinel hill and scattered it after reaching that point. "The ridge to the south and east" measures two miles or more along its crest, and he might have tried to reconnoiter its whole length at one time by sending a few men to Wagner point, a few to Atchison hill, and a few more to Southwest hill. Had he done so, again he would have dispersed the patrol. *These tasks should be done one at a time in the order of their importance*, and, since the most direct route for his regiment is via 16, that is where he is most likely to find the enemy, and is the point on which he should direct his further march. It was not necessary to approach 16 along the road, and if he had tried to

get on the flank of any small force that might be near 16, by ascending the northern slope of Atchison hill, there could be no criticism of his action, *provided he kept the patrol together.*

Frequently, we will unwittingly disperse our command as a result of not having studied the map with sufficient care. It is advisable always to apply the scale of the map to the distances involved in the division of a command, before making a decision to divide it. More than that, we should read the map intelligently, and should remember that the terrain is very different from what we are likely to picture it, unless we have made a study of terrain from a military standpoint, and are able to use our imagination with intelligence when reading the map.

Lastly, we should not attempt on the map what we would not do on the ground. In solutions, such expressions as the following are not uncommon: "I will send 3 men to Wagner point to *signal me what they see there.*" Or, "I will march towards 16 with the remainder of the patrol and, if I encounter the enemy, will *signal the patrols on Wagner point and Southwest hill to rejoin.*" We have but to measure the distances on the map, and get a correct mental picture of the terrain, to realize that these signals probably would not be seen, and, even if they were, there is little chance of their being understood, for only the simplest messages can be sent in this manner, and the signals for these must be prearranged. Manifestly, we cannot foresee all the contingencies that may arise and devise a signal to meet each one of them.

CHAPTER III.

LEADING OF A CAVALRY PATROL.

SITUATION.

(See 2 and 4-inch maps).

The Missouri river is the boundary between hostile states. A Red force east of the river is known to be advancing on Leavenworth.

A Blue separate brigade with one squadron of cavalry has been pushed forward by rail to Winchester (19 miles west of Leavenworth) with orders to march on Leavenworth and seize the bridges over the Missouri at and near that point. The brigade was to camp at Winchester the night of September 20-21, covered by the cavalry which had been pushed forward toward Easton (11 miles west of Leavenworth). At 2 p. m., September 20, when the most advanced troop of the cavalry was approaching Easton, without having seen anything of the enemy, its commander gave Lieutenant A the following verbal order:

"The brigade commander has received information that the enemy is moving troops by rail to Beverley.

"Take a patrol of five privates from your platoon, proceed by way of Rock Island bridge to the vicinity of Beverley, and obtain information of any hostile forces that may be concentrating at that point.

"I will send another patrol under Sergeant A with similar instructions via Terminal bridge.

"The squadron will camp on the line of the Big Stranger (11

miles west of Leavenworth) to-night, with headquarters at Easton. You will go prepared to remain out over night." (*)

Lieutenant A selected five of the best men of his platoon and satisfied himself that they and their horses were in fit condition and that the latter were well shod and had no bad habits, such as neighing, which would render them unsuited for the work in hand. Rations, arms, ammunition, accoutrements, and equipment were carefully inspected and defects corrected. No cooked rations were available or they would have been taken. The inspection completed, Lieutenant A acquainted the men with the orders he received from the troop commander, taking great pains to insure their fully understanding the situation and what was expected of the patrol. The general principals governing the conduct of infantry patrols are, as a rule, equally applicable to cavalry patrols, and to avoid a repetition of the preceding chapters only such principles will be mentioned here as are peculiar to the conduct of cavalry patrols.

What route should Lieutenant A have taken for the first five miles of his march, supposing nothing was seen of the enemy?

During the march up to this point, Lieutenant A had been studying his map with the possibility of just such a mission as this in mind, and it took him but a moment to decide that his route at first would be along the Atchison pike via Frenchman. The Millwood road further to the north possibly might have been a less dangerous route, but the patrol would have been practically blindfolded the moment it entered the

* Fort Leavenworth is ungarrisoned.

woods east of Salt creek. If the enemy's cavalry had crossed the Missouri river it was more likely to be encountered in force on the Atchison pike than on the Millwood road, but Lieutenant A took this chance in order to get a view to the east from the hills south-east of Frenchman. A patrol should remain concealed from the enemy, yet it must see what is going on about it, and, if to do this it becomes necessary to expose itself, this additional risk must be taken without hesitation. Lieutenant A pointed out on his map to his patrol the route he proposed to take as far as the hills west of Leavenworth; he gave this information to Sergeant A also, and learned from him that he would enter Leavenworth via the Zimmerman road.

The formation and conduct of the patrol as far as Frenchman.

The patrol then took up the march. Lieutenant A and one man were in the lead, two men were about 100 yards to the rear and the remaining two men were 100 yards still farther to the rear. All followed the road, taking advantage of such cover as was afforded by ditches, hedges, etc. A patrol must advance quickly. The peculiar value of a cavalry patrol lies in its great mobility. To cross country, following woods, ravines, and other cover, would wholly sacrifice this mobility for increased security; the horses would become a mere burden and the patrol would be less mobile and efficient than one composed of infantry. In this case, mobility was of special importance. Beverley, Lieutenant A's objective, was 15 miles away, and the afternoon was already partly gone. As he

drew nearer to Beverley his march would have to be conducted with greater caution; consequently Lieutenant A appreciated the necessity for making as much speed as possible in the early part of the journey, without taking undue chances; he did not lose sight of the fact that he might meet hostile forces at any time, especially cavalry. The enemy, apparently, was pursuing precisely the same tactics, in his efforts to secure possession of the Missouri river bridges, as was the Blue separate brigade, and, if he were detrain- ing troops at Beverley, he would undoubtedly push his cavalry forward at the earliest possible moment.

For the first few miles the patrol was in comparative safety, since the road it followed had already been passed over by the most advanced scouts of the squadron, and Lieutenant A, without neglecting to observe, trotted out, walking on the hills only, until he came up with a patrol from his platoon about four miles east of Easton. From this point he proceeded with greater caution and more slowly, occasionally stopping on commanding points to reconnoiter the country to the front, orient his map and point out the location of the patrol to his men. Little time was lost in this part of the journey in reconnoitering side roads, since it was the duty of other patrols to warn the squadron of the near approach of hostile patrols and Lieutenant A's chief concern was to reach the vicinity of Beverley without being discovered by the enemy.

At 3:45 p. m., the patrol was about one mile west of Frenchman. Here it met a farmer returning home from Leavenworth, who told Lieutenant A that when

he left Leavenworth at a little before 2 p. m., it was rumored that Red troops were being detrained at Beverly and that some of their cavalry had been seen along the east bank of the Missouri river about noon. Lieutenant A did not delay to question him further, but hastened on in an effort to gain the hills in his front before they could be reached by the enemy's patrols, which he now felt sure would soon be across the river if they were not so already. At Frenchman, he delayed long enough to water the horses—the road from the north and that from the east being observed, in the meantime, by mounted sentinels; he also inquired if the country to the east was visible from the top of Sentinel hill, and was told that it was not, this information verifying the accuracy of his map. Before leaving here, the men were told to observe this point well as it would be the place of assembly in case the patrol were scattered.

How should the patrol have been led from Frenchman to the high ridge to the southeast?

With his patrol still in the same formation as at the start, he covered the dangerous stretch of road southeast of Frenchman at a swift trot, without delaying to question the inhabitants; he pulled down to a walk at the forks of the road at the Moore house and took the right hand fork as being the easiest and quickest way to the top of the hill. He proceeded along the road to the cut on the top of the hill and then turned sharply off to the left and followed along the ridge, under cover, to a point on Atchison hill from which the low ground to the east was open to his view. It was then 4:15 p. m. Lieutenant A sent four mounted

men with instructions so to post themselves, two on either flank of the patrol at a distance of about 200 yards, as to prevent the patrol from being surprised. Lieutenant A then carefully examined the country in his front through his field glass for the purpose of determining whether the enemy had yet crossed the Missouri river and what the subsequent movements of the patrol should be.

He remained here for some minutes without seeing any signs of the enemy and had about decided to move down the hill and strike Hancock avenue when five mounted men, evidently a hostile patrol, appeared on the road along the north side of the U. S. Penitentiary, and moved at a trot towards Atchison Cross.

What action should Lieutenant A have taken in this situation?

Lieutenant A immediately decided that he must move, and remained but a moment longer to make sure that the Red patrol was not closely followed by other hostile forces; he then assembled the patrol, gave it all the information he had obtained up to that time, explained his present intentions, and moved it through the woods towards the Schmidt house. As the patrol was about to emerge from the woods, four Red troopers were seen on the road just north of the railroads coming down the hill towards the McGuire house. Lieutenant A immediately dismounted one man and left him to observe the movements of this second patrol while he conducted the remainder of the patrol and the led horse to a place of concealment in the little watercourse on the north slope of Atchison hill where all dismounted. One man was then sent towards the

cut at E to overlook the country to the east, one was sent to the southern edge of the little woods, two were left with the horses, and Lieutenant A joined the man who had been left to watch the hostile patrol. He found that the hostile patrol had halted at the Schmidt house, but presently it moved on along the road to the west. Moving along the side of the hill under cover, Lieutenant A was able to keep the patrol in sight, and was much relieved to see it joined at G by five Red cavalymen from the direction of Atchison Cross, evidently the first patrol seen. The two patrols remained here for some minutes, apparently conferring with each other, and then all nine men continued their march west along Atchison pike and were soon out of sight beyond Sentinel hill. This was at 4:50 p. m.

What should Lieutenant A have done at this time?

Leaving the man in observation, Lieutenant A hastened back to his horses, called in his two sentinels and learned from them that they had seen no further indications of the enemy. Since this was the first contact with the enemy in this operation, information of it should be sent at once to the cavalry commander at Easton. He and the brigade commander should know as soon as possible that the enemy had actually set foot on the western bank of the Missouri. Moreover, the message bearers could get through with less danger than later on when more hostile cavalry probably would be between Lieutenant A and his squadron. But Lieutenant A did not want to spare the messengers. Even if he sent the message by one man only, he would be able to send but one more message. The truth of the matter is the patrol was too small for

its mission. Lieutenant A should have had at least 1 non-commissioned officer and 7 men; then he could have sent three messages and still have been left with an escort of 2 men. Two non-commissioned officers and 8 men would have been a still more appropriate strength for the patrol, but commanders often will be compelled to make patrols much weaker than they would like, so many are the demands on the cavalry. Under the circumstances, Lieutenant A decided it was best to delay sending the message by a messenger until he had determined whether other hostile troops were following the patrol he had seen, and to attempt, in the meantime, to telephone the information he had already secured to Easton.

Once more the patrol was mounted and started through the woods towards the Schmidt house (which was found to be unoccupied), picking up the sentinel on the way. It regained the road, turned east and trotted up the hill beyond the McGuire house until Lieutenant A reached the trail leading north along the ridge to Sheridan's Drive. Here Lieutenant A signaled the patrol to halt, dismounted and deliberately scanned the country in his front without seeing any signs of the enemy. He then mounted and took one man with him to the McGuire house, where he found a telephone, but was told by the operator at Leavenworth that there had been no communication with Easton for more than half an hour. He ceased his efforts to telephone, rejoined the patrol, and signaled it to assemble. The rear men having come up, he pointed out the principal features of the country and stated that their further march would be along Hancock and Pope avenues to the river bridge and

the timber beyond. The march was then resumed at a walk.

As the patrol passed the target butts, one of the central men was directed to skirt the woods south of Hancock avenue. Sheridan's Drive was passed without halting. Just as Lieutenant A reached the western corner of the National cemetery the right flanker signaled the enemy in sight, and Lieutenant A, halting the patrol, hastened to his side. Two hostile troopers were seen on Engineer hill, and three on Merritt hill moving west along the road across the cavalry drill ground.

What was a correct course to follow in this situation?

Lieutenant A believed these to be the advanced scouts of a larger force, probably then crossing the river bridge, and it took him but a moment to decide that his patrol must be moved to a point where it would be more secure from discovery, yet from which it could observe the country about Fort Leavenworth. Sending the flanker back to his former place in the center, he turned the patrol into the woods and started up the hill north of the road. As the patrol entered the woods, the distances were reduced to about 50 yards. After a few moments, a faint trail was found on top of the ridge; this was followed for about 300 yards to the northeast until the top of the hill was reached, from which the surrounding country was plainly visible. The patrol was then dismounted under cover and two men with the led horses were hidden deep in the woods; two men were sent to post themselves as sentinels about 200 yards away on the trail, one in each direction, while Lieutenant A and one man watched the country below.

The hostile patrols had disappeared, but four Red troopers were seen moving west along Pope avenue, followed at about 200 yards by about 20 more; a third detachment, carrying a guidon, followed about 500 yards further to the rear, and, as it came nearer, it was seen to be the larger part of a troop. The head of the column soon disappeared under the hill, but appeared a few moments later on the north slope of Engineer hill, where nearly an entire troop was soon assembled. About the same time, the head of a column of cavalry appeared on Pope avenue and a few minutes later it turned off the road onto West End parade, formed column of troops, halted and dismounted. There were three troops in this column and apparently they were going into camp for the night. It was evident that there was at least a squadron of cavalry west of the river. In the meantime, the troop on Engineer hill had sent small detachments to Merritt hill and toward Long ridge, as though it were putting out outposts; the remainder of the troop had dismounted.

What would be your estimate of this situation and your decision?

From what he had seen, Lieutenant A believed that the enemy had sent a squadron of cavalry to seize the bridge at Fort Leavenworth and hold the ground west of it, and that it had gone into camp and put one troop on outposts for the night. He could scarcely hope to get across the bridge under the circumstances, for the enemy would certainly have it closely watched by a detached post. What then was he to do? He thought of making a wide detour and attempting to

cross at the Terminal bridge, but he knew that Sergeant A was on that road so he rejected the idea. He had secured valuable information of the enemy, but he had not yet completed his mission. To carry out his original order appeared impracticable, but he believed that by remaining in the vicinity over night and continuing his reconnaissance in the morning, he might discover what forces were in the rear of the squadron. This he decided to do. His position at that moment was exceedingly dangerous, yet to move was still more so. If the enemy's patrols were moving on the trails through the woods, the best way to avoid them was to remain concealed in one place. It was now a few minutes after six o'clock; by 7 p. m., it would be quite dark and the enemy's patrols would then probably confine themselves to the main roads; besides, he wished to continue his observations from his present good position as long as there was sufficient light. So he remained where he was until dark, but without seeing anything new, and then assembled the patrol.

While daylight lasted, he wrote a message giving the result of his reconnaissance up to that time, and shortly after dark two men were each given a copy and sent together to carry it to Easton. They were instructed to go by the road over which they came, Lieutenant A fearing that they might lose their way in the darkness if sent by a new route. The remainder of the patrol was then moved down the hill, and, after the horses had been watered in Quarry creek, they were concealed in a small watercourse south of the creek. One man was placed on duty as sentinel, and one to hold the horses. In this way, two reliefs

were formed, Lieutenant A taking his turn with the others. There was no talking nor smoking, nor were the cinchas loosened nor the bridles removed. Lieutenant A had no grain in his nose bags when he received his orders, and he had neglected to fill them at any of the farm houses in Salt creek valley. He now regretted this thoughtlessness; but the horses were allowed to browse and green branches were cut for them. The horseholder was instructed to watch the horses for indication of danger; the patrol was told to scatter in case of attack and to assemble at day-break the following morning at Kickapoo, the location of which was explained.

What plan would you have formed, as patrol commander, for the following day?

The night was passed without alarm. During the night Lieutenant A had deliberated on a course of action for the next day. He believed that the enemy's cavalry would resume its march the following morning and that it would be closely followed by such other hostile troops as were east of the river. He thought of moving through the woods to a point north of the river bridge from which the bridge could be seen, and of observing the crossing of the enemy from this new position. But doing so would have been more hazardous than leaving the patrol in its hiding place while reconnoitering from the top of the hill. Troops from the other side of the river would come into view soon after crossing the bridge. The woods were very thick and there was a dense undergrowth that made them difficult to get through, and it was not possible to see the horses fifty yards away. The trail leading to

the hiding place was so faint as to be scarcely discernible, and, as it evidently had not been used for some months, it was not probable that the point where it entered the woods would be noticed. So at day-break, Lieutenant A, leaving two men with the horses, took one man and ascended the hill to his observation point of the evening before; this man he posted to watch the trail towards the west while he himself watched the approach from the east as best he could, at the same time observing what was going on below him.

The cavalry was early astir and was in column of march towards the west by sunrise. Soon the cavalry had disappeared and for an hour nothing was seen except one or two mounted patrols; but about 6:30 a. m., infantry was seen approaching on Pope avenue in advance guard formation. The column moved west along the road until it disappeared under the hill. For an hour the successive parts of the advance guard and main body continued to march by in plain view of Lieutenant A. He had carefully observed the passing of the different portions of the column and found its strength to be three regiments of infantry and two batteries of field artillery. For half an hour longer, or until 8 a. m., Lieutenant A waited, thinking that other troops might follow, but nothing appeared.

What should Lieutenant A have done at this time?

Lieutenant A had finished the first part of his mission. He had complete information of the enemy's strength, but the task yet before him promised to be the most dangerous of all—to deliver this information

to his commanding officer. For the second time, he realized that his patrol was not made as strong as it should have been. The information he had was too important to take any risks in its delivery, yet he did not wish to cease his observations. He knew he might justly be censured, despite the brilliant success of his reconnaissance, if he ceased his observations before fatigue or reduced numbers compelled him to return, and his first inclination was to send his information back by two men while he continued to observe the hostile force from a position on its flank. Had he had a good non-commissioned officer to carry the message he would have done this, but he reflected that by attempting too much, he might fail to deliver the important information already in his possession, so he decided to return for at least a part of the way with the remaining three men.

Without delay, he assembled the patrol, mounted it, carefully explained to the three men all the information in his possession, and instructed them, in case the patrol were scattered, to make every effort to reach their command. Stopping a moment to water the horses, the patrol, in single file, with about 50 yards distance between files, then took a northerly direction through the woods, picking its way as best it could, and following the contour of the hills. Lieutenant A was in the lead and made all speed possible under the circumstances, stopping occasionally to listen, or when about to cross a trail through the woods. After about two miles of this hard marching, the patrol, at 9:05 a. m., reached a well defined road running east and west through the woods. Lieutenant A turned west on this road (which he believed to be

the 5—9—11 road marked on his map), signaled the leading man to join him and the others to increase their distances, and took the trot.

In a few minutes, he came to the edge of the woods and saw Salt creek valley, and the Millwood road leading straight to the west before him. He delayed here a moment to search the country but saw nothing. Soon after leaving the wood, the patrol was fired on from Hancock hill but it reached the ravine at the Schroeder house without casualty and followed the ravine under cover of the hill to Salt creek bridge which it crossed in safety and again took up the trot. When approaching the cross-road at Taylor school house, distant firing was heard to the southwest (*). About a mile further on, he met a patrol of five men from his squadron. The non-commissioned officer in charge told him of the whereabouts of the squadron and gave him a man to guide him to it, and at 10:30 a. m. Lieutenant A reported the result of his reconnaissance to his squadron commander.

* It was learned later that this was the termination of a cavalry combat in which the hostile cavalry was driven back, the successful termination of the combat being due largely to the definite information the Blue cavalry commander had received from the two messengers sent in by Lieutenant A the night of September 20-21.

CHAPTER IV.

LEADING OF A CAVALRY PATROL.

PROBLEM.

(See 2 and 4-inch maps).

A Blue infantry brigade, with artillery and one squadron of cavalry attached, approaching Leavenworth through friendly territory, bivouacked for the night September 29-30, about six miles east of the Platte river. It is known that Leavenworth and Fort Leavenworth are ungarrisoned, and that a Red force is approaching these points from the northwest. The Missouri river is the boundary between the Blue and Red states.

A Blue cavalry patrol of five men, under Lieutenant A, was sent out late in the afternoon of September 29 with orders to cross the Missouri at Fort Leavenworth, proceed via Kickapoo and obtain information of the enemy's strength, location, and movements. Another Blue patrol, under Lieutenant B, was sent at the same time through Leavenworth and to the west towards Easton on a similar mission. The Blue cavalry expects to cross the Missouri, at Leavenworth, at 8 a. m., September 30.

At 9 p. m., September 29, Lieutenant A's patrol reached the farm house on the edge of the U. S. Timber Reserve, about one mile east of the Rock Island bridge, and stopped for the night. Here he obtains complete information of the country about Fort Leavenworth that supplements that given on his map.

Note—All messages that would be sent by Lieutenant A should be written out in full on a regular message blank.

Required:

1. (a) Lieutenant A's hour of starting September 30. Give reasons.

Note—It is broad daylight at 6:00 a. m.

(b) Route or routes he intends to take for the first five miles of the march, if nothing is seen of the enemy.

SOLUTION.

(a) Lieutenant A will start at 4:30 a. m. Starting at this hour should enable him to get through or around Fort Leavenworth without being seen, and to be in observation on the heights west of Fort Leavenworth at the first break of day. If, contrary to the information he has of the enemy, a Red patrol, or other small hostile force, should be in Fort Leavenworth, his chances of getting across the Missouri river bridge will be very poor whatever he may do, but they will be best, if he makes the attempt before daylight. Moreover, due to the nearness of the opposing forces, it is important to get information of the enemy's main body as early as practicable.

(b) He will proceed via the direct route across the bridge to 4, thence via 6 to the south bank of One Mile creek, thence across country to Grant avenue near Merritt hill, and then via 8, D and Sheridan's Drive to Hancock hill.

Continuation of the Problem.

At 6:00 a. m the patrol is observing from Hancock hill, having just reached here without seeing anything of the enemy, and apparently without hav-

ing been seen by the inhabitants of the country. From here Lieutenant A observes a hostile cavalry patrol of eight men approaching 17 from the north. At 17 the hostile patrol divides, five men going towards Frenchman and three towards 15, all at a trot.

(c) Further intentions of Lieutenant A, with reasons.

Continuation of the Solution.

(c) Lieutenant A decides to conceal the patrol in the immediate vicinity until the hostile patrol has passed well beyond his hiding place, and then to continue his reconnaissance. The place of concealment is of secondary importance. We prefer moving to the vicinity of 13, observing from the edge of the woods while making the move, because at 13, observation can be continued from the edge of the woods, and the patrol would be in a good position to resume its march to the west. Moreover, the hostile patrol probably will move either via Sheridan's Drive, or via the 11—5 road towards Fort Leavenworth, and it probably will not move towards 13. However, a hiding place in the woods near Hancock hill probably would be quite as good. There is small danger of the hostile patrol "cutting Lieutenant A's trail" where he crosses the 11—15 road.

Continuation of the Problem.

Lieutenant A moved to the vicinity of 13 with his entire patrol and concealed it in the woods until some minutes after the hostile patrol had passed 11. Such observation as he can make from the edge of the woods near 13 reveals no further indications of the enemy. He decides to move to 17 (6:45 a. m).

(d) Route, formation and conduct of the patrol to 17, with reasons for the same.

(e) Route beyond 17 for two miles, supposing nothing is seen of the enemy and that a countryman met at 17 tells Lieutenant A that the enemy camped about six miles northwest of Kickapoo last night. Give reasons for the route selected.

Continuation of the Solution.

(d) The patrol will move down the water-course south of the Schafer house to Salt creek and up Salt creek to the bridge on the Millwood road; from this bridge the patrol will follow the road to 17. Although improbable, the hostile patrol may be observing *to the west* from Hancock hill, and consequently the patrol follows the less exposed route across country from 13 to Salt creek bridge. This route is a bit safer than that along the 11—15 road, but the patrol will be more mobile if it takes this road and to do so does not constitute a serious error, for the chances are that the hostile patrol has continued its march to Fort Leavenworth or along Sheridan's Drive.

To attempt to keep under cover from all points after crossing Salt creek bridge, by moving down the west bank of the creek and up the water-course to J. Aaron, is a useless waste of energy and time. It has been some time since the hostile patrol passed, and the Blue patrol is now in more danger of observation from the west than from the east.

Any formation of the patrol is correct that prevents surprise, favors reconnaissance in the direction of the enemy, and permits the escape of the greatest possible number of men in case the enemy is encoun-

tered. Lieutenant A and one man leading, followed by three men at 100 yards and one man 100 yards still further to the rear would be such a formation. From Salt creek bridge to 17 the patrol *will keep the road and move at a trot*. Near J. E. Daniels, Lieutenant A will go to the top of the hill to observe, or may send 2 men to observe and rejoin at an increased gait *on the road*. No flankers are sent out. It would be a mistake to reduce the gait of the patrol on the road to keep it level with a slowly moving flanker in the fields to the right or left of the road.

(e) If the enemy camped "about six miles northwest of Kickapoo last night," as stated by the countryman at 17, he should be approaching that village when the patrol is at 17. A look at the map, as well as at the ground, shows that the roads about Kickapoo can be observed from Crook point, and the patrol makes for this high ground by the quickest route, having due regard for cover. This route lies along the 17—19—21 road to that spur of Crook point which terminates in a small hill just north of 21; thence northwest across country, keeping under cover of this spur to the woods on Crook point. If it should appear that the patrol could follow the 21—83—81 road (see 2-inch map) and reach the cover of the woods more quickly, that route could be taken. The patrol might have proceeded west from 17 to 85, thence via 83 to Crook point; this route is longer, but it gives a view from Briedenbach and affords a look along the 85—87 road.

To go north on the 17—47 road to Plum creek and then west along the creek to Crook point, or to go west on the 17—19—85 road to the Duffin house and

then north along the 900 foot contour, or to take any other such difficult route across country, constitutes an objectionable sacrifice of mobility for concealment. The information obtained from the countryman at 17 is not from a sufficiently reliable source to justify sending a message.

Continuation of the Problem.

At 8 a. m., the patrol is on Crook point in observation, having seen nothing more of the enemy, but having been observed by numerous countrymen along the road, from whom no additional information was obtained. At 8:02 a. m., a troop of Red cavalry is seen emerging from Kickapoo on the 45—47—17 road with a patrol on the 23—19 road, and the dust of an infantry advance guard can be seen along the 51—49—43 road. Lieutenant A continues to observe until 8:40 a. m.; the tail of the column is then at 43, and the head of the advance guard is approaching 17. He has counted two regiments of infantry and a battery of artillery. The troop of cavalry has disappeared—a small part towards 11 and the remainder beyond Frenchman. An advancing wagon train extends for nearly half a mile west of 49.

(f) Disposition of patrol while in observation on Crook point.

(g) Lieutenant A's intentions, together with the route he proposes to take, if he moves the patrol from its present position. Give reasons.

Continuation of the Solution.

(f) Any disposition is correct that conceals the horses and men, watches the 83—81 road and the 83—21 road, and keeps the roads into Kickapoo under

close observation. Such a disposition would be to conceal the horses among the trees on the east slope with one man holding them, while one man observes the 83—21 road, two men posted together observe the 83—81 road, and Lieutenant A and one man observe south and west of Kickapoo.

To leave the approach to Crook point from 81 unobserved would be a mistake, for the enemy certainly should send a cavalry patrol over this commanding ground; while it is not probable such a patrol would go far off the road, much less examine the half mile or more of woods on Crook point, still Lieutenant A should have timely warning of the approach of such a patrol and its movements should be watched from the moment it is first sighted until it is well beyond the Blue patrol's hiding place.

(g) Lieutenant A has the information he was sent out to secure. The presence of the wagon train indicates that the force seen is not the advance guard of a larger force. The information should be delivered to the squadron commander without delay. Lieutenant A may send it back by two messengers, or he may return with his entire patrol and make a report in person. The latter is the more certain plan, but it will compel Lieutenant A to interrupt his reconnaissance on the enemy's flank. However, the enemy is so near the Blue detachment, that there is slight probability of losing touch with him, and, consequently, there is no great necessity for Lieutenant A to hang on to the flank of the hostile column. It would be different, were the enemy still some miles from the Blue detachment; in that case, Lieutenant A should send his information by messengers, and should con-

tinue to observe the enemy's movements. Accordingly, he decides to return at once with his information.

To move the patrol *east* and south to Leavenworth, where the Blue cavalry was to cross at 8 a. m., is out of the question. Even should the patrol succeed in crossing in rear of the hostile column and gaining the woods along Sheridan's Drive, it certainly should not be able to get through the country about Fort Leavenworth, which probably is now occupied by hostile cavalry and soon will be by hostile infantry.

Lieutenant A must keep to the *west* and south of the Red force while returning with his patrol. He is in little danger of encountering hostile patrols in the first part of his march, since the hostile cavalry has passed beyond him, and he should take the road *at once* and make the best possible speed. He will move via 83 west and south to 85; here he might go across country to I if the terrain is such as will not greatly retard his patrol. Otherwise he will proceed via the 87—K—I—100—Zimmerman road and join the cavalry wherever found. The slight additional security gained by making a wider detour to the west and south will not compensate for the increased delay in delivering the information.

COMMENTS.

In solving this problem, the important thing to determine at the outset is what was expected of the patrol. Put yourself for a moment in the place of the squadron commander, or better still in the place of the brigade commander, and imagine what your state of mind will be when you reach Leavenworth to-morrow with your brigade, and find the surrounding hills oc-

cupied by the enemy, while your cavalry has given you no definite report as to its strength. Looking at the matter in this way is it not clear that our two officers' patrols are intended to find the hostile main body? Any less definite information from them than full reports of the enemy's strength and movements will be disappointing to the brigade commander, and if due to any fault in the leading of their patrols would justly entitle them to censure.

Viewing the situation thus broadly, Lieutenant A sent no message from Hancock hill. In the preceding chapters we found an opportunity to mention the general rule that first contact with the enemy should be at once reported, but here we have a situation in which there is doubt as to whether the rule should be observed. In his anxiety to clear up the situation in his front, a patrol leader is in danger of neglecting to give due importance to the situation in his rear. The squadron from which our patrol was detached is to cross the Missouri river at 8 a. m., and at this hour (6 a. m.) it is probably on the march, eight or ten miles east of the river, with local patrols four or five miles in its front. These patrols will probably come in contact near Leavenworth or Fort Leavenworth with the hostile cavalry patrol and get information of its presence back to the squadron commander about as early as it could be delivered to him by Lieutenant A's messenger. Information of the mere presence of a hostile patrol, from which no sound inference can be drawn except that the enemy is near—a fact already known to the squadron commander—is not sufficiently noteworthy to make a delay of a few minutes in its delivery a matter of importance; this is

especially true since the squadron has little choice of route while east of the Missouri, but must cross the river at one of the two bridges. Had the lieutenant been sent out to secure information of the hostile *cavalry*, it certainly would have been wrong for him to neglect to send a message of this first contact. But such is not the case; his mission is specific; it is to get information of the strength, location and movements of the enemy's *main body*. He has a right to hope that he will soon be able to report other and more important facts, and to believe that he may leave to other Blue patrols the task of reporting the presence of the hostile patrol he has just seen. However, the case is far from being clear, and if he had decided to spare at least one man and send a message he would not have committed a serious error. Before resuming his march from 13 the lieutenant made a note of his observations of the hostile patrol, thinking he might include it in a later message.

It would not have been strange had Lieutenant A divided the patrol as soon as it crossed the Missouri river bridge and sent its parts over two or more widely separated routes with orders to assemble at some point farther along. This is a mistake. The many contingencies that may arise to prevent one portion or another from being at the designated meeting point make this scattering of the patrol exceedingly objectionable. It is preferable to keep the patrol together along a single route, so chosen that observation frequently may be made from high points that afford a wide view of many roads in the direction of the enemy.

“In time of peace, when fighting capacity does not count, where most persons have maps, where no one is

captured, and where individual messengers safely ride past hostile detachments, the subdivision of an officer's patrol into a number of small groups may sometimes achieve the desired end. In time of war it exposes the leader to the loss of his escort, which is necessary for his safety, for reliefs to messengers, and for fighting. Ferreting out, recognizing, and observing the enemy essentially is the function of the leader. He alone has a general view of the situation, and with his map and field glasses possesses superior facilities for the work. His men can perform only secondary duties for him; and small parties of them will be detached only for short distances and to accomplish some minor object—otherwise the reins will slip from the leader's hands and the thinnest hostile screen will become impenetrable." (*)

We may object to the route selected because of the difficulty of following it. From inquiries made at the farm house where Lieutenant A stopped for the night, he will learn of the practicability of this route and, if he has any doubt about his ability to follow it in the darkness, he can obtain a guide. He may have some trouble going through the woods south of the One Mile creek in the darkness, but his compass or his guide will keep him in the right direction and the roads and street car line near Merritt hill will serve to orient him.

There is little choice between this route and the route north from 4 via the trail through the gardens, and the wood road 5—11. The former gives the earlier view from the high ground west of Fort Leavenworth, but the latter is the more direct route to

* General von Alten in *Studies in Applied Tactics*.

Kickapoo and may be more easy to follow; but it leads past the railroad station and several houses, and concealment, which is of prime importance, would be difficult. In any case Fort Leavenworth should be carefully avoided. It is not probable that anything of importance can be learned by passing through the fort, but, on the other hand, the patrol might be discovered by an early riser. The fact that the patrol was able to cross the river bridge is sufficient indication that no large parties of the enemy are in the vicinity of Fort Leavenworth.

The route via the Frenchman—17 road has no advantages to offset the disadvantage of being about 200 feet lower than Sheridan's Drive. This drive is not only the best route for observation, but for concealment as well, the dense woods along the drive furnishing perfect cover.

We might have neglected to observe the teachings of our Field Service Regulations that "Patrols should avoid combat unless it is absolutely necessary to the execution of their orders," and have decided to attempt the capture of the hostile patrol. Little can be said in favor of this and much can be said against it. At least one of the hostile troopers should be able to escape and give warning of our presence to the main hostile cavalry force, and this might make the further execution of our mission more difficult. Whether we capture one or all three, will the advantages of the capture outweigh the disadvantages? Their regimental insignia may disclose something to our brigade commander, or even to us if we are well informed concerning the organization of the enemy's forces. We will question them, of course, if we can

speak their language, but, unless they are very stupid, the information extracted from them will not be reliable and we will have to continue our reconnaissance. We examine them separately; one says there is a regiment of hostile cavalry following, another says a squadron, and another says a troop. Which are we to believe? It takes time and skillful questioning to get information from prisoners. If we are wise, we will think of what disposition we are to make of them before being carried away by our zeal to capture them. If we take them with us, the further march of the patrol will be greatly handicapped by their presence. If we send them back across the river, we will have to weaken our patrol greatly and, with five hostile troopers moving toward Fort Leavenworth, it is doubtful whether we could send them across the bridge. That prisoners are of great value to a commander is well understood. The information extracted from them serves to check that obtained from other sources. But a small patrol, situated as was Lieutenant A's, probably will lessen the sum total of information it may gather, if it burdens itself with two or three prisoners.

While moving west from 13 the lieutenant accompanied the point. Ordinarily, in this position the patrol leader will be unnecessarily exposing himself to capture; this he should studiously avoid, for a patrol that has lost its leader, and with him field-glasses, map, etc., is reduced to a more or less helpless state. But, as the country was open to the west, thus precluding a surprise, the lieutenant thought it not only allowable, but advisable to go to the head of his patrol and guide the point across the country.

Was our lieutenant correct in not sending a message

from Crook point as soon as he reached there at 8 a. m. and saw the hostile column approaching? Again we call attention to the situation in his rear. Had he given the matter any thought, he might have been reasonably sure that there were but eight hostile troopers between him and his squadron, and the latter should have been just crossing into Leavenworth. Had he sent a message then (8 a. m.), the messengers probably would have been able to get through, whereas if he waited until he had seen the entire hostile column, the hostile troop would be between him and his squadron, thus interrupting the messenger service. Had he informed his major without delay that the enemy was approaching via Kickapoo, the major would have been able to direct the march of his squadron with absolute certainty; and, barring the enemy's strength, the situation would have been made clear to the brigade commander. Why then did our lieutenant not send a message. He probably was overanxious about reducing the strength of his patrol, which was made not strong enough in the beginning; there was every reason to believe that the entire patrol would soon return, and he may have thought it better to keep the patrol intact and preserve its full fighting power for the return journey. By doing so, however, he delayed the delivery of important information for forty minutes; and if he gets through the hostile cavalry after 8:40 a. m., the events, so far as his squadron at least is concerned, probably will overtake the message. As an additional exercise, we would suggest writing the message that *should have been sent from Crook point at 8 a. m.* The message should mention the patrol seen at 6 a. m. from Hancock hill, and the information obtained from the countryman at 17.

CHAPTER V.
AN ADVANCE.

SITUATION.

(See 2 and 4-inch maps).

A Blue detachment, in hostile country, is attempting to assemble at Leavenworth, by rail from the north. The 1st Infantry, and Troop A, 2d Cavalry (accompanied by their field and combat trains), commanded by Colonel A, are the first troops to be sent forward. On reaching Kickapoo during the afternoon of July 14, Colonel A learned that the important steel bridge at the mouth of Salt creek (on the M. P. R. R. between Kickapoo and Leavenworth) had been blown up by Red sympathizers. Accordingly, he detrained his command and took quarters in Kickapoo. His cavalry patrols were able to reconnoiter through Fort Leavenworth and Leavenworth before nightfall, and when they returned to Kickapoo they reported both places free of the enemy at 8 p. m. Companies A and B, and one platoon of Troop A are on outpost for the night on the line L. A. Aaron—Plum hill, with one company on the 23—21 road and one on the 45—47 road.

At 10 p. m., Colonel A receives the following telegraphic orders from General B, at superior headquarters: "It appears that the enemy contemplates moving a force to Leavenworth over the Missouri Pacific railroad from the south. It is important that he should not get possession of Leavenworth. Proceed

to the south to-morrow with your entire command, interrupt the railroads to the south of Leavenworth, especially the Missouri Pacific, and endeavor to locate any hostile forces advancing from the south. The 2d Infantry will reach Kickapoo some time July 16. Detachments from the 3d Infantry are now guarding the railroad in your rear."

Note—Missouri is a neutral state. The roads are free from mud or thick dust.

Required:

Colonel A's estimate of the situation, and his orders for the advance, on the supposition that no additional information of the enemy is received before the march begins.

SOLUTION AND DISCUSSION.

We find no difficulty in discovering Colonel A's mission from his orders. It is evident that General B wishes to complete his concentration at Kickapoo before the enemy can seize Leavenworth and vicinity, and that he fears he will not be able to do this unless the enemy's advance on Leavenworth is delayed. Accordingly, our colonel is ordered to interrupt the railroads as being the simplest and surest means of delaying the enemy with the force at his disposal. But we should not overlook the second part of his mission, which is to locate the advancing enemy.

It would not be strange, had we complained of the scantiness of Colonel A's information of the enemy, and wondered why the spy or other person who learned that the enemy contemplated moving a force to Leavenworth by rail, did not also learn when this movement was to begin. This ignorance of the enemy is

the rule in war, and if we find it annoying when solving a map problem, we may imagine how very disconcerting it must be when actually in command of troops in the face of the enemy. Precisely here lies the difficulty of troop leading—that we seldom know with any certainty the movements, strength, and intentions of the enemy, and that we must therefore fall back on *conjectures*, mostly based on very scant information. The more skillfully we learn to picture to ourselves the whole situation, based on more or less trustworthy information available, the better will be our arrangements. But, if the “fog of war” conceals the enemy’s movements, strength and intentions from us, it equally shields us from the view of the enemy, and we may find comfort, as did General Grant according to his own statement, in the thought that if we are mystified the enemy is no better off.

We cannot tell when the enemy will begin his movement on Leavenworth. It may be to-night, it may be to-morrow, and it may not be for some days. It is useless to speculate on this point before additional information is obtained from some source; and, unless this information is secured from superior headquarters, the enemy may be able to reach the vicinity of Leavenworth before our colonel becomes aware of his near presence. The Blue force is operating in a hostile country, and it can not hope to get much, if any, reliable information from the inhabitants. On the other hand, the Red force probably is much better supplied with information. The country is intersected with commercial telegraph and telephone lines, over which the inhabitants may communicate with the Red commanders. The destruction of the railway

bridge at the mouth of Salt creek, and Colonel A's arrival at Kickapoo doubtless have been reported to the enemy, and on this supposition we may fairly base the conclusion that he will lose no time in his effort to reach Leavenworth. We may safely count on an intelligent enemy doing those things which we least want him to do, and should make our plans accordingly. The fact that General B wishes to keep the hostile force out of Leavenworth is the very best of reasons for thinking that it will attempt to reach that town in superior strength before the Blue detachment can complete its concentration at Kickapoo. Consequently, Colonel A should base his arrangements for the march on the supposition that the enemy may be encountered at any time.

Communications on the railroads can be most easily interrupted by destroying bridges and culverts, of which there are many to the south of Leavenworth. First come those over Five Mile creek, and from the length of the creek and the area drained by it, we may assume the bridges are of some size, especially the one at its mouth. The map shows others farther to the south, and there probably are still others too small to be indicated on the map as well as those beyond the limits of the map. The wooden structures may be burnt, but those of steel should be demolished with explosives. (*) Although all three railroads may be used by the enemy, and consequently should be in-

* For a full description of how this is done, see **Engineer Field Manual**, page 417, or **Beach's Manual of Military Field Engineering**, Chapter XX. A command the size of Colonel A's should be supplied with explosives when sent on an independent mission, and we will assume it is so supplied, but were it not, explosives could be obtained in Leavenworth.

errupted, still Colonel A should give his first and principal attention to the Missouri Pacific, for this is the road over which the enemy is expected to advance.

Perhaps you are of the opinion that Colonel A should not delay his march at Five Mile creek, since that stream is so near Leavenworth, but should hasten on to bridges farther south. More delay to the enemy probably will be secured, however, by beginning the demolition at the earliest practicable hour, for we may be sure the news of it will speedily reach the enemy's trains, if they are approaching, and will make them very cautious in their advance, if in fact it does not make the troops detrain and follow the wagon roads. It is preferable to begin the demolition at Five Mile creek and make certain of stopping the trains south of Leavenworth; afterwards, it may be wise to continue the march, for the farther south the interruption eventually is made the greater the advantage to the Blue force. Five Mile creek, in the vicinity of its mouth, therefore becomes the first point on which Colonel A will direct his march.

Although we should be prepared to meet the enemy at any moment, still his near presence is so problematical that ease and rapidity of marching are the main things to be sought in the selection of a route; but this does not mean that the safety of the command is to be neglected. From Kickapoo, it matters little whether the regiment moves south on the 23—19—17, or the 47—17 road, although the latter is the more natural route and the more convenient on account of its location with respect to the outposts. At 17, the column may continue south, or it may turn east and go through Fort Leavenworth or along Sheridan's Drive.

The route south from 17 is the shortest, and on it the command will be in least danger, since it avoids the woods and always has its line of retreat directly in its rear. This road is also the best improved and most traveled (but the map does not show this), and consequently the infantry can march over it with least delay and fatigue. It is often important to keep marching troops on the best highways, even though they may be a trifle longer, for the extra distance is more than made up for by greater speed and less fatigue. From 17, then, Colonel A will follow the H—G—14—66a road, and thence along the outskirts of Leavenworth to the vicinity of 234.

We should not attempt at this time to choose Colonel A's route beyond Five Mile creek, for, not only may he never get so far, but even if he should, his further route will depend on many contingencies which cannot be foreseen.

Let us now consider what provisions Colonel A will make for the protection of his command while on the march. If troops were to move in the presence of the enemy in a continuous column with no small parties out to some distance to give warning of the near approach of the enemy, they would be in great danger of being suddenly attacked, thrown into confusion, and maybe defeated before they could deploy for efficient action. To avoid any such calamity, the larger part of a command, called the main body, is protected when on the march by smaller parts in front, on the flanks, or in rear, called advance, flank, and rear guards. In the situation before us the column is moving towards the enemy and the covering duties are performed mainly by an advance guard. In a

later situation (*) we will see how the duty of covering this same command falls to the lot of a rear guard.

No absolute rule can be given for determining the strength of an advance guard. Our Field Service Regulations state that, subject to variation according to the situation, one-ninth to one-third of the whole force may be assumed as a suitable detachment for this purpose; the ratio its size bears to the whole command will vary with the object of the march, the nature of the country, the character of the enemy, and the strength of the force it is covering. If too weak, it cannot do what is expected of it. If too strong, the commander unnecessarily loses immediate control of some of his troops, and the command is unnecessarily fatigued, for service with the advance guard is much more exhausting than with the main body. Very small commands are so quickly and easily put in fighting formation, that they need only a comparatively small advance guard. Thus a company might be amply protected with a single squad in its front, and a battalion with a platoon. But as commands increase in size, it takes longer and becomes more difficult to deploy and prepare them for action, and the ratio of the strength of the advance guard to that of the whole command must be increased in proportion.

As far as practicable, tactical unity should be preserved in detailing an advance guard. No officer likes to be deprived of a part of his command, nor is the splitting up of tactical units consistent with the most efficient employment of a command; for once a company, battalion, or regiment is divided, we cannot say when its parts will again be brought together. We

* See Chapter XII.

will often find this "preservation of tactical unity" exceedingly bothersome, for the situations are numerous in which other considerations are more important.

Such is the case in the situation before us. Taking everything into consideration, two companies appear to be ample infantry for the advance guard. The enemy may not be near, the country is fairly open so that surprise is difficult, and the far reaching reconnaissance of the cavalry will give timely warning of the approach of the enemy. Under these conditions, two companies should be able to insure the uninterrupted progress of the main body, in case the enemy *is not* encountered in strength, and to protect the main body against serious attacks without due warning, in case the enemy *is* encountered in strength. But this arrangement will require Colonel A to split a battalion and the question he now has to answer is—Shall I place twice as many men as are necessary in the advance guard in order to preserve the tactical unity of a battalion? Should he do so, he would pay too great a price for tactical unity, and would show an unreasoning adherence to a principle that is subject to frequent exceptions.

You may have decided to detail the present outpost infantry (Companies A and B) for the advance guard. This arrangement is objectionable, for the outposts should be shown every possible consideration after their night of arduous duty, whereas placing them in the advance guard would give them the position of greatest danger and fatigue. Moreover, if the advance guard duties are to be performed in the most efficient manner, fresh troops should be assigned to this task when practicable. In exceptional situa-

tions, it may be wise to form the advance guard from troops on outpost, but in the ordinary case, fresh troops will perform this duty and the outposts will be assigned a place in the main body. So Colonel A fixes on two companies from the 2d Battalion for his advance guard infantry.

For several reasons, it would be well to have the battalion commander go with these two companies. In the first place, the advance guard should be commanded, where practicable, by an experienced officer. Two companies are not a command appropriate for the lieutenant-colonel, but it may be given to a major. Then these will be the first companies to become engaged in case the enemy is encountered, and the major will not want to be separated from them at such a time; when the remaining two companies of the battalion come up, he will have to take command of the reunited battalion, and he will be better prepared to lead it if he has been on the ground from the moment the enemy was first encountered. So, also, the two companies not in the advance guard should be at the head of the main body, that they may be the first reinforcements sent to the advance guard.

It is Colonel A's duty to prescribe the distance that should be preserved between the rear of the advance guard and the head of the main body. This distance will vary with the situation. On the one hand, it must be great enough to protect the main body against delay, and to afford it time to deploy in case the enemy is encountered; on the other hand, it must not be so great that timely support of the advance guard becomes impracticable. Almost any distance between 500 and 700 yards will meet these require-

ments fairly well so we will select the mean of these and call it 600 yards. No one distance can be declared better than any and all others. After reading Chapter VII, we will see that the leading element of the advance guard infantry is about 1500 yards from the head of the main body, and that the cavalry point is still farther away. Consequently, it is not at all probable the main body will get within effective rifle range of the enemy before he has been discovered by the advance guard; and if the main body wishes to go to the assistance of the advance guard, its leading companies can deploy and cover the intervening 600 yards in about 10 minutes.

The distance between main body and advance guard may be preserved either by requiring the advance guard to regulate its march on that of the main body, or vice versa. In a command as small as this there is little difficulty in keeping touch with the main body, and the advance guard may be required to regulate its march on that of the main body. However, when the commanding officer rides with the advance guard, as generally will be the case when near the enemy, it probably is simpler to have it establish the rate of march for the whole column whatever may be the size of the command. The commanding officer will arrange for the halts to rest as he sees fit, and his method of doing this may vary from day to day to suit the conditions of the march.

We are now ready to consider what use Colonel A shall make of his cavalry, and it is assumed that we are acquainted with the essential characteristics of this arm and what it can accomplish by way of assisting the other arms. However, it may be well to recall

that its mobility enables it to cover much more ground than infantry, and to get to a point more quickly, while its ability to fight dismounted as well as mounted enables it to combat the enemy without the assistance of the other arms. It is therefore a very independent and self-reliant arm, with a very wide radius of action. It is the arm *par excellence* for reconnaissance, and *to it we naturally would entrust those missions calling for both fighting power and great mobility.*

As a general rule we should avoid scattering the cavalry, and exceptions should not be made to this rule without very good reasons. The amount of cavalry with a small infantry command generally will be so small, and the tasks we would like to give it so numerous, that we will find it difficult to avoid scattering it to such an extent that it will not have strength enough at any point to accomplish anything of importance. By attempting to do too much, we end in doing nothing. In most situations, cavalry can only get results really worth while in the same way as infantry—by fighting; and if it is to fight advantageously, the bulk of it must be held together.

Of all the tasks we would like to give the cavalry in any particular situation, we generally will find some one more important than the others; *the bulk of the cavalry should be assigned this task, and duties of less importance should be performed by smaller detachments, such as patrols.* Still, it will not always be easy to decide how best to employ the bulk of the cavalry, but in general we will not go far wrong if we utilize its mobility and fighting power in the execution of that task for which the remainder of our com-

mand is not so well fitted, and yet is most essential to the accomplishment of our mission.

Were Colonel A's cavalry stronger, it might be sent ahead of the infantry to begin the destruction of the bridges. Alternating the trot and walk, it can make 5 miles per hour, and so small a command might do better than this for two or three hours without over-fatigue, if all the conditions are favorable. In three hours from the time it leaves Kickapoo, it can be five or six miles south of Leavenworth ready to begin the interruption of the railways. This is about three hours earlier than the infantry can reach the same point. But it is unwise to send so small a force of cavalry so far ahead of its infantry support in a situation as uncertain as this. Trains bearing superior hostile cavalry may enter Leavenworth at any time, and Colonel A cannot afford to take the chance of having his cavalry cut off and destroyed or scattered. Weak cavalry, in the face of strong opposing cavalry, is compelled to remain near its infantry support. This was amply illustrated on the Japanese side in the recent Russo-Japanese war. The Japanese cavalry was very weak in numbers, and small parties of it were seldom or never sent so far in advance of their infantry support that they were liable to become a sacrifice to the superior numbers of the Russian cavalry. (*)

So long as it is unknown whether the enemy reached Leavenworth during the night, Colonel A's troop had better act with caution and not get too far from its infantry, but it may proceed much more boldly

* To those of our readers who are interested in this subject, we recommend reading *Reconnaissance in the Russo-Japanese War*, by an anonymous German writer.

should it discover Leavenworth unoccupied by hostile forces, and Colonel A should then have no great hesitancy about hurrying the troop ahead to begin the demolition of the bridges. Of course the cavalry will be depended upon for far reaching reconnoissance, and at the beginning of its march this duty, together with adding to the security of the column, will constitute its principal task. Its employment later in the day will depend on the manner in which the situation develops.

Colonel A may keep the cavalry under his own control, or he may place it in the advance guard under the immediate control of the advance guard commander. In the former case it is called "*independent cavalry*" and in the latter "*advance guard cavalry.*" At the beginning of the march the cavalry and the advance guard will have the same mission; consequently tactical unity of action will be best secured by having both under the same commander. For example, suppose the enemy's infantry and cavalry are met in force in the vicinity of Leavenworth (and we have seen that this is quite probable), the march of our single troop probably would be stopped, and the advance guard would have to come to its assistance; in which event each will cooperate with the other to best advantage if both are under the control of one mind from the beginning. It would be different, if the situation permitted of sending the cavalry far ahead of the advance guard, to the south of Leavenworth, to begin the destruction of the bridges. Its mission would then be quite separate and distinct from that of the advance guard, and there would be no good reason why it should be under the advance guard command-

er. On the contrary, he might so tie it down to the advance guard that it would not have the independence essential for the execution of a mission at so great a distance. Every advance guard commander is naturally prone to use cavalry in the restricted field providing for the security of the march; whereas, the commander of the whole force from his higher viewpoint can give it much more freedom of action; and can judge when it is necessary by his intervention to prevent the cavalry getting out of hand. At any time the situation appears to warrant it, as for example should Leavenworth be found free of the enemy, Colonel A may resume immediate control of his cavalry and send it off to the south on an independent mission.

This question, when to employ our cavalry independently and when not, will often place us in a quandary. *In general, it will be so employed when the task to be assigned to it is outside the sphere of activity of the remainder of the force, be it with reference to time or place; provided its strength is equal to the task and such as to warrant so detaching it from its infantry support.* By "strength" is meant not only absolute numbers, but relative fighting power when compared with the opposing cavalry. A force of cavalry, say a squadron, amply strong to act independently under one set of conditions, might be ridiculously un-independent under a different situation. And, although it is unusual to send so small a force as a troop on an independent mission, still situations will arise in which it will be perfectly proper to do so. For example, in the situation before us, were Colonel A perfectly sure the enemy would not reach Leavenworth for a day or

two, the infantry might remain in Kickapoo and the cavalry be sent out, unsupported, to interrupt the railroads.

In any problem involving a mixed command, we will find no difficulty in deciding upon the proper employment of our cavalry, if we are able to answer the following questions correctly:

1. What are the tasks for which cavalry is specially fitted by its mobility and fighting power?

2. Of these tasks, which ones are present in the problem before us?

3. Of the tasks thus found for the cavalry, after a careful examination of the problem, which one is most essential to the accomplishment of our mission?

4. In order that the strength of the cavalry assigned this most essential task may be as great as possible, what is the *least* cavalry we can get along with for the secondary tasks?

5. Are the conditions such that the cavalry assigned this most essential task should be made independent?

We may now consider the *time* when the regiment will begin its march. If it is so important to keep the enemy out of Leavenworth, why did not General B order our colonel to march to the south to-night? The objections to this are that the command is in a hostile country, it is not familiar with the roads and other features of the terrain, the enemy may be encountered in the darkness, and, most serious of all, the disastrous effects of forced night marches on the fighting efficiency of troops. The occasions when men and animals must be pushed ahead day and night regardless of the limits of physical endurance are exceptional;

yet, in solving map problems, we are in danger of estimating every situation as one demanding unusual exertions if not a forced march. This is because we fail to think ourselves completely into the spirit of the problem—to appreciate that the single day's operations in which we are interested was preceded by many other days of hard work, and is yet to be followed by many more which demand a rational conservation of the energies of the fighting force. If accurate statistics could be obtained, we probably would discover that the losses in war from diseases that are due to injudicious marching and sheltering of troops exceed those caused by bullets.

Accordingly, for the command to start for the south at a late hour to-night is objectionable in the extreme, but Colonel A should begin his march at an early hour to-morrow morning, for, as already seen, the railroad should be interrupted at Five Mile creek at the earliest practicable hour. General Griepenkerl has the following to say (*) on the subject: "This desire to reach some place or other as quickly as possible is an element in most tactical exercises. But I must warn you not to fix too early an hour for departure in your orders, as otherwise you might encounter various difficulties. Especially out of consideration for the mounted troops, avoid starting until an hour after daybreak. But to give the troops as much as possible of the absolutely necessary night's rest, the march should begin even later, unless it is desired to avoid marching in the heat of the day. * * * If you intend starting at an exceptionally early hour, you will be expected fully to explain your reasons."

* In *Letters on Applied Tactics*.

This advice agrees in its main points with the principles laid down in our Field Service Regulations.

As already pointed out, the situation furnishes Colonel A with ample reasons for not observing the general rule as to the hour of starting, but the uncertainty of the situation, the difficulty of marching in the dark, and the annoyance to the troops, make it undesirable to begin the march while it is still dark. Even if the troops start at daybreak they must be astir an hour earlier, and disturbing the rest of troops in the early morning hours is specially objectionable. At this season of the year, in this latitude, the sun rises at 4:30 a. m., and daybreak is about an hour earlier. Consequently we will fix 3:30 a. m., as the starting hour for the advance guard.

Our final *decision* is as follows: To start from Kickapoo at 3:30 a. m., to-morrow and march via the 47—17—H—G—14—60—66a—224—226 road towards the railroad bridges over Five Mile creek, with two companies and the troop of cavalry in the advance guard.

In some of the situations presented in subsequent problems, the detachment commander will have to reach his decision in a very few minutes, but that is not true of the situation we are now considering. Colonel A has abundant time for deliberation, but he probably will reach his decision and be ready to issue his orders by 10:30 p. m. At that hour most of the officers will be resting for the night and, excepting the advance guard commander, they need not be disturbed to receive orders; the advance guard commander, however, should be given his orders at 10:30 p. m., in order that he may have ample time to deliberate on

the situation and decide on his arrangements for the march. When he (Major B, commanding the 2d Battalion) has reported, Colonel A has him read the telegram from General B (*) and then adds:

“In compliance with this telegram, we will advance to the south early to-morrow morning.

“Two companies of your battalion, and the cavalry (†), will constitute the advance guard under your command. Have your infantry start from 29 at 3:30 a. m. and follow the 45—17—H—G—14—66a road. Your cavalry will start at the same hour and will reconnoiter through Fort Leavenworth and Leavenworth, and to the south; it will carefully watch the woods west of Fort Leavenworth, and will patrol the hills along the line of march west of Leavenworth. I will specially desire to know if Leavenworth is still unoccupied by the enemy and you may send out a cavalry patrol before 3:30 a. m., to obtain that information. The platoon of cavalry now on outpost will be ordered to join your column as it passes the line of outposts.

“The main body will follow at a distance of 600 yards, with the remaining two companies of your battalion in the lead.

“The field train will remain provisionally in Kickapoo.

“I will accompany the advance guard.”

The surest method of imparting orders consists of the verbal instructions given by a senior officer directly to those concerned—especially so, as it affords opportunity for explanation and prevention of misunderstandings. But the verbal order should follow the same general form as a written order. The officer giving the order is then less liable to omit something

* See Situation, page 57.

† It is not necessary for Colonel A to weaken his already small cavalry force by detaching from it a number of troopers to do messenger service for him. The mounted orderlies and the regimental detachment of mounted scouts are intended for this purpose, and they are ample. Some of these scouts may be assigned to the main body and advance guard, but it is not necessary to mention this distribution in the orders.

of importance, and it will gain in clearness and conciseness for the officer receiving it. The form is the result of much careful thought and study, and has been thoroughly tested by experience. The different paragraphs of the order follow each other in logical sequence, and an officer trained in this system gives his orders in the fewest possible words and clearest possible manner, and receives them with a clear understanding of what is intended. Without some form for a guide, all orders and especially verbal orders will be rambling and confusing. Information of the enemy and of supporting troops will be scattered throughout its paragraphs; what the one issuing the order proposes to accomplish may have to be surmised; the commander of any particular fraction of the command may have to piece together disjointed sentences scattered throughout the order, and still get only a more or less imperfect idea of what he is expected to do. This leads to questions, always annoying when unnecessary and frequently impossible to answer because of lack of time. It is in critical situations where seconds are counted, that the full value of system in issuing orders becomes apparent, for no time is wasted in useless talk, yet every officer has a clear understanding of what is to be done. We may have an opportunity to illustrate this in the solution for a problem farther along in this book.

By reading the telegram received from superior headquarters, Major B obtains a clear understanding of the situation and General B's wishes. A detachment commander ordinarily should fully explain his plans and intentions to his advance guard commander. In general there should be few secrets between them.

The reason for this will be explained in a later chapter. Since the telegram contained all fresh information of the enemy and the Blue supporting troops, (*) the order begins with a statement of Colonel A's intentions. It is unnecessary to state the object of the march to the south, as that may be clearly inferred from the telegram; there is no serious objection, however, to telling Major B that the railroads will be first interrupted at the bridges over Five Mile creek, although this might divert his attention from his main mission which is to cover the march of the main body. It is too early to decide with absolute certainty when, where, and with what troops the railroad will be interrupted, and the less said on this point the better.

In telling Major B the part he is to play in the march, Colonel A confines himself to a statement of the troops that will constitute the advance guard, the place and time of starting, the road to be followed, and the most important points to be reconnoitered. No mention is made of the way in which the advance guard will be subdivided, the distance separating its parts, the *local* reconnaissance it is to make, or the manner in which it will perform its duties in general. With a properly trained officer in command of the advance guard (and in all of the problems contained in this book it is assumed that we are dealing with well instructed officers, unless the contrary is stated), this would be not only unnecessary, but an unwarranted interference with a subordinate. Under our regulations, an advance guard commander has certain well established duties to perform, whatever the situation,

* It is assumed that the situation up to the receipt of the telegram was known to the command.

and it is taken for granted he will perform them to the best of his ability without making mention of them in his orders, which should be confined to directing those things which vary with the situation.

It may be said that the rather detailed instructions covering the reconnoissance to be made by the advance guard cavalry do not accord with the above principle, and constitute interference with the advance guard commander. Doubtless it is interference but it is not *unwarranted*. We have seen that Colonel A thought seriously of keeping the cavalry under his own command, and only decided to surrender his complete control of it because there is not, at the outset, a mission for it separate and distinct from that of the advance guard. He may be pardoned for any misgivings he may have as to its being properly employed, for its operations probably will have much to do with the success or failure of the mission of the detachment. The chief mission of an advance guard is to provide for the security of the march, and, if given absolute freedom, it would not be strange if the advance guard commander should employ the cavalry in a very restricted field, and not give it that freedom of action and direct it along those lines so plainly desirable when the situation is examined from the broader view point of the detachment commander.

For example, we know from Colonel A's estimate of the situation that if he hears, when on the march to-morrow morning, that Leavenworth and Fort Leavenworth are not occupied by the enemy, he probably will hurry his cavalry ahead to Five Mile creek to begin the demolition. Consequently, it is important that patrols should be sent through those places

and to the south and, rather than take chances on Major B doing this of his own accord, Colonel A makes certain of this reconnaissance by ordering it. There is less necessity for ordering a reconnaissance of the woods and hills west of Fort Leavenworth and Leavenworth, for the advance guard commander probably would examine these localities, but the order makes a *certainty* of a *probability*, and leaves no doubt in Colonel A's mind. After all, this is not strictly interference with the advance guard commander, for when the order is carefully analyzed it will be seen that our colonel has stated *what he wants done* and has left the *manner of doing it* to his subordinate. And, in general, any commander of a force of which cavalry forms a part, whatever may be the mission of the command, will specify in his orders the important directions in which his cavalry is to reconnoiter, but will leave to the cavalry commander the determination of how this reconnaissance is to be made.

By directing Major B to start his cavalry at the same hour as his infantry, Major B is prevented from disturbing the cavalry at an unnecessarily early hour. It can gain the desired distance in advance of the infantry by trotting out, for, if unopposed, it can easily march three miles farther than the infantry in the first hour after starting. However, to make sure of early information of the situation in Leavenworth, Major B is authorized to start a patrol in that direction before 3:30 a. m. Colonel A might have sent out this patrol, merely informing Major B of that fact. Frequently the detachment commander will thus send out his own patrols when he is anxious to secure information of special importance, but this procedure

is open to objection when the advance guard commander can make this arrangement equally well, for it divides responsibility for proper reconnaissance and may lead the subordinate to depend on his superior to do this work for him.

From the closing paragraphs of the order, Major B learns that the main body is to follow him at 600 yards, and, consequently, that it is to guide its march on that of the advance guard; and that the remaining two companies of his battalion are placed at the head of the main body, that the battalion may be the more easily united in case the detachment has to fight.

In giving an order, a commander should attempt to state, in clear, concise and definite language, everything his subordinates should know and nothing more. He may not always succeed in doing this, and even if he does, there may be some one among those receiving the orders who does not immediately grasp their full import. Such a one should not hesitate to ask for further explanation, and, as a general rule, his questions when proper should be fully and graciously answered. The subordinate that in war time does not ask a question when in doubt is as culpable as the superior that shows intolerance of being questioned. Manifestly it is not practicable to state in these solutions the conversation that takes place between commander and subordinate to clear up doubtful points in the order. We can but give the order as it actually is issued, and must leave the remainder to the imagination.

There are other arrangements that Colonel A has yet to make to-night. The outposts must be notified of the proposed march and given their orders, and

provision should be made for rousing the command in the morning.

The outposts should remain in position and cover the rest of the command until the advance guard is stretched out on the road and ready to take over the duties of security. They will then move by the most convenient line and take their proper place in the column as it passes. This method of withdrawal is understood by the outpost commander, and in the order sent him it need be referred to only in the most general way. The following is the order in the form of a message, and we will observe that Major A is told what he should know at this time and nothing more; the object of the march, and information of the 2d and 3d Infantry will be told him when he joins the column to-morrow morning.

1st Infantry,
Kickapoo, Kansas,
14 July—, 10:40 P. M.

To
Major A,
Commanding Outpost.

Telgram just received from superior headquarters states that the enemy apparently contemplates moving a force to LEAVENWORTH over the MISSOURI PACIFIC railroad. We will move south with all our command in the morning. The advance guard, under Major B, will start from 29 at 3:30 a. m. and follow the 47—17—H—G road. The outpost cavalry will join the advance guard, and the outpost infantry will join the tail of the main body, as the column passes the line of outposts. The wagons of the outpost companies will join the field train at KICKAPOO after the column is on the march.

By order of Colonel A:
X,
Capt. & Adj. 1st Inf., Adjutant.

At 2:30 a. m., the command is astir; and at 3 a. m. Colonel A assembles the lieutenant colonel, Major C (commanding 3d Battalion), all the captains of the main body (excepting those on outpost), and his staff, and issues the following verbal orders:

"A telegram received from General B last night states that the enemy contemplates moving a force to Leavenworth over the Missouri Pacific railroad from the south, and directs this command to prevent this movement by interrupting the railroads south of Leavenworth. We are also to endeavor to locate any hostile forces advancing from the south. The railroad in our rear is now guarded by parts of the 3d Infantry, and the 2d Infantry will reach here some time to-morrow.

"We will march to the south this morning to carry out General B's orders.

"Companies E and F, and Troop A, under command of Major B, will constitute the advance guard. It will start from 29 at 3:30 a. m. and follow the 47—17—H—G—14—60—66a road.

"The main body will follow the advance guard at 600 yards, and march in the following order: Regimental headquarters, Companies G and H, 3d Battalion, 1st Battalion.

"The outposts will join the column as it passes the outpost position.

"The field train will remain here until further orders; it will assemble ready to march at 4:30 a. m.

