



Squad Leader Historical Commentary:

"The Evolution of Small Unit Tactics"

By John Hill

The tactical concept that the main element of infantry combat was the small ten man group of soldiers, did not suddenly appear in WWII. Rather, it evolved slowly all the way up from the beginning of the gunpowder era. As weaponry improved, the destructive potential of small groups became greater, and it is very difficult to say "when" infantry tacticians began to forsake the concept of massed infantry in favor of "small grouped" infantry, but it started soon after Napoleon.

In the Napoleonic era, the classic use for the infantry was in ever larger "attack columns" which was, in essence, a solid battering ram of bodies. When the opponent had been properly prepared by artillery and maneuver, this battering block was generally successful. But this was the last golden era of the massed shock infantry attack. The British, by use of reverse slope and disciplined volley, made these attack columns a very dangerous proposition. Nevertheless, in the writings of this era, and even before, we do find references to the possibility of what could be done by small groups attacking on their own. However, these tactics were still regarded as an "if all else fails" type of thing. As a matter of fact, the whole tactical doctrine was indeed referred to as the "forlorn hope." But the "hope" was to grow.

After the Napoleonic Wars, Baron De Jomini wrote an extensive technical study of combat in 1838. He called it the "Art of War." By drawing on many battles, he came to the conclusion that the best way to attack would be; not in the massive columns, nor in extended line, as others would say, but in a loose front of "little columns." In other writings the words "attack group" also crop up. Though the manner of war was not changed by these thoughts, it did show where a trend could be starting.

The nature of the combat in the American Civil War was defined by the greatly increased firepower of the rifle-musket with its elongated mini-ball.

With it, devastating fire could be thrown out in excess of 300 yards with relative ease. As the troops became more proficient and as repeating rifles became more common, the war evolved into a trench type fighting very similar to the Somme of 1915. At Fort Stedman, in the Petersburg front, the Confederates used a style of attack that would become quite common in the next century. The infantry was grouped into three compact groups under one "attack leader." These groups moved out quickly and without fanfare in the attempt to gain maximum advantage of terrain and surprise. They used no formation as such, but would rely on the individual courage and initiative of their NCOs and officers, right there, leading the advance. Each group had its own engineering tools to break through the abatis. And it worked. The heavily entrenched fort was taken with a minimum of casualties. Quickly the attacking Confederates attempted to bring up "support weapons" and set up "fire bases" with their 12 pound cannons. All in all, it was a very modern attack. And the Union reaction was equally modern, a quick, instant counterattack by reserve echelons that cut-off and isolated the Confederate attack groups that had penetrated their lines. There were other examples, in other wars, and more and more the principle of the small group began to grow.

Then came World War 1, and for the first three years, the small group theory was almost totally forgotten. Attacks were made in large waves, one after another, in an attempt to literally smother the enemy machine guns and defending infantry. The British attacks in Flanders were primarily linear with lines following upon advancing lines. The German response was much more advanced. Their "typical" defense was not simply an opposing fire line, but rather a series of interconnected strong points. Each "point" might only have the infantry equivalent of a platoon or even a squad, but there would be a "nest" of two or more machine guns that would set-up a murderous cross fire. In such a defense the actual connecting trench might only have what would be called a "skirmish squad" that acted as a net to capture what few survivors stumbled through the cross fires. Here, the Germans were making battle with a small determined "combat group" of soldiers based on the presence of concentrated automatic weapons fire. It worked well in a defensive environment, and it was only natural that the Germans would adapt the whole concept to an offensive scenario.

It is difficult to say exactly who was responsible for the evolution of the now famous German "strosstruppen" tactics that evolved in this period. Seeing the success of the small group concept in the defense, General Von Hutier, of

the German Eighteenth Army began to organize these concepts into a more formal doctrine. Also the German artillery expert Colonel Bruchnuller contributed a new "philosophy" in terms of the probable and desirable effects on various weaponry. Both of these men came to the conclusion that given the high state of the defensive art and the extensive entrenchments, it was extremely difficult to kill a defender regardless of the amount of weaponry and high explosive used. However, it was possible to demoralize him and the most likely method of doing this was to concentrate on creating an environment of doubt and confusion in the enemy rear areas.

