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THE CONDUCT OF WAR
by
Lieutenant General Von Der Goltz

THE EVOLUTION OF MILITARY THOUGHT

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"WAR should not be included in the domain of the arts and sciences, but rather in the sphere of social life. It is a conflict of vast interests, which is solved in blood, and only in this respect does it differ from other contests. A better comparison could be made with commerce than with any art whatever, for trade is also a conflict of human interests and activities; and much nearer to it still is politics, which, for its part, can be regarded as a species of trade on a larger scale. Besides, it is the lap in which war is developed; in it the features of war are already obscurely outlined, like the attributes of living creatures in their germs."—*Clausewitz, "On War," Book 2, Chapter III.*

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THE CONDUCT OF WAR

A BRIEF STUDY OF ITS MOST IMPORTANT PRINCIPLES AND FORMS,

BY

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TRANSLATOR'S PREFACE.

AMONG the many German writers on military subjects who have come into prominence since the Franco-German War, Lieutenant-General von der Goltz certainly ranks with the very best, and his style of expression and method of treating technical matters have made him a favorite with military readers. It is the peculiar merit of this author that his writings are at the same time instructive and entertaining, his thoughts being expressed in language so simple as to be readily intelligible to the ordinary understanding. This was a noticeable feature in former works of the author, such as "Operations of the II. Army," "Gambetta and His Armies," "The Nation in Arms," "Rossbach and Jena"; but in this, his latest production (1895), these attractive qualities are sufficiently developed to make the book interesting even to non-professional readers. The technical discussion of the subject is enlivened by a wealth of illustration drawn from military history, in which our War of 1861–65 is not neglected.

American officers will not be able to agree with the distinguished author in some of his opinions concerning the character of the military operations, the ability of the generals, and the qualities of the troops of the armies of the United States during that eventful period; neither will they be willing to admit that his premises, as stated, are always strictly accurate. However, it was deemed best to reproduce the author's statements relating to our Civil War without comment; for, although it is well to know the opinions of authorities occupying a different point of view, a discussion on matters of opinion is not

likely to prove beneficial unless the participants are equally capable and disinterested.

The endeavor of the translator has been not only to render the author's ideas into English with reasonable accuracy, but also to catch something of his style of expression, realizing that mere "dictionary work" is as far removed from a satisfactory translation as a jumble of rhyming sentences is from poetry. If he has been moderately successful in excluding the dreariness pervading the "confused and confusing translations" of works on the Art of War complained of by a recent English writer on military subjects, his labors will not have been in vain.

The translator is under obligations to Captain A. L. Wagner, 6th Infantry, Instructor, and First Lieutenant A. L. Mills, 1st Cavalry, Assistant Instructor, Department of Military Art, for suggestions and assistance in the revision of this translation.

U. S. Infantry and Cavalry School,
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INTRODUCTION.

THE CIRCUMSTANCES under which military operations are executed are so manifold that two situations exactly alike will hardly ever be discovered. But should this happen, then the persons called upon to act in the two cases would still be different, and subsequent events would never coincide, like two congruent triangles.

Hence it follows, that although there may be in the conduct of war certain laws whose truth is incontestable, their application, by no means, always produces the same result, as might be the case in the use of two mathematical formulas. We say, it is true, that it is only necessary to apply them with good judgment to the special circumstances existing at the time to be sure of success. It is, however, exceedingly difficult in this matter to hit upon exactly the right thing.

The bare knowledge of the laws of strategy may therefore be of doubtful value. In their practical application success depends upon numerous anterior conditions; and if due attention be not paid to them, knowledge may even be the cause of fatal delusions. It easily betrays people into placing too high a value on the power of the rules and precepts of the Art of War to produce victory, and, none the less, into an overestimate of their own talents. It is a remarkable yet explicable phenomenon, that precisely in those armies where the commander is afforded the fewest opportunities to acquire practical experience, the number of those is great who imagine that

they were intended for generals, and who consider the practice of this vocation quite easy.

But in the school of golden practice such impressions are, of course, quickly rectified through experience of failure, difficulties, and misfortune. The barometer of self-consciousness then sinks, as with the approaching storm, to a low level.

At some great military schools the idea of making the theory of the guidance of armies the subject of a special course of instruction has already been entirely abandoned, and each individual is left to himself to ascertain its principles from a study of military history, careful observation of extensive exercises of troops, and personal reflection.

However, the need of a précis of strategy continues to exist. The young soldier who desires to fit himself for the position of a commander will not everywhere be offered the means to attain the coveted object through his own efforts, in the manner indicated. Not everywhere will active social intercourse with experienced companions in arms give opportunities for an exchange of ideas, which, extending gradually to all the occurrences of war, affords instruction without constraint or formality.

The need of ascertaining what the leading rules of strategy requiring consideration are, is then involuntarily forced upon the novice, who, without a safe guide, desires to learn the laws of his art out of books. These may be determined through comparative study of the older works, such as those of Bülow, Jomini, Clausewitz, Willisen, etc. But work of this kind requires time, pains, and a certain maturity. The more recent treatises on the conduct of war on a large scale deal extensively with those developments which, in contrast with former times, have only in our days begun to play an important part—namely, the mobilization and concentration of armies. This is the result, principally, of the formation of a dense network of railroads in the Occident, whereby the means

for surprisingly rapid preparation of the forces is furnished. Each power tries to surpass the others in this respect. As on such occasions the transportation of very large masses of troops has to be planned, the whole takes the form of a sort of military work of art, which affords the technologist a good opportunity to display his brilliant qualities; and thus it has come about that many think to find the whole subject of the guidance of armies in this one section.

They forget that wars are also waged in countries where railroads do not yet play as prominent a part as in western Europe, so that the concentration of armies will be accomplished in a slower and simpler manner. They also overlook the fact that even in the Occident the importance of railways for the use of the forces, during a battle, is not considerable.

But we shall here give preference to just this field—that is, the activity of the masses of troops already deployed, because it is rather neglected nowadays. It is, and always will be, the most important part of the Art of War. Preparation and maintenance of troops are the proper subjects of special treatises, for which they offer a wide field. We shall here touch upon them in so far only as may be necessary for a proper understanding of the whole.

If we forego the systematic development of the principles to be imparted, in order not to add a new one to the many portly volumes on the subject, but little more will remain than a table of contents of the study of the conduct of war; but this serves our purpose—namely, to lead the beginner, in an easy way, up to a more thorough study of the art. And only under a restriction of this kind can the present volume be considered suitable for its intended purpose,—that of a guide for instruction,—in which, during the quite limited number of hours of a year's course, a survey of the whole domain is to be given in the most complete manner possible.

It is taken for granted that the reader will primarily accept in good faith many assertions the absolute accuracy of which may appear doubtful to him. We need fear no disadvantage on this account, as it is only a question, in the meantime, of leading him, in the right way, to a personal examination of the subject. This examination will later on bring out the details which, wholly or conditionally, confirm the worth of the assertion.

For the experienced this book may serve as an aid to the memory. The whole difficulty, as Clausewitz justly says, consists in remaining true to one's self-devised principles under the more difficult circumstances of war. The very first requisite is to remember them at the proper moment, and this again requires that we should occasionally refresh our memories. For such work, however, "a brief study of the conduct of great wars" is a better aid than military philosophical treatises in several volumes.

Some subjects ordinarily treated in writings like the present, such as the system of reports and information, orders, and command, have been excluded. We desired simply to make a compilation of those methods of using troops which may find application in war. The manner in which the application should be made is reserved for a future work, which is to comprise everything referring to the relations of the commander to his army. This segregation is of advantage in avoiding apparent contradiction between rules and their application. For example, we might very readily, in a general theory of strategy, distinctly favor the offensive, and yet, with reference to a particular army and special circumstances, choose the defensive as the only correct course. Were we to attempt a union of both sections of the general theory, we should be obliged to add at once to each sentence all the exceptions, and this would produce an impression of confusing vagueness and uncertainty. It is better, therefore, to give in a separate treatise on the "command of armies" the nec-

essary hints for the application of what is contained in this work on the conduct of war.

