

INFANTRY IN BATTLE

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INTRODUCTION

THIS book treats of the tactics of small units as illustrated by examples drawn from the World War. It checks the ideas acquired from peacetime instruction against the experience of battle.

There is much evidence to show that officers who have received the best peacetime training available find themselves surprised and confused by the difference between conditions as pictured in map problems and those they encounter in campaign. This is largely because our peacetime training in tactics tends to become increasingly theoretical. In our schools we generally assume that organizations are well-trained and at full strength, that subordinates are competent, that supply arrangements function, that communications work, that orders are carried out. In war many or all of these conditions may be absent. The veteran knows that this is normal and his mental processes are not paralyzed by it. He knows that he must carry on in spite of seemingly insurmountable difficulties and regardless of the fact that the tools with which he has to work may be imperfect and worn. Moreover, he knows how to go about it. This volume is designed to give the peace-trained officer something of the viewpoint of the veteran.

By the use of numerous historical examples, the reader is acquainted with the realities of war and the extremely difficult and highly disconcerting conditions under which tactical problems must be solved in the face of an enemy. In so far as there was material available, these examples pertain to American troops and have been drawn from the personal experience monographs on file at The Infantry School. The combat experience of other armies, however, has been utilized to supplement that of our own.

This work does not purport to be a complete treatise on minor tactics of infantry. The aim of its authors has been to develop

fully and emphasize a few important lessons which can be substantiated by concrete cases rather than to produce just another book of abstract theory.

GEORGE C. MARSHALL,
Colonel, Infantry.

May 1, 1934.

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FIRST EDITION

May 1, 1934.

INFANTRY IN BATTLE was prepared by the Military History and Publications Section of The Infantry School under the direction of Colonel George C. Marshall. Major Edwin F. Harding planned the book and supervised the preparation and edit of the manuscript. Major Richard G. Tindall wrote the original drafts of most of the chapters. Captain John A. Andrews, Captain Robert H. Chance, and Lieutenant C. T. Lanham assisted in the research and the preparation of the maps, and contributed parts of some of the chapters. Captain Russel B. Reynolds drafted the chapter on the fire of machine guns. Lieutenant Lanham edited and revised the manuscript in full.

1 1

SECOND EDITION

September 1, 1938.

The second edition of INFANTRY IN BATTLE is not a mere reprint. The entire book has been extensively revised. Many of the sections have been completely rewritten; much of the tactical doctrine restated; and new maps by Technical Sergeant William H. Brown substituted for those of the first edition. This work was performed by Captain C. T. Lanham, in consultation with Lieutenant Colonel Edwin F. Harding.

Chapter I: *Rules*

Combat situations cannot be solved by rule.

THE ART OF WAR has no traffic with rules, for the infinitely varied circumstances and conditions of combat never produce exactly the same situation twice. Mission, terrain, weather, dispositions, armament, morale, supply, and comparative strength are variables whose mutations always combine to form a new tactical pattern. Thus, in battle, each situation is unique and must be solved on its own merits.

It follows, then, that the leader who would become a competent tactician must first close his mind to the alluring formulæ that well-meaning people offer in the name of victory. To master his difficult art he must learn to cut to the heart of a situation, recognize its decisive elements and base his course of action on these. The ability to do this is not God-given, nor can it be acquired overnight; it is a process of years. He must realize that training in solving problems of all types, long practice in making clear, unequivocal decisions, the habit of concentrating on the question at hand, and an elasticity of mind, are indispensable requisites for the successful practice of the art of war.

The leader who frantically strives to remember what someone else did in some slightly similar situation has already set his feet on a well-traveled road to ruin.

1 1 1

EXAMPLE 1. In the early days of August, 1918, the Germans were retiring toward the Vesle River. On the third day of this month the U. S. 4th Division relieved the 42d and advanced. The 39th Infantry, part of this advancing division, moved forward in an approach-march formation with two battalions in assault. All day the troops struggled forward—the slowness of the advance being caused not by hostile resistance but by the

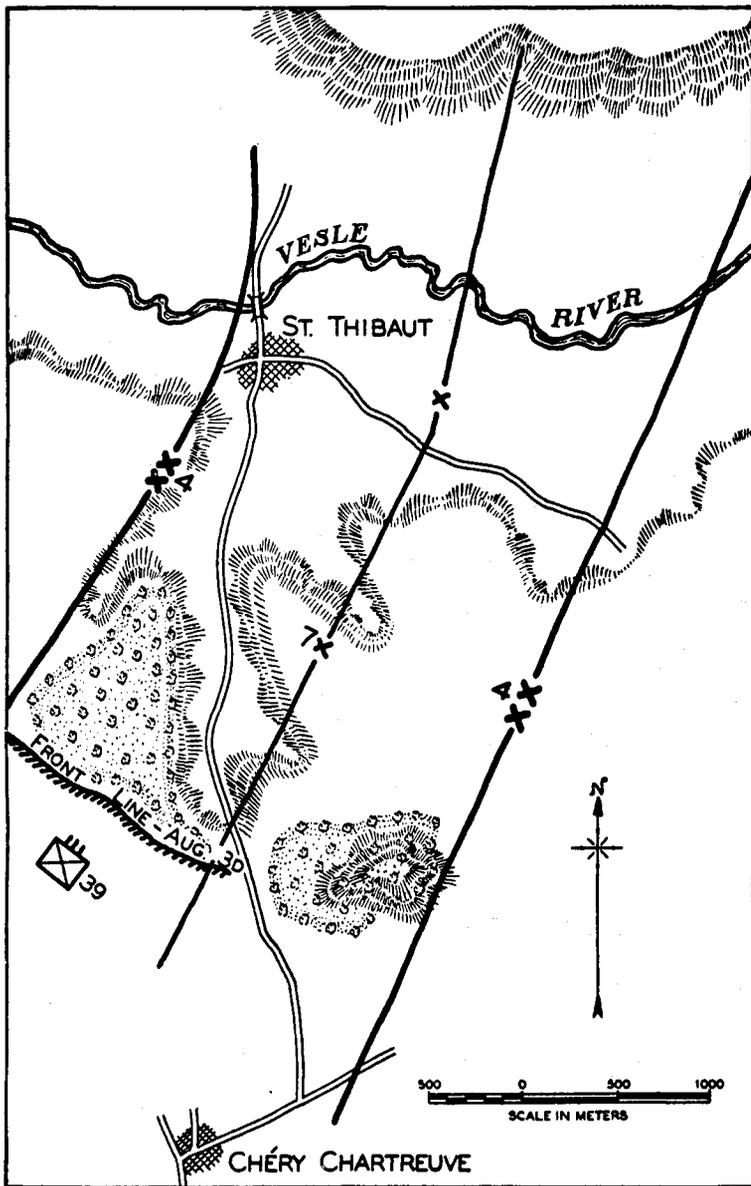
difficulty of the terrain, particularly the dense woods that had to be negotiated.

Late in the day resistance was encountered and overcome. The enemy fell back. Orders were now received to form a column with an advance guard, take up the pursuit and drive across the Vesle in order to establish a bridge-head on the slopes to the north.

The 39th Infantry (less one battalion) was designated as the advance guard of the 7th Brigade. After a march of several hours, hostile artillery fire was encountered, whereupon the column halted for the remainder of the night. At dawn the march was resumed, but finding that the proposed route of advance was being shelled by the enemy, the advance guard counter-marched to another road. Some confusion resulted from this, the 2d and 3d Battalions becoming intermingled. Thus, when the movement again got under way, Company H formed the advance party, Companies F, K, and L the support, and Companies I, M, Machine-gun Company, Companies E and G, in the order named, the reserve.

Early on August 4 the column approached the Vesle on the Chéry-Chartreuve—St. Thibaut Road. About 2,000 meters south of St. Thibaut this road passes through a deep defile, 200 meters wide and nearly perpendicular to the commanding heights north of the river. The road runs through the full 1,000-meter length of this defile, then emerges at the northern exit to open terrain, over which it winds smoothly to the little village of St. Thibaut. To reach this village, the open terrain before it has to be crossed, and this lies under direct command of the high ground to the north.

No enemy infantry had been encountered. Company H, in column of twos, approached St. Thibaut without being fired on. At 8:00 a.m. it entered the town. By this time part of the support, marching in column of squads, was well out of the defile. Company H had cleared the town and had nearly reached the bridge over the Vesle when suddenly the Germans on the north-



Example 1

ern heights opened with machine guns and artillery on the advance party and the support, causing heavy casualties and throwing the support, in particular, into the greatest confusion.

From the personal experience monograph of Major Manton S. Eddy, who commanded the Machine-Gun Company of the 39th Infantry.

DISCUSSION. Here is a perfect example of a command offered up on the bloody altar of *form*. Let us look at that sacrifice more closely.

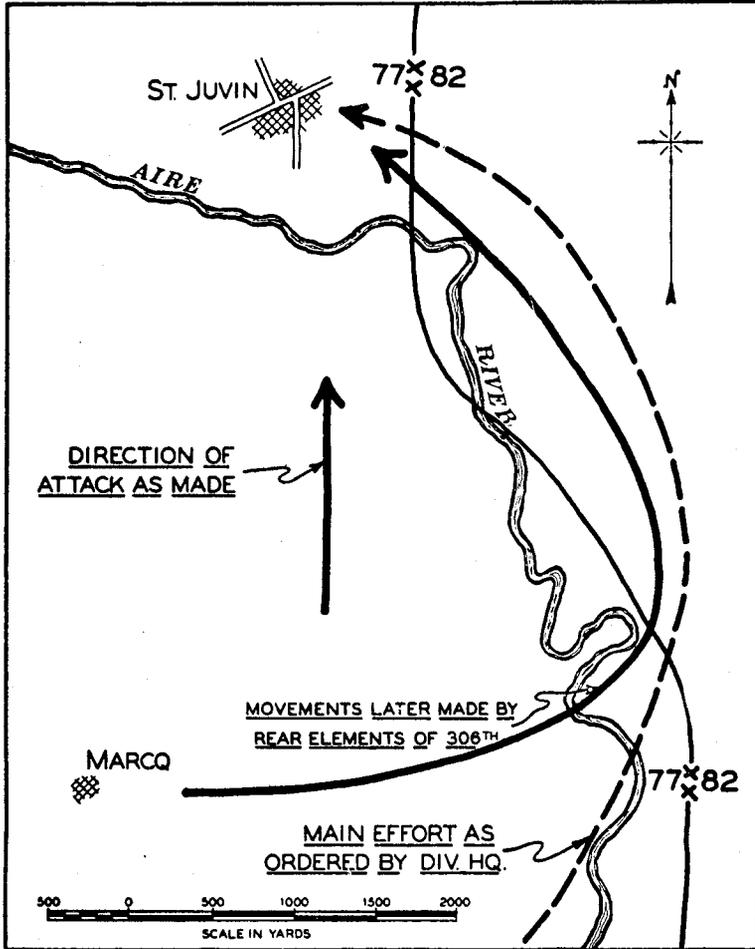
Until the advance guard emerged from the defile, the terrain had shielded it from hostile ground observation. As it left this friendly protection it came in direct view of the commanding heights to the north. Hostile artillery had been firing from these heights but a short time before, but in spite of this the advance party moved out in column of twos and the support in column of squads. In Major Eddy's words, "It was a sight that must have made the German artillery observers gasp in amazement, for before them lay an artilleryman's dream."

Why was this done? Probably because their training had established it as a custom of the service, as a law of the Medes and the Persians, that an advance party moved in column of twos and a support in column of squads. Their orders had directed them to form an advance guard, they were not under fire, and therefore they adopted one of the diagrammatic formations set forth in training manuals.

True, this unit was entirely lacking in open-warfare experience, having participated in only one attack and that from a stabilized position. It is also true that the intermingling of the 2d and 3d Battalions rendered command difficult. Nevertheless, common sense decried such a suicidal formation in the presence of the enemy.

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EXAMPLE 2. On October 14, 1918, the U. S. 77th Division attacked the Germans north of the Aire River near St. Juvin.



Example 2

The hostile positions in this vicinity were strong, particularly against an attack from the south. Feeling certain that the German barrage and defensive fires were registered south of St. Juvin and the Aire River, the division commander planned to take the village by envelopment from the east and southeast,

while one regiment made a frontal demonstration from the south. He decided that, under cover of darkness, troops could cross the Aire well to the south unobserved. This operation would require movement in the zone of the 82d Division on the right, but the position of the 82d facilitated this maneuver. Therefore the 77th Division order specified:

By maneuvering with its right in the area of the 82d Division it (the 77th Division) will attack St. Juvin from the south and the east.

Unfortunately, this idea of maneuver was not reproduced in the orders of the lower echelons, the troops being sent "straight against St. Juvin from the south," the direction that the division commander had particularly wished to avoid for the real attack.

The 1st Battalion of the 306th Infantry, which the division commander had expected to be directed against St. Juvin from the east, attacked straight from the south with the unfordable Aire between it and its objective. The hostile barrage and murderous machine-gun fire from the slopes north of the Aire swept through the assaulting units in a wave of destruction. The attack stopped. At noon the situation was such that the division commander believed a serious repulse inevitable.

At this time the commanding officer of the 306th Infantry concluded that there was no chance of success if the attack continued along these lines. Therefore, after the failure of the frontal effort, this regimental commander, acting on his own initiative, directed the rear elements of his regiment to cross the Aire east of Marcq and make a flanking movement against St. Juvin. This maneuver was carried out, and the town, the hostile position, and 540 prisoners were captured.

From "Memories of the World War" by Major General Robert Alexander, who commanded the 77th Division.

DISCUSSION. General Alexander emphasizes the fact that the attack, as launched at first, was merely frontal. It failed. Not until the regimental commander, acting on his own initiative, ordered troops to cross the Aire and strike the hostile position in flank, was success achieved.

This division commander states that "evidently the malign influence of trench-warfare doctrine, which in all cases depended upon a barrage and a straight push behind it," still controlled the minds of some of his subordinates.

From beginning to end, the World War is studded with major and minor reverses that resulted from attempts to apply methods that were successful in one situation to another situation.

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EXAMPLE 3. On November 2, 1918, the 9th Infantry, part of the U. S. 2d Division, was in division reserve southwest of Bayonville-et-Chennery. An American attack, launched on November 1, had achieved considerable success, and the Germans appeared somewhat demoralized.

On the afternoon of November 2, the 9th and 23d Infantry Regiments (3d Brigade) received orders to advance abreast, cross the front line at 8:00 p.m., and under cover of darkness moved forward to the heights just north of the Nouart—Fossé Road. They would then organize this position and prepare for a vigorous pursuit.

The 9th Infantry, in the order 1st, 2d, 3d Battalions, moved out in column of twos along the Bayonville-et-Chennery—Nouart Road to the front line then held by the 4th Brigade. As the regiment came to the outguards of the 5th Marines it was informed that the enemy still occupied the area to the immediate front—information which was soon found true.

The leading company (Company A) sent forward a patrol of several selected men which preceded the column by about 100 yards. Slowly the regiment moved forward. It passed through a long cut in the road. As the head of the column emerged from the cut, it ran into an enemy outguard of seven or eight men. These were promptly killed or captured and the regiment resumed its forward movement, this time protected by a deployed platoon to the front and by small groups from the leading company as flank guards. Heavy fire was now received from the left.

The column at once took cover while Company A deployed, moved against the enemy and drove him off. It was now midnight and the objective was close at hand. Accordingly, a halt was called until 5:00 a.m., at which time the regiment advanced a short distance and deployed on the designated line, Nouart—Fossé.

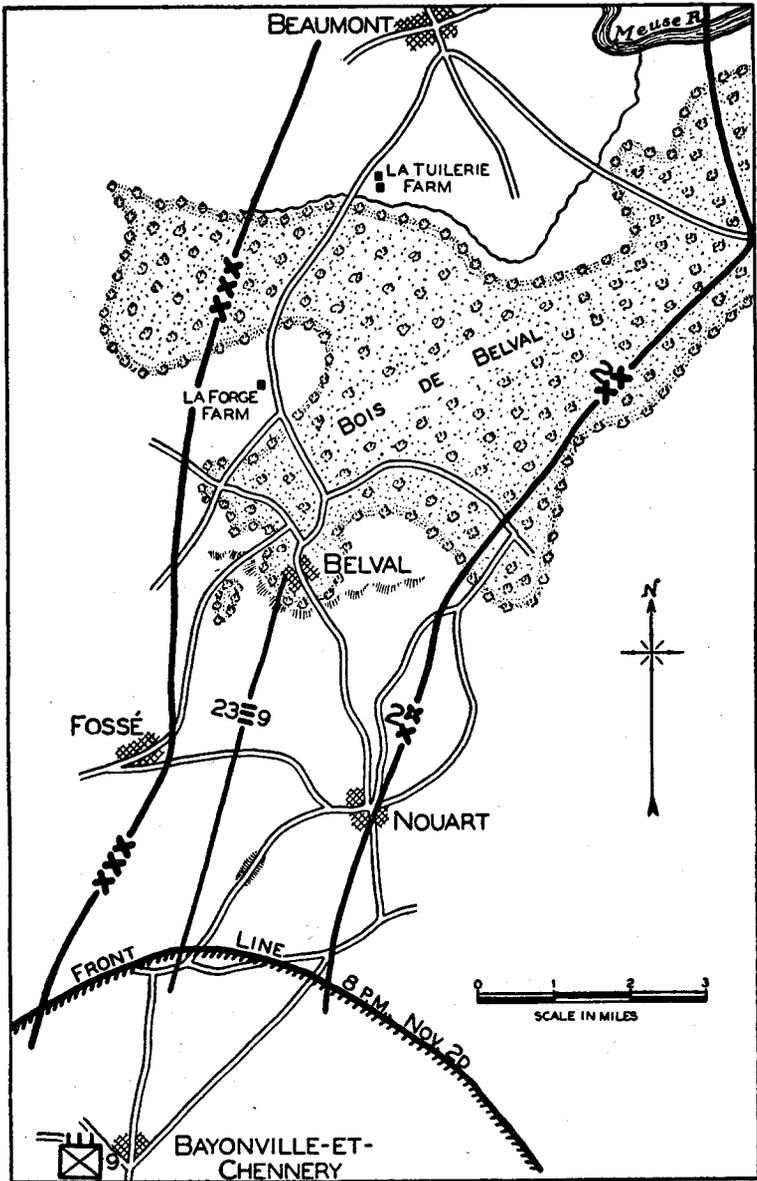
An attack was launched from this line and new objectives were reached without encountering serious opposition. Here another pause ensued.

Although German resistance was rapidly crumbling along the entire Western Front, the 9th and 23d found that a definite stand was being made a short distance to their front on the crest along the south edge of the Bois de Belval. Accordingly, American artillery fire was placed on this position and preparation made to take it.

The brigade plan was unusual. The 9th and 23d were ordered to *penetrate the German position by marching in column on the road* through the Bois de Belval and to seize and occupy the heights south of Beaumont. The advance was to be supported by a rolling barrage extending 200 yards on each side of the road.

The 9th Infantry began its forward movement about 4:30 p.m. in the following order of march: 3d Battalion and Machine-Gun Company as advance guard, followed by the 2d and 1st Battalions, each with one company of the 5th Machine-Gun Battalion attached. It soon became dark. As the head of the advance guard approached the edge of the woods a few hundred yards south of Belval, German machine guns opened fire from both sides of the road. Patrols sent to the left and right made short work of silencing these guns. At Belval the road was barricaded. This was cleared up and the regiment, in column of twos, moved on in the darkness and mud. Rain began to fall.

Frequent halts were made to intercept enemy detachments moving along the road and to verify the route. Several German-speaking soldiers were placed at the head of the advance guard to hold the necessary brief conversation with any groups of the



Example 3

enemy that might be encountered. Several of these groups were taken prisoner without firing a shot.

Just north of la Forge Farm the leading company of the advance guard surprised a large detachment of German troops who were industriously preparing a position from which they could cover a clearing in the forest. Sixty or seventy prisoners were taken.

The column continued, surprising a train bivouac and capturing an aid station. It arrived at the north edge of the wood at 10:45. At la Tuilerie Farm the officers and men of a German minenwerfer company were surprised and captured. Dispositions were then made to hold the ground won.

According to reports of prisoners and captured documents, the Germans had intended to hold the position near the south edge of the Bois de Belval for two days.

From the personal experience monograph of Captain Roy C. Hilton, who commanded the Machine-Gun Company of the 9th Infantry.

DISCUSSION. Here is a remarkable action. During a single night a regiment, in column and on roads, marched five miles through the enemy position! This feat becomes still more remarkable when we consider the fact that it was preceded by four years of stabilized warfare during which such an operation would have been classed as the height of insanity.

The plan was revolutionary. It was contrary to all the tedious rules that had been evolved while the war stagnated in the trenches. Perhaps that is the very reason it succeeded. Of course, some praise this operation and others damn it as poor tactics and a dangerous gamble. But no matter what the rule books say, one unassailable fact remains—the American commander's estimate of the extent of German demoralization and confusion was thoroughly upheld by the success obtained. And we judge by results.

EXAMPLE 4. On October 29, 1918, the 2d Battalion of the U. S. 61st Infantry held a position south of the Andon Brook.

From the north edge of the Clairs-Chênes Woods the ground—devoid of cover—falls in a long gentle slope to the little brook that skirts Aincreville.

The Germans, in possession of Aincreville, had emplaced their machine guns about 250 yards in front of the town in a semi-circular position. In addition, they had prepared an artillery barrage to fall about 200 yards in front of their machine guns.

The Americans could hear voices and the rumbling of wagons in Aincreville, but had no idea in what strength the enemy held the town. Patrols could advance only a short distance before they were driven off, for the Germans signalled for their defensive barrage on the slightest provocation. The signal was a green-star rocket, which brought the barrage down about two minutes later.

Expecting that he would be ordered to capture Aincreville, the battalion commander made his estimate of the situation. His men were very tired. After a succession of long marches, they had taken part in operations from October 12 to 17, and, though suffering heavy casualties, had met with only small success. Following this they had remained under artillery fire in division reserve for several days and then, after receiving a few partly-trained replacements, had relieved elements of the 3d Division in the front line on the night of October 26-27.

In view of the condition of his men, the battalion commander believed that any cut-and-dried attack would have small chance of success. There was no cover. An American artillery preparation would be certain to bring down the German's barrage and cause their machine guns to open. And he was not at all sure that his weary men would advance through this fire over open terrain. He did believe, however, that the Germans were equally tired and that if he could only get close quarters with them the problem would be solved.