For the artillery viewpoint, it meant that "communication" targets, such as headquarters, reserve staging areas and the like became more likely targets for pounding than did the front lines. While, in the front itself, the artillery would be a mixture of high explosive, gas, and smoke. The overall effect was to create a sense of confusion: Also, while it would be intense, it would be short. In some instances, it was advocated that the front line should be shelled for only a total of five minutes duration before the infantry went in. It was argued at longer than five minutes gave the defending infantry time to gather their wits.

And then came the infantry. Rather than the line waves used by General Grant at Cold Harbor AND General Haig at the Somme: the soldiers came out in small groups, moving quickly through the gullies and quirks of "no-man's land." These were the "strosruppen" or "storm troopers." They were highly motivated and led by battle experienced officers and NCOs. Their objective was not necessarily to "take out" the defensive strong points but it to probe aggressively, taking maximum advantage of the temporary confusion the unorthodox bombardment had produced. They sought weak points and then infiltrated through to set-up their own strongpoints deep in the enemy rear. Such a "breakthrough" even by small groups created a definite feeling of doubt and worry to the enemy defenders still far forward in their impregnable machine gun nests. And it was self-generating; the more these little groups probed, the more "weakness" they found, and then the more infiltration they did; and this created even more "little weakness" which meant even more troops leaked through. And soon, like a great mansion eroded by termites, the whole defense simply collapsed.

This technique sent the Russians streaming in panic at Riga, and at Caporetto ten miles of prepared defenses were gobbled up in one day. The small, highly motivated and well-armed groups of infantry were becoming

particularly vicious termites. And when the Germans unleashed this tactic in March of 1918, they came embarrassingly close to ending the war in a single knock-out blow.

However, the Allies had developed new ideas of their own. Their answer to the "trench problem" was not one of finesse as was the new German infantry tactic, but a mechanical solution; the tank. In many respects, it was simply a "better hammer" rather in an adroit rapier. The point was that it worked well, after the initial hassles, that the Western allies stopped developing newer and better small unit tactics and concentrated on perfecting their "better hammer." In November 1918, it ended. And both sides retired to think about the lessons of the cat War.

Between the wars, much thought was given to tactics by both sides. And since the tank was the "newest" development, it received the lion's share of thinking. Liddel Hart, Fuller, De Gaulle, and Guderian all contributed to the dialogue on the "new" war and it was during this period that the doctrine of the mechanized blitzkrieg would take root in German thought. It was during this period that Erwin Rommel, the "tank genius of the desert" wrote an amazingly cogent study of small units of squads, companies, and battalions. It was titled; "INFANTRY ATTACKS" and concerned itself with actual case studies of infantry combat in the First World War. So, despite the preoccupation with armor, the Germans were still quite aware of what could be accomplished with the Queen of battle - the infantry.

In studying WWI the Germans made the rather obvious observation that what made the infantry so devastating was the machine gun, but yet their tactic of storm troopers infiltrating their way through the enemy defenses precluded the dragging about of the "typical" WWI machine gun, since these were usually bulky water-cooled contraptions, that, although effective, were rather unwieldy. What was needed was a light machine gun that could be easily carried and operated by two, or even one man. In this respect the Allies "helped" the Germans. One of provisions of the odious Treaty of Versailles was the clause that forbade the Germans from owning or developing any large number of "sustained fire weapons," which basically meant water-cooled machine guns. They intended to force the Germans to use only air-cooled machine guns, which could not maintain a good rate of fire due to barrel overheating. Hence, the German infantry would be permanently handicapped. Wrong.

What actually happened was that the Germans concentrated on a family of machine guns that utilized the

option of "quick change" barrels to get around the over-heating problem. This dove-tailed nicely with the Germans' already declared intent to "lighten" the machine gun. And by 1939, the German infantry had the start of both quality and quantity in light machine guns. When coupled with their already proven *Strosstruppen* tactics, their infantry was more than a match for those they would face in the opening stages of WWII.

