Jomini on Battlefield Tactics

by Lieutenant Vincent J. Curtis, CD

INTRODUCTION

Baron Antoine Henri de Jomini was born in a French speaking Canton in Switzerland in 1779. The son of middle-class parents, Jomini's education enabled him to enter the banking profession in Paris before he joined the French army, in 1797, at the age of seventeen. Jomini began his long military career in a minor staff position in supply. During the Peace of Amiens between 1801 and 1803, Jomini wrote a treatise on the campaigns of Frederick the Great. Napoleon was impressed by the work, and he appointed Jomini to the Imperial Staff under its famous Chief, Louis-Alexandre Berthier. Jomini and Berthier feuded viciously, and rather than lose his services, Jomini was assigned other staff jobs by Napoleon, who valued talent and who saw Jomini's worth. By 1813, Jomini was *general de brigade* and was Marshal Michel Ney's chief of staff. After the Battle of Bautzen in 1813, Ney put him in for promotion to *general de division*. Berthier, however, had other ideas. Fearing intrigue, Jomini, still a Swiss citizen, abandoned the Grande Armée and entered the Imperial Russian service. Eventually, Jomini rose to the rank of full general in the Imperial Russian army. Jomini died in Paris in 1869, aged 90, having outlived all his contemporaries and enjoying the reputation of being a leading expert in warfare throughout his life.

Jomini was a prolific writer throughout his life. His *The Art of War*, first published in 1838, is the pinnacle of his works. Its contents represent the mature expression of the doctrine and theory that he distilled from close observation of the Napoleonic method. Clausewitz and Jomini were contemporaries, and both held high staff positions throughout the wars of Napoleon. Each regarded the other with contempt, though what they said about war is similar. Clausewitz, imbued with Kantian philosophy, wrote for kings, governments, ministers of war, and commanders in chief. Jomini, a failed Cartesian rationalist, wrote what amounts to a handbook for commanders and staff officers. Doubtless, Jomini's philosophical pretensions irritated Clausewitz to no end, and Jomini returned the contempt. During his long life, Jomini enjoyed much the higher reputation. After the success of Prussian arms in the Austro-Prussian War of 1866 and the Franco-Prussian War of 1870, however, the star of Clausewitz rose and entirely eclipsed that of Jomini.

To both Clausewitz and Jomini, the lesson of Napoleon was to concentrate the maximum possible force upon the decisive point. On the tactical plane, Jomini was ambivalent about whether the "decisive point" referred to a geographical point or to a point in the enemy's formation—whether the possession of a certain geographical feature or a point in the enemy's formation constituted the proximate cause of victory. It could be either, for to Jomini, the tactical value of ground arose not merely from the accidental features of the terrain but from the formation in which the enemy defended the ground and from the relationship of the defended position to the enemy's line of withdrawal. Jomini clearly believed that the destruction of all or part of the enemy's army was essential to victory, and terrain assumed tactical significance if the seizure of a key feature would split the enemy force into non-cohesive smaller units, threaten the enemy's line of withdrawal, force the dislodgement of the enemy's line, or give some other overwhelming advantage that would ensure the defeat and destruction of the enemy. In this sense, terrain was something of an aiming point, the capture of which, both sides recognized as deciding the outcome of the battle. Jomini did not conceive that the ideal object of battle was the annihilation of the enemy, as Clausewitz did. In the simple line drawings reproduced below, Jomini presents battle formations independent of terrain and explains the geometric advantages and disadvantages of these formations in defence and offense in a highly conceptual way. The battle formation that is most suitable for defending or attacking a particular position depends upon the topography of the ground, the formation assumed by the enemy, and the location and direction of the lines of communication.

doubtless, Jomini's philosophical pretensions irritated Clausewitz to no end

These diagrams were drawn by Jomini to illustrate in a general way the most common and sensible battle formations and were never intended to represent a rigid formalism. In his accompanying comments, Jomini warns that his diagrams should not be understood to mean that the tactical formations should be laid out precisely as the geometrical figures indicate them. He wrote that a general who would expect to arrange his line of battle as regularly as upon paper or on a drill-ground would be greatly mistaken and would likely suffer defeat. But he goes on to say that "if it seems absurd … to mark out upon the ground an order of

battle in such regular lines as would be used in tracing them on a sketch, a skillful general may nevertheless bear in mind the orders which have been indicated, and may so combine his troops on the battlefield that the arrangement shall be similar to one of them."[1]

Even in this age of manoeuvre warfare, opposing forces attack and defend in some formation or other. Of necessity, these formations bear some geometric relationship with respect to each other. Recognition of the formations and an understanding of the geometric relationships can aid the commander in planning his battle and help the subordinate commander picture in his mind the commander's plan.