On the afternoon of October 29 the expected order arrived. It directed that one officer and 100 men from this battalion attack

and seize the town following a preparatory artillery and machine-gun barrage. The battalion commander immediately proposed an alternative plan which was approved. Only the officer directly in charge of the action and four or five reliable sergeants were let in on the plan. This is how the battalion commander proposed to take Aincreville—

At 2:30 a.m., October 30, Lieutenant R. W. Young and 100 men from Company F would capture Aincreville by surprise.

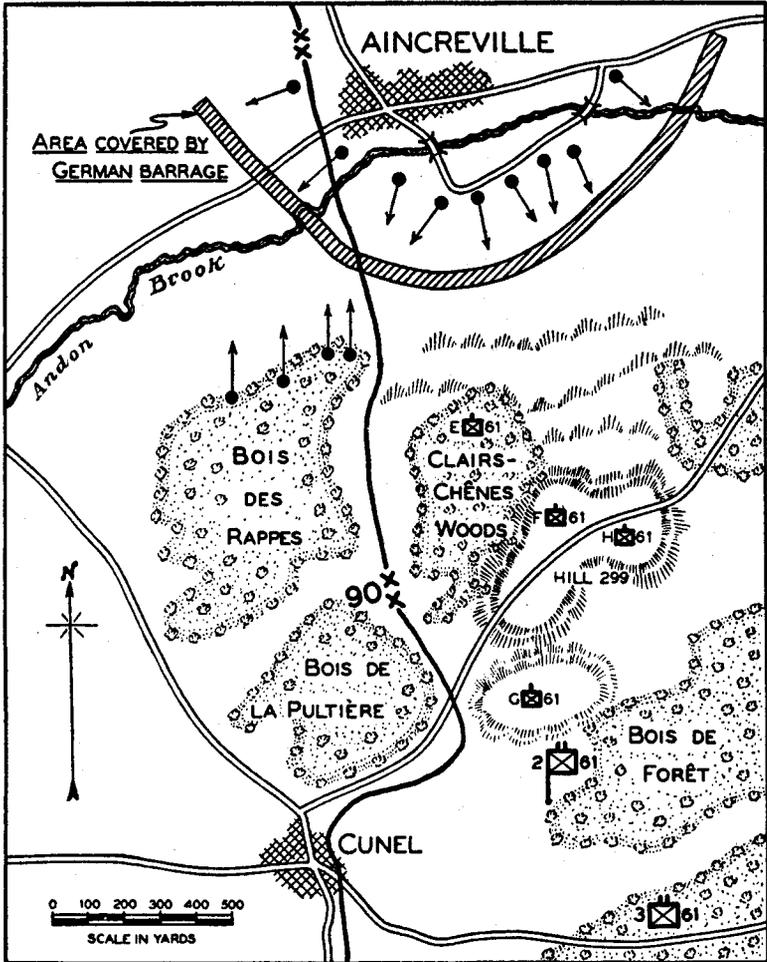
The attack would jump off without preparatory fire of any kind. The assault would be made in two waves. The sergeants who were in on the plan would follow the second wave to insure that all men went forward at the crucial moment and not back. The advance would be made silently. The battalion commander believed that these troops could reach a point within thirty yards of the line of machine guns before being discovered. When the hostile machine guns opened up, the attackers were to lie down and take cover. Lieutenant Young, with a captured German Very pistol and green-star rocket, would then fire the signal calling for the German defensive barrage. All of the Americans knew this signal.

As soon as Lieutenant Young felt that his men realized the meaning of the green-star rocket, he would yell: "Beat it for the town!" The battalion commander believed that the assaulting troops would realize that there was no time to regain their line before the German barrage came down in rear of them and that, therefore, their only hope of safety lay in reaching the town.

Arriving in town, they would take cover in the houses and cellars, wait until morning, and then mop it up. Arrangements were made to report the capture of the town by rocket.

The unit on the left would place a machine-gun barrage on the western exit of the town, preventing German escape and diverting attention there. The signal for this barrage would be the green-star rocket fired by the attacking force.

The plan worked perfectly. The Americans advanced until



Example 4

halted by fire from one or two machine guns. They were close to the guns and in a line. The rocket went up and a voice shouted: "Beat it for the town, it's your only chance!" The men ran over the machine guns, leaped across the stream and entered the

town, where they were assembled and directed into houses and cellars. There were only one or two casualties.

Lieutenant Young was killed the next morning while supervising the mopping up of the town.

From the personal experience monograph of Major Alexander N. Stark, Jr., who commanded the 2d Battalion of the 61st Infantry.

DISCUSSION. Certainly there is nothing stereotyped about this plan. It is not customary to sit on a piece of ground where the enemy places his barrage and then send up a signal calling for that barrage. It is equally unusual to devise a deliberate surprise for your own troops. This plan worked, however, and that is the criterion by which an action must stand or fall.

It is possible that the town might have fallen before a daylight assault well supported by fire. Perhaps it might have been taken by a night attack more nearly conforming to the book. On the other hand, it is possible that the battalion commander was entirely correct in his estimate of the effort he could expect from his men at this particular time. The result obtained fully justified the means employed.

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CONCLUSION. Every situation encountered in war is likely to be exceptional. The schematic solution will seldom fit. Leaders who think that familiarity with blind rules of thumb will win battles are doomed to disappointment. Those who seek to fight by rote, who memorize an assortment of standard solutions with the idea of applying the most appropriate when confronted by actual combat, walk with disaster. Rather, is it essential that all leaders—from subaltern to commanding general—familiarize themselves with the art of clear, logical thinking. It is more valuable to be able to analyze one battle situation correctly, recognize its decisive elements and devise a simple, workable solution for it, than to memorize all the erudition ever written of war.

To quote General Cordonnier, a French corps commander:

The instruction given by leaders to their troops, by professors of military schools, by historical and tactical volumes, no matter how varied it may be, will never furnish a model that need only be reproduced in order to beat the enemy. . . .

It is with the muscles of the intellect, with something like cerebral reflexes that the man of war decides, and it is with his qualities of character that he maintains the decision taken.

He who remains in abstractions falls into formula; he concretes his brain; he is beaten in advance.

Chapter II: *Obscurity*

In war obscurity and confusion are normal. Late, exaggerated or misleading information, surprise situations, and counterorders are to be expected.

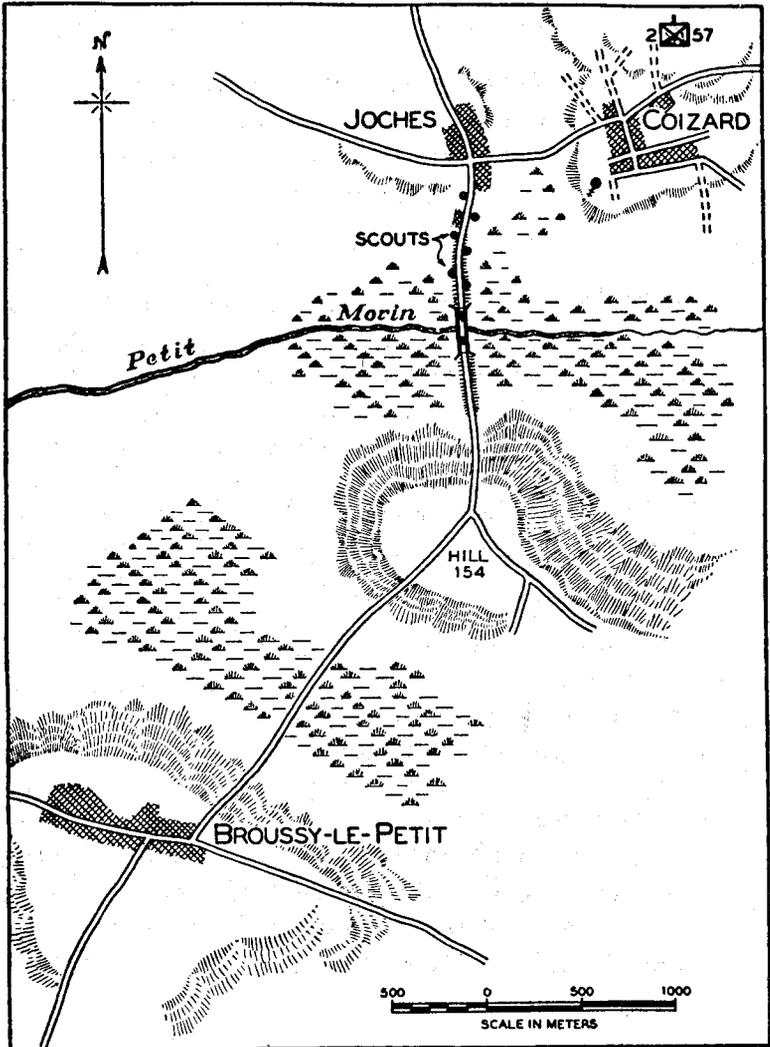
IN WARFARE of movement even higher commanders will seldom have a clear insight into the enemy situation. Detailed information of hostile dispositions and intentions will ordinarily be revealed only through the medium of combat. Obviously, such information is not available in the initial stages of a battle and experience has shown that little of it ever filters down to front-line leaders as the fight progresses. In mobile warfare, then, small units may expect to fight with practically no information of friend or foe. Theirs, as Captain Liddell Hart expresses it, is the problem of how to guard, move and hit in the dark.

In stabilized warfare more information is usually available, but even here the smaller units will be repeatedly confronted with obscure situations that demand immediate action.

The leader must not permit himself to be paralyzed by this chronic obscurity. He must be prepared to take prompt and decisive action in spite of the scarcity or total absence of reliable information. He must learn that in war the abnormal is normal and that uncertainty is certain. In brief, his training in peace must be such as to render him psychologically fit to take the tremendous mental hurdles of war without losing his stride.

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EXAMPLE 1. On September 8, 1914, the German 14th Division, which had been in army reserve during the early stages of the Battle of the Marne, was ordered to force a crossing of the wide swamp south of Joches. This swamp, impassable even to



Example 1

foot troops, was bridged by a single road. The French, located south of the swamp, could fire with artillery and machine guns on both Joches and this road.

Marching from the north the 2d Company of the 57th Infantry (temporarily attached to the 53d Infantry) reached the north edge of Coizard at 8:00 a.m., and prepared for action while its commander went forward to the southern outskirts of the village to reconnoiter. From there he could see Joches, the formidable swamp and, beyond the swamp, Hill 154 interlaced by hedges and dotted with sheaves of grain. He could see that the French held this hill, for their red pantaloons were clearly visible in the morning sun. There was no firing; everything was quiet. Behind him he saw a few German batteries moving up. At 9:00 a.m. he saw a group of German scouts leave Joches and start forward to cross the swamp. The French immediately opened fire on the village and the road with artillery, machine guns and rifles. At this point the company commander was called to the rear where he received the following battalion attack order:

The 2d Battalion of the 16th Infantry starts the crossing of the Petit Morin River. The 53d Infantry will follow, with the 2d Company of the 57th Infantry at the head. The objective is the village of Broussy-le-Petit.

That was all.

The attacking infantry knew neither the enemy's strength nor the location of his front line. They were not told whether or not their attack would be supported by artillery. They had no idea what units would be on their flanks. They only knew that they had to attack and would meet the French somewhere beyond the swamp.

From the personal experience monograph of Captain Adolf von Schell of the German General Staff, who commanded the 2d Company of the 57th Infantry.

DISCUSSION. This example is typical of attack orders that infantry companies may expect in open warfare. Leaders had to be guided by their mission, by the ground in front and by what they could see. Indeed, Captain von Schell emphasizes the fact

that the order quoted was the only one he received during the entire day.

In peace these highly-trained troops had been accustomed to orders arranged in a certain set sequence and to elaborate information of the enemy. But when war came there were only fragmentary orders and little or no information of the enemy. To quote Captain von Schell:

In open warfare on the Western Front and on the Eastern Front, in Rumania and in the Caucasus, it was always my experience that we had the most meager information of the enemy at the start of an attack.

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EXAMPLE 2-A. On July 14, 1918, the U. S. 30th Infantry held a defensive sub-sector south of the Marne, with its command post in the Bois d'Aigremont. The 1st Battalion, reinforced by an additional rifle company (K), Stokes mortars and machine guns, defended the area north of the Fossoy-Crézancy Road. Companies B and C outposted the river bank from Mézy to the Rû Chailly Farm. The rest of the regiment, with two companies of the 38th Infantry attached, had organized the Bois d'Aigremont in depth.

Communication agencies between the 1st Battalion and the regiment included two independent telephone lines, one buzzer, one TPS (earth telegraphy), a projector, pigeons and runners.

About midnight on the 14th, American artillery opened a violent bombardment. A few minutes later German shells began to burst in the American area. The cannonade increased in violence.

Soon after the German bombardment had gotten under way, it was realized at headquarters of the 1st Battalion that the long-expected German attack had at last jumped off. Signal equipment was tested and found useless. A rocket was sent up calling for artillery fire on the north bank of the Marne. Since it was impossible to tell whether the American artillery was firing

there or not, other rockets were sent up from time to time. Runners were sent to Companies A, K, and D, informing them that the expected attack was in progress and directing them to hold their positions.

About 2:10 a.m. an excited runner from Company C arrived at the battalion command post. He reported that at the time he left Mézy the Germans in the town greatly outnumbered the Americans there. He also said that he had passed many of the enemy between Mézy and the battalion C.P. He appeared very calm after a time and was positive that the information he had given was correct.

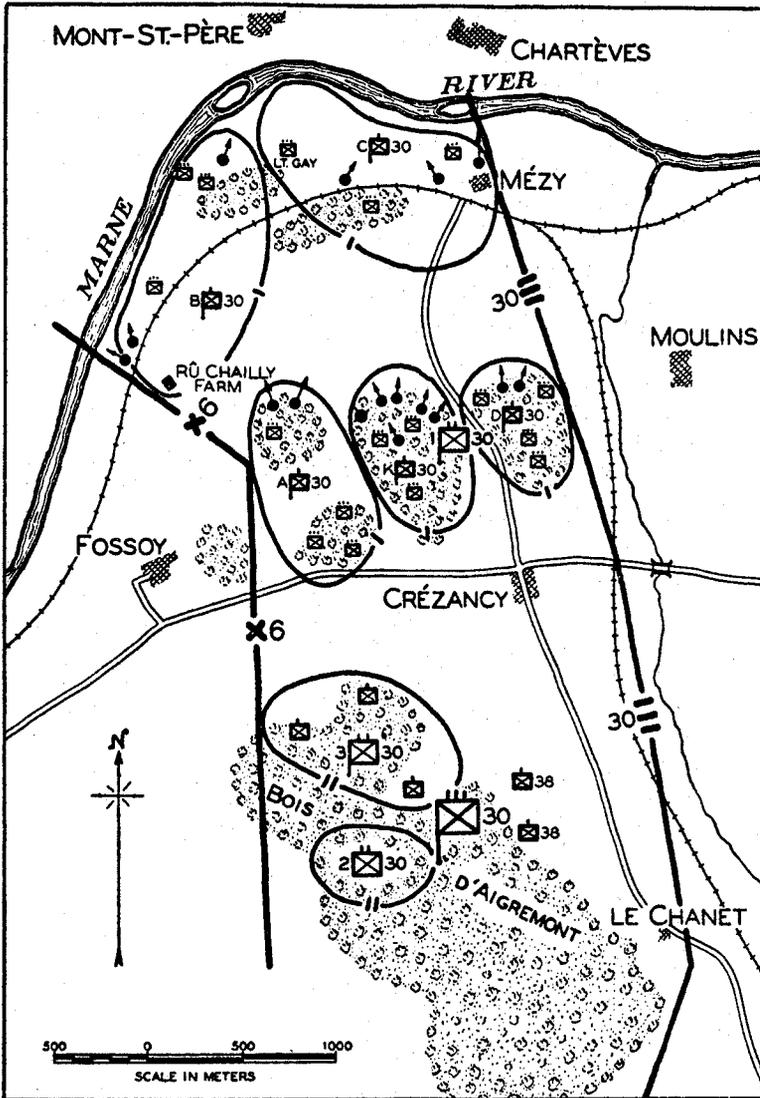
A few minutes later another runner arrived, this time from Company B. He stated that the Germans had crossed the river opposite the Rû Chailly Farm, had destroyed two platoons of Company B, and that his company commander requested reinforcements. The folly of attempting to move troops through the woods in darkness and under intense artillery fire was realized, and accordingly no movement to reinforce Company B was ordered.

A messenger from Company A now reported that all the officers in his company had been killed.

Runners sent out from the battalion C.P. for information never returned.

At daylight four officers' patrols were sent out. One of these, commanded by a battalion intelligence officer, returned shortly and reported that a hostile skirmish line was only fifty yards in front of the woods.

In view of these alarming reports the battalion commander decided to move his C.P. about 500 yards to the rear in a ravine west of Crézancy. He believed that this location would facilitate control, give a better line on the action, and be more accessible to runners. Messengers were sent to Companies A, K, and D, informing them of the change. The commander of Company D construed this message to mean that the battalion was withdrawing. Accordingly he withdrew his company to the Bois



Example 2-A

d'Aigremont via Crézancy. The battalion commander was unaware of this movement at the time.

At this point a message was received from the regimental commander asking for a report on the situation. From the context it was clear that he had not received any of the messages that had been sent back during the previous five hours.

From the personal experience monograph of Major Fred L. Walker, who commanded the 1st Battalion of the 30th Infantry.

DISCUSSION. Although the battle had been in progress only a few hours, the battalion commander knew neither the location of his own front line nor that of the enemy. In fact, he did not even know if his two forward companies were still in existence. He was unaware of the situation of the units on his flanks—if they were holding or if they had been withdrawn. He had to judge the situation by surmise, and part of that surmise was incorrect.

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EXAMPLE 2-B. Let us now consider the situation at regimental headquarters during this same action. Hour after hour passed, but no word came in from front, flanks, or rear; only reports from nearby units in the Bois d'Aigremont that they were suffering heavy casualties. All means of communication within the regiment had failed soon after the bombardment began. Messages were sent to the rear reporting the situation. Runners sent forward did not return.

Throughout the night the regimental commander and his staff sat about a table in the C.P. dugout, studying a map by the uncertain light of one dim candle. This candle was periodically extinguished by the concussion of bursting shells. The roar of artillery made conversation difficult.

At daylight the regimental commander made a personal reconnaissance. Shells were falling everywhere within the area between the Fossoy-Crézancy Road and the Bois d'Aigremont, but except for this he saw no signs of activity.

He returned to the C.P. and there he found that a message had come in from the front line indicating that the Germans had crossed the Marne at two or three places. Apparently it had taken hours to get this information back.

At 5:00 a.m. a runner from the 1st Battalion brought in the following message:

FROM: Portland (1st Battalion, 30th Infantry) July 15, 2:30 a.m.
TO: Syracuse (30th Infantry)

We have had some gas. All groups south of railroad, on line with P.C. are being heavily shelled. Heavy machine-gun fire in vicinity of Mont-St.-Père since 2:00 a.m. Have received no news from front-line companies. I believe all lines are out. Bombardment began at 12:00.

Signature.

P.S. Captain McAllister reports that he needs reinforcements and that his two front-line companies have been driven back. Cannot depend on any method of liaison. Better base your actions from your P.C.

In five hours the regimental commander had learned practically nothing of the situation. The American artillery kept pressing him for targets, but he could designate none. He had no idea where his own troops were or where the enemy was. All he could do was send out more runners in an endeavor to determine the situation; and this he did.

Shortly after 5:00 a.m. an officer came to the C.P. with the report that one of his men had talked to a man from Company C who said that some of his company had been driven out of Mézy. A few minutes later an officer reported in from 1st Battalion headquarters. He stated that the battalion commander had been unable to get any direct news from his forward-company commanders since 2:30 a.m.; that the woods just north of the Fossoy—Crézancy Road had been torn to pieces by shell-fire, and that casualties in the headquarters personnel were heavy. Companies A, K, and D had not been engaged. The battalion commander was certain, from what some stragglers

had said, that the Germans had crossed the river near Mézy and the Rû Chailly Farm, had passed the railroad and were moving south.

Some time after this the commander of the 1st Battalion reported in person to the regimental command post. He said that his two forward companies (B and C) were totally lost; that every unit of his command had sustained heavy losses; that communication, even with companies nearby, was extremely difficult; and that he had moved his command post slightly to the rear. He then recommended that the artillery, which had prepared defensive concentrations within the position, place fire south of the railroad. He added that the remnants of Companies A, K, and D should be able to hold out a while longer.

A little later another officer came in. He had a message for the regimental commander—"a message from brigade," he said. The colonel reached for it expectantly. Here, at last, would be some definite news—the location of the hostile front line, the enemy's assembly areas, the location of the German boats and bridges. Brigade probably had it from the aviators. He opened the message and read:

FROM: Maine (6th Brigade) July 14, 11:30 p.m.

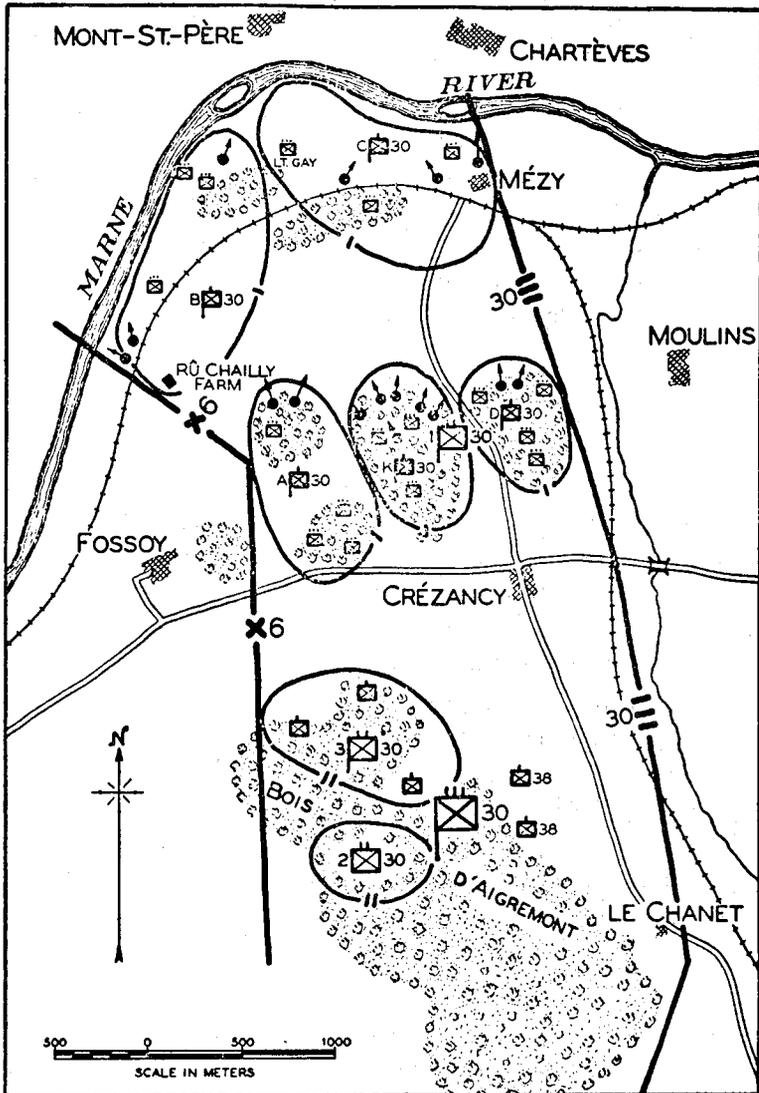
TO: Syracuse (30th Infantry)

Test message. Please check the time this message is received and return by bearer.