In the opening battles, however it was the German armored formations that stole the limelight. The Western allies were so befuddled by this new "lightning" form of mechanized war that they did not realize that their infantry had also become outclassed. However, the lesson would sink home in 1942 at Dieppe.

On the coast of France, at the town of Dieppe, on August 18th, 1942, the cream of the British infantry; their Canadians and commandos made a large scale raid to "test" the quality of German defenses and infantry in France. The "test" was an eye-opener. For the first time, the Western allies really saw the effect of the vast number of German light machine guns. Their troops were, with small exceptions, cut down by numerically inferior, but better deployed and equipped German squads. In the words of one Canadian, "We went into intense, accurate light machine gun fire." It was a true disaster. But it did have merit. In no small way was the lesson of Dieppe lost on the British. By the time they returned to France in 1944 they may have been the best drilled and practiced of the Western allies in infantry tactics.

Throughout WWII, the tactics did evolve, and did change, and often observations made in 1940 were irrelevant by 1944. But the essence of change was still usually based on a coherent theory that merely changed its "application." It was mentioned that the Germans concentrated in their theory on the small group and how to maximize its effectiveness. Let us now study some typical applications of this theory.

First of all, the basic concepts behind the German training were very much different than the others. In most of the pre-WWII training programs of the other nations, a tactical problem would be presented by the training officer who would answer any questions about it and then dismiss the class for about an hour so the cadets might reflect upon the correct answer when they were recalled. In the German infantry classes, the same problem might be presented, BUT each of the students were expected to have a "workable" answer within two minutes. Maybe two or three of the fledglings would be called upon to present their solution. The instructor would listen, then pick one cadet as

"gruppenfuhrer" and have the class act out the proposed tactics immediately. Criticism was harsh and freely made both by the instructor and the cadet's peers. However, one element was seldom criticized. A student was almost never chastised for the exhibition of *élan*. Furthermore, quick decisions, even if wrong, were constantly encouraged.

Meanwhile, in the "Sandhurst" method, after the hour of pondering, the exercise would be discussed and maybe even acted out. But, unlike the Germans, the emphasis was completely different. There, recklessness was discouraged and a constant stress was made on the methodical conservation of resources as the objective is logically and correctly deduced. Following the evolution of the exercise, the instructor then would discuss it and further amplify the principles of method, conservation or coordination. And after its completion, there would be a leisurely rest period. One final point may be worth mentioning. Since the Germans forced their exercise through with great immediacy and speed, while the rest paced it through, the German trainees would probably be able to study two or three tactical problems in the same time span it took the others to analyze but one.

Over in Russia, things were somewhat simplified. Tactics were basically of two types; you either attacked or you defended. If you were defending, you simply stayed where your officer put you until the enemy was defeated, your officer ordered you elsewhere, or you were dead. On the attack, you charged, closed with the enemy, and killed him. Or you died trying. There was only one accepted excuse for failure, your death. Needless to say, this system does indeed explain to a large extent why the Russians had the highest casualty rate of any of the European participants.

So, in summation, we might say that in regards to initiative, the Germans encouraged it, the West forgot it and the Russians condemned it.

One of the more illustrative of the German methods was the "attack technique" in regards to an obstacle on the line of attack. This obstacle could be assumed to be an enemy defense, possibly dug-in and perhaps even with minefields and artillery support. But, despite the outward formidableness of the obstacle, a battalion was expected to be able to mount an attack, in complete coordination with the parent regiment, in no longer than thirty minutes from the time when the obstacle was first discovered. The principles for the battalion commander would be the same as those that would be used by his subordinates in the company and platoon level. The first step was to win the firefight (*feuerkampf*) by quickly increasing the fire density

on a particular section of the contact frontage. The point here was to establish a fire superiority on both a specific area and to a dictated depth. The actual evolution of this often followed a three phase scenario.

The first phase was called "Niederhalten" or "nailing down." In this phase, the foremost troops would stop movement and begin laying down an intensive fire in an attempt to stop all movement of the enemy. If artillery support was available, it would be used now. The intent was to make the enemy seek cover in his entrenchments, so that the individual squad leaders could make unhindered their basic terrain reconnaissances.