"I will be with the advance guard."

It is quite proper for Colonel A to inform his officers that the proposed movement is being made in compliance with orders from higher authority. The command is small and may have a feeling of isolation in its advanced position, and there will be greater confidence in the wisdom of the movement if the officers know it constitutes part of a general plan worked out at superior headquarters. But the colonel must carefully avoid giving the impression that he is crit-

icising the judgment of his superior, or is attempting to shift responsibility to other shoulders than his own, else he may spread a sentiment throughout his command that might result in the failure of the expedition. This is mentioned only to point out that indiscretion in issuing orders may have serious consequences. The morale of the command will be greatly improved by the knowledge that the line of communications is safe, and that reinforcements will arrive tomorrow, so these facts are mentioned. The most should always be made of every scrap of favorable information.

Colonel A might have told his officers a little less of his own plans. As a rule it is not well for a commander to state what he intends doing far in advance of the event, for he cannot tell at what moment the enemy may compel him to change his plans, and such changes are liable to decrease the confidence troops have in their leaders. But this rule applies with more force the larger the command, and in a command as small as this, it may be a positive advantage for every officer to know the *object of the movement*, unless there is a reason for secrecy. Accordingly, Colonel A probably was right in saying what he did of interrupting the railroads, and locating the enemy, thereby insuring a keener interest in the movement and more intelligent cooperation among all parts of the command.

It is not necessary to inform the officers that the advance guard will so conduct its reconnoissance as to insure the safety of the march, for that is what an advance guard is for; but the hour and place of starting and the road to be followed are all mentioned, in or-

der that commanders in the main body may regulate their times of starting. It devolves upon the senior captain of Companies G and H to time his start so that he will follow the advance guard at 600 yards. No harm is done if he does not get this exact distance at the start, provided he so regulates his march as to secure it in the first few minutes of the advance. In small commands, it is simpler for all concerned to give the distance at which the main body will follow the advance guard (or the advance guard will precede the main body), than to prescribe the hour when the main body should start in order to have its proper distance. The commanding officer should always prescribe the order of march of the troops in the main body, for this is often a matter of great tactical importance (especially in large commands with artillery). In this situation, for example, the two companies at the head of the main body are from the same battalion as the advance guard, and the battalion to which the outposts belong is put at the rear of the column.

Our Field Service Regulations prescribe that the field train (*) will be guarded as far as practicable by a picked up guard consisting of teamsters and other men always with the train, assisted by convalescents and others who are non-effective in the ranks but accompany the command; but, if the situation de-

* For the composition of the field train see F. S. R. In addition to its field train every body of troops is accompanied by its combat train, which comprises the led horses of the officers, the battalion ammunition wagons and ambulances temporarily attached to the various regiments. It generally marches directly in rear of the unit to which it belongs, so that it will be immediately available in case the command goes into a fight. Thus each battalion ordinarily is followed by its ammunition wagons, but the six wagons of the regiment may be assembled and marched immediately in rear of the regiment.

mands, additional guards will be provided. We have assumed that the train has such a picked up guard with it. It would be unwise to have the train follow the command before the situation is somewhat cleared up. Should the enemy be encountered near Leavenworth and the command have to retreat, the train would be in the way and might seriously interfere with the movements of the troops. After Colonel A knows he can continue his march beyond Leavenworth, there will be ample time to send word to the train and have it join the command at its camp for the night.

A commander should always state his proposed position in the column in order that his subordinates can easily find him at any time. In case he is in doubt as to where he will be, he should state where messages should be sent, and then leave a staff officer at that point to forward messages. Colonel A says he will be with the advance guard, but he will assure himself that his entire column is on the march in accordance with his intentions before riding to the front. Unless a commander thus supervises the formation of his command, irregularities of all sorts are liable to creep in, but he cannot constantly remain with the main body; when contact with the enemy seems probable, he generally should join the advance guard where he can make his own observations of the situation as regards the enemy and the terrain, for he must not then depend on messages and maps. But he must scrupulously guard against unwarranted interference with the advance guard commander.

Had Colonel A issued his orders in writing the

night of July 14-15 they would have appeared as follows:

- | | |
|--------------------------------|--|
| Field Orders
No.—
Troops | 1st Infantry,
Kickapoo, Kansas,
14 July —, 10:45 P. M. |
|--------------------------------|--|
- (a) Advance Guard: Major B.
2d Bn. 1st Inf. (less 2 companies)
Troop A, 2d Cav.
- (b) Main Body—in order of march:
Hq. & Cos. G & H,
1st Inf.
3d Bn. 1st Inf.
1st Bn. 1st Inf.
1. It is reported that the enemy contemplates moving a force to LEAVENWORTH over the MISSOURI PACIFIC railroad from the south. Detachments from the 3d Infantry are now guarding the railroad in our rear and the 2d Infantry will reach here some time July 16.
2. In compliance with telegraphic orders from General B, we will advance to-morrow to interrupt the railroads entering LEAVENWORTH from the south, and locate any hostile forces that may be advancing.
3. (a) The advance guard infantry will start from 29 at 3:30 a. m., and follow the 45—17—H—G—14—60—66a road. The cavalry will start at the same hour, and, in addition to examining the woods and hills west of FORT LEAVENWORTH and LEAVENWORTH, will reconnoiter through FORT LEAVENWORTH and LEAVENWORTH and to the south.
- (b) The main body will follow the advance guard at 600 yards.
- (c) The outpost will assemble and join the column as it passes the outpost position.
4. The field train will assemble ready to march at 4:30 a. m., and then remain here awaiting further orders.
5. The commanding officer will be with the advance guard.

By order of Colonel A:

X,

Capt. & Adjt., 1st Inf. Adjutant.

Copies to Lt. Col. A, Majors A, B and C, Captains C and G, and Staff; brief message to General B by wire.

CHAPTER VI.
AN ADVANCE.

PROBLEM.

(See 2-inch map).

A Blue division is at Platte City, Missouri, with an advance brigade near Weston. A Red force of all arms is reported in camp about 30 miles southwest of Leavenworth. The bridges over the Missouri river at Leavenworth and Fort Leavenworth have been destroyed. The country is friendly toward the Blue force.

On August 1, the Blue brigade is awaiting the arrival of material with which to lay a pontoon bridge across the Missouri river about 1½ miles south of Weston, when a trustworthy report is received that a Red force of infantry and cavalry is marching on Leavenworth from the southwest, and probably would reach the line of the Big Stranger about 6 miles south of Easton this afternoon.

On receiving this report, a detachment, consisting of the 1st Infantry, Troop A, 1st Cavalry, and Troop B, 1st Cavalry (less the 3d and 4th Platoons), under command of Colonel A, 1st Infantry, is ferried across the river and ordered to march immediately to the neighborhood of Mount Olivet to locate the Red force and delay its advance while the bridge is being constructed. At 1 p. m., Colonel A has his command assembled on the west bank of the river, a little more than a mile northeast of the polo field, ready to be-

gin the march. The detachment is not accompanied by wagon transportation.

Note:—Big Stranger creek is not fordable.

Required:

Colonel A's estimate of the situation.

His orders for the advance.

SOLUTION.

Viewed broadly, Colonel A's mission is to delay the advance of the Red force, but, before he can do this, the enemy must be found. Consequently, locating the advancing hostile column constitutes his first task.

The information of the enemy shows the direction of his advance to be such as to bring him to the Big Stranger about six miles south of Easton. From this it appears that he is heading for the bridges near 182, although he may cross this stream farther south, or farther north near 114.

We may do little more than guess at the enemy's strength. Our information, which is reliable, says he has but infantry and cavalry. From this we may infer that his force is less than a brigade, else it would most probably be accompanied by artillery. On the other hand it is not probable that the enemy would send less than a regiment of infantry so far from his main force which apparently has not moved from its camp 30 miles southwest of Leavenworth. The best we can do now is to estimate the enemy's strength as being somewhere between a regiment and a brigade of infantry with not more than a squadron of cavalry.

So, also, we may do no more than conjecture the enemy's intentions. The natural supposition is that he has heard of the Blue activity in the vicinity of Platte

City, and has pushed a detachment forward to clear up the situation or to interfere with the Blue operations. At any rate, Colonel A should be prepared to meet a superior enemy with an aggressive mission.

Within certain limits, Colonel A's destination has been selected for him by his superior. He is to march to the neighborhood of Mount Olivet to-day, but, with this restriction, he is at liberty to choose his line of march and camping place for the night, in accordance with his estimate of the situation as it now exists, or as it may change with information secured as the day advances. It is between ten and twelve miles to the neighborhood of Mount Olivet, i. e. between 4 and 5 hours of marching; hence the detachment will not reach the end of its march much before six o'clock.

Before discussing the roads the detachment may take, it will be well to decide on the particular point Colonel A is to aim for. He should so march as to place his detachment squarely across the most probable line of advance of the enemy, and yet be in a position from which he could quickly meet the enemy should he advance along some less probable route. According to present information, a position in the vicinity of 118 will accomplish this purpose better than any other. If the enemy crosses the Big Stranger near 182, and advances by the most direct road to Leavenworth, he must pass 118; while if he crosses at near-by bridges to the north and south of 182, such as the bridge near 114, Colonel A can move by interior lines and keep between him and Leavenworth. Also, 118 is a good position from which to advance and meet the enemy as he is crossing the unfordable

Big Stranger, should later information make such a move desirable.

Considering the late hour when Colonel A makes his start, the length of the march ahead of him, and the distance of the enemy, he should choose the shortest route between his present position and 118. In this situation tactical considerations in the selection of the route are of minor importance. On the supposition that all roads shown on the map are equally improved, the route via the Fort Leavenworth—C—D—E—14—60—56—44—46—106—128—124 road is the one that can be covered in the shortest time with the least fatigue. Routes to the north and south of this are longer and offer no advantages.

The situation furnishes the cavalry with a mission, separate as to time and place from that of the infantry. Its important task is to determine the enemy's location, line of advance and strength. If it is to do this successfully, it must be permitted to cut loose from the infantry; consequently, it should be made independent. The orders given it should state clearly what it is to accomplish, but they should leave the cavalry commander free to execute them in any way he thinks best. He should get patrols to the west of the Big Stranger this afternoon, and should give special attention to reconnoissance along the roads from the west through 114, 184, and 186. Besides, roads immediately to the north and south of these should be watched, especially the roads through Easton. As the cavalry moves towards the Big Stranger, it should observe all the principal roads running west from Leavenworth, for the hostile cavalry may be encountered at any moment.

The probability of close contact with the enemy's infantry during the march is so remote that Colonel A may dispense with a strong advance guard. Two companies are sufficient, but little or no harm would be done if a full battalion were detailed for this duty. Some cavalry with the advance guard might assist it greatly, but the cavalry force is so small and the task assigned it so important that it is preferable to leave the cavalry intact and use the mounted scouts to assist the advance guard. The advance guard commander needs no special instructions; the first part of the march promises to be uneventful, and, should the enemy appear towards the end of the march, any necessary special orders may be given more intelligently at that time.

The advance guard will set the pace for the column, and the main body will follow it at 600 yards—the usual distance for a command and conditions such as we are dealing with. The absence of the wagons makes the column more mobile and gives Colonel A greater freedom of action. The value of this may not become so apparent this afternoon as later on in the operations of the detachment, when the enemy is in close contact.

Colonel A's *decision* is to march at once to the vicinity of 118, by the most direct route via Fort Leavenworth, 60 and the Barnes road, sending all the cavalry in advance to get information of the enemy.

At 1 p. m., he assembles his staff, the three battalion commanders, and the cavalry commander, and issues the following verbal orders:

“Reliable information has just been received that a hostile force of infantry and cavalry is advancing towards Leavenworth

from the southwest, and probably will reach the line of the Big Stranger about six miles south of Easton this afternoon.

"This regiment, reinforced by Troop A and $\frac{1}{2}$ Troop B, 1st Cavalry, will march immediately to locate and delay the enemy, while the remainder of our brigade completes the pontoon bridge.

"All the cavalry, under Captain A, will trot ahead and determine the enemy's strength and position. Roads from the west through 186, 184 and 114 will be carefully reconnoitered, and a patrol will be sent through Easton. In advancing to the Big Stranger, the east and west roads through 76, 96, 108, 128, 132 and 154 will be watched.

"Major A, with two companies from your battalion, you will form the advance guard and will march via the Fort Leavenworth—C—D—E—14—60—56—44—46—106—128—126 road to the vicinity of 124. Fifteen mounted scouts will be directed to report to you.

"The main body, in order of march, 2 companies of the 1st Battalion, 2d Battalion, 3d Battalion, will follow the advance guard at 600 yards.

"I will accompany the main body."

Additional Requirement.

State the dispositions made by the cavalry commander, in obedience to his orders, and show the positions of all elements of the cavalry an hour and a half after starting, on the supposition that the enemy is not encountered.

Solution.

A patrol of 12 troopers, under an officer, is sent via Leavenworth and the Lecompton road. At 134, the officer is to send a non-commissioned officer and 4 troopers to reconnoiter along the 152—154—168 road, thence south and west of the Big Stranger. The officer is to proceed with the remainder of the patrol,

via 118 and the bridges near 182, to the west of the creek. This patrol has just about reached 134.

Three other patrols are sent out. One, of a non-commissioned officer and 5 troopers, to proceed via the Barnes road, 112 and 114 to the west of the Big Stranger; another, of a non-commissioned officer and 3 troopers, to go via the Zimmerman road, 100, and 90 to the vicinity of 88, where it is to remain in observation until nightfall; and a third, of one non-commissioned officer and 4 troopers, to proceed via the Atchison pike and reconnoiter to the west through Easton. These three patrols are started out together under command of an officer who starts them on their proper roads; the Easton patrol being sent off at E, and the other two at 56. The patrol sent via the Barnes road is near 128, the one on the Zimmerman road is between 96 and the cemetery to the west, and the one that started on the Atchison pike is near 80.

All patrols have made between six and seven miles per hour, but the main body of the cavalry has proceeded more slowly to permit the patrols to get a lead of some miles. At the end of the hour and a half it is on top of the ridge between 44 and 46. What is left of the two platoons of Troop B after sending out the patrols constitutes the advance guard, 500 yards ahead of Troop A. One small patrol from this advance guard is in advance on the 48—108 road near 104, and another is on the 106—128 road about half a mile southwest of 106.

COMMENTS.

You have covered the essential points of this problem if, in your solution, you have discovered the true

mission of the cavalry and have so disposed of it that it may work most efficiently in the execution of that mission; have wisely chosen the point on which you are to march; and, in your choice of route and formation for your infantry, have duly considered the desirability of getting it to its destination without unnecessary fatigue.

If you have not given your cavalry the task of searching out the position and strength of the enemy, or have subordinated this task to some other duty, you have misconceived its mission in this situation. Until Colonel A knows the enemy's line of advance he is groping in the dark. The cavalry can give its entire attention to reconnaissance and yet not wholly neglect covering duties, for the very information it secures by its reconnaissance will serve to cover the infantry by the warning it gives of approaching danger. If hostile cavalry is encountered, Colonel A's cavalry, in all probability, will have to fight to carry out its reconnaissance, and in fighting to secure information, it will at the same time be warding off hostile reconnaissance.

You may have formed a proper conception of the cavalry's mission, and yet assigned it to the advance guard. This arrangement is open to objection, for, should the advance guard commander restrict the operations of the cavalry to nearby reconnaissance, as he is liable to do, Colonel A will have to interfere or stand idly by and see the cavalry robbed of its independence—neither of which he will wish to do.

If you have assigned a few troopers to your advance guard, no serious criticism can be made of your action, for this, as well as the precise orders you may

have given for patrolling, is but a minor matter when compared in importance with employing the cavalry independently and ordering it to find the enemy.

In view of the information furnished, 118 or 116 appears to be the most natural point for the infantry to march on, but some other point near Mount Olivet may do, provided your dispositions are such as will stop the enemy at the Big Stranger if you reach that stream ahead of him. If you have overlooked the value of this stream to you in your effort to delay the enemy, you have missed one of the important points in the problem.

If you have selected some other destination than 118, your route for the infantry may not be the same as ours, but it can not be criticised if you have selected the shortest road, and have not taken a round-about route because of some fancied tactical advantage. It is hardly necessary to add that elaborate precautions, such as flank guards, are wholly unnecessary at the beginning of the march, although some special flank protection might be advisable before the march is ended. If so, the necessary flank detachments can be sent out at that time. The order is not perfect if it does not follow the prescribed form—information in the first paragraph, statement of your intentions in the second, tactical dispositions of the different elements of your command in succeeding paragraphs up to the last, which will state your position. As the field train does not accompany the column, nothing is said of it in the order. It will be strange if you have not inserted in those paragraphs of the order which refer to the cavalry and advance guard, much that amounts to interference with your subordinate commanders.

It is suggested that you carefully revise all your orders with the idea of eliminating such undesirable matter.

The additional requirement was given that you might test your knowledge of the proper leading of cavalry. If you have sent out a few patrols over carefully chosen routes with instructions to get to the west of the Big Stranger and find the enemy, and have kept the remainder of the cavalry together in one compact column, you have made a correct disposition of the cavalry, and it matters little whether you have located your patrols at exactly the same points on the map as have we. On the other hand, a disposition that widely scatters the cavalry in numerous small detachments, and fails to hold the bulk of it together on some central road, is faulty; soon or late, cavalry on reconnaissance will have to fight, and it should always keep the bulk of its strength concentrated in anticipation of this moment, for there can be no certainty about your ability to get your widely scattered detachments together in time. *In concentration there is strength, in dispersion weakness*, is a principle that applies not alone to infantry, but to cavalry as well.

CHAPTER VII.
AN ADVANCE GUARD.

SITUATION.

(See 2 and 4-inch maps).

The situation is the continuation of that given in Chapter V.

The 1st Infantry, and Troop A, 2d Cavalry, part of a Blue detachment in hostile country, which is attempting to assemble at Leavenworth by rail from the north, reached Kickapoo the afternoon of July 14, and took quarters there for the night. Companies A and B, and one platoon of Troop A are on outpost for the night on the line L. A. Aaron—Plum hill. During the night, Colonel A, the detachment commander, received the following telegram from General B at superior headquarters:

“It appears that the enemy contemplates moving a force to Leavenworth over the Missouri Pacific railroad from the south. It is important that he should not get possession of Leavenworth. Proceed to the south to-morrow with your entire command, interrupt the railroads to the south of Leavenworth, especially the Missouri Pacific, and endeavor to locate any hostile forces advancing from the south. The 2d Infantry will reach Kickapoo some time July 16. Detachments from the 3d Infantry are now guarding the railroad in your rear.”

In compliance with this order, the detachment commander decides to march south early on the morning of July 15. Major B is to command the advance guard, consisting of 2 companies of his battalion (the 2d) and the cavalry. His infantry is to start from

29 at 3:30 a. m., and follow the 45—17—H—G—14—66a road. His cavalry is to start at the same hour, being joined by the platoon on outpost as the column passes the outpost line. The cavalry is to reconnoiter through Fort Leavenworth and Leavenworth, and is to patrol the hills along the line of march. Colonel A specially desires to know if Leavenworth is still unoccupied by the enemy, and Major B may send out a cavalry patrol before 3:30 a. m. to obtain that information. The main body is to follow the advance guard at 600 yards. The field train is to remain at Kickapoo. Major B selects Companies E and F from his battalion for the infantry of his advance guard, and Colonel A gives him 5 mounted scouts.

Required:

Major B's estimate of the situation and his orders.

SOLUTION AND DISCUSSION.

In discussing the orders given Major B in Chapter V (*) it was pointed out that he need not be told anything of the duties of an advance guard in general, for these, as well as the general principles governing the formation and conduct of an advance guard, are prescribed in the Field Service Regulations, and every well instructed officer is supposed to be familiar with them. But, if the detachment commander wishes his advance guard to do some special task, he should state it in the orders given its commander. The only special mission given Major B is the cavalry reconnaissance that he is directed to make along both sides of the line of march, through Fort Leavenworth and Leavenworth, and to the south, and

* See page 76.

one result of this reconnaissance specially desired at an early hour is information as to the situation in Leavenworth, for on this may depend all the later operations of the detachment. So we find no difficulty in determining Major B's mission from the orders given him. In solving a map problem, it is well at the very outset to obtain a clear understanding of the mission assigned us (as we would do were we actually in command on the ground), *for we can make no intelligent plans until we fully comprehend what we are expected to accomplish.*

An advance guard commander's task naturally separates into two parts—first, making the preliminary arrangements for the march, to include preparing and issuing the orders; and second, conducting the advance guard after the march begins. The first is comparatively simple, although care must be taken to start all parts of the command in the right directions and with proper orders; but the second generally furnishes the true test of an advance guard commander's ability. We will examine these two phases of the problem in the order named.

To avoid a repetition of much that was said in Chapter V, we will not devote much time to the consideration of the enemy. Major B's analysis of this part of the situation probably would take the same form as Colonel A's and lead to similar conclusions, the most important of which is that, although the enemy was not in Leavenworth at 8 p. m., he may reach there at any moment. The arrangements for the march should be made on this supposition. Without being timid, it is often advisable in reaching a tactical decision to take that view of the situation least favora-

ble to yourself. If plans made on that supposition are designed to be successful, they certainly will be no less so should the situation turn out better than expected.

That the enemy in superior force should arrive at Leavenworth to-night and advance on Kickapoo tomorrow morning, probably is the most unfavorable of all *reasonable* views of the situation before us. Such an advance could be made via Fort Leavenworth (or Sheridan's Drive) and the Millwood road, but it is not probable he would take this roundabout route through the thick woods while he has the more direct and open route available via 14—G—H—17. An advance on routes to the west of the one last mentioned is scarcely to be expected. If Major B judiciously makes his plans for the march, on the supposition that the enemy may be encountered between Leavenworth and Kickapoo on some one of the roads mentioned, he will be doing no more than reasonably is to be expected of him, and should it turn out that the enemy has not reached Leavenworth, he will still have proper dispositions for the further execution of the mission assigned him.

During the first part of the advance, therefore, the three roads above mentioned must be watched. The orders given by Colonel A prescribe that the advance guard infantry will follow the road due south from Kickapoo, but arrangements for protection on the roads to the east are left to the judgment of Major B. Sheridan's Drive is more than a mile, and the road through Fort Leavenworth is more than two miles from the main line of advance. Small infantry detachments on these roads would be dangerously

far from support. If the enemy were encountered in force, they would fail to accomplish what is expected of them, and in all probability they would be destroyed before assistance could reach them. The occasion rarely or never arises when a small advance guard, advancing in the presence of the enemy, is justified in dispersing its force on two or more widely separated roads. On the contrary, the strength of small detachments should be concentrated, so far as possible, in one column, to be broken up only when absolutely necessary. This is the rule of concentration of forces applied to a command on the march, and as we proceed through this book we will find that a similar principle applies, whatever may be the tactical situation. Concentration strengthens a command, while dispersion weakens it. We need have little fear of concentrating our force in too small a space for this mistake is seldom made, *but we should constantly combat the tendency to disperse our command, else it will lead us into more errors than any other tactical sin.*

The cavalry, however, is well suited for the task of covering the roads east of the line of march. Not that it is exempt from the application of the principle just stated, but its mobility makes its safe radius of action greater than that of infantry. There need be no hesitation about sending it over these roads, for if properly handled it should have no difficulty about getting beyond danger of hostile infantry, and efficient reconnaissance in its front should prevent its being cut off by hostile cavalry, provided it does not go too far from its infantry support. So this becomes the chief mission of the cavalry, and, in accordance

with the principles mentioned in Chapter V, (*) the detachments made from the troop for all secondary purposes should be as small as possible; our attention and our efforts should be centered on the main task and not diverted from it by minor considerations. The infantry of the advance guard should always be preceded, if practicable by a few troopers on the main line of march to give early warning of the near presence of the enemy and thereby avoid a surprise or ambush; a small patrol of four or five men, called the cavalry point, will be ample for this purpose. Another small patrol will be sufficient to reconnoiter the hills west of Leavenworth. The patrol sent to examine Leavenworth should be stronger, for it has an important task, but it can also make the reconnoissance to the south after it has discovered the situation in the town.

Major B may personally give these patrols their orders and send them out, or he may provide for this reconnoissance in his orders to the troop commander and permit him to make all the arrangements. The latter is the better plan, for the arrangements made at the start probably will have to be modified as the march progresses, and this can be done to best advantage by the cavalry commander who, in his advanced position, is first to become aware of changes in the situation. In any case, the cavalry point is under the orders of the officer commanding the leading element of the advance guard.

Let us now consider the disposition to be made of the infantry. The primary duty of an advance guard is to secure the safe and uninterrupted advance of the

* See page 67.

main body. If hostile patrols or other comparatively weak hostile bodies are encountered, they must be unhesitatingly driven back, else the march of the main body will be delayed. If the enemy is encountered in force, he must be held off long enough to permit the main body to deploy. This protection and uninterrupted march of the entire command is secured, as far as is possible, by dividing the advance guard into reserve and support, the latter sending forward an advance party which in turn is preceded by a point, and separating these various fractions by variable distances, usually increasing from front to rear.

There can be no fixed rule for determining the proportionate strength of these parts of the advance guard, as they will vary with the convenience of subdivision and the military situation; it may be said, however, that the reserve will usually consist of from one-half to three-fourths of the advance guard. These subdivisions decrease in strength toward the enemy, thus placing small fractions, that can be quickly deployed for fighting, in the positions of greatest danger; each of these in succession should secure the necessary delay to permit the next larger fraction in rear to prepare for action.

The distance which separates the different portions of the advance guard from each other, and the advance guard from the main body, give the column great elasticity and help to protect its different elements against delay. Were troops to march in an unbroken column, any check to the head of the column would run through its entire length, but a check to the head of an advance guard is not immediately transmitted to the main body of the command, and

before the march of the latter is affected the advance guard may push back what has been opposing it and resume the march.

The distances vary with the size of the force and the special situation of each case, but they must be large enough on the one hand to protect the bodies in rear from surprise, and small enough on the other hand to permit the bodies in front to be supported. For example, Colonel A has prescribed 600 yards as the distance to separate the head of the main body from the tail of the advance guard. Now from the point to the tail of the advance guard the distance should be such that the total distance from the point of the advance guard to the head of the main body will be ample to protect the main body from surprise, as well as to allow it to make timely deployment, provided the advance guard properly performs the duties of reconnoissance and security. These distances cannot be worked out with mathematical accuracy, nor will they always conform exactly with this rule, but this is the principle upon which they are based.

Not all commands need have both a reserve and a support in their advance guard; small bodies can be so quickly deployed for action and placed under cover that they do not require so much warning and protection as larger commands. A company should be able to deploy for action in less than a minute, and may be amply protected with only a strong point in its front; a battalion may gain all the time it needs for deployment, if preceded by nothing more than an advance party with its point; and for a single regiment, a reserve in the advance guard will generally be unnecessary.

In the situation before us, the cavalry should discover the enemy some time before the infantry comes within range, so we need not fear to dispense with a reserve in the advance guard. In accordance with the principles stated above, the two companies will be divided between the advance party and support, with half a company in the former, and a company and a half in the latter. Tactical unity would be preserved by placing a company in each, but this would unduly weaken the support and would make the advance party unnecessarily strong for its advanced and dangerous position.

When an advance guard is divided into reserve, support and advance party, an officer should be assigned to the command of the support and advance party combined, but the advance guard commander generally will retain immediate command of the reserve, to insure against its being employed contrary to his wishes. Similarly, when the advance guard has no reserve, the commander probably will assign no separate commander to the support, for if he is to exercise any material influence on a critical situation he must have complete control over a part of his command. Accordingly our major will assign a captain to the command of the advance party and give him a lieutenant to assist him, and will assign no one to command the support.

The *decision* therefore is: To advance with the infantry in one column, divided into advance party and support; and to have the bulk of the cavalry observe the roads and country towards Fort Leavenworth and along Sheridan's Drive, while making all secondary reconnaissance with small patrols.

Major B received his orders at 10:30 p. m., and has time to estimate the situation with deliberation. Still, he probably will reach his decision before 11 p. m. The cavalry commander should be given his orders at once, for his task is one which he may wish to consider to-night, and at least one patrol (the one going to Leavenworth) will be started before the remainder of the command. When he has reported, Major B gives him the following order:

"The commanding officer has just received a telegram from General B stating that the enemy is expected to move a force to Leavenworth via the Missouri Pacific railroad, and ordering the command to advance to-morrow morning to interrupt the railroads entering Leavenworth from the south, and locate any hostile forces that may be advancing. The 3d Infantry is now guarding the railroad in our rear, and the 2d Infantry will reach here day after to-morrow.

"Companies E and F and your troop, under my command, will form the advance guard. We will move provisionally on Leavenworth.

"The advance guard infantry will start from 29 at 3:30 a. m. and follow the 47—17—H—G—14 road. The main body will follow it at 600 yards.

"You will start with your troop at the same hour and trot ahead of the infantry. With the bulk of your force, examine the roads and country east of the line of march and protect the left flank of the column against attacks from that direction; and with patrols, watch the hill country west of Leavenworth and reconnoiter to the south of that town. Get me information of the situation in Leavenworth by the time the advance guard reaches 14, sending out a patrol for that purpose whenever necessary. Have a non-commissioned officer and four men report to me for a cavalry point. The platoon now on outpost will join you as you pass the outpost position.

"The field train is to remain here provisionally.

"I will be with the support."

In this order, we see the measures taken by Major B to carry out the instructions he received from Colonel A concerning the employment of the cavalry (*) and we may judge whether they are adequate. The cavalry commander is given all reasonable freedom of action. Specifying the task to be performed by the bulk of the cavalry is in no sense an interference in its tactical employment. If Major B's plan contemplates protecting the left flank of the column with his cavalry, the cavalry commander should be told this in unmistakable language, especially if cavalry and infantry of the advance guard are to cooperate to the best advantage in protecting the column during its march. We could not have criticized Major B had he even specified the road to be taken by the main body of the troop, but he probably followed the wiser course in leaving the cavalry commander free to select his own route.

At 3 a. m., our major assembles all of the officers of the advance guard, excepting those of the cavalry troop, and gives them the following verbal orders:

"A telegram was received last night, stating that a movement of the enemy over the Missouri Pacific railroad to Leavenworth is expected, and General B has ordered the regiment to advance this morning to interrupt the railroads south of Leavenworth and locate any hostile forces advancing from the south. The 2d Infantry will reach here to-morrow, and the 3d Infantry is now guarding the railroad in our rear.

"Companies E and F and Troop A will form the advance guard under my command, and will march provisionally on Leavenworth.

"The cavalry will cover the left flank of the column, and reconnoiter west and south of Leavenworth. It is expected to get

* See page 74.

us information of the situation in Leavenworth by the time the advance guard reaches 14.

"Captain E, one platoon of your company (E) will form the advance party under your command. Start from 29 at 3:30 a. m., and follow the 47—17—H—G—14 road. A non-commissioned officer and 4 troopers will be sent to you for a cavalry point.

"The remaining company and a half will form the support and follow the advance party at 400 yards, with the other platoon of Company E in the lead. The main body of the regiment is to follow the support at 600 yards.

"The field train is to wait further orders at Kickapoo. Have your wagons join it here before 4:30 a. m.

"I will be with the support."

By stating that the command is to march provisionally on Leavenworth, all the officers are given to understand that the further progress of the march will depend on the situation in that town. They are told enough of the movements of the cavalry to assure them that it is to furnish protection on the left flank, and reconnoiter in other directions. Captain E is told nothing of the way in which he is to conduct the advance party, for that is his task and he should be permitted to do it in his own way; for reasons already mentioned, no commander is designated for the support.

Had Major A prepared a combined written order, it would have appeared as follows:

Field Orders

No. 1

Troops

(a) Advance Cavalry:

Captain A.

Tr. A, 2d Cav (less 1 n. MISSOURI PACIFIC railroad c. o. and 4 troopers). is anticipated at superior head-

Advance Guard, 1st Infantry,

Kickapoo, Kansas,

14 July—, 11:00 P. M.

1. A movement of the enemy to LEAVENWORTH over the

- (b) Advance Party: quarters. Parts of the 3d Infantry are now guarding the Captain E. infantry are now guarding the Co. E, 1st Inf. (less 1 plat.) 1 n. c. o. & 4 troopers, Tr. A, 2d Cav. In compliance with telegraphic orders from General B our entire command advances to-morrow to interrupt the railroads entering LEAVENWORTH from the south, and locate any advancing hostile forces. The main body will follow the advance guard at 600 yards.
- (c) Support—in order of march: 1 plat. Co. E, 1st Inf. Co. F, 1st Inf.

2. The advance guard will march provisionally on LEAVENWORTH.

3. (a) The advance cavalry will start from 29 at 3:30 a. m. The main part of the troop will examine the roads and country east of the line of march and protect the left flank of the column against attack from that direction, while patrols reconnoiter south and west of LEAVENWORTH. Information of the situation in LEAVENWORTH will be furnished the advance guard commander before the head of the column passes 14. The outpost cavalry will join as the advance cavalry passes the outpost position.

(b) The advance party will start from 29 at 3:30 a. m. and follow the 47—17—H—G—14 road.

(c) The support will follow the advance party at 400 yards.

4. The field train is to assemble ready to march at 4:30 a. m., and remain here awaiting further orders. The wagons of the advance guard will join it before that hour.

5. I will be with the support.

B.

Major, 1st Inf. Commanding.

Copies to Captains A, E and F, battalion staff, and Colonel A.

With the issuance of his orders, Major B completes the more important of the preliminary arrangements for the march, and the actual leading of the advance

guard begins when the column takes the road. Without going into too great detail, we may get some idea of this leading by examining the positions of all fractions of the command an hour after it starts, on the supposition that the enemy is not encountered.

This brings us to a consideration of the marching rates of troops in campaign, the frequency of halts, and the road spaces occupied by troops, with all of which we should be familiar. These matters are very fully discussed in the Field Service Regulations (*) and we will not devote much time to them here. A small infantry command such as we are dealing with, will make three miles per hour, or 88 yards per minute, *while marching*, provided the conditions are favorable; if we include a ten minute halt every hour in our calculations, the rate will be $2\frac{1}{2}$ miles per hour. In actual practice, all these calculations are influenced by many conditions which it is impracticable to consider when solving problems on the map, and unless something is said to the contrary, $2\frac{1}{2}$ miles per hour, *including halts* will be the marching rate used for infantry throughout this book.

Nor can there be any rigid rule as to the length and frequency of halts. If the march is to be short (say 6 to 8 miles), or if tactical considerations make conserving the energy of the troops a matter of secondary consideration, the halts may be few and short, or even completely eliminated. On the other hand, if there is no necessity for haste, the march is to be a long one, the roads are heavy, or the weather is hot, the

* See Chapter on Marches, F. S. R. Read also what General Gripenkerl says on this subject in his Second Letter in **Letters on Applied Tactics**.

halts may be more frequent and longer. Ordinarily, there will be a halt of 15 minutes during the first hour, and one of 10 minutes every hour thereafter.

We will assume that Major B's advance guard marched for forty-five minutes and then rested for fifteen minutes. At the end of the first hour, it is ready to resume the march with its different fractions occupying positions as follows (see 4-inch map) (*):

The infantry point (a non-commissioned officer and 7 men) is 3960 yards (88 x 45), or $2\frac{1}{4}$ miles from 29. This puts it at the Taylor house, $\frac{1}{2}$ mile south of 17, on high ground where it can observe towards the enemy during the halt. The advance party is 300 yards in rear of the point, where the lane from the Moss house enters the main road; in this position, it has been perfectly covered from view from the south by the spur running from the Moss to the Taylor house; two flanking groups of 3 men each that were sent out when the advance party passed 17, halted when they saw the advance party halt and remained in observation during the fifteen minutes the command was resting—one on the 900 foot hill 400 yards northwest of the Moss house, and the other on the hill-side about 400 yards east of the advance party.

The support is in the northwest angle of the cross-roads at 17. It is more than the prescribed 400 yards in rear of the advance party, but it was stopped here to take advantage of the cover of the small ravine running north from 17. A patrol of 8 men is on the road about 400 yards east of 17 in observation, and

* It will be found of great assistance to mark the positions of the troops on the map with pins, or with light pencil marks.

another patrol of 4 men is at Taylor school house (Taylor S. H. on the map) watching towards the west. Four connecting files, working in pairs, are on the road between the advance party and the support, and six are between the support and main body. These numbers might be reduced to two and four respectively, but the work of connecting files is not fatiguing and it is better to have too many than not enough.

When the signal to halt was passed along the column by the connecting files, the head of the main body was in front of the J. Aaron house south of Plum creek bridge, and its tail was still 300 yards north of the bridge (*). Six companies rested south of the creek, and 1 battalion rested just north of the bridge.

Let us now examine the distribution of the cavalry. At 3 a. m., Captain A (the cavalry commander) started a patrol of 8 troopers to Leavenworth to make a report of the situation there, and then to reconnoiter to the south of the town. At 4:30 a. m., it has just reached the Union depot in Leavenworth, having covered the 7½ miles in 1½ hours without seeing anything of the enemy. (†) At 3:30 a. m., the remainder of the troop started from Kickapoo, with the remainder of the platoon from which the Leavenworth patrol was taken, 400 yards in front as an advance guard. At 17, a patrol of 6 troopers was sent from the main body of the cavalry to the south to reconnoiter the woods and roads in the hills west of Leav-

* There are 2 battalions and 2 companies in the main body, occupying a road space of about 700 yards.

† Alternating the trot and walk the marching rate of cavalry is about 5 miles per hour. At a walk it is about 3¼ to 3½ miles per hour, including halts.

enworth and protect the column from surprise in that direction; and it is now (4:30 a. m.) in the vicinity of 22. Another patrol (of 4 troopers), also from the main body, was sent east from 17 to follow the 15—11—9—5 road and reconnoiter through Fort Leavenworth, and is now examining the streets of the fort. The remainder of the troop moved east at 17 and followed the roads and trails (via 15 and 11) to Hancock hill, and thence along Sheridan's Drive to the south. At 4:30 a. m., the troop is about a quarter of a mile south of Wagner point where the trail and drive unite, and Captain A has a good view to the south and west. Here, the troop makes its first halt after marching 5 miles in one hour. The captain would have halted some minutes earlier had the map not shown this as a good point from which to observe the roads about Leavenworth. While halted, the advance guard is at D, and 4 troopers are observing from the spur just north-west of E.

The cavalry point, under the orders of the commander of the advance party, trotted ahead of the infantry and is at G examining the road to F before moving up the hill towards 16.

Ten minutes before the column resumes its march, two patrols of 5 men each are sent forward from the advance party to gain Sentinel hill and Eleven Hundred Foot hill. They remain together on the road until they reach the stream between the Burns and Dolman houses. The patrol going to Sentinel hill follows down this stream and climbs the hill through the woods on its northern spur. It will rejoin the advance party as it passes G. The other patrol probably will gain the A. T. & S. F. R. R. where it crosses

Salt creek, follow the railroad to the base of Eleven Hundred Foot hill, and ascend the hill through the woods. At 4:30 a. m., these two patrols are just about to separate where the road crosses the stream near the Burns house.

The drill ground methods for forming and conducting an advance guard are liable to be misleading when troops are in the presence of an enemy. On the open and level parade ground it is an easy matter to send out flankers to a prescribed distance and have them march parallel to and abreast of the advance party, support or reserve. But, should we find such ground when in the presence of an enemy, it would be folly to keep flankers out a uniform distance from the column, for they could see nothing of importance that cannot be seen from the column itself. On the varied terrain along the line of march of troops in campaign, such a formation generally is impracticable or poorly suited to the purpose in view. The topography of the country seldom is such as to make this use of flankers consistent with securing proper reconnoissance in the least fatiguing way.

Flankers off the road cannot be expected long to maintain the same marching rate as the column on the road, especially as their duties require a certain amount of caution in their movements. Floundering over plowed ground or through standing grain, climbing fences and jumping ditches soon exhaust men weighed down with gun and pack, and unless they are frequently relieved by fresh men, the column will be delayed or reconnoissance neglected. Accordingly, observation on the flanks of the column should generally be made by patrols sent out from time to time

with instructions to perform a definite task and then rejoin the column; it will seldom or never be advisable to have the same groups perform the duties of flankers throughout the entire march. In the presence of the enemy, other considerations than beauty and regularity of formation control. We are then seeking protection against the enemy and the uninterrupted march of the main body, and that formation is best which secures these objects with least fatigue to the command, although it may differ from the typical or normal formation we have seen pictured in books.

In this way, an advance guard is conducted through the successive stages of its journey, and, even before the enemy's whereabouts are known, constant supervision of the march is required of the higher leaders. But the real task of the advance guard commander begins when the enemy is encountered, for, while the general purpose of an advance guard is always the same, the special manner in which it should be handled when confronted by the enemy will vary with the situation. One general rule can be given for our guidance: *An advance guard should be so conducted as to contribute most to the success of the main body following it.*

When the enemy is first met, his strength generally will be unknown, and developing it without involving the entire advance guard in a fight is often very difficult. Should it appear that only a small party is blocking the way, it generally should be unhesitatingly attacked and driven in, else the advance guard commander will find himself in the ridiculous situation of permitting a handful of men to stop the march of an

entire column. This requires boldness and aggressiveness on the part of the leading elements of the advance guard, and service with the point and advance party consequently is very hazardous. But war is largely a matter of calculating and heartless equivalents. The sacrifice of half a dozen men of the point of an advance guard matters little, if it secure the steady forward march of some thousands of men in the rear who are advancing for the accomplishment of some important mission.

What should be done if the enemy is encountered in force, is not so easily answered, and a definite answer is not at all possible without knowing the particular circumstances at that moment. In one situation, the advance guard may properly assume a vigorous offensive; in another, it may at once occupy the most favorable ground in the vicinity for defense; and in still another, it may fall back on the main body. Of one thing we may be sure: whatever the decision of the advance guard commander, he must be guided in reaching it by consideration for the main body. *Any independent action by an advance guard commander most probably will seriously embarrass the higher commander, if such action is not strictly in accord with his plans and intentions.*

We do not have to search far to find the reason for this. An advance guard is not an independent command. It constitutes but one element of a fighting force, the remaining element of which is the main body in its rear, and the duty and responsibility of deciding how, when, and where this force shall fight rests on its commander. If the advance guard commander engages in an enterprise that forces on the

higher commander a line of action he never contemplated, supreme authority passes into hands that are not intended to possess it. In such a situation, there is great danger that the main body, hastening to the assistance of the advance guard, instead of fighting as a unit will be thrown into the fight by dribbles to reinforce hard pressed points of the line. Thus the commander may see his whole force beaten in detail while he is unable to prevent it, all because of the precipitate action of the advance guard commander.

We see therefore, that it is of the utmost importance that the advance guard commander should know the intentions of the commander of the whole force. Even so, the superior commander can do no more than state his general plan and intentions, in harmony with which the advance guard must operate. Without being a clairvoyant, he cannot state the specific action to be taken by the advance guard in any particular situation, and for this reason, he usually rides with the advance guard when in the presence of the enemy, that he may quickly communicate with the advance guard commander in such emergencies. Even if his duties should take him elsewhere, he probably would join the advance guard the moment that firing or messages indicate that it has met the enemy in some force. If the advance guard commander shows good judgment in developing the enemy's strength, before committing his advance guard to a serious fight, he should have no difficulty in learning the superior commander's wishes in ample time to make his own actions conform to them.

The above principles may be applied to the following situations:

First:—As the point of the advance guard is crossing the railroad at G it is fired on from the northern end of the cut in the road at 16.

Second:—The steps taken to determine the strength of the enemy at 16 resulted, in less than 15 minutes, in developing a firing line from Atchison hill to the spur northwest of 16; at the same time, a message is received from the cavalry troop saying it was falling back towards Sheridan's Drive before superior cavalry, and that about 2 regiments of hostile infantry were moving towards Kickapoo from Leavenworth on the 70—72—14 road with the support of their advance guard at 14 (the message was dated 15 minutes ago).

Required:—Major B's action in each situation, under the supposition that Colonel A is temporarily absent.

CHAPTER VIII.
AN ADVANCE GUARD.

PROBLEM.

(See 2-inch map).

The situation is the continuation of that stated in Chapter VI.

August 1, an advance brigade of a Blue division is preparing to build a pontoon bridge across the Missouri river, about 1½ miles south of Weston. The 1st Infantry and a troop and a half of the 1st Cavalry have been ferried across the river, and are assembled on the west bank, a little more than a mile northeast of the polo field.

Reliable information having been received that a hostile force of infantry and cavalry is advancing towards Leavenworth from the southwest, and probably will reach the line of the Big Stranger about six miles south of Easton this afternoon, this detachment has been given orders to march to the west and locate and delay the enemy, while the pontoon bridge is being constructed.

At 1 p. m., Colonel A, the detachment commander, gives his orders for the march. The cavalry is to trot ahead and determine the enemy's strength and position; it is to send a patrol through Easton, is to reconnoiter the roads from the west through 186, 184 and 114, and is to observe the east and west roads through 76, 96, 108, 128, 132 and 154.

Major A, with 2 companies from his battalion, and

15 mounted scouts, is to form the advance guard, and is to march at once via the Fort Leavenworth—C—D—E—14—60—56—44—46—106—128—126 road, to the vicinity of 124. The main body is to follow the advance guard at 600 yards.

Required:

Major A's estimate of the situation.

His orders.

SOLUTION.

Unless Major A delays the march of the column, which of course he should not do, he will have little opportunity to deliberate on the situation before starting the advance guard on its way. The solution will be found most instructive if it follows the same sequence as Major A's thoughts and actions.

His first concern should be to begin the march in an orderly manner with the least possible delay. To do this, he has only to decide upon the subdivisions of the advance guard, and the distances that will separate them, and issue a very short order. An advance guard of two companies, for a single regiment with independent cavalry in its front, has no need of a reserve. Probably the best division of the two companies, between support and advance party, will be to place one-half of one company under its captain in the advance party, and the other company and a half in the support, separating the two by a distance of 400 yards.

Having decided on this, the Major issues the following order to his staff and the officers of the two companies:

"It is reliably reported that hostile infantry and cavalry are marching on Leavenworth from the west, and probably will

reach the Big Stranger about six miles south of Easton this afternoon. Our regiment and a troop and a half of the 1st Cavalry are to march at once to the west, to locate and delay the enemy, while the pontoon bridge is being completed. The cavalry is to trot ahead and it will watch the principal roads leading towards the enemy.

"Companies A and B and fifteen mounted scouts will form the advance guard, under my command.

"Captain A, one platoon of your company will form the advance party under your command, and will move out at once via this wood trail and the road to Fort Leavenworth; from Fort Leavenworth you will follow the C—B—E—14—60—56—44—46—106—128—126 road.

"The other half of your company and Company B, marching in the order named, will form the support and follow you at 400 yards. The main body will follow the support at 600 yards.

"I will join you as soon as the support starts."

Major A may now reflect upon the situation. Since it is only probable the enemy will reach the line of the Big Stranger this afternoon, and the detachment is to march only to the vicinity of 124, it is not at all likely that the hostile infantry will be encountered during the march. It is otherwise, however, with respect to the hostile cavalry. It is perfectly possible for it to appear suddenly at any moment, although timely warning of its near presence should be given by the Blue independent cavalry. Even the hostile infantry may be nearer than our information leads us to think. So it appears that Major A cannot be certain that his advance guard will complete the march without coming in contact with hostile cavalry, although the probability of encountering hostile infantry is remote.

Although Colonel A has properly made the independent cavalry responsible for the general recon-

naissance towards the enemy, yet Major A must not, on that account, neglect to reconnoiter the country *near* the line of march. He is responsible for the *immediate* protection of the main body. The mounted scouts may well be used to assist in this limited reconnaissance, but they should not be sent out to reconnoiter points that can be reconnoitered equally well by dismounted patrols.

The advance party should send out such dismounted patrols as may be necessary (e. g., one from 14 to move along the 16—18—20 road, from which a good view of Salt creek valley is obtainable). Such patrols probably will be unable to rejoin the advance party, and will naturally join the support upon completion of their reconnaissance. Major A may well keep control of most of the mounted scouts, as in this way he can be certain that they are used to the best advantage, and yet are not needlessly sent out to examine points that dismounted patrols could reconnoiter quite as well.

Consequently, Major A decides to keep eleven of the mounted scouts with him and attach four to the advance party to serve as a mounted point. The eleven he will send out from time to time as circumstances warrant. In the first part of the march, while the Blue cavalry is near, he need make no use of them, but after the first hour or two their information will be most valuable. For example, four may be sent to Leavenworth to inquire whether the enemy's cavalry patrols have been seen there, and then rejoin at 60; at 60, three may be sent to pass over the 68—50 road and rejoin at 52; at 56, three may be sent via the

Zimmerman road to rejoin at 44; and so on throughout the march.

Major A is now ready to join Captain A and give him his four mounted scouts, and then assume general supervision of the advance guard.

This solution has caused us so little trouble that another and more difficult advance guard problem will be given in the next chapter.

CHAPTER IX.
AN ADVANCE GUARD.

PROBLEM.
(See 2-inch map).

A Blue division, marching south in friendly country, is camped ten miles north of Weston, and a Red division is concentrating thirty miles southeast of Leavenworth. There are no Red forces on the west bank of the Missouri in this theater of operations. The possession of the bridges over the Missouri at Leavenworth and Fort Leavenworth is of great importance to both the opposing forces.

A Blue detachment under Colonel B, consisting of 2 regiments of infantry, a battery and 2 troops of cavalry, has been pushed forward to Weston, and, after an exhausting march, goes into camp there late in the evening of 30 September. At 8:30 p. m., Colonel B gives Lieutenant-Colonel A the following verbal orders:

"Reliable information has just been received that a hostile detachment of all arms, marching from the southeast, bivouacked eight miles south of Farley, about 5 p. m. to-day, and hostile cavalry patrols were seen four miles south of Farley this afternoon. Our division will continue its advance to-morrow.

"This detachment will move south to-morrow to prevent the enemy from advancing between the Platte and Missouri rivers.

"The 1st Battalion, 1st Infantry, machine gun platoon attached, and Troops E and F, 7th Cavalry, will constitute the advance guard under your command, and will march via the 29—21—15—50—Farley road. The platoon of cavalry on outpost will report to you when your cavalry passes the outpost line.

"The main body will start from 31 at 6 a. m. and follow the advance guard at 700 yards. Time your start accordingly.

"The wagons of the advance guard will join the field train at 31 at 7 a. m."

When Lieutenant-Colonel A inquired if he should make any special reconnaissance Colonel B told him to use his own judgment.

Note—The Platte river is unfordable.

Required:

Lieutenant-Colonel A's estimate of the situation.

His orders.

SOLUTION.

The object of the movement south is to prevent the enemy from advancing between the Platte and Missouri rivers, and the broad mission of the advance guard is to cooperate with the main body of the detachment in accomplishing this object. If it has a more specific mission it should become apparent as the situation is analyzed.

The information of the enemy leaves his strength undetermined. The order refers to the force as a "detachment," and Colonel B would not have used this term had he believed that the entire hostile division was bivouacked near Farley. The presence of artillery suggests a force of at least two regiments, while the very limited cavalry reconnaissance made to the north suggests weakness in that arm. However, so far as Lieutenant-Colonel A's initial dispositions are concerned, the definite location of the enemy's bivouack eight miles south of Farley is important.

If the enemy continues his advance with the intention of crossing the Platte river, as is to be expected since the possession of the bridges across the Mis-

souri is of great importance to the Red commander; the bridge at 72 is his nearest and most natural crossing place. Just north of the bridge the road crosses the flat, open valley of the Platte, dominated by the heights at Farley. In this vicinity may be found the best position from which to block the hostile advance, for, even if the enemy should succeed in crossing the river, he will be compelled to fight with it in his immediate rear. The left flank of the position will rest on the Platte river, and the right cannot be assailed except by troops crossing the open ground between the bluffs and the Missouri river. Moreover, the position is far enough to the front to cover the Missouri river bridges from long range artillery fire.

If the detachment gains this position, the enemy will have to abandon his line of advance, or attack at a disadvantage. If, on the other hand, the enemy succeeds in crossing the Platte and advancing north of Farley, the detachment may have to fight on equal terms, for the positions in the vicinity of 48, 50 and 52 offer about the same opportunities to both sides. The bridge at 72, then, is the immediate objective of the advance guard, and the enemy is about five miles nearer it than is Lieutenant-Colonel A.

The detachment is to begin its march at 6 a. m., which is about sunrise in the latitude of Leavenworth at this season. The enemy may start at about the same hour, but it is not probable he will start earlier. Starting at the same hour, his infantry, if unopposed, can reach 72 about two hours ahead of the Blue infantry, and he will have time to establish himself on the heights north of Farley before Lieutenant-Colonel A's advance guard can get up. Even if he should not

start until an hour after sunrise, his infantry may be across the river in considerable force before it encounters the Blue advance guard.

Lieutenant-Colonel A's chances of stopping the hostile advance at the bridge at 72 appear to be small, but he must make the effort. If properly employed and well led, his cavalry may enable him to succeed, for if it can get possession of the bridge, it may be able to hold it until the infantry comes to its assistance; and in this endeavor it will have a marked advantage if it can beat the hostile cavalry to the bridge.

The cavalry might cover the twelve miles from Weston to 72 in an hour and a half, but more probably it will take it longer, and the hostile cavalry may be expected to cover the seven miles from its camp at 72 in about an hour. Should the Blue cavalry start at 5:30 a. m., a half hour before its infantry, and should the Red cavalry start about sunrise (6 a. m.), they would meet near the bridge. It will be better for the cavalry to start at 5 a. m., thereby getting a greater margin of safety and allowing for a possible earlier start of the hostile cavalry.

The special mission of the cavalry, then, is to hasten to Farley and keep the enemy south of the Platte until the infantry of the advance guard can come to its support; and it should guard against being drawn away from this, its chief mission, by occurrences of minor importance elsewhere. If it encounters no opposition, and the situation does not change, it should go directly to Farley and stop the hostile advance at the Platte. If it encounters hostile cavalry, as may be the case, it must be guided by circumstances without losing sight of its mission. The roads to the east

through Platte City and across the Platte river bridges near 54 and 60 are important routes to be reconnoitered, and the bridges over the Missouri should be observed.

Since the cavalry will be so far in advance of the infantry, a few troopers should be attached to the support for local reconnaissance, but the number should be kept small to avoid weakening the main cavalry force. The platoon on outpost will be sufficient for this purpose.

Considering the strength of the main body of the detachment and the fact that it has artillery, it is best to divide the advance guard into support and reserve, and a reasonable division of the infantry will be to place two companies in each. In an advance guard no larger than a battalion, the machine gun platoon had better accompany the reserve. The reserve will follow the support at 500 yards.

The hour at which the advance guard must start from 31 to give the proper distance (700 yards) between it and the main body, may now be calculated. The total road space of the advance guard is about 1350 yards, composed as follows:

Road space of a battalion	250 yards
Distance from point to advance party.	200 "
Distance from advance party to support	400 "
Distance from support to reserve	500 "
Total	<u>1350 yards</u> (*)

* On the march, after a command is straightened out on the road, a certain amount of elongation always takes place, the amount depending on many circumstances such as condition of roads and weather, sometimes being as much as 25 per cent. For large commands it is quite necessary to take this elongation into consideration in calculating the length of a column of troops (elongation should not affect the distance between columns), but it is a negligible refinement of calculation when considering a force no larger than a battalion.

The tail of the advance guard must be 700 yards beyond Weston at 6 a. m.; consequently the point must be $1350 + 700 = 2050$ yards from Weston at the same hour. The column will not halt until about three-quarters of an hour after starting, and during this time should make about 3 miles per hour, or 88 yards per minute. Hence, the point should start from Weston $2050 \div 88 = 23$ minutes before 6 a. m., i. e. at 5:38 a. m. To be on the safe side, the hour had best be fixed at 5:35 a. m., adjusting the distances between fractions of the command after it gets on the road.

Lieutenant-Colonel A's *decision* is to send the cavalry ahead at 5 a. m., to seize the bridge at 72 and hold it until reinforced by the infantry, which will be hastened to its assistance.

At 9:30 p. m., Lieutenant-Colonel A assembles his officers (the battalion, company, and troop commanders, and staff) and gives them the following verbal orders:

"A hostile detachment of all arms, marching from the south-east, has bivouacked eight miles south of Farley. Hostile cavalry patrols were seen four miles south of Farley this afternoon. Our division will continue its advance to-morrow. Our detachment will start south from Weston, at 6:00 a. m. to-morrow, to prevent the advance of the enemy between the Platte and Missouri rivers.

"The 1st Battalion, 1st Infantry, with machine gun platoon, and Troops E and F, 7th Cavalry, under my command, will form the advance guard of our detachment to-morrow.

"Captain A, you will command the cavalry, less the platoon now on outpost, which will accompany the support. You will leave your bivouac at 5 a. m., march rapidly to Farley, and hold the enemy south of the Platte until the arrival of the infantry of the advance guard. You will reconnoiter the roads to the east

through Platte City, 54, and 60 and observe the Rock Island and Terminal bridges.

"Major B, you will command the support, which will consist of the platoon of cavalry on outpost, and Companies A and B of your battalion. You will start your point from the south-east exit of Weston at 5:35 a. m., and follow the 29—21—15—D—50—Farley road.

"Companies C and D and the machine gun platoon will form the reserve and will follow the support at 500 yards.

"Lieutenant A (battalion quartermaster), assemble the field train of the advance guard in time to have it join that of the detachment at 31, at 7 a. m.

"I will accompany the reserve."

COMMENTS.

If this problem has proven difficult, very little comfort will be found in the thought that it deals with only the simplest part of an advance guard commander's task. The truly difficult part of his task, the actual leading of the advance guard, especially in the face of opposition, is not touched on. For this reason, we selected for the problem such a situation that the success of the advance guard would depend largely on the initial dispositions made by its commander.

We miss the main point in the problem, if we fail to appreciate the tactical value to us, and to the enemy, of the terrain about Farley, and the importance of starting our cavalry early to get possession of the bridge at 72 ahead of the enemy.

This will become apparent if we consider for a moment what reasonably may be expected to happen if we tie the cavalry to the advance guard, or send it in some direction other than towards Farley. If the two forces start at the same hour and march at the same rate, the head of the hostile infantry column will be

crossing the bridge at 72, when the point of our advance guard is at 52. The hostile cavalry will be firmly established on the heights north of Farley, and in less than an hour, or before our infantry point can reach 48, he will have a full regiment of infantry up and in position. The most energetic action at this late hour may not avoid the consequences of the initial mistake in the employment of the cavalry.

In concluding this chapter it may be interesting and instructive to examine briefly the leading of the cavalry during its march on Farley.

Just before starting from Weston, Captain A (commanding the cavalry) will send a patrol of a non-commissioned officer and 6 troopers to patrol through Platte City and to the east; another, of 1 non-commissioned officer and 4 troopers, to proceed along the river road via G to observe the Rock Island and Terminal bridges; and a third, of an officer and 6 troopers, to trot out along the 21—E—12—50—48 road to Farley, and thence south of the Platte to gain contact with the enemy.

The command then begins the march, via the 21—15—50 road with the remainder of Troop E (*) in the lead as advance guard, at a distance of 500 yards, preceded by a point of 1 non-commissioned officer and 8 troopers at 300 yards. At 21, Captain A, who is riding with Troop E, sends a patrol of 1 non-com-

* About half the troop, this troop having furnished the patrols and the platoon on outpost. This advance guard is stronger than necessary, but its strength will be reduced by patrols yet to be sent out, and it is desirable to keep the remainder of the troop together under its captain.

missioned officer and 4 troopers to proceed via G and the road along the foot of the bluff to Farley; at 50, two more patrols, of 1 non-commissioned officer and 4 troopers each, are sent to reconnoiter east of the Platte, one on the 54—56 road, and the other via 48 to take the 60—58 road. All patrols are given definite instructions as to what is expected of them, and are told the route to be taken by the main body of the cavalry, and by the infantry advance guard.

One officer, 5 non-commissioned officers and 28 troopers are now doing patrol duty; this has considerably reduced the strength of the main cavalry force, much against Captain A's wishes, but, as he reflects on this point, he believes it would not have been wise to send out a less number of patrols, nor to make any of them weaker.

When passing 50, at 6:40 a. m., two troopers rode up at a gallop, bearing a message, sent from the heights north of Farley by the officer's patrol that was to go south of the Platte, stating that about a troop of hostile cavalry is approaching from the south, and was two miles south of 72 at 6:25 a. m. Captain A continues his advance, and when approaching 48, the remainder of this patrol meets him, and its leader, Lieutenant A, reports as follows: "When I left the heights at 6:45, the hostile cavalry was crossing the bridge at 72. I estimate the total strength at 60 troopers. As far as I could see, about two miles south of the Platte, the hostile cavalry was not followed by other hostile forces."

What should Captain A do? It should take him but a moment to decide. The hostile infantry probably is following the hostile cavalry, but it still is at

least about two miles south of the Platte, and probably will not be at the bridge south of Farley, in any force, much before 8 a. m. By good marching, the infantry following Captain A can reach the heights north of Farley by about 9:30 a. m. At best, Captain A has but a slim chance of holding the enemy south of the Platte until the infantry advance guard can come to his assistance, but of one thing he is convinced—he has no chance at all unless the hostile cavalry in his front is pushed out of the way. He now has with him one complete troop and about half of another, or two troopers to the enemy's one. Consequently he decides to continue his advance and attack the hostile cavalry if it stands in his way.

CHAPTER X.
A RETREAT.

SITUATION.

(See 2 and 4-inch maps).

The situation is the continuation of that given in Chapters V and VII.

The Blue command marched to the south (July 15), destroying the railroad bridges on the way. In the afternoon, when about 5 miles south of Leavenworth, it was forced to fall back on the 190—224—66a road, before a superior hostile force, estimated as being 2 regiments of infantry and 2 troops of cavalry, but did not become seriously engaged; it bivouacked late in the evening in the open fields just south of 66a, with outposts (Companies A and B, and $\frac{1}{2}$ Troop A) on the line 216—210—138. The field train has joined from Kickapoo.

The enemy followed the Blues closely and established outposts at nightfall on the south bank of Five Mile creek, from the road junction one-half mile west of 228 to the bridge at Wells Park. Later his cavalry patrols were encountered between the Blue outpost position and Five Mile creek.

At 11 p. m., Colonel A receives the following order from his superior commander, General B, sent via the railroad guard at Kickapoo:

“Continue your retreat July 16th and, without becoming seriously engaged, check the enemy’s pursuit sufficiently to permit the 2d Infantry, which will reach Kickapoo at 8:30 a. m., to oc-

cupy a position on the southern edge of Kickapoo, where the enemy will be opposed until the arrival of the remainder of the detachment from the north."

Required:

Colonel A's estimate of the situation and his orders for the retreat.

SOLUTION AND DISCUSSION.

Colonel A is ordered to continue his retreat July 16th. Were it not that the orders sent him impose duties upon him which materially affect the character of his retreat, he could start from his bivouac south of 66a at an early hour and place so much distance between his force and that of the enemy, that it would not be possible for the pursuing force to overtake him before he reached Kickapoo. The camps of the two forces are about four miles apart and, even if the two forces should start at the same hour, the Red force should not be able to inflict any serious loss on the Blue.

But our colonel has to think of something more than merely getting his little force to the cover of his supporting troops at Kickapoo. His task is complicated and rendered much more difficult and dangerous by that portion of his orders which directs him to delay the enemy sufficiently to allow the 2d Infantry to occupy a position along the crest of the hills just south of Kickapoo. From the enemy's bivouac to these hills, the distance is about 9 miles, and, marching 3 miles per hour the enemy could cover this distance in three hours. That is, if the enemy should start at sunrise (at 4:30 a. m.), and if his march were unopposed, the head of his column by good marching could reach the vicinity of Kickapoo by about 7:30 a. m.,

this is an hour before the 2d Infantry will reach Kickapoo, and probably two hours before it will be in position on the slope south of that town. So if Colonel A accomplishes the full mission assigned him, he, in all probability, will have to delay the hostile force for about two hours at some point or points between its present camp and Kickapoo.

However, in attempting to do this, he must not become seriously engaged. His force must not be drawn into a fight so stubborn that the entire regiment may become involved and defeated, possibly thus converting an orderly retreat, in which the regiment may suffer insignificant losses, into a disorganized rout in which it may meet disaster. So long as he makes but a show of force, with but a small fraction of his command, while holding the bulk of it well in hand, assembled under cover or in column on the road, it will be an easy matter to break off the engagement and resume the orderly retreat without great loss. But it will be entirely different if the entire command is thrown into the fight to secure delay. It is one thing to withdraw from a fight a thin skirmish line or a small detachment here and there, probably not more than 100 men in all; but it is quite another matter to break off the fight when all twelve companies of the regiment have entered the contest. In the one case, the withdrawal is made as a part of the general plan; so few men are involved that they can be quickly reassembled to the rear and reorganized; and, if necessary, other troops can assist in covering their withdrawal. In the other case, the withdrawal is a matter of necessity; the troops may have fought well but the attack by superior numbers has overwhelmed them;

they break to the rear without fresh troops to cover their withdrawal or reorganization; the fleeing swarms give up all thought of further resistance; and, if the enemy has fresh troops with which to pursue, the retreat degenerates into a complete rout. Then isolated bodies of the victor may follow, and hundreds will often throw down their arms before a few horsemen.

So, instead of attempting to cause the enemy the necessary delay by making a determined stand at one point with his entire force, Colonel A will delay the hostile advance with but a fraction of his command falling back from position to position. This becomes the task of the rear guard. At first glance, it may appear strange that a small part of a retreating force should be expected to delay a pursuing enemy, and then get safely away to another position farther to the rear from which it can repeat these tactics. Why will the enemy permit a comparatively insignificant force thus to delay him, when great results are to be secured by his overtaking the retreating main body? This question will be fully answered in Chapters XII and XIV, but it may not be amiss to state here that it is partly because of the "fog of war" that hangs over the battlefield. Defense is so powerful that it is not attacked without hesitation. The pursuing force can never be quite sure that it has only a weak rear guard in its front; a change in the situation may have required the entire retreating force to make a determined stand; or it may have been reinforced. The pursuer's advance must be made with a certain amount of caution until reconnaissance has cleared up the situation. Even if the pursuing enemy acts with

great boldness, still a part of his force must be deployed before the rear guard will withdraw. All this takes time and accomplishes the delay the rear guard is supposed to secure.