This message, received at 6:35 a.m., was the first word from higher headquarters since the start of the battle at midnight.

From "The Keypoint of the Marne and its Defense by the 30th Infantry," by Colonel Edmund L. Butts, who commanded the 30th Infantry.

DISCUSSION. Here is an instance where the regimental commander knew even less of the situation than the commander of his front-line battalion. Not until the battalion commander went in person to the regimental command post did the colonel have even a glimmering of the situation, and then much vital information was lacking and much was in error. For example,



Example 2-B

the regimental commander was informed that the two front-line companies were "totally lost." Actually, as we shall see, this was completely erroneous. Some elements of these companies were still very positively in the war. In fact, at about the time the colonel was receiving this disheartening report, two platoons of one of his front-line companies, aided by machine guns, were breaking a German attack by the effective expedient of practically annihilating the battalion making it.

The incident of the message from brigade to regiment, received at the height of battle, and seven hours en route, is most instructive.

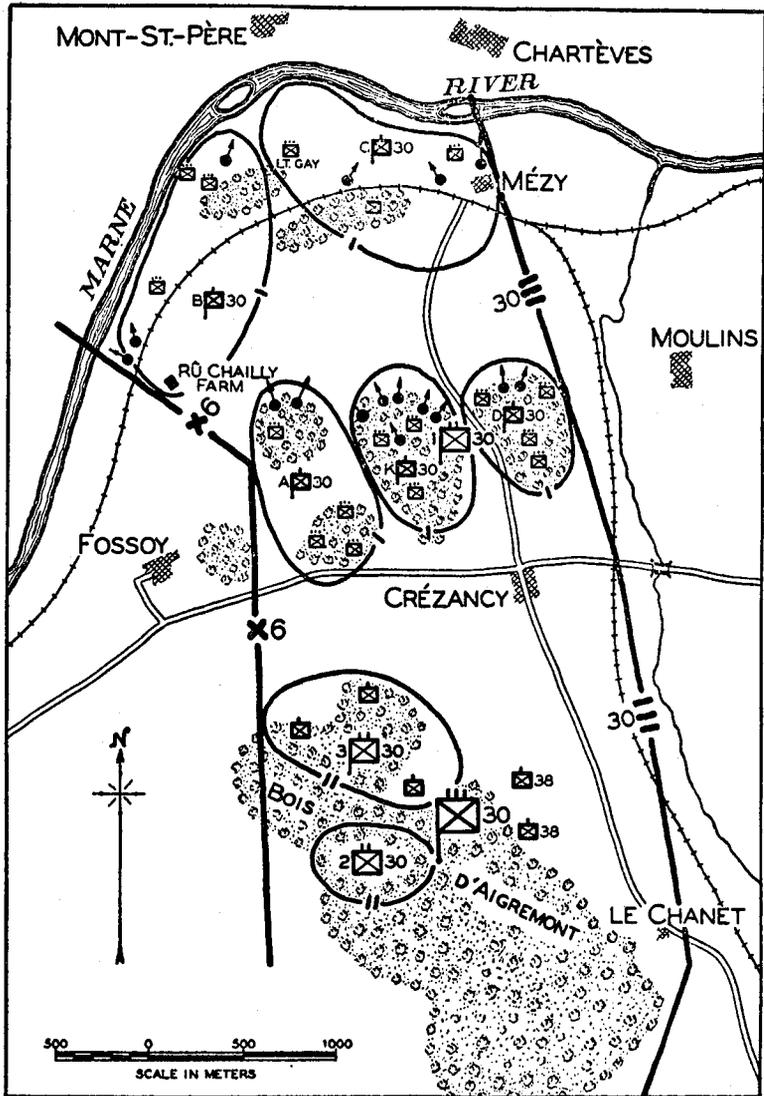
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EXAMPLE 2-C. Lieutenant James H. Gay commanded a platoon of Company C of the U. S. 30th Infantry, posted near the river bank opposite Mont-St.-Père. His command had not suffered a great deal from the German bombardment, but communication had been out with all units except one platoon located about 300 yards to his rear. "At dawn," states Lieutenant Gay, "I knew absolutely nothing of what it was all about or what was happening except in my own little sector."

About 4:30 a.m. some Germans approached from the front and after a fight lasting several hours were beaten off by Lieutenant Gay's platoon. Around 9:00 a.m. a lull ensued. Communications were still out. Lieutenant Gay's idea of the situation is given in his own words:

I thought the whole action had been merely a good-sized raid which had been repulsed. There was absolutely no further movement in our range of vision and I did not know of the events which were occurring elsewhere at the time.

Shortly after 9:00 a.m., Lieutenant Gay saw Germans to his right-rear and to his left-rear. At this point American artillery fire came down on his unit. He decided to move back and join the platoon in his rear. When this was accomplished the two



Example 2-C

platoon leaders met and, after discussing the situation, agreed to move their combined units back toward the company C.P.

En route they stumbled into two parties of Germans and took 150 prisoners. Having so many prisoners and finding that the company command post was occupied by the enemy, they decided to move on to the battalion C.P. On the way they passed another command post. It was deserted. They reached the old location of the battalion C.P. only to find it had been moved—no one knew where.

Lieutenant Gay then marched the two platoons and his 150 prisoners directly down the Crézancy—le Chanet Road. Although the column must have been highly visible, not a shot was fired at it. He finally reached American troops, turned over his prisoners and later rejoined his battalion.

Taken from a statement of Lieutenant James H. Gay, who commanded the 2d Platoon of Company C, 30th Infantry.

DISCUSSION. In the midst of one of the decisive battles of the World War, Lieutenant Gay diagnosed the situation as a good-sized raid. In a general engagement, leaders of small units will seldom know much more than this lieutenant. Their conception of the situation is invariably distorted.

In this action we have seen the meager information possessed by a regimental commander, by the commander of a forward battalion, and by the leader of a front-line platoon. What information they did receive arrived hours after the events had occurred, and was indefinite and often negative. A comparison of this with the extremely definite information usually provided in map problems is striking. Officers who expect anything approaching such precision in actual combat are headed for a bitter surprise.

Owing to the extreme violence of the German bombardment, communication in this battle was undoubtedly more difficult than usual. But on the other hand, this was a defensive action for the Americans; they were operating over familiar terrain,

and their communication agencies were installed at the start of the fight.

1 1 1

EXAMPLE 3. On July 17, 1918, the 2d Battalion of the U. S. 104th Infantry, which was then holding a position in Belleau Wood, received word that it would be relieved that night. Later, a message came in directing the battalion scout officer to report to regimental headquarters. Following this, another message arrived ordering the captain of Company E to report to the brigade. Neither of these officers returned. Preparations for the relief went on, but as hour after hour passed and no reconnaissance parties arrived, the battalion commander became concerned. At midnight he called the regimental command post but could locate no one except the supply officer, of whom he inquired:

"What about this Field Order No. so-and-so [the order for the relief]? There haven't been any friendly visitors up here."

The reply killed any idea of an early relief.

"Well, there isn't anybody around here, but I can safely tell you that it is all off."

At 3:30 a.m. the missing scout officer returned with word that the 3d Battalion would pass through the 2d and attack at 4:35 a.m.

Time passed. No one appeared. At 4:15 a.m. the 3d Battalion commander arrived alone with his hands full of charts and orders. He was visibly agitated. After complaining about "a horrible tie-up on the part of the higher-ups" he briefly explained the contemplated plan. This attack, which was to be launched from the north edge of the wood and drive toward the little town of Belleau, was believed to be merely a local operation for the purpose of rectifying the lines.

In due course the American barrage came down and at 4:35 a.m. began to roll forward. Not until then did elements of the

3d Battalion's assault companies begin to arrive. A heavy enemy artillery concentration began to fall on Belleau Wood.

The 3d Battalion commander, seeing that his troops had arrived late and were somewhat disorganized by hostile artillery fire, now declared his attack off, and directed his officers to have the men take what cover they could find in the woods. He then sent the following message by pigeon to brigade headquarters:

PIGEON MESSAGE: Time 6:05 o'clock.

LOCATION: At woods where 3d Battalion was to start from.

Did not reach starting-off place until attack had started. Machine-Gun Company did not arrive until 5:10. Their ammunition did not arrive. Infantry companies all late on account of lateness of arrival of ammunition and other supplies. When they arrived it was broad daylight and fully exposed and companies being shelled by the enemy. Battalion now scattered about woods, taking whatever cover they can find, as woods are being heavily shelled by high explosive. Can get in touch with me through P.C. 2d Battalion.

Meanwhile, the 2d Battalion commander had started for his C.P. En route he saw scattered men of the 3d Battalion frantically digging. When he reached his C.P. he was told that the regimental commander wished to speak to him. He heard the colonel's voice:

"The 3d Battalion has not attacked."

"I know it."

"Well, you take command of it and attack at once."

"It can't be done," the stupefied major replied. "They are scattered all over the world."

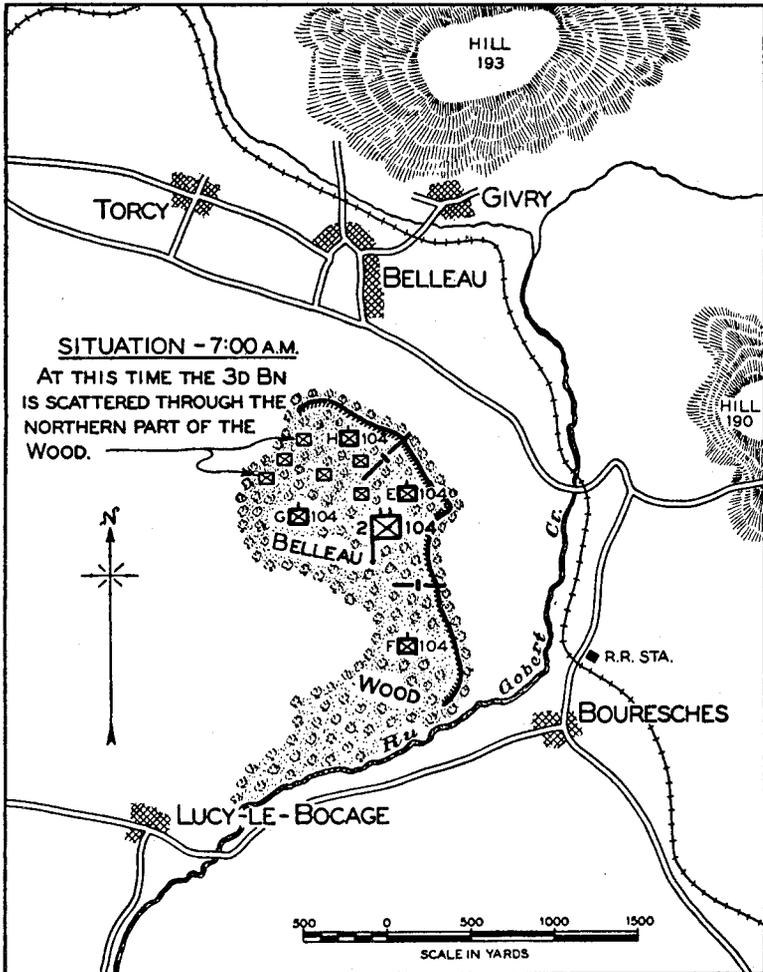
"Well, it has to be done. This order comes from higher authority. However, I'll give you a little time. What time is it by your watch?"

"7:05 a.m."

"All right, I'll give you until 7:30 and a rolling barrage. Go to it!"

Then the wire went out and ended the conversation.

The commander of the 2d Battalion took charge. At 8:20 a.m. he managed to launch the attack that should have started at



Example 3

4:35 a.m. Although the 7:30 barrage had passed, the attack at 8:20 a.m., in which he employed some elements of his own battalion, was reasonably successful.

From the personal experience monograph of Major Evan E. Lewis, who commanded the 2d Battalion of the 104th Infantry.

DISCUSSION. Here we see two battalion commanders participating in the Aisne-Marne Offensive, the attack in which the initiative on the Western Front finally and definitely passed to the Allies. Both officers believed it to be a local action to rectify the line!

We see the commander of the 2d Battalion suddenly confronted with a surprise situation—an order to take command of another battalion, whose men were scattered, whose units were disorganized, and to attack with it in twenty-five minutes. This officer had not been thinking about the problem of the 3d Battalion. He knew neither the location of its units nor the whereabouts of its officers, and yet immediate action was mandatory.

Hundreds of examples can be given; those cited are not isolated cases. Consider the experiences of the French Third and Fourth Armies and the German Fourth Army. On August 22, 1914, these huge forces clashed in a series of true meeting engagements. The French army commanders, in particular, did not believe that any appreciable force of the enemy was anywhere near.

On the morning of the 22d a battalion of the French 8th Division (part of the Third Army), detailed as the support of the advance guard, *was destroyed within its own outpost lines, without higher authority knowing anything about it at the time.* Even today it is difficult to say what actually happened. Apparently it was surprised in route column by Germans who had penetrated the French outpost in the early morning fog.

On the same day, a few miles to the west, the French 5th Colonial Brigade, marching north, stumbled into the flank of the German XVIII Reserve Corps, which was marching west. The

battle started with the French advance guard striking the German column at right angles and shooting up the combat trains of part of one division.

Near St. Vincent, on this same eventful day, the commander of the French II Colonial Corps informed one of his division commanders, "There is nothing in front of you. You can push right on. It's just a march today." Soon afterward he and his staff became the private and personal target of German light artillery and scrambled to cover. When asked for information he replied, "I haven't the faintest idea of the situation."

In the Battle of Guise, on August 29, 1914, initial contact on the front of the German Guard Corps seems to have been made by the corps signal battalion which, through error, marched into the enemy lines.

Indeed, there appears to be no limit, save the imagination, to the astounding situations that evolve in the darkness and confusion of war. Consider the Turkish pursuit of the British in 1915, after the Battle of Ctesiphon. The Turkish cavalry was sending in reports of the location and movements of the retiring British. The Turkish infantry was pressing forward to gain contact with the British. According to the British official history the Turkish cavalry was actually in rear of the Turkish infantry without the infantry, cavalry, or high commanders being aware of the fact. The movements attributed to the British were presumably the Turkish cavalry's observation of its own infantry.

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CONCLUSION. Again it is stressed that these examples afford a striking contrast to the detailed and precise information that is given in map problems. In actual combat practically nothing is known. The situation, particularly in open warfare, is almost invariably shrouded in obscurity. Advanced units, at best, will have but little accurate knowledge of the enemy and frequently none of their own troops. Moreover, even the meager information they do possess will often be false or misleading.

But this does not mean that leaders must meekly submit to the proposition that war is likely to be a game of Blind Man's Buff and that nothing they can do will alter this condition. On the contrary, this realization of the dearth of reliable information in war should serve a dual purpose. First, it should stimulate leaders to adopt those positive and energetic measures that are necessary if vital information is to be gained. Secondly, it should so prepare the leader mentally that, instead of letting himself sink into the bog of apathy when no information is forthcoming, he will recognize the condition as normal and rise to prompt and decisive action.

We carry out in war what we learn in peace. In consonance with this principle the military student, after becoming familiar with the basic tactical concepts, should be given but little positive information of the enemy in his various terrain exercises, map problems and map maneuvers. Thus will he become conversant in peace with one of the most trying and difficult problems in war.

Chapter III: *Simplicity*

*Simple and direct plans and methods make
for foolproof performance.*

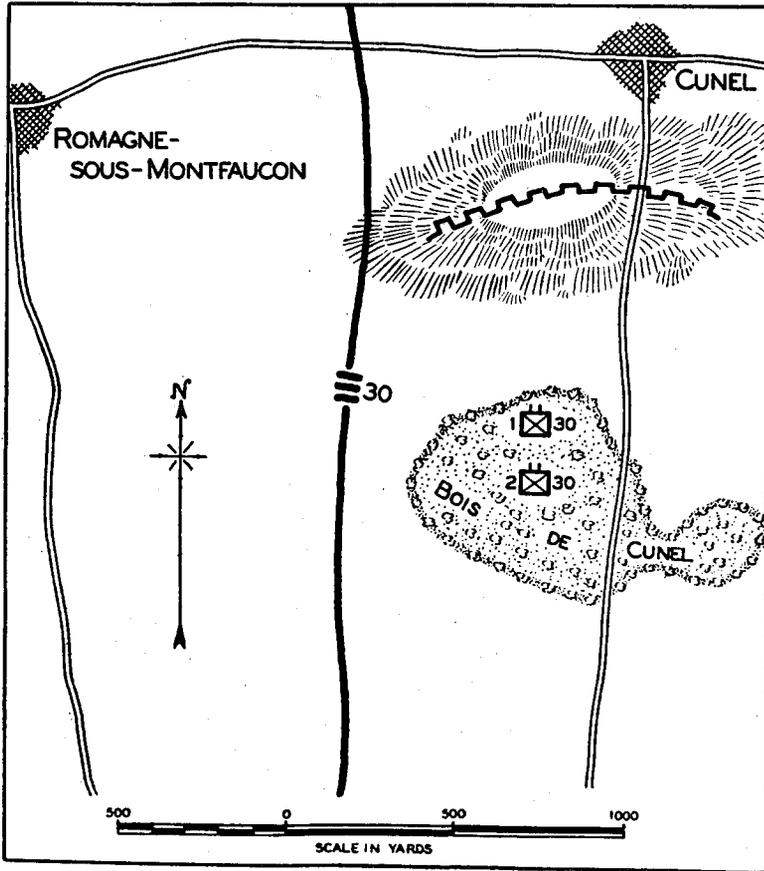
WHETHER we like it or not, combat means confusion, intermingled units, loss of direction, late orders, misleading information, unforeseen contingencies of all sorts. Troops must often carry out their orders under conditions of extreme fatigue and hunger, in unfavorable weather and almost always under the devastating psychological and physical effect of the fire of modern weapons. Not to take into account these grim realities in formulating a plan of action is fatal.

But even when they are taken into account the leader often faces a cruel dilemma. For instance, the situation may call for an involved maneuver, and an involved maneuver increases the chance of disastrous error. On the other hand, a simple maneuver, though decreasing the likelihood of serious error, may fail to meet the situation. Therefore, it is fallacy to preach simplicity as a battle cure-all. But it is not fallacy to say that simplicity in plans, methods, and orders should always be striven for and that elaborate and complicated maneuvers should not be adopted except for the gravest reasons.

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EXAMPLE 1. On the morning of October 10, 1918, the U. S. 30th Infantry was ordered to attack to the north toward the little town of Cunel. Following an artillery preparation, the 1st Battalion was to attack from the north edge of the Bois de Cunel. Of the two remaining battalions of the 30th, the 2d was in support and the 3d in brigade reserve.

The attack jumped off at 7:00 a.m. The 1st Battalion reached a point about 500 yards north of the wood where it was stopped by heavy fire from the front and both flanks. The men sought



Example 1

holes in the ground for cover. The hostile fire was so heavy and covered the area so thoroughly that movement in any direction appeared suicidal. Therefore, this battalion remained where it was until dark. The 2d Battalion had not left the wood.

Meanwhile, an order came in from the division commander directing that the trenches in the 30th Infantry zone, north of

the Bois de Cunel, be taken at once. To carry out this mission the following plan was adopted:

The 1st Battalion would withdraw under cover of darkness to the Bois de Cunel, where it would reorganize. At 7:30 p.m., after an artillery preparation had been fired on the trench, the battalion would again attack, closely following a barrage. The 2d Battalion would follow in support.

At dark the 1st Battalion fell back to the wood and began to reorganize for the new attack. This proved extremely difficult. In the darkness the withdrawing units lost direction and became intermingled. No vestige of control remained. To crown the battalion's difficulties, German artillery lashed the little wood with violent and tireless energy.

H-hour approached, and the American preliminary bombardment began, while the battalion commander still struggled to gather the remnants of his command and to bring some semblance of order out of the confusion that existed.

H-hour arrived and passed, but the battalion was still so disorganized that no troops moved forward at the designated time.

At 10:00 p.m. the 2d Battalion, which had not been committed during the day and which was completely in hand, made a surprise attack and captured the German position.

From the personal experience monograph of Major Turner M. Chambliss, who commanded the 2d Battalion of the 30th Infantry.

DISCUSSION. The plan of attack for the 7:30 p.m. operation can be explained simply and briefly. But although the words are few, simple, and readily understood, the operation that they dictated was far removed from simplicity.

A battalion that had been pinned down under hostile fire all day was required to withdraw under fire, reorganize in a wood in the darkness, and then resume the attack.

The withdrawal was difficult and had to be made by individual movement. Movement in the dark for 500 yards, across a shell-pitted, fire-swept zone, is not a simple operation for a

battalion, which at the start is deployed in lines of skirmishers; neither is a night reorganization in a wood that is being shelled by the enemy.