All wisdom is not new wisdom; if what was true in 1838 is true today, then it will quite likely also be true in 2032 and beyond because the timelessness of the tactical insight is based upon some unchanging fundamental principle. The object of reading Jomini's work is to help perceive the "art" in *The Art of War* and to develop a rational basis for the discussion of the advantages and risks of different combat formations. While Jomini's diagrams were originally meant to refer to battalions, brigades, divisions, and corps, they are offered here because, with the open formations employed today, they can equally apply to elements smaller than a battalion. Included also are Jomini's comments on tactics in general, the truths of which sound familiar or commonplace today. This bespeaks of a permanent, fundamental principle that underlie these insights and may confirm in the mind of the commander the validity and general application of his own experience.

Jomini's *The Art of War* was translated into English under the auspices of United States Military Academy at West Point in 1862. The translation retains much of Jomini's florid writing style, a style that was also much in vogue in the English-speaking world at that time. Jomini's thoughts on battlefield tactics are paraphrased here in modern syntax so that the reader can more easily absorb them. These ideas have been amplified with more recent examples. The difference between the amplifications and ideas translated directly from Jomini should be clear from the context.

the object of reading Jomini's work is to help perceive the "art" in The Art of War

"ORDERS OF BATTLE"

Article XXXI of Jomini's *The Art of War* covers what he calls the orders of battle. It is perhaps more descriptive to call them geometric configurations of forces, but the term "geometric" was discredited at the time he wrote, and Jomini was sensitive to criticism. A commander, of necessity, must choose some order of battle or other in which to fight, and Jomini enumerates twelve such orders of battle. Jomini warns, however, that even choosing the most appropriate order or formation is by no means a guarantee of tactical success, for "the great difficulty of the tactics of battles is and always will be the simultaneous entering into action of the numerous fractions whose efforts must combine to make an attack successful." That is, to get all one's forces to unite in the execution of the decisive manoeuvre which is to result in victory. Today, we use the verb synchronize to indicate this concept.

The aim of every battle is, of course, victory. To Jomini's thinking, the proximate cause of victory is the obtaining of the object of the battle. For example, dislodging an enemy from his position and cutting the enemy's line are objects of an offensive battle that, if attained, should result in victory. (Jomini implicitly assumes that the attacker is able to maintain the initiative after gaining the object and is able to beat off enemy counter-attacks.) An enemy is dislodged either by overthrowing him at some point of his line or by outflanking him so as to take him in flank and rear or by using both these methods at once. That is, attacking him in front while at the same time one wing is enveloped and his line turned. This object is accomplished by means of the order of battle most suited to the terrain and the battle order of the enemy.

Jomini lists his twelve orders of battle as follows:

- the simple parallel order;
- the parallel order with a defensive or offensive crotchet;
- the order reinforced upon one or both wings;
- the order reinforced in the centre;
- the simple oblique order, or the oblique reinforced on the attacking wing; the perpendicular order on one
- or both
- wings;
- the concave order;
- the convex order;
- the order by echelon on one or both wings;
- the order by echelon on the centre;
- the order resulting from a strong combined attack upon the centre and one extremity simultaneously.

These orders are listed in figures 1 through 12. Jomini states that each of these orders may be used either alone or in connection with the manoeuvre of a strong column intended to turn the enemy's line.

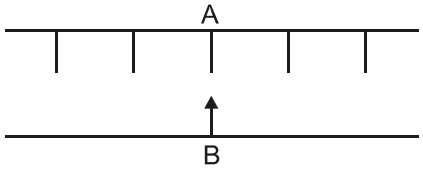


Figure 1

Figure 1 shows the geometric arrangement of the parallel order. Jomini describes it as the worst of all arrangements because it requires no skill to fight one line against another, battalion against battalion, with equal chance of success on either

side. No general's skill is shown in such a battle. Jomini does say that the parallel order is suitable when falling upon the enemy's communications and cutting off his line of retreat while covering one's own; that army which has reached the rear of the other may use the parallel order, for, having effected the decisive manoeuvre, all its efforts should be directed toward the frustration of the enemy's endeavor to open a way through for himself. (It should be noted that barring the door of retreat to a desperate enemy places one tactically on the defensive.) Except for pursuit, the parallel configuration is never suitable for advancing in the attack.

Such criticism by Jomini is certainly valid when both sides are equal in armament, and in his day they were. Smoothbore artillery and muzzle loading muskets were then the common armament of all European powers. This is what he meant in the comment "with equal chance on either side." This is not to say that decisive victory is impossible when attacking parallel line against line. Indeed, there are numerous historical examples to the contrary. In these cases, one can almost always discover some superiority in morale, training, or weaponry on the side of the victor. If one side is equipped with vastly superior weapons to the other, a line-against-line battle is possibly the simplest way for the stronger to destroy the weaker while keeping down the cost of the butcher's bill to oneself. Historical examples of this include rifled barrel muskets versus sabers (Balaklava, 1854), bolt action rifles versus muskets (Sadowa, 1866), machine-guns versus single shot, black powder rifles (Omdurman, 1896), and, more recently, smart weapons against conventional armaments (Gulf War, 1991). Possession by one side of the initiative can also give advantage to the parallel formation as, for example, in an ambush or when attacking a withdrawing enemy that is trying to escape pursuit. Withal, the parallel order, representing one line facing another, is at some point almost unavoidable.