If the terrain is particularly favorable, it may become a powerful ally for the retreating force. The Field Service Regulations suggest a number of ways in which the pursuit may be delayed by placing obstacles in the enemy's path. In the situation before us, there is but little opportunity for this, as will be seen after a consideration of the roads along which the retreat may be made. The 66—14—G—H—Kickapoo road is the most direct route by which Colonel A can continue his retreat. By turning to the west at 60 and following the Zimmerman road, not only would the column have farther to go but it would also make a dangerous flank march of two and one-half miles from 60 to 100, which would give the enemy a splendid opportunity to strike the column in flank. For similar reasons, the route via Sheridan's Drive, 11 and 17 is objectionable. The most direct route appears to be the best, and the terrain along it favors delaying action by the rear guard. The few natural obstacles along this route are of little importance, but the best possible use should be made of them. The bridges at 66a, near 60, and at H can be destroyed. Although the streams crossed by the first two bridges are insignificant, still they flow in deep cut channels with steep banks, and the enemy will be delayed a few minutes in crossing each. Salt creek is a more formidable stream and the destruction of the bridge at H should delay the enemy still longer. But the bridge over Plum creek, between 17 and 47, should not be destroyed

without the authority of the detachment commander at Kickapoo, for it is within his immediate radius of action and its destruction may not fit in with his plans.

If Colonel A took the precaution before starting on this expedition to supply himself with explosives, it will be a simple matter to render these bridges impassable. Otherwise, he can remove and burn the flooring; this should not be very difficult, if kerosine can be obtained from nearby farm houses. In any case, the preparatory work must be done by other troops than the rear guard, for if it is closely pressed, it probably will not have time to do more than complete the demolition. A small force, therefore, will be sent ahead from the main body to prepare the explosive charges for firing, or to pry loose the bridge flooring and collect kerosine. This force may accompany the field train which should be sent far in advance in order that it may not, because of its slower marching rate, or any unforeseen incident, delay the march of the main body. The train should start at least two hours ahead of the main body. Of course this means that the troops must suffer some discomfort because of the wagons being packed at so early an hour, but in this situation the safety of the wagons and detachment is of far greater importance than any considerations as to comfort.

It is not possible to say with certainty at this time just where the rear guard will occupy positions to secure the necessary two hours' delay. The terrain alone does not determine this matter; on the contrary, it depends largely on the conduct of the pursuing force, and the positions to be occupied cannot be definitely located until the column is on the march and the move-

ments of the enemy are known. For this reason, Colonel A should leave the selection of these positions to his rear guard commander. However, this does not mean that they should not fully talk the situation over together, and discuss the merits of positions along the line of retreat that may be occupied to-morrow.

In all probability, the rear guard will make its first stand in the present position of the line of observation of the outposts, along the ridge from 138 through 210 to Pilot Knob. This commanding ridge is 200 feet higher than the hostile outpost position, along the south bank of Five Mile creek, and but little more than a mile from it. The enemy can make no advance in force from his position, not covered by darkness, that will not be plainly visible from some point on this ridge. Should he move across Five Mile creek straight against the position, he will come under severe fire the moment he reaches effective range of the bastion-like southern spur of Pilot Knob, and the advance will have to be made in extended order. His ignorance as to how Colonel A's situation (strength, etc.) may have changed during the night, combined with the naturally formidable character of the Pilot Knob position, will make him cautious about attacking before making a preliminary reconnaissance. If Colonel A succeeds in deceiving him as to the force along the ridge, the bulk of the hostile force may be deployed for the attack before the rear guard has to withdraw to avoid becoming too seriously engaged. Much of the necessary delay would thus be secured; nor would the enemy gain much, if anything, by attempting to march to the west around the position.

So our colonel may at least order the rear guard commander to hold on to the outpost position as long as practicable. Another important reason why the enemy should be given his first check from this position is that by so doing he is kept in ignorance of the fact that our force has resumed its march to the rear. Let us imagine ourselves in the place of the enemy. We have observed Colonel A establish his outposts in the evening, and during the night our patrols have kept in touch with him sufficiently well to know he did not make a night march. Suddenly, at daybreak, all serious resistance to our patrols ceases from Pilot Knob and along the ridge, and they are able to reach the top of the ridge. We at once feel confident that our opponent has resumed his retreat, and we take up the pursuit without hesitation. If on the other hand, our patrols are driven back from all points along the ridge, we will be in the dark as to Colonel A's intentions until further action on our part throws light on the situation.

A study of the terrain along the line of retreat shows other good positions available for the rear guard. North of the outpost position for nearly two miles, the road crosses comparatively low ground, flanked on the west at effective small arms range by hills about 150 feet higher than the road. While a squad or two along these hills would cause the enemy some annoyance, if he were in column on the road, still a force much larger than this could not occupy a position there, with its flank exposed to the enemy, without great risk of being totally destroyed. The rear guard probably will not find another opportunity for seriously delaying the enemy before reaching the vicinity of Government hill.

Although it is not only permissible, but advisable as well, for Colonel A to order his rear guard commander to make his first stand on the Pilot Knob position, still he should not attempt to prescribe the manner in which the position will be occupied, how and when the withdrawal will be made, and later positions to be occupied. These are details that directly concern the rear guard commander, who should be chosen for his ability properly to execute them. Colonel A may feel that he can handle the rear guard better than its commander, and probably he can, but there are other important duties to which he should devote his attention. He should not for a moment forget that he is the commander of the whole force, and as such must exercise supervision over the movements of all parts of it. No doubt he should spend much time near the rear guard and satisfy himself that it is properly led, but he should studiously avoid taking command out of the hands of the rear guard commander. Two men cannot successfully command the same force on the battlefield.

When practicable, the distances of the rear guard from the main body, and between the fractions of the rear guard are about the same as in the case of an advance guard. The rear guard may guide on the main body and *vice versa*. If the object of the movement is to avoid contact with the enemy, the rear guard will ordinarily take its distance from the main body and, excepting necessary halts, will keep on the move. But, if the rear guard is ordered to delay the pursuers, the main body probably will conform its movements to those of the rear guard.

This does not mean that it always will be practica-

ble to preserve a uniform distance between the main body and the rear guard, and a little reflection on this situation will show why this is the case. By the time the enemy gets possession of Pilot Knob ridge, the main body should be under cover near Atchison Cross; otherwise its march from 66a to 14 could be observed, and the enemy would be given information which he should not be allowed to secure, and which would enable him to make his next move with great certainty. At the very beginning of the march, the main body will thus be separated from the rear guard by about two miles. This is but a temporary condition, however, for under the shelter of Government hill the main body can await the arrival of the rear guard. Later, when the rear guard has safely withdrawn from its first position and has occupied its second in the vicinity of Atchison Cross (presupposing the retreat will take this particular form), the main body will again resume its march in time to be beyond Salt creek when the rear guard is again forced to fall back. Thus, *if all goes well*, the retreat will progress by successive stages until Kickapoo is reached.

The main body should not be called upon to go to the assistance of the rear guard, and the commander of the latter should know that he is expected so to lead his rear guard that such assistance will not be necessary. If reinforcements are furnished the rear guard by the main body while still continuing the retreat, we simply expose additional troops to the enemy's attack, and in case we try to relieve them we will run the risk of involving our entire force, contrary to our original intentions.

What, then, is the necessity for the main body remaining in supporting distance of the rear guard? Why should it not continue its march to Kickapoo and leave the rear guard to delay the enemy unsupported? The answer is that, despite the efforts of the most efficient rear guard commander, the rear guard may become so involved that it will require the assistance of the main body to cover its withdrawal. This is especially true when dealing with a force no larger than Colonel A's. Even if the main body should not be called upon to enter the fight, still the knowledge of its near presence gives powerful moral support to every member of the rear guard. And, if the main body should continue an uninterrupted retreat, and if the enemy should discover this fact by his cavalry reconnoissance, all reason for great caution on his part would disappear and the rear guard should be overwhelmed; it would at least lose its delaying power, and it would be fortunate were it not cut off and destroyed.

If the main body is not to be called upon to assist the rear guard by detaching troops to its support, the rear guard must be strong enough to enable the rear guard commander to take up rallying positions with one part of his force to cover the withdrawal of the other portion nearest the enemy. On the other hand, if it be made too strong, there is danger of its becoming seriously involved in a fight, thereby bringing about the very condition we are trying to avoid. Our Field Service Regulations state that a detachment of about one-third to one-sixth of the whole force would in ordinary cases furnish a suitable rear guard, but this is qualified by the further statement that its

strength will vary with the nature of the country and the character of the pursuit.

The strength of a rear guard will also depend on the particular mission assigned it. If it has only to protect the retreat of the main body, it may be considerably weaker than when it has also to cause the enemy a certain amount of additional delay for some other purpose. The latter is the case in the situation before us. Should Colonel A blindly follow the rule given in the Field Service Regulations, and attach no weight to the special task assigned him, he would be in great danger of making his rear guard too weak. Two companies (that is, one-sixth of the infantry), assisted by the cavalry, might be sufficient force to insure the uninterrupted retreat of the main body, but not sufficient to secure the needed two hours' delay. Consequently, we think a full battalion will not be too large a force in this situation. Three companies might be ample but, if we employ more than two companies, it will be better to preserve tactical unity and give the battalion commander all four of his companies.

The defensive power of the rear guard will be greatly increased, and its mobility not impaired, by attaching to it the machine gun platoon. The great volume of fire from these guns in a commanding position, such as Pilot Knob, will compel the enemy to begin his deployment when still at extreme small arms range, and may cause him to attack with great caution. When compelled to withdraw, the guns can be moved to the rear as quickly as infantry, and may be able to assist from a second position in covering the withdrawal of the latter.

We have seen (*) that, in an advance, the outposts generally stand fast until the advance guard has marched through the outpost position, after which they assemble and take their proper place in the column as the main body passes. In this manner fresh troops are placed in the advance guard, and the outposts are shown the maximum amount of consideration after their night of arduous duty. In a retreat, however, it is not advisable or practicable to relieve the outposts at the beginning of the march; on the contrary, they are generally assigned to the rear guard and ordered to remain in their night positions as long as possible. Thus, the enemy may for some time be kept in ignorance of the resumption of the retreat by the main body. It is unfortunate that the troops that have been on outpost during the night are given the most trying duty during the day, but this cannot be avoided without endangering the success of the retreat. Fresh companies might be sent out at an early hour to relieve the outposts and permit them to join the main body before it takes up the march. Such a movement is complicated and should be condemned for this reason, if for no other, for only simple maneuvers can be depended upon for success; but, aside from its being complicated, it rouses a part of the command at an early hour or delays the march of the main body, and, at a critical moment, replaces the outpost troops, that are familiar with the ground and situation, by troops that have not seen the position before and can but faintly appreciate its military value in the dim morning light. It is a fair example of what one of our most distinguished statesmen para-

* In Chapter V.

phrased as "swapping horses in the middle of the stream" and, as such, generally should be condemned.

In the rear guard, then, should be placed the outposts and the remaining companies (C and D) of the 1st Battalion, together with the machine gun platoon, if it is not already assigned to this battalion. All the cavalry should also be given to the rear guard. The enemy is believed to have two troops, i. e. twice as much cavalry as Colonel A. In a later problem, (*) we will go fully into the subject of how this hostile cavalry probably will be handled. It will be sufficient at this time to call attention to the road along the ridge via 140, 138, 136, 50, 40, and 22 to 16, and to the roads leading to the east (toward Colonel A's line of march) at 136, 50, 52 and 24. If the two hostile troops should move over these roads and reach the flank of Colonel A's main body, or even of his rear guard, they might so delay his column as to permit the pursuing infantry to overtake it. To prevent this becomes the chief duty of Colonel A's cavalry; but the cavalry must also keep in touch with the hostile main body, for the latter may at any moment cease its advance or change the direction of its march, while continuing the pursuit with but a small fraction of the command. Information of the location and movements of the hostile main body may be of such importance in later operations (as, for example, when all of the Blue detachment has assembled at Kickapoo), that the cavalry should endeavor not to lose touch for a moment with the main hostile force. One or two carefully led patrols will be sufficient, however, for this purpose, and the bulk of the Blue troop should

* See Chapter XIV.

be given the task of protecting the flank of the Blue main body and rear guard.

Our colonel may retain the cavalry under his immediate command or he may turn it over to the rear guard commander. In small detachments it is highly desirable to leave the whole question of security and information to the rear guard commander; to whom all information concerning the enemy should be sent direct and at first hand. As a general rule, the cavalry should be directly under the detachment commander only when the enemy is so distant that the cavalry designed to maintain touch with him, must be left far behind, thereby virtually losing touch with the rear guard; or when our cavalry has to keep touch with some hostile movement very far towards a flank. In other words, if the cavalry has not a mission distinct, as to time and place, from that of the rear guard, it should be under the orders of the rear guard commander. The situation does not present Colonel A's cavalry with any such mission. Its chief task will be to protect the flanks of the retreating column, in the immediate vicinity of the line of march. Consequently, to secure the best possible tactical cooperation between it and the infantry of the rear guard, both should be under the orders of the rear guard commander.

Since the colonel has (presumably) but half as much cavalry as the enemy, the task assigned it may be too great for its power. Should the hostile cavalry defeat or ride around the Blue troop, and get in rear of the main body or even between the rear guard and main body, it might seriously embarrass the retreat. The hostile cavalry is most liable thus to annoy the

column from some point along the ridge between 22 and 16, and some provision may have to be made for protecting the right flank of the column while passing this dangerous section. This can be done by detaching a company from the main body as it passes 60, and sending it to the vicinity of 22 with orders to keep hostile cavalry out of range of the main body. Whether this will be necessary, and just when this company, if so detached, may withdraw and rejoin the main body will depend on the enemy's movements; it probably would have to remain in position until relieved by a company from the rear guard.

Colonel A has based his time calculations on the supposition that the enemy will not resume the pursuit before sunrise July 16. If the rear guard secures the delay that is expected of it in the present outpost position, the main body might remain in its camp at 66a until a half hour after sunrise and yet reach Government hill before the enemy got possession of Pilot Knob. But it is well to allow a half hour for a possible earlier start by the enemy, and for other unforeseen contingencies, and start the main body at sunrise—i. e. at 4:30 a. m.

After thus considering the situation, Colonel A finally reached the following *decision*. To start the field train at 2:30 a. m., and to have a small force of infantry accompany it with orders to prepare the bridges for destruction; to have the main body start at 4:30 a. m. and march without halting to the cover of Government hill; to assign all of the 1st Battalion, the machine guns, and Troop A, to the rear guard and order it to delay the enemy at the outset in the outpost position; and to have the rear guard secure the remain-

der of the necessary two hours' delay in subsequent positions.

On reaching his decision, Colonel A assembles his staff, the lieutenant colonel, the commanders of the 2d and 3d Battalions and of Troop A, and Lieutenant A (all of whom are in camp) and gives them the following order: (*)

"There is no additional information of the enemy. (†) Our 2d Infantry will reach Kickapoo to-morrow at 8:30 a. m. and will occupy a position on the hills just south of that place to oppose the enemy until the arrival of the remainder of our detachment from the north.

"In compliance with orders just received from General B, we will continue to fall back slowly on Kickapoo to-morrow and, without becoming seriously engaged, will delay the enemy sufficiently to permit the 2d Infantry to get into position.

"The 2d and 3d Battalions will constitute the main body. It will start from camp at 4:30 a. m., and will proceed via the 66a—14—G—H—Kickapoo road.

"The rear guard will be commanded by Colonel B (the lieutenant-colonel) and will consist of the 1st Battalion, machine gun platoon, and Troop A. It will delay the enemy for at least two hours between here and Kickapoo, but will avoid becoming seriously engaged. The present outpost position will be held as long as practicable. The cavalry will specially guard the right (††) of the line of march, and will keep in touch with the hostile main body.

"The field train, escorted by a section from the 3d Battalion under command of Lieutenant A, will start from camp at 2:30 a. m., and will proceed directly to Kickapoo. The escort will

* The commander of the 1st Battalion is absent commanding the outposts and will receive his orders later from the lieutenant-colonel, who is to command the rear guard.

† It is assumed that all of the assembled officers have the information of the enemy, given in the problem. This probably would be the case in so small a detachment.

†† This means the right when facing the enemy.

loosen the flooring of the bridges along the route, and collect material for burning the same.

"Reports will reach me after 4 a. m. at Pilot Knob."

A few paragraphs are necessary by way of explaining this order. The assembled officers are given full information of what is taking place at Kickapoo, for they will find encouragement in the knowledge that reinforcements are to reach that place early tomorrow morning. In his orders, Colonel A has told them what he learned from General B's message, and he has fully acquainted them with General B's plans. They were told these things because they have a direct bearing on the operations of the next day, and not merely to gratify their desire to know what is going on at higher headquarters. Information that serves no better purpose than to satisfy idle curiosity had better be withheld.

It is not necessary, nor is it wise, to state that the main body will halt at Government hill and await the approach of the rear guard. To-morrow's operations may not work out as Colonel A believes they will, and it may be advisable to halt the main body before it reaches Government hill, or not to halt it at all. Nor should anything be said in the order of the tentative plan to send a company from the main body to the vicinity of 22, for this also is contingent on the situation when the main body reaches the vicinity of 60. Colonel A probably will be with the main body at that time and can give these or other appropriate orders at the moment they are to be executed. However, it would be well for him fully to make known this phase of his intentions to the rear guard com-

mander, for it directly concerns the latter's operations.

As a rule orders must be worded so as to make a rear guard commander far more independent than an advance guard commander, because most of the measures to be adopted by the former are dependent on the nature of the enemy's pursuit. The actions of a small force in retreat are dictated by the enemy to a much greater degree than in the case of a large force advancing. Moreover, in a retreat the detachment commander often will be at a much greater distance from the rear guard than he would be from the advance guard in an advance, as it is often necessary for him to ride in advance. Colonel A's interference with the rear guard commander is limited to directing him to make his first stand in the present outpost position, and guard carefully the right flank of the line of march with his cavalry. Each of these measures is vitally connected with the safe withdrawal of the main body in the first stage of the march, and the attention of the rear guard commander should be called to them. However, he is, and should be, allowed absolute freedom as to the manner in which he will dispose of his force in carrying out these orders.

It is difficult to state the location of the commanding officer in a retreat. His movements will depend greatly on the changing situation. At one moment his presence will be needed near the rear guard, at another with the main body. So it is not generally possible to state any but his first position in the orders. When he quits his position some one should be left behind to direct messengers to his new position. Early on the morning of the 16th, Colonel A will ride

to Pilot Knob to observe towards the enemy, but his later movements can not be foreseen with any certainty, and he makes no attempt to state them in his orders.

Were Colonel A to move his command directly to the rear on the highway from 17 to 47 he might mask the fire of the 2d Infantry from its commanding position on the southern outskirts of Kickapoo. To avoid this, he should endeavor to clear the front of the position and march the regiment by one of its flanks. The roads and terrain do not favor this to the east of the 17—47 road, but he may be able to pass the right flank by taking the 17—19—23 road. Whether or not he can do this will depend on the situation when the main body reaches 17, and he should not attempt, at this time, to give any orders covering this point. It would be attempting to arrange matters too far in advance.

Colonel A's orders, if placed in written form with the troops stated in the margin, would be as follows:

Field Orders

No.—

1st Infantry,

66a, just west of Leavenworth,

15 July —, 11:30 P. M.

Troops

(a) Leading Troops:

Lieut. A.

1 sec. 3d Bn. 1st Inf.

(b) Main Body—in order
of march:

Hq. 1st Inf.

3d Bn. 1st Inf. (less

1 sec.)

2d Bn. 1st Inf.

1. Nothing new has been heard of the enemy. Our 2d Infantry will reach KICKAPOO to-morrow at 8:30 a. m., where it will occupy a position to hold off the enemy until the arrival of the remainder of our detachment from the north.

2. In compliance with orders just received, we will continue to fall back slowly on KICKAPOO

- (c) Rear Guard: to-morrow, delaying the enemy sufficiently without becoming seriously engaged, to permit the 2d Infantry to occupy its position.
- Lieut. Col. B. 3. (a) The leading troops will escort the field train, and will
- 1st Bn. 1st Inf.
- Mach. Gun Plat.
- Troop A, 2d Cav.

loosen the flooring of all bridges on the line of march of the main body, and collect material for burning the same.

(b) The main body will march from camp at 4:30 a. m. and follow the 66a—14—H—17 road.

(c) The rear guard will delay the enemy for at least two hours between here and KICKAPOO, but will avoid becoming seriously engaged. The present outpost position will be held as long as practicable. Touch with the hostile main body must not be lost and the cavalry should specially guard the right flank of the line of march.

4. The field train will leave camp at 2:30 a. m. and will proceed directly to KICKAPOO.

5. The regimental commander will be at PILOT KNOB after 4 a. m.

By order of Colonel A:

X.

Captain & Adjutant.

Verbally to staff, Lt.-Col. B, commanders of 2d and 3d Bns. and Lieut. A. Copy (or message) to General B at Kickapoo.

CHAPTER XI.
A RETREAT.

PROBLEM.

(See 2-inch map).

The hostile town of Leavenworth is garrisoned by a Blue force of all arms. It is reported that the enemy is concentrating a force of all arms at Easton.

March 15, Colonel A was ordered to take the 1st Infantry and the 1st Squadron, 15th Cavalry, and reconnoiter towards Easton to determine the correctness of this report. As the detachment approached 78, the cavalry reported that it had found the bridges over the Big Stranger near Easton held by the enemy. A half hour later, as the detachment approached 82, another message was received from the cavalry, saying Easton is occupied by hostile infantry. Colonel A continued his advance, and at 1 p. m., when the point of the advance guard (1st Battalion, less Companies C and D, and 1 platoon of cavalry) is at the bend in the road a mile and a half west of 84, and the head of the wagon train approaching 82, the following message is received from the squadron commander, sent from near Q at 12:50 p. m.:

“A patrol, sent through Millwood, reports a hostile column of all arms, apparently about a brigade, advancing from the northwest. The infantry point of this column is now approaching 89 (1½ miles north of Easton) on the Millwood—Easton road. I can see hostile cavalry, apparently a squadron, approaching Lowemont on the Millwood—Lowemont road. I will move to the crossroads at P.”

At the same time this message is received, the advance guard commander reports hostile infantry scouts on the spur south of S, and an advancing column of hostile infantry crossing the Big Stranger on the U—T road.

Required:

Colonel A's estimate of the situation.

His orders.

SOLUTION.

Colonel A's original mission was to secure information of the reported concentration at Easton, and his reconnaissance has shown the report to be correct. He has learned that Easton is now occupied by infantry and that a column of all arms is approaching the village from the north. He has secured this information without fighting, but his command is now in a dangerous situation that may rapidly become critical, and his immediate mission is to get it to a place of safety. If he is to succeed in this, he must at once begin a well conducted retreat. With the enemy in greatly superior force advancing against him in front, and hostile cavalry equal in strength to his own approaching his flank and rear, delaying in his present position, in the hope of obtaining more definite information of the enemy's strength, is too hazardous to be undertaken.

The cavalry reported Easton occupied by infantry only, but it failed to determine the size of the force. However, as a part or all of this force is now moving out of the town against Colonel A's advance guard, it is probable that more will soon be known of its strength. This force appears to be aggressively dis-

posed, and well it may be, if it even approximates Colonel A's strength, for the head of a strong reinforcing column of infantry and artillery is but little more than a mile behind it. Colonel A is in hostile territory, and the enemy may be well informed of his strength. If so, it may be his intention to use the infantry in Easton, and his cavalry, to hold the Blue detachment to its position until his main column can get up and join in the fight. However, whatever his intentions, the situation most probably will develop in this way, unless Colonel A does everything possible to avoid a fight.

The regiment must be protected from attack on two sides. If the hostile cavalry gets between Colonel A and Leavenworth, or even within striking distance of his flank, it may delay him until he is overtaken by the pursuing infantry. His squadron must be sent at once to get in front of the hostile cavalry and oppose its advance. By this time, the squadron probably is at the crossroads at P, a good point to move from to meet the hostile squadron, which may advance via the 69—O—P road, or the Lowemont—N road. Infantry would be of little or no assistance to the squadron on such a mission, for it could not keep up with the squadron, and the hostile cavalry could ride around it. Instead of dispersing the infantry in this way, it is better to hold it together in one column, and send out a company or more to a short distance, only as the necessity arises; as, for example, to drive away the hostile cavalry should it get in rear, or on the immediate flank of the line of march.

Protection from the force advancing from Easton must be furnished by a rear guard, and it should be

formed in the quickest possible way. This will be by facing the column to the rear and letting the original advance guard serve as a rear guard. It may or may not be reinforced by the remaining two companies of the battalion, but, if left with its present strength of two companies and a platoon of cavalry, there probably will be less danger of a serious fight with the pursuing enemy, and the remaining two companies may be sent to the assistance of the rear guard at any time this becomes necessary. However, the delaying power of the rear guard will be considerably increased by the addition of the machine gun platoon, and it should be sent to join it at once.

The controlling idea in the retreat should be to place distance between the detachment and the enemy, and a wise choice of roads will assist in doing this. If the detachment returns by the road it came out (via 82, 78, 76, 74), it needlessly gives the hostile cavalry an opportunity to check its retreat in the vicinity of the road junctions at 78, 76 and 74. But the 84—90—94—100 road will take Colonel A farther away from the hostile cavalry, and give him a better chance of avoiding it. If he succeeds in eluding the pursuing force until his rear guard has passed the bridge over Salt creek at 100, he will be comparatively safe, for the hostile cavalry will find it difficult to operate in the broken and wooded country south of Salt creek, and the pursuing infantry will not be able to make a rapid advance against the rear guard occupying positions on the slopes east of 100. Moreover, the detachment will be approaching the sphere of action of the Leavenworth garrison, from which it may expect support. As soon as the retreat is started, and Colonel A

has the opportunity, he should inform his commanding officer at Leavenworth of the situation.

The position of the detachment favors its turning south to the 90—100 road. The main body can march by the 84—90 road, and the wagon train by the 82—92 road. From 92 the train may move east via 96 and 100, and precede the infantry without causing the latter any delay at the outset; but it will be better to have the train turn south at 94 and follow the 110—108—104 road, thereby placing the main body between it and the hostile cavalry. It should be accompanied by a special escort of a company or a platoon.

The pursuing infantry must not be allowed to get in range of the column while it is making its flank march on the 84—90 road. Consequently, the rear guard should not let the enemy cross the ravine about 1200 yards west of the 84—90 road until the tail of the main body has passed St. Joseph's church. The relative positions of the two forces are such that the rear guard should succeed in doing this. Besides, the successive ridges between the T—88 and the 84—90 roads afford splendid positions where the rear guard may fight delaying actions.

Colonel A's *decision* is to retreat immediately, with the infantry via the 84—90—100 road, and with the field train via the 94—110—108—104 road, converting the present advance guard reinforced by the machine guns into a rear guard, and sending the cavalry squadron to oppose the hostile cavalry.

We will assume that Colonel A is with the main body. He gives the following verbal order to the lieutenant-colonel, who has not seen the last messages from the cavalry and advance guard commanders, but is otherwise familiar with the situation:

"A hostile column of infantry and artillery, estimated at about a brigade, is approaching Easton from the north. The head of the column is near 89. About a squadron of hostile cavalry was approaching Lowemont on the Millwood—Lowemont road ten minutes ago. A column of hostile infantry, advancing on the U—T road, is crossing the Big Stranger. Our squadron is moving from near Q to the cross-road at P.

"We will withdraw to Leavenworth at once.

"The advance guard will now act as rear guard.

"The cavalry will oppose the hostile cavalry.

"Send the machine gun platoon to reinforce the rear guard, and march the main body via the 84—90—100—Zimmerman road. Turn the field train south at 82 and have it withdraw via the 92—94—110—108—104 road, with an escort of one platoon.

"I will now join the rear guard."

Colonel A then addresses his adjutant as follows:

"Find the cavalry commander, explain the situation and my intentions to him, and direct him to prevent the hostile cavalry from interfering with our retreat."

The colonel then rides forward to the advance guard commander and gives him the following order:

"About a brigade of hostile infantry with artillery is advancing on Easton from the north. The head of the column was approaching 89 at 12:50 p. m. At the same hour about a squadron of hostile cavalry was approaching Lowemont on the Millwood—Lowemont road. Our squadron is in the vicinity of P.

"We will withdraw to Leavenworth at once.

"The main body will march via the 84—90—100 road; the field train via the 82—92—94—110—108—104 road.

"The cavalry will oppose the hostile cavalry.

"Your advance guard will now become the rear guard. You will hold the enemy west of this ravine (indicating the water course 1200 yards west of 84) until the main body has passed St. Joseph's church, and will then follow the column. The machine gun platoon will join you in a few moments.

"I will be near here for the present."

Something should be said of the effect the hostile artillery may have on the retreat. The artillery probably is marching with the main body of the hostile column, and was about a mile and a half north of 89 at 12:50 p. m. The 1100 hill, southeast of 82, is the nearest point from which it may fire effectively on the retreating column. Most of the road from 92 to 100 is visible from this hill top. From the position of the artillery at 12:50 p. m. to the top of this hill the distance is about 8 miles, and should the artillery hasten ahead, trotting where practicable, it could reach the hill and be in position in about an hour and a half, say by 2:15 p. m. At that hour, the tail of the regiment will be passing the cemetery on the 94—96 road, and the column will make a splendid target for the artillery. Should the situation develop in this way, the rear guard might have to hold on to the 1100 hill, sacrificing itself if necessary, to permit the main body to reach safety.

COMMENTS.

In the preceding chapter the usual rule was followed and all the cavalry of the retreating force was placed in the rear guard. That was done to insure tactical cooperation between the rear guard and the cavalry, in a situation such that it appeared they would be operating in the immediate vicinity of each other. In this problem the cavalry is made independent because its special mission promises to take it far from the scene of operations of the rear guard. Should later developments bring the cavalry and rear guard together in such manner that their missions become identical, and it is desirable to have closer tactical co-

operation between the two, this may be secured by placing the cavalry under the orders of the rear guard commander at that time.

Also, it is important that the cavalry should get its orders without delay, which would not be the case if it had to wait until Colonel A had given his orders to the rear guard commander, and the latter had repeated them to the cavalry commander.

With the hostile cavalry threatening the flank of the retreating column, the field train would be in great danger should it precede the main body. Should the hostile cavalry, even in small numbers, succeed in reaching the bridge at 100 ahead of the train, great delay could be caused the wagons by damage to the bridge; such damage, however, could not so affect the march of the main body, for the creek is fordable for infantry, although its steep banks make it impassable for wagons. Fortunately, this difficulty could be avoided by turning the train on to a road parallel to that taken by the main body, and on the protected flank.

Until the main body is in the vicinity of 100, beyond artillery range from hill 1100 east of the 82—92 road, Colonel A should not lose sight of the fact that he may have to reinforce the rear guard. It might be well, even, to leave the remaining two companies of the 1st Battalion in the vicinity of that hill, from which position they could go quickly to the assistance of the rear guard.

In his orders to the rear guard, Colonel A has mentioned only the necessity of keeping the hostile infantry away from the flank of the column while it is marching from 84 to 90, but this will not prevent him

from ordering a more stubborn resistance on the spurs west of the 84—90 road, if the developments of the next half hour show this to be practicable and desirable. The longer the enemy is delayed west of this road, the shorter the time the rear guard will have to stand on the 1100 hill north of 92 to prevent the hostile artillery from firing on the column.

Important orders should, as a rule, be sent to a distant commander in writing, for a verbal order is liable to undergo fatal changes in the transmission, even though it be delivered by an experienced officer. But the situation often will arise where time is such an important factor that we cannot afford to delay to write the message. In such a case, the message should be sent by the most experienced available person, preferably by an officer, especially if it is at all complicated. Consequently, Colonel A sent his adjutant with the orders for the cavalry.

CHAPTER XII.
A REAR GUARD.

SITUATION.

(See 2 and 4-inch maps).

The situation is the continuation of that given in Chapters V, VII and X.

The 1st Infantry and Troop A, 2d Cavalry (Blue) reached Kickapoo, from the north, the afternoon of July 14, and took quarters there for the night. During the night, Colonel A (the detachment commander) learned that the enemy contemplated moving a force to Leavenworth, over the Missouri Pacific railroad from the south. To interfere with this movement, the command moved to the south of Leavenworth, July 15, destroying the railroad bridges on the way. When about 5 miles south of Leavenworth, it was forced to fall back before a superior hostile force, estimated as being 2 regiments of infantry and 2 troops of cavalry. It bivouacked just south of 66a, with outposts occupying night positions as follows:

One platoon of Company A at 216; the remaining platoon of Company A at 214; one platoon of Company B at 212; the remaining platoon of Company B at 210, with a detached post of 20 men at Pilot Knob. One platoon of Troop A is distributed among the infantry supports at 216, 214, and 212, and another platoon of Troop A is at 138.

During the night Colonel A received the following message from his superior commander, General B:

"Continue your retreat July 16, and, without becoming seriously engaged, check the enemy's pursuit sufficiently to permit the 2d Infantry, which will reach Kickapoo at 8:30 a. m. to occupy a position on the southern edge of Kickapoo, where the enemy will be opposed until the arrival of the remainder of the detachment from the north."

Accordingly, Colonel A issued orders at 11:30 p. m. to fall back slowly on Kickapoo, July 16, without becoming seriously engaged, but delaying the enemy sufficiently to permit the 2d Infantry to get into position. The field train will leave camp at 2:30 a. m., with a small escort which is to loosen the flooring of the bridges along the route and collect material for burning the same. The main body is to start from the camp at 4:30 a. m., and proceed via the 66a—14—G—H—Kickapoo road.

Lieutenant-Colonel B is to command the rear guard, consisting of the 1st Battalion, machine gun platoon, and Troop A. He is to delay the enemy for at least two hours between the outpost position and Kickapoo, but is to avoid becoming seriously engaged. The outpost position is to be held as long as practicable, and the cavalry is to guard the right of the line of march and keep in touch with the hostile main body.

Required:

Lieutenant-Colonel B's estimate of the situation and orders for the rear guard, on the supposition that he receives no further information regarding the enemy before 4 a. m.

SOLUTION AND DISCUSSION.

We may find in this solution a repetition of much that was said in Chapter X, for the two situations run into each other. The repetition may be tiresome,

but it will not be wholly without value if it serves to fix more firmly in our minds some of the principles governing a retreat and rear guard action.

In a simple retreat, the mission of a rear guard is to cover the remainder of the command, to accomplish which it has only to delay the enemy sufficiently to prevent him from getting in range of the main body. If the pursuing force is a small command, such as we are here dealing with, it will not dare split up and pursue by two or more roads widely separated, but will generally follow directly on the heels of its retreating opponent; and, unless the pursuers have superior cavalry, they will have little chance of overtaking their foe until the latter so desires. With large commands of all three arms the problem becomes much more complicated.

But Lieutenant-Colonel B has no such simple task, for, in addition to protecting the main body of the regiment, he is ordered to delay the enemy for at least two hours between his present position and Kickapoo.

(*)

Moreover, his task is further complicated by the superior strength of the hostile cavalry, and the additional order to accomplish this delay without becoming seriously engaged. If we will again refer to the orders issued by Colonel A (*) we will not fail to note that he twice emphasized the importance of not

* This is on the supposition that the enemy will renew the pursuit at about the same hour that Colonel A resumes his retreat. Of course, if the enemy should not start until some time later, Lieutenant-Colonel B's task will be simpler. But Lieutenant-Colonel B, as well as Colonel A, quite properly took a more unfavorable view of the enemy's probable intentions, when making his arrangement for the retreat.

* See page 149.

involving the command in a serious engagement, and in such manner as to indicate clearly that this was the expressed wish of General B. In other words, the safety of the regiment is still of paramount importance, and the delay of two hours, although very desirable, is but a secondary consideration. It is of more importance to General B that the regiment should reach Kickapoo ahead of the 2d Infantry but intact, than to have it reach there an hour or so later but demoralized by defeat and reduced in numbers. Lieutenant-Colonel B must not for a moment lose sight of this important limitation on his actions.

In general, a rear guard will accomplish its purpose as a delaying force by occupying one defensive position after another in succession, along the line of march wherever the terrain is favorable. Its defensive attitude will compel the enemy first to reconnoiter the position, then to bring up an adequate force to attack it, and finally to deploy this force from column of march to battle formation. All this requires time and secures the delay the rear guard is seeking. If the positions are chosen with good judgment, and, if the hostile cavalry can be kept from flank and rear (there being no artillery), the rear guard should be able to force the deployment of the enemy and then withdraw to another position without suffering losses of any consequence.

The withdrawal, however, must be made at the proper moment. If it is put off too long, the rear guard will suffer heavily in getting away, and it may be tied to the position and destroyed. Troops on the defensive, especially when the attacker has no artillery, have comparatively few losses in the opening stage of

an engagement when the enemy is maneuvering his troops into position for the attack. The real losses are inflicted after the attacker completes his deployment and begins the advance with the entire force, and they are liable to be specially severe after the defender is driven from his position, particularly so if he has held on to it stubbornly until the attacker is quite near. Consequently, each position should be held only until the enemy's dispositions for carrying or turning it become so developed as to insure his success. Then the rear guard should move rapidly off to repeat the same maneuver on the next suitable ground.

Let us illustrate this with the situation before us. Lieutenant-Colonel B is ordered to make his first stand on the Pilot Knob ridge. Early in the morning of July 16 the enemy resumes his advance. He will not fail to note how this ridge commands all the surrounding country, and his advance will be cautious (i. e. slow) until his cavalry and infantry patrols have gained its crest. When these patrols have drawn fire and been checked at all points of the ridge from the Pilot Knob spur to the spur northwest of 142 the enemy may be sure that the ridge is held, but he will be in doubt as to the force occupying it. This force may be but a few scattering detachments, it may be the Blue rear guard, and it may be the entire Blue regiment, reinforced during the night, and the only certain and speedy way to clear up this uncertainty is to attack. Once the enemy has discovered the fact that he has but a rear guard in his front, as will be the case when Lieutenant-Colonel B is driven from the ridge, he may act with great boldness in his attacks, but in

this first attack of the day it will not be surprising if he deploys his entire force for a determined attack against Pilot Knob or some other part of the ridge. It has taken the hostile patrols some ten or fifteen minutes to get their information, and the hostile commander has been five or ten minutes more in reaching his decision and giving his orders for the attack. In the meantime, he may have had a part of his force (say the advance guard) deploy and begin to advance from the race track towards Pilot Knob. This will draw the fire of Lieutenant-Colonel B's machine guns and the advance probably will not proceed far before it will be ordered to stop and await the deployment and support of the remainder of the force. This may be moved to one flank or the other of the force already deployed, let us say to its right flank, down Five Mile creek and through the southern outskirts of Leavenworth, under such cover as it can find. It will move across country and, whether in column or deployed, its progress will be slow. We can safely say that at the very least another half hour will elapse before the whole force will be deployed and ready to make the decisive attack.

The engagement probably would not follow these exact lines, but the time element would be practically the same however the attack should be made. The time that elapses between contact with the enemy in position and the termination of the attack on that position increases with the size of the command and may be divided into two periods—the time required to deploy the command and place it on the line from which the decisive attack is to be made, and the time from then until the decisive attack succeeds, is brought to a

standstill, or is thrown back. A rear guard fighting a delaying action should not put off its withdrawal beyond the termination of the first period, for, aside from the danger of being cut off, it will suffer losses in the second period out of all proportion to the delay it imposes on the enemy.

Lieutenant-Colonel B may feel quite confident he will be able to delay the hostile column for at least an hour in his present outpost position, and if he delays the enemy for another hour, in other positions farther to the rear, he will accomplish his full mission. These latter positions cannot be chosen definitely at this time (11:30 p. m.). Our lieutenant-colonel should study his map and tentatively select a number of positions along the line of march that appear suited to his purpose, but orders to occupy them should not be issued until it is clear such occupation is necessary and possible. The character of the hostile pursuit plays a very large part in determining where the rear guard can make a stand.

When the terrain and other conditions permit, each position should be far enough from the one in which the last stand was made to induce the pursuing enemy again to form column on the road rather than march his deployed command a long distance across country. If the positions are too near each other, the enemy may continue his advance with a part of his command deployed, the rear guard will not be given time enough to recover from its disorder, the position will be hastily occupied, and there is danger that the rear guard will be tied to the position by the closely pursuing enemy.

There should be enough distance between the posi-

tions to permit the rear guard to shake itself loose from the enemy, and occupy the next position with due deliberation before the enemy can begin his deployment for the new attack. To illustrate this let us return to our hypothetical attack. The enemy's reserve probably will be still intact, and in the vicinity of 226, when the rear guard begins its withdrawal from Pilot Knob. (If the attack had been made against the right of the rear guard, this reserve would be similarly located on the other flank.) The enemy certainly will not lose valuable time waiting for his original advance guard (now deployed and fighting) to reform column, and it cannot pursue with any vigor in its present deployed formation. His best plan probably will be to form a new advance guard of his assembled reserve and resume the pursuit at once via 224, the remainder of his command to follow as soon as it has assembled and reformed. This new advance guard should be so close on the heels of the retreating rear guard that the latter probably will not be able to occupy a new position until it has crossed to the north side of the 56—60 road.

Between this road and Government hill there are two fairly good positions for the rear guard, if the enemy should continue his pursuit via the 66a—60 road. One of these (see the 4-inch map) is along the edge of the woods on the spur just north of the 56—60 road, and the other is along the spur followed by the tramway to the stone quarry. The first position is the better. It overlooks the valley of Three Mile creek from 54 to Leavenworth, and an attempted turning movement by the enemy could be seen when still some distance away; it has a good field of fire

to the east and west, but the field to the south is obstructed by the fringe of timber along Three Mile creek; and the rear guard may be withdrawn under cover of the woods along the trail on top of the ridge to 16. In the second position, the field of fire is good to the south and east, but the enemy could move under cover and easily turn the right of the position. Neither of these positions would be of great value, should the enemy continue north from 224 through Leavenworth, and advance from the vicinity of the U. S. Penitentiary towards Atchison Cross. In this event, the best position probably would be along the railroad cuts and in the edge of the woods near 14, facing Leavenworth.

Whatever position Lieutenant-Colonel B takes up in this vicinity, he must so time and shape his withdrawal from it as to permit the rear guard to get under cover or beyond rifle range before the enemy reaches the top of Southwest hill—Government hill—Atchison hill ridge; otherwise the rear guard would suffer heavily in getting away.

The enemy would have such a good field of fire to the north and west from this ridge that the rear guard should not attempt to make a stand on it; but it should occupy Sentinel hill instead. This lone hill is on the flank of the line of march and within easy range of it, and the hostile column could not move along the road at its base, so long as Lieutenant-Colonel B remained in undisturbed possession of its top. From it there is a good field of fire to the east, south and west, and withdrawal can be made under cover through the woods on the northern spur of the hill and along Salt creek. In fact, if Lieutenant-Colonel B

has succeeded in causing the enemy a delay of an hour or more at Pilot Knob, he may move directly from there to Sentinel hill and pass by the inferior intermediate positions. Should a stand be made here, the rear guard will have to wade Salt creek, and Lieutenant-Colonel B must not neglect to send a small detachment to remove the flooring from the bridge at H.

It is worth while repeating that, in this consideration of the terrain and possible positions he may occupy to delay the enemy, Lieutenant-Colonel B avoids all effort to work out the minor details of his tactical dispositions. The definite selection of a position, the detailed manner in which it will be occupied, and the later conduct of the withdrawal are all matters that can not be decided until the enemy's movements give some idea of his intentions.

All the positions our lieutenant-colonel has considered (with the possible exception of the one along the tramway) afford a good view of the surrounding country toward the enemy. If this view from the position itself is supplemented by patrols well out on its flanks and by efficient cavalry reconnaissance, the rear guard should be in no danger of being cut off by the hostile infantry reaching its rear, *provided it does not too long delay its withdrawal*. It is in great danger, however, from the hostile cavalry, which is double the strength of Lieutenant-Colonel B's cavalry. Although the single Blue troop probably will not be able to hold off the two hostile troops indefinitely, it should, at the very least, maintain touch with them, and keep Lieutenant-Colonel B informed of their whereabouts; and if they should attempt to

strike the rear guard or main body in flank, it should be able to delay them sufficiently to save the infantry from surprise.

The hostile cavalry will certainly try to reach the flank or rear of the rear guard or main body, (*) and it is free to choose either the right or left flank for its operations. If it operates on the right flank of its column, it will have to pass through the town of Leavenworth where its march may easily be delayed; it will be in plain view from the ridge to the west when it emerges into the open country north of Leavenworth, and its movements will be restricted by the nearness of the Missouri river. Cavalry should have plenty of room in which to operate, and the two hostile troops will find this to the west of the line of march. They may not be able to pass immediately in front of the outpost position along the 142—140 trail, but they should be able to move via the next road to the south. If they should leave the hostile camp (which probably is in the vicinity of 190), and march at sun up (4:30 a. m.) by the 190—150—144—152—134—140 road, they could reach 138 (distant about 7 miles) before 6 a. m., if unopposed. That portion of the rear guard which had occupied the Pilot Knob position would not have recovered its organization, and would be in a particularly helpless state, if suddenly attacked in flank by these two hostile troops.

This danger was foreseen by Colonel A when he ordered Lieutenant-Colonel B specially to guard the right of the line of march with his troop of cavalry. One platoon of it is at 138 for the night, one platoon is divided amongst the infantry supports of the out-

* For the reason see Chapter XIV.

post, and the remaining two platoons are in camp at 66a. All the troops, except the few absolutely necessary detachments, for important duty elsewhere, should be assembled early in the morning at 138, and its commander should be given the clean cut mission of protecting the right flank of the column from hostile cavalry. Incidentally, he should be told to keep in touch with the hostile main body. A single well led patrol will be ample to reconnoiter between the line of march and the Missouri river, and locate the hostile infantry if it should continue through the town, or the hostile cavalry if by any chance it is sent in this direction; in the event of the latter, Lieutenant-Colonel B may have to notify his troop to move from his right to his left flank, unless the troop commander moves there on his own initiative, in which case he would of course report his movement to Lieutenant-Colonel B. Another cavalry patrol for the rear point is desirable, but it is not so necessary as to warrant further weakening the already inferior cavalry.

It is useless for Lieutenant-Colonel B to speculate now as to just where the two hostile troops may appear to-morrow on his flank or rear, and attempt to make dispositions to meet them with his infantry. They may move east on the 136—66a, the 50—68, the 52—60, or the 28—22 road; or they may move across country between these roads. Any attempt to distribute a part of the infantry of the rear guard along the two miles from 66a to Government hill, in such manner as to watch this entire stretch of country, is impracticable and unnecessary, for if the Blue troop does its duty it will give warning of the approach of the two hostile troops. Moreover, Lieuten-

ant-Colonel B knows from his talk with Colonel A that the latter will make dispositions to protect the main body on this flank after it passes 60.

Our lieutenant-colonel is ordered to hold the present outpost position as long as practicable, and must consider the disposition he will make of his infantry in order to comply with this portion of the order. Of the troops that are to form the rear guard, two companies are now on outpost and two companies with the machine gun platoon and half of Troop A are in camp with the remainder of the regiment just south of 66a. Company A is equally divided between the two supports at 216 and 214; and Company B is similarly divided between the two supports at 212 and 210. From the support at 210, a detached post of 20 men has been sent about half a mile to the east of Pilot Knob. Thus the main infantry outpost line extends from 216 through 214 and 212 to 210, but this position is not so well suited for delaying the enemy's advance to-morrow morning as is the position along the top of the ridge from 210 to Pilot Knob, which faces the direction from which the enemy is expected to advance, and overlooks the valley of Five Mile creek. If this position be properly occupied, the enemy may be deceived as to the strength of the force opposed to him, and induced to deploy all of his force before attacking.

Since a rear guard seeks only to cause the pursuing enemy to deploy and lose time, it may occupy a much broader front than a force of the same size that intends fighting a defensive action to a decision. In later problems, (*) we will see that a force the size of

* See Chapters XVIII and XIX.

Lieutenant-Colonel B's, fighting a stubborn defensive fight, loses defensive power at all points unless its fighting front be kept within very narrow limits. Tactical dispositions should be suited always to the object in view. Lieutenant-Colonel B's object is to delay the pursuing force, and if possible without serious loss to his rear guard. To do this, he should so dispose his troops as to perplex the enemy, and should withdraw them from their position before they become seriously engaged at close quarters. From 210 to the southern spur of Pilot Knob, the distance is nearly a mile. This is a position none too short for two full brigades fighting a defensive engagement to a decision, but it will not be wrong for Lieutenant-Colonel B, bearing in mind his particular mission, to distribute a small part of his rear guard along this entire front. As already pointed out, the hostile patrols will thus come under fire from a position about a mile long, and the enemy will be in a quandry as to whether it is lightly or strongly held. However he may proceed, some time will elapse before the situation is cleared up, and its uncertainties may compel him to deploy his entire force before making a decisive attack, which when finally made will be against an abandoned position, provided Lieutenant-Colonel B properly handles his command.

He should deploy no more men than absolutely necessary thus to deceive the enemy. It will be better for him to put too few than too many on the line at the outset. It is easier to strengthen the front line by putting in local supports, than to withdraw troops already deployed. If one company on the firing line will check the enemy's advance and compel him to

deploy the larger part of his command, it is unnecessary to complicate the final withdrawal by having two or more companies deployed and out of hand. There will be time enough for putting the second company into the fight when the necessity for increasing the volume of fire becomes apparent. Then, also, the point where it is most needed on this one mile line will be evident from the direction of the hostile advance, whereas, had it been put on the line before the enemy began his advance, it might have to be withdrawn and shifted to another position.

Let us see how a single company may occupy this line. If the detached post of 20 men at Pilot Knob be reinforced by the remainder of its platoon now at 210, it will be sufficient to man this commanding position in such manner as to cover the ground to the east, south, and west with its fire. The remaining platoon of Company B (now at 212) may be moved to the top of the ridge and posted with one section at 210, and the remaining section about 500 yards to the east. No part of this mile or more of front can then be approached by the enemy without his coming under fire. Now, if the machine guns be placed on the spur of Pilot Knob, where they can fire towards three points of the compass, the position will be greatly strengthened and the hostile advance may be more cautious. It would be well to send a strong patrol of ten or fifteen men from the section at 210, to proceed along the spur towards 142 to drive back any hostile patrols that may attempt to advance through the woods from this direction.

The platoon and machine guns on Pilot Knob probably will be the first troops to withdraw (although

this will depend on the manner in which the enemy advances), and they will have to make their withdrawal along the top, or northern slope, of the ridge in the general direction of 212 and 66a. It may be difficult for this part of the force to break off the engagement and get away without serious loss, and some provision should be made for covering its movement to the rear with the fire of troops not already deployed. This may be done by assembling Company A (now at 214 and 216) and moving it to the vicinity of 210, where it can be held under cover in the woods on the northern slope of the spur. From this position, it may be used to reinforce the firing line (should that appear desirable), to cover Company B as it falls back, and to meet the hostile cavalry should it advance from the direction of 138.

Every effort should be made to avoid involving more than two companies in this action on the ridge, and probably it would be well to employ them in such manner that they will be able to cover their own withdrawal from rifle range of the enemy. The two remaining companies of the rear guard will then be free to resume the retreat to the second position to be occupied. They are now at 66a, a little more than half a mile from the top of the ridge at 210, and it would not be wise to move them any nearer the position. If they have to assist in covering the withdrawal of Companies A and B, it should be from near their present position at 66a, or a position farther to the rear. If the entire rear guard were to become involved in the fight along the 210 ridge, it would be in great danger of being cut off and destroyed.

It may be well again to recall that this disposition

of the rear guard is based on those movements of the enemy which appear to be most probable. If the enemy advances as Lieutenant-Colonel B expects he will, the position may be occupied as planned. On the other hand, should he make some unexpected move, the rear guard may have to meet him with very different dispositions and in another position; for example, improbable as it may appear, the enemy might move with his entire force via roads or across country and attack from some point between 142 and 140. In that event, the platoon and machine guns on Pilot Knob would have to be shifted a mile or more to the west before they would confront the enemy. Or Company A, in support near 210, might be moved to meet this unexpected advance of the enemy, while Company B was being assembled as a new support near 210. Or some other equally good disposition might be made to meet this changed situation. A commander to succeed must always be ready and willing to modify his dispositions to meet the movements of the enemy. Of course, to make a tactical decision and plan of action, it is necessary to form an idea of the enemy's probable intentions and movements, but defeat and disaster often will surely follow if such preconceived ideas are stubbornly adhered to regardless of the actions of the enemy.

A rear guard is subdivided similarly to an advance guard into rear point, rear party, support and reserve. When the pursuit is not close the subdivisions will march in column on the road and retain their proper relative positions, with the point nearest the enemy and preceded by the remaining subdivisions in the order named. If the pursuit is close and vigorous,

the subdivisions may exchange places or even become mixed in deployed lines. So also the distances between subdivisions may be subject to great variation. If the enemy be distant, they will be about the same as in an advance guard of the same size. If the enemy be pressing a close pursuit, the whole situation alone will determine what they should be.

In the situation before us, a good and convenient division of the infantry would be to place Companies C and D in the reserve and Companies A and B and the machine gun platoon in the support, which furnishes the rear party and rear point. This places one-half the infantry in the support, which is not an unusual proportion; and preserves the tactical unity of the companies. The immediate command of the support naturally will fall to Major A, commanding the 1st Battalion. He, and not Lieutenant-Colonel B, should further subdivide the support into support proper, rear party, and rear point, but the situation will not permit of his doing this at this time. Just what will constitute the rear party, and what the support proper, and just when they can form column in their relative positions with proper distances, if they can do this at all, will depend on the manner in which the withdrawal is made from the Pilot Knob ridge. This part of the rear guard may be so closely pressed by the enemy that it may have to fall back deployed, and even exchange places with the reserve. These are matters of troop leading which can not be provided for in orders issued beforehand, but must be regulated by the proper commanders to meet the changing situation after the retreat begins.

The reserve should remain under the immediate

control of the rear guard commander. The safety of the rear guard, and consequently of the main retreating force, so depends on the proper and timely employment of the reserve in accordance with the plan of the rear guard commander, that it would be unwise for anyone but him to decide how and when it should be thrown into the fight. Of course he can not remain with the reserve at all times, but he should assure himself before leaving for other parts of the field that the senior officer with the reserve understands the limited command he has over it. To-morrow morning Lieutenant-Colonel B should be at a point on the ridge from which he can observe toward the enemy, and he will have to leave the reserve at 66a under the temporary control of the senior captain with it. As the enemy advances and reveals his intentions, our lieutenant-colonel will reach a decision as to his further plans, and will then send the reserve orders that will move it in accordance therewith. Thus the reserve and support are made to cooperate with each other.

While at 66a, the senior officer with the reserve will make the necessary dispositions for its local protection. It already has been pointed out that the hostile cavalry may appear early on the right flank, and to give timely warning of its approach a strong patrol should be sent well towards 136, and another to the cross roads at 68; a third should be sent to 218 to give warning of any hostile force that may elude the cavalry patrol on that flank and advance through the town.

As a result of Lieutenant-Colonel B's deliberations, he *decides* to place Companies A and B and the

machine gun platoon in the support under command of Major A, and Companies C and D in the reserve; to make his first stand to delay the enemy with the support along the 210—Pilot Knob ridge and with the reserve near 66a; to observe on his left flank with a single cavalry patrol, and send the remainder of his cavalry troop towards 140 to cover his right flank; and to delay the enemy further in subsequent positions selected in accordance with the later situations.

Our lieutenant-colonel may issue his orders now (about 11:45 p. m.) or he may wait until to-morrow morning. It would be well for the outposts and the cavalry troop to receive their orders at once. The cavalry should make an early start and its commander will want to give his part of the task some consideration before starting. Major A (commanding the outpost) should be told at once of the important part he is to play at the beginning of the retreat, for it will take him some time to communicate with all parts of his outpost line, and make his complete arrangements for withdrawing his supports and their outlying posts from 212, 214 and 216, and reposting them on the line to be held. The two companies in the reserve need not be given their orders until the camp is aroused in the morning.

Consequently Lieutenant-Colonel B now gives the commander of Troop A, who had heard Colonel A's orders, (*) the following orders:

"We will make our first stand on the 210—Pilot Knob ridge. The support, Companies A and B and the machine guns under Major A, will occupy a position there at daybreak. The reserve, Companies C and D, will be held near here (66a). On falling back we will follow the main body.

* See page 149.

"Move out with your troop at 4 a. m. via the 136—138—140 road and protect the right flank of the column from attack by hostile cavalry. Have a patrol keep in touch with the hostile main body, and send a strong patrol to reconnoiter on our left flank. One platoon of the outpost cavalry will join you here at 4 a. m., and the remaining platoon will join you as you pass 138.

"Have your troop wagon join the field train at 2:30 a. m.

"I will be here until about 4 a. m., when I will go to Pilot Knob."

Lieutenant-Colonel B then proceeds to the outpost and gives Major A the following orders:

"The 2d Infantry will reach Kickapoo to-morrow at 8:30 a. m. Colonel A has just received orders to continue to fall back in the morning. He is to delay the enemy enough to permit the 2d Infantry to occupy a position on the hills just south of Kickapoo. General B intends making a stand there until he is joined by the remainder of the detachment from the north. Our main body will start from its bivouac at 4:30 a. m. and march via the 66a—14—G—H—Kickapoo road. The field train is to start for Kickapoo at 2:30 a. m.

"Your battalion, the machine gun platoon and Troop A are to form the rear guard under my command. We are to delay the enemy for at least two hours between here and Kickapoo, without becoming seriously engaged. We will make our first stand on the Pilot Knob ridge.

"You will command the support, which will consist of Companies A and B and the machine guns. Have Company B and the machine guns in position on the ridge from 210 to Pilot Knob by dawn, but do not move Company A from its present position until daylight reveals the location and movements of the enemy. Hold the line lightly at the outset, and send a strong patrol along the spur towards 142. When compelled to fall back, we will follow the main body.

"The reserve, Companies C and D, will be held near 66a, and Troop A will cover our right flank. Have your platoon of cavalry at 138 join the remainder of the troop as it passes that point in the morning. Have the remainder of the outpost cavalry join the troop at 66a at 4 a. m.

"Your company wagons will join the field train at 2:30 a. m.

"I will be at the bivouac of the main body until about 4 a. m., when I will move to Pilot Knob."

It should be observed that Lieutenant-Colonel B did not specify the manner in which Major A should occupy the position on the 210—Pilot Knob ridge, although he considered this in some detail when estimating the situation. He was correct in thus refraining from undue interference in matters of detail that should be arranged by his subordinate. It is not always easy to determine just where to draw the line between what a subordinate should be told to do and what should be left to his own judgment. If his training, experience and record inspire confidence, his superior may limit his orders to a simple statement of what he desires him to accomplish. If he is untried, or if his record shows lack of ability, it may be wise to assist him with suggestions. Even so, a commander must not forget that his task is to coordinate the efforts of all parts of his command—a thing he cannot do successfully if he attempts to direct the minor arrangements and operations that should be left to his subordinates. If Lieutenant-Colonel B should take command of Major A's support, and personally lead it in the fight along the ridge, he might accomplish brilliant results, but we may be sure that he soon would be ignorant of what had become of the remainder of his rear guard, and it would not be strange should it slip completely from under his control.

Commenting on this common sin of tactical interference with subordinates, General von Verdy has the following to say: (*) "The commander is anx-

* In *Studies in the Leading of Troops—The Infantry Division.*

ious to assist such of his troops as are in action and in danger, by his own advice and his own deed; he would like to see even the smallest subdivisions of his troops act just as though he himself were leading them. This temptation is often very strong, and few there are who can resist it. *One should never let himself yield to it.* * * * * * Every commander has the right to solve his problem according to his own ideas, so long as he does not commit a manifest error, and he may proceed to do so in various ways. Every one chooses that which comports most nearly with his character and training. He has been placed in the position he holds in the confidence that he will fulfill the duties pertaining to it; if he does not, then he should be removed. It is the duty of the leader to give the necessary orders to his subordinates in an unmistakable manner and to watch their execution, and interference should be made only when it is clear that any dispositions are endangering the end in view."

It was necessary to tell Major A to leave the outpost supports in their positions at 214 and 216 until it was known the enemy had not moved a part of his force to this vicinity under cover of darkness. Otherwise, he would be justified in believing other provisions had been made for protection in this direction, and could not be criticized for moving the entire outpost to the ridge. By telling him to "hold the line lightly at the outset" Lieutenant-Colonel B gave a hint as to how he believed the line should be occupied, for he considered this an essential feature of his general plan, but he did not materially restrict Major A's freedom of action; and by directing the major to

send a patrol towards 142, he made certain of reconnaissance in this direction (a matter of considerable importance) and called Major A's attention to the danger to his right. But Major A is not told how he shall withdraw his outposts, the points he is to occupy on his mile of front, where he will place the machine guns, or the use to be made of Company A when it is brought up to the ridge.

It would be a mistake to prescribe in the order the manner in which the rear guard is to withdraw from the position; where and how it is to occupy a second position; and whether the reserve is to occupy a rallying position to cover the withdrawal. *This would be attempting to arrange matters too far in advance.* Withdrawal, and the subsequent occupation of a second position, are so dependent on the character of the hostile pursuit, that they must be provided for in later orders. But the subordinate commanders should be told the direction in which the rear guard will retire when it falls back, not only because the original dispositions of the force depend materially on this, but also because it may be difficult to get this information to them after the action has commenced.

Lieutenant-Colonel B kept his cavalry under his immediate control, whereas he might have placed it in the support under the command of Major A. This latter disposition of the cavalry with a rear guard is frequently desirable for it keeps the whole service of information where it should be—in the hands of the commander directly in contact with the enemy. He is thus assisted in properly timing the withdrawal of his infantry, and its withdrawal can often be covered by the more mobile cavalry. However, when the situ-

ation presents the cavalry with a task which promises to remove it from the tactical sphere of action of the support, it may be advisable for the rear guard commander to direct its operations, and that is the case in this situation. The Blue troop should not guide its movements on those of the support but on those of the hostile cavalry, and very early in to-morrow's operations it may be widely separated from Major A's support. This single troop has to protect not only the support, but the reserve and main body as well from surprises and attacks by the hostile cavalry. Should the control of the troop be surrendered to Major A, it is quite probable he would keep it tied down to his support, thus uncovering the reserve and main body to the hostile troops. Only with cavalry can hostile cavalry be kept at a distance. All this is obviated when Lieutenant-Colonel B makes his cavalry "rear cavalry" and keeps it under his own orders.

Considering the importance of the cavalry patrol sent to the left flank through Leavenworth, it would have been better had Lieutenant-Colonel B given it its orders in person. Knowing the whole situation, while the commander of Troop A has but a restricted view of it, he is better equipped for giving the patrol the orders it should receive. He would not be trespassing on the province of the troop commander, for the patrol is operating quite independent of the troop, and, as a matter of fact, is seeking information for Lieutenant-Colonel B.

Should Lieutenant-Colonel B have issued a single combined written order, with troops expressed in the margin, it would have been as follows:

- Rear Guard, 1st Infantry,
66a, just west of Leavenworth,
15 July —, 11:45 P. M.
- Field Orders
No.—
Troops
- (a) Reserve—in order
of march:
Co. D, 1st Inf.
Co. C, 1st Inf.
- (b) Support:
Major A.
1st Bn. 1st Inf. (less
Cos. C & D)
Machine Gun Platoon.
- (c) Rear cavalry:
Capt. A.
Tr. A, 2d Cav.
1. Nothing new has been learned of the enemy. Our 2d Infantry will reach KICKAPOO to-morrow at 8:30 a. m. Our regiment is to continue to fall back in the morning, delaying the enemy enough to permit the 2d Infantry to occupy a position on the hills just south of KICKAPOO, where General B intends making a stand until he is joined by the remainder of our detachment from the north. The main body will leave camp at 4:30 a. m. and march via the 66a—14—G—H—17 road.
2. The rear guard, without becoming seriously engaged, will delay the enemy for at least two hours between here and KICKAPOO. The first stand will be made on the PILOT KNOB ridge.
3. (a) The reserve will be under arms at 4:30 a. m., and will await further orders at 66a.
- (b) The support will be in position on the ridge from 210 to PILOT KNOB, both inclusive, at dawn, except the outpost supports at 216 and 214, which will be left in position until daylight reveals the whereabouts of the enemy. The position on the ridge will be occupied lightly at first, and a strong patrol will be sent along the spur towards 142.
- (c) The rear cavalry will trot out at 4 a. m., via the 136—138—140 road, and protect the right flank of the column from attacks by hostile cavalry. Touch will be maintained with the hostile main body, and a strong patrol will be sent through LEAVENWORTH to reconnoiter on our left flank. One platoon of the cavalry on outpost will join the troop at 66a at 4 a. m., and the remaining platoon will join the troop as it passes 138.

(d) When compelled to fall back, the rear guard infantry will follow the route of the main body.

4. The company and troop wagons will join the field train at 2:30 a. m.

5. I will be at 66a until 4 a. m., when I will go to PILOT KNOB.

B.

Lieutenant-Colonel, Commanding.

Copies to Colonel A, Major A, Captain A, commanders of Cos. C and D, and of the machine gun platoon.

CHAPTER XIII.
A REAR GUARD.

PROBLEM.

(See 2-inch map).

A reinforced Blue brigade, marching north through Farley, in hostile country, has sent forward the 1st Infantry and Troops A and B, 14th Cavalry, under Colonel A. This detachment was forced to fall back from the north through Weston, and bivouacked for the night May 1-2 on Bee creek near 49, with outposts covering the 23—39, 23—29, and Weston—G roads. Company A with 10 troopers is posted at 23; one platoon of Troop A is at G; and Company B, with 15 troopers, is in reserve on the small brook just south of 21.

The enemy, estimated to be 2 regiments of infantry and 1 troop of cavalry, bivouacked near Weston, with his outposts in close contact, on the 31—29 road, with those of Colonel A.

At 11 p. m. Major A, commanding the outpost, receives the following order in the form of a message:

Detachment, 1st Separate Brigade,
49 (near the Platte City—Weston road),
1 May —, 10:45 P. M.

To
Major A,
Commanding Outpost.

Nothing new has been heard of the enemy. The remainder of our brigade (2 regiments of infantry and 1 battery) will reach FARLEY at noon to-morrow.

This detachment will march from 49 at 5:30 a. m., and fall back via the E—12—50—FARLEY road on the remainder of our brigade.

The outposts, reinforced by the remainder of the cavalry, will constitute the rear guard under your command, and will endeavor, without becoming seriously engaged, to hold the enemy north of the 30—48—60 road until 12 o'clock noon. The main body will remain in supporting distance of the rear guard.

The field train will start from 49 at 4 a. m.

After 5:30 a. m., reports will reach me at the TODD house at E. A.

Colonel, Commanding.

Note.—Bee creek is fordable.

Required:

Major A's estimate of the situation.

His orders, on the supposition that no further information of the enemy is received before 5:30 a. m.

SOLUTION.