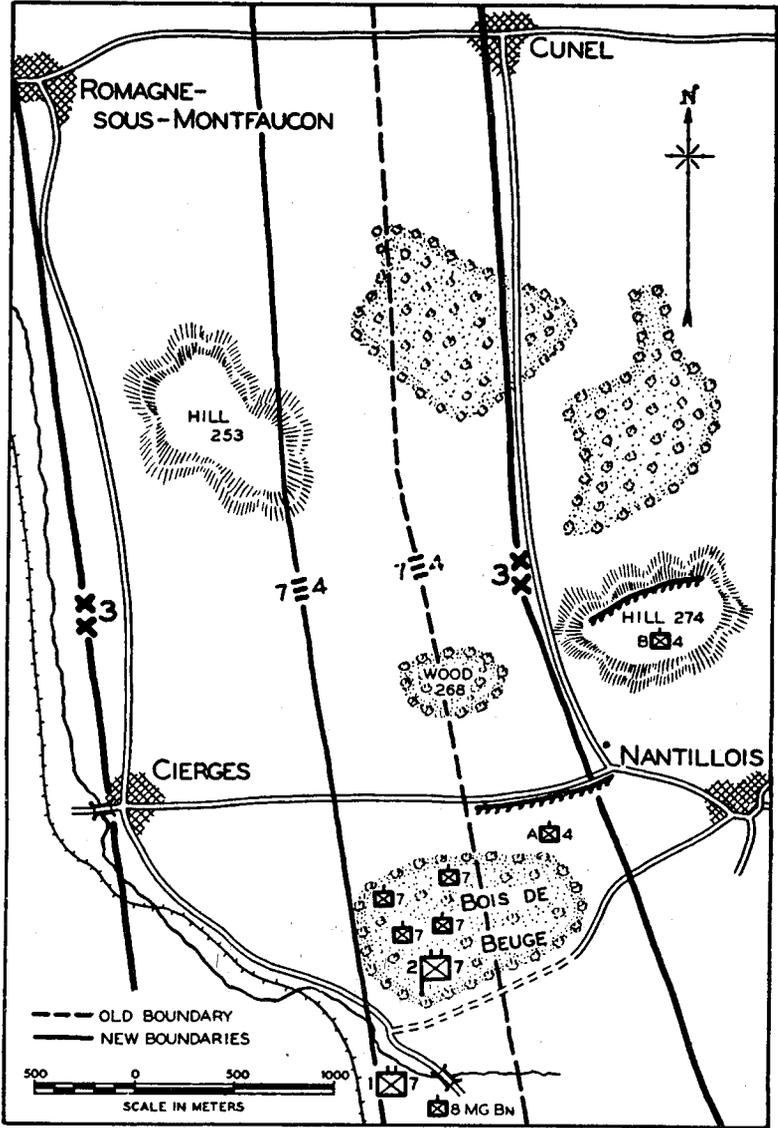
The simple and effective solution would have been to attack with the 2d Battalion at 7:30 p.m.

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EXAMPLE 2. On October 3, 1918, the U. S. 5th Brigade, with the 4th Infantry on the right and the 7th Infantry on the left, occupied the zone of the 3d Division. Each regiment was disposed in column of battalions. In the 4th Infantry the 1st Battalion held the front line with Company B on Hill 274 and Company A along the Cierges—Nantillois Road, with patrols in Wood 268. The remaining companies of the battalion were located in rear of Companies A and B.

In the 7th Infantry, the 2d Battalion occupied the northern part of the Bois de Beuge with two companies in the front line and two in support. These companies were all partially deployed. The 1st Battalion of the 7th Infantry, with an attached company of the 8th Machine-Gun Battalion, was located south of the Bois de Beuge near a stream and a narrow-gauge railroad. This unit was well in hand and more compactly grouped than the 2d Battalion. The brigade had occupied approximately these same positions since the afternoon of September 30. It had been expecting to attack to the north.

Orders were finally received directing that the attack be launched at 5:25 a.m., October 4. By this order the boundaries of the 3d Division were moved a few hundred yards to the west and the direction in which they ran was slightly altered. The new right boundary of the division and of the 4th Infantry was the Nantillois—Cunel Road while the new left boundary for the division and the 7th Infantry was to the west of the Cierges—Romagne Road. The boundary between regiments approximately halved the zone. Therefore, in order that the troops



Example 2

might face their objectives at the start of the attack, both the 4th and 7th Infantry had to move to the west.

At 6:00 p.m., October 3, the regimental commander of the 7th Infantry issued an oral attack order at his C.P. located south of the Bois de Beuge near the narrow-gauge railroad. It was nearly dark at the time. This order directed the 2d Battalion, which was then in the front line in the Bois de Beuge, to sidslip to the left and be prepared to lead the attack the following morning. The 1st Battalion of the 7th Infantry was also directed to move to the left and, in the morning attack, to follow the 2d Battalion in support at 500 yards.

Although the 1st Battalion commander suggested that it would be simpler for his unit to be employed in assault, since its movement into the new zone would be easier, the order was not changed. This battalion completed its movement successfully. A road, a stream, and a narrow-gauge railroad all provided guiding features leading from the vicinity of its former position to the new location.

Arriving at its new position, the 1st Battalion was unable to locate the 2d. When the hour for the attack came the 1st Battalion moved forward with two companies leading and two following. Near Cierges a portion of the 8th Machine-Gun Battalion was encountered. Its commander requested information as to the location of the 2d Battalion. About this time Company G of the missing battalion was seen moving forward. The company commander, however, had not been in touch with the remainder of the battalion for a long time and had no idea where it was. He attached himself to the 1st Battalion.

The 1st Battalion commander now reported to the regiment that he was unable to locate the 2d Battalion; that in pushing forward in the regimental zone his unit had come under fire and that, therefore, he was advancing it to the attack as assault battalion. This attack moved forward from the line of departure later than had been intended and, as a result, met with little success.

The 2d Battalion, in attempting to sideslip to the left during the night, had become so badly scattered that, as a unit, it was rendered ineffective on October 4.

* * *

Let us now turn to the 4th Infantry. In this regiment the assault battalion, the 1st, was similarly ordered to sideslip to the left in the dark. It successfully accomplished this movement.

Part of the battalion order, issued at 11:00 p.m., October 3, which referred to the movement of Company B, then on Hill 274, was in substance as follows:

Company B will be relieved by units of the 80th Division. It will not wait for them but will withdraw at once and move into Company A's present position.

The company commander returned to his unit and issued his order about 1:00 a.m. The 1st and 2d Platoons were in the front line and the 3d and 4th were in support. The company commander ordered the two front-line platoons to withdraw due south until they reached the southern slope of Hill 274 and there assemble in columns of twos. He ordered the 4th Platoon (on the left) to move to the Nantillois—Cunel Road (near its location at the time), form in column of twos and then move south until it reached the Nantillois—Cierges Road; there it would wait for the company commander. He ordered the 3d Platoon to move to the left and follow the 4th in column of twos. The 2d and 1st Platoons, in order, were directed to follow the 3d. All platoon leaders were cautioned to have their men observe the utmost secrecy.

After all platoons had started, the company commander went to the head of the column. When the road junction was reached he directed the 4th and 3d Platoons to march to the west along the Nantillois—Cierges Road. When the last man had cleared the road junction these two platoons were halted, deployed in squad columns and marched to the south for 300 yards. Here they were again halted and faced to the front. The assault pla-

toons, the 1st and 2d, similarly marched along the road, halted, and deployed in rear of it. Thus, by utilization of distinct terrain features and by care in making the movement, this company was enabled to deploy in the dark, in its proper zone, after a flank movement along the line of departure.

About 4:00 a.m. it reported that it was in position. Company A, the other assault company of the battalion, also made the sideslip successfully.

However, after Company B left Hill 274 the Germans moved forward and occupied it, thereby enfilading the attack with machine-gun fire. Little success was obtained.

From the personal experience monograph of Captain Fred During, who commanded Company B of the 4th Infantry; and from a statement by Captain George S. Beatty, who was adjutant of the 1st Battalion of the 7th Infantry.

DISCUSSION. It is not a simple movement for battalions to sideslip in the dark into positions with which they are not familiar and then attack at daylight. The failure of the 3d Division's attack on October 4 can be largely attributed to this attempt to sideslip the two assault battalions.

In the 7th Infantry, the 2d Battalion became scattered and lost, and the support battalion suddenly found itself in the front line. It would have been far simpler to move the 1st Battalion to the left-front and use it in assault. It was better grouped initially; it did not have to make such an extreme movement to the flank; and finally, there were distinct, unmistakable terrain features that could be easily followed, even in darkness, to the new location.

In the 4th Infantry the assault battalion successfully completed its difficult movement by painstaking attention to detail; but even so, the evil features inherent in that move made themselves evident. Obviously the execution of such a complicated maneuver required a considerable amount of time and therefore it could not be postponed too long. This was undoubtedly the reason Company B was directed to move at once, without waiting for the arrival of the troops who were to relieve them. As

a result, the Germans occupied Hill 274; and enfilade fire from the commanding ground played a major part in breaking the attack on the morning of October 4.

Attempts to execute complicated maneuvers in combat have both direct and indirect evils. They almost never succeed.

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EXAMPLE 3. On June 29, 1918, Company D, U. S. 26th Infantry, carried out a raid on German positions near Cantigny. The hour set for the action was 3:15 a.m., at which time there was just enough light to see. Part of the order for this raid follows:

HEADQUARTERS 1ST BATTALION,
26TH INFANTRY

France, June 24, 1918.

FIELD ORDERS
No. 10

INFORMATION

The enemy is occupying the woods to our front with one battalion, something in the manner indicated in the attached sketch.

INTENTION

On J Day at H Hour, we will raid the Wood, entering the woods at the angle 22.8—30.4 (point Y on sketch), and kill or capture the occupants of the trenches running north and northeast as far as the northern edge of the woods, returning from there by the northern edge of the BOIS DE FONTAINE.

ALLOTMENT OF UNITS

The raiding party will be composed of personnel of Company D, 1st Lieutenant Wesley Freml, Jr., officer commanding raid.

- | | |
|-------------------------|-----------------------------------|
| (1) Lieut. Dillon | —1 Sgt. —2 Cpls.—12 Pvts.—A Party |
| (2) Lieut. Dabney | —1 Sgt. —2 Cpls.—12 Pvts.—B Party |
| (3) Lieut. Ridgley | —1 Sgt. —2 Cpls.—12 Pvts.—C Party |
| (4) Lieut. Tillman | —1 Sgt. —2 Cpls.—12 Pvts.—D Party |
| (5) Lieut. Freml (O.C.) | —2 Sgts.—3 Cpls.—18 Pvts.—E Party |

(2 stretchers and 4 stretcher-bearers.)

INFANTRY IN BATTLE

FORMATION

A, B, and C Parties will form left to right on taped ground at point marked X (see sketch) at H minus 30 minutes. They will each be in column of files. E Party will follow in rear in same formation. D Party will, at the same time, be disposed in observation on the extreme eastern tip of the BOIS DE CANTIGNY.

* * *

SPECIAL SIGNALS

When he has assured himself that the party has withdrawn to within our own lines, the officer commanding the raid will fire three (3) star RED rockets—this will signify to all concerned that the raid is completed.

TASK

On commencing artillery bombardment, A, B, C and E Parties, preserving their general alignment, will advance as close as possible to the woods.

A, B and C Parties, in the order named from left to right, will advance directly into the woods. If opposition is encountered, B Party will hold with covering fire from the front, and A and C Parties will advance by the flanks, outflanking the resistance.

On entering the woods, A Party will split off to the left branch of the trench to the north edge of the wood, capturing or killing all occupants and from that point it will return.

B and C Parties will continue down trench running to the northeast, outflanking tactics being employed when necessary. On reaching north edge of the woods, they will function the same as A Party.

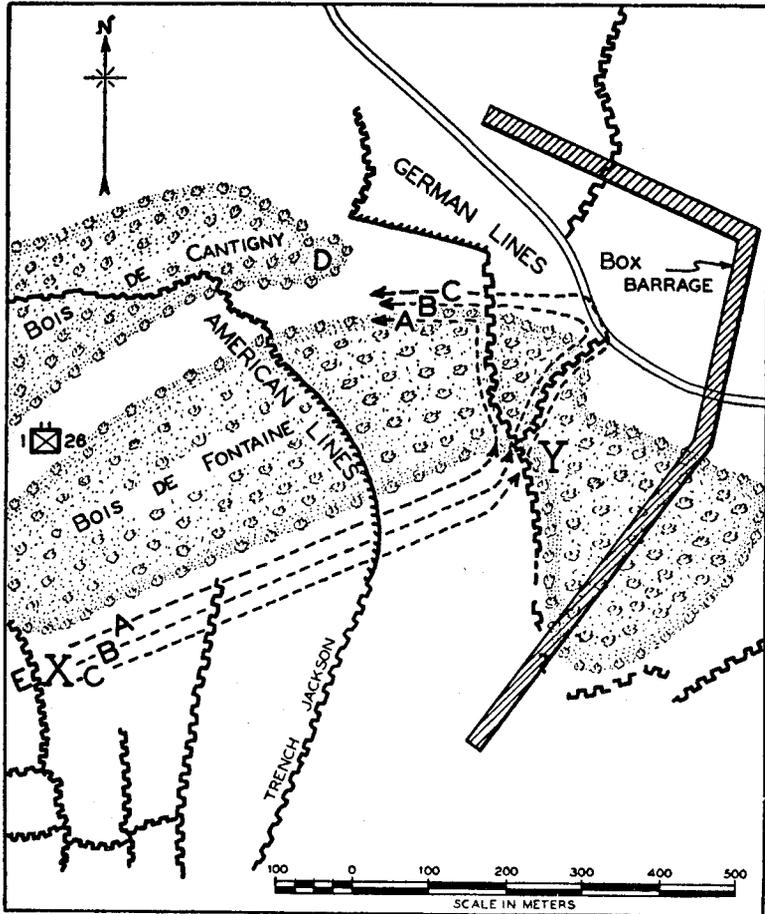
E Party will follow in rear. It shall be its particular function to guard the right flank and reinforce the assaulting parties when necessary.

D Party will remain in observation in its original position, ready to engage with fire any machine guns that may open from the slope of the ridge or northeast of the woods. It will retire on completion of the raid.

* * *

THEODORE ROOSEVELT, JR.
Major (USR), 26th Infantry
Commanding

Information and instructions as to fire support, dress and equipment, and many other details were included. The assault parties were directed to move forward during a ten-minute preparation by artillery and Stokes mortars. A box barrage



Example 3

would then be formed, while the infantry rushed the position. The plan called only for those supporting fires normally available in the sector. The position and routes followed by the assault parties are indicated on the sketch.

The raid was carried out as planned. Thirty-three prisoners were taken, including one officer, five noncommissioned officers,

two artillery observers and two or three machine gunners. Several sacks of papers and other intelligence data were secured. The American casualties were one officer and one soldier killed and four soldiers wounded.

From records of the U. S. 1st Division.

DISCUSSION. We have previously examined a plan that was briefly and simply stated but that nevertheless was the antithesis of simplicity when it came to execution. Here we have a plan that appears complicated. It requires some time and thought to understand, and yet simplicity is its underlying feature. It is obvious, then, that simplicity in tactics is not necessarily equivalent to simplicity in words.

Let us examine this plan. In the first place, the order was published several days before the raid, thereby giving all concerned ample time to digest it and to make the necessary preparations.

The work planned for the artillery, machine guns, and Stokes mortars was simple. They were directed to do some shooting on a time schedule. That was all.

It is with the assault parties, however, that we are chiefly concerned. Note that the southern edge of the Bois de Fontaine parallels the route of advance of these parties. To maintain direction to their objective, each group had only to follow this edge of the wood. Arriving at the hostile position the left party turned to the left (north) following the German front-line trench until it reached the north edge of the Bois de Fontaine which it then followed back to the American lines. The two right groups moved along the trench that runs to the northeast until they, too, reached the north edge of this wood which they followed back to their own position. All three parties had clear-cut features to guide them and each route formed a circuit.

Thus we see that the tasks for the individual groups were not difficult to carry out on the ground. The chances for possible mishaps were greatly reduced by the care taken in selecting these guiding features for the parties to follow. Their mission

was clear and simple. The action of Party A did not hinge on that of Party B. The plan did not depend on any delicate calculation of time and space. It was simple and it proved effective.

✓ ✓ ✓

EXAMPLE 4. On October 17, 1918, the French 123d Division attacked northeastward toward Grougis and Marchavenne. The scheme of maneuver follows:

Three battalions were employed initially in assault. On the left, a provisional battalion of the 12th Infantry (2d and 3d Battalions combined because of losses) had the mission of maintaining contact with the 66th Division to the north. This was considered particularly important. The 2d and 3d Battalions of the 411th Infantry, with a company of tanks attached, were on the right of this provisional battalion. These two battalions were ordered to move forward and establish themselves facing Grougis.

The 1st Battalion of the 411th, in second line, was directed to follow behind the interval between the 12th Infantry unit and the 2d Battalion of the 411th Infantry, and then, after the two right assault battalions had established themselves facing Grougis, push ahead and take Marchavenne. The 1st Battalion of the 6th Infantry was ordered to follow the 1st Battalion of the 411th Infantry initially and protect its right flank, finally taking position on the left of the 2d Battalion of the 411th Infantry, facing the northwest portion of Grougis.

The 2d and 3d Battalions of the 411th Infantry and the 1st Battalion of the 6th Infantry, having established themselves as a flank guard to the south, were to push forward to Marchavenne when successively liberated by the advance of the 15th Division on the south. Thereafter they would assist the attack of the 66th Division on the north.

The remainder of the 123d Division's infantry, which was holding the line of departure, was ordered to reform and be-

come the division reserve. Artillery fires were to lift on a carefully arranged time schedule. Marchavenne was to be taken in one hour and thirty minutes after the jump-off by a battalion which, at the start of the attack, was some 4,500 yards away.

Marchavenne was captured practically on time, by an attack from the *south and southeast—carried out by the provisional battalion of the 12th Infantry which was to guard the north flank of the division*. This battalion lost contact with the 66th Division and got ahead of the troops on the right. Its two assault companies crossed each other's path and the bulk of the battalion, advancing rapidly, crossed the entire divisional zone diagonally. It found cover just north of Grougis (which was still held by the enemy) and took Marchavenne by an envelopment from the south and east about 7:45 a.m.

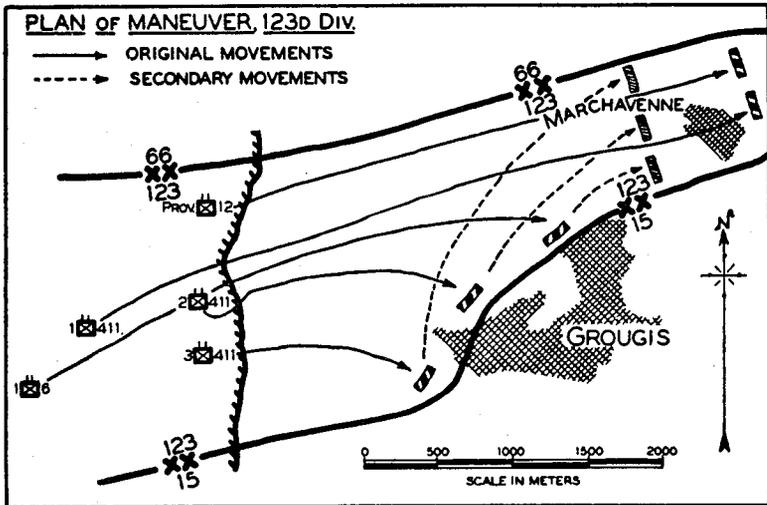
The battalion that had been ordered to take the town was still more than a mile to the rear, slowly advancing. It arrived at Marchavenne long after the town had fallen, but in time to help hold it against a counter-attack. These two battalions in Marchavenne held an isolated position for several hours.

The assault battalions of the 411th Infantry and the 1st Battalion of the 6th Infantry met with some success, but after reaching Grougis they were unable to go farther. At 5:00 p.m. they were still there, facing southeast. On this day, after the initial capture of Marchavenne, which could not be exploited, the division had no success. During the early part of the attack the provisional battalion of the 12th Infantry captured ten cannon and 300 prisoners.

From an article by Major P. Janet, French Army, in "La Revue d'Infanterie," December, 1926.

DISCUSSION. Here is a complex plan of attack devised by officers of long experience in the war, which was to be carried out by veterans. The original assault battalions were to fan out and form flank protection while a second-line battalion, advancing through the interval, was to take the objective. The flank

battalions would then disengage successively, move on to the objective, and take part in a renewal of the advance beyond Marchavenne. Furthermore, the artillery support was arranged according to a carefully worked out time schedule; it would be



Example 4

upset unless this delicate time-table worked with mathematical precision.

True, the 123d Division achieved a modicum of success in this attack, but it certainly cannot be attributed to the plan. Nothing happened as expected. The assault battalions of the 411th Infantry managed to make some advance, as did the 1st Battalion of the 6th Infantry, but all three became involved near Grougis and were there the entire day. These were the troops that, according to the plan, were to carry the attack beyond Marchavenne.

The complicated maneuver of attacking to the front, then facing to the right, then disengaging, then pushing forward again, was too much even for these veteran troops. It could not

be carried out at all, let alone according to the carefully prepared time-table.

It is interesting to note that the battalion which had been directed merely to maintain contact on the north flank, crossed to the south boundary of the division and took the objective by an envelopment from the south and east. It was to the aggressiveness of this battalion that the division owed such success as was achieved. It appears that the inability to exploit the rapid capture of Marchavenne was due principally to the complicated and involved plan of attack.

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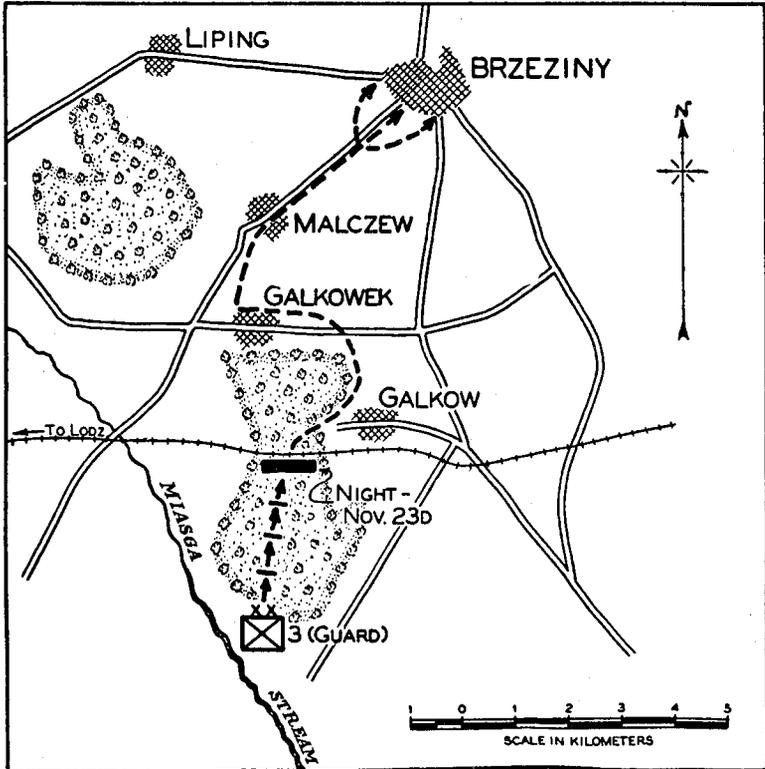
EXAMPLE 5. On the morning of November 23, 1914, a German force, located south and east of Lodz, in Poland, finding itself surrounded by Russians, turned about and struck to the north in an effort to break through the enemy and escape. The Germans, who had been fighting for days, were at the point of exhaustion. Fresh Russian columns were converging on them from all sides. The situation was desperate.