Figure 2 represents the parallelorder with a crochet upon a flank. This configuration is often used in the defence, when the defender tries to catch the attacker in

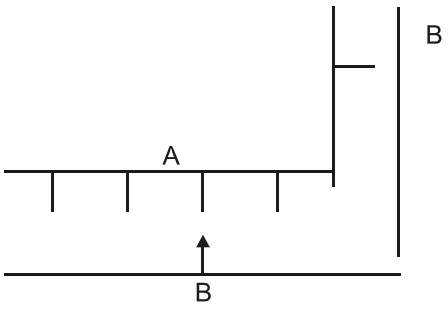


Figure 2

crossfire. It can also arise when the attacking side attempts to turn the flank of the defender. The line and the crochet of position A is vulnerable to enfilading fire from positions in B.

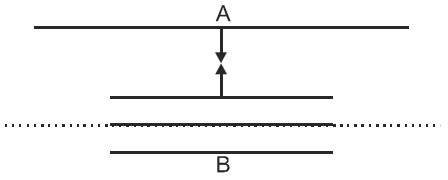
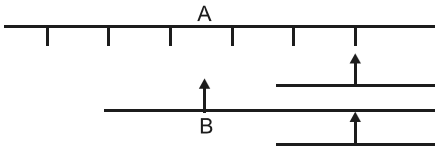


Figure 3

The formation of B in figures 3 and 4 represents the parallel order reinforced upon the centre or upon one wing. As attacking formations, these are much more favorable to the simple parallel order. Figure 3, in fact, conveys the sense of the classic case of line versus column. In Jomini's day, each line represented battalions of infantry armed with muzzle loading muskets. Today it is perhaps more apt to think of these lines as representing force. Thus Figure 3 represents an attempt by B to force the centre of A's position, while Figure 4 represents B's attempt to force the wing. Students of manoeuvre warfare would discern a main effort, or a *schwerpunkt*, in B's attack on A.

The weakness of B's attack in Figure 3 is that the wings of A's line are inclined to fold inwards to fire at the flanks of the attacking column. Being in line, A is able to direct all its fire at B, while the interior of B's formation is unable to return fire. The decision of the encounter is rendered by the greater of the steadiness of A or the impulse of B.

Figure 4



Jomini did not comment upon the position of B in Figure 3 as a defensive formation, but as a defensive formation, the arrangement of B indicates a defence in depth. In a memorandum to a Crown Prince, Clausewitz recommended fighting defensively with the troops deeply echeloned behind an obstacle.[3] The arrangement of B in Figure 3 represents just such a configuration. It is easy to see why a defence in depth is so hard to break when attacked directly. The flanks of each defensive line are protected from assault by the line of defence behind it, and the next line of defence is well positioned to counter-attack against a successful enemy frontal assault of the line in front of it or at least to present yet another line of resistance to the attacker. It is also easy to see the weakness of this defensive configuration. The formation, because of its compactness, can be encircled or turned out of its position by a strategic march around it. The only tactical alternative to a bloody reduction of B's position, distinct from a strategic envelopment manoeuvre, is for A to retire and try to lure B out of his position and break his formation.

In World War I, both sides assumed the configuration of B in Figure 3. With the flanks of both sides secured by the English Channel and the Swiss frontier, fighting degenerated into bloody, unsuccessful frontal assaults. With the tank, the Allies attempted to use superior weaponry to smash the German lines. In 1918, the Germans attempted micro-infiltration tactics to break each Allied line successively from within. Given how deeply the Germans had penetrated into France, and the military culture of the allies, one can understand why the Allies never tried a tactical (or operational) retirement manoeuvre. It is something of a wonder, however,

Lieutenant Vincent J. Curtis, CD

that the Germans, with their tradition of manoeuvre, never attempted one. When the Canadian Corps broke the Hindenburg Line in 1918 and started a large-scale advance, they left the French railways behind. Troops went hungry because supplies couldn't reach them. Fortunately for the Allies, the German army was so weak from four years of war and from the allied blockade that it was in no condition to turn, attack, and perhaps catch the advancing Allies in a trap in the open field.