From Weston, the probable location of the hostile force for the night, to the 30—48—60 road, the distance is about 10 miles. The enemy, if unopposed, could cover this distance in about 4 hours, and could reach 48 by 9:30 a. m., if he started at the same hour as the Blue detachment. Consequently, Major A probably will have to delay the enemy about 2½ hours.

In the first place, in order to keep the enemy ignorant as long as possible of the Blue commander's intentions, the front line of the outposts will be left in position until the enemy resumes the pursuit, when it will be withdrawn to the first position where Major A expects to make a stand. This may be north of Bee creek, provided proper arrangements are made to withdraw the delaying force in safety to the south bank of the creek. The sharp bend in the road at 21,

and the terrain between the ravines running south from just east of 25 and 23 favor a delaying action by a part of the rear guard. One company could be placed across the spur between these ravines and in the northern edge of the woods south of 23 (just east of the Hall house), where it would be on the flank and within easy range of the 25—23 road. At the proper time, this company would fall back behind the crest of the spur, its withdrawal being facilitated by the woods east and south of the Hall house, and the small ravine on the southern slope of the spur, just west of 49. And the withdrawal could be covered by the fire of the other company in position in the northern edge of the wood on the spur just south of 49. On reaching the southern bank of Bee creek, the company last to withdraw may reform under cover of the wood and assist the other company in such manner as the situation at that time may demand. It is entirely too early to decide how such assistance can best be rendered. When the latter company has to fall back from its position on the spur south of 49, the wood will cover its withdrawal until it passes over the crest of the hill near the Todd house (at E).

The information indicates that Major A has two troops of cavalry to the enemy's one, and this superiority should enable the cavalry to reach the enemy's flank, where it can do most to annoy the hostile column and delay its advance. For several reasons, it appears that the cavalry should operate on the enemy's left flank. (1.) It would be difficult for the cavalry to reach the hostile right flank at the beginning of the march, and it would be confined within the restricted area between the Missouri river and the 23—

Weston road. (2.) Should it go by the G—Weston road to reach the enemy's right flank, it would have to proceed with great caution, for this road is in a defile between the Missouri river and the bluffs. (3.) For similar reasons, the enemy probably will not march over the Weston—G road with either infantry or cavalry in force. Consequently, Major A's cavalry most probably will meet the hostile cavalry on the enemy's left flank. (4.) On the left on the enemy's line of march, the ground favors cavalry operations, and, on this flank, Major A's cavalry will be in a good position to cover the 15—D—50 road later on.

Accordingly, the bulk of the cavalry will be ordered to advance to the north of the 23—Weston road and delay the enemy by attacking his left flank, and detachments for secondary tasks, such as reconnaissance on the enemy's right flank, will be made the minimum in number and strength.

Major A's *decision* is to make his first stand to the north of Bee creek with one company, covering its withdrawal with the other company in position south of the creek, and to have the cavalry delay the enemy by operating on his left flank.

In the positions at the Hall house, and on the spur south of 49, Major A should be able to delay the enemy at least one hour, and maybe much longer if the cavalry meets with the success that may reasonably be expected. The rear guard still will be five miles from 48, and in that distance it should be able to delay the enemy the additional necessary time. The rolling country affords many excellent positions for short rear guard actions, but just what positions will be selected, how they will be occupied, and how the

withdrawal from them will be effected, can not be determined long before the event. One of these positions is the hill 1300 yards south of E (just south of the Ode house). After a short delay here by one company, it might be able to fall back by the right flank into the wooded ravine to the south, thence under cover up the ravine between the Tomlin and Storm houses. The withdrawal from this position probably could be covered by the fire of the other company in position near the 1020 foot hill, 600 yards northwest of 10. This company, in its turn, could withdraw down the ravine just west of the 10—12 road, covered by the fire of the first company considered, which by this time probably will have withdrawn to some position in rear, such as the hill at the Alexander house (east of 12).

The rear guard would be similarly conducted, should the enemy pursue along the D—48 road and, should he pursue in two columns along both roads, the rear guard might have to be divided, or the cavalry ordered to watch one road, provided Colonel A should not come to the assistance of Major A by forming an additional rear guard to cover one of the roads. Of course, these are contingencies that will not be provided for until they arise in the course of the retreat.

Since the plan is to make the first stand in the immediate vicinity of the outpost line, the division of the rear guard into rear party and support is not essential; but, if this division be made, one company should be placed in each, for this is the only division that will fit in with the plan to leave one company in position just south of 23 while moving the other to a position on the spur south of 49. Major A's dispositions

are based on the supposition that the enemy will continue his pursuit, but if he should not, the rear guard may be placed on the road in the usual formation, *at the proper time*.

Company A, which is furnishing the front line of the outposts, will occupy the position south of 23, and Company B at the same time will occupy the spur south of 49. The cavalry will assemble at 21 at 5:30 a. m. and advance against the enemy's left flank. The cavalry platoon at G will cover the left flank, and furnish Major A with any additional messengers he may need; orders are given for the platoon with Companies A and B to assemble at 21 by 4:30 a. m., in order that patrols may be sent out at daybreak. The company wagons will be sent back in time to join the field train at 49 at 4 a. m.

Major A will not issue his orders (except those for the wagons) until morning, for the situation may change in the meantime; but the company commanders and the senior troop commander are directed to report at 21 for orders at 4:30 a. m. At that hour Major A issues the following verbal orders:

"There is no additional information of the enemy. The remainder of our brigade will reach Farley at noon to-day. Our detachment will march from 49 at 5:30 this morning and fall back via the E—12—50—Farley road to join the remainder of the brigade.

"The outposts, reinforced by the remainder of the cavalry, will form the rear guard under my command and, without becoming seriously engaged, will hold the enemy north of the 30—48—60 road until noon. The main body of the detachment will remain within supporting distance of the rear guard.

"Company A will be in position by daybreak north of the woods near the Hall house, and delay the hostile advance on the

29—25—23 road, without becoming seriously engaged, subsequently retiring to the south side of Bee creek, keeping west of the 21—49 road. The front line of the outposts will not be withdrawn until the enemy begins his advance.

“Company B will march at 5:30 a. m. and occupy a position on the spur just south of 49, from which to cover the withdrawal of Company A, and cause the enemy additional delay.

“Company B will loosen the planking of the bridges over Bee creek at 49 and north of 45, and Company A will remove them when it withdraws to the south of the creek.

“The cavalry will start at 5:30 a. m. from 21, where it will be joined by one platoon of the outpost cavalry, and will advance north of the 21—Weston road and delay the enemy’s advance by operating against the left flank of his column. The hostile cavalry will be driven back if found on that flank. The platoon of cavalry now at G will receive orders from me to reconnoiter on our left flank. Patrols will be sent out at once from the platoon now here.

“Messages will reach me at 23.”

COMMENTS.

It may be well to point out the essential difference between this situation and the one given in the preceding chapter. In the latter the pursuing force had two troops of cavalry and the retreating force but one, and, as a consequence, the single retreating troop was given a *defensive mission* and ordered to prevent the two pursuing troops from reaching the flank of the retreating column, and *delaying its retreat*. In this problem the conditions are reversed. Major A has twice as much cavalry as the pursuing enemy, and he gives it an *offensive mission*, directing it to operate against the flank of the pursuing force and *delay its pursuit*. In doing this he may permit the hostile troop to reach Colonel A’s flank, for, if it is operating on the right of the enemy’s column, Major A will

have but one platoon of cavalry in its front. Still he is warranted in taking this chance, for the reasons stated in the solution, and for the additional reason that a stronger cavalry force, by taking the initiative, probably will compel the weaker force to play to its lead. That Major A cannot disregard the hostile troop, need scarcely be stated, but much less may the enemy disregard Major A's two troops, and certainly we will take the law from the enemy and play his own game, if we permit our two troops of cavalry to be diverted from their chief mission by the enemy's single troop.

In the preceding chapter the rear guard made its first stand some distance in front of the outpost line, for the terrain and other conditions specially favored this action. In this situation the first stand is made in rear and to one side of the outpost line, and the front line of outposts is left in position only for the purpose of keeping the enemy in doubt as to whether the retreat is to be resumed, and it is withdrawn before it becomes engaged. Had the rear guard occupied a position *across* the 29—23 road it would have had to withdraw by the flank—a dangerous operation.

In this situation Major A is called upon to do more with two companies of infantry than Lieutenant-Colonel B was expected to do with a battalion in the preceding chapter, but the difference in the cavalry situation in the two problems is equivalent to giving Major A two troops more than Lieutenant-Colonel B had.

It may be well to consider briefly the withdrawal of the rear guard from action, and this may be illustrated by following the action of Company A, that is

to occupy a position in the wood south of 23. One platoon of this company will be deployed in the northern edge of the wood with its left near the Hall house, on a front of about 250 yards. This will make the interval between skirmishers about 4 yards, but this unusually large interval is allowable since it is not intended to make a stubborn resistance and the broad front may deceive the enemy as to the force holding it. The remaining platoon will be held in support under cover of the slope at the southern edge of the wood. Under the circumstances one platoon will secure about as much delay as two, and the danger of the company becoming seriously engaged is not nearly so great as it would be if both platoons were put in the firing line.

Constant observation must be maintained on each flank, and particularly on the left flank, by well led patrols, for it is absolutely essential to the safe withdrawal of the company that it should begin to fall back before the enemy is on its flank. The following movements are intended but to illustrate one way in which the withdrawal might be made, and presuppose movements by the enemy which he may not make. In that case, the withdrawal would take some other form. When the development of the situation shows that the time has arrived to begin the withdrawal, the 1st Platoon (in support) will fall back in column of squads and occupy a position with one section, on a front of about 100 yards, in the northern edge of the next strip of wood to the south (northwest of 49), and with the other section in support. Just where this line will be along the edge of the wood will depend on the direction of the enemy's advance up to this time.

The 2d Platoon (in the firing line along the northern edge of the wood just south of 23) will withdraw by sections. The right section will fall back deployed to the southern edge of the wood, where it will form column of squads and move quickly to the south bank of Bee creek, via the little ravine just west of 49. The platoon commander will withdraw his left section in a similar manner, as soon as the right is formed and marching off, and will follow the latter to the south of Bee creek.

The 1st Platoon, from its position in the strip of wood northwest of 49, will offer only such resistance as is necessary to cover the withdrawal of the 2d Platoon, and it will then withdraw, also by sections if necessary, to the south of Bee creek. Its withdrawal will be covered by Company B in position on the spur south of 49, and possibly also by the 2d Platoon of Company A.

It is highly desirable that the withdrawal be made in the orderly manner here described, for the rear guard may have to withdraw from many positions before its morning's work is over, and should it become thoroughly disorganized at the outset, its delaying power is at once impaired, and may be wholly destroyed, if the enemy's pursuit is so vigorous as to render subsequent reorganization impossible. At the best, there is bound to be some disorder and confusion, and if the platoons and companies are to be kept in hand, the most careful leadership must be exercised. Accordingly, the withdrawal should be started before the enemy has crossed to the south of the 25—23 road in force, and certainly it should begin before the enemy has moved a force down the ravine east of 25.

As soon as the entire company is on the south bank of Bee creek, it will reform under cover of the wood, with squads, sections and platoons in their normal positions, provided the situation permits this, and will then proceed in column of squads to some suitable position to cover the withdrawal of Company B. The withdrawal probably will not be made in precisely this manner, but the main object in this, as well as in subsequent withdrawals, will be to get away with the least loss and disorder consistent with delaying the enemy.

It is plain that the conditions make it impracticable for the rear guard to form in column, with the usual subdivisions and distances, and march off after the main body; but the leading of the rear guard would be very different if it were not necessary to delay the enemy. In that case the rear guard would take the road after the main body with say a company and a half in the support, and a half company in the rear party and, using its cavalry to hold the enemy at a distance, would attempt to avoid any fighting with its infantry.

Should the enemy not resume the pursuit the morning of May 2, and should the situation continue unchanged in other respects, the rear guard should remain in the first positions occupied, without disturbing the front line of the outposts, until the necessary delay of two and one-half hours had been secured; at the end of that time it would form column on the road, with the usual subdivisions and distances, and follow the main body which, during this delay, should have remained within supporting distance.

CHAPTER XIV.

A PURSUIT.

SITUATION.

(See 2 and 4-inch maps).

A Red detachment, in friendly country, consisting of

1st and 2d Infantry,

1st Squadron, 3d Cavalry, (less Troops C and D),
and

Company A, 1st Battalion Engineers, commanded by Colonel Z, is being pushed forward from the south to Leavenworth, to assist in guarding the Missouri Pacific Railroad (along the west bank of the Missouri river) for the movement north of a strong Red force. On reaching Kansas City, during the forenoon of July 15, Colonel Z was informed by a spy that a Blue force of a regiment of infantry and a troop of cavalry reached Kickapoo by train, the afternoon of July 14, where it detrained and bivouacked for the night, and that more Blue troops are expected there July 16. He further stated that the citizens of Leavenworth had blown up the important steel bridge at the mouth of Salt creek (on the M. P. R. R. between Leavenworth and Kickapoo).

A little before noon, when about 15 miles south of Leavenworth, Colonel Z learned that the enemy's cavalry had blown up a number of bridges and culverts along the railroad south of Leavenworth. Consequently, he detrained all his command except the 3d

Battalion of the 2d Infantry, and the engineers (which were sent to repair the bridges), and continued to advance by marching.

Late in the afternoon, the enemy was encountered five miles south of Leavenworth but withdrew in good order after a very feeble resistance. As nearly as Colonel Z could determine, the hostile force appeared to be a regiment of infantry and a troop of cavalry. A little before dark, the detachment bivouacked at 190 and established outposts (1st Bn, 2d Inf., and $\frac{1}{2}$ Tr. A, 3d Cav.) along Five Mile creek, from the road junction one mile west of 228 to 230, with one platoon of the outpost cavalry watching the left flank at 148. The detached battalion and the engineers remained absent and reported that they can have the railroad opened to Five Mile creek by 10 a. m. to-morrow.

During the evening, patrols from the outposts are driven back from the 210—Pilot Knob ridge; hostile cavalry patrols were seen in the southern outskirts of Leavenworth, and a cavalry patrol sent to the west was driven back from 138 by hostile cavalry.

Colonel Z reported the situation to superior headquarters, and at 10 p. m., received the following orders in reply: "Your information of the enemy is confirmed by other reports received at these headquarters. The commanding general desires you to advance (with all troops not required to repair the railroad) early to-morrow morning, against the enemy in your front, and inflict all possible damage on him before he can be reinforced. The 3d Infantry and 2 batteries will join you to-morrow and can reach Leavenworth by 10 a. m., if the railroad is open. You will keep this force informed of the situation as it approaches Leavenworth."

Required:

. Colonel Z's estimate of the situation, and his orders for July 16, on the supposition that no additional information is received during the night.

SOLUTION AND DISCUSSION.

We recognize in this situation the opposing side of that given in Chapter X, and a study of it will serve as a test of the dispositions made in that chapter. Let us first get a clearer understanding of Colonel Z's mission. He was originally sent ahead for the purpose of opening up the Missouri Pacific railroad for the movement of the remainder of the Red force to Leavenworth. The orders received at 10 p. m. change his mission by making it more comprehensive. He is still charged with opening up the railroad as far as Leavenworth, in time, if possible, to permit his reinforcing troops to join him at that place in the morning, and in addition to this, he is to inflict all possible damage on the hostile force in his front before it can join with reinforcements.

The first part of this mission he might accomplish without fighting, for, should the enemy continue to fall back on Kickapoo, the morning of July 16th, showing a desire to avoid a fight, Colonel Z has but to follow sufficiently far to secure protection for the troop trains as they enter Leavenworth, and his pursuit need not be so vigorous as to compel the enemy to make a stand. But the full execution of the second part of his mission requires not only fighting, but offensive fighting of the most vigorous kind. Only by taking the initiative can Colonel Z hope to inflict loss upon the enemy before he is reinforced.

Our colonel's information of the enemy is quite complete. The report of the spy as to the enemy's strength was corroborated by the information obtained after the enemy was encountered during the afternoon, and again by information received through other sources at superior headquarters. Considerable dependence may therefore be placed in the further report of the spy, that more Blue troops are expected to reach Kickapoo July 16. The fact that the Red patrols have been driven back all along the front 138—210—Pilot Knob—southern outskirts of Leavenworth, indicates that the enemy has halted and established outposts. He must have left Kickapoo some time to-day and when he reached the outskirts of Leavenworth, as night was coming on, he had marched nearly 20 miles. His command certainly is greatly fatigued, and he no doubt gladly seized the opportunity for rest afforded him when the Red pursuit did not proceed beyond Five Mile creek. Even if he contemplated continuing his retreat during the night, he probably would allow his tired command to rest for some hours. So the indications are that he has bivouacked for the night along the 66a—68 road, with an infantry outpost along the 210—Pilot Knob ridge, and cavalry on the two flanks at 138 and 226.

In deliberating on the situation, Colonel Z thinks mainly of how he can overtake the enemy, tie him down to a position and compel him to fight, for if any serious loss is inflicted upon him it must be in a decisive action and the disorganized retreat which follows it. There is no reason to believe he is demoralized; the fighting south of Leavenworth was in no respect decisive, and his withdrawal was made in good

order. Under these circumstances, there will be little chance for a simple stern chase to run over the enemy's rear guard (if it be properly led) and reach his main body. When a pursuing force encounters the hostile rear guard in position, its advance is checked. The position must be reconnoitered, for it is seldom possible to state with certainty that it is held only by a weak rear guard. Troops have to be deployed for the attack and, unless the situation is one which warrants or *demands* that risks be taken, we are liable to be on the safe side and deploy too many rather than too few to make the attack a success. The pursuit is stopped, but time goes on, and the hostile main body steadily draws away from us. Finally, we get deployed into position and deliver our attack, only to discover that the rear guard has slipped out at the last moment and, with the possible exception of a very few casualties and stragglers, has completely eluded us. To advance across country deployed would so reduce our marching rate that we would thereby play the enemy's game for him, so we are compelled again to form column on the road (which also means delay), only to repeat the whole exasperating procedure in front of the next position occupied by the rear guard.

How then is the pursuing force to make its superior numbers and morale felt? It is usually by maneuvering on the flanks of the retreating enemy, in such a manner as to bring him to a stand and hold him in position long enough to strike him a decisive blow. A large force of all arms, conducting a pursuit that may continue through several days, may do this by so directing its march as to intercept the retreating force at some critical point, such as a defile. Or, while

a part of the force pursues directly, the remainder may make a forced march along parallel roads and strike the enemy in flank. Or, cavalry and horse artillery may make a wide detour and block the enemy's retreat by reaching his rear. These and other combinations, made possible by the large numbers of the pursuing force and the long duration of the pursuit, may be quite impracticable with a command the size of Colonel Z's, that can, because of the situation, pursue but a few miles; and so small a command often will be unable to do little more than compel the enemy to hasten his retreat.

It may be well to point out just here that there are two kinds of pursuit: that of a force which avoids a fight and voluntarily retires on the approach of the enemy; and that of a force which is compelled to retreat after being defeated in battle. In reality it is the second case only which permits the execution of that impassioned offensive act called a *pursuit*—that relentless and uninterrupted pressing after the enemy until the limit of our strength is reached. It is then we gather the fruits of victory. In the fighting incident to gaining a tactical decision, we inflict some loss upon the enemy, but it may be no greater than that we ourselves have suffered. If we would turn the balance greatly in our favor, we must make him feel the full weight of his defeat in the loss and demoralization caused him by the pursuit.

But it is not always as easy as our critics would have us believe, for a victorious force to undertake the immediate pursuit of its beaten foe. Pursuit will always depend upon conditions on both sides, after the decision has come. The degree of dissolution on the

side of the victor is taken into account as much as on the side of the vanquished, and except the defeat degenerate into a rout, the one who has been beaten will always be able to offer resistance in various positions. It takes time to restore order among pursuers, and all this accrues to the benefit of the vanquished. After we have driven the enemy out of his position by employing our entire strength, and so brought about a decision, we will not always be in condition to undertake new and costly partial attacks with our tired and intermingled forces, against the positions which the enemy has occupied during his retreat.

But the situation before us is an example of the first of the two kinds of pursuit mentioned. The enemy was not defeated, but voluntarily withdrew on the approach of Colonel Z, who *followed* rather than pursued him. Although the enemy's morale may have been impaired by his retreat, nevertheless his withdrawal was made in good order and his troops were in hand and covered by a rear guard. Unless Colonel Z can in some way break up this orderly retreat, he will have little chance even to inflict loss on the enemy's rear guard, to say nothing of overtaking his main body. If unmolested, the enemy can march as fast as his pursuers, and the latter have practically no chance of overtaking him unless his march be delayed.

In his cavalry, Colonel Z may find the means of doing this. The situation presents an opportunity to illustrate the important rôle of cavalry pursuing a retreating force, especially a force such as the Blue detachment which is in no wise demoralized. The great mission of the cavalry is to get on the flank or rear of the retreating enemy and, by worrying him,

delay his march sufficiently to permit the pursuing infantry to overtake him. It is Colonel Z's long arm, with which he can reach out and hold his prey until his more slowly moving infantry can come up and strike the decisive blow. Before discussing how it will proceed to accomplish this task, let us examine the situation more carefully and discover what we can of the enemy's probable intentions.

Why did the enemy march to the south on reaching Kickapoo? Why did he fall back without showing fight on meeting Colonel Z this afternoon? What does his present stand indicate? These are a few of the questions we should attempt to answer before reaching a decision as to our own actions, and if we place ourselves in the enemy's position, we will be able to arrive at fairly satisfactory answers. The information in Colonel Z's possession indicates that the enemy intends collecting a hostile force at Kickapoo. The first detachment to reach that place consisted of but a regiment of infantry and a troop of cavalry. Its weakness and the fact that its reinforcements are more than a day behind it might be explained in many ways, were it important to speculate on these points. Most probably, the enemy has knowledge of the proposed advance of Red troops from the south, and naturally will be very anxious about the safety of his little command. His mission very probably is the protection of the rail head at Kickapoo until the arrival of his reinforcements; consequently, we would expect him to do everything he could to delay the Red advance without seriously involving his command. Manifestly, his easiest way of doing this was to interrupt the Missouri Pacific railway south of Leav-

enworth, and, since his single troop of cavalry was too weak for such a mission, he marched to the south with his entire command.

He probably fought only long enough this afternoon to determine that Colonel Z was much the stronger, and then began his retreat to save his command from serious loss. We can reach no definite conclusion as to what his later actions are to be. He may continue his retreat to Kickapoo to-night after giving his troops a rest; he may remain where he is for the night and continue his retreat in the morning; or, should reinforcements reach him early in the morning, he may stand and fight or even take the offensive.

It will be useless for Colonel Z to resume the pursuit to-night, should the enemy continue his retreat, for even should he overtake the enemy, an attack in the darkness would be impracticable. True, daybreak would find Colonel Z before Kickapoo, but his command would be so exhausted it would be in no condition to attack. Colonel Z's best plan is to remain where he is for the night and be ready to resume the pursuit at an early hour next morning. He can then act according to the situation at that time.

Our colonel may advance in the usual manner, in column on the road preceded by an advance guard, or he may act on the supposition that he will find the enemy in position in his front, and deploy his command for an attack at the outset. Not much can be said in favor of the latter, and the only good reason for so acting is the slight probability that the enemy will be reinforced during the night, for unless he be reinforced, it is not at all likely he will make a determined stand in the face of what he apparently knows to be

superior numbers. The chances are Colonel Z will find only a small rear guard on Pilot Knob ridge, but even if he should find the enemy there in greater force, no time will be lost and he will be in no wise compromised because of his being in column on the road. On the other hand, to deploy the command directly from bivouac would be a waste of time and energy should it turn out that the enemy had withdrawn during the night, or is holding the position so lightly that the deployment of the entire command is unnecessary. It is probable the situation to-morrow morning can best be met with the command in the usual column of march on the road.

There is little choice of routes for the main column. Since the enemy must be overtaken before he can be injured, the most direct route is the best. This is via the 190—228—226—224 road. To move over less direct routes farther to the west, in the hope of getting on the enemy's right flank, probably would permit him to get away untouched. In a pursuit such as this, where the enemy is falling straight back on his base and can reach it in less than three hours, the pursuers will do well to follow immediately on his heels with their infantry column. The roads do not favor pursuing in two columns, even were this advisable for other reasons, which is far from being the case. If a command the size of Colonel Z's be split into two parts, separated by a mile or more of close country, it will be in danger of being defeated in detail. The enemy will be given an opportunity to hold one part of the divided force at a distance, by the defensive action of inferior numbers, while he falls upon the other part of the divided force with the bulk of his

command. Such a division would be particularly hazardous, should the enemy be reinforced during the night, or while the pursuit in two columns is in progress. No advantage commensurate with the risk involved, is to be derived by Colonel Z from thus dividing his little command.

In discussing an advance, (*) it was pointed out that the outposts may form the advance guard for the following day's march, although the usual procedure is to detail the advance guard from troops that have had a good night's rest, and have the outposts assemble and join the main body as it passes. The latter appears to be the better plan in this situation, since there is no good reason why the outposts should be given the most arduous and dangerous duty during the day after their fatiguing work of the night. Considering the possibility of the enemy taking the offensive in the morning, this will also be the safer plan, for the outpost will be in position to cover the main body of the command at the beginning of the march.

In determining the strength of the advance guard, we must bear in mind that it probably will have to fight before it has proceeded far. If the enemy continues his retreat, it will encounter the hostile rear guard and should be at least as strong, if not stronger, than this rear guard. On the other hand, by keeping the advance guard small, Colonel Z holds a larger part of his command under his immediate control, and thereby preserves greater freedom of action for himself in case he has to put his whole force into the fight to meet a determined stand of the enemy.

Were his six battalions present, he might place two

* See Chapter V.

battalions in the advance guard, and make certain of its not being definitely stopped by the hostile rear guard. But he has but five battalions, and, if he places two of them in the advance guard, he will have but three-fifths of his infantry command in hand, and possibly less than that if his outposts become engaged. It is not desirable to place six companies in the advance guard, for that would break up a battalion. The hostile rear guard probably will not be stronger than a battalion, and the chances are it will be considerably weaker than that, if the enemy wishes to delay the pursuit only sufficiently to cover his own retreat. Consequently, it appears that the advance guard should have but one battalion, especially if it is strengthened by the addition of a machine gun platoon and receives the support of the cavalry. The situation will be much clearer after the enemy's intentions for to-morrow become known, and until that time Colonel Z does well to keep the advance guard small and the main body strong. If it develops that the enemy has resumed his retreat, the advance guard may be strengthened without inconvenience, if it appear desirable to do so in order that it may keep the hostile rear guard on the move without calling on the main body for assistance.

The cavalry may be placed in the advance guard, or it may be employed independently. In its effort to get on the flank of the hostile column and delay its retreat, it and the advance guard may become separated by some miles, but, in the end, they will be cooperating tactically, and both ordinarily should be under the same commander. In other words, it is not clear that the situation will give the cavalry a mis-

sion separate and distinct as to time and place from that of the advance guard; consequently, there is no clear tactical reason why it should be employed independently. There is one good reason, however, why Colonel Z might not part with direct control of his cavalry, viz.—a lack of confidence in the ability of his advance guard commander to make the proper use of it. We have already hinted at the important part the cavalry has to play in to-morrow's operations. In fact, the whole success of the pursuit may depend on the cavalry being properly employed, and our colonel should take no chances in this matter. The exigencies of war often place inexperienced officers in positions of great responsibility. We will assume that such is the case in the situation before us; that our advance guard commander is an able leader of infantry, but that he has shown himself fairly incompetent to comprehend the proper employment of cavalry and infantry combined. Our colonel would make a mistake, should he entrust this officer with the control of his cavalry, merely because there is some doubt as to whether its task is tactically independent of that of the advance guard. It is but another illustration of the fact that there is no rule of tactics that is not subject to exceptions.

Some cavalry, however, should be with the advance guard for reconnoissance in its immediate vicinity. This constitutes the cavalry's secondary task and, consequently, the number of men detached from the main cavalry force for this purpose should be as small as possible. A platoon will be ample and a smaller force might be sufficient.

The remainder of the cavalry is to be employed

against one or the other of the hostile flanks. If the enemy continues his retreat, it probably will be via the 14—16—G—H—17 road, which is his most direct route to Kickapoo, and the cavalry will find the terrain to the west of this road the most favorable for its operations. To the east of the road, the nearness of the Missouri river would so restrict its movements as to make its commander anxious and possibly timid, and it might be seriously delayed in passing through Leavenworth. If the hostile cavalry were encountered on this flank, it probably would have to be defeated before our cavalry could continue its advance and reach the hostile infantry column, which is its true objective. On the other flank, it may be possible to avoid the hostile cavalry, wholly or in part, and strike straight at the hostile infantry. It is unfortunate that there is no direct road leading to the enemy's right, and this condition must be met by starting the cavalry somewhat earlier than otherwise would be necessary.

At this season of the year, in this latitude, the sun rises at 4:30 a. m., and it is light enough for troops to move without difficulty a half hour earlier. We may expect the enemy to make an early start, and we must also start at the earliest practicable hour. In this situation, we find an exception to another general rule. In an earlier solution (*) it was pointed out that it is not usual to start the march before an hour after daybreak, but Colonel Z would make a serious mistake were he to delay starting until that time.

The enemy probably will have his outposts in position to cover the withdrawal of his main body, and Col-

* See Chapter V.

onel Z will have to drive them in before he can continue his pursuit. Since this attack can not be made with any certainty in the darkness, it will be useless for the advance guard to advance much beyond 228 before daylight. The possibility that the enemy may have received reinforcements during the night should make Colonel Z proceed cautiously until the situation becomes clearer. At a very early hour, patrols should be sent from the outpost to gain the 210—Pilot Knob ridge, and some information may be secured from them by daylight. If the ridge is occupied, they will not be able to report much more than the fact that they were driven back by hostile fire. Our colonel will still be ignorant of the strength of the force occupying it, and this important point may not be cleared up until he or the enemy has been driven back from the position. The conditions under which modern war is waged make it extremely difficult to get accurate information of the enemy's numbers, and often we will not know the exact strength of the force we have been fighting even after the engagement is over. Once Colonel Z gains possession of Pilot Knob, most of the perplexing features of the situation will disappear, and he may be able to continue the pursuit from that point with less caution and greater vigor, but the situation before that time will be so full of uncertainties and possibilities that we cannot expect him to advance blindly beyond 228 before daylight. If the point of the advance guard is to reach 228 by 4 a. m., it should start from 190 at about 3:40 a. m., and if we allow for delays in the darkness, it should start at 3:30 a. m.

Colonel Z's *decision*, as finally reached, is to resume the pursuit at 3:30 a. m. to-morrow; to march the in-

fantry in one column via the 190—228—224 road at the outset, preceded by an advance guard of one battalion with a machine gun platoon and one platoon of cavalry; to have the cavalry (less 1 platoon) operate against the enemy's right flank and delay his march, and to have the outposts remain in position until the column has passed and then join its rear.

The orders may be issued in several ways which appear to be equally good, Colonel Z may have his adjutant prepare sufficient copies of the orders in writing to furnish each officer concerned with one, he may assemble his officers yet to-night or to-morrow morning and give them verbal orders, or he may assemble part of them to-night and the others in the morning. Possibly the latter method will be the simplest and least disturb the command. The advance guard and cavalry commanders should receive their orders at once, for they will want to think over the situation before giving orders to their subordinates. Accordingly, Colonel Z sends for these officers and, when they have reported, addresses them as follows:

"The information given us to-day by our spy (*) has been confirmed by our reconnoissance and by reports from superior headquarters. Apparently, the enemy bivouacked for the night and established outposts on the line through 138—210—Pilot Knob and the southern outskirts of Leavenworth. One of our cavalry patrols was driven back from 138 by hostile cavalry. Our engineers will have the railroad repaired as far as Five Mile creek by 10 a. m. to-morrow, and our 3d Infantry and two batteries will reach there at that hour.

"In obedience to orders received from General —, we will continue our pursuit of the enemy to-morrow morning and inflict all possible loss on him before he can be reinforced.

* This information was given these officers when the command detained.

“Major A, your battalion and the machine gun platoon of the 1st Infantry, and one platoon of the outpost cavalry will form the advance guard under your command. You will start from here (190) at 3:30 a. m. and follow the 228—224 road. You will halt when your support reaches 228 and await further orders, as it is my intention not to advance much beyond that point until after daybreak. I will direct the outpost commander to have one platoon of his cavalry report to you on the road just south of 228 at 3:45 a. m., and you will at that time send a strong cavalry patrol through Leavenworth.

“Major B (in command of the cavalry), you will start from here at 3:30 a. m. and proceed with your two troops, less the platoon with the advance guard, via the 148—150—144 road, and operate against the enemy’s right flank. If you discover that the enemy is retreating, you will delay him sufficiently to permit our infantry to overtake and engage him. You will reconnoiter well towards Kickapoo, and send me early information of any hostile troops that may advance to reinforce the enemy now in our front. One platoon of the outpost cavalry will be directed to join you as you pass 148.

“The main body will follow the advance guard at a distance of 500 yards.

“The field train will remain here until further orders.

“I will join the support of the advance guard before it reaches 228.”

These orders require some explanation. We notice that Colonel Z makes no attempt to prescribe the manner in which Major A shall conduct his advance guard, but leaves this entirely to the judgment of the latter. This is in accordance with the general rule of non-interference with subordinates explained in a previous solution. (*) Nor does he indulge in speculations as to where the enemy may be encountered, the probability of his withdrawing during the night, or of his being reinforced, for they will serve no useful pur-

* See page 76 *et seq.*

pose. These are matters about which Major A can and should form his own opinion, and concerning which it is best that Colonel Z should not state his opinion. If a commander states in his orders that he presumes this or that will happen, while later on the events will prove his assumption to be incorrect, his subordinates will be quick to see his mistake and gradually their confidence in him will be shaken.

As pointed out in a previous chapter, (*) an advance guard commander usually should be given a perfectly clear idea of the intentions of his commanding officer, for without this there will be no certainty of cooperation between the two. Colonel Z states that his intention is to inflict all possible loss on the enemy before he can be reinforced, and the order in its entirety shows he proposes to do this by pursuing with the infantry directly in the enemy's rear, while sending the cavalry to delay him on his flanks. It may be thought that Major A should be told something of the vigor with which he should attack when encountered, and it might be well to do so were Colonel Z himself perfectly sure on that point. The order makes it clear that the pursuit is to be energetic, and more specific orders on this point had best be postponed until to-morrow morning when something definite is learned of the enemy. It may be possible to give Major A these orders before he leaves 228.

The above remarks apply equally well to the orders given Major B, commanding the cavalry. He is told the part he is to take in the pursuit, but is left with perfect freedom to carry out his orders in the way he thinks best. This is even more necessary with the cav-

* See page 75.

alry than with the advance guard, for Colonel Z can not possibly foretell the situations that may develop in front of the former in the course of the day. Major B must be trusted to meet these situations in that manner which will assist most in inflicting loss on the enemy. He is not even told whether he shall direct his operations against the hostile main body or rear guard, for under one set of conditions the former might be advisable, while under different circumstances the latter would be preferable.

The cavalry is left to choose its own route beyond 144. Beginning its march from 190 at 3:30 a. m., it can reach 144 by about 4 a. m., as it is beginning to grow light. From here, it may proceed via 142 or 152, depending on the situation and the judgment of Major B, to the Lecompton road. This movement probably will be anticipated by the enemy, who may be expected to cover his right flank with his troop of cavalry, and Major B may meet this troop almost any time after daylight. Two courses probably then will be open to him. He may attack the hostile troop and attempt to destroy its power to delay him, or he may avoid a fight and seek to ride around it. In either case, his ultimate object is to reach the hostile infantry column, and he should choose that course which promises to bring him most speedily within striking distance of the hostile infantry.

The cavalry commander will understand from his orders that he is to shape his actions to conform to the movements of the enemy and Colonel Z's infantry. Should the enemy make a stand on the Pilot Knob ridge, the cavalry probably will join in the attack, on his right and rear. Should the enemy take the of-

fensive, a different course of action may be followed by the cavalry. Should the enemy have withdrawn during the night, it probably will seek to regain touch with him towards Kickapoo. In order that the cavalry may properly meet any of the many situations that may arise, Colonel Z very wisely gives it wide discretion, merely emphasizing the one essential point as to what it shall do in case the enemy resumes his retreat in the morning.

After giving the cavalry and advance guard commanders their orders, Colonel Z sends the following message to the outpost commander:

Blue Detachment,
190, two miles south of Leavenworth,
15 July —, 10:45 P. M.

To

Major C,
Commanding Outpost.

We will advance against the enemy to-morrow and endeavor to strike him before he can be reinforced. The advance guard under Major A will leave here at 3:30 a. m. and march via the 228—224 road. The cavalry will leave here at the same hour, and march via the 148—150—144 road, to reach the enemy's right flank. Have one platoon of the outpost cavalry report to Major A on the road south of 228 at 3:45 a. m., and the remaining platoon to Major B as he passes 148. The outpost will remain in position until further orders, and will send out patrols at 3 a. m. to reconnoiter the 210—PILOT KNOB ridge.

Z.

Colonel, Commanding.

Colonel Z cannot tell at this time just where and when he will have the outpost join the column. Should the enemy take the offensive at an early hour, the outpost may form a first line behind which the rest of the command may deploy. Should the enemy make

a determined stand on the Pilot Knob ridge, it may be advisable to have the outpost join in the attack from its present position. There will be plenty of time to give it its orders to-morrow morning, after the situation has been cleared up.

Our colonel has still to give the necessary orders for having the command under arms and ready to march at 3:30 a. m. This he does by at once sending a brief written order to that effect by an orderly, or a verbal order by a staff officer, to the regimental commanders.

At 3:15 a. m., he assembles his staff and all the field officers, except Majors A, B and C, and addresses them as follows:

“The hostile force we encountered yesterday apparently consisted of the regiment of infantry and troop of cavalry that reached Kickapoo the afternoon of July 14. This force established outposts last evening, with infantry on the 210—Pilot Knob ridge, and cavalry at 138 and in the southern outskirts of Leavenworth. Our outpost has not yet determined whether the enemy still occupies that line. The report of our spy that more hostile troops are expected at Kickapoo to-day, has been confirmed by information received by General — from other sources. The engineers will have the railroad open to the mouth of Five Mile creek by 10 a. m., and our 3d Infantry and 2 batteries will reach there by that time.

“In obedience to orders received from General —, we will advance against the force in our front.

“Major A will command the advance guard, consisting of his battalion (the 1st Bn., 1st Inf.) and one platoon of cavalry. He will start from here at 3:30 a. m., and follow the 228—226—224 road.

“The cavalry, less one platoon, will operate on the enemy’s right flank. It will start from here at 3:30 a. m. and follow the 148—150—144 road.

“The main body will follow the advance guard at 500 yards

in the following order of march: 2d Battalion, 1st Infantry; 3d Battalion, 1st Infantry; 2d Battalion, 2d Infantry; 1st Battalion, 2d Infantry. The outpost infantry will take its place at the tail of the main body as the column passes the outpost position.

"The field train will assemble here, ready to take the road, and will then await further orders.

"I will now join the outpost, and later will be with the advance guard."

Had Colonel Z issued his orders in writing, the night of July 15, they would have been as follows:

		Blue Detachment, 190, two miles south of Leavenworth, 15 July —, 10:45 P. M.
Field Orders		
No.—		
	Troops	
(a)	Independent Cavalry: Major B. Troops A & B, 3d Cav. (less 1 plat.)	1. The hostile force encountered to-day, apparently consisting of the regiment of infantry and troop of cavalry that reached KICKAPOO July 14, established outposts this evening with infantry on the 210—PILOT KNOB ridge and cavalry at 138 and in the southern outskirts of LEAVENWORTH. Our information, that more hostile troops will reach KICKAPOO to-morrow, has been corroborated by reports received by General — from other sources. The railroad will be open as far as FIVE MILE creek by 10 a. m. to-morrow and our 3d Infantry and 2 batteries will reach there at that hour.
(b)	Advance Guard: Major A. 1 plat. 3d Cav. 1st Bn. 1st Inf. Machine Gun Plat.	
(c)	Main Body—in order of march: 2d Bn. 1st Inf. 3d Bn. 1st Inf. 2d Bn. 2d Inf. 1st Bn. 2d Inf.	
		2. In compliance with orders just received from General — we will advance against the enemy to-morrow morning.
		3. (a) The independent cavalry will start from its bivouac at 3:30 a. m., via the 148—150—144 road, and operate against

the enemy's right flank. Should it discover that the enemy is retreating, it will delay him sufficiently to permit our infantry to overtake and engage him. A careful reconnaissance will be made for hostile reinforcements that may be approaching from KICKAPOO.

(b) The advance guard will start from here at 3:30 a. m., and march via the 190—228—224 road, sending a strong cavalry patrol through LEAVENWORTH. It will halt when its support reaches 228 and await further orders.

(c) The main body will follow the advance guard at 500 yards distance.

(d) One platoon of the outpost cavalry will report to the advance guard commander just south of 228 at 3:45 a. m., and the remaining platoon will join the independent cavalry as it passes 148. The outpost infantry will remain in position until further orders. Patrols will be sent out at 3 a. m., to reconnoiter the 210—PILOT KNOB ridge.

4. The field train will assemble here at 4 a. m., ready to take the road, and will then await further orders.

5. The detachment commander will join the outpost commander at 3:30 a. m.

By order of Colonel Z:

X.

Capt. & Adjt., 1st Infantry, Adjutant.

Copies to commanders 1st Inf., 2d Inf., independent cavalry, advance guard and outpost, and to staff. Brief message to General ——. (*)

* The orders sent the troops repairing the railroad are not discussed, since they do not affect the immediate tactical situation.

CHAPTER XV.
A PURSUIT.

PROBLEM.

(See 2-inch map).

The Missouri river is the boundary between hostile states. Leavenworth and Fort Leavenworth are believed to be garrisoned by a small Red force of infantry and cavalry. A strong Blue force of all arms is assembling at Kansas City (25 miles southeast of Leavenworth) and will begin its northward advance June 9.

Learning that a Red raiding force of 1 regiment of infantry with cavalry had marched to the east through Platte City, the morning of June 8, the Blue commander ordered Colonel A to march north with the 1st and 2d Infantry and the 1st Squadron, 13th Cavalry (less Troop D), to give protection to the inhabitants of Platte City and vicinity.

The morning of June 9, as Colonel A approached 58, on the 64—62—58 road, his cavalry became engaged with hostile cavalry in position on the spur 1000 yards northeast of 58. His advance guard deployed and went to the assistance of his cavalry and, after a brief engagement in which a number of men were wounded, the hostile cavalry, apparently a squadron, withdrew in good order via 56 on Platte City, followed by the Blue cavalry.

During this engagement Colonel A received a message from an officer's patrol, saying that a regiment of

hostile infantry, marching west on the Platte City road, was 6 miles east of that town at 8 a. m. Patrols have reported the bridges over the Platte near 60 and 54 unguarded by the enemy, and have seen no hostile forces between the Platte and Missouri rivers.

At 9 a. m., when the enemy retires, Colonel A's command is disposed as follows: The cavalry has disappeared to the north on the 58—56—Platte City road; the advance guard (1st Battalion, 1st Infantry, and 1 platoon of cavalry) is assembling on both sides of the road, 1000 yards northeast of 58; the main body is assembled in mass in the open woods south of 58; and the field train is halted at 64.

Required:

Colonel A's estimate of the situation.

His orders.

SOLUTION.

Apparently the enemy is attempting to withdraw to the west bank of the Missouri river. He probably has information of Colonel A's march to the north and has sent his cavalry to the south to delay the advance of the Blue column. Colonel A has been given the broad mission of protecting the inhabitants of Platte City and vicinity, but the present situation affords him a favorable opportunity to cut off and destroy the hostile force, and to do this becomes his immediate mission.

The hostile infantry was 6 miles east of Platte City at 8 a. m., and should be within about three miles of that town at 9 a.m., when Colonel A, at 58, is about $3\frac{1}{2}$ miles from the town, with a squadron of hostile cavalry in his front to delay his advance. Consequently he has little chance of reaching Platte City

ahead of the hostile infantry, and blocking its retreat across the Platte river bridge at A. In the southern outskirts of Platte City, the hostile cavalry could make a very stubborn fight and gain much valuable time for its infantry. Nor is it reasonable to suppose the Blue cavalry could move to the east and strike the flank of the hostile column before it reached Platte City, for the hostile cavalry, if ably led, will remain between its infantry and the Blue cavalry. Moreover, should Colonel A take this route and fail to stop the enemy at Platte City, he will be at a disadvantage, for, before he can continue the pursuit, he will have to cross the Platte river bridge at A in the face of fire from the hostile rear guard.

The other routes open to Colonel A are via the Platte river bridges near 54 and 60, and thence north towards the A—B—C—D—E—F—G—H road, which is the enemy's most probable line of retreat. The distance to E from 58 is a little more than 7 miles by the southern bridge, and about 8 miles by the northern, while the enemy, at 9 a. m., is about 6 miles from the same point. Again the enemy will escape, unless he can be delayed in his march to E, and to accomplish this delay will be the chief mission of the cavalry.

As has already been pointed out, the cavalry has little chance of delaying the hostile infantry east of the Platte river. If it operates on the east bank of the Platte, it will have to attack the hostile cavalry, which is stronger by one troop, and drive it back before it can get in front or on the flank of the hostile infantry column. On the other hand, if it makes a quick move to the west of the Platte, via the bridge at 54, and gets in front of the enemy, the conditions will

be reversed, and the hostile cavalry will have to attack it. The Blue cavalry will have a fair chance to beat in this race (to the A—B—C—D—E road) notwithstanding it may have farther to go, for its march to the west of the river may not be discovered at once by the hostile cavalry, which probably will not leave the 56—Platte City road unguarded while in doubt as to whether the Blue force is advancing along it. That the enemy may the longer remain in doubt as to the real intention of the Blue force, the original advance guard battalion (now assembling 1000 yards north-east of 58) will be ordered to march via the 56—54 road. This movement may so deceive the hostile cavalry commander that he will hold his cavalry east of the Platte until Colonel A's cavalry has reached the vicinity of B. This battalion will be in no great danger from the hostile cavalry—if it can draw this cavalry upon itself so much the better—and it can rejoin the column as it passes 50. The best arrangement then will be to let the cavalry and the original advance guard battalion use the 56—54 road, and move the remainder of the infantry over the 58—60 road.

After passing Platte City, the enemy might follow the 13—15 road, but this is not probable, for he has nothing to gain by taking this longer route. However, it will be the duty of the cavalry commander to locate the enemy's main column, and inform Colonel A of the road it is on.

In crossing the Platte and moving towards Leavenworth and Fort Leavenworth, Colonel A runs the risk of encountering hostile reinforcements from west of the Missouri, and becoming engaged with superior numbers with the Platte river at his back. This dan-

ger must not deter him from making the move, but it should cause him to make a most thorough reconnaissance of the roads to the west. This reconnaissance will be made by the cavalry commander and by patrols from the platoon of advance guard cavalry as well. The bluffs along the G—14—28 road afford a good view of the roads across the Missouri flats, and make the task of these patrols much easier than it otherwise might be.

A new advance guard must be provided to cover the column during its further advance. Accordingly, the 2d Infantry will now be placed at the head of the column, and, since the intention is to fight as soon as the enemy is encountered, two battalions of this regiment will be placed in the advance guard. Also the platoon of advance guard cavalry will now be transferred from the old to the new advance guard.

The field train had best be left where it now is until the outcome of the movement is known. The wounded will be sent back to join it, the ambulances then returning to the column. In this position, the train is in little danger, and the present guard, together with the few men attending the wounded, will be sufficient to protect it against such small parties of hostile cavalry as may happen to find it.

Colonel A's *decision* is to march at once to the west of the Platte to intercept the hostile column, sending his cavalry via the bridge near 54 to delay the enemy's retreat, and marching via the 56—54 road with the original advance guard and via the 60—48—50 road with the remainder of the infantry. He received the message from the officer's patrol while the engagement was in progress, and reached his decision as soon

as he knew the result of the fight. The field officers of the main body had been assembled at 58, and at 9 a. m. he issues the following verbal orders:

"The hostile force in our front is about a squadron of cavalry, and it is now falling back on Platte City followed by our cavalry. Lieutenant A (of the officer's patrol) reports that a regiment of hostile infantry was 6 miles east of Platte City an hour ago and was marching toward that town. The bridges near 54 and 60 are not guarded by the enemy, and no hostile force has been seen between the Missouri and Platte rivers.

"We will march at once to the west of the Platte river and then north to intercept the enemy.

"The cavalry will cross the Platte on the bridge near 54 and march north to delay the enemy's retreat. It will reconnoiter towards Leavenworth and Fort Leavenworth.

"Two battalions of the 2d Infantry and the platoon of advance guard cavalry will form a new advance guard, under command of Colonel B, and will follow the 60—48—50 road. Patrols will be sent to watch the roads from the direction of Leavenworth and Fort Leavenworth.

"The main body will follow the advance guard at 600 yards, in the following order of march: 1 battalion, 2d Infantry, 2d and 3d Battalions, 1st Infantry.

"The 1st Battalion, 1st Infantry, will march via the 56—54 road and join the tail of the column at 50.

"The field train will remain in its present position near 64 until further orders.

"I will be with the advance guard."

The following order is then sent the cavalry by a staff officer and escort of mounted scouts:

Blue Detachment,

Near 58,

9 June —, 9:10 A. M.

To

Commanding Officer,

1st Squadron, 13th Cavalry.

Lieutenant A reports a regiment of hostile infantry 6 miles east of PLATTE CITY, and marching towards that town, at 8 a. m.

This detachment will march at once to the west of the PLATTE river and then north to intercept the enemy.

The 1st Battalion, 1st Infantry, will march via the 56—54 road; the remainder of the infantry is now marching via the 58—60—48—50 road.

You will march at once to the west bank of the PLATTE, via the bridge near 54, and thence north to delay the enemy's retreat until the infantry can get to your assistance. Send patrols towards LEAVENWORTH and FORT LEAVENWORTH.

The field train will remain near 64.

A.

Colonel, 1st Infantry, Commanding.

Colonel A then rides towards 56 and gives the commander of the 1st Battalion, 1st Infantry, his orders, directs the advance guard cavalry to join the new advance guard, and gives the surgeon, 1st Infantry, the necessary instructions for disposing of the wounded. He then joins the advance guard.

COMMENTS.

The important points in this situation for Colonel A quickly to discover are: First, that he is on the flank of a retreating enemy but little more than half his strength, which, in view of his mission, he should attempt to destroy. Second, that the hostile column must be delayed, if he is to strike it with his infantry, and to cause this delay becomes the mission of the cavalry. Third, that he will have a better opportunity to intercept the enemy to the west of the Platte than to the east of that river. The remaining points in the solution are of minor importance.

In favor of marching north on the east bank of the Platte, it may be said that this route keeps that river

between Colonel A's command and any force the enemy may have between the Missouri and the Platte rivers. This is a safer and more conservative plan than that adopted in the solution, but it does not offer as good chances for a decisive success. Still it might succeed, for the margin of time in the enemy's favor is very small, and a slight delay to the hostile column, or anything less than the most stubborn fighting by the hostile squadron, may permit Colonel A to establish his infantry within range of the bridge at A before the enemy has crossed. However, if this plan be adopted, it must be executed with the greatest vigor.

Another condition in favor of this plan to remain east of the Platte is the present location of the Blue cavalry. It will be about 15 minutes before its orders can be gotten to it, and at the end of that time its situation may be such that its withdrawal can not be accomplished in the simple manner contemplated in Colonel A's orders. For this reason, to continue the march to the north is *simpler* than crossing the river, and *simplicity in tactical combinations is always to be commended*.

A combination of the two plans, sending the cavalry west of the Platte and moving the infantry to the north on the east bank, is not so good, for the distances are such that the cavalry cannot delay the hostile column until *after* it crosses the Platte (presupposing that the hostile cavalry is properly led), whereas in this case it must be delayed *east* of that river if the Blue infantry is to overtake it.

No matter in what direction we march, an attempt to continue with the old advance guard in the lead will result in delay. It takes time to assemble and reor-

ganize a command into company units after it has been engaged, the time required depending on the character and severity of the engagement.

At 9 a. m., when Colonel A is at 58, he is nearer than the enemy to the bridge over the Missouri river at Leavenworth, and he is no farther than the enemy from the bridge at Fort Leavenworth. So far as distance alone is concerned, his best chance is to intercept the enemy at one of these bridges, but the danger incident to going so near the Leavenworth and Fort Leavenworth garrisons is too great to justify this move, except as a last resort. Later developments may make it appear wise to do this, but it is not necessary to decide that point now. In the hour or more that it will take the column to march from 58 to 50, Colonel A should receive reports from his cavalry which will assist him in deciding on what route he will take beyond 50.

The plan decided upon in the solution was selected because it makes good use of the available roads, keeps the command together on one side of the river, and may mystify the enemy. The stratagem of leaving one battalion temporarily east of the Platte may gain for the Blue cavalry the few minutes that are necessary to turn the situation in Colonel A's favor. It is not only good leadership and valiant fighting on our own side which contribute to our victories, but also the mistakes, failures, lack of information, and even minor incidents on the side of the enemy. If you imagine yourself in the place of the commander of the hostile squadron, when his patrols report that Colonel A's infantry has resumed its advance via 56, while the Blue cavalry has disappeared, for all he knows

only to appear again *to the east* on the flank of the Red regiment, you may better understand how easy it will be for him to make a misstep that will give the Blue cavalry the chance it needs.

CHAPTER XVI.
INFANTRY ATTACK.

SITUATION.

(See 4-inch map).

A Red force, in hostile territory, has but recently gained possession of the M. P. R. R. and is using it as a line of supply; the road is guarded against hostile raids by small detachments at important points. One of these detachments is at Leavenworth, with a detached post at Fort Leavenworth.

On September 3, a Blue force of all arms, under Colonel A, has pushed forward from the west, on the Millwood road, to destroy the railroad between Leavenworth and Kickapoo. The Blue commander has reliable information from the inhabitants that there are two companies of infantry at Fort Leavenworth; that there is less than one regiment of infantry with some artillery at Leavenworth; and that there are no Red troops between Fort Leavenworth and Kickapoo or at the latter place. When the Blue column reached the cross roads at 17, the 1st Battalion, 4th Infantry, with a machine gun platoon, was detached with orders to proceed via 15 to the mouth of Salt creek and destroy the railroad bridge at that point, and then to move south on the railroad, destroying it on the way. The remainder of the Blue force continued its march via Frenchman, towards Fort Leavenworth and Leavenworth.

At 8 a. m., when Major A (commanding the 1st

Battalion) reaches the Kern house with the head of his column, a farmer, who lives on North hill, informs him that about 250 Red infantrymen marched by his house at 7:15 a. m., and, after sending a few men to the railroad bridge over Salt creek, proceeded to Salt Creek hill and began to dig trenches. At the same time, Major A's flanking groups send him information that hostile infantrymen have been seen to the north on Hill 900, at the Schafer house.

Note.—Salt creek is fordable with difficulty for infantry, and the woods along its banks have dense underbrush.

Required:

1. Major A's estimate of the situation.
2. His orders.

SOLUTION AND DISCUSSION.

Major A's task is to destroy the railroad bridge over Salt creek, as well as the track from that point towards Fort Leavenworth. (*) To do this he must drive away the troops now entrenching on Salt Creek hill, for their presence in that position will prevent the accomplishment of his mission.

Before he can make his plans for the attack, however, he must reconnoiter the position. Directing the battalion to assemble under shelter near the Kern house, and to cover itself with patrols, he rides toward hill 900 at the Schafer house, taking the farmer with him, the hostile outpost or patrol on this hill falling back before Major A's left flanking detachment.

It may be well to point out here the evil consequences flowing from the Red commander's neglect to

* It is not within our province to question the tactical correctness of detaching this battalion from the main force marching toward Leavenworth, or of any of the other dispositions made by Colonel A.

take proper precautions to prevent the Albrecht and Schafer households from giving Major A valuable information. Both houses are so near Salt Creek hill that the Red strength and dispositions must be known to their occupants. The Red commander should have placed both families under a small guard in the first instance, with the threat that if any of them left, their buildings and stock would be destroyed. Later, when the Blues were discovered, the families should have been *all* withdrawn to a sheltered place northwest of Salt Creek hill. Due to the enemy's neglect to take these precautions, Major A is reasonably certain of the strength of the force opposed to him and he knows that he is in no great danger of interference by other forces of the enemy, as they are to be engaged by other detachments of the Blues.

The enemy is digging his trenches on Salt Creek hill, which commands the bridge at a range of about 300 yards. At the foot of this hill, on the west, flows Salt creek, difficult to cross and thickly timbered; on the north, about 300 yards away, is the Missouri river, with the railroad between the hill and the river. About 700 yards east and a little south lies North hill, which is about the same height as Salt Creek hill. To the southeast from Salt Creek hill there extends an open ridge for a considerable distance. If given time, the enemy will no doubt construct his trenches so that they will confront an attacking force coming from any direction, and the space to be defended is so small that he will have no difficulty in moving his reserves to meet the attack wherever it falls. The two hostile companies reached Salt Creek hill about the time the Blue column was passing 17, and in all probability the

advance of the battalion from 17 was observed by the Red scouts. They surely could see the battalion as it passed 15, and therefore the enemy would be likely to concentrate his efforts in entrenching the south and east faces of the position.

The position may be attacked in a number of ways with excellent chances of success. In this respect, the situation does not differ from military situations in general. The major now has his battalion in a position that favors an attack from the south. An advance from this direction will corner the enemy in the angle between Salt creek and the Missouri river. In such a critical situation, the enemy's morale will be greatly shaken and it will be remarkable indeed if he does not early withdraw across Salt creek. It is submitting the courage of men to a severe test when they are thus caught like rats in a trap, if they are ordered to fight double their numbers to the last ditch. And if they should make so determined a stand, Major A is given a splendid chance to capture the two hostile companies outright. The effect that an advance from this direction will have on the morale of the enemy, as well as on the audacity with which his own men will attack, cannot fail to impress the major.

On the other hand, if the major attacks from the north or west, he leaves open a wide door to the south through which the enemy may escape and unite his force with that at Fort Leavenworth, or remain in the vicinity further to annoy the Blue battalion. For these reasons alone, all plans for attacking from the west and north may be discarded as ill advised. However, let us examine a little more minutely the relative advantages and disadvantages of attacks from the different directions open to the battalion.

To attack from the north or west would necessitate a circuitous movement to the north until opposite the position. This would take time and the attack would be hard to make, since the battalion would have either to effect a difficult crossing of Salt creek under fire at short range, or to traverse the tangled undergrowth of the woods along the east bank of the creek; the enemy certainly will not passively remain within his trenches and permit the battalion to make its advance unmolested. Having arrived in front of the position, the battalion would have to attack up a very steep slope if the attack were made at the north end of the hill, or a fairly gentle slope swept by hostile fire, if the battalion moved up the nose of the hill projecting into the bend of Salt creek. Moreover, it would be difficult, if not impossible, to find a position to the north or west of the hill from which the fire of the machine guns might be directed effectively against the enemy. We do not wish to say that the steepness of the slopes is an absolute disadvantage, for such ground nearly always affords many dead spaces that furnish shelter and the enemy is apt to overshoot.

The terrain favors many good combinations for a successful attack from the south, and we will consider a few of those which most probably occurred to the major, as he made his hasty reconnaissance of the enemy's position.

A simultaneous advance along the top of the ridge and up the nose of the hill projecting into the deep bend of the creek, against the front and right flank of the position, is undoubtedly a good plan, and promises the special advantage of threatening to cut off the enemy's retreat to the north across Salt creek as well

as to the south towards Fort Leavenworth. On the other hand, the force sent to the flank would have to pass through the woods and underbrush along Salt creek to find cover, and the enemy *might* avoid the attack and get away along the railroad towards Fort Leavenworth.

The top of the ridge is too narrow for the entire force to advance along it and develop its full fire power, even were a frontal attack of the position advisable for other reasons. By measuring on the map, we find that the top of the ridge is less than 100 yards wide, and consequently does not furnish space sufficient to deploy more than one full company. Nevertheless, an attack made in this way might succeed, despite the poor field of fire of the portions of the line advancing along the sides of the ridge, since the slopes would probably furnish fair cover to the attackers and permit them to draw near the enemy's position with small loss. If they could do this, they would have a splendid chance of capturing the position in one final assault. It appears preferable, however, to advance along lines that will enable Major A to place his main attack nearer the position before the attacking troops come under fire.

A plan that will enable him to do this, and one which makes the best use of the available cover and secures the advantages of combined front and flank attacks, is to move by the wood road to 13, where one company and the machine gun platoon will be detached to make the secondary attack, and to proceed with the remainder of the battalion to the vicinity of North hill, to make the main attack.

The force detached at 13 will move to the west un-

der cover of the ravine south of the Schafer house, and deploy on the 890 hill about 200 yards northwest of the Schafer house and the little 890 foot ridge 200 yards west of Schafer's. The machine gun platoon will occupy a position on the hill, which with the little ridge forms a position long enough to accommodate this part of the force, and all will open fire on the enemy at a range of about 500 to 650 yards. Meanwhile, the remaining companies of the battalion will be moving towards their position and, at the proper time, they will advance from the vicinity of Albrecht against the southeast face of the enemy's position.

The strength and position of the enemy are so definitely known, there is so little probability of any other enemy appearing, and both flanks of the attack are so admirably protected by natural obstacles, that the major will hold but one company in reserve. This will enable him to put two companies on the firing line of the main attack at the outset, and their fire, together with that of the machine guns and the company in the secondary attack, will thus be superior to that of the enemy from the very commencement of the attack. When troops are advancing over fire-swept ground, their losses are reduced to the minimum by putting enough men on the line to secure and keep fire superiority. The single company held in reserve will be ample to meet all probable contingencies and, if not needed to push the attack home, the major will have it at hand to pursue the enemy or otherwise reap the rewards of victory. In order that the reserve company may be in the best position for this purpose, it will follow on the inner flank of the main attack; this

will take it along the southern edge of the woods a little northwest of the Schafer house.

The machine guns might be placed on the small ridge about 200 yards west of the Schafer house, but, in the other position, their fire will probably be masked less by the advancing infantry and they can still enfilade that face of the enemy's position that will be assaulted by the main attack. Were it not for the dense woods on North hill, in full leaf at this season of the year, the guns might be taken to the vicinity of Albrecht.

There is little likelihood that reinforcements for the enemy will reach the vicinity during the continuance of the engagement, for it should be quickly decided one way or the other; still, as a matter of course, the major will cover his right and rear by small patrols on the railroad and wood trails. As a general rule, the flanks of an attack should be covered by small detached forces, although they be no larger than a patrol.

The disadvantage of this plan of attack is the ground the battalion must pass over—the primary attack having a steep ascent to make with but a poor field of fire, and the secondary having some very open ground to cross. The advantages are the cover of the woods for the primary attack up to short range, a good position for the machine guns where they can fire over the advancing infantry until it arrives within a short distance of the enemy, and a fairly good field of fire for the secondary attack; moreover, the troops are well in hand, and this method of attack probably will take the least time.

It would not be advisable to make the main at-

tack with the three companies along the ridge, for, as already pointed out, they would be exposed to the enemy's fire without being able effectively to return it. On the other hand, by making the main attack against the southeast face of the hill, the three companies composing it will advance under cover of the cross-fire from the secondary attack and machine guns.

The battalion is still assembled near the Kern house. Having completed his reconnaissance and reached his decision, the major sends his adjutant to find the patrols on Hancock hill and the 11—9—5 road and direct them to keep a sharp lookout to the rear during the fight. The command is then moved towards 13, preceded by an advance guard to protect the march and to drive in any patrols or scouts of the enemy. Soon after the advance guard passed 13, it encountered hostile patrols in the woods, but they offered very little resistance and the column continued its advance. As the head of the main body approached 13, Major A directed the senior lieutenant of each company to issue half the ammunition from the battalion wagons, while he assembles the captains at the edge of the woods near 13 and gives them the following orders:

“Two companies of hostile infantry occupied that hill (pointing out Salt Creek hill) about 7:30 a. m., and they have been entrenching a position there ever since. A few men from those companies were sent to the railroad bridge at the mouth of Salt creek. (*)

“We will attack the position at once, enveloping its left flank.

* No mention is made of the Blue main body which is advancing on Fort Leavenworth, since the intended movements of that portion of the Blue force were made known to the officers of the battalion when it was detached at 17.

"Captain D, take your company (D—now at the rear of the column) and the machine gun platoon along this ravine (pointing to the watercourse south of the Schafer house) deploy on that little ridge (pointing to the ridge 200 yards west of Schafer's) and that hill (indicating hill 890 northwest of Schafer's), open a heavy fire on the enemy and support the attack to be made against the left of the position by the remainder of the battalion. The patrols now out on that hill and road (pointing to Hancock hill and the 15—11 road) have been told to watch in your rear. Establish your machine guns in position on that hill (hill 890) and have them open fire at once.

"I will take the remainder of the command along this trail to that hill (pointing to North hill) and attack the southeast face of the enemy's position."

When North hill is reached, Major A assembles the captains of Companies A, B and C, the advance guard with reduced distances still watching the front, points out the position of the enemy, and gives them the following orders:

"Captain A, advance down the hill through the woods with your company (A from which the advance guard is taken) and Company B, and attack the southeast face of the enemy's position on the hill in front. If practicable, put both companies in the firing line from the start. I will send out patrols to watch your rear.

"Captain C, your company (C) will form the reserve, and will move along the south edge of this woods (woods north of the Schafer house) in rear of the left flank of the main attack.

"I will be with the reserve."

The reserve is under the immediate control of Major A and will not be put into the fight except in obedience to his orders. At 13, Major A sent a patrol along the wood trail to the east, and at North hill he sent another to move south along the railroad. Such transportation as is with the battalion (ammunition wagons and wagon containing material for wrecking

the railroad) he left at 13, with a guard of one squad.

Major A was not able to issue all his orders at one time and place, and generally this will be the case when issuing orders to attack. Only when the information is exceptionally complete and accurate as to location, strength and distribution of the hostile forces will it be practicable to issue a single combined order for the attack. As a rule, most of this information is obtained after the fight is begun, and then it comes in bit by bit as scouts, patrols and the fighting itself develop the situation. As a consequence, the commander will try to delay issuing his orders, especially for that part of his force that is to make the principal attack, until his information is sufficient to show the manner in which the attack should be made.

It is always extremely desirable, especially in very small commands, to assemble the subordinate commanders at some point where they can overlook the enemy's position and the ground to be fought over, and there issue the orders, for this will do much towards securing cooperation during the fight, among the different parts of the command. Each subordinate will then know not only what is expected of him, but also what cooperation and assistance are to be given him by the others. Moreover, questions may be asked and doubtful points cleared up.