The 3d Guard Division, part of the beleaguered German force, spent the 23d attacking northward toward the little town of Brzeziny, which it had passed through shortly before in its advance to the south. All day the Guards drove forward through a dense wood, against strong opposition. Russians appeared to be everywhere—on both flanks and in rear.

At 4:00 p.m. the Guards reached the railroad that runs through the wood south of Galkow, and here they were halted and reorganized while their sixty-five-year-old commander, General von Litzmann, took stock of the situation.

Along the railroad stood some 1,500 men, all that was left of seven battalions of infantry. The division artillery, under the protection of a handful of infantrymen, was still south of the wood. Information of other German units and of the enemy was virtually non-existent. Earlier in the day firing had been heard to the east, but this had gradually died away. Late in the afternoon

the Russian resistance to the German advance had perceptibly weakened. But the Guards were in a deplorable state. All units were terribly depleted and hopelessly intermingled. The men



Example 5

were so exhausted that they could scarcely be kept awake. Such was the situation that confronted this remnant of a division as darkness and the bitter cold of a Polish winter night closed in on November 23.

Soon after dark a corps order arrived. In a stable filled with Russian wounded the division commander pulled a small candle

out of his pocket, lighted it, and examined the order. It had been delayed in reaching the Guards. The instructions it bore pertained only to operations for November 23, but it did make clear the fact that the corps commander wanted them to reach Brzeziny on that day.

Therefore, at 7:25 p.m. the division commander rapidly outlined the following plan:

This division captures Brzeziny tonight. It will advance in column, with advance guard via Galkowek and Malczew, in silence, and gain the road running from the southwest toward Brzeziny. It will develop when one kilometer in front of the town and press into it by a surprise attack.

After the storming of Brzeziny, baggage will be brought forward. Messengers will report to receive orders at the marketplace in the building where division headquarters was located before.

The advance guard and the order of march were designated, and a supplementary order was sent to the artillery.

The division commander marched with the advance guard. The maneuver was successful. Brzeziny was stormed and the staff of the VI Siberian Corps captured. The success of this action materially aided the remainder of the German forces in smashing through the hostile lines. The Russians, becoming discouraged, withdrew while the German units, taking along thousands of prisoners and much matériel, rejoined their main army.

From the Reichsarchiv account.

DISCUSSION. The Guards were in a situation as difficult and desperate as can be imagined. They had no information of the location of other German troops and no knowledge of the hostile dispositions, except that the enemy seemed to be everywhere in superior numbers. Their men were exhausted and their units depleted and intermingled. They were in a dense forest; it was bitter cold, and night was falling.

Under such conditions a master effort could be made only by superior troops, commanded by determined leaders, working under a simple plan. The division commander took these con-

siderations into account. His plan was based on the three essentials for a night operation—direction, control, surprise.

Troops become easily lost in a night march, particularly exhausted troops who are staggering forward in a daze. Things must be made as simple as possible for them. The route prescribed facilitated the maintenance of direction. First, movement along the eastern edge of the wood to the north edge. From here Galkowek could be reached with little danger of the column getting lost. From Galkowek the march could continue straight to the north and be certain of intercepting the road that led directly to Brzeziny.

To insure the utmost control the division commander ordered that the advance be made in route column. It was no time for half-measures. The men were completely exhausted, so much so that unless they were directly under the eyes of their leaders, they would lie down and go to sleep. An attempt to move in several columns or in any extended formation would have meant disintegration and certain failure.

To achieve the third essential, surprise, the order directed that the advance be made in secrecy and silence.

Finally, as a crowning bit of psychological bravado, came the order for establishing the command post in the marketplace of Brzeziny. A large dose of optimism was required by officers and men, and their commander, with the deft touch of the true leader, gave it to them. German accounts describe the thrill that ran through the assembled German officers on hearing the resolute words of their leader.

Here, one of the most complex, difficult, and desperate situations which troops have ever been called upon to face was met and solved by a simple order. In such a dilemma only the utmost simplicity of plan and execution stood any chances of success.

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CONCLUSION. In war the simplest way is usually the best way. Direct, simple plans, clear, concise orders, formations that

facilitate control, and routes that are unmistakably defined will smooth the way for subordinate elements, minimize the confusion of combat and ordinarily increase the chances of success.

In brief, simplicity is the sword with which the capable leader may cut the Gordian knot of many a baffling situation.

Chapter IV: *Scheme of Maneuver and Main Effort*

Every attack should have a scheme of maneuver. The main effort should strike the enemy's weakness.

ALL MEANS—reserves, fire support, ammunition—are concentrated for the decisive stroke. Economy of force at non-decisive points and greater mobility permit the concentration of superior forces at the decisive point. To make the main effort a real knockout blow, economy of force elsewhere may have to be extreme.

To determine the location for his principal effort, the leader seeks to discover the enemy's weakness. The flanks and rear of an enemy being weak points, he will strike at these when they can be reached. Often the ground itself will be the deciding factor. By a careful study the leader will be able to determine those parts of the terrain where the enemy cannot employ his weapons to advantage. At the same time he should not lose sight of the fact that the terrain should permit his own attack to be supported by artillery, machine guns, and tanks. Thus, strength will strike weakness.

Having made his choice, the leader's dispositions must correspond to his scheme of maneuver. The density of deployment is greater where the main effort is to be made. Troops must be available to assure continuity of the effort and to permit the leader freedom of action to deal with the incidents of battle. All available fire support is concentrated to assist the main effort.

The scheme of maneuver of small infantry units is simple and does not look too far in the future. It is concerned with the enemy resistance which is close; new decisions, based on the new situation, must be made later. For example, when con-

fronted with a vague situation, or unsuitable terrain, it is possible that no definite idea will stand out. In such a case, there will be no true main effort at the start; it will be withheld. The scheme of maneuver will simply be an advance in order to determine what is in front, with the unit commander retaining control and freedom of action. His dispositions will be such that he will be able to reserve his main effort until the situation warrants the commitment of the bulk of his force.

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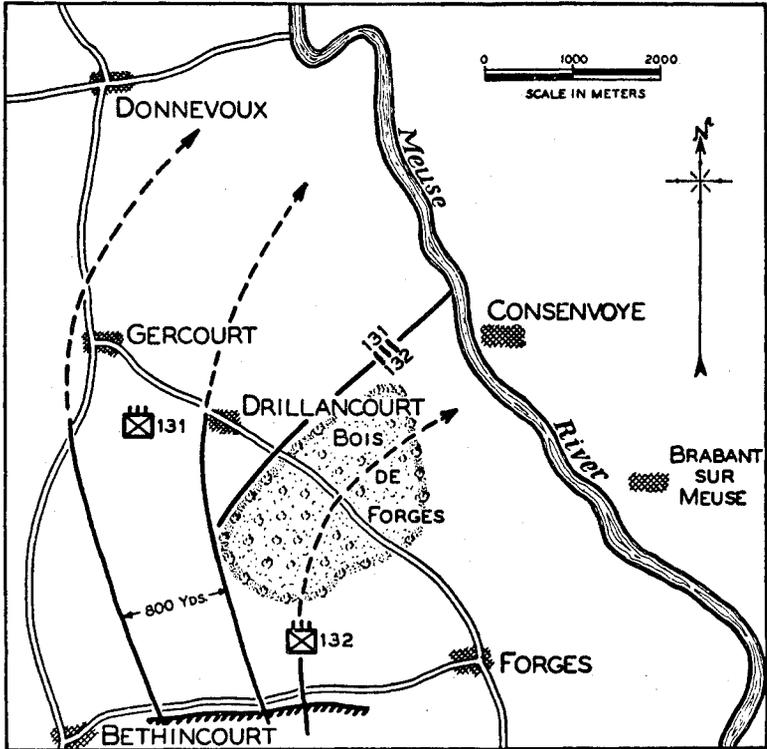
EXAMPLE 1. On September 26, 1918, the U. S. 33d Division attacked north in the opening phase of the Meuse-Argonne offensive with the 66th Brigade in assault and the 65th Brigade in reserve. In front of the division lay the dense Bois de Forges which covered one side of a formidable height. Along the right of the division sector ran the Meuse River, but since there was to be no attack on the east side of the river the right flank would be wide open to fire from that direction. With these facts in mind the division planned its attack.

"The whole theory of the attack," said the division order, "is by echelon with the left in advance." The 131st Infantry, the left regiment of the 66th Brigade, would advance rapidly to open ground east and north of Gercourt and Drillancourt in order to assist the 132d Infantry in the capture of the Bois de Forges. Accordingly, the barrage in front of the 131st would move forward faster than that in front of the 132d. The 132d Infantry would strike the Bois de Forges from the southwest. As the advance progressed the attack of the 132d would gradually swing until it was headed almost due east. The Bois de Forges *would not* be attacked from the south or the southeast.

The 131st Infantry and 132d Infantry would, at first, attack side by side, each with two battalions in assault. The 132d, however, would make a sharper turn to the right than the 131st; the interval thus formed would be taken care of by reserves.

The zone of the 131st would be 2,000 meters wide, but it would actually follow a rolling barrage about 800 yards wide.

Following an intense preparation, the attack jumped off



Example 1

and drove forward with the support of an artillery and machine-gun barrage. The machine-gun barrage, which was directed against the southern edge of the Bois de Forges, was particularly helpful in that it fostered the idea of a non-existent attack from the south.

By 10:00 a.m. the two attacking regiments had carried their objectives and captured 1,400 prisoners, at the cost of only 250 casualties.

In his report of the operation the brigade commander stated:

The 132d Infantry, on a front of about two kilometers, attacked the enemy positions in front of and in the Bois de Forges from the southwest, and making a turning movement to the east while in the woods, using the roads in the center of the woods as a guide and a dividing line between battalions, came out at the objective exactly as planned in the orders of the brigade at 10:00 a.m.

This maneuver struck the enemy's works in the flank and rear, took them entirely by surprise and also was responsible for the few casualties inflicted upon the troops.

The history of the division has this to say:

This entire engagement was particularly interesting because of the fact that it was an action planned and executed by a brigade as a unit. It was entirely successful owing, first, to the courage and dash of our splendid troops, and, second, because the plans had been carefully worked out and studied by all concerned, and during the action these plans were followed with marvelous exactness.

From "History of the 33d Division."

DISCUSSION. On this day the 66th Brigade took about five prisoners for each casualty it suffered. Its two regiments swept through the enemy and were on their objective in a few hours.

The brigade was an interior unit making an attack against enemy positions to its front. But that did not keep it from striking in an unexpected direction at enemy weakness—from having a main effort. It did not spread troops all over its zone. It did not smash up against the Bois de Forges as the Germans expected. In parts of the zone no troops attacked at all. Any Germans between Forges and the Bois de Forges were in a trap if the main attack went through, and that attack did go through.

The 33d Division was not making the main effort of the American attack; its mission was rather one of flank protection. Here, then, we see a main effort within an attack which itself is not a main effort.

The main effort is usually characterized by the assignment of comparatively narrow zones of action, and by massing many reserves behind and much fire in front of the attacking troops.

In this case we see a regiment with two assault battalions make a main effort on a front of approximately 800 yards.

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EXAMPLE 2. On October 11, 1918, the 1st Battalion of the French 412th Infantry reached the Oise River. The Germans held the east bank in strength, but owing to the general situation, it was thought that they would probably withdraw. Therefore, in spite of the fact that the French battalion occupied a front of three kilometers, it was ordered to seize the crossings of the Oise and be prepared to pursue the Germans.

All efforts to seize the crossings on the 11th and 12th having failed, a stronger attack was organized on the 13th. For this attack the three rifle companies and 12 machine guns of the battalion were disposed to cover the four groups of crossings. Five additional machine guns had been picked up during the previous advance and these, too, were emplaced to fire on the disputed passages. A Stokes mortar and a 37-mm. gun completed the picture.

The battalion had a very good idea of what it was up against. It knew that the enemy had posted advanced groups along the river to cover the crossings and that these groups were tied in by patrols. It also knew that there was a continuous line of resistance on the east bank of the canal, and that there were reserves and supporting artillery at Senecy Farm, Sucrerie, and along the west edge of Séry-les-Mézières.

The terrain in front of the battalion, though flat, was covered with a rather lush vegetation which afforded a certain amount of cover. The river, fifteen to twenty yards wide and seven or eight feet deep, constituted an appreciable obstacle, but the canal was fordable. Reconnaissance revealed that the enemy had demolished all the bridges and had emplaced machine guns to cover the ruins. Heavy undergrowth on the far bank of the Oise provided excellent cover for the Germans along the river.

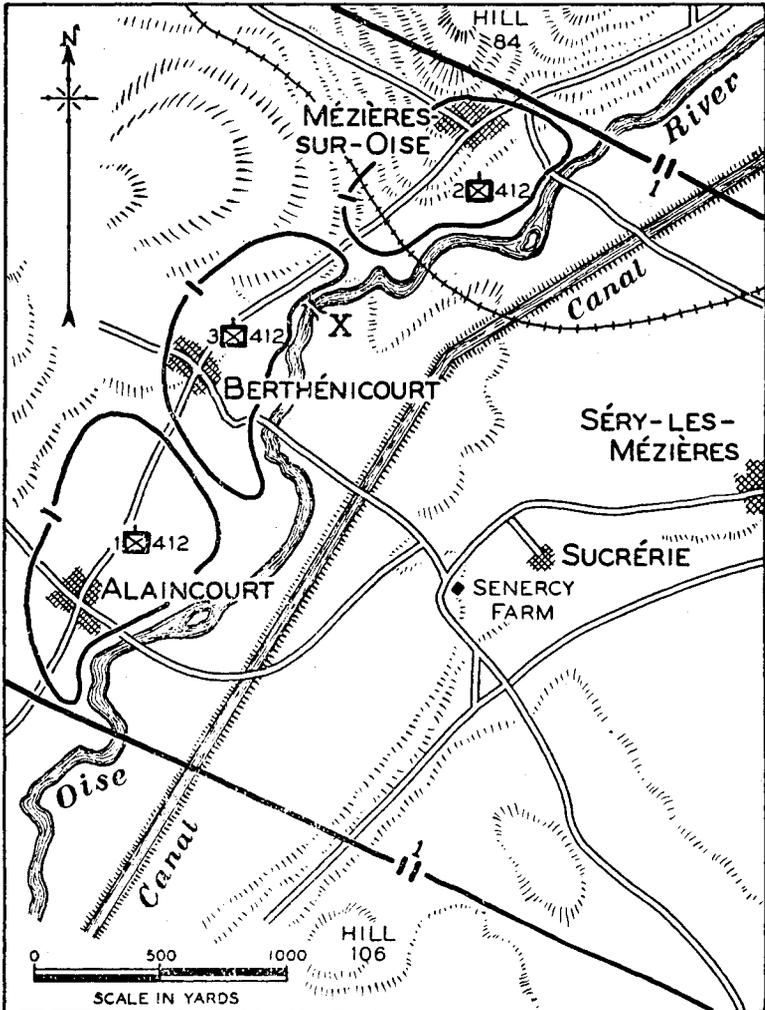
The French attack was fruitless. The slightest movement near the river bank provoked a storm of fire from the well-concealed enemy. Nevertheless, the battalion struggled throughout the afternoon to gain a foothold on the east bank. By nightfall the casualties had mounted to alarming proportions and this unit, which had battered at the river line for three successive days, knew that it had again failed.

In spite of this stubborn enemy resistance, the higher command still believed that it had nothing but a German rear guard to deal with and continued to call on the infantry to hammer its way through. Thus, at nightfall this battalion received still another attack order. The entire division would renew the attack at 8:00 a.m. the next morning and the 1st Battalion of the 412th Infantry would again be in assault.

Shortly after dusk a patrol which had been reconnoitering the river line made an important discovery. At X (see sketch) it found an undamaged foot bridge so well hidden by overhanging branches that until now it had gone undetected. The patrol leader, followed by his men, quickly and quietly crawled across. At the far end they surprised but failed to capture two German sentinels and in a few minutes the bridge was blown up.

The patrol now moved to the destroyed railroad bridge to the northeast and struck the enemy post there by surprise. After a short fight the Germans withdrew. The patrol leader then posted his men so as to form a small bridge-head near X, swam back across the Oise, and reported the situation to his battalion commander.

The battalion commander at once decided to throw troops across the Oise near X, form a larger bridge-head, and attack in the direction: canal bend—Sucr erie. He then sent a message to the regiment stating that the battalion intended to handle the whole affair by its own means, and asking that all friendly artillery fire cease in front of the battalion, except as requested by the battalion commander himself.



Example 2

By 2:00 a.m. the bulk of the battalion had crossed the river. At dawn it attacked to the southeast. Let us examine that attack. The entire 3d Company, three platoons of the 2d Company

and two platoons of the 1st Company, constituted the attacking force and advanced on a front of less than 500 yards. The other three rifle platoons were spread out on the remaining 2,500 yards of the battalion front, with the mission of assisting the attack by fire.

Seventeen machine guns plus one captured from the Germans—every gun the battalion could muster—were located on the high ground west of the stream, and supported the attack by overhead fire. Each gun was given a mission of neutralizing a definite portion of the zone between the river and the canal and between the Berthénicourt—Senecy Farm Road and the railroad.

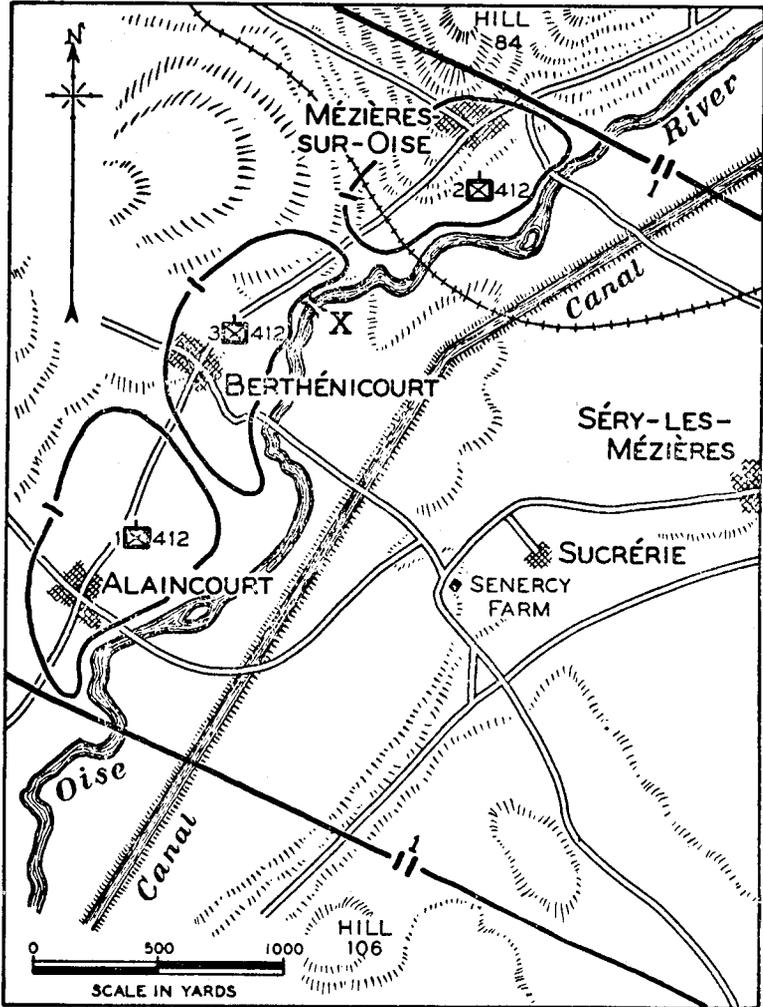
The Stokes mortar emplaced near Mézières-sur-Oise fired on the railroad bridge over the canal. The 37-mm. gun, in position near Berthénicourt, fired on the canal bridge on the Berthénicourt Road and on Senecy Farm.

A 75-mm. gun previously located north of the battalion's zone, had been driven from its emplacement by German fire, and its commander had reported late on the night of October 13 to the 1st Battalion. That same night the battalion commander ordered it to a position on Hill 84 and assigned it the mission of enfilading that portion of the canal in front of the attack as soon as it was light enough to see. The fire of the 75 was to be the signal for all other fires to open. A short time thereafter the assault would be launched on rocket signal.

In addition to the fire support described, the battalion commander ordered each company to form a battery of VB grenadiers, each battery having a precise target on the canal. He also arranged for the three platoons not in the main effort to protect the flanks and assist the attack by fire.

The attack was launched at about 7:15 a.m. and was a complete success. The battalion, advancing on a narrow front, captured the hills east of the Oise. Other troops were pushed across the river behind the successful battalion.

From Infantry Conferences at l'École Supérieure de Guerre, by Lieutenant Colonel Touchon, French Army.

*Example 2*

DISCUSSION. The actors state that in all this there was not the reasoned method that we are pleased to find there today.

"Because of the urgencies of the situation," said the battalion commander, "it was necessary to move fast, to muddle through. There were no written orders, only hasty, fragmentary, oral orders—many of them given as one went from one place to another. The whole scene resembled that which probably exists on the deck of a sinking ship."

Nine rifle platoons were massed in a main effort on a front of less than 500 yards. The rest of the battalion zone—over 2,500 yards—was held by three platoons which were charged with flank protection and with fire assistance to the main effort.

The main effort was supported by every available weapon—18 machine guns, a 37-mm. gun, a Stokes mortar and a 75. And every weapon *fired!* All the fire support was concentrated on the area in front of the main effort and on the terrain immediately to its flanks.

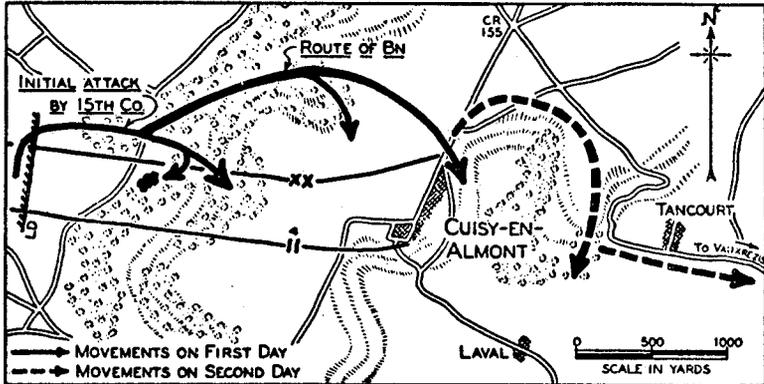
The action of the leader dominated everything. He had so familiarized himself with the terrain that when the opportunity came, he was able to assign positions and missions to all his machine guns and to a 75-mm. gun in the dark. And it worked! Because of this and because he knew that a main effort should be a main effort, his battalion scored a notable triumph.