The next phase was called "Blinden," in which newly brought up troops would join the first ones to increase the fire to the point where the enemy defenses would be "blinded" to the now initiated movement of small groups attempting to penetrate the enemy position.

The last phase would take place after successful infiltration had been made into the soft spots of the enemy defense. This was the "niederkampf," in which the enemy would be "beaten down" by flanking and rearward fire from the infiltrated units in addition to the previous units which still maintained an intense fire from the front. At this point, it was hoped that the defenders, demoralized by fire from all directions, would begin to "break" and cease to function as an organized body. If that happened, it was all downhill and the position would quickly crumble.

Throughout this "phasing," the Germans stressed a number of "points" they wished their commanders to always keep in mind. The attack would be confined to a narrow frontage. For a battalion, this would be under 1000 yards and hopefully about 600 yards. The attacking commander must concentrate all his firepower on the objective to his front and disregard the flanks. It was assumed that the regimental people would protect his flanks while his battalion did its job.

In essence, it was the age old concept of FIRE and MOVEMENT. But the Germans placed more emphasis on the "do it now!" idea than did their Western counterparts. However, in all honesty, this method did have considerable drawbacks. With its emphasis on quick decisions, there was room for misunderstanding and as the war went on, the Germans had to mix well-trained and experienced officers with replacements who were not so well trained; resulting in misunderstandings that became more common and more costly. Secondly, it was risky. In the confusion which their tactics forced on the enemy, often they would become victims to their own smoke and chaos of battle with the

result that independently advancing infiltration groups fired on one another or would be pinned down by their own supporting fires. But the Germans argued that despite these unpleasant side effects, their system, in the long run, yielded fewer casualties than the more deliberate methods of the Western allies, which minimized misunderstanding but maximized time. The Germans claimed that every minute a defender was allowed, was another minute he grew stronger. And yet, before we conclude that the Germans were necessarily better, we must remember that their arms suffered many a decisive set-back, but ironically, it was usually when they ignored their own advice and gave the enemy extra time to strengthen his defense.

At this point in our discussion of infantry tactics, let's turn our attention to how Russia evolved her infantry in the same time span. It already has been noted that the Russian system was short on initiative and high on obedience. Nevertheless, there were other salient points that made them different. First of all, while the German infantry leaders were constantly reminding their people to concentrate their fire on a narrow front, the Russian instructors were doing just the opposite. Their 1941-42 tactical doctrine was to attack on as broad a front as possible with the hope that somewhere, due to mass and the "odds" somebody would breakthrough and cause discomfiture to the enemy, and since the infantry's objective is to close with and kill the enemy, it really does not matter "where" the breakthrough actually occurs, as long as it does occur. This was a complete contradiction to the Germanic thinking, which was very specific as to where they wanted things to happen.

As an example of a Russian situation, consider: The commander of a three battalion rifle regiment normally would prepare for the attack by deploying in two waves, accompanying the second wave himself. Close artillery support would be most likely given in the form of SP Guns that would accompany the 2nd echelon rather than using indirect called artillery. In a word, it was simple. After everything was "staged" the attack would begin. This was often started by the first wave crawling up as close to the German positions as possible during the night before the attack. This "creeping" phase would continue until a pre-set time, or the Germans discovery of them, or when some superior got impatient. At this point, the "assault" phase would begin. The regimental commander, with the second wave, often "ordered" the final charge by having his echelon "fire into the air" which would alert the first "creeping wave" that the assault was now to begin.

At that signal, there would be rampant cheering and shouting to make sure everybody knew "this was it" and then the first wave would jump to their feet and make a mad charge for the German machine guns, firing and yelling as they went. Simultaneously, the second wave, with the regimental commander, would join in with their mad rush, hoping to reinforce any "success" of the first wave. Since the SP guns would be with this second wave, they would be available to "blast" any resistance the first wave uncovered. If tanks were available, infantry would often ride on them to increase the velocity of the assault and enable their soldiers to "close with the enemy." The Russians, once the attack did begin, were violent in its execution and cherished the time factor as much as Germans. Their opponents often commented that the Russian infantry was "slow to think of the attack, quick to do it, and slow to stop it."