When this is not possible, as generally is the case, it is the duty of the commander to secure cooperation among his subordinates by keeping each informed of the orders given the others. Where the command is small, as here, he may do this by riding from one subordinate to another and giving this information personally by word of mouth; but where this is not possi-

ble, he will have to convey this information to them by messages, preferably written, or delivered by an officer, if verbal.

In this situation, Major A's information was so complete, that he was able to decide on his general plan before leaving 13, and Captain D there heard what the remainder of the command was to do. But there was, in the order given on North hill, one important bit of information that Major A should have sent Captain D without delay; viz., the location of the reserve near the southern edge of the wood north of the Schafer house. Captains A and C might have been given their orders also at 13, but the woods cut off the view of North hill and Major A followed the wiser plan in waiting until he had reached the hill and had the ground before him.

It may be well to repeat here what has been said in other chapters concerning undue interference with subordinates, not only in the wording of the order, but also after the order is issued and is being executed. Once the commander has reached his decision, made his dispositions, and put his troops into the fight, his proper task is to retain supervision and control over the whole command. This he cannot do if he bothers himself with details that should be regulated by his subordinates. Each of them must be allowed to lead his command in his own way, so long as he does not jeopardize the success of the attack; not because his way may be the best or even good, but because it is better for him to do it although it may be done badly, than for the commander to do the work of a subordinate and neglect his proper work which is vastly more important.

For example, Captain D was told to "open a heavy fire and support the attack" to be made by the rest of the battalion. At the time the order was given, Major A could not tell whether Captain D should give this support by fire alone from his position near Schaffer's (as will be explained later), or should advance against the enemy's position, so he permitted Captain D to exercise his own discretion. Had he not had this confidence in his subordinate, he could have told him not to advance until he was ordered. Even as the order reads, there is no reason why he should not stop Captain D, should he attempt an advance, if in his (Major A's) opinion the advance is not wise. But it would be different if he should approve of the advance, but not of the way in which it is being executed, and should abandon his supervision of the whole fight to take personal command of Captain D's force.

The study of this problem illustrates the main principles of an attack by a small infantry command. The major's plan of attack embraces little more than a decision as to which flank is to be attacked and the division of the force for this purpose; and in general, when dealing with small forces, the commander's plan of attack usually will cover only these two main points.

We might have attacked the enemy's front with our entire force; even so we would stand a good chance of succeeding because we are two to the enemy's one and the slopes on either side of the narrow ridge furnish fair cover for the attack. Still, a purely frontal attack is a costly operation, and we probably would pay more dearly for our victory than if we had negotiated it in another way. By advancing with our whole force along one line, we would leave the enemy in no doubt

as to where the decisive attack is to be made; we would permit him to concentrate his fire on a narrow front; and we would fail to make the most advantageous use of our own fire power. The tendency of all attacks, whether made by small or large forces, should be to envelop a flank, and even if this form of attack is not planned in the beginning, it probably will be forced upon us in the course of the fight, when the prolonged resistance of the enemy in front compels us to find a more vulnerable point. Formerly, the flanks were regarded as the weak points. Now, they are something more than the weak points—they may be looked upon as almost the only vulnerable points. Frontal attacks may at times be necessary, as when time and the ground will permit nothing else, but such cases are exceptional, especially with small forces which require but little time and space for making enveloping movements.

By enveloping the enemy, whether this be done by advancing simultaneously against his front and flank, or by deploying the attacking force on a front broad enough to envelop one or both of the hostile flanks, we compel him to bend back the assailed flank and form a new line with a part of his force at an angle to his original front; his fire is then delivered in two directions and dispersed over a broad front, while ours is converging and concentrated and becomes enfilading and reverse.

Let us illustrate this by referring to our problem. The company and machine guns sent to the little ridge and hill near the Schafer house will be in position and firing before the main attacking force begins its attack from North hill. The enemy probably will re-

ply to this fire from an east and west line about 150 yards long and a little south of the word "Salt" in "Salt Cr. hill." The two forces will be directly facing each other and, man for man, the fire of neither will have any material advantage over that of the other, except that the enemy probably is entrenched. As the main attack from North hill develops, the enemy will meet it with a new line in a general north and south direction from the left of the original line. So far as fire is concerned, we now have a marked advantage over the enemy. His fire is purely frontal and divergent in two directions at almost a right angle with each other; our fire is convergent and enfilading.

An attacking force, equal or but little superior to its enemy, often will be compelled by its weakness to envelop a hostile flank, if its attack is to have any chance of succeeding; and if it is much stronger than the enemy, it should envelop in order to get full advantage of its superiority of numbers. Only when *greatly* superior to the enemy, should we attempt to attack in front and on both flanks, for we must not lose sight of the danger of too great extension in this effort to embrace both the enemy's flanks. The entire battalion was operating within a radius of a few hundred yards and, consequently, was in little or no such danger, for should the enemy attempt a counter attack, it is not at all probable that he could overthrow and drive back one part of Major A's divided force before the other could come to its assistance. But in other situations the conditions may be very different; there may be no convenient woods to conceal our movement to the hostile flank; no ravines that will furnish us cover unless we go far out of our way; the roads may not

run as we would have them; or a stream or other natural obstacle may separate our enveloping column from the remainder of our force. We will be inclined to say that such a situation certainly constitutes an exception to the general rule and that we must take the risk of being beaten in detail. It is well to sound a warning against doing so, for it is well known that dispersion and scattering of forces is the mistake most frequently made by those beginning the study of tactics.

It is important to have a clear conception of what constitutes a combined front and flank attack. Unless our flank attack is a complete surprise against a very stupid enemy, we cannot hope to reach a point on his flank from which we can deliver enfilading fire on the unsuspecting enemy; of course, our flank fire will tend to enfilade a part of the enemy's line and shake his morale, and that is what we intend it shall do; but our flank attack, as a rule, will find a new line of the enemy deployed in its front to meet it, and locally the attack will be purely frontal. Our opponent on Salt Creek hill, while replying to the fire of our secondary attack, certainly will be watching with patrols for our appearance in other directions, and will be prepared to meet our main attack with his reserve or with troops drawn from other parts of his line.

Still, we should endeavor to keep our enemy in the dark as to which flank we propose to attack, and as to whether we propose to make our main effort on his flank or elsewhere along his line. Being the aggressors, we are able to do this; the lead is in our hand, and our opponent has to follow suit; so long as we do not disclose our hand, we are in a position to deceive

him by false plays. To a certain extent, surprise is essential to the success of a flank attack, and the troops holding the enemy fast in front must therefore attack with such spirit as to leave the enemy in uncertainty as to the true point selected for assault, and engage his attention so that he cannot keep large reserves in hand for the defense of his flanks. This does not mean that these troops in the enemy's front necessarily must assault the enemy simultaneously with the flank attack, and take part in the actual bayonet charge, for if they can bring an effective and enfilading fire to bear on the point selected for assault, they will do more good by continuing to fire than by joining in the assault. Which procedure our company west of Schafer's should follow, we will discuss a little farther on.

It will not always be as easy as in this problem to determine which flank shall be attacked. If we found any difficulty at all in deciding on the enemy's left flank, it was due to the fact that the terrain also favored an attack against his right flank. More frequently we will find the question difficult because the ground does not suit us on either flank, or because it least favors the attack on that flank which, for other reasons, we think should be attacked. Major A finally decided to attack the enemy's left flank—all other conditions being as good or better on this flank than on the other—because on this flank he could place his battalion across the enemy's only practicable line of retreat. But what could he have done had there been no woods or other features on this flank to conceal his movements? Preventing the enemy's escape would have appeared no less desirable, but in attempting

this he might have sacrificed a victory, and, after all, a tactical victory is what he is seeking. Many things are to be considered in deciding the question, and seldom will we find one flank meeting all the conditions as we would like; in this dilemma, we can but select that flank which appears to satisfy most of the requirements, and *which above all things promises a tactical victory*. If the infantry succeeds in carrying the enemy's position, victory is won. All other measures adopted in the attack are of importance only in so far as they make it possible for the *infantry to assault* the position. If tactical considerations favor an attack on one flank, but other considerations do not, in the majority of cases the former outweigh all others, for the most important thing is to defeat the enemy. Everything else is secondary.

Having chosen the flank he proposed to envelop, our major had next to decide on the proper division of his force for the attack. Although he proposed to make his main effort against the enemy's left, still he must occupy the attention of the enemy in front with a part of his battalion. Suppose he should have moved the whole battalion to the vicinity of North hill, thinking to throw the entire force against the enemy's flank; the enemy, unmolested in front, would have been free to meet the flank attack with his full strength, and Major A would have been making a pure frontal attack, only from the east instead of from the south. This necessity for engaging the enemy so vigorously in front that he will be compelled to put a part or all of his reserves into this part of the line, thus leaving him little or nothing with which to protect his threatened flank, gives rise to the employment of a secondary attack in most cases.

In the situation before us, it is not to be supposed that our opponent, with his splendid view of the terrain, will be so deceived as not to keep a reserve with which to meet a blow against one of his flanks; but this reserve will be the minimum, if the major's secondary attack is made adequately strong and is properly handled.

The secondary attack was extremely fortunate in being able to reach, without fighting, so advantageous a position (on the little ridge and hill west and northwest of Schafer's) within 500 to 650 yards of the enemy. Ordinarily, it will suffer considerable loss while approaching such effective range, and we must not be deceived by the mild name given this attack (the "secondary" attack) into believing that it is to be pushed with any less impetuosity and disregard for losses than the main attack. (*) If it were a mere bluff, the enemy would be very quick to learn that fact and would conserve his strength to meet the main attack when it should fall. But, as we have already pointed out, it may accomplish more, after reaching a decisive range (i. e. 600 to 650 yards), by attempting to gain fire superiority over the enemy and assisting the main attack in this manner than by advancing to the assault and taking part in the bayonet charge. Which plan is to be followed is a matter to be decided by the commander according to the merits of each individual case.

The purpose of carrying out any plan of attack should be to close with the enemy. A well posted

* While this term "secondary attack" may be freely used in tactical discussions, for convenience of designation, still it is not wise ever to employ it when issuing orders.

enemy cannot be *shot* out of a position; he must be *driven* out. This does not mean that bayonets necessarily will be crossed; ordinarily, one side or the other will break before the crisis, but if both sides are equally determined, the bayonet combat will be unavoidable. In approaching the line (200 to 400 yards from the enemy) from which the charge is to be made, much open, fire swept ground usually has to be crossed, and it is in this stage of the attack that the value of fire is appreciated. We are making such an advance, we will say with a battalion. We come under the enemy's fire, deploy a company in the firing line and reply to it. The enemy's fire is heavy, sustained and accurate; bullets are cutting the ground all along our line; a few of our men are wounded and all are closely hugging the ground; here and there along the line we see a man fire into the air without any attempt at aiming; our coolest men and best shots are firing with extreme difficulty. What is the trouble? The enemy's fire is more effective than ours, it may be because of the greater number of men in his firing line, or it may be because they are doing better shooting than we; but, whatever the reason, we must decrease the effectiveness of his fire, and thereby increase the effectiveness of our fire. This we may be able to do by continuing the fire of the company already deployed, but it may be necessary to put more rifles on our firing line. We will suppose the latter to be the case, that we deploy a second company, and that the results soon become apparent in the decreased volume and accuracy of the enemy's fire; but still the bullets are clipping the rocks and other cover behind which our men have taken ref-

uge, and we know that an attempt to advance from behind this cover, while the enemy's fire is so accurate, will result in unbearable losses. There is nothing for us to do but deploy another platoon, or company, and increase our fire. Finally, the enemy's bullets do not strike so frequently in our line, and we know he is shooting wild; our own men, no longer so bothered by the enemy's fire, are aiming and firing with deliberation and care. At last we have gained fire superiority and can continue our advance. *Superiority of fire must be attained before there can be great probability of the attack succeeding; any failure to appreciate this principle will lead to such losses that even if the attacker were to succeed in closing with the enemy, he probably would be too weak to obtain the victory.*

To return to our problem. As already observed, the secondary attack was extremely fortunate in reaching a position near Schafer's without exposure to hostile fire. Here Captain D deployed the entire company and put the machine guns in position and, after carefully estimating the range, opened fire with all. His men found great difficulty in firing, for the enemy's fire was superior to their own, until the opening shots of the main attack were heard in the woods to the north. Immediately thereafter the fire on his line so diminished that his men for the first time in about fifteen minutes were able to take careful aim. Up to this time Captain D was not able to advance, for an advance while the enemy's fire was superior to his own was bound to result in serious loss and could not long continue. Although his fire was not effective at the start, he might be sure

that it would be so, as soon as the main attack appeared on the enemy's left flank, and it would then be possible for him to advance in support of the flank attack and be on hand to join in the final assault.

Just how the attack will proceed from now on will depend largely on the action of the enemy. Supposing the situation is what we believe it to be, and that the enemy continues to make a passive defense, we may expect the attack to develop about as follows: The first rush may be made by that part of the company which is on the little ridge and may be made under the protection of the fire of the remainder of the company and the machine guns on hill 890. The ground favors this rush, for the advancing line will find considerable cover almost immediately in the ravine just north of the little ridge. When it again reaches high and exposed ground, it will be within about 400 yards of the hostile position. It may then open fire and assist in covering the advance of the remainder of the company from hill 890. Another rush or two will place the company in a position from which it can make the final assault. The machine guns will remain in their position, and continue their fire at intervals, when a favorable target is presented, as long as their fire is not masked by the advancing infantry.

In the meantime, the main attack will have advanced to the edge of the woods at the foot of North hill, and will be within about 200 yards of the hostile position, assisting with its fire and awaiting the moment for the assault. When the two portions of the force have reached these positions and have thoroughly shaken the enemy with their fire, Major A

will order the assault by the whole line, and will put in a part or all of his reserve if necessary to carry it through.

We have observed that our secondary attack was too weak to obtain fire superiority until the enemy was forced to withdraw men to meet the main attack. The major might easily have foreseen this. Why then did he not make the secondary attack stronger? Two companies with the machine gun platoon should have been able to establish fire superiority at the outset. But this would have left but two companies to furnish the main attack and reserve, and our major would have been weak at the point where he proposed to make his main effort. No absolute ratios exist between the strengths of the secondary attack, main attack and reserve, but half measures that contemplate being equally strong at all points are poorly suited to striking a powerful blow at a decisive point. Far from making this mistake, Major A showed his appreciation of the value of superior numbers by making his main attack strong from the start, and for fear Captain A (commanding the main attack) might have overlooked this point, he suggested, when giving his orders, that he put both companies in the firing line from the start. (This would not prevent Captain A from holding out local supports, as well as a small force, say a section, in rear of his right flank for its protection). There could hardly be a greater mistake than the one committed in so many of the early engagements, large and small, of our Civil War—detailing an insufficient force for the main attack and then reinforcing it by driblets; the driblets are defeated and driven back as fast as they are fed into the fight and, although outnumbering the

enemy, maybe two to one, he is never met at any one time with superior numbers.

If it was so important to make this blow powerful, why did not the major put into the main attack all three of the companies sent to North hill, and hold nothing in reserve? Seldom or never may we dare to dispense entirely with a reserve. We pointed out in the solution that it was not at all probable that other hostile forces would appear during the progress of the fight, but we may never feel quite certain on this score; nor is this by any means the only reason why a reserve is necessary. A commander can only exercise a direct influence on his command so long as he retains at his disposal a portion of his force with which to meet the varying contingencies of an engagement. With a reserve at his disposal, he can take advantage of the enemy's mistakes; he can repulse a counter attack; he can reinforce the front line if it should be checked, thus giving it a fresh impetus to the front; and he can reap the fruits of victory. We should always keep a reserve under our own control, but we should not fall into the error of holding it out of the fight in order that we may employ it defensively to cover our retreat. The reserves are meant to be used, and no part of the attacking force should stand inactive at the decisive moment. If the enemy gives way before the reserve is employed, so much the better; if he does not give way, the last available man must be employed, unless victory is seen to be hopeless. The main thing is to gain the victory, and no doubts or qualms must stand in the way. A commander who accepts defeat and quits the scene of action, while a portion of his infantry has not yet fired a round, has not made full

use of the force at his disposal, that is to say, if the situation was such that the intervention of the reserve could have gained the victory.

We will add a few ideas which may be of assistance in the solution of the next problem. In the problem we have just discussed, we had to attack a force in a definitely located position prepared for defense; and there was every reason to believe it had no idea of assuming the offensive of its own volition. No considerable part of our command was under fire, and we were able to proceed in a deliberate manner to reconnoiter the position and to plan a systematic attack. More often we will not know the enemy's exact position and strength with such certainty, and we will have to make our plan for attack while the fog of war hangs dense over the battlefield. Or, we may unexpectedly encounter a hostile column also on the march; every minute will decrease the distance that separates us from the head of the enemy's column and, to add to our worries, we will now have to make our plans in a very few minutes, despite the fact that we may be ignorant of the enemy's strength and intentions. It is a trying position; but, if we form an estimate of the situation before our opponent, take the offensive, and succeed in throwing him on the defensive, we gain a great advantage. In this discussion we have but scratched the surface of the subject of infantry combat, and the solution of this problem is not a model that will fit other attack problems. The truth of this will be more apparent after we have solved the next problem.

CHAPTER XVII.

AN ATTACK BY INFANTRY AND CAVALRY.

PROBLEM.

(See 4-inch map).

June 1, the 24th Infantry and the 1st Squadron, 8th Cavalry, less Troops C and D, the advance troops of a Blue reinforced brigade, reached Leavenworth by rail from Missouri. Here Colonel A, commanding the detachment, learned that a small hostile detachment of infantry and cavalry reached Easton the previous day, and a stronger hostile detachment of about two regiments of infantry without cavalry is approaching Kickapoo from the northwest.

On telegraphing this information to brigade headquarters, Colonel A received orders to protect the Terminal bridge, and endeavor to hold the enemy off the heights west of Leavenworth, until the arrival of the remainder of the brigade about noon. Accordingly, he left Company A to guard the bridge and marched to the west with the remainder of his command.

By 8 a. m., he has had information from his cavalry commander as follows: At 7:20 a. m., he encountered on the 58—56—Dakota street road a troop of hostile cavalry which fell back towards 24 without fighting. He followed, but on coming under fire from the Haug spur (north of 54) he moved to the north to the cover of the woods and spur north of the 56—

60 road. At 7:45 a. m., he was moving towards 22 to attack the hostile cavalry from near there.

An officer's patrol, sent to reconnoiter through Kickapoo, reported from Hancock hill that no enemy was visible on the Millwood road or roads south from Kickapoo, at 7:20 a. m. No report has been received from patrols on the Atchison pike and the Barnes road.

Firing has been heard in the direction of 22, since 7:50 a. m. At 8 a. m., when the advance party (Company B, less 1 platoon) is passing 60, the support ($\frac{1}{2}$ Company B, and Companies C and D) is crossing the ravine on Dakota street 500 yards east of 60, and the head of the main body is about 600 yards farther to the rear, between the railroad and stream crossing on Kiowa street, the advance guard is fired on with machine guns, apparently from the Haug spur. The advance party seeks cover in the ravine just west of 60, and the support in the ravine south of "A" in "Avenue Hill." Colonel A is with the support.

Note.—The country is friendly to the Blues.

Required:

Colonel A's estimate of the situation and orders.

SOLUTION.

Colonel A is making his advance to the west for the purpose of holding the enemy off the high ground about Leavenworth, until the arrival of the remainder of his brigade, and now it appears the enemy has beaten him to the hills, and for the time being has possession of one of the roads over them.

The force in his front probably is the small detachment of hostile infantry and cavalry reported in East-

on yesterday. Colonel A's cavalry commander reports seeing cavalry only, but the presence of the machine guns suggests that the hostile infantry is up, unless there is more hostile cavalry than has been seen, for it is not probable a single troop would be accompanied by machine guns.

Even if the hostile force advancing from the northwest were concealed by Kickapoo, at 7:20 a. m., when the officer's patrol reported from Hancock hill, it would still be about an hour's march from 16 at 8 a. m. Colonel A's best, if not his only chance for accomplishing his mission, will be to defeat the detachment in his front and prevent it from joining the other hostile detachment, and then oppose the advance of the latter. The situation does not warrant his abandoning his mission.

Accordingly, he decides to continue his advance and attack the enemy in his immediate front, unless later information should show an attack to be unwise, in which case he will act according to the situation.

But the advance can not be continued in column along the Dakota street—60—56 road, nor along the next road (Ottawa street) to the south. Colonel A rides to the top of Avenue hill, and from there he finds that Metropolitan avenue between 64 and 62 is concealed from the hostile machine guns on Haug spur, by the wooded spur north of the 60—56 road, and that troops can move along the railroad from where the head of the main body now is to 64, concealed from the machine guns by trees, cuts, and fills, and Avenue hill. The advance party can move north from its position near 60, under cover of the ravine just west of the 60—62 road, and the support may move north un-

der cover of the ravine south of "A" in "Avenue Hill" and the wooded spur southeast of 22. The support may be exposed for a few yards, as it crosses the southwest spur of Avenue hill, but the range is extreme (1800 yards) and there should be little or no loss. Should it appear that the support would suffer heavily in crossing Avenue hill, it could be withdrawn down the ravine and Three Mile creek, to follow the main body.

Colonel A then gives the following orders to the advance guard commander, who is with him on Avenue hill and has previously been given all information of the enemy:

"The regiment will move north to this road (Metropolitan avenue) and then continue the advance.

"Move your advance guard by the right flank to this road and await orders from me to continue the advance. The main body will follow the railroad to the point where it crosses this road (indicating) and then take this road.

"I will remain here."

To his adjutant he then says:

"Ride to the main body and direct it to move to this point via the railroad."

Continuation of the Problem.

Just after Colonel A issued the above orders, he received a message from his cavalry commander, sent from the cemetery east of 22 at 8:05 a. m., stating that just as he was about to attack the hostile cavalry, it was joined near 24 by a company of hostile infantry, and machine guns opened fire from the Haug spur. He therefore suspended his proposed attack and would remain in observation near the cemetery. Thereupon, Colonel A sent the cavalry commander

a brief written order, directing him to hold his position near 22 until the arrival of the Blue infantry.

At 8:20 a. m., the command was on Metropolitan avenue and resumed its advance via 62, thence across country and via the northern trail through the woods towards 22, to the vicinity of the cemetery. While advancing, Colonel A had messages as follows:

1. From a cavalry patrol at 50, saying that it had observed, from near 40, a battalion of hostile infantry in advance guard formation advancing on the 30—28—24 road, with the head of the column near 24 at 7:50 a. m. The patrol was driven back to 50 by infantry and cavalry patrols, before it could discover whether the battalion was followed by other hostile troops.

2. From a cavalry patrol four miles west of Frenchman, reporting no enemy on the Atchison pike up to that point at 7:45 a. m.

3. From the officer's patrol, on Crook point, reporting a hostile column advancing from the west on Kickapoo, with the head of the column 2 miles west of 43 at 8:10 a. m. No hostile cavalry was seen with this column.

At 8:40 a. m., the advance party of the Blue advance guard has reached the cemetery, and Colonel A and the advance guard commander have joined the cavalry, which is dismounted and deployed in the cemetery and along the edge of the woods. The cavalry commander points out the enemy's position across the road at 24 and on the Haug spur, but he does not know how strongly it is occupied; he has seen no hostile infantry but the one company already re-

ported. The cavalry is exchanging an occasional shot with the enemy.

Required:

Colonel A's estimate of the situation and his orders.

Continuation of the Solution.

It is not probable that further reconnaissance will give Colonel A any additional information of the strength of the enemy confronting him. Such reconnaissance would have to be made from points on the enemy's flanks and rear, and it is not to be supposed that the enemy, now warned of Colonel A's presence, has not taken the usual precautions to hold the Blue patrols at a distance. Further information of importance cannot be expected of the patrol at 50, for it has been driven back by the enemy's patrols. Colonel A might send his entire cavalry force to the enemy's flank to learn more of his strength, but this would take too much time when time is of vital importance. If Colonel A is to attack, it must be on the information he now possesses.

The only other hostile force reported in the neighborhood is that approaching via Kickapoo, and it cannot reach G before 10:30 a. m. The fight near 24 should be decided one way or the other before that hour, and Colonel A, if successful, may still have sufficient time remaining to reorganize his force and reach 16 to block the way of the other hostile column until he is supported by his brigade, which is due about noon. If he remains on the defensive where he now is, the enemy will be on his front and flank, probably in greatly superior force, before the brigade is up. Accordingly, Colonel A at once decides to attack.

The different portions of the column now occupy the following positions: The advance party is near the cemetery; the support is about 350 yards back on the trail; and the main body is on Metropolitan avenue, with its head at 62, a suitable position from which to move it against whichever hostile flank Colonel A decides to attack.

Although the hostile machine guns are on the Haug spur, it is not at all probable the enemy has a continuous line from there through 24, for the length of the line would be out of all proportion to his supposed strength. The spur northeast from 24 is about 20 feet higher, at its top, than the ridge just south of the 22—24 road, and on this spur, on both sides of the 24—26 road, the enemy probably has his main position, with his reserve behind his left flank, where it can extend his line to the left, towards the orchard on Eleven Hundred Foot hill, to meet an attempt to envelop his left flank.

The enemy's best field of fire is in front of his right flank, which is posted on the commanding, bastion-like Haug spur, overlooking the valley of Three Mile creek. An attack on this flank would have to go south of Three Mile creek to find even fair cover, the movement would be seen by the enemy, and in the end the attack would have to be made up the steep and uniform slope of Haug spur. Besides, there would be danger of the flank attack becoming widely separated from the frontal attack. An attack against this flank, but north of the 60—56—54 road is little better.

The conditions are more favorable in front of the enemy's left. Here his field of fire is not so broad,

and is broken by the rolling ground and the trees in the ravines just west of South West hill. The main body can be brought up on this flank without being seen by the enemy, and can be assembled under cover behind the crest of South West hill and formed in safety for the attack. The attack will suffer when it crosses the ridge of South West hill, but as soon as it reaches the cover of the ravines it may be reorganized for its further advance. An attack on this flank not only offers more chances for a tactical victory, but it promises as well to drive the enemy away from his approaching reinforcements, whereas an attack on the enemy's right flank would drive him towards his reinforcements. Moreover, an attack on the enemy's left will also place Colonel A's reserve in a good position to move to the north. The enemy in his front may retire before Colonel A has to put in his last reserve, and, in this case, the reserve could, if necessary, be promptly sent towards 16 to hold back the enemy advancing via Kickapoo till the rest of Colonel A's command could be reassembled, reorganized and brought up.

The natural line of advance for the frontal attack is along the 22—24 road, with the left of the line not extending south of the crest of the ridge which is just south of the road. This will keep the force out of the defile that the 58—24 road passes through, where it could be subjected to a very severe cross fire, and will protect the left flank from the fire of the hostile machine guns on Haug spur. Colonel A will assign his machine gun platoon to the force making the frontal attack. They probably will assist the attack most by their fire from a position in the edge of the

woods between the cemetery and South West hill, where they can fire over the heads of the advancing infantry.

The cavalry will now be withdrawn from the position it has been holding and sent to operate on the enemy's right and rear. The terrain does not favor its operations on the hostile left flank, but it can reach the hostile right and rear via the 68—50—40 road. Its task will be to determine what it can of the enemy's strength and whether he is followed by other forces, and to cooperate in the attack. It probably will be opposed by the hostile cavalry. An additional patrol will be sent towards Kickapoo to observe the approaching enemy.

A division of the force for the attack that will preserve unity of command and give each part a strength in proportion to its task, will be to designate the advance guard (3 companies) and machine gun platoon for the frontal attack, one battalion for the flank attack, and the remaining battalion for the reserve.

Colonel A's final *decision* is to attack the enemy, enveloping his left flank and sending the cavalry to operate against his right and rear.

As soon as Colonel A reached the cemetery, he sent for the battalion commanders from the main body, and when he had reached his decision, he sent a staff officer to bring up the machine guns, and to direct the main body to continue its advance, and to close up and assemble on the support at the foot of the hill. He now issues the following verbal orders:

"A hostile force of at least one troop of cavalry and one battalion of infantry occupies a position across the road about 800 yards to our front where you see the fork of the road (indi-

cating 24); his machine guns are on that spur (pointing out the Haug spur). A hostile column, without cavalry, approaching from the north, was two miles west of Kickapoo at 8 a. m.

"We will attack the enemy in our front at once, enveloping his left flank.

"Major A (commanding the advance guard), you will make the frontal attack along this road (the 22—24 road) with your battalion and the machine gun platoon, in support of the attack against the enemy's flank. The machine guns have been ordered to join you.

"Major B (commanding the 2d Battalion), move your battalion around the north end of this quarry to attack the enemy's left flank.

"The 3d Battalion will form the reserve and will be brought up to the top of the hill about 400 yards north of here and held behind its crest for further orders.

"The cavalry will move at once to the enemy's right and rear where it will cooperate in the attack and reconnoiter to the west on the Barnes and Zimmerman roads. A patrol will be sent to reconnoiter towards Kickapoo.

"Half of the ammunition in the ammunition wagons will be distributed at once. A first aid station will be established about 200 yards north of here, just behind the ridge.

"I will remain here for the present."

COMMENTS.

In this problem, we have attempted to illustrate what was said in the closing paragraph of the last chapter, and in doing so it was necessary to make the statement of the situation longer and more complicated than usual. If in our solution for the first part of the problem, we had issued an order for an attack, we would have acted prematurely, for the situation was far from clear; the principal part of the command was still a mile and a half from the enemy's supposed position (a considerable distance when dealing with small commands unaccompanied by artillery); by

making a simple shift of the column to a road but a few hundred yards further north it could continue its advance under perfect cover; the cavalry was in a position to protect this advance, and to block the enemy's advance should he act on the offensive; there was reason to believe that our information would be added to by the time the head of our column reached the cemetery, and the main body still would be far enough away at that time to move towards either of the hostile flanks.

The longer we can delay dividing the force into its subdivisions (frontal and flank attacks, and reserve) the better it will be, for once this division is made and the subdivisions are started in the direction they are to take for the attack, time may be lost and confusion may result, if any considerable change has to be made in the direction of their march to meet some new development of the situation. The commander should not surrender direct control of his command until necessary, for only while it is together and subject to his immediate orders may it be quickly and easily moved in any direction.

Consequently, Colonel A's decision, in the first situation, properly was limited to a determination to continue his advance, with the idea of attacking the enemy, should the situation warrant an attack when he got within striking distance. This advance would not restrict his choice of plan of attack later on, for he could see from the ground that the head of his main body would not be beyond 62 when his advance guard should reach the position of his cavalry at the cemetery. Even should the main body have continued its march beyond 62, his later action would not

have been compromised, for he could observe from both ground and map that, if he attacked, it would be by his right flank for the reasons stated in the solution. In this situation, then, Colonel A could determine at the outset the general direction his attack would take, if made, for where detachments are concerned, the plan of attack usually is merely a question as to whether the right or left flank of the enemy is to be attacked.

In the second situation, the colonel reached his decision to attack on far less information than was possessed by Major A in the preceding chapter, yet his information probably was more definite and complete than that on which attacks generally *will be initiated* by self-reliant commanders. He knew he would not be molested by the northern hostile force before 10:30 a. m., and that the fight with the enemy in his front probably could be decided before that hour. If there were but a single battalion of infantry opposed to him, he could feel confident of success, and if the enemy should prove strong enough to repulse him, he could fall back to Leavenworth feeling he had done his best, and there concentrate his efforts on carrying out the second part of his mission—the defense of the Terminal bridge.

It should be observed, however, that the colonel, having made up his mind to attack, went about the task as though he expected to win. The attack was to be made without reservation. No energy was to be wasted uselessly by attacking the enemy here and there with a company or a platoon, in a vain effort to discover more of his strength. There is no talk about a possible retreat, and nothing is to be held out of the

fight for the express purpose of covering a retreat. Whether the enemy has a battalion or a brigade, he is to be attacked with every pound of energy in the little detachment until the fight is won or lost. "If you have decided to attack, all your arrangements must be made to utilize the full strength of the detachment, for in the employment of such weak bodies as detachments nothing is more reprehensible than half measures." (*) Of course this does not mean that the detachment commander will not consider in his own mind the possibilities of retreat and tentatively decide on what he will do in the event that retreat becomes necessary, but he should not spread a feeling of unrest among his command by making any mention of retreat in his orders, nor will he, as a matter of course, hold a part of his command from the fight to cover a retreat. *The last platoon or section put into the fight may be the small mite that turns the scales of fortune in his favor.*

As pointed out in the solution, the serious objection, aside from the disadvantages of the terrain, to combining a flank attack south of Three Mile creek with a frontal attack along the 22—24 road, is the distance (about 1000 yards) that separates the two attacking forces. The frontal attack might be overwhelmed by the enemy before the flank attack could come to its assistance. It would take the flank attack some time to learn that the frontal attack was being assailed, and it would have to cross the fire-swept ground between the 54—60 and 24—22 roads before it could give the frontal attack its support. *A regiment should not fight on so broad a front as this, even*

* General Griepenkerl in *Letters on Applied Tactics*.

when its opponent is known to be inferior, much less when the strength of its opponent is unknown. It is scarcely necessary to point out that a wide turning movement with a part of the force via the 68—50—40 road is wholly to be condemned, because of the disaster invited by such wide dispersion, to say nothing of its other objectionable features.

The disposition of the cavalry probably gave you some trouble, but the problem will become more simple when it is recalled that the true rôle of a weak cavalry force with a small detachment does not change with the situation. Its proper tasks are reconnaissance and security whether the command is on the march or engaged with the enemy. During the march the cavalry's field of operations is in front and on the flanks of the column, but during combat there is no room nor necessity for it *between* the contending forces. It then withdraws to the flanks, the protection of which becomes its principal task while the engagement lasts.

Up to the time the enemy was encountered, the cavalry was employed in accordance with the principles stated in previous chapters of this book; *the bulk of the force was kept concentrated* and the reconnaissance was made by patrols on the principal roads. The advantage of this disposition was seen when the hostile cavalry was encountered and driven back. *This same principle of concentration should be observed during the engagement.* Even if the detachments are limited to those that appear to be absolutely necessary, still the small cavalry force that accompanies a detachment will be considerably scattered and the main cavalry nucleus will be weak. Sending

out an occasional patrol soon uses up a full platoon, and once a patrol is sent on a reconnaissance of some miles it may not get back to the command before night. If the cavalry commander has exercised the strictest economy in this matter, he probably has with him at the cemetery about a troop and a half, and if this is to give the attack full power of its support, further subdivision must be avoided if possible. This appears difficult, for the need of protection on both flanks of the attack is felt. On the right flank, the enemy approaching from the north must be kept under constant observation, while on the left flank, reconnaissance is even more important, to determine whether other hostile forces are following the battalion already seen.

In general, in distributing the cavalry between the two flanks, the bulk of it should be sent to that flank where it will be of greatest assistance to the infantry in the accomplishment of the general mission. Considering the good view to be had from Sheridan's Drive, of the roads from Kickapoo, and the absence of cavalry with the hostile column approaching from the north, a single additional patrol to assist the officer's patrol will make sufficient cavalry on the right flank. On the other flank, reconnaissance will be more difficult because of the hostile cavalry, and it is more necessary because of the uncertainty as to the enemy's strength. Moreover, on that flank, the cavalry may play a part in the main fight, either by securing the decision, by blocking the enemy's retreat, if he is repulsed, or by checking his pursuit, if he is victorious.

To send the bulk of the cavalry towards Kickapoo to delay the hostile column approaching from that di-

rection is not a good plan, under the circumstances, for this column probably will be some miles from 24 when the fight is decided, and the essential thing now is to concentrate the full strength of the detachment on winning the fight at 24. *When about to give battle to the enemy, all available detachments should be called in, and not a single man should be detached unnecessarily from the main fighting force.*

Nothing is said of the field train in the orders, for it is assumed it would remain in Leavenworth, if indeed it has reached that town. The regiment is accompanied by its light train (ammunition wagons and led horses), and ambulances. Half of the ammunition wagons should be emptied and the ammunition distributed to the men before they enter the fight. Some minutes might have been saved had Colonel A directed the main body to begin this distribution as soon as it closed up on the support at the foot of the hill. The empty wagons should then be sent back to Leavenworth to refill and return, if there is additional ammunition in the field train, or if ammunition can be obtained in Leavenworth. Troops on the firing line will replenish their ammunition from the belts of the dead and wounded, and from extra ammunition carried to the firing line by reinforcing troops.

When possible, the first aid station should be located near water in a sheltered position in rear of the line, but it is more important to have it near the firing line than near water. The stream which flows by the road junction at 64 is the nearest available water, but its distance in rear of the line is so objectionable that the station is established as near the firing line as

possible, under the shelter of the ridge. The slightly wounded can reach this point unassisted, but the more severely wounded will have to be assisted by company bearers. Of the wounded, those unable to move themselves probably will have to remain near where they fall until the end of the fight, taking advantage of such shelter as they can find. The wounded that collect at the first aid station should be removed as fast as possible to Leavenworth, or even to the east of the Missouri river, those not able to walk being transported in the three regimental ambulances. (*)

Colonel A probably will take position near 20, where he can overlook the whole field and observe the progress of both frontal and flank attacks. A position a little further removed from the troops engaged, where he would be less influenced by minor events of the fight and less liable to lose general supervision of the whole field, would be better did the terrain but afford it. Near 20, however, he will have the reserve battalion close at hand, and should be able to prevent its entering the fight before the moment for its proper employment. Experience proves that the reserve easily escapes the commander's control—either through accident or misunderstanding.

In the order, Colonel A designates only the first position of the reserve, for it is unnecessary at that time to look further into the future and attempt to prescribe the later movements of this battalion. From this position, it may readily reinforce either attack, and may speedily be moved to the outer flank of the

* If a regiment operates alone, it is accompanied by three ambulances. F. S. R.

battalion making the flank attack. In a small detachment, fighting on a narrow front, the reserve will as a rule follow a few hundred yards in rear of the outer flank of the flank attack, so that it may assist in the envelopment, but if the detachment were extended on a very broad front, the reserve may have to follow in rear of the gap between the frontal and flank attacks, where it may protect both from a counter attack.

If Colonel A has to put his reserve battalion into the fight, it probably will be on the outer flank of the battalion making the flank attack, not only for the purpose of assisting in the envelopment, but also because there will not be room for it to fight effectively between the 1st and 2d Battalions. These two battalions, after making a liberal allowance for wounded, and local supports will require about 500 yards of front for effective fighting. If we measure this on the map, we will find that the right of the line, when it reaches the ravine west of South West hill, will be about on the 910 contour. From here, south to the top of the ridge near 22 (500 yards), there will be a man per yard of front, in addition to strong local supports. No more men can fight effectively on this front, and the reserve, if used, probably will be employed to extend the right of the line.

In closing this chapter, it may be well to recapitulate and call attention to the principal points to be covered when considering an attack by a small detachment of infantry and cavalry.

Considering the situation from both our own and the enemy's point of view, is an attack necessary and proper for the execution of our mission?

If so, has the time arrived when the attack order should be issued?

What shall be the plan of attack, i. e. shall it be purely frontal, against the hostile right flank, or against the hostile left?

At what point must the deployment be begun to insure the most effective execution of the plan of attack decided on?

Considering the enemy's probable strength, the size of our detachment, the nature of the terrain, and other important factors that enter the question, what breadth of front can safely be covered by the attack?

In subdividing the force, what is the smallest force that will serve for the frontal attack, and how should the remainder of the force be divided between flank attack and reserve, giving proper importance to the preservation of tactical unity?

What shall be the position of the reserve?

What is the situation on the flanks and to the rear?

To which flank should the bulk of the cavalry be sent in order that it may best cooperate with the infantry?

What provision will be made for supplying ammunition and caring for the wounded?

What will be the position of the detachment commander?

CHAPTER XVIII.
INFANTRY DEFENSE.

SITUATION.

(See 4-inch map).

July 10th, the 5th Blue Infantry (less 3d Battalion), in friendly country, is covering the shipment of valuable supplies from Leavenworth to the south. On hearing, early in the morning, that a hostile regiment was approaching on the Atchison pike, Colonel A (the regimental commander) marched to the west with his entire command to delay the enemy until the last of the supplies can be shipped, about 5 p. m.

The column left Leavenworth on the 64—14—16 road in the following formation: Advance party (Co. A, less 1 platoon)—400 yards distance—support (1 platoon Co. A and Company B)—600 yards distance—main body (Cos. C and D, and the 2d Bn.).

At 7 a. m., Colonel A, who has ridden ahead to the top of the ridge, sees a hostile column of infantry approaching on the Atchison pike—H—G—road as follows: (*) About 10 men are at the lane leading to the Baker house; what appears to be a platoon is passing the lane leading to the Gauss house; the head of a column of squads is about 100 yards west of the lane to the Flint house, and the tail of the column is hidden by the grove at the Mottin house. The road from the Flint house lane to the bend just east of Salt creek bridge, is concealed by the orchard north of the Baker house and the trees along Salt creek.

* These positions should be marked on the map with pins or pencil.

Until 7:05 a. m. (i. e. for 5 minutes), Colonel A deliberates on the situation and continues to observe the enemy's advance. At this time, the fractions of the hostile column are in the following positions: The 10 men have disappeared in the Duffin orchard; the platoon is passing the store; a column of a company and a half or two companies has come around the bend in the road just east of Salt creek, and its head is now at the lane leading to the Gauss house; the column on the Atchison pike has continued its advance, and Colonel A has counted 10 companies; the larger part of it is now concealed east of the Flint house lane, but its tail can still be seen 300 yards east of the Mottin grove. A patrol of 6 men has emerged from the woods at G and is crossing the railroad tracks on the G—16 road. Colonel A's advance party has just reached 16.

Note.—Salt creek is fordable for infantry.

Required:

Colonel A's estimate of the situation and orders.

SOLUTION AND DISCUSSION.

Colonel A has marched out of Leavenworth for the purpose of delaying the enemy sufficiently to permit of the withdrawal of all the supplies; and if he is to succeed in this, the enemy must be held out of the town until 5 p. m. The hostile column is too near for our colonel to hope to secure this delay by falling back from position to position, fighting a delaying action. Acting in this manner he probably could not obtain more than four or five of the necessary ten hours delay. So it appears that the enemy must be

definitely stopped somewhere between his present position and Leavenworth, if the Blue force is not to fail in its mission to cover the withdrawal of the supplies.

We may undertake to do this with either offensive or defensive action. Considering the apparent superiority of the enemy, and the defensive character of Colonel A's mission, offensive action is not wise. From his commanding position 200 feet above the hostile column, Colonel A has been able to determine its strength accurately. In the main body on the Atchison pike are ten companies, and two companies are in the advance guard—in all a full regiment. This agrees with the report received by him earlier in the morning. To attack a force a half stronger than our own is too doubtful an enterprise to undertake if unnecessary. Defensive action is better, when the odds are so against us, if it promises to accomplish our purpose; and that is the case in the present situation.

But the defense must be undertaken with the idea of putting a stop to the enemy's advance. It must be active—not passive. The purely passive defense seeks to avoid a decision; it is made for some other purpose, such as to gain time; the temporary stand made by a rear guard, when it compels the pursuing enemy to deploy, and then withdraws before fighting at close quarters begins, is such a defense. The active defense seeks to bring about a decision; it is not satisfied by merely delaying or stopping the enemy, but its object is to defeat him; this it endeavors to accomplish by a combination of the offensive with the defensive; it does not limit itself to the pure defensive, for this never accomplishes decisive results.

In this situation, Colonel A is not seeking a decisive victory over the enemy, except as that may be necessary to the accomplishment of his real mission, which is to insure the withdrawal of the supplies. Should the enemy refuse to attack and remain inactive in front of the Blue force, our colonel should consider himself exceedingly fortunate to get off without fighting. But there is no good reason for supposing the enemy will do this. He is marching on Leavenworth for a purpose, presumably to prevent the withdrawal of the supplies, and, if he can help it, it is not to be supposed that he will permit his advance to be stopped. Two battalions might stop the attack of a full regiment, with a purely passive defense, if they could make their stand on a narrow front in a position with both flanks perfectly protected by obstacles, or in some other manner. But, in a position without such protection on the flanks, a judicious combination of offensive and defensive will give them their best chance of success against a determined attack by superior numbers.

A position somewhere along the ridge passing through South West hill, Government hill and Atchison hill seems better suited for Colonel A's purpose than a position somewhere between this ridge and Leavenworth. In the first place, the enemy should be compelled to attack or abandon his direct line of advance. The strongest possible position imaginable will be of little or no value, if the enemy can *easily* march around it and continue his advance unopposed, or compel the defender to quit his position and move to other less defensible ground.

Accordingly, the very first condition a defensive

position should fulfill is that it should be so located that the enemy will be forced to attack or greatly to delay his advance in avoiding an attack. A position on the ridge meets this condition. To move around the position, keeping to the road, the enemy would have to move north to 17 and then east, or west to I (see 2-inch map) and then south—a detour of 4 or more miles. A movement off the roads, across the wooded and broken country, would be about equally inconvenient. The enemy knows we can meet him somewhere on the ridge, no matter how he moves, maybe in a stronger position than the one near 16. If we hold our fire, his point may be near G before his patrol on the railroad tracks discovers our presence. He will then be so far committed to this line of advance that he may not risk a withdrawal. In all probability, our position on the ridge will be attacked. If we examine positions nearer Leavenworth, for example a position just west of the Penitentiary or one on Avenue hill, we will find that they may all be avoided with much less difficulty.

From the position on the ridge, we look down on the enemy, while keeping our own movements concealed; whereas, if we surrender this commanding ground to him, the conditions are reversed. He will then have a splendid view of all the low ground east of the ridge, and can make his initial dispositions for attack under cover, and with full knowledge of our whereabouts.

A good view to the front and flanks adds greatly to the value of a defensive position. A force on the defensive has temporarily lost its initiative, and its moves must be made to meet those of the attacker. It

will be difficult to do this, if the view from a position is so poor that the attacker has no difficulty in concealing his intentions. From Atchison hill, the view between Sentinel hill and Sheridan's Drive is practically unlimited for about one mile, and troops moving in any force towards Sheridan's Drive could not find cover south of the ravine heading between Wagner and Bell points. The view to the northwest is obstructed by Sentinel hill and the enemy could reach the top of this hill under cover through the woods on its northern spur. From the western slope of Sentinel hill to the ravine running northwest from 18, there is very little to obstruct the view from the top of the ridge; but to the west of this ravine, the movements of troops could easily be concealed.

To get the full benefit of the range and accuracy of modern fire arms, a position should afford a clear field of fire for a thousand or more yards in all directions from which we may expect an attack, and if the fire can be delivered from commanding ground down a gentle and uniform slope, so much the better. A little thought and a simple diagram will make clear that a grazing fire over uniformly sloping ground is much more effective than a plunging fire from the top of a steep slope against troops some distance from the base of the slope. The position we are examining, like positions in general, meets these requirements only fairly well. To the north and northwest the field of fire is excellent, and a very heavy fire could be delivered from the position against an advance east of Sentinel hill or along the H—G road. To the west of 16, the field of fire is poor, for the view from the

top of the ridge is cut off by the strip of woods just west of 16 on the slope of the hill, and a firing line along the lower (western) edge of the woods would have its field of fire limited by the fringe of trees along the ravine 400 yards to the west. Accordingly, on this flank, the enemy may be able to approach within 400 or 500 yards of the position, without coming under fire.

This constitutes a defect in the position, but it is not sufficient to warrant abandoning it. A great many conditions go to make up the ideal defensive position, and it is difficult, if not impossible, to find them all present in one place, especially, in the particular place where we wish to fight; so we are compelled to content ourselves with the ground as we find it, making the most of its desirable features, and not rejecting it because of its weak ones.

For example, a position is greatly strengthened by having in its front, ground such as a swamp that will impede the progress of the attackers without affording them cover against fire; or by having the flanks protected by some natural or artificial obstacle; but we certainly cannot reject any position as untenable simply because it has not a marsh in its front and a lake on each flank. The position under consideration has no strong natural protection for its flanks, but, instead of rejecting it on this account, we must occupy the position in such manner that our dispositions will of themselves afford protection for the flanks.

In the position itself, we find the conditions admirable. The troops can be assembled close behind (east of) the ridge under perfect cover from view and fire, and held there within easy reach until they are need-

ed in the fight. This is a valuable asset, for it enables the supports to move into the front line without loss or delay, and the reserve to enter the fight as a surprise. Behind the perfect protection of the ridge, reserves may be fearlessly and rapidly moved from one flank of the position to the other. Such good lateral communications *immediately* in rear of the position greatly adds to its strength. Very often the supports and reserve will have to be held back at greater distances out of range.

In rear of the position, the conditions are favorable. If the decision is against us and we are compelled to retreat, the woods on the eastern slope of the ridge will disorganize the enemy's pursuit and give us cover from his fire for a brief period, while we are breaking away from close contact with him. We may suffer some while crossing the open ground between the eastern edge of the woods and Leavenworth, but, under the shelter of the town, we should be able to organize a rear guard and begin an orderly retreat before the enemy can begin a systematic pursuit.

It is well, before deciding on how the position is to be occupied, to consider the whole situation from the enemy's point of view. The more completely you can put yourself in the enemy's position and view the situation through his eyes, the more perfect will be your arrangements for meeting his attack, for he probably will attack as you would, were you in his place. In a few minutes our presence will be discovered and the opening shots of the engagement will be fired. The hostile advance guard (two companies) will then be east of Salt creek, stretched out

along the road from between the Gauss and Baker lanes to near G, and the head of the main body (10 companies) will be crossing the Salt creek bridge.

The Red commander will ride to some commanding point, probably Sentinel hill, estimate the situation and make his decision as to how he will attack, while his advance guard is developing the strength and location of our position. From Sentinel hill, he can see that an attack against the right flank of our position will have to cross the open ground north of Atchison hill, fully exposed to our view and fire, and that an attack made in this manner will place Sentinel hill between his advance guard and the remainder of his command. It would be very much to our advantage if the attack were made in this manner and, for this reason, we may be fairly sure the enemy will not adopt this plan, if he can find a better.

On the other flank, he finds conditions better. The fringe of trees along the ravine running northwest from 18, or the ravine itself, and the woods on the slopes of Eleven Hundred Foot hill give his command a covered approach to within 400 or 500 yards of our left flank, where he can mass the bulk of his force for a decisive blow over a comparatively narrow strip of fire-swept ground. It is not probable he will overlook the great advantage the ground gives him on this flank. According to our own estimate of the strength of the position, this is the weaker flank, and the point where we most fear an attack. It is always well to consider that the enemy most probably will do the very thing that promises to be the most embarrassing for us. In attacking our left flank, the enemy has the additional advantage of threatening

our line of retreat and, moreover, he does not place an obstacle between the parts of his force. Accordingly, we will do well to make our arrangements for occupying the position on the supposition that the principal attack will come against our left flank.

But we must not, at the outset, wholly commit our command to a plan of defense shaped on this preconceived notion as to the manner in which the enemy may attack, for there may be reasons, not apparent to us, why the enemy should do the unexpected, or he may not have the tactical acumen with which we have credited him. A command fighting on the defensive must be on the lookout, if it is to avoid surprise. However certain we may be that the enemy is to make his attack against one of our flanks, that does not excuse us from keeping a sharp lookout towards the other. In the situation before us, observation on the right flank is made so easy, by the good view to the north from Atchison hill, that there is very little to fear from this direction. On the left flank, the conditions are different. Here, the view is so obstructed that the arrangements for reconnaissance must be made with extra care, if timely information is to be secured of a hostile advance in this section.

Having reached our conclusion as to the way in which the enemy probably will make his attack, we are now ready to consider the manner in which the position should be occupied to meet this attack. In making these dispositions, the serious error is frequently made of placing too large a fraction of the command in the front line before the enemy's intentions are known. Attention is again called to the fact that the initiative is in the hands of the attacker in

this opening stage of the engagement, while the rôle of the defender compels him to meet the moves of his adversary. If the defender commits his command to the fight prematurely, he will have few or no formed bodies of troops with which to meet the attacker's main effort when it is made. Accordingly, troops should be fed into the fight very sparingly at the outset, and the reserve must be kept unusually large to meet the developments of the fight.

So long as we are ignorant of the direction from which the enemy's attack will come, we should do no more than outline the framework of the position by occupying points here and there with the smallest practicable number of men. If the enemy deploys a small part of his command to begin a secondary attack or a containing fire, while his main attack is reaching the position from which it intends to advance, we must deploy enough men to stop the advance of this secondary attack, and no more. By such weak attacks, the enemy will endeavor to induce us to commit the bulk of our force to a fight in a portion of the position which he has no intention of attacking seriously, thus weakening the resistance we can make in that part of the position against which he will make his main attack. We must resist the tendency to fall into this trap, for it is a very difficult task to withdraw troops fighting in the first line, for the purpose of employing them elsewhere.

While it generally is a mistake to occupy the position in strength so long as the direction of the enemy's attack is not known, yet it would be quite as serious a mistake to delay occupying it after the enemy's intentions have become apparent. We must then

stop the attacker's advance—the real purpose of the defense; we must make him pay so dearly for every foot of ground he gains to the front, that he will be compelled eventually to turn his back to the position. This we can do only by so powerful a development of fire that we prevent his obtaining a fire superiority, and inflict losses on him beyond his breaking point.

This does not mean that we must employ more men than the enemy in the firing line; were this true there would be no advantage in the defense. Our men remain behind cover, while the attacker's must pass over open ground. If time permits, we can measure the ranges beforehand, and fire from a rest. Our losses, *so long as we are not driven from the position*, should be small compared with those of the enemy; our ammunition is more easily replenished; and our men are under better control. All these advantages combined should make the fire of the defense, man for man, more powerful than that of the attack, and may enable us, not only to check the enemy's advance with a firing line numerically weaker than his own, but also to hold out a part of our inferior force with which to make a counter attack.

The situation before us will serve to illustrate these principles. Let us suppose that the enemy reinforces the two companies in his advance guard with the remaining companies of the battalion, and deploys the force in the vicinity of the Baker house to make a secondary attack against our position. We must at once deploy enough men to stop this advance, and the best line for them to occupy will be along the crest of the ridge from about the northern end of the road cut to Atchison hill, and in the lower (western) edge of

the woods on the spur just northwest of 16. The ranges will be from 1000 to 1300 yards, but these are not excessive under the circumstances. On the supposition that the enemy's movements are open to our view and that he is making this advance with a full battalion, it will be well for us immediately to put two companies in position, one in the edge of the woods and one along the crest of the ridge.

The company in the salient at the edge of the woods will have a specially favorable position, under cover from view and fire, from which it can fire, not only on the advance from the direction of Baker, but also against the enemy's main attack, should it come from the ravine against the left of the position. The company on the ridge is not so favorably located, for it must change its position to direct its fire against an attack on the left. These companies may be able to check the advance of the hostile battalion until it receives support, either directly, or indirectly by the advance of the remainder of the hostile force from another quarter; more probably, however, they will have to be reinforced. Nevertheless, until more is known of the temper of this attack, it is well to put no more than two companies and the machine guns in position.

While seeking information of the direction from which the enemy will make his main attack, that portion of the force not needed for holding in check the enemy's secondary efforts, should be held at some point from which it may be quickly moved to meet the attack wherever it should fall. We may have very strong reasons for believing the enemy will attack our left flank, but they do not warrant our deploying the

force in the edge of the woods west of 16 before we know positively that he is headed in that direction. Should we do this and then discover the enemy coming around the north end of Sentinel hill against our right flank, the deployed line would have to be assembled and marched more than half a mile to the northern slope of Atchison hill and again be deployed before it could begin to oppose the enemy's advance. Such a procedure introduces disorder and confusion among our troops, and shakes their confidence in us as leaders, to say nothing of the advantage it gives the enemy.

The strength of that part of the defending force which stands fast and of the general reserve, respectively, should be fixed in accordance with the principle that the former should be as weak as possible, the latter as strong as possible. This is especially true when the defense is active and contemplates making a powerful counter-stroke, for the outcome of the fight will depend on the success or failure of the counter attack. Still no fixed rule can be prescribed, for the relative strengths will depend on many conditions, such as the natural strength of the position, and must be determined anew to meet each situation.

In any case, however, our aim should be to have the force that is to make the passive defense strong enough to meet the enemy's entire force and hold it in check long enough to permit the counter attack to be made, while, on the other hand, the latter must be strong enough to insure its success. If Colonel A had a full regiment, he might detail two battalions for the passive defense, and hold one battalion in reserve for the counter stroke and to reinforce the firing line;

but with only two battalions his task is more difficult. Even so, it is best to keep a full battalion in reserve and charge the other battalion with holding the enemy in front, for it is an easy matter to reinforce the latter with a part of the reserve, when that becomes necessary, while it is very difficult to withdraw troops from the front line to strengthen the reserve.

We must now consider where the reserve battalion should be held awaiting the proper occasion, or occasions, for putting it into the fight. Envelopment of a flank is the greatest single danger that threatens a force on the defensive, and the best plan for avoiding it, in general, is to strike the flank of the enveloping force with all or a part of the general reserve. Still, for reasons already stated, it would not be wise to move the reserve far to one flank or the other, before we have discovered the direction from which the enemy will make his main attack. Situations will arise, especially with large commands extended on a broad front, which make it advisable to place the reserve behind a flank at the outset, or to move it to a flank on scant information as to the enemy's intentions; but, in the situation before us, the front of the position is so narrow and the protection immediately in its rear so good, the reserve may be held in rear of the center of the position, until more is known of the enemy's movements. (*) The best place for it is in the woods on the slope of the ravine just to the right of the road at 16; here it will find perfect cover from fire and be quite near the flanks of the position.

* The disadvantages of such a position for the reserve, in most cases, are that fire aimed at the front line will reach the reserve, and valuable time will be lost in moving it to a flank.

Should the enemy do the unexpected and attack the right of the position, the passive defense may have to be made in another position, as, for example, on the north slope of Atchison hill, and the reserve may have to be moved to a position behind the right flank. Should the enemy move up the ravine from Frenchman towards 18, a part or all of the reserve probably will be moved to the vicinity of 18 and held under cover in the woods awaiting the development of the enemy's attack. Just what its movements will be, and just how it will be employed in the fight, will depend on the manner in which the enemy attacks, and these matters cannot be decided at the time the position is first occupied.

While awaiting the proper occasions for putting the reserve into the fight, Colonel A should hold it in one body and cover its position by sending patrols to the edge of the woods to keep watch towards the enemy and along the trail from 20 to 22, and prevent hostile patrols from locating its position.

When the counter attack should be made, is a question the colonel cannot decide long in advance of the event, but he should endeavor to start it when the development of the attack presents a favorable opportunity; generally this will be when the enemy has advanced to within close range of the position, has employed most of his reserve, and is about to make his final assault. If it is made before the attacker has put all, or practically all his reserves into the front line of his attack against the position, the enemy will be able to form a new line with his reserve to meet the counter attack and hold it in check, and most likely it will not produce the decisive effect expected of it. From this,

we may understand how important it is that the portion of the force fighting the passive defense should stubbornly hold its position, and should receive enough assistance from the reserve to enable it to develop fire power sufficient to compel the enemy to put his whole force in the firing line before making his final assault. But this is easier said than done. It is exceedingly difficult to pass from the defensive to the offensive. As a general rule we are on the defensive because we are weaker, or at least imagine ourselves weaker than the enemy, yet we expect a *part of our inferior force to hold in check all of the superior hostile force* until what is left of our reserve can strike its blow. The stronger we keep the reserve, the weaker will be the force making the passive defense, and the more frequent and insistent will be the demands of the latter for support from the former. All of these demands cannot be refused, else the force making the passive defense will be overpowered; yet half measures, at this critical juncture, may mean the loss of the fight. It will require great strength of character to refuse continually these calls for assistance from hard pressed points of the line, and composedly hold even a small part of the reserve intact for the counter attack, which necessarily comes at the very end of the fight. Besides, it is no easy matter to tell just when the enemy has all his reserves in the firing line, or when the opportune moment for making the counter attack has arrived. These difficulties partially disappear, if the portion of the reserve intended to make the counter attack be held in rear of the position and advance *through* the position to make its counter attack; such a procedure, however, is objectionable since

it has not the moral effect of an advance against the enemy's flank, deprives the counter attack of the fire support from the defender's line, and draws upon it the concentrated fire of the attacker.

In making our arrangements for the occupation of the position, we should pay special attention to the extent of the front over which we propose to fight. *The narrower* the front held at the beginning of an action *the better*, for bringing up the reserves during the action is bound to increase the front. No fixed rules can be prescribed for determining the frontage to be occupied by different sized commands fighting on the defensive, but you are warned studiously to avoid the tendency to disperse your command over too broad a front; in a situation such as this, where there is no natural feature to limit the flank or flanks of the position, you should especially seek for the *greatest possible distribution in depth*.

At the beginning of the engagement we will occupy a line about 100 to 200 yards long on the ridge to the right of the sunken road at 16 and another line about 100 yards long in the lower edge of the woods on the spur northwest of 16. Hence, the total extent of the front *at the outset* is between 200 and 300 yards, measured on a north and south line. As the enemy develops his attack and reaches out to envelop a flank, as he probably will do, the defensive line will be extended to meet the attack, the final extent of the line and its direction depending on the front on which the enemy advances. But we should bear in mind that this extreme extension is not reached until about the last stage of the fight. If the enemy extends towards our left, it may be possible to withdraw a part or all of

the troops from the right of the high road, and move them into the line at other points where they will be of more use; but this withdrawal will not be possible, if the troops to be withdrawn are being hard pressed.

One battalion and the machine gun platoon will be given the task of defending this line at the outset, but, as already pointed out, this battalion will be assisted from time to time, as necessary, by troops from the reserve battalion. The machine guns will be placed where the greatest possible advantage will be derived from their fire. The best position available appears to be in the lower edge of the woods on the spur northwest of 16, for from this point they can deliver their fire over a wide area. Their consumption of ammunition is so rapid that they can not ordinarily enter into a prolonged fire fight, but will deliver their fire only when the enemy presents a specially favorable target, or at critical moments of the fight. Such a moment will be when the enemy is advancing to the final assault, and our counter attack is attempting to sweep down his line.

Colonel A estimated the situation in the five minutes that he was on the ridge observing the enemy's advance. His *decision* is to occupy a defensive position on the ridge across the high road, employing one battalion and the machine gun platoon in the position proper, and one battalion in reserve. He now issues the following orders to the battalion commanders, who were sent for when the enemy was first seen, and have joined the party on the ridge:

"You see the enemy on the road (pointing). I have observed him advancing for the last five minutes and have seen a

regiment. That is the tail of his main body that you see over the tops of the trees (pointing towards the Flint house).

"We will occupy a position across the road at this point for the purpose of defeating the enemy and driving him back.

"Major A, (commanding the leading battalion), your battalion and the machine gun platoon will meet the enemy's attack wherever made and hold it in check. Send a strong patrol at once to determine whether the enemy moves along that ravine (pointing to the ravine just west of the Baker house) against our left flank, and to delay his advance. Observe carefully from Atchison hill to the north, and send a patrol along Sheridan's Drive towards Wagner point.

"Major B, your battalion will form the reserve. Assemble it under cover of the ridge and woods where the trail turns to the left from the main road at the road cut, and hold it there awaiting further orders. Send a patrol along the trail on top of the ridge, and cover your position with small patrols towards the enemy.

"The battalion ammunition wagons will be emptied at once and sent to Leavenworth to refill and return. A first aid station will be established in that ravine (pointing to the ravine east of 16).

"I will remain near here (Atchison hill) for the present."

Should the commander of the rear battalion (with the main body) not have reached the ridge when Colonel A comes to his decision, the latter should not delay issuing the orders on that account, for his advance party is now up, and the enemy is so near that seconds are important. The advance party, and maybe a part of the support, should be deployed at once, so Major A should have his orders without delay. Major B could be given his orders when he arrives. It is suggested that you write the orders that you would give in that case. Do not forget that each major must be told the situation, your plan, his orders, and the part to be taken in the fight by the other major's battalion.

Frequently, in orders for occupying a defensive po-

sition, you will be able to define the extent of the position much more precisely than is possible here; for example, you may be able to say, "We will occupy a position from——to——, etc." But in this situation, as we already know, it is too early to prescribe the limits of the position.

If Major A were an inexperienced officer, or one in whom the commander has but little confidence, Colonel A could not afford to allow him so much liberty, but would do better to prescribe more precisely the manner in which the position is to be occupied at the outset. For example, Major A might be told to "deploy at least a part of the advance guard, and open fire at once." In any case, Colonel A will observe the manner in which Major A executes the order and, while avoiding unnecessary interference with Major A's arrangements, will permit him to do nothing that will jeopardize the general plan.

You may think that the order does not explain the colonel's plan clearly enough, and perhaps it does not were his subordinates poorly instructed. Orders must always be suited to the ability, experience, and instruction of the officer receiving them. As the situation clears up and the colonel becomes more confident of the course the defense will take, he will further explain his plans to his subordinates. You must bear in mind that the orders given at the beginning of any operation are but intended to provide for the initial dispositions of the command, and that they will be supplemented from time to time by other orders and information as the situation develops.

The reserve is under the immediate command of Major B, but Colonel A, only, *should decide when it is*

to enter the fight. If there is any doubt about Major B knowing this, it should be explained to him in unmistakable terms, for *the reserve must not be permitted to slip from the hands of the highest commander.*

The defense must make up for its inferior numbers by a powerful development of fire, which calls for liberal expenditure of ammunition. Consequently, the ammunition in the battalion wagons should be distributed to the troops before they enter the fight. The wagons are sent back for more ammunition, since the distance is so short they may be able to return before the termination of the fight. As a matter of fact, Colonel A should have taken along an additional supply of ammunition on requisitioned wagons.

Colonel A chooses for himself a position on Atchison hill from which he can observe the enemy's movements, and yet remain as far as possible from the firing line. During a fight, the most powerful means a leader has for influencing the course of the action is the proper employment of the reserve; consequently, his station should be some good observation point near the reserve. The occasions are rare when the commander should join the firing line before his last reserve is put into the fight, for there a comprehensive survey of the whole engagement is generally impossible, and decisions can not be based on calm deliberation.

As already stated, Major A is given no instructions as to when he should open fire. He has an opportunity to deploy the platoon in the advance party and open fire before the patrol near the railroad crossing can warn the column, thus surprising the enemy while in column on the road. Since the defender is not so

exposed as the attacker, since he often is able to measure the ranges to prominent objects that the attacker will pass, since he can fire from a rest, and finally, since he can easily replenish his ammunition, it is permissible for him to open fire at long ranges in order to stop the attacker's advance. Major A should open fire on the enemy, if the latter attempts to advance over the open between the position and the Baker house lane, although the extreme range from the top of the ridge is about 1400 yards and from the edge of the woods on the spur about 1100 yards. The whole object of the attacker is to close with the defender, and the former will try to reach the short ranges without losses and without firing. The defender should endeavor to prevent the attacker from doing this and, in the absence of artillery, he must employ long range infantry fire for this purpose.