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EXAMPLE 3. On August 20, 1918, the 4th Battalion of the French 365th Infantry, an interior unit, attacked to the east with the mission of taking Cuisy-en-Almont. About 900 yards in front of the battalion's position stood a fortified work which had not been reduced by the artillery preparation. The battalion commander believed that machine-gun fire from here might smash his attack before the battalion even got under way. He therefore adopted the following plan:

The 15th Company, with one platoon of machine guns, would be the only unit of the battalion to move out at H-hour. This

company would move into the zone of the unit on the north and, taking advantage of the cover in that locality, would swing wide past the field work, then turn south and storm it from the rear.



Example 3

As soon as the fortification fell, the rest of the battalion would attack. The 14th Company, following the 15th, would advance via the wooded slopes that border the northwestern portion of the Cuisy-en-Almont plateau, and attack the town from the north.

The 13th Company would maintain contact with the unit on the right and outflank Cuisy-en-Almont on the south.

The battalion commander with the machine-gun company would move straight toward the town (between the 13th and 14th Companies).

The attack, carried out according to plan, was highly successful: 530 prisoners and 24 machine guns were captured. In this connection it is interesting to learn that at the start of the attack the companies of this battalion averaged some 60 effectives.

The next morning the battalion was just east of Cuisy-en-Almont. The battalion commander and his command group were making a reconnaissance near the east edge of the town.

While engaged in this work they heard a sudden roar and saw the bare plateau to their left-front (which was held by the enemy) erupt under a heavy bombardment. The battalion commander at once concluded that the French units on his left were launching a powerful attack. Although he had not been notified of any such attack, he immediately issued the following order:

Our left has just attacked; we must keep touch with it.

The 15th Company will cling to the flank of the 127th Infantry (unit on the left). The 13th Company will follow the 15th. The 14th will hold Cuisy-en-Almont temporarily. Two platoons of machine guns will support the movement.

All our movement will be made without going down into the ravine. [Reconnaissance had revealed that the ravine was thoroughly covered by enemy machine guns.]

Our objective is Laval, but Laval will fall of itself if we turn the Cuisy-en-Almont ravine by the north and then swing south. We will thus gain the spur east of the town. From there we will take Tancourt and Vauxrezis.

We will advance by individual movement, by infiltration, avoiding the ravines and outflanking them on the north. According to latest information, the Germans still hold the crossroads (155).

The 15th Company will send a patrol, commanded by a very energetic leader, to determine if the 127th Infantry has really advanced. Our attack will start on my order.

The patrol found that the 127th was attacking and, upon receipt of this information, the 4th Battalion began its advance. Without loss it captured an entire German machine-gun company which occupied the spur east of Cuisy-en-Almont. These machine guns were sited west and southwest to cover the ravine of Cuisy and Laval.

The battalion continued its advance.

The division commander, who had gone forward, met a runner coming back with a message. He glanced at it.

12:30 p.m.

Lieutenant Gilbert (13th Company) to the Battalion Commander:
I am at Tancourt. We have gone 300 meters beyond the village.

From the sound of the firing the 5th Battalion must be still at Laval. No liaison with the 14th and 15th Companies. I push on toward Vauxrezis. I have met some resistance which has been reduced. Prisoners were sent back in three groups, altogether 70 to 80 men. The German machine guns were left on the ground. Having no resistance in front of me, I am advancing until I get contact.

The division commander took a pencil and scribbled on the message:

My congratulations to Gilbert. That's the way to make war.

From an article by Major St. Julien, French Army, in "La Revue d'Infanterie," November, 1927.

DISCUSSION. On two successive days this battalion scored striking successes. This was a real feat for an interior assault unit in the usual Western Front push. We do not have to look far for the reason: the commander of the 4th Battalion was not a copy-book soldier. He did not traffic in schematic solutions and neatly-turned maxims. Instead, he determined the enemy's vulnerable point and then devised a scheme of maneuver in which his main effort would strike that point.

On the first day he moved his battalion through wooded ravines; the second day he avoided ravines and moved over a bare plateau. In the first instance he moved through the wooded ravine because this route offered cover and enabled him to fall on the flank and rear of a dangerous field work. On the second day the situation was different. The ravine east of Cuisy-en-Almont was thoroughly covered by enemy fire. Therefore, he elected to move his battalion, man by man, over the open plateau. But again his scheme of maneuver was marked by a main effort that struck the enemy at a vulnerable point and from an unexpected direction. The success of this leader's shrewd reasoning is attested not only by the ease with which his command took its objectives, but by the fact that the number of prisoners taken exceeded the battalion's effective strength by some 300%.

Of course it will not always be possible to maneuver in the

zone of a neighboring unit as this battalion did. Frequently it will not be advisable and still more frequently it will not be permitted. In this case it so happened that movement in the neighboring zone was both desirable and permissible, and the battalion commander was quick to avail himself of the opportunity.

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CONCLUSION. In each case examined, the scheme of maneuver of the commander played a major part in the success achieved.

Generalship consists of being stronger at the decisive point—of having three men there to attack one. If we attempt to spread out so as to be uniformly strong everywhere, we shall end by being weak everywhere. To have a *real* main effort—and every attack and every attacking unit should have one—we must be prepared to risk extreme weakness elsewhere.

Chapter V: *Terrain*

In the absence of definite information small infantry units must be guided by their mission and by the terrain.

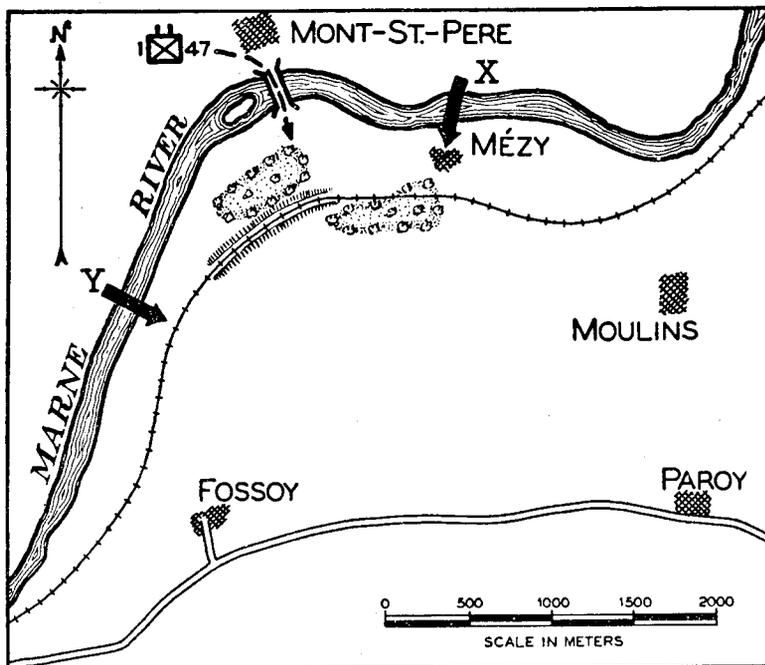
MANEUVERS that are possible and dispositions that are essential are indelibly written on the ground. Badly off, indeed, is the leader who is unable to read this writing. His lot must inevitably be one of blunder, defeat, and disaster.

The intelligent leader knows that the terrain is his staunchest ally, and that it virtually determines his formation and scheme of maneuver. Therefore he constantly studies it for indicated lines of action. For instance, there may be no evidence of the enemy, yet the terrain may say clearly and unmistakably, "If you come this way, beware! You may be enfiladed from the right." Or it may say, "Right-o! This way to the hostile position." Or again, "Close your formation here or a platoon or two will be lost."

Although small infantry units cannot choose the terrain over which they will attack or on which they will defend, they can make the best use of it. For example, a small infantry unit may find portions of its assigned zone devoid of cover. It will seldom be desirable to attack over such exposed ground. It is usually better to fix the enemy by fire in such a locality and utilize more favorable portions of the allotted area for the advance. On the defense a unit may find that part of the terrain to its front is open and presents a splendid field of fire while another part affords good cover by means of which the enemy may be able to work up close to the position unobserved. This covered approach fairly shouts, "Hold me strongly! This is the danger point."

The ground is an open book. The commander who reads and heeds what it has to say is laying a sound foundation for tactical success.

EXAMPLE 1. On July 15, 1918, the 1st Battalion of the German 47th Infantry took part in an attack against the U. S. 3d Division south of the Marne. This battalion crossed the Marne at a bridge near Mont-St.-Père. Other units, utilizing crossings at



Example 1

X and Y, had gone before with orders to clear the ground in front of the 47th.

The battalion commander had no information whether or not this had been done. The situation was vague and his battalion was the first unit to cross the bridge. A few hundred yards beyond the bridge stood a small wood and beyond that a railway embankment. Between the river bank and the woods the ground was open.

The battalion, in route column, continued its advance toward

the railway embankment. It was suddenly surprised by heavy, close-range, rifle and machine-gun fire and virtually destroyed as a combat unit for the day.

From the battle report of the German 47th Infantry.

1 1

EXAMPLE 2. On August 4, 1918, the advance guard of the U. S. 7th Brigade, consisting of elements of the 39th Infantry, approached the Vesle River. German artillery had been firing from the north bank earlier in the day. The last 1,000 or 1,500 yards to the Vesle offered little or no cover and was dominated by the high ground north of the river. The situation was vague.

The advance guard moved forward on the road. The advance party, in column of twos, followed by the support in column of squads, had almost reached the river bank when the German artillery suddenly opened with deadly accuracy and inflicted heavy losses.

From the personal experience monograph of Major Manton S. Eddy, who commanded the Machine-Gun Company of the 39th Infantry. (This action is described more fully in Example 1 of Chapter I: Rules.)

DISCUSSION. In both the preceding examples the situation was obscure, but the terrain clearly decried the maneuver that was actually carried out. In each case, failure to take the possibilities of the terrain into account was roundly and soundly punished.

1 1

EXAMPLE 3. On November 4, 1918, the French 6th Infantry, with the 152d Division on its right and the 411th Infantry on its left, attacked across the Sambre-Oise Canal with the 2d and 3d Battalions in assault, the 2d on the right.

By 7:30 a.m. the 3d Battalion had captured the north portion of Venerolles, had reorganized, and stood ready to renew the advance. The 2d Battalion was still mopping up the southern part of the town. On the north, the 411th Infantry had advanced rapidly, captured Étreaux and pushed on. Right elements of the

411th were approaching the long rectangular wood between Étreux and Caucreaumont. Other units of the 411th were still farther advanced. The attack gave every indication of a brilliant success.

East of Venerolles, in the central portion of the 3d Battalion's zone, lay a flying field—flat and bare. Some slight cover existed south of the field. East of the Valenciennes Road an interlacing network of thick hedges divided the ground into many inclosures.

Without effective artillery support, the bulk of the 3d Battalion attempted to advance straight across the bare aviation field. It encountered a deadly machine-gun fire. With tremendous losses and in the utmost confusion, it fled back to Venerolles. So great was this battalion's demoralization that it was unable to resume the attack for many hours.

The repulse of the 3d Battalion had its effect on the 2d, constraining that unit to advance at a snail's pace. It was 1:00 p.m. before the 6th Infantry succeeded in crossing the Valenciennes Road.

Shortly after 9:00 a.m. leading elements of the 411th Infantry reached the eastern edge of Caucreaumont, but the slow progress of the 6th Infantry permitted the Germans to concentrate their reserves against the 411th, with the result that at midnight this regiment was 400 yards in rear of the point it had reached at 9:00 a.m.

Although the attack succeeded, the French were unable to exploit it.

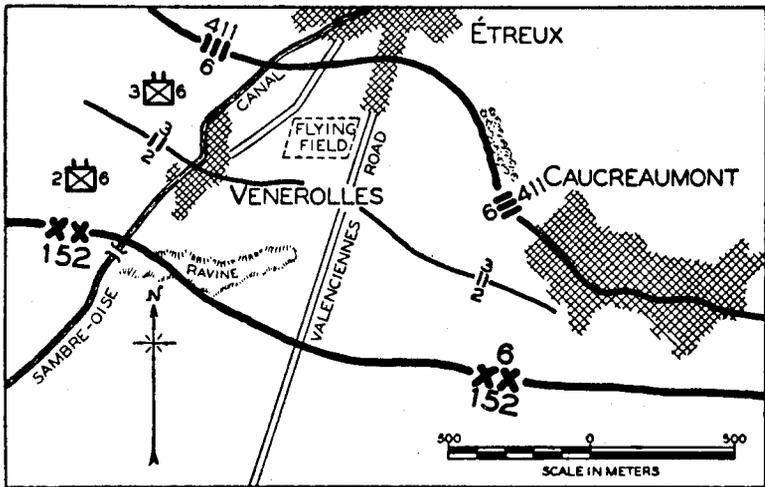
From the account by Major P. Janet, in "La Revue d'Infanterie," January, 1928.

DISCUSSION. The dislocation of the 6th Infantry's attack, which in turn compromised that of the entire division, appears to have been caused by the brash attempt of the 3d Battalion to cross terrain that was utterly devoid of cover without proper artillery support.

Although the French were not aware of the German dispositions to their front, one glance at the terrain should have

shown them the danger ahead. If the battalion moved out across the flying field and the Germans did happen to be on the other side, that battalion would be in a bad way.

The rapid advance of the 411th Infantry indicates that a maneuver either to the north or south, combined with fire action across the flying field, would have been effective. The 3d Battalion, however, in utter disregard of the terrain, took a chance



Example 3

and advanced in the open with the result described. The bulk of the casualties in the 6th Infantry on November 4 were sustained by this one battalion in its few disastrous minutes on the flying field.

Infantry unsupported by artillery or tanks has practically no chance of success in a daylight advance over bare, open terrain against machine guns.

↑ ↑ ↑

EXAMPLE 4. On October 10, 1918, the U. S. 29th Division crossed the Meuse, fought its way northward, and captured

Molleville Ridge, where the attack came to a halt. The division's front line on Molleville Ridge ran northwest and southeast, roughly parallel to Etrayes Ridge which lay beyond the deep Molleville Ravine. The 26th Division prolonged the 29th's line to the southeast.

When orders were received to take Etrayes Ridge, it was decided to strike to the east.

The 101st Infantry (26th Division) would attack to the northeast from the position shown on the sketch. The 1st Battalion of the 113th Infantry (29th Division) would jump off from a position 600 meters northwest of the 101st Infantry and attack due east. By referring to the sketch it will be seen that the lines of attack of these two units left a large triangular section of the front uncovered. The Germans in this sector would, of course, be cut off by the junction of the two American units on the common objective.

The lines of advance of the 115th and 116th Infantry and the positions of the 110th, 111th and 112th Machine-Gun Battalions are shown.

The late Brigadier General L. S. Upton, from whose article this account is taken, says:

I saw the opportunity to employ a machine-gun barrage from Molleville Ridge and directed Major Tydings to work out the details of an interlocking barrage paralleling the line of advance.

Major Tydings' task was to keep his parallel barrage 125 meters in advance of the attacking infantry. On the sketch are four black dots—A, B, C, and D. These represent four machine-gun batteries of four to six guns each. About 10 meters in front of each gun he placed a number of stakes in a semicircular row. By traversing the guns through the angles formed by these stakes, each gun gave a beaten zone 100 meters wide and 100 meters deep. Therefore, the beaten zone before the 113th and 116th Regiments consisted of four to six interlocking zones.

The attacking troops dropped back from their line of departure before H-hour to allow the artillery barrage to fall on the German line which was close up. The machine guns took advantage of this movement and at 5 minutes before H-hour, Battery A put down its interlocking zone just in front of the line of departure.

At H-hour each gunner of Battery A swung his gun so that his line of sight was directly over Stake A. This placed his cone of fire 125 meters in advance of the line of the 113th Infantry. Batteries B, C, and D remained silent. The artillery and machine-gun barrages were synchronized to the rate of advance of the infantry, 100 meters in 10 minutes. The machine gunners traversed slowly and steadily. At the end of ten minutes they were firing over Stake C, and their beaten zone had moved 100 meters on the ground and was still 125 meters in advance of the infantry. Each gunner continued to traverse: from Stake C to D in ten minutes, then to Stake E in ten minutes more, reaching Stake F forty minutes from H-hour.

When Battery A had completed forty minutes it ceased firing and Battery B commenced. When Battery B completed its mission, Battery C opened up. As soon as a battery completed its firing, it withdrew.

At their intermediate objective the troops were halted and reorganized. There was no machine-gun firing during this halt. It was Battery D's mission to fire if it should be necessary. Six minutes before the jump-off from the intermediate objective, Battery D concentrated all its fire on Hill 361 where the German observation posts were located. At one minute before the jump-off it switched its fire back to the zone last fired on by Battery C and then resumed its mission of covering the advance of the infantry to the final objective.

The 111th Machine-Gun Battalion fired approximately 300,000 rounds of ammunition during this attack. None of its personnel was killed and but few wounded. Casualties were kept low by the successive withdrawal of each battery when through firing.

The 113th Infantry captured about 50 machine guns in its zone of advance. These guns were in brush piles and were sited down the Molleville Ravine. All were laid for short-range work.

The losses of the attacking infantry of the 29th Division were light. The effectiveness of the machine-gun barrage drove the German gunners from their pieces and enabled the infantry to advance with slight opposition. It was a good illustration of the importance of fire superiority and of the ease of winning a fight when this has been established. The flank barrage of machine guns, carefully laid and timed, was a major factor in the success of this attack.

From "The Capture of Etrayes Ridge," by Brigadier General L. S. Upton and Senator Millard E. Tydings, in "The Infantry Journal," August, 1927.

DISCUSSION. The results achieved in this attack were almost entirely due to an appreciation of the possibilities offered by the

terrain. General Upton says, "The conditions of the attack gave a rare opportunity for a flank barrage of machine-gun fire generally paralleling the line of advance."

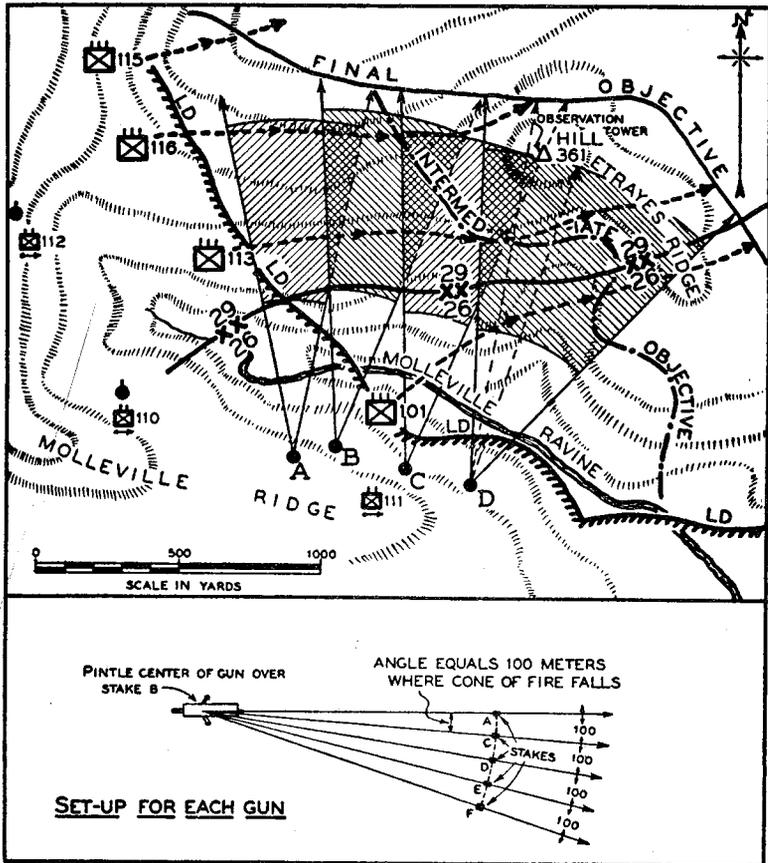
It was the ground and its relation to the front line that made this unusual and highly effective type of machine-gun support possible. As told, it all appears simple and obvious. The terrain was there and the relative positions of the opposing forces offered the opportunity. In this case it was recognized. Too often such opportunities pass unnoticed. After the disaster has occurred or the favorable chance has gone by, someone usually suggests what might have been done. It is too late then. Opportunities presented by the terrain must be seen and utilized before they are revoked by the chance and change of war.

Consider the experience of the French 3d Colonial Division. On August 22, 1914, this unit blithely advanced across the Semoy (a stream that was fordable in only one or two places) and plunged into the forest north of Rossignol. To its right-front the ground was open and completely dominated the bridge on which the division was crossing. The location of the enemy was unknown but some of his cavalry had been encountered.

The terrain fairly screamed that machine guns and artillery should be emplaced to cover the division and that every means of rapid reconnaissance should be utilized to search the ground commanding the defile. This mute warning was either ignored or not seen.

The divisional artillery, once across the Semoy and approaching the forest, found itself on a road flanked on both sides by swampy ground, hedges and ditches. If the enemy was encountered, the artillery could do practically nothing. The enemy *was* encountered, both to the front and the right-front. The artillery, unable to leave the road, was helpless. That part of the division which had crossed the Semoy was cut off and captured or destroyed.

The French had had ample time to occupy the keypoints beyond the river, but they failed to do so. They had been afforded



Example 4

an opportunity to select their battlefield but had let the opportunity slip by. They neglected the possibilities of the terrain, and for that neglect they paid dearly.

1 1 1

CONCLUSION. The ability to read the writing of the ground is essential to the infantry leader. In open warfare he will never

be able to arrive at a detailed idea of the hostile dispositions. He can, however, see the ground. He can see where enemy weapons are likely to be located. He can see critical points from which a few well-emplaced machine guns can knock his attack into a cocked hat. He can see what areas the enemy can cover effectively and what areas are difficult for him to defend. He can pick out the routes of advance which permit effective fire support by his own supporting weapons. From this study of the ground he can plan his attack, make his dispositions and send back requests for definite artillery missions.

So it goes. If we have a clear idea of the enemy's dispositions, which will be seldom indeed, we will attack him, taking the terrain into consideration. If his dispositions are obscure and the situation vague, we can still solve the problem; for by attacking the terrain, we can effectively attack the enemy.