Individual exceptions were of course unavoidable. Thus the plan of operations, although it belongs rather in the domain of the command of armies, is treated here because it is intimately connected with the concentration of armies, as this in turn is associated with the base and the lines of operation and communication. In this case the separation could not very well be carried out.

I.

THE POSITION OF WAR IN SOCIAL LIFE.

THE GOVERNMENTS of all civilized nations now maintain special ministries and permanent diplomatic missions for the current regulation of their mutual political relations. A large part of their work consists in settling, in a peaceful way, points of controversy that may arise.

Never, however, will it be practicable to avoid entirely those questions in which each of the contesting parties believes that it is impossible to give way without dealing himself a fatal blow. Such cases have arisen in our times especially from the endeavor of nationalities to form homogeneous and independent states, which could not be created without violating previous possession. But also questions of power and influence, even of mere national jealousy and rivalry, may acquire such importance that political wisdom and diplomatic skill seek a peaceful adjustment in vain. A violent solution through war then becomes unavoidable.

War, therefore, is the continuation of politics; only the means for the attainment of the object have changed.

The idea of making war impossible through courts of arbitration has led to no practical result, because the power which could enforce unconditional and universal respect for the decisions of such courts is lacking.

The best means, therefore, to preserve peace, is to be found in a thorough military organization; for the

strong are not as readily attacked as the weak. With the size and power of armies the damage resulting from the encounter increases, the responsibility for deciding on war becomes more serious, and, consequently, this decision is not so lightly made.

Weak states, in the military sense, surrounded by more powerful neighbors, constitute on this account a danger of war. States which on erroneous considerations neglect their military organization conjure up this danger through their own fault.

The same is true of states with a weak government which is not able to restrain the passions of the people; for the excited masses will more easily raise the cry for war than cabinets.

The best military organization is that which makes all the intellectual and material resources of the nation available for the purpose of carrying a war to a successful issue. It would not be justifiable to attempt a defense with a portion of the force, when the existence of the whole is endangered. The forms of organization, as well as the details thereof, depend largely upon the internal condition of the country, as well as upon international rivalry. They are transformed with the gradual change in the social life of nations.

The form under which most of the military organizations of the present day appear is that of skeleton armies. A portion of the men able to bear arms are retained in permanently organized bodies of troops which serve as a school of military training for the entire male population fit for service, and, at the same time, furnish the framework for the reception of the stream of educated soldiers in case of war. But few states have proceeded further to a militia organization, in which permanent *cadres*, with the exception of a few troops of instruction, are entirely lacking. Such an organization may appear justifiable in case the natural situation renders an attack by an army ready for battle impossible, or when the small extent and

limited population of the state cause the adoption of this method, in order to raise a force which shall be respectable, at least in point of numbers.

The recruiting system by voluntary enlistment is now employed in a few cases only, and is obsolescent.

II.

THE SPECIAL NATURE OF MODERN WARS.

In this age war appears generally under its natural form—that is, as a bloody conflict between nations, in which each side strives for the complete overthrow, or, if possible, the annihilation of the opponent.

The attempt to frighten the enemy sufficiently to cause him to submit to our will, by simply moving masses of troops, or,—as a well-known writer of the present century has expressed it,—"to gain victory without battle, through the mere power of maneuver," will no longer accomplish its purpose. The experience of the Napoleonic wars has taught us that actions of the above nature immediately lose all their effect as soon as the opponent resolves to make war in earnest and to strike with a sharp sword.

The idea that in modern times two disputing states may enter into conflict without putting forth their full strength, and without contemplating the overthrow of the opponent, but, on the contrary, may employ only a portion of their forces, in order to advance to a certain point, the possession of which is the only matter of interest to them,—is as improbable as armed conflicts without a de-

cisive battle.* This can be considered a rational proceeding only in case the object is quite insignificant. But, as a rule, nations will not at the present day go to war for such trifling causes. Should this, however, happen in some exceptional case, because of the perverted measures of the disputing governments, the excited national feeling of the people will at once become active and will not permit the authorities to make the fate of the whole war depend on the reverse of a very small portion of the fighting strength of the nation. Public opinion will insist upon reinforcement, the opponent will follow suit, and, therefore, contrary to the original intention, the w ole force will gradually be put into action after all. Since state and nationality have become practically synonymous terms, nations resemble persons who would forfeit life rather than lose their honor.

This also shows that certain notions which are often advanced about systematic methods of conducting war rest upon a misconception of the nature of modern wars. Although all the forces in these cases are considered as armed and equipped, no unreserved use is intended to be made of them for decisive action; in lieu thereof a system of maneuvers and isolated battles is contemplated, with engagement of only a portion of the entire force. Only a very awkward and inactive enemy would allow himself to be delayed in this way. Since wars for conquest, spoliation, or mere love of fighting have been rendered impossible by the advancing civilization of nations, and since their culture has been developed to the extent that every war would injure it, the combatants must endeavor to compel the opponent, as quickly as they can, to recognize the desired conditions of peace. As this only becomes possible after one of the parties has lost all prospect of successful resistance, the necessity of overthrow or destruction again obtrudes itself.

*Herein we must disregard exceptional cases; for example, when a weak state has violated the rights of a more powerful neighbor, and through blind passion, or for other reasons, declines to give ear to the complaints of the latter, who is then finally constrained to take up arms to compel an adjustment of the affair. Such wars partake more of the nature of military executions, and are not the object of our consideration. The same is true of colonial wars, which, according to the nature of the country and of the enemy, will in each case bring about quite peculiar circumstances. We can exclude both these cases without hesitation, because it is generally a matter of indifference whether, in their prosecution, the principles of war on a large scale are correctly followed or not.

As long as the principle of nationality remains the dominant feature in political structures, these conditions will not change, and war will retain its absolute character.

But this overthrow and destruction are not to be considered as actual killing or disabling of *all* the hostile combatants. The loss of a part will generally have such an effect on the whole that they will give up all hope of victory and cease fighting. The moral effect, therefore, adds its weight as a destructive agent to the work of the weapons; in fact, human nature is such that the moral effect becomes the greater.

When, therefore, we speak of the overthrow of the opponent, we mean that, through defeat of a portion of his forces, we induce him to give up all chances of a later favorable turn in the campaign;—and by destruction we mean the act of producing such a physical and moral condition that he for the present feels himself unable to continue the struggle.

III.

THE CHARACTERISTICS OF MODERN STRATEGY.

THE ENEMY, whose motives we must assume to be similar to our own, will assemble his troops into one army in order to deliver, with united forces, blows which shall be as decisive as possible.

In case the great size of the entire land force of a state necessitates the formation of several groups, because in one mass the whole might be too unwieldy, several of these bodies would still receive instructions looking towards mutual action. We shall, therefore, in every case be able to recognize a portion of the enemy's force as intended for decisive action, and this may be designated the hostile "main army." We may also say that it embodies the resistance which will be offered by the enemy. It is obvious that after the main army is defeated, the other groups can still less count upon victory. Perhaps they will even abandon further resistance and we may happily be able to terminate the whole work with one great success. Consequently the immediate objective, against which all our efforts must be directed, is the *hostile main army.*

In this first principle of modern warfare no change is wrought by the fact that a number of smaller undertakings occasionally precede the great encounter. Frontier fortifications which obstruct the highways perhaps

prevent the simultaneous movement of great bodies of troops. They must, therefore, be attacked and reduced before the principal action begins. Both fighting forces may endeavor to interrupt the concentration of the opponent by rapidly pushing forward bodies of troops, especially cavalry, and thus preliminary combats will ensue.

But in these isolated actions no independent purpose is pursued; both through the object on which they are based, and the consequences attending them, are they intimately connected with the main action and belong to it, as heat lightning belongs to the approaching thunder-storm.