Colonel A's order in written form, composed on the supposition that it was issued from the map, might be as follows:

Field Orders

No.—

5th Infantry,

Atchison Hill, near Leavenworth,

10 July —, 7:07 A. M.

1. A regiment of hostile infantry is advancing on the ATCHISON pike, head of the column at the DUFFIN orchard and tail 300 yards east of the MOTTIN grove. A hostile patrol is at the railroad crossing near G.

2. This command will occupy a position across the high road at this point for the purpose of defeating the enemy and driving him back.

3. (a) The 1st Battalion and machine gun platoon, under command of Major A, will meet the enemy's attack wherever made and hold it in check. A strong patrol will be sent along the ravine just west of the highway to report and delay an ad-

vance of the enemy from that direction. The open country north of ATCHISON hill will be watched, and a patrol will be sent along SHERIDAN'S DRIVE towards WAGNER point.

(b) The 2d Battalion will form the reserve, and will be assembled under cover near 16 awaiting further orders. Its position will be covered by small patrols towards the enemy and along the 18—20—22 trail.

4. The battalion ammunition wagons will be emptied at once and sent to LEAVENWORTH to refill and return. The surgeon will establish a first aid station in the ravine east of 16.

5. The regimental commander will remain on ATCHISON hill for the present.

By order of Colonel A:

X.

Captain, 5th Infantry, Adjutant.

Verbally to Majors A and B, and staff.

CHAPTER XIX.

A DEFENSE BY INFANTRY AND CAVALRY.

PROBLEM.

(See 4-inch map).

A Blue reinforced brigade in friendly country is detrainning north of Kickapoo, April 5, preparatory to marching to the south. Leavenworth is known to be occupied by a hostile force of infantry and cavalry without artillery. The 23d Infantry and Troops L and M, 12th Cavalry (Blue), under the command of Colonel A, have been sent forward to secure the bridge over Plum creek on the 47—17 road and hold the enemy south of Plum creek until the arrival of the remainder of the brigade, which expects to reach Kickapoo at 11:30 a. m.

As Colonel A advanced south of Kickapoo, he heard firing towards Frenchman and had reports as follows from his cavalry:

1. From an officer's patrol at J. E. Daniels at 8:50 a. m., saying that it had encountered a platoon of hostile cavalry near Wagner point and had been driven back on the 15—17 road across Salt creek. The hostile cavalry did not pursue beyond 15.

2. From the cavalry commander at the Taylor house (800 yards south of 17), saying that he had checked the advance of about two troops of hostile cavalry at Frenchman, but was forced back by hostile infantry advancing via Frenchman from Leaven-

worth at 8:30 a. m. At 8:50 a. m., he was occupying a position at the Taylor house, and the hostile infantry was advancing over the spur 1100 yards to the south.

When the last of the above messages is received at 9 a. m. by Colonel A, who, with his battalion commanders and staff, has ridden forward to the support of his advance guard, his column is disposed as follows: The advance party (Co. A, less 1 platoon) is at the Moss lane; the support ($\frac{1}{2}$ Co. A, and Co. B) is at 17; the reserve (Cos. C and D and machine guns) is passing the J. Aaron house; and the head of the main body (2d Battalion leading) is 200 yards north of Plum creek bridge.

At 9 a. m., firing can be heard towards the Taylor house.

Recent rains have made Salt creek unfordable for infantry below Frenchman, and Plum creek unfordable for five miles from its mouth. The bridge on the 21—23 road is impassable.

Required:

Colonel A's estimate of the situation and orders.

SOLUTION.

Colonel A's mission is to hold the enemy south of Plum creek and keep open the bridge on the 47—17 road until the arrival of the remainder of the brigade.

The information of the enemy is far from complete. It is known that he has no artillery, and two troops of his cavalry have been seen, but the strength of his infantry column marching by Frenchman is not known and may only be estimated between wide limits. The absence of artillery and the presence of

two troops of cavalry indicate his total infantry strength to be something between a brigade and a regiment, a part or all of which may be in the advancing column. After driving the Blue cavalry from its position near Frenchman, the enemy continued his forward movement, and from the firing at the Taylor house, it may be inferred that he is pushing his advance and intends to attack. The presence of his cavalry on Sheridan's Drive, where it can observe the Blue column, considered in connection with the offensive attitude of his infantry, suggests that he is equal or superior to Colonel A.

It appears that Colonel A will have to fight unless he abandons his mission, and he must decide at once whether he will fight offensively or defensively. The situation is too full of uncertainties for him to take the offensive, if he can do what is expected of him by acting on the defensive. A successful defense south of Plum creek, in a position that covers the bridge, will accomplish his mission. Accordingly, his initial decision is to act on the defensive.

The terrain shows three possible positions: Across the road near the Taylor house; near 17; and near the J. Aaron house. The first of these positions, on the spur running from the Moss to the Taylor house, has about the right frontage for a command of the size of Colonel A's. On the left of the position, the field of fire to the south and southeast is so broad and clear that he might feel quite sure, from the outset, that the principal attack would fall against the right flank. In that event, the 900 hill about 400 yards northwest of the Moss house would form a splendid supporting point for his right flank. The position, however, is

too far to the front to be occupied with due deliberation, and this is its serious defect. The firing indicates that the enemy is now attacking the cavalry at the Taylor house, and, although Colonel A might push his infantry forward and reinforce the cavalry before the latter is pushed back, still, the lack of a general plan with which to begin the fight is liable to continue throughout the engagement and might lead to defeat in the end. The engagement would be a *rencontre*, pure and simple.

The position across the Frenchman—17 road just south of the Millwood road tends to extend the regiment on too broad a front at the outset, for it would have to embrace the hill just southeast of 17 and the 900 hill about 600 yards southwest of 17; this is a front of about 800 yards which is liable to be further extended as the fight progresses. This is the defect of this position, but aside from that, the position is a fairly good one. In front of its left, the field of fire varies in width between 500 and 600 yards, and is limited by the Moss—Taylor spur, the Taylor orchard, and the trees along the ravine running northeast from the eastern end of the orchard. In front of its right, the field of fire is broader and the fire will be more effective. Troops on hill 900 can command the Moss—Taylor spur, the ravine southwest of this spur, and the high ground to the south and southwest of this ravine, at ranges varying between 600 and 1000 yards. This hill adds great strength to the right flank, and the left flank secures a certain amount of protection from its nearness to Salt creek. The numerous ravines in rear of the position furnish splendid cover near the position for the reserve and local supports,

the line of retreat is perpendicular to the front of the position, and the high ground just south of Plum creek forms a good rallying position, in case the regiment is driven back. Finally, the position can be occupied with due deliberation, especially if the cavalry is able to hold on for some minutes near the Taylor house.

The nearness of the position on the ridge just south of Plum creek to the creek itself is a defect in this position that so outweighs its good points as to make further consideration of it unnecessary. There is not sufficient room between the position and the creek for the free deployment of the remainder of the brigade, when the latter reaches the field, and if the regiment were defeated with the unfordable Plum creek in its immediate rear, it probably would meet disaster in attempting to withdraw across the single bridge and the open flat to the north.

After this consideration of the terrain, Colonel A makes the further decision to occupy the position near 17.

It is not possible to say with any certainty which flank of the position the enemy will attack. He can approach to within about 600 yards of the left of the position under cover of the Taylor orchard and the ravine running northeast from the orchard, and attack up the slope from there, but this movement may be interfered with by water backed into the ravine from Salt creek. He can get within about 700 yards of the right of the position under cover of the spur running east from the 900 hill 1000 yards south of 19, and can find cover again in the dry ravine along the wire fence about 200 yards north of the spur.

From the enemy's point of view, the advantages of the terrain are about the same on the two flanks, but an attack against the right flank, if successful, may drive Colonel A into the angle between the unfordable creeks, while a successful attack against the left flank will leave him considerable opportunity to escape to the west. The enemy may take advantage of the opportunity for an attack against the center of Colonel A's extended line.

This uncertainty as to where the enemy will make his principal attack, combined with the other uncertainties of the situation, makes it necessary to hold a strong reserve in the beginning of the fight. Unless the enemy is in overwhelming numbers, there will be few troops needed on the 900 hill and many on the hill southeast of 17, if he attacks the left flank; and, vice versa, if he attacks the right flank; while if he attacks the center, the bulk of the regiment should be between the two hills. Yet, the whole line must be occupied at once, and there must be no delay in putting infantry in position on hill 900, for the hostile cavalry may seize this commanding point while the Blue cavalry is engaged at the Taylor house.

This makes it necessary to place parts of the advance guard battalion along the entire front. Although this will result in an undesirable mixing of units at a later stage of the fight and will also take part of this battalion from its commander, still it appears that this should be done, for it is not wise to delay occupying hill 900 until the main body has marched a mile, nor can the cavalry be called upon to hold this hill, for it has important work elsewhere. A single company with the machine guns should be able

to hold the hill (900) until the arrival of the main body, and Company B, now at 17, will be given this task. The remaining three companies of this battalion will occupy the hill southeast of 17 and the saddle just south of 17. The half of Company A in the advance party may have gone to the assistance of the cavalry at the Taylor house; even so, it will be recalled to 17 as soon as a line can be put in position to cover its withdrawal. When the 2d Battalion (at the head of the main body) reaches 17, it will be placed behind the right of the line from the saddle south of 17 to include hill 900; Company B will then be under the orders of the commander of this battalion. The 3d Battalion will form the reserve and will form in mass in the ravine just north of 17.

The cavalry should cover the flanks and endeavor to get more information of the enemy's strength and plan of attack. It probably will be opposed by the hostile cavalry, which may be expected on Colonel A's right flank, for the nearness of the swollen creek will interfere with its operations on his left. The officer's patrol at J. E. Daniels can prevent the hostile cavalry platoon east of Salt creek from crossing the bridge west of 15, but another patrol will be sent to this flank to give warning should this platoon swim the creek north of the bridge and try to reach Plum creek bridge. The remainder of the cavalry will be recalled from the Taylor house at once and sent to the right flank.

The ammunition will be distributed as fast as the battalions come up to 17, and the empty wagons will be sent back to refill and rejoin. The first aid station will be established in the ravine 400 yards north of 17,

if it has water; otherwise, at the J. Aaron house; the wounded will be removed as rapidly as possible to the north of Plum creek, preferably to Kickapoo. The field train will be sent back to Kickapoo, if it has passed that village.

Colonel A's full *decision* is to occupy a defensive position extending from hill 880 southeast of 17 to hill 900 southwest of 17, with two battalions in position and one battalion in reserve, and his cavalry on the right flank. This decision is reached very soon after receiving the message from the cavalry commander at 9 a. m., for the firing had warned Colonel A half an hour before this of the near presence of the enemy. Before 9:05 a. m., he issues the following verbal orders from the hill southeast of 17, to the officers who have accompanied him to this point (see problem).

"Our cavalry is in position at that house (indicating the Taylor house) delaying the advance on this (17—Frenchman) road of hostile infantry and about two troops of hostile cavalry. Lieutenant A's cavalry patrol has been driven back from that wooded ridge (indicating Sheridan's Drive ridge) by a platoon of hostile cavalry, and he is now guarding the bridge over Salt creek about three-quarters of a mile east of here on that (17—15) road. The remainder of our brigade will be here by noon.

"We will defend a position extending from here to that hill (indicating hill 900).

"The 1st Battalion (less Company B) will occupy the section from this hill, inclusive, to the head of that ravine just south of the schoolhouse, inclusive. The 2d Battalion, Company B, and the machine guns will occupy the section from the head of that ravine, exclusive, to that hill (900), inclusive. Company B and the machine guns will be put in position on that hill (900) at once.

"As far as possible, both sections will be prepared for defense.

"The 3d Battalion will form in mass in that ravine (indicating the ravine just north of 17) and act as reserve.

"The cavalry will cover the right flank and rear, sending an additional patrol to watch on our left and rear.

"Extra ammunition will be distributed near here and the wagons will be sent to the rear to refill and rejoin. A first aid station will be established by the side of this (17—47) road on the small brook 400 yards in our rear.

"I will remain near here for the present."

A staff officer is then sent to the cavalry and advance party with verbal orders for them to fall back at once to 17. When they reach 17, the cavalry commander is given his orders by Colonel A in person. A message is sent to the cavalry patrol at J. E. Daniels, acquainting its commander with Colonel A's intentions and directing the commander to continue to guard the bridge over Salt creek and observe on the left flank.

COMMENTS.

In this problem, an attempt has been made to present a situation much less clear and definite than that given in the preceding chapter, the idea being to make the situation similar to those that are most liable to arise in actual service, where ignorance of the enemy's strength, dispositions and intentions is the rule, and such accurate information as frequently is furnished in map problems is the exception.

Yet enough information was given to demand a decision to occupy a defensive position, *since the position could be so selected that the enemy would be compelled to attack or abandon his advance*. Frequently, a commander's information of the enemy will be sufficient to warrant a decision to act on the defensive although not sufficient to justify selecting the position

where the defense is to be made, and the temptation will be great to occupy the position too soon. This mistake he should not make, for, once he is in position, he will be reluctant to acknowledge his error and correct his faulty position, and the change will lessen the confidence he inspires in his command.

For example, we will have such a situation if we imagine Salt creek an insignificant stream throughout its course, and the information of the enemy such that we know he is advancing but are not certain whether his advance is via the Frenchman—17 or the 15—17 road. A suitable position for meeting his advance should he come via Frenchman may not be at all suitable should he come via 15, and no position should be occupied until more definite information has been received. While awaiting this information, the command should be assembled at some such central point as 17 from which it may be quickly moved into whatever position it is to occupy. (*)

As the situation is presented in this problem, there is no uncertainty as to the road along which the enemy is advancing, but there is doubt as to which flank he will attack, and there can be little or no criticism of your plan if, because of this doubt, you have decided to keep two battalions in reserve and to place only one company and the machine guns on hill 900, until you have more information of how the enemy intends to attack. This plan is especially good if the regimental commander has little confidence in the judgment of his battalion commanders, for much will depend on the manner in which they occupy their sec-

* When a command is assembled in this manner it is said to occupy a position in readiness, for the definition of which see F. S. R.

tions. If efficient, they will understand that they should hold strong local supports and reserves out of the firing line until something definite is known of the direction of the attack, but if not efficient the regimental commander may have to interfere to prevent them from deploying at the outset too large a proportion of their troops and thereby possibly causing his defeat.

The proper occupation of a defensive position is a matter so little understood, that it may be well to examine the dispositions the battalion commanders should make of the troops assigned to their sections. Of the three companies assigned to the left section, one is placed in the first line (firing line and supports) and two in the local reserve. Until the enemy appears, the company in the first line will deploy a platoon on the southern crest of the hill southeast of 17, and the remaining platoon will form a support under cover on the northern slope of the hill. The local reserve companies will be in the ravine about 200 yards east of the crossroads at 17.

Of the five companies assigned to the right section, Company B with the machine guns will be first to reach hill 900, and one platoon and the machine guns are immediately placed in position, and one platoon is held in support. When the 2d Battalion comes up, a part of it may or may not be deployed, depending on the situation at that time. In any case, the remaining platoon of Company B probably will be placed in position before calling on the 2d Battalion for assistance. The remaining companies of this battalion are held near at hand under cover behind the center of the position as local reserve.

With this disposition, at the outset there will be along the entire front in the firing line, at least one platoon from each of two companies, and, possibly both platoons of each of these two companies—in all between one and two companies; in the supports, the remainder of these two companies, if their entire strength is not in the firing line; and in the local reserves, six companies, unless it is necessary to put a part of the 2d Battalion in position as soon as it comes up. In other words, of the eight companies assigned to these two sections, probably but two companies at the most are deployed and six companies are assembled ready to move to any part of the field at a moment's notice. Placing a larger proportion of the command in the firing line before being certain that troops will be needed in that particular place, is liable to bring about difficulties later on, when it is desired to establish a line quickly to meet an unexpected attack. *The firing line should be kept weak until fairly certain of where it will be needed.*

But it is different when the attack so develops that we know something definite of the manner in which it will be made. Then the firing line should be made as dense as possible along those parts of the line against which the enemy appears to be advancing, for the most effective means for stopping the enemy's advance is the well directed fire of as many guns as can be brought to bear on him, and no opportunity to fire on him at effective ranges should be lost. It is at this period of the fight that the advantage of having strong supports and local reserves close at hand may be fully appreciated, for they may be quickly moved to the proper point and deployed in the firing line,

whereas, had they been wrongly placed in the firing line at the outset, it would take many precious minutes to move the deployed line to the point where it is needed. *Choosing the important points of the line to be held from the beginning, making a judicious assignment of troops to these points, selecting the proper moment for employing supports and reserves, and practicing wise economy in their employment, are the most difficult problems of the defense.*

Concerning the number of men per yard on the firing line, no absolute rule can be prescribed. In that part of the position against which the enemy is making his principal attack, the firing line generally will be as dense as it can be made—about one man per yard, and will be kept at this density by feeding in the supports and reserves from the rear. *The object is to stop the attacker's advance and this can be done only by gaining and keeping fire superiority. Employing an insufficient force and reinforcing it by driblets is equivalent to voluntarily permitting the enemy to have his own way at the decisive point.* If we can prevent the attacker reaching the short ranges, the success of the defense is assured. So long as the defender enjoys the advantage of superiority of fire, he has perfect freedom of action, but as soon as the fire of the attacker makes itself felt at short ranges, the situation is different.

In the portion of the position we have just been considering, effectiveness of fire is the main consideration and cover is of minor importance. Unless there is good natural cover or unless trenches have been dug, the troops will get their best cover from keeping their fire superior to the enemy's. In those parts of the po-

sition not being vigorously attacked, the conditions are different and more thought may be given to cover, but proper fire control ordinarily will be the controlling factor, when making the deployment. Such parts of the position may be held by comparatively weak forces; generally, they will be deployed with small intervals, but in very exceptional cases they may be deployed with wide intervals between individual skirmishers, who thus secure some protection from their extended formation, and are given an opportunity to take advantage of all the cover the ground affords.

At the time Colonel A issues his order, he cannot decide whether he will make an active or passive defense, for that will depend largely on the strength of the enemy, then unknown. The remainder of his brigade cannot support him for three hours, and the engagement should be fought to a finish before the end of that time. If the enemy is equal or but little superior to the defenders, Colonel A's best plan for securing a favorable decision probably will be to make an active defense; but, should the enemy be considerably superior, he may be compelled to fight a passive defense, or even fall back and make a second stand in the position just south of Plum creek.

Nothing was said in the preceding chapter about dividing the position into sections, for in the situation there discussed such a division was not necessary since the command fought on a narrow front. But, in this case, the troops are extended on too broad a front to be controlled efficiently by a single person, and the line is divided between the two battalion commanders. But the breadth of front alone does not determine when a position should be divided into sections, or the

number of sections, for it may be necessary to divide a very narrow front into sections, if the view along it is much obstructed, as in woods, or if inter-communication is difficult. No single commander should be assigned more front than he can efficiently supervise.

In the defense, as in the attack, the cavalry is withdrawn to the flanks before the opposing infantry commands are in close contact, and remains in charge of the service of security and information while the combat continues. That the infantry should not occupy the position in strength until something definite is known of the enemy's plan of attack constitutes a disadvantage of the defense that may become very serious, if the cavalry fails in the service of reconnaissance. There must be some cavalry on each flank, but the bulk of it should be sent to that flank where it is most needed and a few patrols only should be sent to the other flank. *Seldom should the cavalry be divided nearly equally between the two flanks, for the cavalry with a small infantry detachment is weak at best and should not be further weakened by dispersion.*

In the solution, the cavalry was sent to the right flank for several reasons. There is more room for its operations and more probability of encountering the hostile cavalry; if the enemy attempts a wide turning movement, it will be on this flank and the cavalry should get early information of it; the chances are best for observing the enemy's strength and dispositions; and there will be more opportunity for taking an active part in the fight by striking the hostile flank. On the left flank, the unfordable creek is so near that two patrols may be depended upon to watch its banks. To send one troop to each flank would be a mistake.

It is known that the enemy has about two troops and not only will they have to be kept from Colonel A's flank and rear, especially from the bridge, but they probably will have to be driven back before the Blue troops can make efficient reconnaissance. If this is to be done, not a single trooper should be detached unnecessarily from the main cavalry force on the right flank.

You may have held the position at the Taylor house with the cavalry or the platoon of infantry in the advance party, hoping to delay the enemy's advance in this manner. If so, you may deceive the enemy temporarily as to the location of your main position, and delay his advance somewhat by inducing him to make an early deployment, but this small success may not be unmixed with disaster, for the withdrawal of the troops holding this advanced position will be a difficult task. Advanced positions, as a rule, are not desirable. Their employment is apt to lead to the defeat of the troops holding them, and to masking the fire from the main position. There is also danger of the battle being decided in the advanced position. Our Field Service Regulations recognize that advance posts may be useful at times, but they warn those that employ them that the retreat from them must not mask the fire of the main position.

Attention is again called to the length of the position, which is in excess of what it should be for a single regiment. A regiment acting alone, with neither flank protected, ordinarily will endeavor to keep its front within 500 yards at the beginning of a defensive action that must be fought to a decision. If one of its flanks is partially or wholly protected, this front

may be *slightly* extended, and if both flanks are protected, the extension may be *a trifle* greater. Only in exceptional cases will a regiment make its *initial deployment* on a front of 800 yards. This situation is such an exceptional case; the left flank is only partially protected by Salt creek, and the right flank has only such protection as the cavalry can give it; yet the regiment is extended on a front of nearly 800 yards. This is because a position on either the hill southeast of 17 or hill 900 probably would soon become untenable, if the enemy were allowed to occupy the other hill. If we confine the command to hill 900, the enemy will have our position turned and be on our line of retreat when he gets possession of the hill southeast of 17; and if we occupy only the hill southeast of 17, our line of retreat will be threatened and we will be in great danger of being crowded into the angle between the two unfordable streams when the enemy establishes himself on hill 900.

But, while it is necessary here to risk the dangers of overextension, in order to occupy both hills, this should be done with a full understanding of what these dangers are and they should be reduced to the minimum by occupying the firing line and employing the supports and reserves in a judicious manner. It is not probable the enemy will make a determined attack against both hills, and if they are occupied in the manner already described there will be at least ten companies in supports, local reserves and general reserve, the larger part of which will be available to meet the enemy's principal attack.

Hill 900 is the best position for the machine guns, for here they will have an excellent field of fire. They

can cover the southern slope of the hill southeast of 17, the Moss—Taylor spur, the ravines on each side of this spur, and the approaches to hill 900 on the south and southwest. We might have left a platoon of infantry at the bridge over Plum creek. The objection to this is that this platoon may be badly needed in the fight. The bridge is in no danger except from the hostile cavalry, which should be held at a distance by the Blue cavalry. Should it become necessary, for the protection of the bridge, a part of the reserve may be sent back to it in less than ten minutes.

It was pointed out in the solution, that the mixing of battalions is undesirable. Possibly this might have been avoided, by assigning all of the 1st Battalion to the right section of the line, and the 2d Battalion to the left section. The 2d Battalion (at the head of the main body) will be up in about fifteen minutes, and, until it gets up, a company of the 1st Battalion may be deployed and held behind the crest of the hill southeast of 17, ready to occupy the hill should this become necessary before the 2d Battalion reaches the hill. As soon as relieved by the 2d Battalion, this company may move to the right section. However, this arrangement probably would complicate the withdrawal of the platoon of Company A from the Taylor house.

We will now endeavor to summarize this and the preceding chapter, and state briefly the principal questions to be answered before reaching a decision to occupy a defensive position.

Is it necessary to fight at all to accomplish your mission, and if so, should you fight on the defensive?

Is the fight to be to a decision, or will it be merely a

delaying action, falling back from position to position?

If the fight is to be decisive, shall the defense be active or passive? Should this question be answered now or should this be deferred while awaiting developments?

Has the time come to occupy a position, or should you assemble the command in a position in readiness while waiting for more information?

Must the enemy attack the position, or can he march around it and maneuver you out of it?

Is the front of the position suited to the size of the command? Exercise special care not to occupy too broad a front unnecessarily.

Does the position afford a good view to the front and flanks?

Has it a clear and broad field of fire?

Are there desirable locations for the supports and reserves, preferably under cover close in rear of the position?

Are the lateral communications good?

What is the character of the terrain in rear? Does it favor withdrawal? Is there a rallying position in rear?

What protection is there for the flanks?

What is the direction of the position with reference to the line of retreat? What is the situation from the enemy's point of view? How does the terrain favor his attack? How will he probably attack? Where may his cavalry be expected?

Having decided how the enemy may attack, how may the attack best be met?

Into what sections should the front be divided, and what troops will be assigned to these sections?

What should be the size of the reserve and what will be its position?

What use will be made of the cavalry?

What is the best position for the machine guns?

Where will the first aid station be located?

What will be done with the field train?

CHAPTER XX.

CAVALRY COMBAT MOUNTED.

SITUATION.

(See 2-inch map).

A Blue army is marching through eastern Kansas on St. Louis, Mo., and expects to cross the Missouri river at Leavenworth and Fort Leavenworth. A Red army is marching through Missouri towards Leavenworth. Its cavalry is well in advance. There is no bridge over the Missouri between Leavenworth and Kansas City.

The cavalry division of the Blue army expects to camp on the line of the Big Stranger the night of October 11-12. One squadron, without wheel transportation, under Major A, has been sent to cross the Missouri river at Leavenworth and determine whether the enemy's cavalry has reached the line of the Platte river. It crosses the Terminal bridge during the forenoon of October 11, and proceeds eastward via the 18—22—28—30—48 road. On encountering the enemy's cavalry in considerable force in the vicinity of 58, at 2:30 p. m., the squadron turns back without becoming engaged, but is followed closely by the enemy.

At 3 p. m., when the squadron is approaching 30, on the 60—48—30 road, Major A receives the following message from a patrol near 30:—"Column of hostile cavalry to the southwest moving north across the flats on road about one mile west of here." Major A sends his adjutant to direct the column to close up,

and, with his staff and orderlies and the advance guard commander, hastens to the heights east of 30 overlooking the flats. From here he sees a squadron of Red cavalry, in column of twos, moving north at a walk on the 36—24 road; the point of its advance guard is about 400 yards south of 24, the head of the main body about 1500 yards south of 24, and the tail of the main body is about to pass the road junction at 34. There appears to be a platoon in the advance party, which is about 400 yards ahead of the support. The support has approximately two platoons, and is about 500 yards ahead of the main body.

At this moment, Major A's squadron is practically assembled in column of fours just east of 30, on the road, with the troops in the following order from the head to the tail of the column:

Troop A (advance guard), assembled.
No distance.

Troop B.

Troop C.

Troop D (less about 3 platoons).
300 yards distance.

About 1 platoon Troop D (rear guard).

About 40 troopers, mostly from Troop D, are absent patrolling. Two of these patrols, of five men each, are absent from the advance guard, one on the 48—50—12—16 road, and one on the 48—46—Farley road.

Note.—The road up the bluff at 30 is lined with trees which afford perfect cover from view. The railroad embankment furnishes breast cover. The flats are wheat stubble, free from fences or other obstacles, excepting such as are shown on the map.

Required:

Major A's estimate of the situation and his orders.

SOLUTION AND DISCUSSION.

The hostile squadron will soon be directly between Major A and the bridges over the Missouri river at Leavenworth and Fort Leavenworth, and he is being pursued by other hostile cavalry in force, which is close upon him. If the advance of the enemy on the flats be not immediately stopped, he will get possession of the Terminal bridge and effectually cut off the retreat of the Blue squadron by that route. For Major A to reach the bridge at Fort Leavenworth, he must pass over the 30—28 or the 48—50 road. On the first of these, he will be in full view of the enemy on the flats, who, thus warned of the whereabouts of the Blue squadron, should have no difficulty in preventing its escape over either bridge. He dare not turn back to take the second road, for, even though he escape the enemy that is pursuing him, which is exceedingly improbable, he may meet other forces which have crossed the Platte river farther to the north; and the time required to make the detour via 50 may enable the hostile squadron to the southwest to block Major A's retreat via the Leavenworth or Fort Leavenworth bridge.

The pursuing cavalry is too near for Major A to risk lying in concealment until the squadron in his rear on the flats has passed by, even were this advisable for other reasons, which is far from being the case. The line of march of the squadron which has gained his rear indicates the Terminal bridge as its objective; besides, Major A does not know but that his eastward march across the flats was observed by the enemy's patrols from the direction of Farley, and that the Red

squadron has been sent for the express purpose of cutting off the Blue squadron's retreat.

Major A concludes he must reach one of the bridges before the Red squadron can get into a position to prevent his crossing. To make a dash for one of them is out of the question, for the race apparently can be won by the enemy. If the Blue squadron is to escape, the advance of the Red squadron must be temporarily checked. This cannot be done by fire from the top of the bluffs, because of the extreme range; besides, if the fire were effective, it would merely drive the enemy from the road and nearer to the bridge. Moreover, it would be wholly wrong for the squadron, in its critical position, to engage in a dismounted fire action which would keep it tied to one position for any length of time.

Consequently, Major A *decides* upon the only practicable course to follow—to charge the Red squadron, throw it into confusion, and escape across the bridge before it can recover from its disorder. That the ground is practicable to charge over, Major A knows from his inspection of it when he passed along it earlier in the day. If Major A but acts with promptness and decision, the main body of the hostile column will be about due west of 30 by the time the charge is begun. The distance to be covered is about 2000 yards and can be passed over in from five to seven minutes. The Blue squadron will be under cover until it reaches the railroad at 30 and, although improbable, may not be observed until it has passed some distance beyond it. The enemy probably has patrols reconnoitering the rough country north of Farley, but it appears that they have not yet reported Major A's presence.

If Major A can begin his charge before the enemy's patrols are able to report, the surprise of the Red squadron should be complete.

A moment's reconnaissance from the top of the ridge is sufficient for Major A to reach his decision. He turns to Captain A, who is with him, and says:

"Our squadron will attack that column and then withdraw over the Terminal bridge. Charge the enemy's advance guard with your troop. The remainder of the squadron will attack his main body. I will tell you when to move out."

He then gallops back to the road, tells his adjutant to call in the rear guard, and summons Captains B, C, and D, to whom he says:

"A squadron of the enemy is moving north, in column of twos, on a road through the flats about one mile and a half west of here.

"Our squadron will attack the hostile squadron at once and then withdraw over the Terminal bridge.

"Captain A will charge the enemy's advance guard with his troop.

"Captain B, your troop will charge the head of the enemy's main body.

"Captain C, your troop will be the support, and will follow in rear of the left of Troop B.

"I will go with Troop D, which will form the reserve."

He then seeks Captain A and directs him to move out, waits until Troops B and C have passed, and joins Troop D as the rear guard rejoins.

In this solution, an attempt has been made to limit the estimate of the situation to a discussion of only those points which would be considered by Major A in reaching his decision. It takes four or five minutes to read the solution, and because of this we are liable

to fall into the error of concluding that it took Major A as long as this, or longer, to decide upon his course of action, whereas the truth of the matter is quite the contrary.

If Major A is worthy of his command, he should be familiar with the ground he passed over during his forward march; he has had days to study his map, and reference to it now should be unnecessary; the principal military features, such as roads, streams, bridges, lakes, etc., should be firmly fixed in his mind; a half hour's study and work with pencil and paper, before starting on his mission, combined with keen observation while on the march, would accomplish this. He has had half an hour since encountering a considerable force of the enemy's cavalry in the vicinity of 58, in which to draw inferences from that fact; in that time he should have reached the conclusion that the enemy probably has cavalry on the 56—54 and the Platte City—Beverly roads moving about level with that on the 58—60 road. This would not be faulty dispersion when we consider that the enemy probably has a cavalry division.

If we assume that Major A is an able cavalry officer, and that he has kept thus well in touch with the changing situation, he should be able, when standing on the heights at 30 confronted by a hostile squadron, to reach his decision in a fraction of a minute—in fact almost at a glance. The mind is capable of receiving and considering many conflicting propositions in the same instant, and of rejecting all but one which it considers best. It is by such an instantaneous process that a cavalry commander often must reach his decision.

The course of reasoning followed by Major A, probably unconsciously, while he was riding to the heights at 30, and as he saw the hostile squadron from that point, might be stated as follows: "The enemy is behind me—I can't turn back. No doubt he is on the roads crossing the two bridges over the Platte further to the north and I would run into him, if I turned north. If I turn south I can't cross the Missouri. The enemy will see me if I move along the road at the foot of the bluff, and he probably can beat me to either bridge. Even if the squadron I see can't beat me to the Fort Leavenworth bridge, still I am liable to be cut off by the enemy's cavalry on roads to the north. There is nothing left me but to dash for the Terminal bridge and, since the enemy is between me and the bridge, I will charge him, throw him into confusion, and then escape."

On the ground, confronted by the enemy, there is no time in this situation for studying the map and for making careful calculations with the assistance of dividers. As a map problem, however, we not only can but should estimate the situation in this deliberate manner, and we will now consider for a moment what probably would have happened had Major A made a dash for the Fort Leavenworth bridge.

Of course, the route via 48—50 is out of the question. The only remaining practicable route is via 14, and from there via G and H, or 16 and H, or across the flats. In all probability, the enemy will discover the squadron before it has passed 30, and he can equal its gait. Going via 24 and 22, he can be at 18 before the Blue squadron is at 14. Now, suppose the Blue squadron gets safely by 14 and continues via G, and

that it gets safely by G and takes the road to H. It is plain that the hostile squadron can cross the flat from 18 to the southeast corner of the Timber Reserve, take the wood road at that point and beat the Blue squadron to H by some minutes.

Suppose the Blue squadron turns off onto the flats between 14 and G and passes north of Duck lake. Whatever route it takes it will have more flat to cross than has the Red squadron and, at the best, nearly a mile further to go before reaching the bridge. Or, suppose it follows the road south of Duck lake from 14. In that case, the hostile squadron can come up with it somewhere on the south bank of the lake and a combat will take place there.

So it appears that, if the hostile squadron is properly handled, Major A will have to fight no matter what route he takes to either bridge. This being the case, he should choose to fight under those conditions which are most favorable to him. He has his command well in hand and concealed near 30, while the enemy is strung out in column of twos with an advance guard, and apparently suspects no danger. A charge from 30 gives Major A the tremendous moral support that comes from taking the enemy by surprise when he is in a faulty formation.

If Major A throws away this opportunity, and chooses to run for it and fight when the enemy overtakes him, he gives the enemy opportunity to recover from his *amazement* (not *surprise*), his command gets out of hand, its morale suffers because the troopers are showing their heels to the enemy, and when the two squadrons finally meet, the enemy should have the advantage. Of course, luck and chance,

quantities that can never be measured, might favor the Blue squadron to such an extent that it would escape in any of the cases mentioned, but the course of action taken by Major A is the one that gives most promise of success.

As to the manner in which the charge should be made, opinions may differ without any necessarily being wrong. In considering this phase of the fight, we open up the whole subject of mounted action of cavalry against cavalry, only the salient features of which can be discussed here.

The distinctive cavalry weapons are the horse, and the saber and the charge is the means devised for making the maximum use of these weapons on the battle field. That the blow or shock of the horse may be as great as possible, the charge is usually delivered in line, in close order, boot to boot, with gradually increasing gait terminating at full speed. The charge is followed immediately by the *mêlée*, the result of which depends on the weapons of the trooper and the skill with which he uses them. The effect of the shock and *mêlée* is to throw the charging line into great disorder, the extent and duration of the disorder depending largely on the size of the commands. So long as this disorder lasts, the force is peculiarly defenseless, and if, while in this helpless condition, it is charged by a fresh body of the enemy, it may easily be overthrown. To guard against such a counter charge, the first line should be followed by a second line, or support. Of course, the enemy probably will adopt the same formation, and your support is almost sure to be drawn into the combat to meet the enemy's support, or to help to decide the fight in

some other way, and a third line, or reserve, should therefore be provided to meet this new contingency. It may be said that thus we might go on indefinitely, and to a certain extent this is true—so true that it has become an axiom of cavalry combat, that the side that can throw into the action the last formed reserve is almost sure to win.

But this does not necessarily mean that the side that goes into the fight with the greater number of lines will win, for in a cavalry combat, as always on the battle field, the quality of the troops and the way they are handled count for much. For example, we go into the fight with our command divided into a first line, support, and reserve, and meet the enemy's cavalry in a similar formation. Because our command is the better trained and the better led, our opponent is compelled to put into the fight all three of his lines to check the course of our first two lines, and we have our reserve still in hand with which to decide the action. In a cavalry combat between equal forces, training and leading are everything. Of course numbers count and, if the enemy has a preponderance of force, it may be impossible for us to be the last to put in a formed reserve; if such be the case, we will, in all probability, be driven from the field.

In a charge in line, the presumption is that we should have at least an attacking line, a support and a reserve. In small commands, such as a troop or squadron, the support and reserve may be combined in a single body, but, as a rule, all of it should not be employed at the same moment; instead, a portion of it should be kept intact and well in hand as a last reserve, when the remainder is launched into the

fight. For larger commands, the three lines are kept apart and distinct. In our problem, Major A charged in three lines; had all of Troop D been present (instead of but little more than half of this troop), the charge might have been made in two lines, with Troops A, B and C in the attacking line, and Troop D in the second line as support and reserve.

Of course, there is always the danger, in thus splitting up a command, of making some or all of its parts ineffectually small and weak; but this has been taken into consideration in the development of the principle that, as a general rule, there should be attacking line, support, and reserve, and the experience of centuries has proven that this is the formation that combines greatest probability of success with least risk. In the distribution of the command among these three lines, care should be taken to insure the success of the attacking line by making it strong, for if it should fail and break to the rear before help reaches it, the support and reserve can do little more than prevent a complete reverse. Thus, our major placed two complete troops, more than one-half his force, in his attacking line, and he ordered them to strike the advance guard and main body of the much extended hostile column at the same time, in order that the hostile advance guard troop would not be left free to recover from its surprise, and to assemble and charge with effect.

On the other hand, this process of robbing a support and reserve to strengthen the attacking line, if carried to excess, may render the support and reserve so weak that they cannot give the attacking line the assistance necessary to complete the initial suc-

cess. But the distribution in any particular case must depend on the situation it is to meet; the controlling principle is that it should be such as to secure the success of the attacking line. In making this distribution, tactical unity should be preserved as far as practicable; but a division of the force which will give the attacking line the desired strength, is more to be desired than the preservation of tactical unity.

The relative positions during the advance of the attacking line, support and reserve are determined largely by the well established fact that the flanks are the peculiarly weak points of a line of charging cavalry. If the attacking line, when in full career, should be assailed suddenly in flank by a formed body of the enemy's cavalry, the force of its charge would be broken, if, in fact, its charge were not brought to a full stop. For this first line to advance fearlessly and devote its whole attention to the enemy in its front, it must have no anxiety concerning its flanks; it must know that the support and reserve in its rear are so placed as to meet any such unexpected and sudden attacks of the enemy. This will often require the support and reserve to be echeloned on the flanks of the attacking line,—one being placed on each flank, if both flanks are in danger. If on the flanks they will also be in a good position to attack the enemy in flank. If one flank is protected by other troops or natural obstacles, or if for some other reason it may be left unguarded, both may be echeloned on the opposite flank. In the problem before us, the support is ordered to follow the left flank of the attacking line, and the reserve would follow the same flank at the outset, since it is from that direction the

greatest danger is apprehended; but in so small a force, the reserve could be quickly moved to the other flank if conditions demanded its presence there.

As a general rule, the support should not follow directly in rear of the attacking line because of the danger of its being involved in any disaster to the latter. Retreating troopers generally break straight to the rear, and they certainly would cause disorder and confusion in any advancing line they should meet. If for any reason it is advisable to have the support follow in rear of the attacking line, it should be in line of columns with wide intervals. The distances between the successive lines vary with the strength of the command. The support of a troop acting alone should take the gait of the attacking line at the distance of about 80 yards, and the reserve should take the gait when it has the distance of about 150 yards from the support. For a squadron, these distances would ordinarily be but slightly increased; the controlling principle is to have the 2d and 3d lines near enough to give prompt support to the attacking line.

An old Prussian regulation says, "Cavalry will produce the greatest effect when it is led against a decisive point of the enemy's line, by the shortest route, and employs only the simplest evolutions, and moves in the direction promising the greatest success." The ideal conditions are those that enable us to strike the enemy simultaneously in front, flank and rear. This will not often be possible, but the occasions on which it can be done (at least in part) are increased if cavalry can maneuver while rapidly moving forward and can produce the shock in a direction different from that which the troops took on moving

out. Cavalry that can not maneuver in the face of an enemy that can, probably will be defeated, and it deserves to be.

This brings up the question of what is the proper formation for maneuvering cavalry advancing to an attack. The line is unwieldy; it is difficult to change its direction; it cannot pass obstacles with ease; it cannot take full advantage of the minor sheltering features of the ground; it may present the maximum target. The column has not these disadvantages in so pronounced a form. For maneuvering purposes, the column is far superior to the line, and, in general, a formation in columns or lines of columns should be preserved as long as practicable. The moment when the formation should be changed from column to line calls for quick and accurate judgment on the part of the leader. The quickly shifting scene in front may demand a change in direction at the last moment, and the column can make this sudden change of direction where the line can not. Yet, if the change of formation is put off too long, the attacking line may itself be attacked before it is in proper formation. Accordingly, our squadron should move out from 30 with the troops in column of fours, each troop forming line at the proper moment in accordance with the above principles. A formation quite as easily maneuvered and more quickly changed to line, would be to have each troop in line of platoon columns of fours; this formation would be specially suited for Troop A, the platoons of which probably will charge separately. To take full advantage of the fleeting opportunities of a cavalry combat, two conditions are absolutely necessary—the

troops must have the ability to maneuver and the leader must be possessed of *coup d'oeil* to profit by that ability.

The necessity for advancing to the attack in column, or line of columns, is greater now than formerly when the attacking cavalry did not have to remain so far in rear of the battle line. The day is long past when cavalry can be within a thousand yards of contending infantry and artillery and composedly await the moment for its attack. Nowadays, a large body of cavalry is fortunate if it can find shelter at 3000 yards from the enemy; more often it will be at a much greater distance than this, and it is generally recognized now that cavalry on the great battlefields of the future will often have to cover some miles from its rendezvous position, and will have to do so quickly, if its arrival at the point where it is to be used is to be opportune. In this long advance, such a gait must be taken as will bring the horse over the ground in the minimum time consistent with having sufficient remaining energy at the finish to engage in mounted combat, and to deliver the charge at full speed. Of course, just what this gait should be will depend on many conditions, such as the terrain and the condition of the horse; but, in general, the greater part of the distance will be covered at the trot for, while the horse can trot long distances without great fatigue, he speedily becomes exhausted at the gallop. Major A's opportunity to surprise the hostile squadron and to strike it while it is maneuvering, may lead him to move at a gallop over a large part of the distance that separates him from the enemy.

On broad, fenceless tracts of land, entirely free of

difficult obstacles, and sufficiently rolling to afford good cover for a mounted man, without presenting slopes greater than five degrees, cavalry can maneuver and charge with ease. However, such a combination of favorable conditions is seldom found in ordinary terrain. This is especially true of the United States and other countries devoted to agriculture, where farms and fields are fenced, often with barbed wire. In many such sections a cavalry charge of any magnitude is practically impossible, and the larger masses of cavalry will have to combine mounted action with other methods of fighting. Nevertheless, as will be pointed out further on, the situations in which an enterprising cavalry leader may find opportunities for employing at least a part of his command in timely mounted action, are of more frequent occurrence than we are led to think. Here again, what the cavalry can do is largely a question of training and leading.

We have stated that the charge in line, with support and reserve, is the formation usually sought, especially when a combined attack on the hostile front and flank can be made. Because of the restricted nature of the available terrain, or many other reasons, such a formation often will not be possible, although it will be practicable to charge on a more narrow front in a column of subdivisions. This may be a column of fours, platoons, troops or squadrons, depending on the situation. Such a formation gives a succession of shocks that may sweep the enemy from the field, but it does not possess the maneuvering power of the formation in line in three echelons, the rear elements of which can more easily change their direc-

tion to meet the changing position of the enemy. In this formation, the flanks are unusually weak, since no special provision is made for their protection, and an opportune attack by the enemy striking the flank of the column might prove disastrous. The subdivisions should follow in supporting distance of each other, but they should not be so close upon each other that each succeeding line is liable to be swallowed up in the confusion of the line preceding it, and the whole force thus thrown into great disorder. The charge in column of fours is unusual and will be resorted to only in extreme situations, such as when a marching column is surprised and has no choice left it but to charge in this formation, or when it may be possible to surprise the enemy and sweep him off his feet by the very audacity of such a charge.

It may be advisable to charge with a part or all of the command as foragers, where the ground is of such a nature that the charge in any close order formation is impracticable; or in order to lessen the target presented to infantry or artillery fire; or where the object is to gain time by annoying the enemy and occupying his attention or where the force to be charged is widely scattered, as is often the case with a defeated enemy. Such a formation has not the great shock effect of a boot to boot line, and as a rule, it is resorted to only in those situations where the line is impracticable, or where the enemy presents no reasonable target for the line to strike. Major A's orders permit his captains to choose that formation which they deem best suited to the situation when their respective troops begin the charge, but they probably will deliver the charge in line, since

it apparently will meet formed bodies of the enemy. Since the formation may be speedily changed from line or column to foragers, during the progress of the charge, to meet any unforeseen action of the enemy, while, on the other hand, the change from foragers to line cannot be so quickly made, it is well to delay ordering the charge as foragers, until convinced that this is the proper formation.

It is when cavalry is operating against cavalry that a leader is put to the most severe test. In an attack against the less mobile arms, infantry and artillery, an initial mistake in formation and direction of attack is by no means so serious, since there often is an appreciable length of time in which to correct the error. But against cavalry, such errors often will receive their punishment before they possibly can be corrected, if the enemy but takes advantage of them. Nevertheless, the fear of such disastrous consequences will not deter any true cavalry leader, properly imbued with the cavalry spirit and correctly instructed in the employment of the Arm, from seizing every opportunity for delivering a timely and telling blow against the hostile cavalry. There is no lack of such opportunities; the trouble is that the leader's eye and mind are not trained to see and appreciate such situations in the few brief moments that they last. Or, if they happen to be weighed at their full value, there still is vacillation and indecision. An officer in command of cavalry must know what he intends doing, this he must carry out with energy and resolution, for under vacillating commanders no cavalry, however brave, will do any good in the field. The situations in which cavalry may successfully charge cavalry

usually demand instant decision; there is no time for deliberation; the action of the mind must be well nigh instantaneous; whatever is to be done must be done at once; deliberate thought and careful plans are out of the question.

Opinions are so divided as to when cavalry should fight mounted and when dismounted, that we purposely chose a situation for this problem so plainly demanding mounted action that it must satisfy all but the most radical advocates of dismounted action. By so doing, we may have misled some of our readers into believing that cavalry will fight mounted only when it is cornered and no other form of action is left it. Such is far from our opinion, nor does it agree with the opinions of cavalry leaders who are well fitted by experience to speak with authority on this subject.

The rifle may be called the cavalry's defensive arm, although it is and often should be used offensively, but the horse, combined with the saber or lance, is the cavalry's great offensive arm. The horse should be looked upon, not as a mere means of locomotion, but as the distinctive cavalry weapon. For cavalry to resort to the rifle as an offensive weapon, and to discard the horse and saber in a situation where they can be used to advantage, is to forget the very first principle of cavalry training. Yet how often this is done in our service! Of course, we do not mean to say that it is unwise to combine dismounted fire action with mounted action or in some situations to employ only dismounted action, but we do contend that, in a purely offensive cavalry combat, the fighting power of a cavalry command is weakened with every man that is

needlessly taken off his horse, if he can advantageously get into the fight mounted. Cavalry, well trained and well led, whatever the size of the command, should never voluntarily resort to dismounted offensive action against equal opposing cavalry, if the conditions permit mounted action to be employed instead.

Of course, the mission of cavalry with any command varies and it may require us to husband our strength; in such a situation higher considerations than mere local victory may make it unwise for us to be led into a combat. If for this or any other reason, such as inferior numbers, the proper play is the *defensive*, we naturally make use of our defensive arm—the rifle, often thus placing the enemy at a disadvantage by compelling him to abandon his great offensive arm—the horse. But if cavalry decides to take the *offensive* against hostile cavalry, where the terrain and other conditions permit mounted combat, this latter method of fighting should be invariably resorted to as being that which gives most promise of success, as well as greatest material and moral results in case of success. Even when cavalry is playing a defensive role, its leader should be constantly on the watch for an opportunity to assume the offensive, mounted, with a part or all of his force.

It may be said in objection to this, that the terrain in this country does not favor the maneuvering of large bodies of cavalry. We have already pointed out that to a certain extent this is true, and where large cavalry masses come together, as was the case at Brandy Station, Virginia, in 1863, mounted and dismounted action will be employed at different

points on the battle field at the same moment, in accordance with whether the terrain and other conditions do or do not favor mounted action. Still, in many parts of our country, the fields are so large and open that bodies of cavalry, such as squadrons and regiments, will find no difficulty in maneuvering and delivering a charge.

We have said nothing of the mounted action of cavalry against infantry, but have left that subject to be discussed in a later problem. (*) This discussion is limited to the statement of a single proposition, supported we believe by the bulk of reliable authority, that mounted combat on favorable terrain should be the rule for the side that takes the offensive, when cavalry meets cavalry under conditions demanding that both shall fight.

* See Chapter XXII.

CHAPTER XXI.

CAVALRY COMBAT DISMOUNTED.

PROBLEM.

(See 2-inch map).

A Blue brigade, with cavalry and artillery attached, is marching from the west in friendly country, with orders to occupy Leavenworth and Fort Leavenworth. Red forces are known to be advancing on the same points from the east and south.

The Blue brigade bivouacked the night of October 1-2 at Easton, and resumed its advance at 6:30 a. m., October 2, along the 88—90—96—100—Zimmerman road. Its cavalry (1st Squadron, 11th Cavalry, less 1 platoon with the advance guard), acting independently, trotted out from Easton at the same hour, with orders to seize the bridges over the Missouri river at Leavenworth and Fort Leavenworth, and reconnoiter to the south and east.

As Major A (commanding the squadron) advances to 100, he receives messages as follows:

One from a patrol near 24, stating it had driven back a hostile patrol and observed two troops of hostile cavalry moving west on Dakota street, with the point of its advance guard near 56 at 7:20 a. m.

One sent at 7:40 a. m., by a patrol on Atchison hill, saying it had seen no enemy except a small cavalry patrol that had fallen back towards Leavenworth.

And one from an officer's patrol at 210, reporting hostile cavalry, apparently two troops, moving west from Leavenworth towards 56, and a column of hostile infantry and artillery marching north on the 190—224 road, with the point of its advance guard at 228 at 7:20 a. m.

At 8 a. m., firing is heard from the direction of 30, and at 8:05 a. m. the squadron is in the following formation:

The advance party (1 platoon Troop A), dismounted and deployed across the road 500 yards east of 100, is returning the enemy's fire from the direction of 38. The support (Troop A, less 3 platoons) (*) is under cover of the trees at 100. The main body (Troops B, C and D) is at the bridge 500 yards west of 100.

Note.—Salt creek and its branches in this vicinity flow through wide, deep cut channels, with soft bottoms and nearly perpendicular banks. All the cleared land is under cultivation, and the roads and fields are inclosed with barbed wire fences.

Required:

Major A's estimate of the situation.

His orders.

SOLUTION.

The information of the enemy, so far as it goes, is quite definite. Most probably the two troops of hostile cavalry seen by the patrol near 24 are the same troops seen by the officer's patrol at 210. They have had time, since last they were seen at 7:20 a. m. approaching 56, to advance with some caution to 38, and occupy a position to block the further advance of

* One platoon of this troop is with the infantry advance guard, and one has furnished the patrols now out.

the squadron along the Zimmerman road. The natural inference is that they belong to the hostile force advancing from the south, and we may further infer, from the report of the patrol on Atchison hill, that the enemy reported approaching from the east had not crossed the Missouri river in any force at 7:40 a. m. Major A concludes, therefore, that he is opposed at 38 by but two troops.

At 8:05 a. m., the squadron is five miles from the Terminal bridge, and at 7:20 a. m., the head of the hostile column (at 228) was three miles from the bridge. Even if the squadron were unopposed by the hostile cavalry, it could not reach the bridge ahead of the hostile infantry. The Rock Island bridge is five miles from 228, and, if its possession is of value to the enemy, he can get infantry to it by about 9:30 a. m. The squadron is six miles from this bridge, and it is not probable it can cover this distance in the face of the opposition of the hostile cavalry and reach the bridge ahead of the hostile infantry.

But the situation east of the Missouri river has not been cleared up. The enemy appears to be attempting to unite his detachments at Leavenworth, and the hostile force marching from the east, especially its cavalry, may be near. At this moment (8:05 a. m.) it may have possession of the Missouri bridges.

Consequently, it is not at all probable that Major A can seize and hold either of the bridges over the Missouri without a fight with the hostile infantry, in which there is every reason to believe he would be greatly outnumbered. In other words, the immediate full execution of his mission, as stated in the prob-

lem, appears well nigh impossible. The development of the situation has brought about a change in the mission of the squadron. If the enemy wishes permanently to hold the bridges over the Missouri, he must keep the Blue brigade, especially the Blue artillery, from making a lodgment on the surrounding high ground to the west of the river. On the other hand, if the Blue brigade is to occupy Leavenworth, and Fort Leavenworth, it must first gain possession of this high ground. Also, the enemy will endeavor to hold the Blue brigade at a distance until he can be joined by his detachment east of the river, and the Blue brigade should not be delayed in its effort to strike the enemy before he can unite his detachments. In this situation, the force that first establishes itself on the high ground about 28 will have a great advantage. Consequently, Major A's immediate mission is to drive back the hostile cavalry in his front and clear the way for the unobstructed advance of his brigade.

The head of the brigade, if unopposed, will reach 24 (9 miles from Easton), about 10 a. m. The head of the hostile column, unless delayed, can reach the same point (5 miles from 228) by 9:20 a. m. So it appears that the hostile column must be delayed for about half an hour, if it is to be prevented from reaching the top of the ridge ahead of the Blue brigade. But, between the squadron and the hostile column stands the hostile cavalry, and the quickest and most effective way of disposing of it will be to attack it and force it back. The squadron will have a little over an hour (from 8:05 to 9:20) in which to drive back the hostile cavalry and get in front of the hostile infantry near 24.

If all the terrain about the enemy's position is as poorly suited for mounted action as is the country open to Major A's view, the attack probably will have to be made dismounted; however, the squadron will not be committed to dismounted action, until this becomes necessary, for the development of the attack may furnish an opportunity for mounted action, especially on the high ground about 28.

If the attack were made north of the 100—30 road, against the enemy's right flank, it would be exposed to view, would have to be made dismounted, the led horses would have to be left under cover near Salt creek, and small hostile bodies posted along the brow of Hund hill could compel the attacking column to deploy early. Even if successful, it would only drive the enemy back on his natural line of retreat along the Zimmerman road.

The terrain is more favorable for an attack on the enemy's left flank. The cover afforded by the trees along the branch of Salt creek just west of the 100—102 road, and the woods along the ridge just east of that road, may make it possible for the attacking force to get near the enemy's flank before being discovered. An attack on this flank will make the best possible use, under the circumstances, of the cavalry's mobility, for the roads and trails lead towards the enemy's line of retreat and, if the troops making this mounted turning movement can reach the enemy's rear, he may be compelled to make a precipitate withdrawal in order to avoid being cut off. Moreover, a turning movement towards this flank will take a part of the force towards the more favorable open ground on top of the ridge, where there may be an opportunity for decisive mounted action.

A good division of the force will be to have Troop B, and the two platoons of Troop A in the advance guard, make the attack along the 100—30 road, while the remaining two troops make the attack against the hostile left and rear. It may take these troops about half an hour to make this turning movement, for a few minutes will be spent in starting them off, they have two miles to go, and at least a part of this distance they will have to proceed cautiously. The force attacking along the road must be made strong enough to hold the enemy to his position while this movement is being made, and for this reason Troop B is sent to the assistance of the advance guard.

Troops C and D will move south across country along the west bank of the branch of Salt creek, and will take the trail to the east at 102. If Major A's reconnaissance convinces him that these troops can move south on the 100—102 road without being seen from the enemy's position, this route is preferable to the one across country. The march must be covered by a new advance guard, and a patrol along the ridge east of the 100—102 road, for the enemy certainly will be watching this flank with a patrol or stronger force. Troop D will form the reserve and, whatever the nature of the terrain, it will be kept mounted as long as practicable. It will be employed, if necessary, to assist the other three troops in securing a decision, but preferably to pursue the enemy after he breaks.

Major A's *decision* is to attack at once, with a troop and a half along the 100—30 road, and two troops against the hostile cavalry's left flank and rear.

Having reached his decision, Major A issues the

following verbal orders to the commanders of Troops B, C and D, who have been assembled at 100:

"Hostile cavalry, only two troops strong, is in our front. At least part of it is being employed dismounted against our advance party which is now engaged about 500 yards east of here, down this road (indicating the 100—38 road). A column of hostile infantry and artillery is entering Leavenworth from the south, about five miles from here. Our brigade is about an hour behind us.

"We will attack the hostile cavalry at once, enveloping its left flank.

"Captain B (commanding Troop B), with your troop and the advance guard, you will attack along that road (100—30), keeping your left flank on the road. Send a patrol to observe along this (100—74) road.

"Troops C and D will move south under cover to a cross-road about a mile south of here, and thence to the east to attack the enemy's left and rear.

"Captain C (commanding Troop C), send one of your platoons rapidly across country towards the cross-road mentioned to act as a new advance guard. Send a strong patrol to observe along that ridge (indicating the ridge east of the 100—102 road).

"The remainder of Troops C and D, under my command, will follow closely after the new advance guard."

Because time is valuable and because Major A can point out on the ground most of the natural features referred to in his orders, he dispenses with the usual method of identifying roads, etc., by reference points on the map. When the turning troops reach the vicinity of the enemy's flank, Major A will give them their orders to attack, the character of the attack depending on the situation then existing, and will designate the reserve at that time.

COMMENTS.

The solution of this problem hangs on discovering the proper immediate mission of the squadron. Cavalry frequently will find it impossible to carry out its orders literally, for the one giving them cannot know what changes a few hours may make in the situation. In such an emergency, the cavalry commander should base his action on what he knows to be the general object of the operation.

When Major A discovered that he could not seize and hold the bridges, and decided to abandon his original mission, his first task was to choose a new line of action that would fit in with the general plan of his superior commander. It was clear to him that his brigade would have its best chance for ultimate success, if it could strike and defeat the hostile force from the south before the latter could be joined by the force marching from the east, and to assist in making this possible became his new mission.

It is but a step from this first decision to his later decision to attack the two hostile troops. He might have attempted to ride around the hostile cavalry and get on the flank of the approaching hostile infantry. There are good reasons for disapproving this plan. In the first place, other hostile cavalry may soon appear on the scene, and this chance to rout these two hostile troops while they are isolated should not be thrown away. Then we must presuppose that the enemy will act intelligently, and, should Major A attempt to move by a flank, the hostile cavalry probably would move also and meet him elsewhere. Time would be lost and a fight would not be avoided.

Nor can approval be given to a plan that contemplates leaving a part of the force near 100, in front of the hostile cavalry, while moving with the remainder to delay the hostile infantry. The chances are not good for accomplishing much with either force, and the division of the squadron makes the conditions more favorable for the two hostile troops. Should they be joined by other hostile cavalry, they will have a marked advantage over the divided squadron. *In general, a command should concentrate on encountering the enemy, and should avoid all unnecessary dispersion of its energy.*

Attention is directed to the distance that separates the two parts of the squadron, while Troops C and D are making their detour to reach the enemy's left and rear, and it is to be noted that this is contrary to principles stated in Chapters XVI and XVII, when discussing the attack by infantry. But there we were dealing with infantry. Had Major A made this attack with a small force of infantry, he would have risked defeat, had he followed the same plan and placed so much distance between the slowly moving fractions of his command; but division of force *before the attack*, which would often lead to disaster with a small infantry command, is quite as often the best plan for certain and speedy victory with a small cavalry command. The superior mobility of the cavalry gives it much greater license in this respect, and enables it to make wider turning movements than would be permissible with infantry. This is especially true when cavalry is operating against infantry, but more care must be exercised when it is operating against other cavalry. Then it should be kept

well in hand and concentrated to a far greater degree, else the hostile cavalry will get between its separated parts and defeat them in detail before they can unite—a maneuver that could not be so easily accomplished by the less mobile hostile infantry.

But we must not overlook the point that *this division of the force is but a temporary condition, and the attack itself will be made with a united command on a narrow front.* The perfectly proper desire to utilize the speed of cavalry to carry out combinations that would not be possible with more slowly moving infantry, should not be allowed to degenerate into a mania for complicated and dangerous maneuvers. For example, a plan to make a frontal attack with a portion of the force while moving to the enemy's rear with the remainder, by some such roundabout route as the Atchison pike, or the 104—48—46—44—28 road, must be rejected as impracticable and dangerous. It would involve an unnecessarily long detour (and time is valuable), would make cooperation between the two portions of the attacking force very difficult if not impossible, and would so disperse the command that its portions might be destroyed in detail. The probable lack of cooperation, the difficulty of correctly timing the widely separated attacks, and the inability of the commander to exercise control over his whole force at the crucial moment, would be very likely to cause such an attack to fail. *The smaller the force, whether cavalry or infantry, the less justifiable is undue dispersion.*

Out of respect for the principle just stated, we might have kept Troops C and D in closer supporting distance of the force attacking along the road.

This might be done by sending these two troops to cross the southern branch of Salt creek at the trail about 300 yards south of 100, and thence up the slope of the wooded ridge to the east. This plan is more conservative than the one adopted in the solution, and can not be disapproved, but it offers less chance for a speedy and decisive termination of the fight. A still safer plan, and one which probably would succeed if executed with vigor, would be to attack with the whole squadron along, and south of the 100—30 road. Neither of these plans, however, makes the most of the mobility of the attacking force.

Cavalry loses its superior mobility the moment it quits its horses, and, if the squadron is to get the full benefit of this characteristic of the arm, no portion of it should be dismounted until it appears that mounted action is impracticable; and, even then, it should not quit its horses until it has drawn as close to the point of attack as the terrain, hostile fire, and other conditions will permit. If the eastern bridge at 100 can be crossed without coming under the enemy's fire, the force attacking along the 100—30 road may cross and dismount under cover of the wooded spur on which the advance party has deployed; otherwise it may dismount west of 100, or, it may remain mounted and reach the cover of the spur, by moving south under cover of the trees to the trail about 300 yards south of 100, and then east to the spur.

Just where and how the two troops moving against the enemy's left will enter the fight, will depend on the way in which the situation develops, and more especially on the care and energy with which the enemy covers his left flank. By the time they get to the

top of the ridge east of 102, Major A should know the enemy's position quite definitely from the sound of the firing, his own observations, and information from other sources, and be able to direct his further march in such manner as to enter the fight at the decisive point.

As stated in the solution, the reserve troop will be the last to dismount, if it dismounts at all. When cavalry is fighting dismounted against other cavalry a portion or all of the reserve should be kept mounted, if at all practicable, until the moment has come for putting it into the fight. In this way only will it be possible to meet unexpected moves of the enemy, or to make sudden attacks against the weak points of his line when they develop. (*) Moreover, there may be a chance at any moment to employ the reserve mounted, and the opportunity in all probability would be lost if the reserve were dismounted and separated from its horses.

The number of men left with the led horses, when cavalry fights dismounted, will depend on whether or not they are to be kept mobile. (†) If mobile, they are under the complete control of the horse-holders and may be maneuvered in column of fours at any gait

* This is not so necessary when cavalry is fighting a dismounted action with infantry, although it is advisable even then to hold a part of the command mounted, for we cannot tell when the rapidly changing situation may give it an opportunity for decisive action on a part of the field that could not be reached in time by dismounted men. The cavalry commander who needlessly dismounts his entire command at the beginning of an attack against infantry, voluntarily surrenders the only material advantage he has over the infantry.

† The horses are said to be mobile when each horse-holder controls but three horses besides his own; when he has to control a greater number, the horses become immobile.

without confusion. If immobile, their maneuvering gait will decrease, and the confusion and difficulty of leading will become greater as the number of led horses per horse-holder is increased. If the troops attacking along the road leave the led horses west of Salt creek, one man may hold 8 or even 12 horses, whereas if they are brought across the creek to the cover of the wooded spur, the horses should be mobile, so as to permit of their being quickly moved to the front or rear in an emergency. Whichever plan is followed, the number of men on the firing line will be about the same, for the led horses when west of the creek and farther from the fighting line will need a stronger guard than when east of the creek.

If the portion of the force attacking the hostile left flank has to dismount, its led horses will be more exposed than those of the force attacking along the road, and their line of retreat is more obstructed. Consequently, not only should they be mobile, but they should be strongly guarded as well. The guard may be taken from the troop to which the horses belong, or a guard may be assigned by the reserve.

If it develops that the attack on this position will have to be made with the entire force dismounted, the squadron can put dismounted men on the firing line as follows, supposing each troop has a strength of 80 men at this time: The advance along the road would be made by about 80 dismounted men (120 men less a patrol of 3 men along the 100—74 road, 25 horse-holders and 12 men to guard the led horses), and the attack on the enemy's flank by about 60 men (Troop C less 20 horse-holders). In addition, three platoons of the reserve would be available to enter

the fight, wherever needed, either mounted or dismounted. If mounted, 60 men would be engaged, and if dismounted, about 45. The remaining platoon of this reserve troop would guard the led horses of Troop C, furnish combat patrols for the right flank, and serve as a last reserve. The total strength of the attacking force would be 185 dismounted men, or 140 dismounted men and 60 mounted.

Were the squadron accompanied by a machine gun platoon, the strength of its attack would be materially increased, notwithstanding that the woods might make it difficult to find a target for the guns. The platoon could accompany the two troops attacking the enemy's flank, or, better still, they could be used in the attack along the road, thereby making it possible to send more than two troops against the hostile left.