Chapter VI: *Time and Space*

In war a large safety factor should be included in all time-and-space calculations.

INCORRECT ESTIMATES of the amount of time required for the distribution of orders, for the movement of units to new locations and for the necessary reconnaissances by subordinates, frequently lead to tactical failure. A strict application of the various rates of march set forth in neatly compiled tables of logistics, without consideration of the special conditions prevailing, may easily disrupt an operation. Obstacles will arise, mishaps will occur, hostile activities will intervene—and without ample allowance for these unforeseen inevitabilities, the most promising plans will, at the very outset, be sadly disjoined.

In war, time always presses; therefore leaders should be quick to seize upon any time-saving expedient. Where time is the essential factor, let orders go forward by staff officer or by wire rather than require front-line commanders to go to the rear. Let officers be assembled beforehand when it is known that orders are about to be received. Prescribe the necessary reconnaissance in advance when the course of action is reasonably obvious. When practicable, make use of operations maps, oral orders and fragmentary orders. In brief, utilize every time-saving device that ingenuity and forethought can devise.

1 1 1

EXAMPLE 1. On August 6, 1918, the U. S. 47th Infantry (in brigade reserve) occupied a defensive position in the northern part of the Bois de Dôle.

The 39th Infantry, then in the front line, had been trying to cross the Vesle and establish a line along the Rouen—Reims road, but this regiment had suffered so heavily from artillery fire that its relief appeared imminent. The commander of the

2d Battalion of the 47th Infantry realized this. Furthermore, he believed that his battalion would take part in this relief and then drive forward as an assault element. Finally, he was convinced that orders for this operation would arrive that night.

Acting on this assumption, the battalion commander moved forward during the afternoon and made a detailed personal reconnaissance of the front line near St. Thibaut. There he learned a good deal from the officers of the 39th; among other things that the Vesle was "not very deep" and that, except for a few snipers along the river and in Bazoches, there would be little or no resistance between the river and the road. From this information it appeared that a night relief of the front line and a subsequent move to the river could be made with little difficulty.

After he had completed his reconnaissance, he returned to the Bois de Dôle, assembled his company commanders on a wooded hill that commanded a view of the front line, and acquainted them with the situation. Then, with the aid of a map, he issued an oral warning order, in substance as follows:

The enemy, supported by considerable artillery, holds the heights north of the Vesle. A few machine guns and snipers occupy scattered positions north of the Rouen—Reims Road. The 39th Infantry reports one of their battalions across the river. Our engineers have been constructing foot bridges over the river. The river itself is twenty or thirty feet wide and not very deep. In the event we are directed to relieve the 39th Infantry, we will probably be ordered to cross the Vesle and take up a position on the Rouen—Reims Road. If our battalion is in the assault, the boundary lines of the present 39th Infantry sector will be maintained. They are shown on the map and include the town of Bazoches. The direction of advance will be due north. Companies G and H will be in the assault echelon and Companies E and F in support; Company H on the right supported by Company E. If the advance from St. Thibaut is to the Rouen—Reims Road, companies will form for the movement in the sunken road immediately east of St. Thibaut. As your companies arrive at this point you will take up whatever formation you believe best.

Throughout the night the rain came down in torrents. About midnight the regimental commander received a message to re-

port to brigade headquarters, located at Chartreuve Farm. There he received an oral order directing the 47th Infantry to relieve the 39th by 5:00 a.m., cross the Vesle and establish a line on the Rouen—Reims road. Two companies of the 11th Machine-Gun Battalion were attached to the regiment. Boundaries were the same as those of the 39th Infantry. Bazoches would be pinched out by a combined French and American advance.

Returning at 1:00 a.m. to his command post in the Bois de Dôle, the regimental commander assembled his unit leaders and issued a brief oral order, which was similar to the warning order issued by the commander of the 2d Battalion during the afternoon. The 2d Battalion was designated as the assault unit; the 3d Battalion, with the regimental machine-gun company attached, was ordered in support; and the 1st Battalion was held in regimental reserve. Battalions were directed to move out at once in the order: 2d, 3d, 1st.

The regimental commander then proceeded to St. Thibaut.

Darkness and heavy rain made reconnaissance almost impossible.

The forethought of the commander of the 2d Battalion now served its purpose. He assembled his company commanders and explained the battalion's mission. He stated that no information, other than that already given, was available and that the orders he had issued during the afternoon would be carried out. He then directed his adjutant to bring up the battalion as soon as it could be assembled, and left for St. Thibaut.

At 2:00 a.m. on August 7 the regiment, covered by a small advance guard, marched on St. Thibaut. No guides were furnished. The road was a knee-deep quagmire. Dead men and animals added to natural obstructions of the narrow way. Slowly, and with great difficulty, the column struggled forward. The enemy continued to shell the road, but owing to the darkness this fire was largely ineffective. In reply, American artillery steadily shelled the heights north of the river.

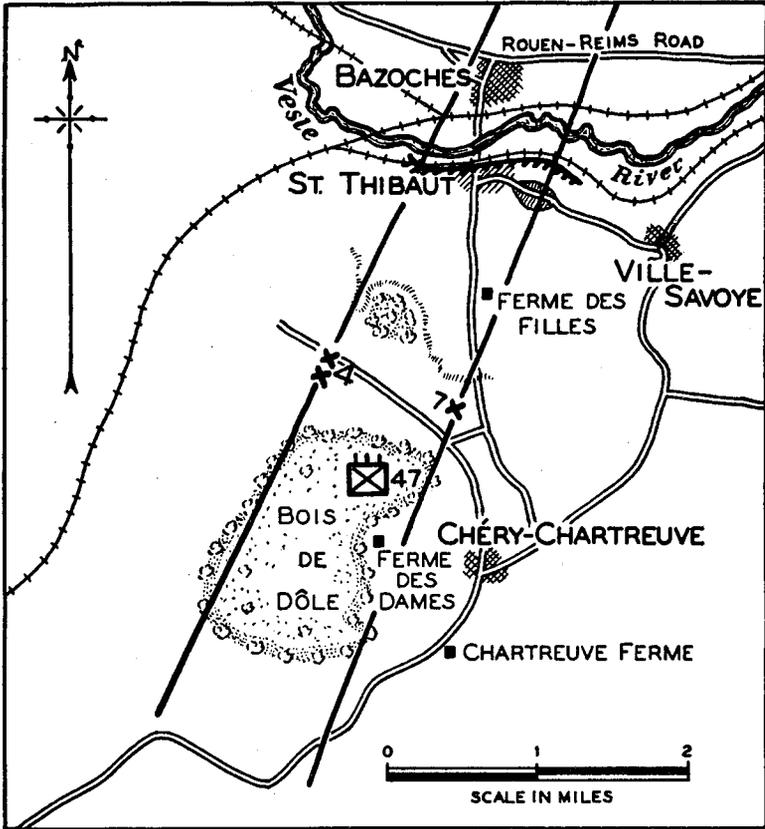
About 3:30 a.m. the 2d Battalion reached St. Thibaut, where it was met by the battalion commander. He told his company commanders that he had been unable to obtain any additional information but that the situation looked worse than had been represented to him the previous day. In fact, the only protection against hostile machine guns and snipers lay in reaching the Rouen—Reims road before daylight.

The 2d Battalion moved quickly to the sunken road 200 yards east of the village, took up an approach-march formation and at 3:45 a.m. moved out. Enemy artillery fire increased. The 3d Battalion, followed by the 1st, moved slowly along the St. Thibaut road, in order to allow the 2d Battalion time to clear the sunken road.

The regimental commander was extremely anxious to have his assault battalion reach the Rouen—Reims road before daylight; therefore he personally directed the initial stage of the approach to the river.

The enemy evidently expected the relief, for an artillery barrage was laid on the sunken road, the roads leading into St. Thibaut, and on the village itself.

Dawn was breaking and a light mist hung over the ground as the 2d Battalion crossed the narrow-gauge railroad track north of the sunken road. Three hundred yards more brought the battalion to the river. Foot bridges reported to have been constructed by the engineers could not be located. The company commander of the right company moved forward and attempted to wade the river. In so doing he made two discoveries: first, that wire entanglements extended from the middle of the stream to the opposite bank; second, that the stream was too deep for wading. Nevertheless, a few officers and noncommissioned officers managed to struggle across. Once across they made another disheartening discovery: the north bank was wired with a line of double apron entanglements and beyond this with a line of spirals. The noncommissioned officers who had reached the far



Example 1

bank at once began to cut gaps through the wire while the officers strove to get the troops across as quickly as possible.

Meanwhile, enemy artillery had opened up on the river line with mustard gas. In order to expedite the crossing, heavy articles of equipment such as grenades, bandoliers, and automatic-rifle clips, were thrown across. Many of these items fell in the river and were lost. All men who could swim were then ordered to sling their rifles and swim across. The water was soon

full of struggling soldiers. Leggings were lost, clothing slashed to ribbons, and many men badly cut about the arms and legs by the entanglements. Several soldiers were drowned. Men who could not swim were pulled across on crude rafts improvised out of any buoyant material that came to hand.

As the line moved forward through the wire the mist lifted and immediately the assault waves came under heavy enfilade machine-gun fire from the left flank. It was now broad daylight.

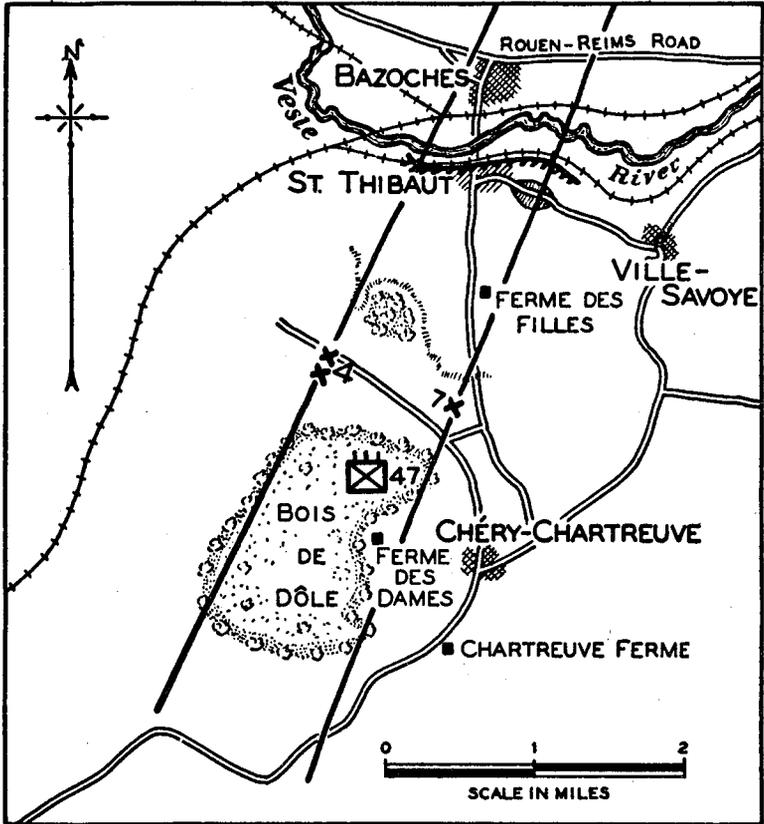
Although sustaining severe casualties, the two assault companies succeeded in pushing on to a line about 50 yards short of the Rouen—Reims Road. The remainder of the regiment, however, was cut off along the Vesle by hostile artillery fire. After several days of fruitless effort, all units were withdrawn to the south bank.

From the personal experience monograph of Captain William A. Collier, Infantry.

DISCUSSION. This example shows some of the reasons why time-and-space calculations taken from the book often go awry. It also shows how time can be wasted and how it can be saved.

First, consider the situation at midnight. Brigade headquarters wanted the 47th Infantry to move forward and reach the Rouen—Reims Road by daylight. This meant that the 47th would have to make a night march of at least three miles, partly across country, in a torrential rain, and with a stream crossing included.

The regimental commander was called back to the brigade command post to receive his orders. He did not get back to his own command post until 1:00 a.m. It appears that time might have been saved had the order been sent forward instead of calling the colonel back. On his return he assembled his officers and issued his order. Another hour went by before the regiment moved out. If the officers had been assembled prior to the return of the colonel, time again could have been saved and time, as usual, was vitally important.



Example 1

Secondly, we see the valuable results of the preparation made by the commander of the 2d Battalion. During the afternoon he had made his reconnaissance. He had gone over the situation with his subordinates. He had issued a tentative order based on the probable course of action. When he found that the regimental order coincided with his surmise, all he had to say was, "The orders I gave this afternoon will be carried out."

The 47th Infantry started on its three-mile march at 2:00 a.m. It appeared just possible for it to reach the Rouen—Reims Road by 5:00 a.m. provided the march was continuous and no obstacles were encountered.

Unfortunately, the 47th did meet obstacles—serious ones. Rain fell in torrents, the road was knee-deep in mud, dead animals and men blocked the way, the enemy shelled the road and no guides were furnished. The 2d Battalion, leading, did not reach St. Thibaut until 3:30 a.m., did not leave the sunken road, where it changed to combat formation, until 3:45 a.m., and did not reach the Vesle until dawn. The foot bridges could not be found and further advance was opposed by enemy fire.

Calculations of time and space were evidently based on rates of march without allowances for unforeseen contingencies. An hour, or even a half-hour, saved in launching the movement would have been invaluable in this instance where time was a paramount consideration.

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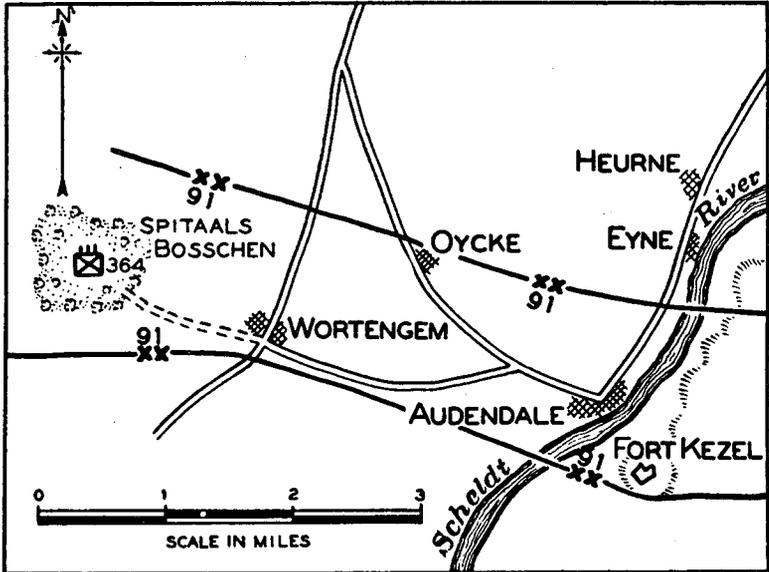
EXAMPLE 2. In November, 1918, the U. S. 91st Division, attached to the French Army of Belgium, took part in the Ypres-Lys offensive.

Throughout the day of November 2, the 364th Infantry (part of the 91st Division) had been held in division reserve at Spitaals-Bosschen. During the evening the commanding officer of the 364th Infantry received oral orders for an advance that night. Returning to his command post at 9:40 p.m., he met his unit commanders, who had been previously assembled, and immediately issued his order. Within twenty minutes the 364th Infantry was on the road moving toward Wortengem. The written order for this movement reached the regiment after midnight.

The 364th had been directed to proceed to temporary foot bridges which had been thrown across the Scheldt River between Eyne and Heurne (about a mile out of the 91st Division's zone).

After crossing the Scheldt it was to move south and attack Fort Kezel in conjunction with the remainder of the division which would be located along the west bank of the river.

To accomplish this mission two things were essential: first,



Example 2

the regiment would have to march nearly ten miles, cross the river, form for attack and advance about two and a half miles more, all under cover of darkness; second, if the enemy were to be surprised, the troops would have to reach a position close to Fort Kezel before daylight.

At 4:00 a.m. the 364th reached a point about three kilometers beyond Oycke where it was met by guides. Here the column was delayed by a message directing the colonel to proceed to the artillery command post for a conference with the brigade and artillery commanders relative to supporting fires.

At 4:45 a.m., a half hour before daylight, the head of the column was still three kilometers from the foot bridges. Enemy artillery had been interdicting the roads. Appreciating the situation, the regimental commander ordered the battalion to march to areas east of Oycke and dig in. The crossing was not attempted.

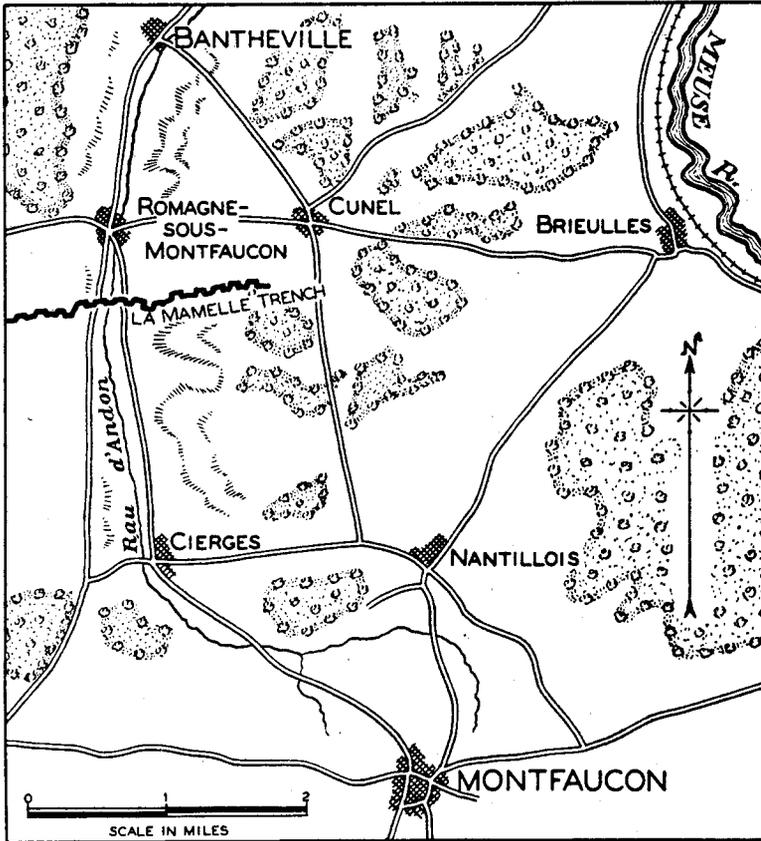
From the personal experience monograph of Captain Frederick W. Rose, Infantry.

DISCUSSION. This regiment received orders so late that its task was almost impossible. The distance to the point of crossing was a little less than ten miles. Two and a half miles more remained from the crossing to Fort Kezel. Using the usual rate of march by road at night (two miles per hour) it would take about five hours to reach the crossing. Following the crossing, the march would be across country at one mile per hour. This would require two and a half hours more. The whole movement would require seven and a half hours of steady marching—not including the time lost in crossing.

In this case, the colonel had his unit commanders assembled and waiting for him on his return. Due to this, the regiment was in motion in the exceptionally good time of twenty minutes, or at 10:00 p.m. Daylight came about 5:15 a.m., or seven and a half hours later. Theoretically, the movement was just about possible, but practically, it was not. No time was allowed for delays—not even for such obvious things as enemy artillery fire, crossing the river, issuing the attack order or taking up the attack formation.

The account does not explain the cause of the delays in the march of this unit, but that there were delays may be seen by the fact that at 4:45 a.m. the head of the column was still three kilometers from the crossing.

The calculation of time-and-space factors had been too optimistic.



Example 3

EXAMPLE 3. At 4:30 p.m., October 9, 1918, the 2d Battalion of the U. S. 38th Infantry was ordered to move from its position at Cierges, leapfrog the 1st and 3d Battalions which were holding la Mamelle Trench near Romagne-sous-Montfaucou, and attack toward Bantheville. The ridge southwest of Bantheville, which was the battalion objective, was four miles away. Darkness would fall in an hour and a half.

The battalion, advancing over the ridges northeast of Cierges

in approach-march formation, came under heavy artillery fire and had to break up into smaller sub-divisions. It did not arrive in time to attack that day.

From the personal experience monograph of Captain Francis M. Rich, Infantry, who commanded Company G of the 38th Infantry.

DISCUSSION. Here we have an attack ordered in which the objective could not possibly be reached before night, and yet a night attack was not intended.

The comment of Captain Rich on this phase of the operation follows:

The objective was four miles off, there had been no preliminary reconnaissance, and darkness was only one and a half hours away. The briefest consideration of time and space would have shown that it was impossible to execute the order. A better plan would have been to make the approach march under cover of darkness, thus avoiding the bombardment to which the battalion was subjected, and attack at daylight.

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EXAMPLE 4. On June 6, 1918, the 23d Infantry (U. S. 2d Division) held a position northwest of Château-Thierry. At 3:15 p.m. that day division issued orders for the 23d Infantry and the units on its left to attack at 5:00 p.m. This order reached the commanding officer of the 23d Infantry at 4:00 p.m. He ordered the 1st and 3d Battalions, then in the front line, to attack in conjunction with troops on the left.

It was nearly 5:00 p.m. before the battalions got this order. Both battalion commanders assembled their company commanders at double-time and issued their orders. Captains literally gathered their companies on the run and started toward the enemy lines. The 3d Battalion attacked at 5:50 p.m. Its attack was repulsed with considerable losses.

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On July 18, 1918, the 23d Infantry was attacking eastward in the Aisne-Marne offensive. The advance had been rapid all morning, but in the afternoon it began to slow down.

Early in the afternoon the division commander met the commander of the 3d Brigade (9th and 23d Infantry Regiments) and ordered a resumption of the attack at 4:30 p.m. The brigade commander, however, did not even find his two regimental commanders until after that hour. When he finally located them he ordered them to resume the attack at 6:00 p.m.

Fifteen French light tanks were to support the attack. Most of the units of the 23d were badly intermingled. Both regimental commanders were of the opinion that the attack could not be launched by 6:00 p.m. The tank commander wanted even more time than the colonels. The colonel of the 23d Infantry conferred with the French captain commanding the tanks, and then, at 6:30 p.m., moved forward to organize the attack.

At 7:00 p.m. the 23d Infantry jumped off under the personal command of the regimental commander. The 9th Infantry, also led by its colonel, jumped off fifteen minutes later.

From the personal experience monograph of Captain Withers A. Burress, who was Operations Officer of the 23d Infantry.