The surest means of vanquishing the hostile main army lies in the concentration of a superior force; for nobody can with certainty claim in advance that he will have the better general at the head of his army, or that his troops will be braver than the enemy. Such elements of strength inducing confidence in victory may, of course, come under consideration in the practical solution of difficult questions in campaign. Often, in reaching decisions, they may have a more positive value than all other influences. But scientific investigation must always assume that the troops on both sides are of the same quality, unless an exception is specially indicated. In such cases, next to judicious dispositions, numbers are decisive.

From this we deduce a second general principle of modern war—namely, to have, if possible, *all* the forces assembled at the hour of decisive action. A single battalion may turn the scale in battle.

According to this, every separation, and every detachment from the main force, would appear faulty. As great successes carry smaller ones with them, all minor dangers might be disregarded, and even some losses accepted, in order not to weaken the fighting body. This, however, cannot be carried out to its limit. We

shall seldom be able to determine the exact point of time when the great decision may be expected, and we cannot neglect all secondary objectives for an indefinite period. In addition, there will always be points which, though lying off the straight road to the object, would, if abandoned to the enemy, not be without influence on our main army, and might hamper its action at the most important moment. We must, therefore, secure them by special details. Detachments are unavoidable, and it is only a question of making them in such a way that we can either draw them in for the battle, or that they will have an immediate influence on its successful issue. The most profitable way of accomplishing the latter is by detaining stronger forces of the enemy at a distance from the field of battle. Detachments, however, which cannot be made to exert any influence on the outcome of the decisive action are always faulty.

The concentration of very large masses of troops at one point naturally is the occasion of many hardships, which, with the advent of unfortunate contingencies, such as epidemic diseases, may rise to a serious danger. The housing of all the troops in sheltered places becomes impossible, their subsistence deficient.

Furthermore, it becomes difficult to set such masses in motion when they are collected in one place instead of being stationed in separate groups; for from two or more points of departure we can naturally use more roads than from a single one. During the march these difficulties repeat themselves at every halt for the night and every time the command leaves camp. We must also consider that only from 30,000 to 40,000 men can be permitted to advance on the same road if the whole force is to be brought into action the same day; otherwise the rear detachments will not be able to arrive on the field of battle before night. This circumstance, therefore, also demands a division of the great masses of troops, and the maxim about united forces is not to be so understood as

to require them to continually march and camp in an assembled state, but only in such a way that it may be possible to unite them at the decisive moment, or at least to bring them into active coöperation.

The conduct of modern war, therefore, appears under the form of continual separating and assembling of masses of troops. It is the business of the commander to maintain this state of separation as a rule, because it facilitates the subsistence of an army; but at the same time he must always be able to effect an opportune concentration. "For this no general rules can be given; the problem will in each case be different."* To have all the available forces concentrated on the day of decisive battle, without causing them to suffer beforehand through continuous overcrowding, would represent the triumph of the art of separation and concentration.

The mere continuation of a state of war has, of itself, become an independent destructive and annihilating power on account of the sensitiveness of the highly developed commercial life of our times; under certain circumstances it may exercise a positively decisive influence.

The consequence of these conditions is that modern warfare brings with it an uninterrupted flow of events. A cessation of hostilities may occur in exceptional cases; for example, when one of the combatants has repulsed the attack of the other, but is not strong enough to proceed to a counter-attack. This occurred in the last Russo-Turkish War, after the second battle of Plevna, the interruption, up to the fall of that place, lasting more than four months. However, in this case the ratio of strength

*Field Marshal von Moltke, in "Militär-Wochenblatt" of November 18, 1867. Napoleon has given us a valuable hint for the solution of this question: "The commander should several times a day imagine that the enemy has appeared in front, or on a flank of the army, and then ask himself what action ought to be taken. Should this cause embarrassment, it would indicate an error in the dispositions, which would have to be remedied at once."

of the two contending parties was an unnatural one from the start. Turkey was too weak to pass over to the counter-stroke after fortunate repulse of the attack, and ought not to have proceeded to the arbitrament of the sword without absolute certainty of assistance from allies. An original error, therefore, in deciding upon war, brought about the exception in this case; and this only proves the rule. Those long pauses, without evident and urgent reasons, which were a feature of the older wars, are not even to be thought of any more. They were the result of disinclination for action, lack of clear ideas on the enterprise in hand, or even of a custom—for instance, that of resting for the winter. The expenses of maintenance of the armies placed in field at the present day are so great that, merely to be rid of this oppressive burden, governments must insist upon uninterrupted employment of the forces by their commanders.

The party with the greater endurance in war enjoys a large advantage. Theoretically the case is very readily conceivable of a state which has overthrown the organized military power of another and overflowed a great portion of its territory, but cannot support the sacrifices which this occupation entails in the long run, and is finally obliged to grant a comparatively favorable peace to the defeated enemy.

This point is often overlooked, and the annihilation of the enemy's principal army erroneously considered synonymous with the complete attainment of the object of the war.

Countries of great extent, like the Russian Empire, with a closely related national population which is not overcrowded, and whose conditions of life are still simple and but slightly dependent on the undisturbed continuation of international intercourse, naturally suffer much less under a protracted state of war than highly civilized states with contracted boundaries, dense population, and imperfect unity or concord of the whole. This weakness

is often further increased through the fact that such states are not able to feed their population on the products of their own soil, but must have recourse to importation from abroad, which may be interrupted by war or cut off altogether.

Social and political conditions also play an important part. If it is only a peasantry, living scattered over a flat country, which is struck by a war, the government generally retains a free hand in making its decisions; for the former, as a rule, have not the means to give suitable expression to their desire for peace. Quite different is the case if there be, residing in great cities, a rich commercial middle class, which, through interruption of the ordinary course of affairs, may lose everything. They will be the first, after preliminary defeats, to be inclined towards peace; at the same time they possess the means, through command of the press and influences of all kinds, to make their wishes heard.

It is only when two states are of approximately the same nature that the defeat of the hostile main army carries with it the attainment of the further purpose, the immediate exaction of the desired peace. The most remarkable case of this kind was the campaign of Prussia against Austria, in 1866, when, with the battle of Königgrätz, peace was also decided. But even in cases of this kind matters may turn out differently, as was shown in the Franco-German War of 1870–71. After an almost complete annihilation of the organized armies of France during the first three months of the war, three months more were necessary to bend the will of the French people to the necessity of concluding peace.

When the inner nature of the warring states is quite different, the defeat of the enemy's forces and the compulsion of a treaty of peace will seldom be coincident.

Napoleon failed in 1812, by no means on account of inability to defeat the Russian armies, but rather because the defeat of those armies, and even the loss of the capital,

Moscow, did not force a peace from Russia, which was widely extended, stubborn, and difficult to touch to the quick. In the great American war the armies of the Secession remained victorious almost to the end, and yet they had to succumb at last, because they had at no time been able to bring such a pressure to bear on the land and people of the Union as to compel the latter to accept a peace.

After shattering the hostile main army, we, therefore, still have the coercion of a peace as a special, and, under certain circumstances, more difficult, task to consider, the solution of which should, however, have been carefully weighed before deciding upon war.

That is to say, we should ascertain whether the organization of our own forces would suffice, after victory on the field of battle, to make the enemy's country feel the burdens of war with such weight that the desire for the return of peace would overcome the inclination to continue the conflict. This is the point in which Napoleon I. failed. The organization of his forces was not complete enough to furnish to the Grand Army, which had marched out in advance to vanquish and destroy the Russian armies, a continuous stream of new troops which could occupy the hostile territory over which the army had passed in sufficient force to make a reconquest, within a definite period, impossible. Had the Emperor been able to do this, he would have arrived at the desired peace.