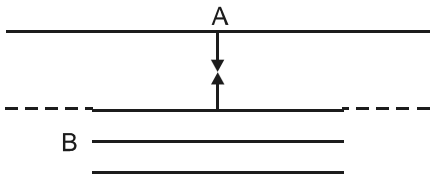


Figure 3A

Let us now return to the case of Figure 3 when B is the attacker. If B is able to extend his front line to cover that of A (as shown in Figure 3A), the weakness of B obvious in Figure 3 is to some extent overcome. The flanks of the main effort are covered. Moreover, the location of the main effort is hidden from A because all that A can see is the continuous front of B. A defensive posture by those elements of B not part of the main effort may not be as conducive to success as offensive actions might be, for A would be mystified as to the location of the main effort if B attacked all across the line. Those elements of B not part of the main effort would fix elements of A by feint, demonstration, outright attack, or simple advance. The more aggressive the effort by those elements of B not of the main effort, the longer A would be mystified and less able to shift reserves. If A *had* detected the location of the main effort before battle commenced and had shifted reserves to meet it, aggressive action by B all along the line might find a gap or weakness in A's line (i.e., surfaces and gaps) to which the main effort could be shifted if the original attack bogged down. This analysis shows the importance of aggressive action by all elements in the attack, even by those elements not in the original main effort. Aggressiveness does have risks, however, as explained below.

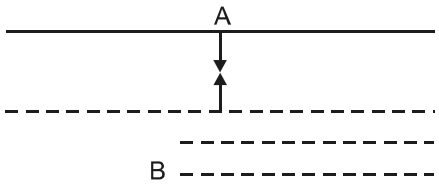


Figure 4A

Figure 4A shows also the continuous front of Figure 3A, but with the main effort shifted to a wing. It becomes clear from figures 4 and 4A that with the main effort on one wing, the opposite wing, farthest away from reinforcement, is vulnerable. If A can bring B's attack on the wing to a standstill, a counter-attack in the centre would pierce B's position, and a counter-attack on the opposite wing would threaten to turn B's entire position. If those elements of B's line that were to meet A's counter-attack were well entrenched in defensive positions instead of having advanced against A's line, they would better able to slow down A's counter-attack and give time to B to shift reserves or to cover B's withdrawal of the main part of his force.

This vulnerability of the far flank does not arise if the attacking force assumes the configuration shown in Figure 5. The oblique order, represented by B's formation, was made famous by Fredrick the Great and was responsible for his spectacular victory in the Battle of Leuthen (1757). By refusing the far wing, the weakness of B's line can be turned into a strength. Frederick recognized the oblique order was the best one in which his force, inferior in numbers, could attack a superior force. In addition to bringing the main effort against a single point of A's line, the oblique configuration enables the refused wing to stand on the defensive, hold part of B's line against a potential attack by A, and act as a reserve, if necessary, for the support for the engaged wing, which it could not do if the line were parallel. If B's attack fails and B is forced to withdraw, the refused wing is well positioned to act as a covering force. Frederick's victory at Leuthen was made possible by his skillful use of intervening high ground to hide his movement and the fact that his sharp manoeuvre to the Austrian left flank was not detected by the Austrians until Fredrick's army burst upon them. The Austrians were drawn up expecting Frederick to come over the ridge to their front. By the time they realized what was happening, their flank was turned, their line was collapsing, and Frederick's forces were threatening the Austrian route of withdrawal.

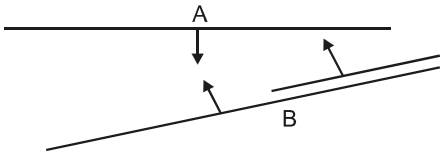


Figure 5

It is obvious from the geometric arrangement of forces, that the right of B's line must overlap the left of A's line. This means that when the forces collide, the extreme left of A's line is already taken in flank and rear. A's line simply collapses as B's advances. If B's line does not overlap that of A, at the collision the extreme right of B's line is taken in flank and it is B's line that is ground up with every move forward. Of course, if the lines of A and B are not parallel, of necessity they must be oblique to each other. The angle between the lines must be sufficient for the geometric advantage to become effective. In practice, a 45° to 60° angle at the point of collision is necessary.

Figures 6 and 7 illustrate the perpendicular order on one or both wings, an angle of attack of 90°. Jomini did not believe that these orders represented a realistic battle arrangement. He believed that they could only indicate the direction along which the primary tactical movement might be made. Two forces would never long occupy the relative perpendicular positions, for if B were to take its first position on a line perpendicular to one or both extremities of A, the latter would at once change the front of a portion of its line. Even B, as soon as it extended itself to or beyond the

extremity of A, must of necessity turn its columns either to the right or the left in order to bring them near the

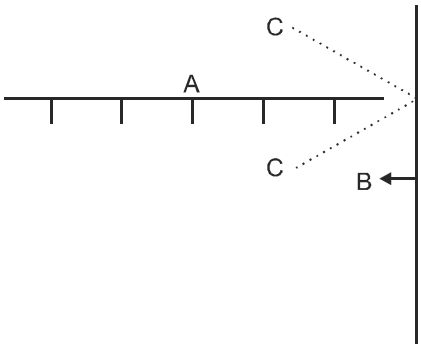


Figure 6

enemy's line, and so take A in reverse as at C, the result being two oblique lines.