While the above method was very expensive in terms of lives, the Russians defended its results claiming that it was "most demoralizing" to their enemy. It was indeed very disheartening to the Germans to see the complete willingness of their enemy to attack in an endless array of people despite casualties. And since one of the best ways to defeat an enemy is to demoralize him, the attack method is thereby, a success, according to the Russian viewpoint. In all fairness, it should be noted that the "Russian" system was ideally suited both to the nature of their culture, and the numbers needed. Had they opted for a more sophisticated training system, they probably would never have had the time to totally re-build their army from the severe beating it took in 1941.

But rebuild they did, and like any soldiers that survive, they learned. One weakness of the Germans in the earlier stages of the war was their failure to perfect principles of urban warfare. The reason was fairly obvious. Up to the war and throughout its early stages, there was very little city fighting. The German victories were made by quick decisive actions generated by "going around" cities and bypassing them. Hence, little effort was made to study this particular problem. Not that the Russians, or British, or Americans did, but once it became obvious that there would be heavy urban fighting, no one side really "had the jump" on the other. In late 1942, everybody started from scratch on this problem. And in the streets, the Russians were the equal of anybody.

In urban fighting, the actual "combat range" is much less than in open country. Out in the steppes, it was quite common for the infantry, particularly the machine gun sections, to open the engagement at about 1000 yards depending on visibility; and as the combatants closed, the

fighting usually settled in at about 200 to 400 yards for a firefight. At this range, the Germans with their better weapons were at a definite advantage. But in a city where the combat range was very often "across the street" the Russian weapons were equal. In the streets, the main weapons became the submachine gun and the grenade. In contrast to the echelon waves used by the Russians in the country, their urban attacks were based more on an "attack group" of up to sixty men that would literally blitz one single building from all directions, and the Russians became adept at turning any defensive building into a fortress. And when they weren't fortifying, or "blitzing" they would be constantly moving about: filtering through back alleys, crawling through sewers and darting along rooftops. It was a new "citified" concept of Fire and Maneuver. In the early stages of the heavy fighting around Stalingrad, the Germans used to "blundering Russians" were very much punished by the cunning that these same Russians displayed in the city. At the outset, it was the Germans who found their infantry tactics, for the first time in the war, inferior to the enemy. The initial German reaction was to quickly bring in more and more of their best equipped and trained small units. These were the Pioneers (Assault Engineers) who treated each building as a bunker and went about reducing it with heavy infantry weapons and sophisticated equipment such as demolition charges and flamethrowers. It did work, but in the attrition process, the Germans were forced to "trade-off" their best specialists against the regular Russian peasant soldiers. And that was an expensive trade.

But the commitment of these elite formations bought the time needed for the regular line units to learn the "urban trade." And by late 1943, the Germans were as adept at urban fighting as their Russian opponent. The Germans began fighting like the Russians with fire groups against individual buildings, but they also attempted to set up "killing zones" along the streets that paralleled the "target building." Here, their superb medium and heavy machine guns were ideal. The theory was that the battle-point would be isolated by preventing any reinforcements from reaching the position. By setting up machine gun fire lanes, they hoped to put a break on the constant Russian "flittering about." It was a good tactic, and many a Russian squad was cut down by accurate fire from a hidden position far down the street. The Russians then countered by using sewer movement to an even greater degree, and setting up many and devious ways for getting from one building to another. And so the Russians and Germans taught each other, and in the West, the Germans

imparted their hard-earned urban techniques to the Western allies with a vengeance.

By the end of 1943, the Western allies had taken to heart much of the earlier lessons the Germans had shown them. Dieppe, as mentioned, illustrated the immense value of the light machine gun, and the British had countered by doubling and sometimes tripling the issuance of their LMG, the Bren Gun. Also, Allied training was much more realistic and became modeled along the German lines. And then in January of 1944, at the town of Cassino, in Italy, the "new" Allied infantry tactics were tested against the Stalingrad educated Germans and once more they had to play "catch-up." Once again, their small unit tactics were outmoded.