It will depend upon the nature of the country and the people what means to employ to exercise the pressure necessary to create a sufficiently powerful demand for peace. The occupation, or, perhaps, the mere threatening of the capital, as was the case in the last Russo-Turkish War, and also in that of 1828–29, may suffice for this purpose. But it may also be necessary to seize the harbors, commercial centers, important lines of traffic, fortifications, and arsenals—in other words, all important property necessary to the existence of the people and the army, and even to occupy a considerable portion, or the whole, of the enemy's territory. Occasionally, when the question of subsisting the population meets with difficulties, it may be sufficient to establish a blockade against the outside world,—a method which the Union employed with great effect against the Southern States in the American war.

The determination to be satisfied, after victory, with nothing less than the attainment of peace, imparts an altered character to the conduct of war. Regard for the maintenance of one's strength will be much more prominent than formerly. Henceforth, more will depend upon endurance than upon intensity of effort. The characteristics of these two phases are plainly shown by the Franco-German War. It began with an energetic advance of the assailant from one decisive battle to another, until the enemy was completely subdued, and closed with a defense of the occupied territory against the efforts towards recapture made by the hitherto overborne enemy. Not from further victories in the field, but from capture of the beleaguered capital, was peace expected.

If we now assemble the distinguishing characteristics of the modern method of conducting war, the following will be recognized as such:

1. Calling forth of the military resources of a country to such an extent that, after victory, an advantageous peace may also be forced from the enemy, and that as quickly as possible.
2. Preparation of all the forces immediately at the beginning of the war.
3. Unceasing progress, without delay, until the organized resistance of the opponent is broken in decisive battles; and only after that, until the conclusion of peace, a calmer course, with less injury to the instrument of war.

It lies in the nature of things that in this last phase politics, which gave birth to the war, should again come to the front, to be finally, at the conclusion of the treaty of peace, paramount.

IV.

THE PRINCIPAL METHODS OF WAGING WAR.

THE PRINCIPAL ways of waging war are generally divided into the offensive and the defensive; and we designate as the assailant that one of the two combatants who forms the resolution to advance, to seek the enemy and defeat him, and thus compel him to yield. The defender, on the other hand, is intent upon warding off these enterprises directed against him.

But he who thinks only of parrying can at best merely avert his own defeat. The result, for him, is a negative one; he simply frustrates the purpose of his adversary. The defensive, therefore, is not, properly speaking, a complete method with which it is possible to attain the object sought, the overthrow of the enemy. Hence all adherents of the defensive recommend an ultimate counter-attack. The last decree of their wisdom is that, after all, the defensive must be abandoned in the end, in order to accomplish something. Consequently, the defensive generally appears as an episode in the conduct of the combatants, and only in very exceptional cases will it be maintained from the beginning to the end of the conflict. Only he can make up his mind to this who is dominated by the conviction of his own weakness and is satisfied to have escaped the downfall prepared for him.

For this reason it is by no means necessary to conceive of a defender, as opposed to an assailant, in every case in war. On the contrary, the combatants, if approximately of the same strength, and both swayed by the feeling of power, will simultaneously advance to the attack. There will, consequently, be two assailants only, until one of them, as a result of the first encounters, is so shaken in his power, and his hopes are so much lowered, that he begins to be satisfied with defense. Greater rapidity and skill in the preparation of the means for war, and the unexpected development of superior numbers, will often make the adoption of the defensive imperative, as was the case with the French in 1870. In view of the care with which the military resources of prospective opponents, as well as the time in which they can be mobilized, are generally calculated at this day, such surprises will in future be among the rarities.

We shall probably see the assailant making temporary use of the defensive as an expedient when he is preparing for increased exertion, or when he husbands his strength at one point in order to be so much the stronger at another.

All this indicates that of the two methods of waging war the defensive is subordinate in rank and at bottom cannot be regarded as independent.

However, it is convenient to allow the accepted division to stand and to let the offensive and the defensive pass as principal forms entitled to equal consideration. By the use of these words we indicate at the same time the rôle and the general situation of the respective parties at war, so that we can immediately form a clearer idea of their prospects and the conditions under which they are operating, than if we simply designated them both, in a general way, as engaged in war.

But we must bear in mind that by the offensive we mean the side whose measures look principally towards offensive action, and by the defensive the side whose chief object is the repulse of the opponent. We must

not imagine that one party does nothing but attack all the time, and that the other is always on the defensive.

The whole domain of the study of military operations is further divided into strategy and tactics. The former, in general terms, deals with large measures, the purpose of which is to cause the troops to enter into decisive action under the most favorable conditions; tactics, on the other hand, comprises all the arrangements for the engagement itself.

Strategy is also called the science of directing armies; tactics, the art of leading troops.

Numerous definitions have been given for both terms; generally they are not precise enough, because the dividing line cannot be established with absolute certainty. Clausewitz defines tactics as the art of using troops in battle, and strategy as the science of the use of battles for the general purpose of the war.*

This about coincides with what is stated above and will enable us to form a correct general idea of the sphere of both terms.

This last division also is suitable, in order to indicate with one word what kind of operations we refer to; it facilitates a survey of the general theory of the Art of War, and this is a good reason for retaining it, although strategical and tactical matters often flow into each other.

Thus we speak of the strategical and the tactical offensive, and of the strategical and the tactical defensive.

From these again we derive certain combinations, which become the object of special consideration.

Thus the strategical and the tactical offensive may

*Clausewitz, "On War," I., p. 89 (fourth edition).

be combined by an advance of the army into the theater of war and,* after finding the enemy, proceeding to an attack on the field of battle. But, on the other hand, we might permit the strategical offensive to be followed by the tactical defensive, by allowing the enemy to become the aggressor on the battle-field after having advanced to meet him.

In the latter case the opponent could be considered as in a situation which might be called the strategical defensive and the tactical offensive. He did not interfere with the movements of his enemy's army, but waited for him, and when the latter arrived in his presence, went over to the attack.

With a combination of strategical and tactical defensive we arrive at complete passivity, which not only awaits the movements of the enemy's armies, but also the attack on the field of battle, and is satisfied with the repulse of the enemy.

Willisen, in his "Theory of War," has arranged all the possible practical results in a scheme which shows

*We must, however, observe that not every army which advances a few days' march should, for that reason, be considered as on the offensive. The object of the movement may be an entirely negative one; for example, the defender, having decided to await the enemy's operations, does not wish to do so in an unfavorable terrain, and looks for a better one; or, he may not wish to take up a position in too close proximity to the object he desires to protect, strategically and tactically. In every case the general situation will lay down the rule for the use of the proper term.

what may be expected from the several combinations in case of victory or defeat.*

In the domain of the Art of War such mathematical calculations are somewhat dangerous; they might be the cause of false expectations and of treacherous confidence. War is rich in thousands of accidental occurrences and accessory details which exert a qualifying influence on events and increase or diminish their importance, so that the most careful calculation in advance is often completely overturned. Uncertainty and insecurity form the natural element of war.

* Vital forces:	(*a*) Strategical defensive and tactical defensive.	(*b*) Strategical defensive and tactical offensive.	(*c*) Strategical offensive and tactical defensive.	(*d*) Strategical offensive and tactical offensive.
Results therefrom —	Complete absence of a decision.	Victory on the field of battle without general results for the campaign or war.	General situation favorable for a victory, which, however, is without results because the fighting power of the enemy is not impaired.	Destruction of the enemy, conquest of his territory.
(*a*) In case of victory:				
(*b*) In case of defeat:	One's own destruction and loss of the country.	Retreat, with intention of resuming the offensive.	Avoidance of the consequences through favorable strategical position.	Temporary abandonment of enterprises undertaken.

When Frederick the Great marched to the battle of Kolin, to cover the siege of Prague, he was in the strategical defensive, but on the field of battle assumed the offensive. In this situation, in case of loss of the battle, he could, according to Willisen, only expect "retreat, with intention of resuming the offensive."

But the loss in men, and the destruction, especially of his infantry, was so great on the field of battle, that, instead of the above, strategical retreat and a complete change in the general situation resulted.