Attention is invited to Major A's orders. The first paragraph, as it appears in the solution, probably differs greatly from the first paragraph as written by many of our readers. The problem states messages sent at different hours by three widely separated patrols. These messages reached Major A before 8 a. m., probably one at a time, and, consequently, he has had an opportunity to study and compare them with the map before him, and to draw conclusions from them. *These conclusions, and not the messages themselves*, should be stated to the officers. It would take time to read the messages, more time to find the points referred to on the map, still more time to answer questions, and, in the end, Major A would see to it that the officers receiving the orders had reached the same conclusions as had he. How much better is it

then, to state these conclusions at the outset and save valuable time.

A mistake frequently made in issuing orders, especially orders for an attack, is to look ahead and state what shall be done at a later stage of the fight. Definite orders should be issued to meet only the immediate situation, or the situation as far as it can be seen with certainty at the time the order is issued, and orders to meet subsequent situations should not be issued until those situations arise. At the time Major A issues his orders, he can not know with certainty what the situation will be when Troops C and D reach the enemy's left flank, and it is a mistake to state, in the orders issued at 100, what these two troops will do when they get on the high ground east of 102. Likewise, with cavalry, it is always a mistake to order dismounted action before being absolutely certain that such action is advisable or necessary. For this reason, Major A's orders do not state whether the attack will be made mounted or dismounted. Considering the unfavorable character of the terrain in Captain A's front, there might be some excuse for telling him to fight dismounted, but even he is permitted to choose his own method of attack. No one can state with certainty that a fight, even on the most unfavorable ground, will not, at some stage of its development, present an opportunity for mounted action.

CHAPTER XXII.

CAVALRY ATTACK ON INFANTRY.

PROBLEM.

(See 2-inch map).

Two Blue battalions garrison the friendly towns of Leavenworth and Fort Leavenworth. Valuable military supplies are stored at Fort Leavenworth. A Blue detachment of all arms, marching from the northwest to reinforce these two battalions, camped the night of October 15-16 at Millwood. There has been no contact with the enemy during this operation, but it is believed that he is concentrating a small force about thirty miles south of Leavenworth.

Shortly after sunrise, October 16, while the Blue detachment is preparing to resume its march, General B, the detachment commander, gives Major A, the commander of the cavalry (1st Squadron, 2d Cavalry), the following verbal order:

"I have just received a telegram from Colonel C (the commander at Leavenworth), saying a hostile force of about a regiment of infantry and two troops of cavalry, that detrained south of Leavenworth during the night, is advancing on the city, and was about two miles south of its southern outskirts, at 6 a. m. Colonel C is falling back and concentrating just south of Fort Leavenworth to oppose the enemy.

"With your squadron, less the platoon on outpost, march without delay to Fort Leavenworth to reinforce Colonel C.

"I will follow you immediately with the remainder of the detachment."

At 6:30 a. m., Major A has his squadron (less 1 platoon, Troop A) formed ready to march.

Required:

Major A's estimate of the situation and his orders.

SOLUTION.

Under the orders he has just received, Major A is temporarily detached from the remainder of General B's force, and is relieved from responsibility in connection with the march of the detachment from Millwood to Fort Leavenworth. While this does not justify his wholly disregarding the fact that the detachment is following him, still it permits him to concentrate his attention on his true mission, which is to hasten to the assistance of Colonel C, at Fort Leavenworth, and his dispositions should be made with the idea of reaching Colonel C in the least possible time. The secret and rapid character of the enemy's movement from the south indicates that he intends trying to overpower Colonel C and destroy the supplies at Fort Leavenworth, before Colonel C can be reinforced, and it appears, from Colonel C's statement, that he intends to oppose the enemy somewhere between Leavenworth and Fort Leavenworth.

As far as L, the squadron will take the direct road through Lowemont. The P—80—78 road is more roundabout and nothing will be gained by taking it. Fort Leavenworth is the destination of the squadron, and any road south of the Atchison pike will take it far out of its way, and place the enemy between it and Colonel C. From L, the squadron may continue its march via the Atchison pike, or it may turn north to 87 and then east on the Millwood road. The route

via the Atchison pike is more than a mile the shorter, but it has a serious disadvantage that more than offsets the advantage of shorter distance.

The enemy surely will be observing the roads to the west from Leavenworth and Fort Leavenworth, and, if he is informed of Major A's approach, he may be expected to do his utmost to prevent a junction of Major A's squadron with the two battalions under Colonel C. The character of the country along the Atchison pike east of Salt creek is such as greatly to assist the enemy in this attempt. From H to G, the road passes through a defile less than a mile wide, commanded on three sides by high hills, and here the march of the squadron could be greatly delayed by even an inferior force. The two troops of hostile cavalry might accomplish this delay, unassisted, but the proximity of Atchison hill to the position in which the enemy probably will encounter Colonel C, favors supporting the hostile cavalry by a company or so of hostile infantry. With the hostile infantry blocking the eastern exit of the defile, and the hostile cavalry free to move to the north and south, Major A would find this a very difficult point to pass.

On the Millwood road, the danger of the squadron being seriously delayed is not so great. It may encounter the hostile cavalry, but the latter will be far from the support of its infantry, for it is not probable that the hostile commander will send a part of his infantry to the Millwood road, two or more miles from where he is making his main fight south of Fort Leavenworth. All things considered, the more northern of the two roads appears to be the better. Major A will not decide at this time on his route beyond 11.

Bearing in mind the mission of the squadron, Major A should limit his reconnaissance to such as is necessary to protect his march. Until he approaches Fort Leavenworth, he has to fear only the hostile cavalry. If the enemy started his cavalry to the west soon after 6 a. m., via the Atchison pike, it can be crossing Salt creek at H about the time the squadron reaches L. Consequently, as far as L, Major A will be in no great danger of meeting the hostile cavalry; but, from there to Fort Leavenworth, he may expect to meet it at any moment. A patrol, led by an officer, will be sent ahead of the squadron, with instructions to continue east from L via the Atchison pike. There is little likelihood of the hostile cavalry striking the right flank of the squadron before it passes L, nevertheless the P—80—78—76 road will be reconnoitered by a patrol sent out at 69, with instructions to rejoin at L. When the squadron turns north at L, a patrol will be sent ahead of it on the Millwood road. These patrols will be sent from the advance guard, which will be formed by Troop A, less the platoon remaining with the detachment.

Major A's *decision* is to trot out for Fort Leavenworth, via the Lowemont—L—87—15 road, with Troop A (less 1 platoon) in the advance guard, from which patrols will reconnoiter well to the front on the Atchison pike and Millwood road.

At 6:30 a. m., Major A assembles his troop commanders and staff and issues the following verbal orders:

"A hostile force of about a regiment of infantry and two troops of cavalry detrained south of Leavenworth during the night. At 6 a. m., it was about two miles south of Leaven-

worth and advancing on that city. Colonel C is concentrating just south of Fort Leavenworth to oppose the enemy. General B intends to march immediately on Fort Leavenworth.

"The squadron will start at once and trot out for Fort Leavenworth to reinforce Colonel C.

"Captain A, your troop, less the platoon on outpost, which is to accompany the infantry, will form the advance guard. You will follow the Lowemont—N—M—L—87—15 road. Send an officer's patrol ahead on the Atchison pike, and reconnoiter the 69—P—80—78—76 road.

"The main body of the squadron will follow you at 700 yards, in the order Troops B, C and D.

"I will be with the main body."

COMMENTS.

It may be well to point out that Major A's disposition and leading of the squadron, from Millwood to Fort Leavenworth, are very different from what they would be, were he charged with the mission of locating the enemy and covering the march of the detachment. But Major A's mission is to get to Fort Leavenworth without delay, to reinforce Colonel C, and he is interested in the enemy's whereabouts only to the extent necessary to insure the uninterrupted march of the squadron. Accordingly, he makes no extensive search for the enemy, and limits the number of patrols sent out to those necessary to enable the squadron to maneuver and fight to advantage should the enemy, especially the enemy's cavalry, be encountered.

Marching cavalry protects itself with an advance guard, in the same manner as does marching infantry. A cavalry advance guard differs in no essential point of formation and conduct from an infantry advance guard, except that the distances between frac-

tions of the column are greater in a cavalry advance guard than in one composed of infantry. This is because of the greater mobility of the cavalry which, on one hand, permits greater distances to be preserved without undue risk, and, on the other hand, makes greater distances necessary in order to protect the successive bodies in rear from unexpected attacks by hostile cavalry. Since the squadron will march at a rapid gait, through rolling and hilly country, conditions which make it extremely difficult to preserve distances accurately, Major A designates 700 yards as the distance at which the main body will follow the advance guard. This distance probably will be greater at times and less at others as the march progresses.

Continuation of the Problem.

The squadron left Millwood (67) with Troop A, less 2 platoons, in the support of the advance guard, and 1 platoon of the same troop in the advance party 400 yards ahead of the support. From this troop, the 2d lieutenant and 5 troopers were sent east on the Atchison pike, and a patrol of a non-commissioned officer and 4 troopers was sent in advance of the point on the Millwood road. The 1st lieutenant is with the advance party, and Captain A is with the support.

As the support is walking down the steep hill 900 yards west of 19 (see 4-inch map), at 7:47 a. m., Major A (who has ridden forward to observe) receives a message from the officer's patrol, sent from the high ground northwest of the Burns house (west of the H—17 road), reporting a column of hostile cavalry advancing down the west slope of Atchison hill on the 14—G—H road, at 7:35 a. m.

Major A continued to advance with the support, and was passing the Sprong house at 7:55 a. m. Here he was handed a message from the non-commissioned officer's patrol on the Millwood road, sent from J. E. Daniels at 7:50 a. m., saying no enemy was then in sight to the east as far as the woods east of 15. As the support passed the Sprong house, Captain A sent 3 troopers to hill 900 (500 yards southeast of 19) to reconnoiter to the south.

The advance continued, and soon after the support passed 19, the 2d lieutenant galloped up with his patrol from the direction of 17, and reported as follows:

"There are two troops of the hostile cavalry, and they turned north about a mile and a half south of here on a north and south road just beyond that schoolhouse ("Taylor S. H." on the map). I was driven back by one platoon which pursued me closely as far as the cross-roads (17) just beyond the schoolhouse. I don't know where the remainder of the two hostile troops went."

As the 2d lieutenant completes this report, firing is heard in the direction of 17, the advance party is seen to halt under cover of the spur at the schoolhouse, and Captain A halts the support 400 yards east of 19. At the same time, one of the 3 troopers on hill 900 (500 yards southeast of 19) gallops down the hill and reports a column of hostile cavalry moving north towards hill 900, with the head of the column about 700 yards south of the top of the hill. The main body of Major A's squadron is concealed from him by the ridge between the position of the support and 19.

The roads that join at 19 and 17 are lined with barbed wire fences, except where hedge fences are shown on the map. The fences about the fields are of hedge and barbed wire, as indicated on the map.

North of the Millwood road, from the Duffin house to 17, are fields of uncut corn, as high as a horse's back. The field south of the road from 19 to 17 is wheat stubble, except for a strip of uncut corn, 300 yards wide, extending from just south of the school-house to the Moss house. The fields southwest of 19 are all wheat stubble. On top of hill 900, just north of the last "0" in 900 is a large straw stack. The hedges are about three feet high. The contours show the limit of Major A's view from his position on the road.

Required:

Major A's decision and orders.

Continuation of the Solution.

Major A *decides* to move south, over hill 900, with the support of the advance guard and the main body of the squadron, and attack the hostile cavalry. The support will go through the fence at its present position and head for the straw stack, and the main body will turn south through the fence wherever it happens to be when the order reaches it. The advance party will cover the left flank from an attack by the hostile force at 17.

Major A's orders are as follows: .

To Captain A (commanding the advance guard) who heard the reports of the 2d lieutenant and of the trooper from the straw stack:

"We will move south and attack.

"Take the support towards that straw stack.

"The main body will follow you.

"The advance party will protect our left flank.

"I will go with you."

To his squadron adjutant:

"Explain the situation and my intentions to the captains of the main body, and turn the column towards that straw stack as soon as you meet it."

To his squadron quartermaster:

"Explain the situation and my intentions to the commander of the advance party, and direct him to cover our left flank against whatever hostile force is near the cross roads."

COMMENTS.

Bearing in mind that his mission is to reach Fort Leavenworth without delay, Major A might have made a dash along the 19—17—15 road, in an effort to get by the cavalry approaching his right flank before it could do him serious harm, were it not for the platoon of hostile cavalry at 17. The firing indicates that this platoon is dismounted and in position, and a dash down the straight road into its fire, with the squadron hemmed in between barbed wire fences, might meet with disaster, especially if the enemy has had time and been resourceful enough to stretch a few strands of wire across the 19—17 road, just west of the cross roads. The squadron would be in a very critical situation, should it be checked between 19 and 17 while the enemy is in possession of hill 900, but 400 yards away. The desire to get to Fort Leavenworth is natural and correct, but, with the enemy so near on two sides, the best plan is to strike him, drive him back, and then go on with the execution of the original mission.

Throwing out a flank guard of a troop or two to the south, to hold the enemy off until the platoon has been driven from 17 and the remainder of the squadron has passed, would be a poorer plan still. The ene-

my is too near the squadron's flank for this plan to have much chance of success. Having decided to fight, it is better to attack the enemy's main force with every available man.

Defensive action, in some position north of the 19—17 road, is not worthy of serious consideration, for that would be playing the enemy's game, which probably is to delay Major A's advance on Fort Leavenworth. The essential point in Major A's decision is to *attack* the enemy approaching hill 900; and, in deciding on a plan for making this attack, the main thing is to get at least a part of the squadron to the hill-top before the enemy has had an opportunity to establish himself there. For this reason, the support is sent through the fence towards the straw stack *at once*, to meet the head of the hostile column. The delay it will cause the enemy, however small, may secure the time necessary to get the main body of the squadron through the fence and in proper formation for efficient action.

Some provision should be made for protecting the left flank of the attack against whatever force of the enemy may be at 17, and this task naturally falls to the advance party, since it is already in a good position for this purpose. No serious objection can be made to sending a platoon to the assistance of the advance party, provided this reinforcement is sent from the main body and not from the support, for, as already stated, both platoons in the support have a more important task elsewhere.

But, to order the advance party alone, or the advance party reinforced from the support or main body, *to attack* the force at 17, is objectionable. If

Major A can avoid it, he should not engage in two fights at the same time. He should concentrate all his available strength against the main hostile force, and, while deciding this combat, he should endeavor, *by defensive action*, to hold off the hostile detachment near 17. It will be obliged to fall back, if Major A can drive back the main hostile force.

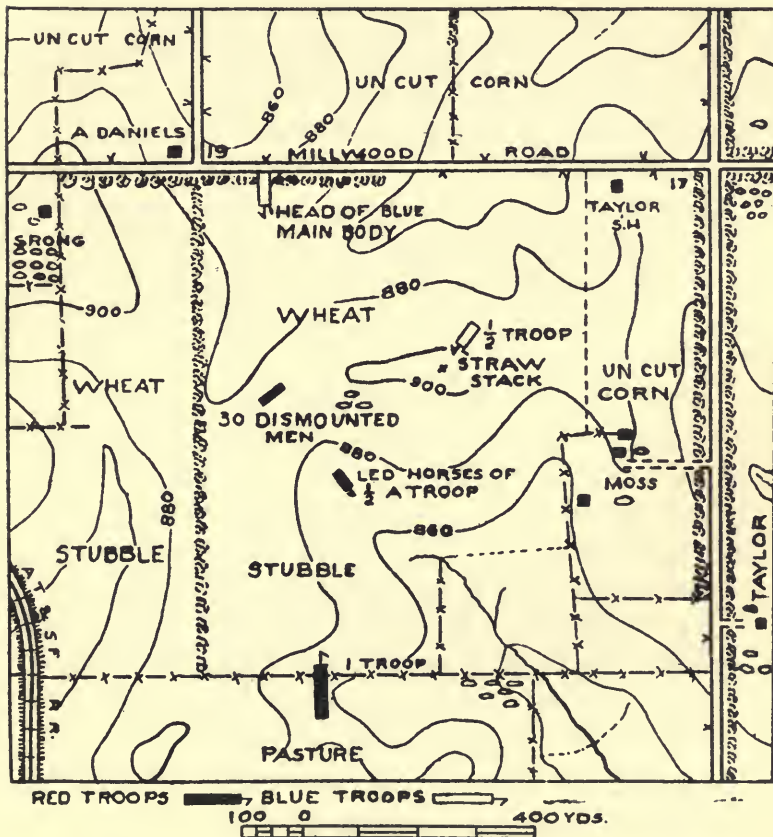
It is in situations such as this, that a commander appreciates the full value of training in issuing orders. The orders are brief, yet they are perfectly clear. They meet the situation, but they do not go beyond it and attempt to provide for contingencies which may not arise. Captain A is not told what he shall do when he reaches the top of the hill, but is left with full liberty to shape his action to meet the situation when he sees the enemy. Major A may be with him at that time, but, if he is not, Captain A will act in accordance with his own judgment. Similarly, the main body is given no orders except to turn into the field and march on the straw stack. Major A does not know enough of the situation beyond hill 900 to warrant giving the main body orders to attack. These orders will be sent it after Major A has had a look from the top of the hill, or has learned more of the situation in some other manner.

Continuation of the Problem.

As Major A finished issuing his orders, the support passed through the sections of the fence that had been opened in the mean time, and started towards the straw stack, in column of fours at a trot. When about half way up the hill, the remaining two troopers at the straw stack galloped back, pursued by four

hostile troopers, who turned and fled when they saw the support advancing.

When Major A comes over the brow of the hill near the straw stack, a single glance shows the following situation:



A deployed line of about thirty dismounted men is moving north towards the crest of the ridge; it is about 30 yards south of the crest, with its right flank about 300 yards from the straw stack, and its left flank about 100 yards east of the hedge fence running

south from 19. (*) The men are deployed at one yard interval.

The led horses of half a troop of cavalry are moving away from the deployed line, at a walk, down the ravine that heads near the deployed line. They are about 150 yards due south of the three trees.

A troop of hostile cavalry in column of fours is coming through the barbed wire fence, 900 yards south of the 19—17 road, about 200 yards east of the junction of the barbed wire fence with the hedge fence running south from 19, and is advancing due north in the field of wheat stubble, at a trot.

No other enemy can be seen in the visible terrain. The corn field east of the straw stack obstructs the view towards 17.

The support of Major A's advance guard is just behind him at the straw stack. The main body of the squadron is coming through a gap in the hedge fence, 100 yards east of 19. A part of the leading troop is through and is forming column of fours from column of twos. The firing towards 17 has ceased.

So far as Major A can see, the field south of the barbed wire fence, through which the hostile troop is passing, is closely cropped pasture land. The stubble field has a smooth and firm surface.

Required:

Major A's decision and orders.

Continuation of the Solution.

Major A *decides* to attack, mounted. The two platoons in the support of the advance guard will at-

* All the positions of troops in this problem are shown on the accompanying sketch.

tack the 30 dismounted men, the leading two troops of the main body of the squadron will attack the hostile mounted troop and the led horses in the ravine, and the rear troop of the main body will be held in reserve.

His orders are as follows:

To Captain A (commanding Troop A, less 2 platoons), who is by his side:

“Charge that dismounted line (pointing to the 30 dismounted men) with your troop. I will follow you with the main body.”

To Captain B (commanding Troop B), whom Major A joined, in less than half a minute, at the head of the main body:

“Form column of platoons and charge a mounted troop that is about to come over the hill in that direction (pointing to the south); Troop C will support you.”

To Captain C (commanding Troop C), whom Major A now joins:

“Troop B is charging a mounted hostile troop. Support the charge with your troop.”

To Captain D (commanding Troop D):

“The enemy has half a troop dismounted and a troop mounted. Hold your troop in reserve, and move it towards the straw stack.”

Major A then rides back towards the top of the hill to see the progress of the combat.

COMMENTS.

Unless the 30 dismounted men are attacked, they can reach a position in less than half a minute from which they can fire on the main body of the squadron coming through the fence into the field. Hence the two platoons (originally the support of the advance

guard), now with Major A at the straw stack, are ordered to attack the 30 dismounted men at once.

The mounted attack is perfectly practicable, since the charging force has to cover but 300 yards, the 30 dismounted men are taken by surprise, and the charge will be against the flank of their deployed line. The desired results probably would be secured by having the two platoons dismount and open fire on the 30 men, and this action is favored by the nearness of the straw stack, which affords splendid cover for the led horses, and for the two platoons while dismounting. The mounted action is preferred because it is, or should be, the more natural way for cavalry to fight, under the circumstances; it is simpler and promises speedier and greater results; and it allows the 30 men less opportunity to escape.

The order given Captain A permits him to make his own choice of formation for this charge. The charge will be made in two lines, boot to boot, with a platoon in each, the rear platoon following the leading platoon at about 100 yards, prepared to finish the work of the leading platoon, or to turn to the left and strike the head of the mounted troop. Were the charge to be made over a greater distance, and against the front instead of the flank of the enemy, it probably would be better to charge as foragers.

To attack the 30 dismounted men with one platoon, and the led horses with the other, would not be the best method of employing these two platoons. The 30 men, if permitted, may interfere seriously with the attack of the main body of the squadron, and every man of the two platoons at the straw stack, except a small combat patrol to be sent towards the Moss

house, should be employed in the attack against the 30 men, whether the attack is made mounted or dismounted. The capture of the led horses is a matter of secondary importance that may be attempted later. To attack the led horses with all of the two platoons would be a still more serious error, for the 30 men are then free to fire on the two platoons as well as on the main body of the squadron.

The charge to be delivered by the main body of the squadron should be started at once, and its objective should be the mounted hostile troop. There is not sufficient time to bring the entire squadron through the fence and form it up in three lines before starting the charge, and the best we can do is to order each troop forward as soon as it has come through the fence. Until Captain B has reached a point where he can see the mounted hostile troop, the best formation for his troop (at the head of the main body) will be column of platoons. A formation with a broader front would be more difficult to direct, and the chances are that a charge by a part of the line would be delivered in the air. The formation and movements of the remaining two troops will depend on the development of the fight. Captain B may have to incline to the left with his troop in order to avoid interfering with the charge of the two platoons from the straw stack. More probably these two platoons will have passed Captain B's front, and in that event he may ride through and over the remnants of the 30 dismounted men.

Continuation of the Problem.

Major A's attack drove the mounted hostile troop

to the southwest. The 30 dismounted men were killed or captured, but a part of their led horses escaped. The hostile platoon, which had been blocking the road at 17, escaped to the south. Leaving a platoon, under an officer, to move the wounded to the Sprong house, and to bring the able-bodied prisoners and captured horses on to Fort Leavenworth, Major A sent a report of the encounter to General B, and continued his advance, at 8:15 a. m., in the same formation as before. Distant firing could then be heard towards Leavenworth.

Before the squadron passed 15, the non-commissioned officer's patrol reported from Bell point, at 8:15 a. m., that it had encountered no enemy on Sheridan's Drive, and that heavy firing could be heard south of Fort Leavenworth. The squadron was turned to the south at 11, and taken up the slope of Hancock hill to Sheridan's Drive. At Wagner point, a hostile infantry patrol was encountered, which delayed the squadron for about 10 minutes. Nothing was seen of the hostile cavalry after the squadron left 17. The noise of firing towards Leavenworth was continuous during the advance from 17.

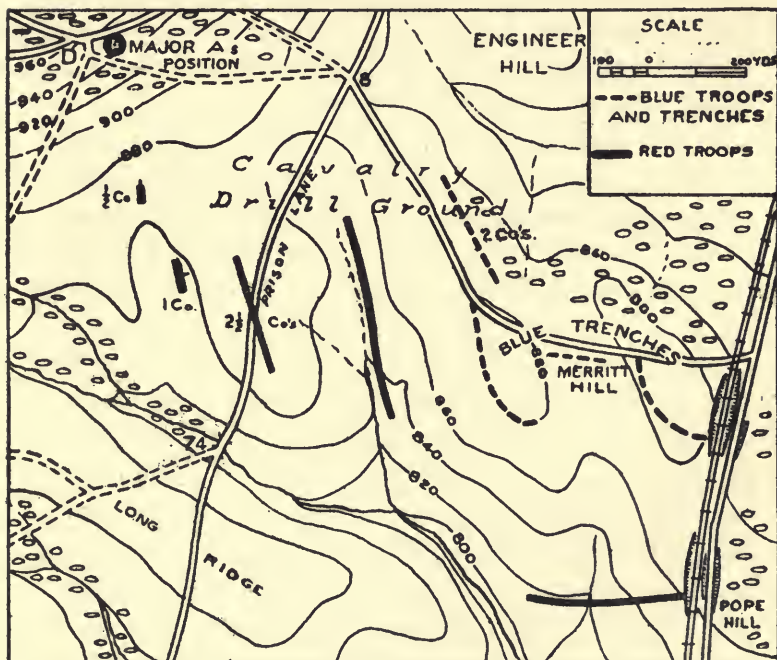
At 9 a. m., Major A is at D, at the junction of Sheridan's Drive with Hancock avenue, with his squadron closed up behind him in columns of fours, and a hasty reconnaissance from the edge of the wood shows the following situation:

Colonel C's force is occupying shallow trenches on both knolls of Merritt hill. (*) The trench on the western knoll follows the 880 contour, and its right flank rests on the road leading from 8 across the top

* These positions are shown on the accompanying sketch.

of Merritt hill. The trench on the eastern knoll also follows the 880 contour, and its left flank appears to rest on Grant avenue. A short trench can be seen across the head of the ravine between the two knolls.

Two Blue companies, deployed on a front of about 250 yards, are advancing out of the ravine on the



north slope of Merritt hill, and are parallel to and about 75 yards from the road from 8 to Merritt hill, with their right flank at the letter "y" in "Cavalry."

This position is being attacked. Hostile infantry, deployed at about one man per yard, can be seen extending about 400 yards along and in the ravine which runs a little southeast from the letter "I" in "Drill Ground," with its left flank at the same letter "I".

Parts of another line of hostile infantry, similarly deployed, can be seen extending west from the words "Pope Hill." Extending a little southeast of the letter "D" in "Drill Ground," along the crest of the ridge across Prison lane are two and a half companies of hostile infantry, deployed on a line about 250 yards long, the left of the line about 100 yards southeast of the same letter "D". All these lines are delivering a heavy fire on the trenches, and the fire is being returned from the trenches.

Two hundred yards west of the letter "o" in "Prison Lane" is a company of hostile infantry, in line in close order, facing east. One hundred and fifty yards west of the letter "D" in the word "Drill Ground," is a platoon of hostile infantry in column of squads, advancing towards D (where Major A is observing).

As far as Major A can see, there is closely cropped pasture land between Grant avenue and the range of wooded hills a little over a mile west of Grant avenue. Of the ravines marked with a full blue line on the map, those visible to Major A appear to be serious obstacles to cavalry, excepting the one just west of and about parallel to that part of Prison lane between 8 and XXII. This latter ravine has been filled in and levelled off to make an additional target range and is now overgrown with closely trimmed grass. The squadron appears to be concealed from the enemy by the wood and dense underbrush along Sheridan's Drive.

Required:

Major A's decision and orders.

Continuation of the Solution.

Major A *decides* to deliver a mounted attack against the hostile infantry, sending the leading three troops (from which all the detachments previously made have been taken) against the platoon advancing in column of squads, the company standing in line in close order, and the two and a half companies deployed along the crest of the ridge across Prison lane, and holding the fourth troop in reserve.

His orders are as follows:

To Captain A, who is beside Major A:

"We will attack that infantry mounted.

"Charge over that platoon and into the formed company beyond with your troop.

"Troops B and C will support you.

"Troop D will be the reserve."

To Captain B, as he approaches:

"Charge that deployed line (pointing to the two and one half companies across Prison lane) and support Captain A.

"The other two troops will follow you."

The orders given Troop C, and the use to be made of Troop D in reserve, will depend on the development of the situation.

COMMENTS.

A decision to make a dismounted attack against the enemy's left flank, with the entire squadron, would be a good solution for this problem, but the solution given above is preferred, for reasons which will now be stated.

It appears that the attack will be a surprise to the enemy. He may have heard of the squadron's approach, but the position of the company in close order, *in line facing east*, suggests that he is not aware

of imminent danger to his left flank, although the movement of the platoon towards D indicates that he is taking measures, somewhat tardily to be sure, to protect this flank. The position of the marching platoon is an advantage for Major A, for it is but 300 yards from the head of the squadron, and, at the best, it can deploy and accurately fire but very few shots before it is ridden down, and it will serve to mask the fire of the formed company and deployed line in its rear.

The target is exceptionally favorable for mounted action—a deployed line about 250 yards long, busily engaged in a severe fire fight at less than 500 yards from the trenches, and a company in close order but 100 yards in its rear, both with a flank pointing directly towards the squadron, and both apparently unaware of the danger on their flank.

Major A has reached the battlefield at an opportune moment. The situation appears to afford the squadron an excellent chance to decide the fight. What Major A has seen indicates that the enemy has one regiment, and is attacking the front of Colonel C's intrenched position with one battalion, and is endeavoring to envelop the right of the position with two battalions. This strength agrees with the information received from Colonel C before the squadron left Millwood. The attack has about reached its final stage. The battalion extending west from Pope hill is about 300 yards from the trenches; the battalion along the ravine southeast of the letter "I" in "Drill" is within about 200 yards of the trenches, and the whole situation indicates that both are making the fire preparation for the final assault. These battal-

ions are being assisted by the fire of the two and a half companies deployed across Prison lane, and the shape of the ground is such that the fire can be continued from this position (but 500 yards from the trenches) until the assaulting battalions are very near the trenches.

On the side of the defense, Colonel C appears to be moving his last formed reserve (2 companies) up to the line, to extend and support his threatened right flank, or to make a counter attack.

This being the situation, a mounted attack by the squadron should succeed in driving the hostile reserve battalion into the XXIII—XXII ravine, and may succeed in wholly routing or capturing the battalion. The charge will not mask the fire being delivered from the trenches on the hostile battalion in the ravine, and the termination of the fire that is being delivered on the trenches by the two and one-half hostile companies, probably will make it possible for Colonel C to push his two reserve companies over the top of the ridge, and deliver a vigorous counterstroke with them, against the battalion in the ravine that heads at the letter "I" in "Drill". The charging cavalry will be seen by Colonel C and his command, the morale of the defenders will be raised by the sight, and they will know the full strength of the assistance that has reached them.

But, we may say, all this can be accomplished by making a dismounted attack from the edge of the woods near D. True enough, it may, but the enemy will be given time to recover from his surprise and to deploy a part or all of his reserve battalion on a line facing north. The squadron (less 2 platoons,

some wounded left at the Sprong house, and a patrol or two) can put not more than 250 men in the dismounted attack. The hostile reserve battalion has about 450 men, and should be able to hold off the dismounted cavalry with two companies or less, while the remainder of the battalion continues to assist the attack on the trenches from where it now is, or from a new position which affords cover from the squadron's fire.

Granting that the dismounted attack would succeed, still it would take longer; the hostile regiment would have a better chance to withdraw from the fight in some sort of order, and, if the enemy has other troops approaching the field, they are given more time in which to get within supporting distance before it is too late. The dismounted attack probably would result in greater loss to the cavalry than would be suffered in a mounted attack, and in less loss to the hostile infantry.

A dismounted attack is the more conservative action, but does not promise such brilliant results in case of success. But there is another very weighty reason why properly trained cavalry should make the attack mounted, viz., the beneficial effect the mounted attack will have on the morale of this cavalry, when it encounters the enemy in the future, as compared with the manner in which its morale for true cavalry action would be impaired by a dismounted attack. If a cavalry leader forces his command into a dismounted fight, when decisive mounted action is favored by conditions such as those here presented, he must not be surprised if his cavalry loses its spirit, and fails when only mounted action will save it. Cavalry properly

trained is taught, in time of peace, to place its main reliance in the horse and the saber; and, in time of war, it should never be employed dismounted, against cavalry, infantry or artillery when mounted action promises as good or better results.

There was a day when it was *the rule* for cavalry to attack mounted and in masses against infantry still under the control of its leaders, but sensible cavalrymen willingly admit that that day is past. By this we do not mean to say, however, that the modern battlefield does not present occasional opportunities for the mounted action of cavalry against infantry; and in this problem we have attempted to illustrate one such opportunity.

Still, dismounted action will be *the rule* in the future, when cavalry is confronted by infantry, and because of this we are in danger of forming the opinion that it should *never* fight mounted when engaged with infantry. Undoubtedly, the main object is to gain a victory, and the weapon with which we gain it is but a minor consideration; but it would be a pity if our cavalry leaders were not trained to recognize at a glance, the few fleeting occasions when infantry may be ridden down, and victory gained, in the shortest time, with the least loss and with the greatest results, by mounted action.

As a rule these favorable occasions arise when the opposing infantry is, for one reason or another, in a shaken and demoralized condition. Unshaken infantry of good quality may be attacked mounted, with reasonable chance of success *only when other conditions are exceptionally favorable*, i. e. when the cavalry can approach to short charging distance without

being seen and can attack by surprise, as is the case in the situation we have just studied.

The question, Under what circumstances does a cavalry charge against infantry promise good results? would be very easy to answer were it possible for the cavalry leader to know the condition of the infantry. But, right here is the difficulty. There is no well defined line dividing shaken from unshaken infantry, and there are no plain signs that indicate in all cases this shaken condition.

Morale is one of the deciding factors of every battle, and we can not eliminate it from war. Whatever the character of troops, morale and the conditions affecting it are so varying that the probable conduct of those troops, in any particular situation, always contains an element of doubt, and for this reason we can not say with certainty what the result of a charge will be before it is delivered. We naturally would expect the rapidly moving cavalry, who knows the worst is over if it can but close with the foe, to have morale superior to that of the infantry waiting to receive the charge, with the full knowledge that every additional moment increases its danger; but matters may turn out just the reverse. On the battlefield, things are what they are, and not what we think they should be.

A squadron may charge through a hail of bullets to-day, losing a large percent of its numbers and driving the enemy from his position, while to-morrow it may turn to the rear in rout and disgrace before five percent of its strength has fallen. On the other hand, infantry may repulse a cavalry charge to-day, with a fire almost as steady as that delivered on the target

range, and yet flee in a panic to-morrow at the sight of an onrushing horde of yelling horsemen.

No leader of men in battle dares to disregard these psychic phenomena, and because of them, even the most daring cavalry commander probably will have forced upon him the conviction that the situation must be exceptionally favorable that will warrant a mounted attack against infantry, unless the attack is in the nature of a sacrifice or is being made to accomplish some special end. In a prolonged war, situations frequently will arise in which cavalry should unhesitatingly attack unshaken infantry, and even infantry flushed with victory, regardless of the losses it may suffer, and in such situations the cavalry leader, or the one ordering the charge, should not rely on the rules which ordinarily guide him to his decisions. The prospect for local success in the charge itself then becomes of little importance in comparison with the effect the charge is expected to have on the welfare of the whole command, and the leader has but one question to answer—Will the probable result of the charge be worth the probable loss? If so, the charge should be made regardless of the unfavorable conditions.

CHAPTER XXIII.

À HALT FOR THE NIGHT.

SITUATION.

(See 2 and 4-inch maps).

A Blue force is being assembled about 4 miles east of Platte City in hostile territory. September 1, a Blue detachment, under Colonel A, consisting of

5th Infantry,

6th Infantry, and

1st Squadron, 7th Cavalry (less Troops C and D),

was ordered to cross the Missouri river and get information of the situation west of Leavenworth.

As the infantry column was about to enter Leavenworth, a little before 2 p. m., a staff officer, sent ahead with the cavalry, reported that he had impersonated a local agent of the Red government and learned by telephone that a hostile force of 1 regiment of infantry and 1 troop of cavalry passed through Easton about 1 p. m., and continued towards Leavenworth on the 88—90 road, and that no Red forces had been seen in other villages near Leavenworth.

Colonel A left one company to guard the Terminal bridge, and continued with the remainder of the column towards the open ground north of Leavenworth.

At 2:45 p. m., when the head of the column is approaching Prison hill on Metropolitan avenue, Colonel A, who is with the advance guard (1st Bn., 5th Inf., and 8 troopers), receives the following message from his cavalry commander, sent from 28 at 2:30 p. m.:

"Have just encountered a hostile cavalry patrol near 30 and driven it back towards 100. A patrol at 16 reported no enemy visible at 2 p. m., on Atchison pike. No report from patrols towards 108 and on roads to south. I will hold the high ground at this point and endeavor to clear up the situation in my front."

Note.—The weather is fair and cool.

Required:

Colonel A's estimate of the situation and orders, on the supposition that no additional information of the enemy is received during the next 30 minutes.

SOLUTION AND DISCUSSION.

Our first task is to determine how the reports received by Colonel A should affect his further actions to-day. He has crossed the river for the purpose of getting information of the situation west of Leavenworth, and the execution of this mission should be the controlling factor in all his decisions. Although the information secured by his staff officer is very important, still it lacks much of being sufficiently complete and reliable to complete the task of the Blue detachment. The reports received by telephone must be corroborated by other reports from more reliable sources; and the reason for the Red detachment's being in this vicinity and the whereabouts of its supporting troops should be learned if possible.

Colonel A cannot hope to do all this to-day. His detachment has come about 15 miles, a good day's march, and it should not be required, without urgent reasons, to undertake any extensive enterprises in its fatigued condition. His chief concern now should be to seek a camping place that suits the tactical situation, and prepare his command for to-morrow's operations by giving it a night's rest. We will examine

the situation to see if this is practicable, for we cannot always do what we would like; often the enemy forces upon us some less desirable course.

When the detachment renews its operations to-morrow, it probably will begin by crossing the range of hills that lies to the west of Leavenworth. Should the enemy be permitted to establish himself in these hills, he will secure all the advantages to be derived from holding this commanding and easily defended ground. Consequently, gaining possession of these hills to-night will greatly simplify to-morrow's task, especially so since Colonel A has a good chance of doing this yet to-day without a serious fight. Assuming that the hostile regiment passed through Easton about 1 p. m. and continued an uninterrupted advance, it should be somewhere between 94 and 96 by 2:45 p. m. when the head of Colonel A's infantry column is approaching Prison hill. (*) At this hour then, the two columns probably are about 5 miles apart and, if they continue to advance toward each other at the same rate, their heads will meet on top of the ridge about 28. However, taking everything into consideration, there are good reasons for believing the ridge can be reached by the Blue detachment without involving its infantry in a fight. Colonel A's information is that he is twice the enemy's strength; since the enemy is in friendly country, he should know of our presence and superior numbers, and may wish to avoid a fight to-day, especially as the hour is late and he probably has completed a day's march. Finally, Colonel A's principal advantage is that his cavalry is al-

* When we solve the problem given in Chapter XXIV, we will see that this assumption is not correct.

ready in possession of the ridge and may be able to hold it until the Blue infantry comes to its support.

For these reasons, Colonel A's arrangements for the night will be such as to insure his holding this line of heights. However, unless the enemy is more aggressive than we anticipate, it will not be necessary for this purpose to move the entire detachment to the top of the ridge. A better plan will be to hold the ridge with the outposts, and have the main body of the detachment camp within supporting distance on the eastern slope.

This makes the camping place of the main body dependent on the location of the outpost line. This will frequently be the case, especially with small commands in the immediate presence of the enemy, for tactical considerations then take precedence over comfort and convenience. But, when the enemy is so distant, or so lacking in aggressiveness, that there is little or no danger of his attacking our outposts, we may give more thought to the comfort of our command and locate our camp with reference to water, fuel, shade, supplies, etc.; the outposts must then take the ground as they find it and make the best possible use of it for observation and defense.

So, in this case, Colonel A must decide on the line to be held by the outposts before he can determine the camping place for the main body. It is always the duty of the detachment commander to prescribe, in general terms, the line the outpost is to occupy, and it should be so chosen as to block as far as possible all the lines of approach for the enemy. In the situation before us they are the Atchison pike, the Zimmerman and Barnes roads, the 105—128—126 road, and the

Lecompton road. Our information is that the enemy proceeded east from Easton on the 88—90 road, and it was on the prolongation of this road through 100 that the hostile patrol was encountered. The patrol that reported from 16 at 2 p. m. could observe the Atchison pike to and west of I and saw no enemy on it at that hour. No reports had been received from the patrols on roads south of the Barnes road.

The logical conclusion is that the 90—96—100—30—28 road is the principal line of approach for the enemy and, consequently, the one to be guarded most carefully. But the other routes from the direction of the enemy must also be covered, for we cannot be sure that he has not or will not turn to the north or south at or east of 90; this is especially true with respect to his cavalry, and also with respect to the 94—110—108—104 road. The Atchison pike and roads to the south of the 108—104 road are more roundabout routes that may be guarded with smaller detachments. Consequently, the principal strength of the outposts should be along the ridge from 28 to 50, covering the roads along which there is most probability the enemy will advance.

The probability is that this is also the portion of the line that will be in greatest need of assistance should the enemy attack, and the camp of the main body must be located with direct reference to the ease with which reinforcements can be sent from it along both the Zimmerman and Barnes roads. Since these two roads unite at 56, it should not be difficult to find a suitable location for the camp.

The distance the main body of a command should be held in rear of the line of observation of the out-

post will depend on so many conditions such as the size of the command, the nearness of the enemy, and the character of the terrain, that it is impossible to prescribe any hard and fast rule for determining it. The controlling principle is that the distances between the different elements of the outpost, and between the outpost and the main body should be such that each element can furnish the necessary protection for the next one in its rear, and yet not be beyond supporting distance of it. If the main body be camped near the cross roads at 60, it will be within a mile and a half of the top of the ridge, which is the line along which the outpost will make its resistance in case it is attacked. This is close enough for it to give the outpost timely support, yet it is far enough to the rear to insure it against surprise and petty annoyance from every false alarm at the front line of the outpost.

Occasionally, a command can locate its camping place in such manner that a lake, swamp, impassable river or some other natural obstacle will afford it perfect protection on one or both flanks, or even along its entire front. For example, if the tactical situation but permitted, Colonel A might withdraw to the east bank of the Missouri river and secure complete protection by merely posting a small detachment at each of the bridges (at Leavenworth and Fort Leavenworth), and patrolling the river with a few cavalrymen. We have purposely chosen this more difficult situation, for it is the one we will ordinarily have to deal with, so far as natural obstacles affect the problem. When the flanks need protection and are not protected by the terrain, security must be obtained by bending back the flanks of the outpost line, or by send-

ing out special detachments. Still there must be some limit to this doubling back and stretching out of the flanks, else we will employ so large a fraction of the command on outpost that we will defeat our real object, which is to secure rest for the bulk of the command.

It is to be observed that the Atchison pike and Le-compton road lead directly to the flanks of the camping place selected for the main body. We have seen that it is not probable the enemy will advance in any force to-night by either of these roundabout routes; still, he may send cavalry patrols along these roads and, all in all, the danger is not so slight that we may afford to disregard it entirely. Accordingly, small detachments will be posted at Atchison cross-roads (14) on the north, and 68 on the south. These roads are beyond the real sphere of action of the outpost, and it will be best to send these detachments directly from the main body, and leave the outpost commander free to concentrate his whole attention on that portion of the front more directly threatened by the enemy.

The real outpost line, therefore, will extend along the ridge across the Zimmerman, Barnes and 48—50—68 roads, and the outpost commander need be told nothing more than this of the outpost dispositions, for it is his business to arrange the details and he should be given a free hand. Apply to him the rule that should be observed with subordinates in general: Charge him with a specific duty but allow him to make his own choice of means for carrying it out, and then hold him responsible for results. As pointed out in previous chapters, each commander must be his

own judge as to how far he should vary from this rule, because of the lack of experience or instruction of his subordinate.

We may now consider what troops will be assigned the outpost. The number should be kept as small as possible, consistent with the safety of the command. Every man and animal on outpost duty during the night is deprived of a part or all of his rest and, as a consequence, is poorly fitted for duty the next day. No rule worthy of the name can be given for determining the strength of the outpost, since it depends on so many varying conditions. As Colonel A is already in close touch with the enemy, he will have not only to guard the roads but to watch the country between them as well, to prevent hostile patrols and possibly larger hostile bodies from penetrating the outpost line. This will call for a stronger outpost than would be necessary were the enemy still many miles away. Still, a battalion should be sufficient infantry, for, in a situation such as this, it can cover a front of more than a mile and afford protection for a command the size of Colonel A's.

The battalion now in the advance guard may be assigned this task, or a fresh battalion may be detailed for this duty. In favor of the former it may be said that troops performing the duties of security and information would better be relieved in the morning just before starting on the day's march than in the evening just before posting the outpost. During the day, the advance guard has gained a comprehensive view of the situation that will greatly assist it when assuming its new duties as outpost at night, while, on the other hand, fresh troops detailed from the main

body would be temporarily out of close touch with the situation. Besides, the advance guard can occupy the outpost position in less time than can a fresh detachment from the main body, there is less confusion, and immediate rest is secured for the largest possible fraction of the command. Finally, relieving the security and information troops at the beginning of the following day's march, facilitates resuming the march, as was seen when discussing an advance. (*)

One or both of the machine gun platoons might be attached to the advance guard battalion, but this is not considered advisable, since there is no point on the line of resistance where they would be of particular value, especially at night. They may add to the strength of outpost troops when they can be trained on approaches such as bridges, that the enemy *must* make use of in advancing against the position; but we should not fall into the habit of assigning these guns to the outpost on all occasions, for the men and animals with them should have their proper share of rest with the main body.

The employment of the cavalry deserves some explanation, but it may be well, before deciding on how it shall be employed in the situation before us, to call attention to the fatiguing character of cavalry duty in general. By way of illustration, let us consider the ordinary march of a force of all arms in the presence of an enemy. The trooper must be up and caring for his horse before the foot soldier is awake. Ordinarily, the cavalry precedes the remainder of the command on the march and often leaves camp some minutes before the column. Always it is nearest the enemy and this

* See page 80.

greatly contributes to the strain, mental and physical, it has to endure. In making its reconnaissance, it marches from twenty to forty miles while the remainder of the command makes from ten to fifteen miles. The infantry column reaches camp and makes its arrangements for the night under the cover of the cavalry still in front; in large commands, hours may elapse before the most distant cavalry detachments, such as patrols, have reached their bivouac; even then horses have again to be groomed and cared for. This all means long hours, great distances covered, and excessive fatigue for both man and horse. The next day the program is repeated; all the cavalry must be thus employed; a portion of it can not regularly relieve the rest.

Under these conditions, a wise commander, who thinks of his command of the three arms combined as a single fighting unit, and wishes to do all in his power to increase its efficiency, will assign his cavalry no task for the night that can be equally well done by foot troops. Even so, there often will be more purely cavalry tasks, in connection with the outposts, than cavalry to do them, and the tendency generally will be to overwork and ruin the cavalry.

The situation confronting Colonel A forms no exception to the general rule. He has been sent out to secure information of conditions west of Leavenworth, and if he can do this by observing only and without serious fighting, so much the better. His cavalry is his principal means for making this observation close and effective, so long as close contact is not established between the two opposing forces of infantry.

In the first place, the cavalry must hold on to the heights about 28 and 44 until the infantry can come to its support. It is not necessary to send it orders to this effect, for the cavalry commander has stated this as his intention. It will then be free to devote its whole attention to clearing up the situation in its front. Much as we would like to withdraw it from the front at once and get it into camp for the night, we will have to leave it out until it has determined what it can of the enemy's strength and his camping place for the night. The entire cavalry force, less the 8 troopers with the advance guard, should be given this task, for, if we have twice as much cavalry as the enemy, we must make the most of the advantage this gives us.

But the cavalry will not be left out any longer than is necessary to secure this information, and, in any case, it will be brought in at nightfall. Some cavalry must be assigned to the outpost for the night, but it will be well for Colonel A not to settle on the amount until he knows more of the situation; for the present he will merely notify the outpost commander that some cavalry will be given him for the night. This will be better than telling the outpost commander at this time that he will be given a troop or half a troop for the night, and trusting him to employ only so much of it as is necessary; he cannot be blamed if he uses all the troops Colonel A gives him, and it is Colonel A's business to give him only what he needs.

If practicable, Colonel A should decide now on what he intends doing in case the enemy should attack, for the outpost commander should know whether he is to hold his position and be reinforced by the

main body, or is to fall back on a position in rear to be occupied by the main body. We have already seen that Colonel A's main idea in camping at 60 is that he may hold the heights to the west; accordingly, in case of attack, the main body will move up and reinforce the outpost.

Some guard must remain at the bridge at Leavenworth; not that there is any probability that a strong hostile body will march around the Blue outpost during the night and reach this bridge, but because it might be damaged and made impassable by hostile cavalry patrols or even by the inhabitants of Leavenworth. This guard need not be large; a platoon of infantry would be sufficient, but, since a full company is now there, it will be better to allow it all to remain. So long as the Leavenworth bridge is held, there is no special object in guarding that at Fort Leavenworth also.

Colonel A has yet to consider what disposition will be made of the regimental wagons. It is important that troops should have access to their wagons daily, if for only a few hours; they contain comforts that the command should not be deprived of without good cause. The occasions when they must be left far to the rear are numerous enough without manufacturing them. If the outpost were in serious danger of attack it would be unwise to have the wagons join it, for they might block the roads and interfere with the movements of the command, and would be in danger of falling into the hands of the enemy. But, from Colonel A's information of the hostile strength, he is of the opinion that the enemy will seek to avoid rather than bring on a combat, and he will permit the wagons to join both the main body and the outpost.

While deliberating on the situation, our colonel has allowed the command to continue its advance along Metropolitan avenue, and has withheld his orders in the hope that he may receive further information from his cavalry. At 3:15 p. m., when the reserve of the advance guard is crossing Avenue hill (see 4-inch map), it becomes apparent that he must make his decision on the information then in his possession, or halt the column and hold it along the road while awaiting the arrival of fresh reports from the cavalry. The latter procedure is objectionable, since it would deprive the troops of a part of their rest in camp, and the situation is sufficiently clear for an intelligent decision.

Accordingly, Colonel A *decides* to camp for the night in the vicinity of 60, with an outpost on the 28—50 ridge across the Zimmerman, Barnes and 48—68 roads, and covering detachments from the main body at 14, 68 and Leavenworth bridge; and to have the cavalry continue its reconnaissance until further orders. He has assembled the regimental and advance guard commanders, and his staff, and, without halting the column, he issues the following orders at Avenue hill at 3:20 p. m., mainly from the map:

“Citizens of Easton report that a regiment of Red infantry and a troop of Red cavalry passed through that town about 1 p. m. and marched east on the 88—90 road. Inhabitants of other towns near here say they have seen no Red troops. A hostile cavalry patrol was driven back from 30 towards 100 by our cavalry, at 2:30 p. m. Our two troops are now holding the high ground near 28, and reconnoitering towards the enemy. A patrol at 16 reports no enemy visible at 2 p. m. on the Atchison pike.

“The detachment will halt and establish outposts for the night.

"The main body will camp near 60.

"The 6th Infantry will furnish a platoon of infantry to cover the Atchison pike at 14, and another to cover 20th street at 68. Company A, 6th Infantry, now at the Terminal bridge, will remain there for the night.

"The advance guard will establish an outpost on the ridge to the west across the Zimmerman, Barnes and 48—68 roads. It will maintain communication with the detached posts from the main body at 14 and 68. Additional cavalry will be assigned to the outpost later.

"The cavalry will hold the 28—50 ridge until relieved by the outpost, after which it will endeavor to determine the enemy's strength and position.

"If the enemy attacks, the outposts will hold a position along the 28—50 ridge.

"The field train will join the main body, the company at Leavenworth (*) and the outpost.

"Messages will reach me with the main body at 60."

Before the assembled officers disperse, the adjutant announces that Captain B is the detailed officer of the day, and that he will take the interior guards from his company.

The following order, in the form of a message, is then sent to the cavalry commander:

	Detachment, — Division,
To	Avenue hill, near Leavenworth,
Major B,	1 Sept. —, 3:25 P. M.
Commanding 1st Sq., 7th Cav.	

(†) The detachment will camp at 60 for the night. The advance guard will establish outposts on the 28—50 ridge, covering the Zimmerman, Barnes and 48—68 roads.

You will keep the enemy from the 28—50 ridge until relieved by the outpost, after which you will advance and en-

* This company should be joined by its wagon when the field train crosses the Terminal bridge.

† The cavalry commander is in possession of all the information of the enemy.

deavor to determine the enemy's strength and position. Withdraw from the front so as to join the main body not later than 6 p. m.

Messages will reach the detachment commander at 60.

By order of Colonel A:

B.

Capt. & Adjt., 5th Inf., Adjutant.

The detachment quartermaster, who rode forward and joined Colonel A at Leavenworth, and is now about to ride back to guide the field train to camp, is directed to explain the situation to Captain A (at the Terminal bridge) and instruct him to remain there during the night and protect the bridge. A written order will be sent Captain A later.

Together with his staff and regimental commanders, Colonel A now rides forward, inspects the ground about 60, assigns camping places to the organizations, and takes general supervision of the interior arrangements of the camp. Captain B, who has been notified of his detail as officer of the day, examines the ground about the camp, decides on the number, strength and location of the interior guards, and posts the same, and then reports his arrangements to Colonel A. When the platoons for the two detached posts have reported, Colonel A gives them their orders and starts them out.

Had Colonel A issued a single combined order it would have appeared as follows when in written form:

Field Orders	Detachment, — Division,
No. —	Avenue hill, near Leavenworth,
	1st Sept. —, 3:25 P. M.

1. According to reports of the inhabitants, a Red force of 1 regiment of infantry and 1 troop of cavalry passed through EASTON at 1 p. m. to-day and marched east on the 88—90 road, and no Red troops have been seen in other towns near

LEAVENWORTH. At 2:30 p. m., a hostile cavalry patrol was driven back from 30 towards 100 by our cavalry, which is now holding the high ground near 28 and reconnoitering towards the enemy. One of our patrols at 16 reported no enemy visible at 2 p. m. on the ATCHISON pike.

2. The detachment will halt for the night and establish outposts.

3. (a) The main body will camp near 60. The ATCHISON pike at 14, and 20th street at 68, will be covered by a platoon of infantry at each place, to be furnished by the 6th Infantry.

(b) Company A, 6th Infantry, now at the TERMINAL bridge, will remain there for the night and protect that bridge.

(c) The advance guard, under Major A, will establish an outpost on the 22—28—50 ridge, across the ZIMMERMAN, BARNES and 48—68 roads, maintaining communication with the detached posts from the main body at 14 and 68. Additional cavalry will be sent the outpost later.

(d) The cavalry, under Major B, will hold the enemy away from the 28—50 ridge until relieved by the outpost, and will then advance and endeavor to determine the enemy's strength and location. It will withdraw in time to join the main body not later than 6 p. m.

(e) In case of attack, the main body will reinforce the outpost position along the 28—50 ridge.

4. The field train will join the main body, the outpost and the company at the TERMINAL bridge.

5. Messages for the detachment commander will be sent to 60.

By order of Colonel A:

B.

Capt. & Adjt., 5th Infantry, Adjutant.

Verbally to the regimental and advance guard commanders, and staff. Copy to commanders of the cavalry and Company A, 6th Infantry.

CHAPTER XXIV.

A HALT FOR THE NIGHT.

PROBLEM.

(See 2-inch map).

On September 1, a Red force, temporarily stationed about 15 miles west of Easton, in friendly country, detached a regiment of infantry and troop of cavalry to make a reconnaissance towards Leavenworth.

At 1:55 p. m., when Colonel A and Major A (detachment and advance guard commander, respectively) reach 90 with the support of the advance guard, they have reliable information, sent by residents of Leavenworth over rural telephones, that two troops of hostile cavalry crossed the Terminal bridge into Leavenworth at 1 p. m. and that a column of hostile infantry, whose strength was not determined, was approaching the bridge via Stillings at 1:45 p. m. Wire communication with the town was wholly interrupted at that hour.

The Red regiment is advancing on the 88—90—94—96 road in the following order: Advance party (1 plat. Co. A, and 8 troopers)—500 yards—support (Co. A, less 1 platoon, and Co. B)—700 yards—main body (remainder of the regiment)—1 mile—field train. (*) At 1:30 p. m. the cavalry sent a message from 94 saying that it had seen nothing of the enemy and would continue its advance.

* Mark on the map the positions of the different elements of the column.

Note.—The weather is fair and cool.

Required:

Colonel A's estimate of the situation.

His orders.

SOLUTION.

Colonel A's mission is to make a reconnaissance towards Leavenworth, and the successful accomplishment of his mission imposes on him the task of securing all possible information concerning the enemy just reported near that town. Although the information received over the rural telephone system is valuable and fairly trustworthy, still it is not definite with respect to the strength of the hostile infantry column, and is not as reliable as the reports of patrols in contact with the enemy. The reconnaissance must be continued until contact with the enemy secures the information desired.

But it is not advisable to continue the advance to-day. The command has marched eighteen miles, a long day's march for even so small a command, and, under ordinary circumstances, should seek the first convenient camping place for the night. The tactical situation also renders this advisable. The enemy, in undetermined strength, is known to be near and advancing; if the opposing forces continue moving towards each other, they will be together in less than two hours, and an engagement will be precipitated. Colonel A should not lead an exhausted command into a fight against an enemy of unknown strength. It will be better to avoid a fight to-day, and employ the time until to-morrow in securing information with patrols and spies; on this information Colonel A

can make an intelligent decision as to his further intentions.

Having reached this conclusion, Colonel A looks about for a camping place. Since his immediate object is to avoid a fight to-day, his chances of doing this will increase if he retire to the west bank of the Big Stranger creek, thus placing this obstacle and greater distance between himself and the enemy. This would mean a march of three more miles for the troops, and the attitude of the enemy is not so threatening as to warrant giving up the advanced position near 90. On the other hand, unless there is some good special reason, it will not be wise to advance much beyond 90. To see if such a reason exists, let us examine a little more closely our own and the enemy's situation.

From the situation as stated in the problem, it is next to impossible to form a reasonable idea of the enemy's intentions, where he came from, his strength, whether he is followed by stronger hostile forces, etc. As a matter of fact this probably constitutes the necessity for Colonel A's reconnaissance. We are equally in doubt as to how far he has marched to-day, but we are warranted in assuming, until circumstances show the contrary, that he has made the usual day's march when he reaches Leavenworth. His cavalry will soon be in contact with ours, and the situation probably will be no more clear to him than to Colonel A. Some time between two and three o'clock he should know of our presence, although he may hear of it earlier by using the telephone, notwithstanding he is in hostile territory.

Considering these things in connection with the

time of the day, the most reasonable supposition is that he will halt for the night in the vicinity of Leavenworth. We may expect him to place his outposts on the ridge west of the town, for he may thereby keep our patrols from looking down on his position, and the possession of the ridge probably will constitute an important tactical feature in his further operations to-morrow. If he determines the direction of our advance, as is reasonable to suppose, we may expect him to block the roads over the ridge via 28, 44 and 50, at the least, and maybe via 16 on the north and 138 on the south as well. Consequently, Salt creek and its southern branch by 102 and 106 probably will form the front line of his outposts.

So we see that Colonel A's position at 90 is about $3\frac{1}{2}$ miles from the probable front of the enemy's outposts. With his main body camped near 90, the front line of his infantry outposts will be about a mile and a half farther to the front, say near the cemetery east of 94, and his cavalry will be some distance nearer the enemy. To bring the opposing outpost lines closer together will place the command in unnecessary danger and needlessly disturb the rest of all its parts during the night.

Moreover, a careful study of the terrain about 90 reveals strong defensible points for the outposts. To the north and northeast is the ridge formed by the two 1100 foot hills, along which a strong defense can be made against an advance from that direction. An attack from the east or southeast can be met somewhere along a line running south from the easternmost 1100 foot hill through 94 and to the 1000 foot contour, thence along this contour to the west. An at-

tack along the 112—90 or the 84—90 road is not probable, but some protection must be provided on these roads by means of cavalry reconnaissance or infantry posts of some strength.

So the best plan seems to be to encamp the main body at 90, and establish outposts on the line 84—94—112. As this line is about 3 miles long, a battalion has none too many troops to occupy it properly, but this is too large a fraction of the command to place on outpost if we possibly can get along with less. Along this front the greatest danger may be expected in the section extending from the 82—92 road, through 94 to include the ravine running south and east from the orchard just west of 92. Considering the size of the command, the strength of the outpost position, the good view from it towards the enemy, the distance away of the enemy and the slight probability of his attacking, two companies appear to be sufficient infantry to guard this section, and a single platoon should be ample to furnish the two detached posts on the 84—112 road. Since these detached posts are beyond the sphere of the real outpost, and really constitute a part of the guard for the immediate protection of the main body, they will not be placed under the outpost commander, but will receive their orders from Colonel A direct, or from his officer of the day.

The cavalry troop is opposed by a double force of the enemy. Since Colonel A is specially desirous, because of his mission, to secure information of the enemy, he might leave the entire troop out until night-fall and give it orders to act offensively and determine the enemy's strength and position. But the

execution of these orders probably would take it far to a flank, for it could learn little by riding against the front of the enemy's outpost line; and even if not defeated in a fight with the superior hostile cavalry still it would reach camp late at night and thoroughly exhausted.

The troop is now in the vicinity of 100 (it was at 94 at 1:30 p. m.), and even if recalled to camp at once it will have made a march to-day of about 25 miles. For the same reasons that the infantry should avoid a fight to-day, it will be well for the cavalry to do likewise, and confine its efforts to sending out a few small and carefully chosen patrols to get information, and to opposing the hostile cavalry should it attempt to locate the Red outpost position. While the outposts are being established, it will endeavor to keep the enemy from crossing the bridges at 100, and from gaining possession of the 1000 foot ridge just west of 102 from which he could observe the Red outpost dispositions.

If we are to avoid overworking the cavalry, we must not assign more than one platoon to the outpost proper. With this force all the principal roads leading from the front of the outpost towards the enemy can be constantly patrolled. Sufficient cavalry for patrolling purposes might also be assigned to the detached posts on the 84—112 road but we prefer leaving this to the infantry, thus saving the cavalry from this additional work.

The main body can get water for cooking and drinking purposes from the wells of the farmhouses at 90. The wagons of the outpost companies will join the outposts, and the remainder of the field train

will join the main body at 90. The animals may be watered in the stream to the north of the 90—88 road, if the water supply at 90 is not sufficient for all purposes.

Colonel A's *decision* is to halt at 90 for the night, covering the camp with the two companies in the advance guard (reinforced by about one platoon of cavalry), on the line 1100 hills—94—ravine 1200 yards south of 94, and with a platoon of infantry on the 84—112 road.

While deliberating on the situation, Colonel A halted the column and assembled the field officers, staff and Captain C (commanding Company C); at 2:05 p. m. he issued the following verbal orders, mainly from the map:

"Residents of Leavenworth report that two troops of hostile cavalry crossed the Missouri river into Leavenworth at 1 p. m., and that the advance guard of a column of hostile infantry was approaching the bridge via Stillings at 1:45 p. m. Communication with Leavenworth was interrupted before the strength of the infantry column was learned. Our cavalry reported from 94 at 1:30 p. m. that it had seen nothing of the enemy.

"The regiment will camp for the night and establish outposts.

"Major A, with the advance guard you will establish a line of outposts from the 92—82 road, inclusive, through 94 to the ravine 1200 yards south of 94, inclusive. As soon as practicable your cavalry will be increased to about a platoon.

"The main body will camp here (at 90). Captain C, you are detailed officer of the day and will take the interior guards from your company. Guard this (84—112) road with half a platoon at the farmhouse 1200 yards north of here, and another half platoon at the farmhouse 1200 yards south of here.

"The cavalry will remain in front until further orders and oppose the hostile cavalry should it advance. It will be told to guard the bridges at 100 and hold the ridge west of 102 until the outpost is in position.

"In case of attack the outpost will be reinforced.

"The field train will join the troops, including the companies on outpost.

"Messages for me will be sent to 90."

Colonel A then sends the following order to the cavalry commander:

	1st Infantry,
	Cross roads at 90,
Captain A,	1 Sept. —, 2:15 P. M.
Troop A, 1st Cavalry.	

Residents of LEAVENWORTH report by telephone that two troops of Blue cavalry crossed the MISSOURI river into LEAVENWORTH at 1 p. m., and that the point of a column of hostile infantry, whose strength was not learned, was approaching LEAVENWORTH via STILLINGS at 1:45 p. m.

The command will halt here for the night and establish outposts on the line 84—94—112.

Until further orders, you will oppose the enemy's cavalry, should it advance against our outpost line.

While the outposts are getting into position, you will prevent the enemy crossing the bridges at 100, or gaining the ridge west of the 100—102 road, if this be possible without your becoming seriously engaged. Send a carefully chosen patrol to each of the enemy's flanks to secure information of his strength and position. You will be notified when you are to withdraw for the night.

Send messages to 90.

By order of Colonel A:

B.

Capt. & Adjt., 1st Infantry, Adjutant.

The above order is sent by a staff officer, either regimental or battalion, who is accompanied by the trooper who brought the message sent by the cavalry commander at 1:30 p. m.

Colonel A then prepares a brief message and transmits it by wire to the Red commander, 15 miles west of Easton.

COMMENTS.

You have not failed to note that the Red cavalry is not employed in the same manner as the Blue cavalry (see Chapter XXIII), but the reason for this may not be perfectly clear. Both commanders are seeking information, and the Red cavalry is no more fatigued than the Blue. This being the case, if it is wise to require the Blue cavalry to remain out until night and secure what information it can of the enemy, why is it not wise to require the same of the Red cavalry?

The answer is to be found in the difference of the strengths of the two cavalry forces. The Blue commander knows he is opposed by one troop of cavalry and the Red commander feels certain he is opposed by two troops. An energetic reconnaissance by the two Blue troops promises to be successful, whereas the single Red troop probably would have only additional fatigue and maybe defeat to show as its return for a similar attempt. The fact of the matter is, the known superiority of the Blue cavalry placed the Red cavalry on the defensive, while it acted as a spur to drive the Blue cavalry to the most energetic offensive, and each commander selected for his cavalry that line of action which agreed best with the particular situation that confronted it.

But, it may be asked, what is a single troop of cavalry to do when confronted by two troops? Is it to cease its efforts, seek the protection of its infantry, and allow the opposing cavalry to roam freely where it chooses? Needless to say, good cavalry should never disgrace its record by such spineless conduct, nor, on the other hand, should it attempt the im-

possible. Cavalry opposed by double its strength is on the defensive just as surely as is infantry similarly placed, and one will employ offensive tactics in such a situation no more frequently than will the other. It will not be able to do all it would like, but it at least may deny its superior enemy free rein to do as he pleases.

And that is what the single Red troop must be content to do, for if it breaks itself to pieces in a fairly hopeless fight against twice its numbers, not only will it gain no information, but it may also fail to cover its own infantry. On the other hand, if it is carefully and conservatively led on the defensive it may succeed in holding the Blue cavalry away from the Red camp until nightfall. At the same time it probably will secure more information from a small carefully led officer's patrol than the whole troop could obtain by fighting.