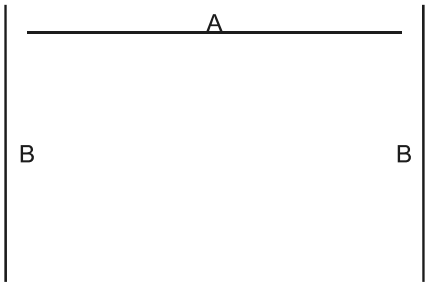


Figure 7

Today, we recognize the configuration in figure 6 as that of a standard flanking attack against a line, a platoon against a section or a company against a platoon. The weakness of this arrangement for the attacker is that the same part of the attacking line encounters all the force of the defence, now oriented in depth against the attack. If A's line is well entrenched, its resisting power may prove considerable. In this case, the assault would have to be made in depth; the individual positions of resistance of A's line would have to be reduced systematically, or an oblique order would have to be assumed, just as Jomini says of the configuration at C. This analysis shows why faster, less costly results are often achieved not by rolling up the flank of A's position but by penetrating A's depth and cracking his resistance by threatening his rear and line of withdrawal, precisely as General Hans von Seeckt and the manoeuvre warfare school would advise.

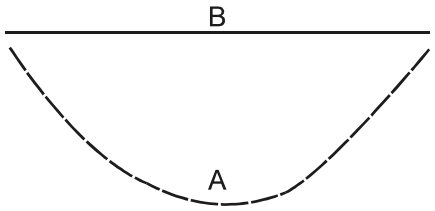


Figure 8

Figure 8 illustrates the order concave in the centre. It is an intermediate position in the manoeuvre used by Hannibal to gain the battle of Cannae (216 BC). Jomini observes that this order may be suitable when the progress of battle itself gives rise to it: when the enemy attacks the centre, it retires before him, and he is enveloped by the wings of the defender, precisely as happened at Cannae. If this order is adopted before the battle begins (and this configuration does resemble that of a fire sack), instead of falling on the centre, the enemy has only to attack the wings, which present their extremities and are in precisely the same relative situation as if they had been assailed in flank. Jomini observes that this configuration would scarcely ever be used except against an enemy that had assumed the convex order (Figure 9).

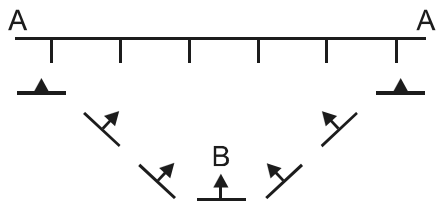


Figure 8A

Rather than form a semi-circle, a defending force would prefer a broken line with the centre retired (Figure 8A). This formation does not present a flank to the attack, but it does allow for forward movement by echelon and preserves concentration of fire. These advantages are still lost if the enemy concentrates its effort on one wing. As an attacking formation, the broken line configuration resembles that of a convergent attack. It also arises from the standard manoeuvre warfare tactic of turning an enemy into the depth of one's position before destroying him in a prepared ambush.

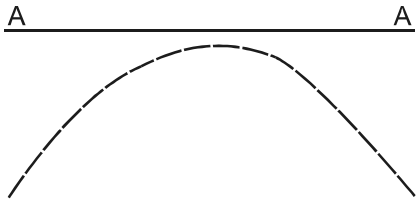


Figure 9

Figure 9 represents the convex order, which is often adopted by a force immediately upon the passage of a river, when the wings must be retired and rested on the river to cover the bridges or when a defensive battle is to be fought with a river in rear or when a defile is to be

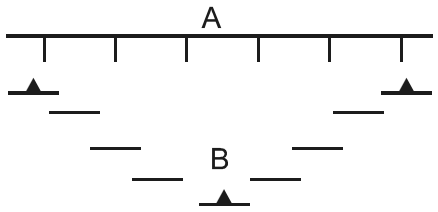


Figure 10

covered. It is thought to be the original order assumed by Hannibal at the commencement of Cannae. The order may be assumed by a force protecting a reserved demolition. It might also be assumed by the defender confronted by a convergent attack, as in Figure 8. Groupings as small as a section assume this formation after crossing an obstacle. The weakness of this formation lies at the extremities of the wings. Jomini recommends a false attack to engage the centre and a strong attack against one extremity as the best method to collapse such a line.

Jomini describes the formation of Figure 10 as order by echelon upon the two wings and Figure 11 as order by echelon on the centre. For Jomini, order by echelon upon two wings (Figure 10) is of the same nature as the perpendicular order (Figure 6) but better because the echelons being nearest each other in the direction where the reserve would be placed, the enemy would be less able, both as regards room and time, to throw himself into the interval of the centre and make at that point a threatening counterattack. (In other words, it would be difficult for A to attack or

counter-attack in the centre of B's position because A would be caught in crossfire. Compare this configuration with that of Figure 3, and imagine A's line in Figure 3 folded inwards towards the flanks of B.)