Nevertheless, the scheme permits us to recognize clearly that the highest results, such as the destruction of the enemy and conquest of his territory, can only be attained through the combination of the strategical and tactical offensive, and that strategical and tactical defensive, in the most favorable case, results only in complete indecisiveness.

The erroneous impression is often produced by textbooks, which discuss the advantages and disadvantages of the offensive and defensive, that the action of the army in this respect results from the free choice of the commander. This will hardly ever be the case, but the conduct of the army will continue to depend upon higher considerations, which prescribe the course to be pursued.

We must not forget that war is born of politics and serves to continue it; that consequently for the strategical, the political offensive or defensive will be the guide; the latter, in turn, has its foundation in history. This is very clearly illustrated in ancient times in the example of the Greeks and Persians; for in their wars, with the historical, the strategical change of parts also made its appearance in a perfect manner. A nation which in its historical development has arrived at a state of rest, or even is in a decline, will not be politically aggressive, and will only go to war when forced into it. A natural result of this is that it will generally await the attack, and there-

fore confine itself to the strategical defensive, which is accompanied by the tactical defensive. Vigorously ambitious nations and states, on the contrary, do not lack positive purposes, in the pursuit of which they become politically aggressive, be it for the acquirement of disputed border provinces, or in behalf of union with people of the same race who have remained under foreign domination, or to compel the opening of channels of trade and intercourse closed by a neighboring state. Such things, however, can only be attained by a strategical offensive; for, if we wait, the opponent will certainly not bring them to us. But he who has once assumed the offensive strategically must also become so tactically; for it is impossible for him to stop after meeting the enemy, without breaking off the sharp point of his intended thrust.

Exceptional cases are, of course, conceivable. The strategical attack may lead an army to a point the occupation of which deprives the enemy of his means of subsistence, so that the latter must attack, and a temporary exchange takes place, in which the strategical offensive is attended by a tactical defensive, and the reverse. But such cases are rare.

A strategically defensive and tactically offensive combination is still more difficult to imagine; for nobody is strategically defensive out of mere good nature, but rather on account of consciousness of weakness, or because of the lack of training of his armies. But these are not the elements out of which a tactical offensive can suddenly be developed.

Our search, above all things, is not after the exceptions, but after the rule, and this is that the strategical offensive is followed by the tactical offensive, and that in the same way strategical and tactical defensive go together.

The organization of armies also plays an essential part in this matter. The side which first completes the preparation of its forces will generally desire to employ this advantage for a rapid advance. The side which

realizes that its concentration will be completed later than the enemy's, will be forced, at least for the moment, to make up its mind to the defensive, and cannot think of an advance.

Each one of the contesting parties will therefore find his rôle to be something that is controlled by circumstances, and be obliged to accept it as such. It is useless therefore, to dispute as to which of the two methods of waging war would be the more advantageous. It is much more important to recognize the peculiarities of both.

V.

THE OFFENSIVE.*

1. The Strategical Offensive.

The STRATEGICAL offensive is, as we have seen, a consequence of political striving after some definite object, the feeling of power to attain this object, and distinct consciousness of superiority over the enemy.

The commander will therefore be imbued with eagerness to take advantage of all these favorable circumstances, before the lapse of time may bring about a change.

Rapidity, activity, and surprise, therefore, form the vital element of the strategical offensive.

We already know its first objective, the hostile main army. Invasion of the theater of war occupied by the latter, for the purpose of finding it and forcing it to battle under conditions as favorable as possible, such is the programme for the beginning.

*We retain the accepted designation by means of the foreign word, which, through custom of language, has been invested with an amplified meaning. Thus, by "the offensive" we do not mean a single act of aggression, but the whole course of action aiming at destruction of the enemy's forces; while by "the defensive" we in the same way refer to manifestations of resisting power in general, not merely to an isolated act of defense. In the French language the separation of the two conceptions is facilitated by the use of different terms: *offensive* and *defensive* for the general course of action, and *attaque* and *defense* for the single act.

The commander who undertakes his work with due appreciation of the necessity and propriety of an advance is incited in a greater degree to mental activity, to bold resolves, to action, than the one who awaits events. The aggressor will generally be the more energetic of the two combatants.

Even at peace exercises the influence of the offensive on the demeanor of the leaders and the bearing of the troops is noticeable.*

It is undoubtedly true that the human character derives from the assumption of the offensive a real gain, the value of which should not by any means be underestimated.†

The aggressor is determined to find the enemy and to beat him. Fixed determination promotes discernment, facilitates the choice of judicious measures, and contracts the field for mistakes and errors; for the actor has in mind a definite purpose and can go wrong only in his choice of route.

The changes of location inseparable from the strategical offensive facilitate the union of arriving masses of troops. Every march forward can, at the same time, be utilized to bring the troops nearer to each other. This will be relatively easy, because the objective is known to all the subordinate commanders. Their coöperation is more readily arranged than in the case of a stationary de-

*This also explains the fact that at peace exercises, in case the umpires are not very experienced and careful, the decisions are almost uniformly in favor of the attack.

†We often hear the assertion that psychological considerations must be excluded from the study of the conduct of war, as the powers and emotions of the soul can neither be measured nor calculated. They are, however, of such extraordinary importance that it would lead to great errors to disregard them. Knowledge of human nature is certainly the most difficult, but at the same time the most important, part of the general science of war, with which the commander must be familiar in order to be equal to the duties of his high office.

fensive, whose objective is not indicated until the enemy makes his appearance in front of the position.

This natural support given to coöperation by the whole character of the offensive is the more important, as all strategical wisdom unites in the final advice, to be as strong as possible at the point of attack.

Moreover, the offensive has generally won its game when it is successful at a single point; for, as a rule, the positions of the defender will form an organic whole which loses its stability and coherence as soon as a part is destroyed.

In this connection an additional fact comes in for consideration—namely, that the assailant is able to make his own selection of the point of attack, and is, to that extent, favored by the element of surprise. Although the defender, by carefully weighing all the circumstances, may often detect this point, yet the affair will seldom pass off without errors as to detail. The attack, therefore, has a certain right, based on the nature of things, to expect that he will find the defender not fully prepared at the decisive point. Although the duration of the greater strategical operations permits the defender to repair, to a certain extent, the errors he has committed, yet he will have to deal with rather long distances and the correction will not be complete. It will be difficult for the defender to remedy errors committed in the original concentration of his forces, for masses of troops cannot be moved like chessmen.

The fact that the offensive, as a rule, continually leads the army into new regions, is not to be underrated. In uncomfortable situations change is of itself a benefit. The change of location resulting from the offensive usually has a morally and materially refreshing effect on the troops. This apparently insignificant circumstance may become a very important element in the reanimation of exhausted armies. To appreciate this we have only to think of an army which, after lying for a long time in

front of one of the enemy's fortifications, again marches into the country for a campaign, as was the case with the Germans when they were relieved at Metz.

Thus it would seem of the offensive that it has only advantages for us to praise. It must, however, not be forgotten that the offensive makes great demands on the troops. Its nature requires the employment of troops regardless of consequences, and marches draw on their strength as much as the attacks to which they lead.

Losses on the march are in war generally even greater than the losses in battle.

As the design is to develop the attack in constantly progressing action up to the attainment of the object, and, if possible, without interruption, it permits of no resting pauses for recovery of strength, to bring up the stragglers, or to collect fresh forces. The Corps of the Prussian Guard lost, in spite of its excellent discipline, between 5,000 and 6,000 men on the marches between the battles of St. Privat and Sedan.*

The country through which the aggressor passes must, as a rule, be considered hostile; provision must therefore be made for security.† The advancing army must leave portions of its force behind, and these cannot take part in the subsequent decisive actions.

Moreover, the lines of communication upon which the necessaries of life are conveyed to the army generally require special protection.