DISCUSSION. Such experiences as that of the 23d Infantry on June 6 are avoidable, yet they occurred with monotonous frequency in the World War. There were undoubtedly many excellent reasons why the order for a 5:00 o'clock attack did not reach the regimental commander until 4:00 and the battalion commanders until nearly 5:00. But in spite of reasons good or bad, the fact remains that the order should have reached the troops at an earlier hour. The chances are that much time would have been saved all the way down the line, had each headquarters visualized the ultimate effect of cumulative delay.

On July 18 the same thing happened. Battalion and company commanders had almost no time in which to make arrangements.

The troops were good, the leadership was vigorous, but all time estimates were profoundly in error. It took more than five hours for the division commander to make his will felt. In this instance there was an excuse for the delay, for the 3d Brigade had been in full battle. The fault here is that due allowance for the disorganization incident to combat was not made in arranging for the resumption of the attack.

Within each of the attacking regiments the commanding officers obtained coordination by personally conducting the operation. The confusion of the battlefield, particularly in resuming an attack that has been stopped, makes coordination by time extremely difficult. For small units other methods should be considered. If the time method is used, the allowance must be generous.

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CONCLUSION. These illustrations are by no means extreme. Accounts of the World War bristle with tactical failures that are directly due to fallacious conceptions of time and space. Indeed, instances abound in which attack orders were received after the hour specified by the order for the jump-off. In many cases unpredictable circumstances intervened—circumstances that disjointed even the most generous time allowances. But it is equally true that many leaders based their calculations on parade-ground logistics, completely ignoring the inevitable obstacles that arise in war.

Commanders and their staffs must give the most careful thought to considerations of time and space. The time element should be computed from the specific conditions that will be encountered, or that are likely to be encountered, and not be taken merely from theoretical tables setting forth rates of march and time required for distribution of orders under average conditions.

Actual application of troop-leading methods, as taught at our

service schools, will save many precious minutes. Forethought in making reconnaissance, shrewd anticipation of the probable course of action, tentative warning orders issued on this hypothesis, and arrangements for the instant transmission of orders, represent but a few of the time-saving devices the aggressive leader will adopt.

Chapter VII: *Mobility*

Open warfare demands elastic tactics, quick decisions, and swift maneuvers.

MOBILITY includes far more than mere rapidity of movement. From the leader it demands prompt decisions, clear, concise orders, anticipation of the probable course of action and some sure means for the rapid transmission of orders. From the troops it demands promptness in getting started, the ability to make long marches under the most adverse conditions of terrain and weather, skill in effecting rapid deployments and abrupt changes of formation without delay or confusion, facility in passing from the defensive to the offensive, or the reserve, and finally, a high morale. In brief, then, mobility implies both rapidity and flexibility.

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EXAMPLE 1. In the early days of the World War the 35th Fusiliers, part of the German II Corps, made the following marches:

August 17: 13.1 miles
August 18: 25.0 miles
August 19: 06.2 miles (Battle of the Gette)
August 20: 21.9 miles
August 21: 06.2 miles
August 22: 07.5 miles
August 23: 28.1 miles
August 24: 10.0 miles (Battle of Mons)
August 25: 18.7 miles
August 26: 12.5 miles (Battle of le Cateau)
August 27: 21.9 miles
August 28: 23.8 miles
August 29: 05.0 miles (Fighting on the Somme)
August 30: 15.6 miles
August 31: 20.6 miles
September 1: 18.8 miles (Fight at Villers-Cotterêts)

September 2: 08.8 miles
 September 3: 20.6 miles
 September 4: 18.8 miles (Fight at Montmirail)
 September 5: 15.6 miles
 September 6: none (Battle of the Marne)
 September 7: 23.1 miles (Battle of the Marne)
 September 8: 20.6 miles (Battle of the Marne)
 September 9: none (Battle of the Marne)
 September 10: 20.0 miles
 September 11: 18.1 miles
 September 12: 07.5 miles (Battle of the Aisne)

DISCUSSION. In 27 consecutive days the 35th Fusiliers marched 408 miles, an average of 15.1 miles a day. This period included at least 11 battle days and no rest days. All marches were made under full pack.

On September 7 and 8, in the movement to attack the north flank of the French Sixth Army, this regiment marched 43.7 miles with only a three-hour halt. The entire march was made under the most difficult traffic conditions.

From the "Militär-Wochenblatt," February 25, 1932.

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EXAMPLE 2. On May 30, 1918, the 7th Machine-Gun Battalion of the U. S. 3d Division was training near la-Ferté-sur-Aube. This battalion was motorized, but its motors were of unsuitable design and its personnel had had comparatively little training in handling them.

At 10:00 a.m. an unexpected order directed the battalion to proceed at once to Condé-en-Brie, using its own transportation. This order was occasioned by the headlong drive of the Germans for the Marne, following their successful break-through along the Chemin des Dames.

A warning order was promptly issued. Troops were recalled from drill, extra trucks borrowed, and at 2:30 p.m. the column cleared la-Ferté-sur-Aube. Within the space of a few miles the trucks were found to be seriously overloaded. On steep hills the men had to detruck and, in some cases, push. Tires were old and

punctures many. Delays were frequent. Motorcycles proved valuable in carrying spare parts to broken-down trucks.

About 9:00 p.m. a short halt was made near Sézanne in order to rest the men and refuel and overhaul the cars. Thereafter no lights were used. At daybreak the column encountered refugees who crowded the roads and made progress difficult. Nearer the front, infantry, artillery, and supply wagons appeared in the intervals between the refugees. At 12:30 p.m., May 31, the head of the battalion halted at Condé-en-Brie, having made 110 miles in 22 hours over congested roads. The battalion arrived at Château-Thierry, went into position in the afternoon, and at dawn engaged the Germans.

From the personal experience monograph of Major John R. Mendenhall, who commanded Company B of the 7th Machine-Gun Battalion.

DISCUSSION. In this case mobility was obtained through the use of motors. Although the equipment was deficient and traffic conditions difficult, this battalion moved 110 miles and deployed in position against the enemy within some twenty-seven hours after receipt of its orders.

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EXAMPLE 3. On August 17, 1914, detachments of the German I Corps were disposed on the East Prussian frontier with the main German forces concentrated well in rear. A strong Russian advance was in progress from the east.

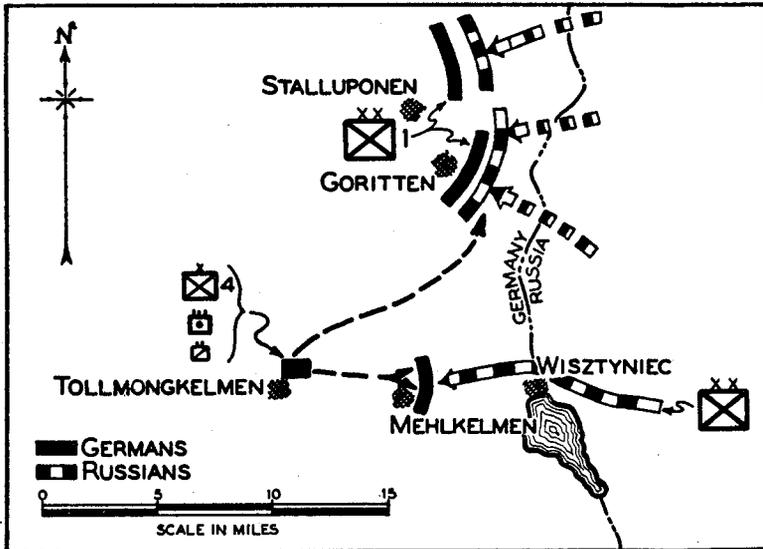
The I Corps had been given a covering mission, but its commander believed in an aggressive defense.

The 4th Infantry Brigade, a squadron of cavalry and a regiment of field artillery were located at Tollmongkelmen. To the north, elements of the 1st Division covered a wide front east of Stalluponen.

Early on the 17th the Tollmongkelmen detachment was confronted with the following situation: The elements of the 1st Division, to the north, were engaged against much stronger Rus-

sian forces, and their situation was serious. The south flank of this fighting was some eleven miles from Tollmongkelmen.

According to reliable information, a Russian division advanc-



Example 3

ing west from Wisztyniec was now but a few miles from Mehlkelmen.

The German commander at Tollmongkelmen at once decided to contain this Russian division with a small force and, with the bulk of his command, move north and strike the southern flank of the Russians who were attacking the 1st Division elements near Goritten.

From his command, which had already been assembled, he sent two battalions of the 45th Infantry, a squadron of cavalry, and a battery of field artillery against the Russian advance from Wisztyniec, with orders to stop the Russians at Mehlkelmen at any cost.

With the 33d Infantry, one battalion of the 45th Infantry,

and five batteries of artillery, he marched to the northeast, arriving in the vicinity of the fighting about 11:30 a.m. This detachment promptly attacked toward Goritten directly against the rear of the enemy. The effect was immediate. The Russians withdrew in disorder with heavy losses, including some 3,000 captured. German losses were slight. The delaying detachment to the south carried out its mission, holding the Russians at Mehlkelmen the entire day.

From "Tannenberg," by General von François, German Army, and the Reichsarchiv account.

DISCUSSION. Although the Russians were vastly superior in numbers, they were overwhelmed by their faster-thinking, faster-moving opponents. A quick decision, a rapid march, and a sudden attack from an unexpected quarter completely routed them.

Had the German force at Tollmongkelmen not been moved north promptly, the result would probably have been a successful defense east of Tollmongkelmen, and a reverse near Stal-luponen.

The German commander at Tollmongkelmen took a chance. He risked defeat on his own front in order to put weight into his effort to redress a critical situation on a more decisive front. His confidence in the superior mobility of his troops and in the ability of a weak detachment to effect the required delay near Mehlkelmen was justified.

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EXAMPLE 4. On November 5, 1918, the 28th Infantry, part of the U. S. 1st Division, bivouacked about three miles east of Buzancy. The division was in corps reserve. The Germans were withdrawing.

About 2:30 p.m., the regiment received warning that the 1st Division would relieve the 80th Division that night and that orders for the movement would be issued later. The troops were given a hot meal, packs were rolled, and a tentative march order

prepared. By 4:30 p.m. all arrangements were complete; the regiment was in readiness, waiting only for the order to move out.

About 5:00 p.m. a written message came in, directing the command to march at once to the vicinity of Beaumont, via Nouart and la Forge Farm. The regimental commander was instructed to report to the brigade commander at la Forge Farm for further orders. A few minutes after this message arrived the regiment was in motion.

The march was difficult. Nouart's narrow streets were congested with units of the 2d and 80th Divisions. Beyond Nouart the road meandered through thick woods and over marshy ground; shell holes and fallen trees blocked the way; in many places the mud reached halfway to the knee; fields and ditches, bordering the road, were filled with water. Often the men had to march in column of twos. Rest periods were few. But in spite of the difficulties a steady rate of march was maintained (about one and one-third miles an hour for the greater part of the distance).

At la Forge Farm orders were received directing the 1st Division to attack towards Mouzon on the morning of November 6. The 28th Infantry was ordered to occupy a position in the woods two miles west of Beaumont.

When the leading element reached Beaumont it found the bridge destroyed and the exits of the village under shell fire from positions east of the Meuse. After studying the map the regimental commander decided to move across country to the prescribed position.

Since it was too dark to pick up landmarks, battalion commanders were given compass bearings. Three unimproved roads that intersected the route of march furnished a check on the distance. When the third road was crossed, the regiment would be near its destination.

The going was heavy. Ditches and shell holes barred the way;

fields were wet and soggy; fences had to be cut. To add to these difficulties, the enemy steadily shelled the area through which the column was passing, making it necessary to extend the distance between units.

Dawn was breaking when the column reached the third road. The terrain did not check with the map! The regiment was halted and an officer was sent down the road toward Beaumont. He found that there were four roads instead of three; the Germans had built one for use in transporting supplies to the front. The command was marching in the right direction and had only a short distance to go. The regiment resumed its march and arrived at its designated position in good time.

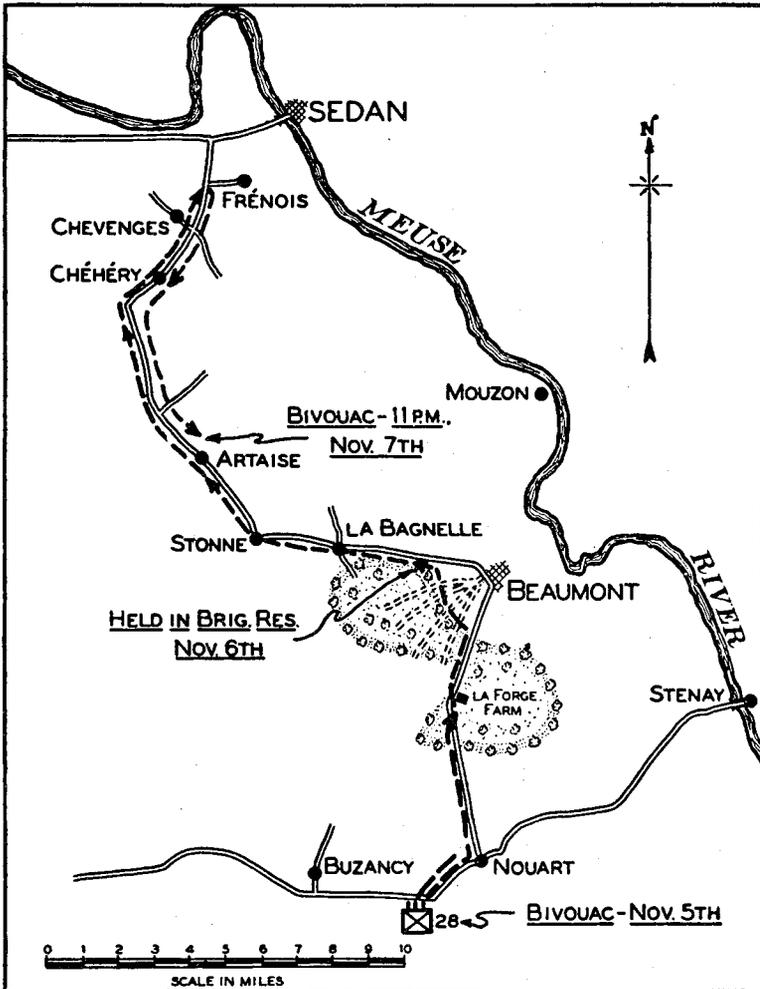
Since the attack toward Mouzon met but little resistance, the 28th Infantry remained in brigade reserve. About 4:00 p.m. this same day, the regiment received a telephone message from the brigade commander, in substance as follows:

The brigade is going on a long march. Move out at once on the Beaumont—Stonne road toward Stonne. The regimental commander will report to me in person at the crossroad at la Bagnelle for orders. The 26th Infantry will be withdrawn and follow you in column.

In a few minutes the regiment was again en route. Orders received at la Bagnelle directed the 1st Division to march on Sedan in five columns, seize the hills southwest of that city, and attack at daylight. The 28th Infantry and Company D of the 1st Engineers were ordered to march via Stonne—Chéhéry—Frenois.

Neither the location of the enemy front line nor that of friendly units, other than the division, was definitely known. Therefore the brigade commander decided to move forward in route column, preceded by an advance guard, and push through such resistance as might be encountered with as little extension as possible.

The regimental commander was ready with his orders when the 28th Infantry reached la Bagnelle. The regiment marched all night. About 7:00 a.m. the advance guard was fired on from a



Example 4

position near Chevenges. The regimental commander, who was with the advance-guard commander, at once ordered an attack. The attack got away promptly and drove past Chevenges to within two or three miles of Sedan.

At 11:00 a.m. orders were received to halt the advance and organize the ground for defense. Five hours later the 28th was ordered to withdraw to the vicinity of Artaise, as it was not desired that the 1st Division enter Sedan. The last units of the regiment arrived in Artaise about 11:00 p.m.

From the personal experience monograph of Major William G. Livesay, who was Plans & Training Officer of the 28th Infantry.

DISCUSSION. Between 5:00 p.m. November 5 and 11:00 p.m. November 7, the 28th Infantry covered about thirty-five miles. During this period it made a difficult and exhausting night march to take up a battle position, a second all-night march in pursuit, an attack, a transition from the offensive to the defensive and, finally, a withdrawal. For fifty-four hours this regiment marched and fought without food and virtually without rest.

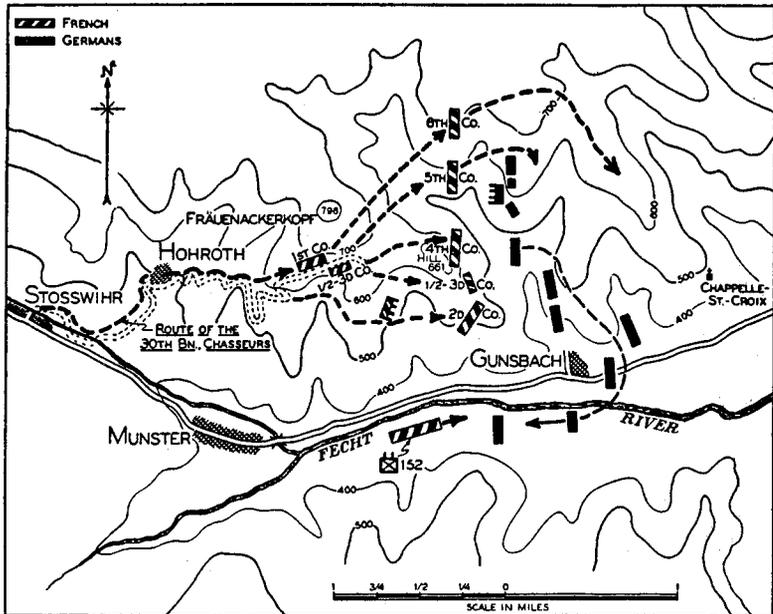
Although this outstanding performance would have been impossible without the physical efficiency and high morale that characterized the regiment, it would have been equally impossible without first-rate troop leading. Instructions were anticipated and warning orders issued. In each case, the regiment was able to move immediately on receipt of the order. The regimental commander was directed to put his troops in march toward a certain point, and then told where to report for further instructions. There was no time wasted in issuing elaborate march orders, nor was there any delay in taking prompt, positive action when the column encountered unforeseen difficulties.

Intelligent foresight, rapid decisions, prompt orders and high morale are factors that make for mobility.

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EXAMPLE 5. On August 19, 1914, the 30th Chasseur Battalion, with one battery of artillery attached, was ordered to

move east from Stosswihr along the north side of the Fecht, in order to cover the debouchment of other troops. One battalion of the 152d Infantry was assigned a similar advance and mission south of the river. The 30th Chasseurs consisted of six companies of well-trained, well-conditioned troops, ready for any eventuality.



Example 5

The valley of the Fecht is about a mile wide. The valley itself is relatively flat and open, but is dominated on both sides by steep, wooded hills. The secondary valleys entering the Fecht from the north are pronounced depressions. Progress through the woods by deployed units would be slow.

The battalion commander, knowing that German covering forces were near and combat imminent, decided to move the bulk of his command along the slopes of the north bank to envelop

any resistance met. Crests were to be used as successive objectives. Few troops would be left in the valley. He explained his general idea before the march started and issued his order, extracts of which follow.

The battalion will follow the road Stosswihr—Hohroth—Fräuenackerkopf and then, without losing height, will move parallel to the valley. Order of March: 4th, 5th, 6th, 2d, 3d, 1st Companies.

The 4th Company (advance guard), will deploy astride the route followed as soon as the enemy is met; the 5th, then the 6th, will deploy to the north.

The 2d Company will deploy to the south, maintain contact with the 4th Company and cover the valley road.

The 3d and 1st Companies will be in reserve.

The battery will move behind the 2d Company, keeping generally near the south edge of the woods, abreast of the reserve. The machine-gun platoon will also follow the 2d Company.

About 8:00 a.m. the 4th Company, near 661, encountered an enemy force to its front and deployed, as did the 2d Company. The 5th Company at once moved to the north, deployed two platoons and advanced against resistance. The 6th Company farther north, met no enemy and continued its advance.

Along most of the front the French deployed more rapidly than their opponents, whom they could see fanning out under their fire. This was particularly true on the north flank, where the French definitely had the advantage of being the first to deploy. Here an envelopment was made and the Germans were taken under a converging fire. Meanwhile, the French battery and machine guns had promptly gone into action, directing their fire against German elements in the open valley.

In spite of the fact that the Germans had artillery support, the French envelopment made progress. About 3:30 p.m. the 6th Company arrived on the spur northwest of Chapelle-St.Croix and turned southward, surprising a command post and the German elements that were located there.

A strong German attack in the valley, near Gunsbach, failed. As a result of this repulse and the progress of the French en-

velopment, the Germans withdrew in confusion. The French pushed on and reached their assigned objective.

This battalion, assisted by fire from the battalion of the 152d south of the Fecht, had defeated the 121st Württemberg Reserve Regiment and some elements of the 123d and 124th.

From Infantry Conferences by Lieutenant Colonel Touchon, French Army, at the École Supérieure de Guerre.

DISCUSSION. Here is an instance where a battalion commander regulated his deployment in advance. His maneuver had been carefully planned in the event the enemy was encountered—fire in the open valley, maneuver in the covered area. He realized that the negotiation of such steep slopes as those along the Fecht would be a slow and fatiguing job, even for his hardy Alpine troops. Therefore he wisely began the climb before gaining contact with the enemy, but without deploying. Thereby he saved his men and increased his speed.

That the French were able to deploy faster than their opponents was largely due to the almost automatic nature of their maneuver. A few shots and the movement got under way. No time was lost in making decisions and issuing orders.

Those cases in which a prearranged deployment can be used will be few. Situations seldom develop in accordance with preconceived ideas. Nevertheless, this action graphically illustrates the tremendous advantage that may result from a previously planned course of action.

The defeat of this larger and stronger German force may be directly attributed to the superior mobility of the 30th Chasseurs. This superior mobility resulted from two things: First, the excellent performance of the troops, who were well-trained and in good physical condition; second, the foresight of the battalion commander.

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CONCLUSION. The physical marching ability of troops is an important factor in mobility, but it is only a part. Rapid de-

cisions and clear, quick orders are vital. No less important are the requirements demanded of the troops—prompt execution of orders, rapid deployment, quick changes of formation and observance of march discipline.

Superior mobility must be achieved if we are to surprise our opponent, select the terrain on which we are to fight, and gain the initiative. There is no alternative. If we are slow in movement, awkward in maneuver, clumsy in deployment—in a word, not mobile—we can expect to be forestalled, enveloped, or constrained to launch costly frontal attacks against an enemy advantageously posted.