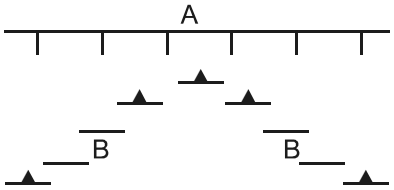


Figure 11

The order of echelon on the centre (Figure 11) may be used against a force occupying a position too much cut up and too extended because, its centre being then somewhat isolated from the wings and liable to overthrow, the force thus cut in two would be probably destroyed. But this order of attack would appear to be less certain of success against a force having a connected and closed line; for the reserve being generally near the centre, and the wings being able to act either by concentrating their fire or by moving against the foremost echelons, might readily repulse them. If the wings of the attacked line are brought at a proper time against the flanks of the foremost echelons, disagreeable consequences might result.

We recognize today in the order of B in Figure 11 the formation used by the vanguard in an advance to contact. A force "cut up and too extended" accurately describes the condition of a covering force, and the configuration of Figure 11 is used by a vanguard precisely because it easily pierces the centre of the covering force's "line" while protecting the flanks of the attacking echelon. The order of B in Figure 10 resembles the interior of a two-up and one-back formation. As Jomini says, a small enemy force caught between the wings of the advancing formation would be quickly surrounded and destroyed in a crossfire. In an advance to contact, an isolated enemy post that resists one of the wings can be easily outflanked and surrounded by the other wing. Jomini's analysis holds as true today as it did in the 19th century.

As defensive formations, the echelon configurations offer a way to surprise the attacker. If a forward echelon of B in Figure 11 is attacked in flank, the echelon behind the attacked echelon can itself take the attacking line in flank with enfilading fire or assault. The position of B in Figure 10 might be assumed to defend a re-entrant. Camouflage, however, is essential for success because the defensive force B is not well positioned to counter-attack and threaten the rear of A, if A were to manoeuvre to concentrate its effort against one wing. If A recognizes the shape and location of the defence, he can avoid the echelon traps, concentrate against one wing, and penetrate the formation.

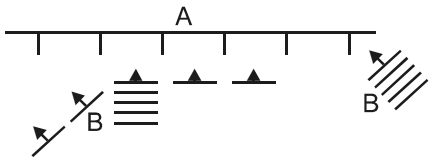


Figure 12

Jomini describes the formation of B in Figure 12 as the order of attack in columns on the centre and on one extremity at the same time and asserts that this formation is useful in an attack upon an enemy's line strongly arranged and well connected—in other words, a tough, compact, defensive position. Jomini believed it to be the "most reasonable of all the orders of battle," though to modern eyes, it presents the picture of two main efforts. The attacks upon the centre and by a wing outflanking the enemy prevent the assailed party from turning upon the assailant and taking him in flank. The enemy's wing is hemmed in between the attacks on the centre and at the extremity and has to contend with nearly the entire opposing force. This was the manoeuvre that gave Napoleon victories at Wagram (July 1813) and Ligny (16 June 1815), and was what he attempted at Borodino (Sept 1812). Napoleon also used it at Bautzen. We find its echo today in the convergent attack along two axes against a single objective, which can be attempted by a force as small as company. This "most reasonable" of battle orders also resembles a platoon flanking attack, in which the support section attacks the centre of the enemy position with fire and the manoeuvre sections assault from a flank.

Jomini had general advice to give on tactics, the truths of which sound familiar today. He declared that the simpler a decisive manoeuvre is, the surer of success it will be. Sudden manoeuvres seasonably executed during an engagement are more likely to succeed than those determined upon in advance. Manoeuvres relating to previous strategic movements, which bring the columns that are to decide the day to those points where their presence will secure the expected result, have also proved successful, as at Waterloo and Bautzen.

Simplicity and speed of execution are well recognized today as essential elements to tactical success. The comment about Waterloo would translate today to fighting an opponent to a standstill with a portion of one's forces, while the rest of it makes a decisive manoeuvre against a flank or the rear of the enemy in conformance with a predetermined plan. A manoeuvrist would use a term like "fixing" or "pinning," while the mobile element gains the decision by breaking into the enemy's rear. The outcome on the battlefield is, in that case, not decisive because the decision is to be gained by a strategic (or operational) move rather than a tactical one.

Jomini advises that, in all his combinations, whether deliberately arranged or adopted on the spur of the moment, the general should endeavor to decide what is the important point of the battlefield. This the general can only do by observing well the direction of the enemy's line of battle, and not forgetting the direction in which strategy requires him to operate. He will then focus his attention and efforts upon this point, using a third of his force to keep the enemy in check or watch his movements, while

throwing the other two-thirds upon the point that, the possession of which, will ensure him the victory. (Here, Jomini's ambivalence between enemy and terrain is plain. In this passage, the proximate cause of victory is the occupation of what we would call today vital ground, combined with maintaining the initiative. What ground is vital depends upon the topography, the orientation of the enemy's battle line with respect to his line of

absent in Jomini's work is the concept of annihilation that is so dominant in the thinking of Clausewitz....

communication, and the enemy's battle order. Against the enemy's battle order, one third of one's own force is used to pin the enemy and the remaining two thirds comprise the main effort against the decisive point.)