The army at the same time increases the distance from its home depots. Although this circumstance loses much of its importance in highly civilized nations on account of modern means of communication, such as railroads, it still retains a not inconsiderable weight as a weak-

**Hohenlohe,* "Letters on Strategy," I., p. 55.

†Of course the case is very readily conceivable of an invader supported by the inhabitants of a country, when the latter are of an allied race. Such a condition, however, is an exceptional and purely accidental one, not connected with the nature of the offensive.

ening force for the offensive; for, in the first place, even after a railroad in the enemy's country has been placed in condition for use, we cannot rely upon it like upon one of our own, and it will be unable to bring up all of the detachments following in rear of the attacking army. A retreating army, however, effects a junction with them in the most natural way.

Sieges and blockades of fortifications which cannot be disregarded also require troops.

When matters are progressing favorably, the urgency of exertion is not so plainly recognized as in the distress of an unfavorable situation, and the efforts of the troops gradually relax; this is founded in human nature.

Finally, the advancing offensive easily excites the envy, jealousy, or apprehension of other powers, and these motives give rise to an unfavorable political situation, which also becomes an element of weakness, and may even rise to the extent of armed intervention.* The assailant also incurs the danger of losing allies who are willing to support him up to a certain point, but do not wish to see him grow strong at their expense.

It is characteristic of the strategical offensive, that the force at the head of the army, which is in contact with the enemy, and which fights the battles, forms a relatively quite small part, often only one-fourth, or even one-eighth, of the whole force employed; and yet the fortune of the whole depends upon the success or failure of this fraction. Attacking armies melt away like fresh snow in springtime.

Napoleon, in 1812, crossed the Niemen with 442,000 men; but, after not quite three months of campaign, he arrived at Moscow with only 95,000. The destruction of this one-fifth of his force during the retreat determined the loss of the whole campaign and became the turning-point in his historical career. Still more remarkable is the example of the Spanish campaign of 1810. In the spring of that year 400,000 Frenchmen crossed the Pyrenees; they continued an uninterrupted advance and gained many successes, and yet Marshal Masséna finally brought only 45,000 men in front of the lines of Torres Vedras, at Lisbon, which was the decisive point. This force was too weak to deliver the last decisive blow and thus completely attain its object. This final weakness necessarily resulted in a calamitous retreat, which marked the end of French military success on the Iberian peninsula.

*Austria's conduct in the Crimean War, and that of England in the last Russo-Turkish War, furnish examples of how irritating the interference of third powers may become, even without armed intervention.

Of the 160,000 men which Russia placed in the field in the spring of 1829 to decide the campaign on the Balkan peninsula, Field Marshal Diebitsch had only 20,000 left when he arrived at Adrianople. Moltke calculated that if he had been obliged to continue his march, he would have arrived in front of Constantinople with 10,000 men at the most. A skillfully concluded treaty of peace saved him from exposure of his weakness and a reversal of the situation.

A similar state of affairs existed in 1878 when the Russians, out of a great army of 460,000 men which they carried across the Danube, could scarcely muster 100,000 men in front of the gates of Constantinople, and in this number the sick, said to have formed one-half of the whole, are included. Even the Germans, who had unusually favorable conditions, out of an army of 372,000 with which they crossed the frontier in 1870, brought only 171,000 men as far as Paris, after a campaign of six weeks; yet a defeat of this portion of their forces would undoubtedly have given a different turn to the whole campaign.

Very properly, therefore, do we speak of the waning power of the offensive as an unavoidable fact which must be taken into account, and which becomes the more pronounced the longer the line is upon which the attack advances. This circumstance requires that the necessary

provisions be made, both in organization and plans of campaign, to be able to continually strengthen the fighting front of the army by means of reserves, of which, as Clausewitz says, the military roads in rear of the army must never be clear.

In the correct appreciation of these circumstances the most important foundation for the completion of every offensive campaign is to be sought. The boldest and best planned strategical offensive leads to final ruin when the available means are not sufficient for the successful attainment of the last objective, the possession of which insures peace. This is most clearly seen in the fate of great commanders, from Hannibal to Charles XII. and Napoleon I., who failed in this point, and were wrecked in consequence. They resemble those talented enterprisers whose means do not quite suffice for the entire completion of their speculations, so that occasionally a last, often a very insignificant, mishap may cause the loss of all their brilliant achievements at one blow.

If we follow the course of the offensive, we shall find that, in contrast with the defensive, there is in each case a point of culmination, at which the original superiority has, through weakening influences, arrived at a condition which was still just sufficient for a victory, but which does not guarantee future success. It is the business of the commander to recognize the arrival of this culminating point at once, in order to utilize it, as Diebitsch did, for the conclusion of a treaty of peace, or to pass over to the defensive and hold on to what he has acquired until the enemy agrees to a peace. Should the point of culmination arrive too soon,—that is, before the desired peace is secured,—a disastrous reverse follows, and this is generally much more severe in its consequences than the effect of a defeat on the defensive.

The offensive, moreover, requires not only ample numbers of active forces and abundant sources of supply, but also special qualities in the army,

As marching activity is the element of the offensive, the masses of troops must themselves be mobile, and this we can only count upon when they are well trained. Frequent and independent action is required of the separate parts; consequently, a sufficient number of skillful and experienced leaders must be available. Only well-organized and well-disciplined troops, who, during an adequate period of peace service, have become accustomed to acting together, will be able to withstand the destructive elements which make themselves felt during the course of the offensive.

With young and indifferently instructed armies the strategical offensive can be successfully carried out only when the adversary is of still more inferior quality. Militia troops are not at all suitable for this purpose, and a forward movement alone will often disintegrate them.

The strategical offensive therefore makes the possession of numerous and efficient armies an indispensable condition.

2. The Tactical Offensive.

In the tactical offensive the relative importance of numbers and character of troops, as compared with the strategical offensive, undergoes a change. The value of the good quality of troops becomes still more striking, for in the tactical offensive there may be questions, such as the capture of intrenchments, defiles, bridges, fortified positions, etc., which ordinarily cannot be solved with troops of mediocre or inferior quality.

A single good battalion, which does not fear the effect of fire, may suffice to storm a narrow bridge defended by the enemy, whereas ten poor ones would stand helpless in front of it, or would, one after the other, undertake ten feeble attacks, which fail to accomplish their object. Pictures of this kind are shown by the battle on the Lisaine. General von Werder's extended line of battle would probably have been penetrated by 40,000

efficient troops, whereas 120,000 mediocre soldiers were unequal to the task.*

Here also, as in the case of the strategical offensive, we remark that the nature of the changes in the positions of troops facilitates concentration on the point selected for decisive action.

It heightens in a no less degree the mental activity and independent action of the leaders. It awakens their inventive faculties by offering a variety of opportunities, and stimulates ambition and eagerness for action. It helps the troops to overcome the impression of danger and strengthens them through the feeling of superiority; for everybody knows that the commander would not have decided upon attack without being sure of the existence of such superiority.

The tactical offensive points out the common objective even more plainly than the strategical offensive. In the latter case the objective is guessed at from the enemy's dispositions; in the former it is seen. This circumstance diminishes the danger, to which separate portions of the force are exposed, of going astray in the fight.

The influence of surprise assists the tactical offensive more powerfully than the strategical, because it gives the enemy less time to recall the errors he may have made

*We do not herewith desire to reflect on General von Werder's dispositions. They were perfectly adapted to the circumstances, although they did not conform to the rules for ordinary cases, for the extension of 19 miles for 43,000 men is excessive. General von Werder, however, understood his enemies very well, and knew that if he deprived them of opportunities to make turning movements, they would not be able to derive advantage from their great numerical superiority. As a comparatively weak resistance at each point was sufficient to check the clumsy opponent, this method of procedure was entirely justified. Prince Frederick Charles managed in a similar way before the battle of Orleans when opposed to the French Army of the Loire. Both these examples teach us how largely, in the practical application of the rules for the conduct of war, the character of the opponent must be taken into account,

through lack of foresight. The special means of attacking in various directions at the same time, turning movements on one or both flanks, and simultaneous advance against the flank and line of retreat of the enemy, are in this case also available.