We have explained this point at some length because there is a very common tendency in map problems, war games, and maneuvers to order cavalry on offensive missions, regardless of the strength of the opposing cavalry, as though comparative numbers of the contending forces, so important when dealing with infantry, need not be considered when dealing with cavalry. An offensive spirit is an invaluable asset to cavalry and it should be fostered, but the cavalry commander confronted by greatly superior cavalry should curb his natural inclination to close with the enemy, which, if unchecked, is likely to lead him into rash enterprises, and wait with patience until the enemy's mistakes or some change in the situation gives him the opportunity he is hoping for.

The Field Service Regulations state that the order to halt and establish outposts should reach the outpost commander if practicable before the end of the day's march to enable him to study the situation. It was not practicable to observe this very excellent provision, either in this situation or the one given in the preceding chapter, and frequently this will be the case when in close proximity to the enemy, for the situation is then liable to sudden changes and the commander may not be able to make his decision until the time comes to go into camp. For the same reason Colonel A himself selected the camp site, whereas, had the enemy not been in the neighborhood, he probably would have sent a staff officer forward for that purpose.

After issuing the orders, Colonel A would assign camping places to the 2d and 3d Battalions and the two companies of the 1st Battalion in the main body, all of which probably would be placed in the northwest angle of the cross roads where the slope of the ground would conceal the camp from an observer to the east. A camp site would be reserved for the use of the cavalry when it returns to camp, and such wagons of the field train as do not join their organizations would be parked immediately in rear of the troops. The water supply would be examined and wells would be assigned to organizations, and watering places designated for the animals.

Captain C, officer of the day, will proceed to post the interior guards. The most important posts have been designated by Colonel A in his orders, and consist of a section on the road at the farm house 1200 yards north of 90, and another section on the road at the farm house 1200 yards south of 90. Captain C

gives the commanders of these sections their orders (which should follow the prescribed form) and sees them started towards their posts. Later he will inspect their dispositions, which should be similar to those of an outguard of the outpost proper, which will be explained in the following chapter.

Captain C will next make an inspection of the camp and its approaches, to determine the number and position of the sentinels needed for its near-by protection; this number should be made as small as possible. There should be a sentinel on each of the four roads, one for the colors, and one for the wagon park, or six in all. The companies furnish their own guards for their arms, which may or may not be stacked, and the cavalry guards its picket line. These arrangements are made after consulting with Colonel A, who will add any instructions he may have to give concerning patrols from the interior guard. Throughout the night a patrol should cover the road for a mile *west* of 90, and another should frequently visit the outpost at 92. Hence Captain C's platoon at 90 will have to furnish an interior guard of 18 privates and 3 non-commissioned officers, and three reliefs for two patrols of two men each, in all 3 non-commissioned officers and 30 privates.

The following paragraph is found in the order: "In case of attack the outpost will be reinforced." And the order given in the preceding chapter (see page 397) contains a paragraph which says: "If the enemy attacks, the outpost will hold a position along the 28—50 ridge." Opinion is divided on the wisdom of inserting such a provision in orders. General

Griepenkerl expresses the opinion (*) that the orders should clearly state whether the outposts should hold their ground until the main body comes to their support, or should fall back on the main body, and this opinion agrees with the German Field Service Regulations. Our own regulations allow more freedom and prescribe that "*when necessary* the outpost orders state what is to be done in case of attack."

General von Alten is of the opinion that, in case of attack, the outpost commander should be permitted and required to make his arrangements and issue his orders in accordance with the requirements of the situation, and that the detachment commander should not attempt to order in advance what shall be done in any individual case, when he cannot foresee what the enemy will do, and may not have seen the terrain in question. "Orders for engagement issued in advance can only be disturbing elements and interfere with individual action." (†)

In the orders we have given, we have followed the older opinion, but whether it is the better is a debatable question.

* In **Letters on Applied Tactics**.

† General von Alten in **Studies in Applied Tactics**.

CHAPTER XXV.

OUTPOSTS.

SITUATION.

(See 2 and 4-inch maps).

The situation is the continuation of that given in Chapter XXIII.

September 1, the 5th and 6th Infantry, and the 1st Squadron, 7th Cavalry (less Troops C and D), detached from a Blue force that is being assembled 4 miles east of Platte City, marched to the west to get information of the situation west of Leavenworth.

By impersonating a local agent of the Red government, a staff officer learned, during the march, that a hostile force of 1 regiment of infantry and 1 troop of cavalry passed through Easton about 1 p. m., and continued towards Leavenworth on the 88—90 road; and that no Red forces had been seen in other villages near Leavenworth.

At 2:30 p. m., a hostile cavalry patrol was driven back from 30 towards 100 by the Blue cavalry, and a Blue cavalry patrol at 16 reported no enemy visible at 2 p. m. on the Atchison pike.

At 3:20 p. m., as the reserve of the advance guard (1st Bn. 5th Inf., and 8 troopers) is passing 62 (see 4-inch map), the detachment commander finishes issuing his orders to halt for the night. The main body is to camp near 60, covering the Atchison pike at 14, and 20th street at 68 with a platoon of infantry at each place. The cavalry, now at 28, is to hold the

28—50 ridge until relieved by the outpost, after which it is to endeavor to determine the enemy's strength and position.

Major A, commanding the advance guard, is ordered to establish outposts on the 28—50 ridge across the Zimmerman, Barnes and 48—68 roads. Additional cavalry is to be assigned the outpost later, and the outpost companies are to be joined by their wagons. In case of attack, Major A is to hold a position on the ridge.

Required:

Major A's estimate of the situation.

His orders for establishing the outpost.

SOLUTION AND DISCUSSION.

Major A's task as outpost commander is to protect the main body so that it may rest undisturbed and, in case of attack, to check the enemy long enough to enable the main body to prepare for action. His arrangements must be such as to insure the accomplishment of this task.

It may be well to point out at the very beginning of the discussion that there is no one fixed way of distributing the outpost on the front it is to guard; on the contrary we may dispose of it in numerous ways, each of which may be good. Probably no other kind of tactical problem may have so many good solutions, and solutions for this and the succeeding problem may differ from the ones given herein and still be excellent. We shall endeavor to illustrate only the main principles, with all of which we should be familiar since they are quite clearly stated in our Field Service Regulations.

We will do well to begin our arrangements by deciding on the location of the line of resistance, since in the event of a really serious advance by the enemy it will become our first line of battle where the enemy must be checked until troops in rear can form up and come to our assistance. In a general way this line was designated by the detachment commander, (*) but it must be definitely located by the outpost commander, first from the map as far as possible, and later by an inspection of the ground. The map shows no exceptionally strong position on top of the ridge, but we must take the ground as we find it. A line along the 28—40—42 road, having only a fair field of fire, is about the best we can do. South of 42 the field of fire is even worse, and it may be necessary on this flank to push the line of resistance out to the western edge of the strip of woods between 46 and 44.

Having determined the line of resistance, we may proceed to locate the supports; unless there be good reason to the contrary, they should be posted on this line, for it is their resistance in the first place that will secure time for the troops in rear to prepare for action. First to come to their assistance will be the reserve of the outpost, and eventually the main body, should the nature of the hostile advance make that necessary. In exceptional cases the reserve may be placed on the line of resistance, and the supports in advance of it, in which case the supports must be told in the outpost order that they are to fall back on the reserve. There appears to be nothing in the situation to make it an exception to the general rule, so we will select our positions for the supports along the line of resistance.

* See the order, page 397.

We are further assisted in locating the supports by the rule that they should be placed on or near the main roads leading towards the enemy. Under ordinary circumstances, and especially at night, any advance of the enemy in force will be confined to the roads. Although *small parties* may penetrate between the roads, still the outpost will be in no serious danger from them, for they can do little more than learn something of the outpost dispositions. The measures taken to prevent their incursions will be discussed later on. The primary object in posting the supports is to block the advance of *large bodies* of the enemy, and the place to do this is on the main roads.

In making our selection of roads to be covered, we should choose the most important one first—the one along which the greatest danger threatens, and locate a support on it near where it is crossed by the line of resistance. Then we should build the remainder of the outpost structure about this primary disposition. The number of additional supports needed will depend mainly on the size of the command we are dealing with, the remaining roads to be guarded and the extent of the outpost front.

It appears that most danger may be expected along the 98—100—30 road, for hostile cavalry has been encountered on it and the report of the staff officer was that the hostile force continued its march from Easton on the 88—90 road. The enemy left Easton at 1 p. m., and if he has continued his march he should be approaching 96 at this time (3:20 p. m.). Our infantry is probably a little nearer the top of the ridge than is the enemy's, and we have the additional advantage that the ridge is already in the possession of our cav-

alry. Unless the enemy is stronger than our information indicates, it is not likely he will attempt to drive us from the ridge to-night, if at all; he is in his own country and probably has learned as much of us as we have of him, and it is hardly probable he will attack double his number. Still, the enemy may be stronger than we think, and, considering what we now know of his strength, whereabouts and intentions, the 30—100—98 road is the most important of all roads leading towards him and must be guarded by a support.

Having decided on the location of what appears to be the most important support, we may now proceed to examine the front to be watched by the outpost, and determine whether additional supports are necessary and where they should be placed. On the right of the position, between the Zimmerman road and the Atchison pike, there are no roads leading toward the enemy, and the terrain in places is almost impassable to troops off the roads. An attack in force in this section, especially after night, is not at all probable, and the support on the Zimmerman road can make all necessary arrangements for watching this section and joining up with the detached post at Atchison Cross, although it may be assisted by the reserve, as will be seen later on.

On the left of the outpost position the conditions are very different. Passing over the ridge at 44 and 50, are two important highways leading towards the enemy. They unite at 48, an important road junction that can be reached via the 128—106 road or the 108—104 road. The latter road communicates at 108 and west of 110 with the road to the north over which it is reported the enemy is advancing. Everything considered, the danger on this flank is such that a support

should be placed in the vicinity of 44, but the Barnes road and the 50—48 road are near enough together to admit of their being watched by a single support, the bulk of which will be held nearest the more important of the two roads.

There is still another road leading towards the enemy—that joining 42 and 102—but the map indicates that it is only a trail towards 102, and probably very little traveled. This road might be covered by a third support, smaller than the other two, at 42, but it is preferable to assign this task to one of the other supports and avoid so much division of responsibility on the line of resistance. Since 42 is nearest the support on the left, and the least danger threatens from that direction, we will include this road in the left section of the outpost. The distance from 42 to 50 is about 1200 yards, and if the bulk of the support is centrally disposed on this line, its detachments at 42 and 50 will be within easy supporting distance. This arrangement leaves the support on the right free to give its whole attention to guarding the more dangerous section along the 28—30—100 road.

We have yet to divide the outpost front into sections and prescribe their limits, and this must be done in such manner that each support commander will know just where his responsibility begins and ends. For this purpose any well defined line in the terrain, such as a stream, ravine or marsh, may be chosen; but the dividing line between sections should not be a road, especially an important road, if any other feature is available, because of the danger that the road will not be properly watched by either support. Still, we may have to choose a road, and that appears to be

the case here, for, aside from the 42—102 road, the map shows no clearly marked line suitably located between the two supports. But it will be well, when giving the commander of the left support his orders or when inspecting the outpost, to make sure that he understands he is to watch this road. The left section, therefore, will extend from the 50—48 road, inclusive, to the 42—102 road, inclusive; and the right section from the 42—102 road, exclusive, to the Atchison pike, exclusive, unless some provision is made for watching a part of this section with an additional support or a detached post from the reserve. This brings up the next point we have to consider—the location of the reserve.

The reserve should be in a position from which it can quickly reinforce the supports. If practicable, therefore, it should be within about half a mile of the supports and on or near roads leading towards them. Frequently a good camping place for the reserve, the lay of the roads, and the desired distance from the supports will not all fit in as we would like them, and Major A will find this to be the case here when he comes to search for a camping place for the reserve. He has not time to make this search before issuing his orders, and can do no more now than tell the officers it will camp somewhere in the immediate vicinity, probably between the Zimmerman and Barnes roads. When the roads from the front do not unite in the rear of the line of resistance, as in this situation, it generally will be best to place the reserve on or near the main road leading from the enemy. Often we will have to open up roads from the position of the reserve to the supports, or to the main highways leading to the supports.

We have purposely avoided saying anything until now of the strength of the supports and reserve, for it is well to have a comprehensive view of the whole outpost arrangement before deciding on that point. Since our dispositions call for two supports and a reserve, the natural subdivision of the outpost battalion is to place one company in each support and two in the reserve. This arrangement keeps the reserve strong, while at the same time it places a complete tactical unit in each support and makes them strong enough for their tasks. However, to lessen the work of the right support and enable its commander to concentrate his attention on the important 28—30—100 road, we will do well to send a small detached post from the reserve to 22; it will form a connecting link between the right support and the post on the Atchison pike, and will patrol from 22 along the top of the ridge to 16. Twelve men will be enough for this post, for, as already stated, there is little likelihood of the enemy advancing over the difficult terrain north of 22.

For the present, Major A is given no cavalry but the 8 troopers that have been with the advance guard. They will be of most use with the right support, from which they can patrol along the main road towards the enemy and help get early information of a hostile advance in force. Later in the day, when additional cavalry is given him for the night, he will decide on how it is to be employed. The bulk of the cavalry, which will not be withdrawn from the front until about 5 p. m. (see page 398), will not only be of great value in obtaining additional information, but will also help to secure the outpost against sur-

prise until that hour. A hostile advance in force will hardly be made after that hour.

When Major A receives his order at Avenue hill at 3:20 p. m., Companies C and D in the reserve of the advance guard are turning the corner at 62; the support, Company B and 1 platoon Company A, is about 300 yards west of 60; and the advance party, Company A (less 1 platoon), is about to turn north at 56. After deliberating on the situation long enough to reach his decision, he gallops ahead to 56, picking up his captains on the way, who, to avoid delay, are given horses of the mounted orderlies. When he reaches 56, the support is at that point, and the advance party has just turned the bend at 58. He immediately issues the following orders, mainly from the map:

"From the inhabitants it has been learned that a hostile regiment of infantry and troop of cavalry passed through Easton at 1 p. m. and marched in this direction on the 88—90 road, and that no Red troops have been seen in other villages near Leavenworth. Our cavalry is on the heights in our front and will hold them until we get up; it will then attempt to determine the enemy's strength and position; at 2:30 p. m. it drove a hostile cavalry patrol back from 30 towards 100; and a patrol at 16 reported no enemy visible at 2 p. m. on the Atchison pike. The detachment will camp for the night at 60, and will place a detached post at 14 and another at 68.

"The advance guard will form the outpost on the ridge in our front across the Zimmerman, Barnes and 48—68 roads.

"Captain C, with your company (Company C), 2 mounted scouts and the 8 troopers, take position near 28 as Support No. 1, and hold the line from the ravine north of 22, exclusive, to the 42—102 road, exclusive. You will maintain communication with a detached post from the reserve which will be placed at 22.

"Captain D, with your company (Company D) and 2 mount-

ed scouts, take position near 44 as Support No. 2, and hold the line from the 42—102 road, inclusive, to the 50—48 road, inclusive. You will maintain communication with the detached post at 68, and will patrol to 136 and along the 106—128 road.

“Companies A and B will form the reserve and camp in this vicinity.

“In case of attack we will be reinforced. Fires may be lighted at the reserve.

“The company wagons will join the reserve. If the situation permits, the wagons of the support may join them later.

“Send messages to the reserve.”

Although our major wished to ride along the outpost position before issuing his orders, he did not do so, since this would have delayed getting the supports into position and the reserve into camp. Any delay deprives a part of the troops of some of their rest; besides, in this case, it is important that the supports should get to the top of the ridge as soon as practicable and free the cavalry for the important reconnaissance it has to make yet to-night. However, whenever the conditions permit, the outpost commander should make a hasty survey of the ground before issuing his orders, as this may render changes unnecessary later on. Frequently the detachment commander can make this possible by issuing the halt order some time before the termination of the march, but, as we saw in the preceding chapter, that was not practicable in this situation.

We will suffer little inconvenience because of having to issue our orders from the map, provided we are supplied with maps showing the form of the ground and all military features of importance. When our maps are inferior, as will often be the case, our orders will have to be modified accordingly. For example,

had our major stood at 56 with only a country road map, his orders to Captain C would have been something like the following: "Your company, etc. will form Support No. 1 and cover the Zimmerman road. Move provisionally to the road fork at 28." Similar orders would have been given Captain D, and the exact location of the supports, the division of the front into sections, etc. would not have been arranged until later on when Major A inspected the position. If we are so unfortunate as to have no map at all our difficulties will be still greater.

It is to be observed that the rule so frequently given of not to interfere needlessly with subordinates is again observed here; for the support commanders are left with almost absolute freedom to dispose of their supports as they see fit. Their tasks are clearly defined—they are responsible for observation and defense within their respective sections—but they are free to make their own choice of means for performing those tasks. This does not mean that Major A will not exercise a careful supervision over their dispositions; on the contrary, he will inspect them soon after the supports are in position and will suggest any changes he may think necessary; at this inspection he will satisfy himself that ample arrangements have been made to watch the 42—102 road.

It does not seem necessary to order the support commanders to reconnoiter along the main roads leading towards the enemy, for they will do that as a matter of course; but there may be some doubt about their sending patrols along other routes leading in less dangerous directions. Accordingly, it is well to direct the commander of the left support to reconnoiter towards 136 and 128.

By taking his two support companies from the reserve of the advance guard, Major A makes an equitable distribution of the difficult tasks, and places the two companies that have had the most arduous duties with the advance guard during the day in the reserve of the outpost where they can obtain most rest during the night. He was able to do this without material delay or inconvenience, but even if the change had been more complicated it might have been made nevertheless, for tactical reasons if for none other, for the most fatigued troops should not be in the front line of the outpost during the night, if this can be avoided without great delay and inconvenience.

It will be some time before the wagons are up, (*) and by that time our major probably will know enough about the situation in front to decide whether it is advisable to send the wagons to the supports. Even if it is not safe enough to leave them so far to the front all night, still they will add greatly to the comfort of the supports if they can join them for a few hours. So also, whether or not cooking is done at the supports, will depend on the situation later in the afternoon.

As soon as our major finishes issuing his orders, he proceeds to locate a camping place for his outpost reserve. He rides first to the vicinity of 54 (see 4-inch map), but finds the terrain unfavorable. There is no good camping place there, and the ground is so cut up with deep ravines that communication with the support at 28 apparently would be extremely difficult. Near the farmhouse 300 yards west of 58, he

* Major A sends his battalion quartermaster to conduct the wagons to the camp.

finds a bit of clean pasture land about midway between the Zimmerman and Barnes roads, across which troops can march without difficulty to 54, and without further search directs the reserve to bivouack there. For the immediate protection of the reserve a sentinel is placed over the stacks, another is posted on the Zimmerman road, and a third on the Barnes road at 54. A non-commissioned officer and 12 men are selected for the detached post at 22, given their orders and sent out. The following message is then sent by a mounted orderly:

Outpost,

At farm house just west of 58,

To Adjutant,

1 Sept. —, 4 P. M.

Blue Detachment.

The outpost is moving into positions as follows:

Company C near 28;

Company D near 44;

Reserve (Companies A & B) 300 yards west of 58;

Detached post from the reserve at 22.

Messages will reach me here.

A.

Major.

A little after 4 p. m., Major A starts on an inspection of the outpost line.

Let us now consider the arrangements of the support commanders. On reaching 28 with his support, Captain C makes an inspection of the terrain to determine its defensive value and the exact location of the support. He decides on a position astride the main road about 200 yards west of 28, where he finds the crest of the ridge, and places his company under cover in rear of this position on the gentle slope of the ravine just south of 28. The men stack arms, remove

their equipment, except cartridge belts, and fall out. Preparations are made for cooking in case the outpost commander permits it. The two troops of cavalry have advanced against the ridge west of 102, and, so long as they are in front, 3 of the 8 troopers with his support will be left to watch the bridge at 100, and the remaining 5 will be recalled to the support and allowed to water and feed by turns. But he must not depend on the cavalry alone to protect him from surprise from the direction of 100. Consequently, an outguard of 1 non-commissioned officer and 7 men is posted about 400 yards to the front at the crest of the hill on the main road. This outguard places a double sentinel on the crest of the hill further north, about on the prolongation of the 38—30 road. The support will provide for its own immediate security by posting a sentinel over the stacks with orders to keep a lookout towards the cemetery at 40, and another sentinel is posted on the spur about 100 yards north of 26.

A patrol of 3 men is sent along the road to establish communication with the left support at 42, and return through the strip of woods just west of the cemetery via the outguard on the 28—30 road. A second patrol of 3 men is sent along the road towards 22 to establish communication with the detached post at that point and return by following around the crest of Eleven Hundred hill. A third patrol, also of 3 men, is sent to follow around the slope of Hund hill and return by way of the post on the 28—30 road. Until the night positions are taken up, other patrols of the same strength are sent out at intervals of about one hour to move over these same routes.

So we see that during daylight, especially when there is cavalry in front and the terrain favors observation from the support itself, it may not be necessary to exhaust the support by sending out numerous outguards. Any disposition is good which, with a small number of men, will give timely warning of an approach of the enemy in force and prevent hostile patrols from penetrating the line. In addition to the dispositions Captain C made, a small outguard of 4 or 8 men might have been placed at the cemetery, but this is believed to be unnecessary.

Summarizing these dispositions, we find that our captain has 10 men in observation, 2 at the support and 8 on the 28—30 road, and 9 men patrolling—a total of 19 men on duty besides the 3 troopers near the bridge at 100. When the outpost commander has inspected the position of the support and approved the dispositions made, he directs the support commander to construct trenches or otherwise prepare hasty cover across the road about 200 yards west of 28, on a line having a good field of fire towards the enemy.

Captain D, on reaching 44, conducts himself in like manner to Captain C. To watch the Barnes road, a double sentinel post is established on top of the ridge between 44 and 46. This ridge is 200 feet higher than the stream between 48 and 104, and the view from its top into this valley is limited only by the trees. A position is found for the two sentinels from which they can see the net work of roads about 48, and the road running southwest from 106.

Sixteen men under a lieutenant are sent to 42 to watch the 42—102 road and establish communication

with the right support at 28. The lieutenant establishes his outguard under cover at 42, and posts two men at the houses on the road 400 yards west of 42; a single sentinel is posted 100 yards west of 42 for the immediate protection of the outguard. Before the lieutenant can start a patrol to locate the right support, the patrol of 3 men from the latter appears and tells him where that support is posted. Later the lieutenant takes 2 men and makes a thorough inspection of the terrain from the ravine southwest of 42, thence to the north along the brow of the hill, thence by the cemetery at 40 and to the support at 28, and then returns to 42. He endeavors to become so familiar with the ground that he can move over it with certainty after dark.

A non-commissioned officer and 16 men are sent to 50 to cover the 48—50 road and establish communication with the detached post from the main body at 68. This outguard is held under cover at 50, with a single sentinel on the road 100 yards to the west for the immediate protection of the outguard, and a double sentinel 400 yards farther west near the foot of the hill. A patrol of 2 men is sent along the road to the east to establish communication with the detached post at 68, but, before going far, it meets a patrol from that post and turns back.

These dispositions did not meet the full approval of the support commander when, in company with the outpost commander, he reached the outguard about 5 o'clock. The double sentinel post towards the foot of the hill was unnecessary, since it could see even less than the sentinel at the top of the hill; however, since the mistake was a trifling one and on the side of safe-

ty, and the two sentinels would be quite necessary during the night, the support commander left the post where it was. The support commander (Captain D) had neglected to tell the non-commissioned officer to patrol along the top of the ridge to 136, and the latter had not done so on his own initiative; accordingly, a patrol of 3 men was started over this route at once. This left the non-commissioned officer and 11 men at 50.

Captain D located the bivouac of the remainder of his support in a bit of pasture near 44, and posted a sentinel over the stacks. Two patrols of a non-commissioned officer and 4 men each were then started out to move united over the Barnes road to 48, where they would separate, one reconnoitering to the west as far as the road junction at 104, the other to the southwest to the western edge of the woods on the 106—128 road. Without awaiting the arrival of the outpost commander, the captain put the rest of the support to work preparing hasty cover on top of the ridge in an open space about 200 yards wide across the Barnes road.

Before passing to the consideration of the night positions of the outposts, attention is directed once more to the position of the reserve, which is farther in rear of the line of resistance than is to be desired ordinarily. To reinforce either support, it will have to advance by road about 1500 yards, whereas it should be within about 800 to 1000 yards of the line of resistance, in order to insure giving timely support. Such a position would place it about 900 yards due west of 56, near the Barnes road but far from the Zimmerman road along which there is most danger of attack.

Still, this would be a desirable position, if the terrain were such that a road might be opened without undue labor connecting with the support at 28. However, with a complete company entrenched in each support, and considering the slight probability of attack, the supports should have sufficient defensive power to hold the enemy in check much more than 20 minutes, which is about the distance away of the reserve expressed in time.

It is just as serious an error, and one more frequently committed, to place the reserve too close to the supports; more than this, beginners are liable to shorten unduly all the distances in the outpost formation. *The safety of the troops in rear depends on the outposts having sufficient depth.* As Major A has established his outpost, the reserve is about 1000 yards in front of the main body, the supports are 1500 yards from the reserve, the outguard on the 28—30 road is about 500 yards from the support, and its sentries are 400 yards farther to the front. The enemy must fight his way over a total distance of 3400 yards before he can strike the main body.

Continuation of the Situation.

About 3:50 p. m., when the outpost infantry reached the top of the ridge at 44 and 28, the cavalry advanced against the ridge west of 102 and gained possession of it and the bridges at 100, after a hostile troop fell back without serious fighting to the hill south of 110. The two Blue troops continued their advance but were stopped a little before 5 p. m., at the stream west of the 108—128 road, by rifle fire from the hill south of 110.

A little after 5 p. m., pursuant to orders received from the detachment commander, the cavalry began to withdraw to the camp of the main body at 60, leaving half a troop in observation on the ridge west of 102, with orders to join the outpost for the night. Between 4 p. m. and 5 p. m., a Blue cavalry patrol was fired on by infantry at the cemetery east of 94. Patrols on the Atchison pike and Lecompton road report no signs of the enemy.

At 5:15 p. m., this information is in the possession of Major A, who has completed his inspection of the outpost position and rejoined the reserve.

Continuation of the Solution and Discussion.

When in close contact with the enemy, the situation frequently will change so rapidly that the outpost commander will wish to modify or add to his original dispositions. Generally, the outpost is placed in position before its commander has had an opportunity to make more than a hurried inspection of the terrain, and his ideas of the situation may undergo a considerable change after he has ridden around the position. Also, new orders from the detachment commander may call for a change in the outpost arrangements, as, for example, the orders with reference to the cavalry in the situation before us. Such alterations in or additions to the outpost dispositions are covered as far as practicable in a second outpost order, which should reach the advance cavalry and supports some time before they occupy their night positions.

The most important feature of Major A's second outpost order will be the disposition of the half troop

of advance cavalry, which until now has been operating under the direct orders of the detachment commander. It is now on the ridge west of 102, a very important feature in the terrain, since the side that possesses it has a vantage point from which to observe the outpost position of the other. Its possession will also be of value to the Blue detachment when it resumes its advance to-morrow. This ridge, then, should be held, and, since it is more than a mile in front of the infantry line of resistance, the task of holding it naturally falls to the cavalry. But it should not be necessary to employ the entire half troop in this manner.

It is not unusual to find for the cavalry some such detached mission to the front or on the flank of an outpost position; but the number and strength of such detached cavalry posts should be reduced to the minimum consistent with the purpose of the outpost, for both horses and men get very little rest when occupying positions so exposed. In the cavalry, we have to think of the horse as well as of the man, and the former should receive quite as much if not more consideration than the latter.

We will often find it convenient, when disposing of our outpost cavalry for the night, first, to determine all the necessary tasks that naturally fall to the lot of the cavalry, and second, to make our arrangements in such manner as to perform these tasks with the least possible number of troopers. Let us follow this plan in the problem before us, but first, we will examine the situation in the light of the later information received from the cavalry commander.

The enemy evidently has halted in his march from

Easton, or his infantry would have appeared before our outpost line long before 5 p. m. The information received from the hostile inhabitants has been confirmed in part by our discovering but one troop of hostile cavalry, and consequently we have greater faith in the additional report that the enemy has but one regiment of infantry. Accordingly, it is not probable we will be seriously molested during the night. Whether or not the hostile cavalry was supported by infantry near 110, our cavalry did not determine, but we do know that hostile infantry occupies the cemetery east of 94. The natural inference is that the enemy is camped close in rear of a line through the cemetery and 110. Consequently the 30—100—96 and 48—104—108—110 roads are still the most dangerous of all those leading towards the enemy.

Both of these roads must be patrolled throughout the night, and, since the distance from our outpost line to the supposed position of the enemy is about three miles, this patrolling should be done by cavalry. On each road this may be done by three patrols of at least 3 men each, for each patrol probably can make the trip out and back in less than two hours, provided the hostile outpost line is where we think it is. It is not enough for these patrols merely to proceed some distance along the roads assigned them and then return, but they must advance far enough to get contact with the enemy and then maintain it during the night. The detached post on the ridge west of 102 should be as small as practicable, and yet it is not wise to make it weaker than 12 men. By this arrange-

ment 30 troopers will be needed for the absolutely necessary night work.

The patrols may be sent out directly from the supports, or a small detached post of 9 men may be formed in front of the supports on each of the two roads. In favor of the former arrangement is the greater security and consequently the better opportunity for rest the men and horses will have when not patrolling; and in favor of the latter is the shorter distance the patrols will have to cover and the added security given the infantry in rear. It may be well to follow both plans in this situation. By placing a detached post at the bridge at 100, about a mile and a half in front of the support at 28, we not only shorten by nearly three miles the distance the patrols will have to cover, but we also bar the enemy's patrols from passing this important point. On the other road, however, the patrols might better be sent out from the support at 44, for there is no important point in front to watch, that can not be watched by infantry, and they can make the whole distance from 44 to 110 and return in about two hours.

There is another arrangement which may give better results. The task of cavalry reconnoissance during the night may be intrusted wholly to 25 troopers under a lieutenant with orders to hold on to the bridge at 100 and the ridge west of 102, and patrol up to the enemy's outpost on the 100—96—94 and the 104—108—110 roads. The lieutenant can post 9 men at the bridge at 100 to watch the bridge and patrol towards 94 and the remaining 16 men on the ridge of 102 to hold the ridge and patrol towards 110. The advantages of this arrangement are that it employs a

less number of troopers, and strengthens by 4 men the detached post on the ridge west of 102, and we believe it preferable to the one first discussed.

The supports must keep in communication with the advanced cavalry posts during the night. The support at 28 can do this by sending an occasional infantry patrol from the outguard on the 28—30 road to the bridge at 100. The distance from the support at 44 to the cavalry post on the ridge west of 102 being about 2 miles, a few troopers (2 patrols of 2 men each will be sufficient) should be attached to this support to make occasional visits to the cavalry. The remainder of the cavalry will be withdrawn to the reserve for the night, but will be sent out again at an early hour in the morning. Since the sun sets about 6:40 p. m., we may have this cavalry start in about 6:15 p. m.; even then it will not reach the camping place of the reserve much before dark.

Ordinarily the outpost commander is not so directly interested as the support commanders in the infantry dispositions for the night. Were it necessary to change the position of a support, it would be done only on the orders of the outpost or higher commander; but shifting a support, once it is well established in its position, is an exceptional procedure. The change from day to night positions, as a rule, affects mainly such observation groups as detached posts, outguards and sentinels, and the responsibility for having them located in proper positions and strength rests directly on the support commander. Accordingly, the outpost commander's second order, like his first, should say nothing of the location of the groups sent out from the supports, unless there be some par-

ticularly important point that should be watched, and it is questionable whether the support commander appreciates this fact.

But this second order ordinarily will state when these groups should occupy their night positions. This usually will be at an hour sufficiently early to permit them to occupy and inspect their positions in daylight, provided the positions are screened from the enemy's view; otherwise the changes are arranged for during day but they are not actually made until after dusk. The hour at which the day positions are to be resumed in the morning is also prescribed in this order; since an outpost is especially liable to be attacked at daybreak, the night positions should not be disturbed until well after sunrise.

To secure certainty and uniformity in the matter of patrolling, it will be well to prescribe the distance to the front the infantry patrols shall go during the night. The cavalry will be given the task of *keeping touch with the enemy* and patrolling the roads west of the branch of Salt creek flowing by 106, 102 and 100. The infantry, then, should send its patrols as far as this stream.

Finally, the order may state that the wagons have been sent to the supports, that cooking at the supports will be allowed, and the preparations to be made for defending the position. We have seen that Major A directed or approved arrangements for defense at 28 and on the ridge near 44, and, at the same time, he probably informed the support commanders that they would have their wagons and might do cooking at the supports; nevertheless, it will do no harm again to mention these matters in the order, and

it may be the means of avoiding misunderstandings.

Probably the most convenient method of communicating the order will be to reduce it to written form and send copies to the cavalry and support commanders. The retained copy will be as follows:

Outpost,
At farm house, just west of 58,
1 Sept. —, 5:30 P. M.

Field Orders
No. 2.

1. About 4 p. m. a hostile troop of cavalry abandoned the ridge west of 102 and fell back to the hill south of 110. Our cavalry pursued but was checked about 5 p. m. at the stream west of 108 by rifle fire from the hill south of 110. One of our patrols drew fire from hostile infantry in the cemetery east of 94, between 4 and 5 p. m. No signs of the enemy have been seen on the ATCHISON pike and LECOMPTON road. Our cavalry, less half a troop which now occupies the ridge west of 102 and has been assigned to the outpost, is withdrawing to the main body for the night.

2. The following changes are ordered for the night.

3. (a) Twenty-five troopers of the advance cavalry, under Lieutenant A, will hold the bridge at 100 and the ridge just west of 102, and keep in touch with the enemy towards 94 and 110. The remaining troopers will withdraw to the reserve at 6:15 p. m.; four of these troopers will report to Support No. 2 at 44 for night duty.

(b) The infantry supports will be in their night positions by 6 p. m. Infantry patrols will be sent as far as the stream passing by 106, 102, and 100. Support No. 2 will maintain communication with the cavalry on the ridge west of 102. The day positions will be resumed at 6:00 a. m. Both supports will prepare their positions for defense. Their wagons will join them and fires may be lighted in concealed positions.

4. Messages will be sent here.

By order of Major A:

L.

1st Lieut., 5th Infantry,
Battalion Adjutant.

Copies to commanders of supports and advance cavalry.
Dictated to staff and commanders of reserve companies.

The accompanying sketch (see page 442) will assist you in understanding the dispositions made by the support commanders for the night.

Night Dispositions of Support No. 1.

The outguard on the 28—30 road is strengthened to a full section under an officer. It remains in the position it occupied during the day, but it pushes its sentinels forward to the road junction at 38, and, since these sentinels should not be so far (1000 yards) from the outguard, a sentry squad of 8 men is sent forward from the outguard to 30. Although the 34—32—26 trail is but little traveled and close to the main highway, still it must be watched, and a double sentinel post is sent out directly from the outguard to a point on this trail about 500 yards to the north.

The trail along the top of the spur just east of the 102—100 road is in the section assigned Support No. 1, and must be watched, notwithstanding its apparent unimportance. For this purpose a detached post of 12 men is established at the farm house 1000 yards west of 28, and, because of its distance from the support, the post is commanded by the second lieutenant. It posts double sentinels at the forks of the trail 300 yards away.

The following patrols are sent out in this section: One of 3 men from the outguard on the 28—30 road to advance along the highway to the cavalry post at 100 and return via the 34—32—26 trail; and another of two men to keep up communication with the detached post at the farm house west of 28. One of

2 men from the detached post to patrol the trail on the ridge and communicate with the sentinels on the 42—102 road. From the support a patrol of 2 men maintains communication with the detached post (from the reserve) at 22; another of 3 men moves around the crest of Eleven Hundred hill; and a third of 2 men preserves communication with the outguard (from Support No. 2) at 42. These dispositions leave more than half of the company at the support at 28.

Night Dispositions of Support No. 2.

The outguard at 42 is increased to 20 men. It establishes a sentry squad (8 men) where the sentinels were during the day (at the two farm houses 400 yards west of 42) and pushes the double sentinels forward to the junction of the trails, about 400 yards farther west.

The outguard at 50 is also increased to 20 men and placed under an officer. In like manner to the outguard at 42, it places a sentry squad of 8 men down the slope in front and posts the two sentinels at 48 where they can watch both roads.

The remaining men of one platoon of the support are posted down the slope towards 46 on the Barnes road; this post sends two sentinels to the road junction at 46.

Patrols are sent out in this section as follows: One of 2 men from the outguard at 42 to move along the road and trail to 102 and return. One of 3 men from the post on the Barnes road to advance beyond the stream-crossing southwest of 106 and return. And one of 2 men from the outguard at 50 to move along

the trail to 136 and return. With a patrol of 2 men, the support keeps up communication with the outguards at 42 and 50 and on the Barnes road; and, with the 4 cavalrymen it patrols the 48—104—102 road and communicates with the cavalry detached post west of 102. One platoon remains at the position of the support.

In both sections of the outpost line most of the patrols are sent out at intervals of from one to two hours, and the support commanders, accompanied by a few men, make two or more inspections during the night, of all the outguards in their respective sections. A sentinel is posted at each outguard, and a sentinel is kept on duty over the stacks at each support. In addition, the supports may have a sentinel about 200 yards away on each of their flanks.

Night Dispositions of the Reserve.

Let us now look at the arrangements for the night at the position of the reserve. Attention has already been called to the fact that the reserve is farther to the rear than we would like to have it, and to make the case still more annoying, we will suppose that Major A, when riding around the outpost position, discovers an admirable position for the reserve between the two small streams half a mile east of 42, with farmroads, not shown on his map, leading to 28 and the 54—52 road. This being the case, should he change the position of the reserve?

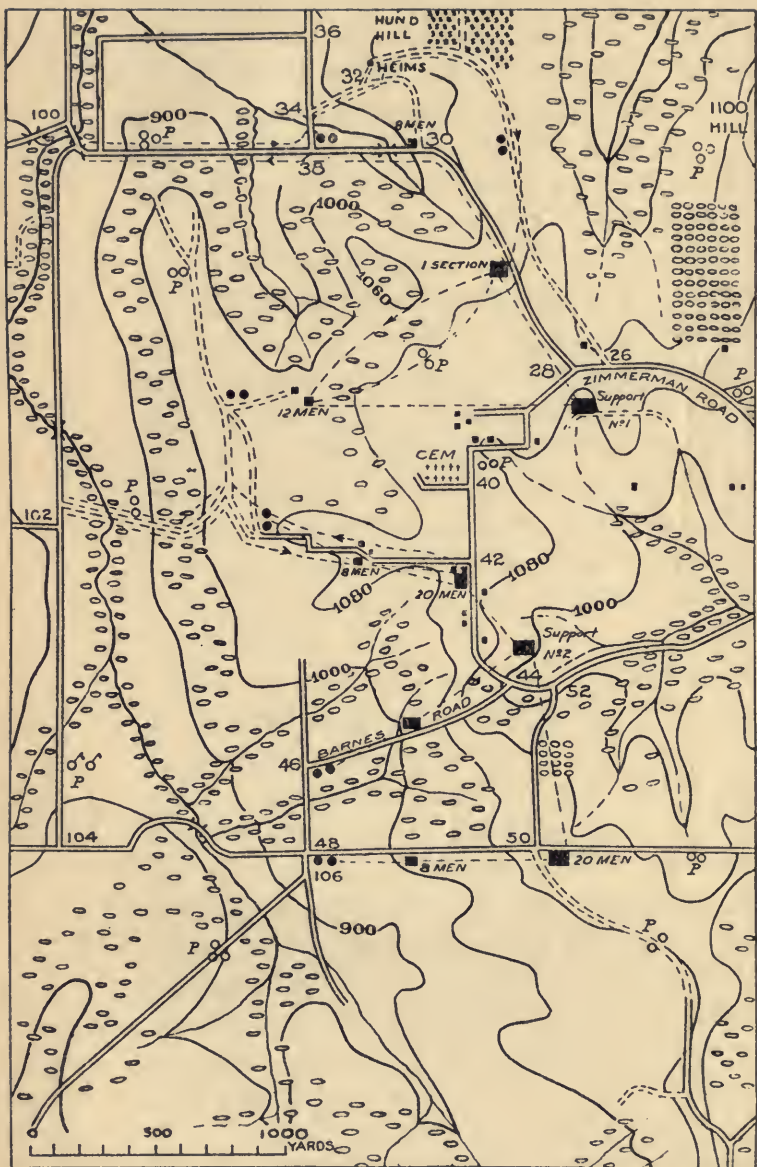
Before answering this question, it will be well to imagine the situation at the reserve when Major A returns from his inspection a little after 5 p. m. The reserve companies reached their camping place 300

yards west of 58 before 4 p. m. and for more than an hour they have been making their arrangements for the night. The men have unpacked their rolls and pitched their shelter tents, and many have made the simple toilets of soldiers in the field, and all feel that they are located for the night, provided the outposts are not attacked. Fire wood has been collected, kitchen fires have been lighted, the wagons, which have just arrived, are being unloaded, and the cooks are busy with their preparations for supper. Without making the experiment, we can tell what would be the temper of this command if it were ordered to break camp, only that it might be moved 400 or 500 yards nearer the front. Our Field Service Regulations say that the outpost commander will order such changes in the dispositions as he deems necessary after making a careful inspection of the outpost position, but they do not contemplate such extensive changes as would cause so much inconvenience to the troops as to discount the advantages gained.

Perhaps Major A should be criticized for not locating the reserve with greater care at the start, but before blaming him let us imagine ourselves in the place of that officer. He finished issuing his orders about 3:40 p. m. and saw the outpost supports started towards their position. He then looked about him for a camping place for the reserve. He rode along the 56—54 road, and the open pasture on his right hand appealed to him, but he rode on to 54 looking for a location nearer the front. At 54 the hills were all about him, and the woods along the ravine cut off his view to the west. It would require much labor by his tired command to prepare crossings over

the deep ravine and open communications to the main roads. The farm roads were not visible and the woods had a forbidding appearance. Unless one has a good imagination the ground looks very different from the map. Time was pressing and our major wished to get to the front to see the situation and make necessary changes there before the supports were well established in their positions. We can not blame him for choosing the camp ground in the pasture west of 58. With the map before us we can scale off distances and say this force will go here and that force will go there, but we cannot always use dividers on the ground, for frequently the points so chosen will be wholly unsuited to our needs. If our peace time training is not to teach wrong lessons, we must approach as nearly as possible the conditions as they will exist when we are on the ground confronted by the enemy.

For the night a sentry squad of 4 men is placed at 54, another at 56 and a third on the Zimmerman road about midway between 58 and 24. They will serve to warn the reserve of any hostile patrols that may have slipped by the supports. At the camp of the reserve a single sentinel is on duty over the arms (if they are stacked) and other property. Every two hours during the night, two patrols of 2 men each are sent along the roads to communicate with the supports and the detached post at 22, and Major A will make at least one inspection of the outposts before morning.



CHAPTER XXVI.

OUTPOSTS.

PROBLEM.

(See 2-inch map).

The situation is the continuation of that given in Chapter XXIV.

September 1, a regiment of infantry and troop of cavalry, detached from a larger Red force about 15 miles west of Easton, marched to the east in friendly country to make a reconnaissance towards Leavenworth.

As the column was passing 90, residents of Leavenworth reported over rural telephones that two troops of hostile cavalry crossed the Missouri river into Leavenworth at 1 p. m., and that the advance guard of a column of hostile infantry was approaching the bridge via Stillings at 1:45 p. m. Communication with Leavenworth was interrupted before the strength of this infantry column was learned. The Red troop reported from 94, at 1:30 p. m., that it had seen nothing of the enemy.

At 2:05 p. m., the regimental commander issued his orders to halt for the night. The main body is to camp at 90. Major A is to establish the outposts with the advance guard (1st Bn., less Cos. C and D, and 8 troopers) on the line extending from the 92—82 road, inclusive, through 94 to the ravine 1200 yards south of 94, inclusive. As soon as practicable his cavalry is to be increased to about a platoon.

The troop of cavalry is to remain in front of this outpost line until further orders and oppose the hostile cavalry should it advance; it is to guard the bridges at 100 and hold the ridge west of 102 until the outpost is in position.

The main body will guard the 90—84 road with a section of infantry at the farm house 1200 yards north of 90, and will guard the 90—112 road with a section of infantry at the farm house 1200 yards south of 90.

The outpost companies will be joined by their wagons; and, in case of attack, the outpost is to be reinforced.

When Major A receives his order, at 2:05 p. m., the support of the advance guard (Co. A, less 1 platoon, and Co. B) is passing 90, and the advance party (1 plat. Co. A, and 8 troopers) is 500 yards in advance on the 90—92 road.

Required:

Major A's estimate of the situation.

His orders.

The day positions of the outpost, in detail.

SOLUTION.

As soon as Major A received his orders he directed the advance guard to resume its advance, and galloped ahead to the ridge north of 92. At 92 he left a staff officer to halt the advance guard when the support reached that point and assemble the officers.

From the western 1100 hill his view along the 84—P road is shut off by the trees in the ravine to the north, and only portions of the 82—78 road are visible. Riding to the eastern 1100 hill Major A finds

his immediate view to the north and northwest somewhat limited by the fringe of trees along the streams south of the 82—76 road, although the greater part of the long spur running from P to 78 can be seen above the tops of the trees. To the east, the road junctions at 96 and 98 can be seen over the trees in the ravine west of 96, but the road from 98 to 100 is invisible except for a few hundred yards near 98. The main highway is visible, however, the entire distance from 92 to the ravine west of 96, as is also most of the country to the south of it as far as the branch of Salt creek which heads at 92, while farther to the south and over the trees can be seen the high ground and roads near 112 and 110. While at this commanding point Major A makes a hasty estimate of the situation.

Nothing is known of the enemy's intentions, and very little can be conjectured. He was 8 miles away at 1:45 p. m., and, considering the late hour, it is not probable his infantry will come in contact with the Red outposts to-day. Most probably it will halt for the night near Leavenworth. It is believed, however, that he has superior cavalry, and Major A's outpost arrangements must provide protection against possible surprises by hostile cavalry. True, the Red troop has been ordered to hold the Blue cavalry troops at a distance, but the latter may elude or defeat the former and reach the outpost line.

There are three approaches from the enemy's supposed position that must be specially guarded; they are the 74—76—78—82 road; the 100—96—94 road; and the 104—108—110 road. The most important of these is the direct road over which the command

has been marching, and the arrangements for guarding it will form the main feature of the outposts on which all other dispositions will depend.

On this road, then, will be placed one support, which will watch the right section of the line. Another support will be placed on the 92—82 road, near the top of the ridge; this appears to be the best available position, since it is about the center of the left section of the outpost line, and is in close supporting distance of the remainder of the outpost troops.

Although it is objectionable to use a road as a dividing line between sections, still, in this case, the two sections cannot be divided by any natural lines other than roads. The best division, under the circumstances, will be to have the left section embrace the front from the 92—82 road, inclusive, to the 92—94 road, exclusive, and the right section the remaining front to include the ravine south of the 92—94 road.

Major A may dispense with a reserve and place a full company as a support in each of these sections. It is doubtful, however, whether the two sections are of equal importance, for the greatest danger appears to be in front of the right section; and, since it is not clear where the bulk of the force will be needed most, the best arrangement probably is to place a platoon in each support and hold a company in reserve. To facilitate mess arrangements as well as to enable each support, in case of necessity, to be reinforced by the remainder of its company, each company will furnish a support. This arrangement also enables Major A to place a captain in command of each support.

At 92, the reserve will be conveniently located for reinforcing either support; no fault can be found

with the distance (880 yards) that separates it from the main body, and fuel, and water will be within easy reach. The road-fork at 94 is the natural place for the right support; here it will guard two approaches, will be within easy supporting distance (880 yards) of the reserve, and will have its arrangements for the night simplified by the nearness of the school and farm houses. But it will not be wise to push the left support forward to the road-fork at 82, since this would take it a mile from the reserve, and locate it nearly half a mile in advance of the line to be defended. Near the top of the ridge is the proper place for this support, and its commander should be allowed considerable latitude in selecting its position, since it may be difficult to get cover from the direction of the enemy.

At the present time Major A has but 8 cavalrymen, and they can be employed to best advantage in patrolling one of the flank roads, since the 94—96 road can be observed from the position itself. The 82—78—74 road being concealed from the position throughout the greater part of its length, and being but poorly covered by the cavalry troop on the ridge west of 102, the 8 troopers will be given to the left support for patrolling this road.

Major A's *decision* is to divide the outpost line into two sections, to place a platoon at 94 in the right section, and a platoon and 8 troopers behind the 1100 ridge near the 92—82 road in the left section, and to hold a platoon from each company in reserve at 92.

Galloping back to 92, Major A issues the following orders from map and ground at 2:25 p. m., to *all* his assembled officers:

"Inhabitants of Leavenworth have reported by telephone that two troops of Blue cavalry crossed the Missouri river and entered that town at 1 p. m., and that the point of the advance guard of a column of hostile infantry was approaching the river via Stillings at 1:45 p. m. The telephone lines were cut before the strength of the hostile column could be learned. The regiment is to camp for the night at 90, and will send half a platoon to the farm house 1200 yards south of 90 and another half platoon to the farm house 1200 yards north of 90.

"The advance guard, under my command, will form the outposts, and will hold a line along this ridge (800 yards north of 92) through 94 to that ravine 1200 yards south of 94.

"Captain A, with one platoon of your company and a mounted orderly, you will form Support No. 1; take post at the road-fork at 94 and hold the line from the ravine 1200 yards south of this (92—94) road inclusive, to this (92—94—96) road inclusive. Maintain communication with the detached post from the main body on the 90—112 road.

"Captain B, with one platoon from your company, 8 troopers and a mounted orderly, you will form Support No. 2; take post near this (92—82) road and under cover of that ridge (pointing north), and hold the line from this (92—94) road exclusive to this (92—82) road inclusive. Patrol the 82—78—74 road with your cavalry.

"The remaining two platoons will form the reserve and bivouack here (at 92).

"Colonel A has ordered the cavalry to keep the hostile cavalry away from our position, maintaining possession, if possible, of the bridge at 100 and the ridge west of 102.

"In case of attack we will be reinforced.

"The company wagons will join the reserve. Cooking for the supports will be done at the reserve.

"I will be with the reserve."

The right support sends an outguard of a lieutenant and 16 men to the cemetery. It occupies the eastern edge of the cemetery with 12 men and sends a patrol of 4 men along the road and down the ravine west of 96 to the bridge on the 96—76 road. Another-

er outguard, consisting of 2 squads (16 men) under a sergeant, is sent to the spur 850 yards south of 94. It sends a patrol of 3 men along the road south and then east through 110; another of 2 men along the ravine to the west to connect with the detached post on the 90—112 road; and establishes a double sentinel post about 500 yards to the east on the point of the spur. Both outguards have a sentinel nearby observing towards the enemy. The remainder of the support prepares a position across both roads at 94, intrenching if necessary for cover, and then falls out and finds concealment in and around the school house. A sentinel is posted on each road, one about 300 yards to the south, and the other at the bend in the road to the east; and a patrol of 2 men is sent to locate the right of the other support on the 1100 hill.

The left support sends an outguard of a lieutenant and 16 men to 82, which posts the usual sentinel at the outguard, and double sentinels 400 yards away on the 82—78 road. A patrol of 2 men is sent from the support to the 84—90 road to establish communication with the post from the main body, and a sentry squad of 4 men is established on the eastern 1100 hill to observe and keep communication with the right support at 94. A cavalry patrol of 4 men is sent along the 82—78—74 road. The remainder of the support prepares a position across the 92—82 road, posts a single sentinel on top of the ridge, and finds concealment behind the ridge just west of the 92—82 road.

The reserve stacks arms, falls out and prepares the evening meal, both for itself and for the support. A sentinel is left over the arms, another is posted on

the 92—94 road at the eastern edge of the orchard, and a patrol of 3 men is sent down the ravine that heads just west of 92.

Continuation of the Problem.

At 2:30 p. m., a Red cavalry patrol was driven back from 30 by superior hostile cavalry. The Red troop then left a guard at the bridge at 100, and occupied the ridge west of 102; there it remained in constant contact with hostile cavalry until about 4 p. m., when, in order to avoid being cut off, it fell back before two troops of hostile cavalry. About 4:30 p. m., it occupied a position on the hill south of 110, from which, about 5 p. m., it checked the advance of the two hostile troops at the stream east of the 126—110 road. A little after 5 p. m., the two hostile troops were seen withdrawing via the 108—104 road to the east.

Between 4 p. m. and 5 p. m., hostile cavalry patrols were driven back by the outpost infantry from the cemetery east of 94. No hostile infantry has been seen by the outposts.

At 5:30 p. m., the above information is in the possession of Major A. At that hour he gets the following message from Colonel A: "I will have the cavalry withdraw at once to the main body. The remainder of a platoon will be ordered to report to you for duty with the outpost."

State Major A's second outpost order, and give the night dispositions of the outpost.

Continuation of the Solution.

Apparently the enemy has halted for the night, probably in the vicinity of Leavenworth, with his out-

posts on the high ridge west of the town. Three and one-half hours have elapsed since he began crossing the bridge at Leavenworth, and, had he continued his advance, his infantry would have appeared in front of Major A's outpost line before 5:30 p. m. The activity of the hostile cavalry probably was for the purpose of driving the Red troop from its threatening position on the ridge just west of 102, and ascertaining the approximate location of the Red camp for the night.

With the ridge west of 102 in the enemy's possession, the danger threatening along the 100—94, and the 104—110 roads becomes so much greater that the outpost in this direction may well be strengthened for the night. This may be done by having the remainder of Company A join the support at 94. A single platoon will be left at 92 in reserve. Since the larger part of the outpost position is visible from the ridge west of 102, no changes should be made in the position of the outposts until darkness will conceal the movements from the enemy.

Major A will use his additional cavalry for patrolling the roads on his right flank towards 108 and 126. The enemy is so near that little is to be gained by sending cavalry patrols along the 92—100 road, although there would be no objection to sending a patrol along this road early in the evening to determine with certainty whether the enemy holds the bridge at 100 and the ridge west of 102. Accordingly, the eight troopers now with the left support will remain with it, and the other troopers will join the right support.

Major A *decides* to reinforce the right support with a platoon of infantry and the cavalry sent him,

and to leave the supports and reserves in their present positions.

He then issues the following order:

Outpost, 1st Infantry,

At 92,

1 Sept. —, 5:45 P. M.

Field Orders

No. —

1. Our cavalry fell back from the bridge at 100 and the ridge just west of 102, before two troops of hostile cavalry, and occupied a position on the hill just south of 110. There it stopped the advance of the two hostile troops, which withdrew via the 108—104 road at 5 p. m. After 4 p. m., hostile cavalry patrols were driven back from the CEMETERY east of 94. There is no additional information of the hostile infantry.

Our cavalry is withdrawing to the position of the main body for the night.

2. The following changes will be made in the outpost dispositions for the night:

3. (a) Support No. 1 will be reinforced immediately by 12 troopers and at dusk by the platoon of Company A now with the reserve. The cavalry will patrol towards 104 and determine whether the enemy holds the bridge at 100 and the ridge west of 102.

(b) Night positions will be occupied under cover of darkness.

4. Send messages to 92.

A.

Major, 1st Inf.,

Commanding Outpost.

Copies to Colonel A, and Captains A and B.

Night Dispositions of Support No. 1.

As soon as the cavalry reports to this support, Captain A will send a patrol of 5 troopers along the 94—100 road to determine whether the bridge at 100 and the ridge west of 102 are held by the enemy. Throughout the night, a cavalry patrol will be kept

on the road by 110 and 108. The cavalry may remain with the support during the night or it may form a detached post at 110. The former appears preferable.

When the reinforcing platoon of infantry joins the right support, the outguards at the cemetery and on the spur south of 94 will be increased to a full section each. The cemetery outguard will post 8 men at the bend in the road about 500 yards to the east, from which double sentinels will be posted about 200 yards farther east on the road.

The outguard on the road south of 94 will keep the same position it had during the day, on the spur 850 yards south of 94. It will have a sentry squad of 8 men at the bridge 400 yards farther south, with its double sentinels at the bend in the road south of the bridge; and another sentry squad of 8 men will be located 400 yards east of the outguard on the spur. The latter post is not absolutely necessary.

The rest of the support (1 platoon) will remain at 94, posting double sentinels about 400 yards away on each road.

This section will be patrolled as follows: The cemetery outguard will constantly patrol the main road towards 100, and will send a patrol of 3 men at intervals to communicate with the sentry squad on the spur to the south. The outguard south of 94 will patrol the road as far as 110, and will occasionally send a patrol of 2 men to communicate with the detached post from the main body at the farm house 1200 yards south of 90. The support will send out visiting patrols to the outguard on the 1100 hill from the left support.

Night Dispositions of Support No. 2.

At dusk, this support strengthens the outguard at 82 to 20 men, and the post on 1100 hill to 8 men. The outguard posts double sentinels about 400 yards away to the east on the road. The remainder of the support keeps its day position, and posts double sentinels on the road on top of the ridge.

The outguard at 82 patrols the road to the east as far as the point where it bends to the north, and sends a patrol of 2 men from time to time to communicate with the post from the main body at 84. In addition to the usual visiting patrols sent out to the observation groups, the support sends cavalry patrols well to the east on the 82—78—76—74 road.

Each of the outguards posts the usual sentinel to observe in the immediate vicinity, and the supports each post a sentinel over their stacks.

The arrangements made by the reserve for its protection during the day are not changed for the night.

COMMENTS.

It will be strange if your arrangement of the outpost is the same as that given in the solution, nor is it necessary that it should be in order that the outpost may do what is expected of it. "Officers on outpost are given great latitude, so long as their dispositions insure ample warning and adequate resistance." (*) If we but follow the principle that *the dispositions of the outpost are based on the positions of the two opposing forces with respect to the net work of roads*, our principal arrangements will be correct. Our analysis of the situation should convince us that the

* F. S. R.

routes of importance to be watched by the outposts are the east and west roads through 76, 96 and 108, and that of these the last two are particularly dangerous. This being the case, our dispositions should be such as to cover these three roads with detachments whose strengths are in proportion to the relative importance of the roads. If we have done this, we have correctly solved the essential parts of the problem, and so far as the details are concerned, there may be a number of good arrangements of them which will satisfactorily meet the situation.

These three roads may be covered in a number of ways, all of which are good. For example, a reserve is not absolutely necessary in this situation, and there could be no serious objection to dispensing with one. The force is small, the main body is close at hand and if a part of the line has to be reinforced it may be done from another part of the line or from the main body. We prefer having a reserve, because the road favors its location close to the supports, part of the infantry is given more rest than it otherwise would have, messing arrangements are more easily made, and last but not least the outpost commander with a reserve at his disposal will be in better control of the situation in case of an emergency.

The outpost may be divided into two supports of a company each, with one at 94 and the other on the ridge north of 92. Or one of the supports may be placed at 92 with a strong outguard at 94, and the other support half a mile north of 92 with a strong outguard at 82. The defect of this arrangement is the insufficient depth of the outpost on the 92—94—96 road. Remember that *the safety of the troops in*

rear depends on the outposts having sufficient depth. A support of one company may be placed at 94 and the remaining company may form a support at 92 with an outguard on the ridge to the north across the 92—82 road. The weak point in this arrangement is the insufficient depth on the left flank. There may be still other good ways of covering the three important roads.

In the solution, one of the night dispositions was ordered, not because it was believed to be the best but in order that attention might be called to it the more forcibly by criticising it here. We refer to the order given one of the reserve platoons to reinforce the support at 94. This should be an exceptional measure, and to avoid it the support should be made strong enough in the first place to meet all probable contingencies. If we reflect a moment on the situation at the reserve when the order reaches one of its platoons to leave the place where it has made all its arrangements to pass the night, we will understand the reason for this. Troops will suffer great hardships without complaining when they have confidence in the ability of their leaders, but they are quick to recognize the blunders of their superiors and resent fatigue and inconvenience that might have been avoided. There was no urgent necessity for moving one of the reserve platoons to 94, and the additional security thereby obtained was not sufficient to warrant disturbing the platoon. There is little probability that the outposts will be attacked during the night, and even if they are the platoon at 94 has sufficient resisting power to check the enemy until assistance can reach it from the nearby reserve. It takes but a

few such ill-advised moves to undermine the confidence troops should have in their officers.

The double sentinels on the 94—96 road are posted for the night 200 yards in advance of the remaining 6 men of the post, but the double sentinels on the 94—110 road are pushed out 400 yards in advance of the 6 men at the bridge south of 94. It is unusual to push sentinels so far from their supporting posts, but it is done here because it is desirable to watch the bridge with the 6 men and the bend in the road south of the bridge with the double sentinels. Our Field Service Regulations recognize that these and other distances in the outpost arrangements depend on the situation and terrain, and allow commanders full liberty to fix these distances to meet the conditions of each particular case.

We must not forget that it is the special duty of the outguards and their sentinels to observe the roads and the country between them in their immediate front, and only in exceptional cases when the enemy is very near will they be able to watch the enemy as well. Observation of the enemy and of the terrain beyond the range of vision of the sentinels must be made by the patrols, and particularly by cavalry patrols *which must remain in touch with the enemy throughout the night*. In this night reconnaissance the cavalry should be confined to the roads, for while it is difficult and fatiguing to ride across broken country during the day it is well-nigh impossible at night, and if this practice is persisted in, the efficiency of the cavalry soon will be impaired.

All of the cavalry platoon might have been assembled for the night at the position of the reserve,

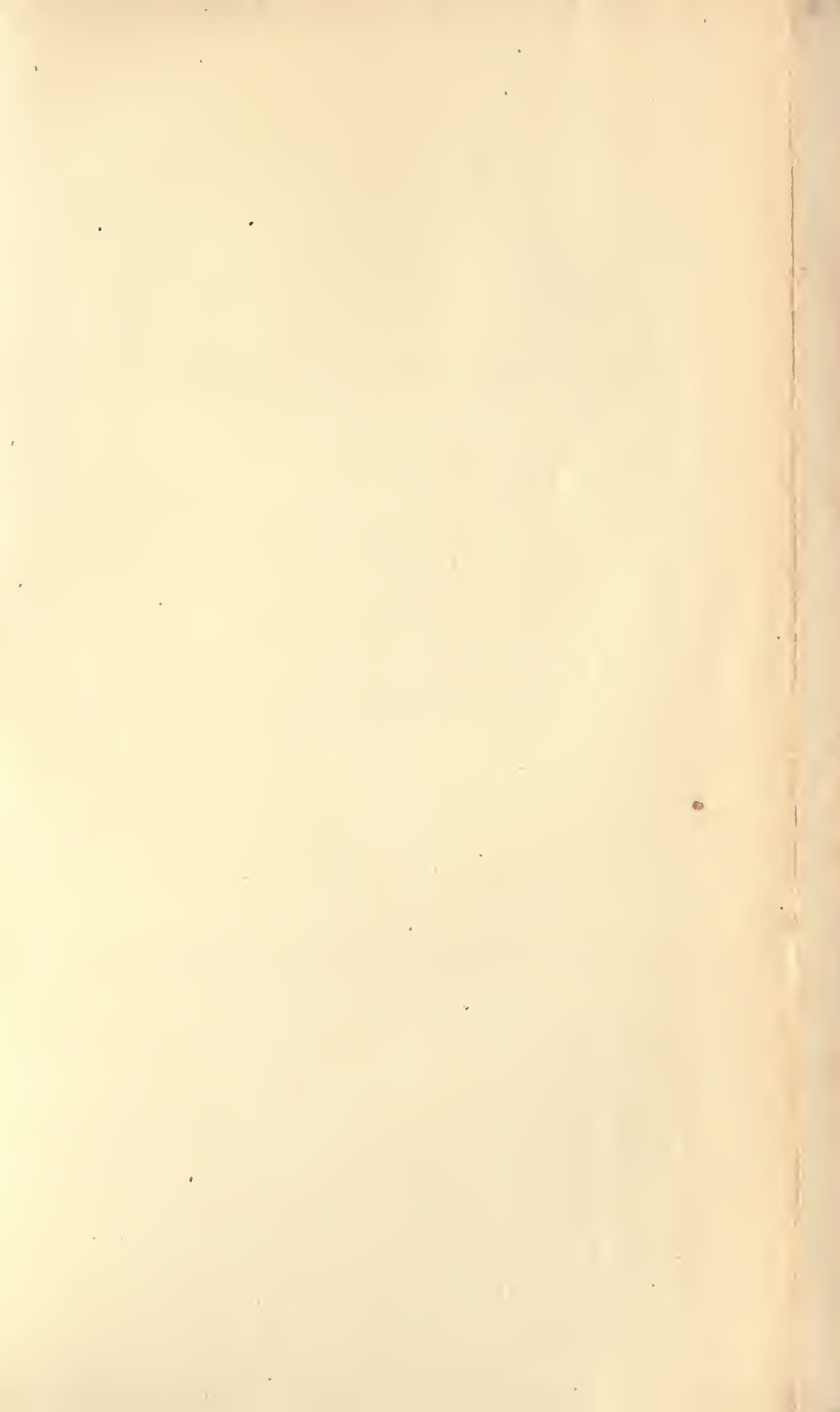
the patrols being sent out from there by Major A or one of his battalion staff officers. The greater distance the patrols would have to cover is the chief objection to this arrangement, but, on the other hand, the horses probably would get more rest during the night, for the saddles could be removed with safety.

Frequently it is practicable to prescribe in the second outpost order the hour at which the supports should withdraw their night outguards, sentinels, etc., and resume their day positions, and it is desirable to do this, since many arrangements at the support such as messing will depend on the hour for these changes. In this situation it was deemed advisable to delay fixing this hour until the intentions of the detachment commander for the following day were known.

In the orders given in the preceding chapter, the outpost supports are ordered to prepare their positions for defense, but in this chapter no such orders are given. This difference has been made to emphasize the point that it is not absolutely necessary to prescribe in the orders that the position will be prepared for defense, for the "advance portions of the outpost *habitually* intrench and strengthen their positions, clear the field of fire when practicable, and open or improve communications laterally and to the rear." (*) Consequently, the orders in this respect should be suited to the known tendencies of the support commanders. If it has become an established practice in the command for the outposts always to intrench, orders to do so are superfluous; but it may be quite necessary to give such orders to an officer who is inexperienced or obtuse. If the enemy is distant,

* F. S. R.

the comfort of a fatigued command may be of greater importance than trenches, but fatigue should be no excuse for neglecting this important matter when the enemy is near and danger threatens. Frequently, natural cover may be so utilized that the work of intrenching will not be extensive.



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