In addition to the geometrical drawings, Jomini laid down the following rules as essential for fighting battles in a "scientific manner":

- An offensive order of battle should have as its object to force the enemy from his position by all reasonable means. (Nowadays, under the influence of Clausewitz and Schlieffen, the driving of the enemy from his position would produce merely "an ordinary victory" even if the victory were followed by a pursuit. Schlieffen would attempt to encircle the enemy and annihilate him in a "cauldron battle," satisfying both tactical and strategic aims at the same time. Seeckt and the manoeuvrist school would regard the driving of the enemy from his position as the necessary tactical opening to an operational victory.)
- The manoeuvres indicated by art are those intended to overwhelm one wing only or the centre and one wing at the same time. An enemy may also be dislodged by manoeuvres for outflanking and turning his position.
- These attempts have a much greater probability of success if concealed from the enemy until the very moment of the assault.
- To attack the centre and both wings at the same time, without having superior forces, would be entirely in opposition to the rules of the art.
- The oblique order has no other object than to unite at least half the force of the army in an overwhelming attack upon one wing, while the remainder is retired to the rear, out of danger of attack, being arranged either in echelon or in a single oblique line.
- The different formations may all be varied by having the lines of uniform strength or by massing troops at one point.
- The object of the defence being to defeat the plans of the attacking party, the arrangements of a defensive order should be such as to multiply the difficulties of approaching the position (i.e., obstacles) and to keep in hand a strong reserve, well concealed, and ready to fall at the decisive moment upon a point where the enemy least expect to meet it. (To Jomini, the counter-attack at the key time and place was an essential element of defence.)
- An order of battle that united the double advantages of arms fire and the moral effect produced by an onset (e.g., fire and movement) would be perfect.
- As it is essential in an offensive battle to drive the enemy from his position and to cut him up as much as possible, the best means of accomplishing this is to use as much material force, i.e., fire power, as can be accumulated against him. It sometimes happens, however, that the direct application of main force is of doubtful utility, and better results may follow from manoeuvres to outflank and turn that wing which is nearest the enemy's line of retreat. He may, when thus threatened, retire, even though he would fight strongly and successfully if attacked by main force. A skillful general should know how to employ the means to gain them when opportunity offers, and especially should he combine these turning movements with attacks by main force.
- The combination of these two methods—the attack in front by main force and the turning manoeuvre—will render the victory more certain than the use of either separately; but in all cases, too extended movements must be avoided, even in the presence of a contemptible enemy.
- The manner of driving an enemy from his position by main force is the following: throw his troops into confusion by a heavy and well-direct fire of artillery, increase this confusion by vigorous charges of cavalry, and follow up the advantage thus gained by pushing forward masses of infantry well covered in front by skirmishers and flanked by cavalry. The morale effect of the defeat of the first line often occasion the retreat of the second and cause the general in command to lose his presence of mind. If the general and the troops of the defensive army are equally active in the performance of their duty, and preserve their presence of mind, if their flanks and line of retreat are not threatened, the advantage will usually be on their side at the second collision of the battle; but to ensure that result, their second line and the cavalry must be launched against the victorious battalions of the adversary at the proper instant, for the loss of a few minutes may be irreparable, and the second line may be drawn into the confusion of the first. (The German elastic defence, which requires a counter-attack as part of the defensive tactics, is based on this principle.)

Lieutenant Vincent J. Curtis, CD

- From the preceding facts it may be deduced that the most certain of all means of gaining victory is the employment of the reserves, masses of cavalry, and artillery to strike a decisive blow at the second line of the enemy; for here is presented the greatest of all the problems of the tactics of battles. The critical moment is usually when the first line of the parties is broken, and all the efforts of both contestants are put forth. (In other words, the enemy is not decisively driven from his position until the counter-attack is beaten off. The victory is decisive if the second enemy line is destroyed.)
- The fire of musketry can be much more effectively used in the defensive than in the offensive, since when a position is to be carried, it can be accomplished only by moving upon it, and marching and firing at the same time can be done only by troops as skirmishers, being an impossibility for the principal masses. The object of the defence being to break and throw into confusion the troops advancing in the attack, the fire of artillery and musketry will be the natural defensive means of the first line; and when the enemy presses too closely, the second line and part of the cavalry must be launched against him.