As the attacking forces move forward the objective comes into view, and this admits of a combination of fire, the value of which also must not be underrated. The great ranges, especially of modern artillery, make it possible for troops not belonging to those actually making the attack, and who took no part in their advance, still to assist materially in the decisive action by means of their projectiles.

Finally, the tactical offensive, from its very nature, also possesses the advantage of selecting the point of attack; and, with even greater certainty than in the strategical offensive, is victory assured when a decisive advantage is gained at this one point. What has been stated about the way in which the strategical measures of the defender constitute a whole is true with increased force of his tactical dispositions, and the solidity of the entire arrangement is shaken when a part is destroyed or put out of joint. The defeat of a wing, or a successful attack in flank, usually decides the fate of the battle. We even see the defender give way when he has been placed at a disadvantage in only one-fourth of his position, whereas the assailant, who was repulsed on three-fourths of his front, still triumphs, because of victory on the last fourth. Such was the case on August 18, 1870, at Gravelotte and St. Privat. The natural road to the place where the break is made through the enemy's line of battle is apparent to all the forces of the assailant, and the course of events, of itself, brings about concentration and co-operation. The moral impulse of success increases the inherent force of the shock.

Now, the tactical offensive, from its very nature, also contains elements which diminish its power. The marching of the troops, of itself, gives rise to the very first one of these disadvantages. It deprives the aggressor, before he reaches the enemy's line, of a portion of his strength, through fatigue. This may have the most serious consequences; for instance, when, after a long march to the field of battle, considerable obstacles in the terrain have still to be overcome, as was the case in the attack made by Schwarzkoppen's Prussian brigade on the 16th of August, 1870. Numbers of men sank down from exhaustion and fell into the hands of the enemy, incapable of making a defense.

Another item of the greatest importance is the fact that tactical movements almost completely interrupt the fire, so that the assailant must temporarily submit to the enemy's fire without being able to reply.

This fact, and the circumstance that during the advance he must forego the protection afforded by the terrain, cause the losses of the assailant, up to the moment of breaking the enemy's line, to be by far the greater, as a rule. Generally it is not until after this success that he can obtain compensation; for then the defender is also put in motion, and is made to feel the disadvantage thereof with double force, because his movement is to the rear.

Limitation as to time is another condition which must be considered as tending to increase the difficulties of the tactical offensive. The work must generally be accomplished in one day. With the setting of the sun an undecided battle often becomes a victory for the defense and a defeat for the attack. Had the battle of Gravelotte–St. Privat been fought on a winter day, the French would, in all probability, have remained victorious. Night would have called a halt in the attack after the capture of Sainte Marie aux Chênes, and would have given Marshal Bazaine time to reinforce his menaced right wing in a suitable manner with the whole Guard Corps.

It is frequently pointed out as a weakness of the attack, that, being under compulsion to act, errors committed therein will precede any that may be made by the stationary defense, and that the latter can take advantage of them. This weakness, however, is balanced by the fact that the assailant can take advantage of defects existing in the original dispositions of the defense—in fact, can base his plans upon them.

It is one of the most difficult tasks for the commander not only to recognize errors committed by the opponent at once, but also to take advantage of them; the latter requires very favorable previous arrangements, especially a suitable distribution of the troops.

The great demands made upon the troops in action, although not constituting a source of weakness, still impose conditions which considerably increase the difficulties of the attack, as has already been indicated. The troops should be mobile and at the same time possess great power of withstanding the moral effect of danger. They require numerous leaders, of high and low grades, who have had a great deal of practice. All this makes a thorough and sufficiently long course of preparation in time of peace a matter of necessity. With untrained armies, even if they be superior in numbers, the tactical is still less practicable than the strategical offensive.

These conditions must be carefully weighed before the offensive is decided upon. Unless we have at least the greater part of them on our side, success will hardly be attained.

It is also to be considered that to carry through an attack successfully demands of the commander much greater severity towards his troops than is required in the defense. The latter appears as the least, the indispensable measure of military service demanded by the

duty of self-preservation The attack, as it were, requires an increment, which only a powerful mind is able to exact. The decision to make the attack increases the weight of responsibillty for the generally very heavy losses incurred in its execution; and from such responsibility the majority of mankind shrink.

VI.

THE DEFENSIVE.

1. The Strategical Defensive.

We must not imagine the strategical defensive to be a state of absolute passivity, in which an army quietly waits in the positions it has occupied until the enemy approaches and makes an attack. Proceedings of this kind are met with only in the most exceptional cases, and almost never accomplish their object. The strategical defensive should not exclude movements entirely, and by no means confine itself to an absolute standstill.

One way of carrying out the latter idea is as follows: The defender takes up a position which permits him to oppose the aggressor at once with a portion of his forces, no matter from what direction he may come, and to delay his progress until the masses of the army have been concentrated in that direction and are able to coöperate.

This method of arranging the strategical defensive is found in military history to be the one most frequently adopted by the weaker side. Although it contains no special advantages, it still permits postponement of the decision which is so difficult in such cases, and affords freer play to the hope for favorable occurrences.

Another course of action that may be adopted in the strategical defensive is for the defender to retire before the assailant into the interior of his country—so as to permit the natural circumstances which have a weakening effect on the attack to operate for a certain time, before matters arrive at the decisive stage. In cases of this kind the defender often acquires an increase of strength while thus retreating; for he in the meantime approaches his sources of supply and establishes connection with bodies of troops which were not available for the first line, nor at the very beginning of the war. Of course, such a plan is only advisable when there is sufficient space to give ample time for the operation of the influences which have a deteriorating effect on the offensive. The importance, also, of those portions of the whole territory involved, which are sacrificed by a preliminary retreat, must not be such that their loss alone would have a decisive influence.

The third method of bringing the element of movement into play in the defensive is to await deliberately only the preliminary enterprises of the assailant, in order to detect his errors or weak points, and then, taking advantage of these, to pounce upon him with our forces, which have in the meantime been concentrated.* This method of carrying out the strategical defensive is considered the most effective—properly speaking, the ideal one. In this case, however, it is overlooked, as has already been stated, that the defensive surrenders itself, so to speak, and does not appear as the true principle of action, but rather subordinates itself to the offensive and becomes an auxiliary thereof. It is here more a question of an attack waiting for the auspicious moment, than of defense, and we have no unqualified right to count an operation of this kind as defensive.

It is the fundamental idea of every strategical de-

*Blume ("Strategy," first edition, p. 199) has classified these three methods of defensive action as position, retreating, and sortie defensive.

fensive to equalize an originally unfavorable ratio of strength by a relatively slow consumption of our own forces, as against the more rapid expenditure of the enemy's troops in the offensive.

This endeavor is favored, in the first place, by the fact that in the defensive the question of marching, which, as we have already emphasized, has in itself an injurious effect, plays a less important part than in the offensive. It is much safer, therefore, with inferior troops, to venture upon the strategical defensive than upon the strategical offensive.

There are also other circumstances which make the situation easier or afford strength to the defensive.

As the most important of these we must count the fact that the defensive pursues only negative purposes, and that these are much less difficult of attainment than positive ones. The latter require action, and this is much more likely to give rise to unfavorable incidents than waiting. In case the assailant commits errors in his measures and his undertaking is wrecked thereby, then the defender can consider himself victorious, without much effort on his part. The opponent has accelerated the destruction of his own force, which was the main object of the defensive. Clausewitz says of the defender that "he reaps what he did not sow."