In many respects, the experience was similar to the Germans' dilemma at Stalingrad. But they reacted differently to the problem. The Germans correctly saw that it was an infantry problem and attempted to solve it with infantry means. And that was, bring in better infantry in terms of their assault engineers. The Americans and the British reacted with brute force and attempted to erase the offending obstacle with air and artillery bombardments. Even the monastery was literally blown off the top of the mountain. But still their infantry squads could not advance and they saw that a destroyed and rubble city is just as good, maybe even better, from a defender's viewpoint, as an intact one. So, they too learned how to form Fire Groups and cover the streets with fire and they too learned the high price of urban warfare extolled in men.

At this point, we might stop and compare how the British and the Americans differed in the applications of the lessons the Germans were showing them. First, let us look at the British. The concept of British small unit tactics went through a number of shocks, as we already mentioned, such as Dunkirk, Dieppe, and Cassino where even their crack New Zealand troops were one-upped by the street-wise Germans. But the British by then, were used to change and adaptation. Their approach to the small unit problem was basically that there are certain tactical dilemmas and each one of these has a corresponding correct solution. Therefore, to solve a tactical problem, one first had to identify it, select the correct solution, and then properly implement that solution. The first two parts were fairly easy compared to the last, the implementation. And to perfect that implementation the British evolved a series of DRILLS that would be the same army-wide and would give predictable results both in time and effect. They felt that with the vastly different array of forces in the British army, it was important that they all have a universality of tactics

so an infantry leader could easily be moved to a new company and still have the same predictable results.

This may have seemed like a backward step compared to the German emphasis on tactical creativity, but it was well suited to Britain's complex army structure and blended well with their cultural trait of neatness, which is very well expressed by Montgomery's desire for a tidy battlefield. Each DRILL was very well thought out and when properly employed would give a successful conclusion in a good majority of the instances. There were DRILLS for everything, attack and defense, over farms, in cities, with and without armor, and with and without artillery. They were quite specific. The whole concept hinged on the theory that the prospects for success and survival would be greatest if all members of a small unit or section thoroughly understood what their job was, how they were going to it and what everybody else was doing as well. An example of the detail these went into was the drill for moving in file with a squad of eight down a road. The file would be as follows, with each man's duty as listed:

MAN 1 ... Squad Leader, leads patrol
MAN 2 ... Watches Right
MAN 3 ... Watches Left
MAN 4 ... Watches Front, for Squad Leader Signals
MAN 5 ... Watches Right
MAN 6 ... Watches Squad Leader and MAN 4 for signals
MAN 7 ... Watches Left
MAN 8 ... Watches Rear

Hence, if you were MAN 3 in a patrol file in the British army in 1944, your job was to watch left whether you were in Normandy, Italy or Burma. This British approach lacked glamor and was somewhat unflattering in regards to the initiative concept, BUT it produced results and by 1944-45 the British were able to stand toe to toe with the Germans and give as good as they got in any situation.

There was a famous saying about the Americans from none other than Rommel himself, who said "no one is more incompetent in battle than an American, at first, but no one learns faster." The evolution of small unit tactics in the American army was probably the least systematic of any participant in the War. The philosophy was, almost: "Try anything; try something; it might work." From nothing, in terms of size, in 1940, the American army in Europe, by 1945, had blossomed into almost 100 divisions. This created a need for mass produced training and quick smatterings of tactical doctrine. At first, it might seem that

the British DRILL method would've been ideal for such a problem. But it probably wouldn't have worked for basic reason that the American soldier differed very much from his British ally.

As a soldier, the American is an amateur and always will be. He is often an exceptionally talented amateur, but he is not, and has no desire to be, a professional. To the American, the concept of fighting is not that of a soldier's profession, but is rather a dirty job that has to be gotten on with. A statement made in the Civil War was that Grant's Army looked like a band of day laborers. It was more true than realized, because in philosophy and tactics the American soldier is a day laborer. He is a confirmed skeptic, a diehard opportunist, and a dedicated scavenger. His squad and platoon leader is more like a shop foreman than a captain of men. So, had the American military attempted to instill dogmatically practiced DRILLS, the soldiers would've treated it as so much worthless "Mickey Mouse"

But, if all these were weak points, he had a number of amazingly good strong points. Left by himself, he often could be amazingly ingenious in devising tactical tricks that often rivaled the best their German enemies could think of. He loved gadgets and things mechanical and given a few moments, probably could make any device work, after a fashion. He had little respect for rank, and despite orders, he had a tendency to do things his own way. When he blundered, it usually was extreme, resulting in punishing casualties, but when he was right, he probably was better than any of his contemporaries.