CONCLUSION

Jomini was regarded by the Western World for much of the 19th century as a leading expert on warfare. He was the first, for example, to conceive of the operational level of war, which he called "grand tactics," and the first to describe the strategy of "interior lines." It was only the success of Prussian arms in 1866 and 1870 that made the world aware of Clausewitz and caused the decline Jomini's influence. Jomini wrote a practical handbook for commanders and their staffs. As technology advanced, some of the practical advice of Jomini became dated, whereas Clausewitz, attempting to write a book for the ages, concentrated on timeless principles that are always relevant. Nevertheless, where both men write on the same matter, they express similar views. Where they differ, it is on emphasis. Battle itself is one crucial example. Clausewitz, ever mindful of the human suffering and moral drama of battle, held as a first principle that battle was justifiable only to decide something relevant to the strategic aim of the war, and that battle, when joined, should be taken to an extreme. Jomini, in contrast, rather bloodlessly takes battle to be a given and a victorious campaign to be the ultimate aim. Absent in Jomini's work is the concept of annihilation that is so dominant in the thinking of Clausewitz and Schlieffen. To Clauswitz, war had an end; to Jomini, wars ended. Clausewitz was the more profound thinker of the two; Jomini the more practical. Jomini's reputation as a military writer was well deserved, and the value of Jomini's contribution to developing a systematic body of thought on the practical art of war cannot be denied. The timelessness of his insights should be evident from the extracts given above. In these days of manoeuvre warfare, the truths and insights of Jomini are just as applicable as they were in 1838, and the principle of the unity of truth requires that any analysis of battle and warfare needs to take these insights into a harmonious account for that analysis to be valid.

Jomini's underlying idea is to defeat the enemy piecemeal. Overwhelming force is concentrated against a portion of the enemy, and the destruction of this portion will oblige the rest of the enemy to withdraw or will give the attacking force such a geometric advantage that if the enemy did not withdraw, their defeat is certain. If the enemy is spread out, a concentrated attack on the centre of his line will break it, and further forward movement will divide his forces. If the enemy does not withdraw, each of the two separated wings is destroyed successively. When the enemy formation is compact and presents a tough front, an attack against a wing, especially if the attack is angled to the enemy's line, can crush the line or at least turn the enemy out of his position. Alternatively, a decisive blow can be aimed at the enemy's rear rather than at his line, but for the blow to succeed, the enemy has to be occupied with attacks on his front. One third of the force occupies the enemy and two thirds are used to attack the rear. This style of attack savours of an operational manoeuvre rather than a tactical one, but this manoeuvre is nevertheless as effective against a platoon or section in the defence as it is against a division.

Jomini's "most reasonable" formation combines a frontal attack against the centre of the enemy's line with an angled attack against one wing. The other wing of the attacking force is refused. The formation amounts to a convergent attack against the enemy wing by the bulk of the forces. An attack by a combat team with the infantry attacking along an axis in the centre and the tanks converging from the flank along another axis is an example of this technique.

By reflecting upon the diagrams of Jomini, a commander, even in the age of manoeuvre warfare, can gain an appreciation for the strengths and weaknesses of different battle formations and the geometric advantages and disadvantages of each. Subordinate commanders who understand what should be happening on the battlefield are better able to shorten the decision/action cycle and fulfill commander's intent.

ABOUT THE AUTHOR...

Lieutenant Vincent J. Curtis holds a Master of Science degree in Chemistry from the University of Waterloo. A reserve officer, Lt Curtis began his civilian career as a research scientist with the Ontario Research Foundation, and for the last 16 years has been the owner and President of Tribochem Inc., a chemical company located in Cambridge, Ont. Lt Curtis presently is the Senior Subaltern and serves as Second in Command "C" Company of The Argyll and Sutherland Highlanders of Canada (Princess Louise's). Lt Curtis is a graduate of the OPDP/CFMSP program and has had life long interest in antiquity, antiques and warfighting theory.

ENDNOTES

1. Baron Antoine de Jomini, The Art of War (Stackpole Books, 1995), p. 198.
2. Ibid, pp. 178 - 203.
3. Carl von Clausewitz, Roots of Strategy Book 2 (Stackpole Books, 1987), pp. 334 - 348.

The Honourable John McCallum, Minister of National Defence, pays his respects to a memorial to Sapper Christopher Holopina, during Remembrance Day commemorations held during the Minister's visit to Operation Palladium, Roto 11, on 10 and 11 November 2002. Sapper Holopina served with 2 Combat Engineer Regiment and died on 4 July 1996, while serving with the NATO led Implementation Force. He is one of 20 Canadian soldiers to have lost their lives while serving in the Balkans. Camp Holopina in Coralici was also named after him. The Honourable John McCallum is joined by Mr. David Pratt, Chairman of the Defence Committee (right), and Colonel Peter Atkinson, commander of Task Force Bosnia and Herzegovina (left). (Courtesy Combat Camera/Corporal John Clevett)

Lieutenant Vincent J. Curtis, CD