The American military stumbled onto this and attempted to capitalize on his innate desire to try it "his" way and published field manuals on a never-ending series of subjects, not as Drill Manuals, but as guidelines for the soldiers to base their tactics on. Throughout the war there was a constant stream of updates and quickie pamphlets on tricks of the trade. The whole thrust was that you will win if your "trick" is better than the Germans' trick. The American soldier was bombasted with a never-ending series of these publications and he usually glanced at most of them. The hope was that by constantly exposing the soldiers to good tactics, perhaps some would rub off.

All this might have made the American squads more buffoons than soldiers, if it were not for the fact that their weapons, per squad, were the best of any of the armies. The basic American squad with no extras, could out firepower anyone else. Their M-1 was definitely the best infantry rifle in the war, in overall usefulness and durability, and the BAR, while not a light machine gun, could often

substitute effectively for it. Hence, the American army, despite the demonstrated effectiveness of the German Light Machine guns, never really produced or issued one. They felt it was more important that the squad have devastating firepower without adding anything extra. In essence, the only way a German squad could stand up to the American was with the addition of a light machine gun. This was brought to light in a small infantry battle between two opposing infantry platoons on Djebel Tahent in the closing days of the Tunisian campaign. The American and German platoons squared off against each other behind two opposite stone walls and simply fired until the German platoon was wiped out by the firepower of the American infantrymen. It had not been a contest.

There was a catch however. While the American soldier could dish it out, he was not very good at taking it. In general, he would break under fire before either the German or the British. He was always quick to take cover. In many ways, he always felt that being fired on was not really part of the job, and he would do his best to avoid that. On the other hand, though he might duck and run quicker than the others, he had a strong stubbornness that caused him to usually rally and come back to try again before another soldier would. It almost might be summed up as: Quick to run, but quick to rally. Hence the American squad was deadly and brittle, but properly used with a good imaginative leader and a little bit of luck, it may have been the most formidable squad in 1944-45 Europe.

As we noted, the American squads did not have a light machine gun, preferring to make up the deficiency with better organic firepower. And in some respects, they did. However, this was not to say that the Americans were without support weapons. Quite the contrary, in reality when the Americans added support weapons, it was of a quantity that bedazzled all the other participants. The Americans, figuring that "bigger" is "better," felt that if you needed MG support, it should be as big and beefy as possible. Hence, they issued their superb .50 cal machine guns almost like popcorn. And in fire effectiveness, it was a machine gun without equal. It is still perhaps the most devastating infantry machine gun on the field, and the design has not really changed all that much. The penultimate development of this deadly weapon was the M16, a quad-fifty halftrack which carried the descriptive name of "chopper." The final point of this was the liberal availability of these weapons, even to the point that it was not rare to see them mounted on trucks.

Which brings us to a final point on the Americans. And that was the total number of vehicles they had

available. No army could approach them. The American infantry formations usually had more vehicles than the most mechanized Panzer Grenadiers. When they went to battle, it was on such an assortment of trucks, jeeps, halftracks, scout cars, and whatever, that nobody walked. In the Ardennes Offensive, the Germans were astounded by the flippancy with which Americans abandoned vehicles. As a matter of fact, one German officer, in all seriousness, felt that the American Army had as many trucks as they did combat infantrymen. His statement was an exaggeration, but not excessively so.

And so, by the end of the war, all the nations had evolved their own infantry tactics to achieve roughly the same net result. Each nation's final infantry book of operations reflected both their national cultural backgrounds, and the tricks of the trade that they had picked up from their gallant opponents and their own dedicated SQUAD LEADERS.