Even omissions and unnecessary delays of the aggressor inure to the benefit of the defender. The advantage may, under certain circumstances, already be on his side, simply because up to a certain time he has not yet been decisively defeated. This, for instance, would be the case when through the intervention of powerful allies a turn in affairs may be expected; such was the situation on the side of the Turks at the outbreak of the Crimean War. Time, as a rule, is the defender's friend; for the offensive, even when not of itself too weak, is often paralyzed because final success is too long delayed. It is of vital importance for the defender to hold on, and

for the assailant to acquire; in war the former is generally the less difficult.*

The strategical defender, moreover, selects his own theater of war—which is known and perhaps specially prepared—and is not forced, like the aggressor, to break away and enter upon unknown territory. He is better protected than the latter against disasters which may be caused by the unexpected appearance of obstacles. As it must be assumed that the defender has a better knowledge of the region in which the war is being waged than the assailant, and is already in position, whereas the latter is only arriving, his enterprises will be attended with less friction than those of his opponent. The defense can obtain more effective service from the railroads of the theater of war than the attack, for the latter generally has at its disposal only such lines as are held by force, and which have been deprived of their *personnel*, are destroyed to a considerable extent, and have been thrown into disorder. Finally, the defender is able to make use of the natural and artificial sources of strength offered by the terrain, such as streams, forests, swamps, or deserts, which the enemy, in order to make headway, must overcome, as well as of fortifications and intrenchments, which detain the enemy, or compel a division of his force.

Moreover, we also, very naturally, suppose the defender to be in his own, and the aggressor in a foreign country. The former can thus count upon the assistance of the inhabitants, which, in obtaining information and subsisting the troops, will be of importance. He also, in most cases, controls the usual administrative departments of the theater of war, which may be of great service

*Only in cases when there is a very considerable difference in material resources, as in the American War of Secession, will the reverse be true. To be able to endure the war long enough is one of the fundamental conditions of a successful strategical defensive. Great confidence may be placed in the existence of this element of strength.

in the maintenance and shelter of the army, in repairing its losses, and in making arrangements for the transportation of large bodies of troops.

In a wider sense the defender receives the assistance of the entire people, whereas for the aggressor the probability of such support becomes more and more remote. In this we need not immediately consider an armed uprising, but rather the support which a patriotic people can furnish to whatever system of defense may be adopted, at the same time obstructing the movement, shelter, and subsistence of the enemy.* The danger to home and fatherland, which becomes visible to the defender, spurs him on to increased exertion, and may develop passions which will heighten his powers of resistance to a degree not anticipated, as was the case in 1808–12 in Spain, and in 1813 in Germany; in France also, in 1870. The assailant, whose own people imagine him as advancing through the enemy's country in a career of victory, without seeing at close quarters the difficulties and dangers with which he is struggling, will be far from having these forces at his disposal to the same extent. It will especially be difficult to bring to public knowledge the indications of the imminence of a reaction, which, though almost imperceptible, do not escape the practiced eye; thus the support which is imperatively necessary to

*We of course assume that in the defender's country the public spirit is active, that it takes part in all public affairs, is ready to make sacrifices, and, also, that the people are accustomed to contributions for the army. Should this be not the case, then it may happen that, on the contrary, the hostile army, which is not hampered by restrictions, will live better than the defender in his own territory. In the campaign of 1806 the Prussian and Saxon troops nearly starved to death in a rich country, because they did not dare to touch its supplies, whereas the enemy made unrestrained use of them. In the winter campaign of 1870–71 some French troops bivouacked in the streets of cities in bitter cold weather, as it was not considered desirable to quarter them in the houses of rich citizens, while, on the contrary, the Germans following them made themselves comfortable at such hearths and tables.

a successful conclusion of the campaign may be denied when the object is all but accomplished, as was experienced by Hannibal in Italy.

The greater freedom which the defender enjoys on account of all these circumstances occasionally allows him to prepare surprises for his opponent. As he can generally live in the country wherever he may choose, he is able to make abrupt changes of direction in his lines of defense, in order to take up flank positions. This forces the assailant also to make an unexpected departure from the direction in which he had been advancing, and in which he had made arrangements for the subsistence of his army. This is, of itself, a not inconsiderable difficulty. As he lacks knowledge of this new country,—with which the defender should be familiar,—this sudden change may be the cause of errors and misfortunes which increase his troubles.

The invader will, on account of the forward movement of his army, have greater difficulty in providing for the subsistence of his troops; he will, therefore, oftener be constrained to divide his forces in order to occupy more space and be able to draw more supplies from the country. This presents the defender with an opportunity to fall upon one of the parts with his united force before the others can arrive to support it. If this succeeds, then there arises the further possibility of proceeding with the same troops which have just victoriously fought one of the enemy's columns, against a second, or even a third, with similar success. Napoleon furnished a brilliant example of this in his sally against the Silesian Army, on the days of February 10th to 14th, 1814. Frederick also carried out a defense of this kind on a large scale in the Seven Years' War.

As long as the defender's army is not thoroughly defeated, it exerts an entirely natural power of attraction on the assailant, as the magnet does on iron. The reason, to be sure, why he endeavors to find that army

is to defeat it, and thus obtain relief from the pressure which its proximity exerts on all his enterprises. We may therefore assume, in general, that the assailant will arrive at whatever place the defender may have chosen for his position. This makes the situation of the latter much less difficult.

Should the invader attempt to pass by a position commanding the theater of war and held by the defender, the latter will generally only have to make a show of movement to cause the attractive power of his army to be felt. Even the not very pronounced movements of the Turkish Army of the Danube on the left flank, and the advance of Osman Pasha on the right flank, of the Russian Army in the summer of 1877, sufficed to recall the latter from its hasty first enterprise across the Balkans. Any attempt of the assailant to pass by and disregard the defender can always be effectually answered by an advance against his flank. In October, 1806, Scharnhorst in vain suggested a movement of this kind for the Prussian Army; but in May, 1813, his recommendation for the Allied Army at Lützen was crowned with success. General von Werder, on the 9th of January, 1871, successfully executed this movement against General Bourbaki at Villersexel. The strategical defender can make use of this greater freedom of movement without anxious concern, especially in his own country.

We have already recognized the necessity of completing the preparation of the forces earlier than the adversary as one of the most important conditions for the strategical offensive. The possibility of fulfilling this requirement, however, depends on the legal organization of the army, as well as on the systematic preparation for mobilization and the possession of abundant equipment and great means of transportation; and, furthermore, on the geographical configuration and condition of the realm. It also demands considerable sums of money. It is difficult to unite all these conditions. Rivalry in these matters with neighbors who are more fortunately situated may, even in time of peace, bring a country to the verge of ruin.

But the combatant who confines himself to the strategical defensive escapes this danger. He can probably, without much damage, leave to the opponent the advantage of a somewhat earlier start, provided, of course, that it is not so considerable that the lines of defense and the positions selected for use are reached by the enemy before occupation by the defenders.

While considering the offensive the statement was made that the defender, in the general case, has a better prospect of the support of the other powers than the aggressor. At the present time a condition of equilibrium has been formed in Europe, in the maintenance of which all the powers have a certain interest. They will, therefore, look with disfavor upon the disturbance of this balance by the destruction of one power or another, will oppose it, and will forcibly check any victor who goes too far in the exploitation of his advantages. In 1866 the intervention of the powers not directly concerned in the war was limited to a very feeble diplomatic action by Napoleon III. in favor of defeated Austria; and for prostrate France, in 1871, it did not make itself felt at all. The reason for this lay in the wise restraint which the victor placed upon himself in making use of acquired superiority.

The general tendency towards conservatism which is prominent in political circles at the present time has its origin in the advanced age of all the European states; and this naturally suits the purpose of the strategical defensive, whose principle also aims at the preservation of the *status quo*. In the Seven Years' War young Prussia found out how dangerous it may be to disturb a condition which has become established and has been generally accepted as satisfactory. Only the uncommon genius of a great sovereign saved her from destruction at that time.

Opposed to these advantages connected with the choice of the strategical defensive, there are, however, certain material disadvantages. This method of conducting a war will, as a rule, not be able to rid itself of a certain general consciousness of weakness. This very feeling, in fact, was what gave birth to the decision to limit action to the defensive.

We must remember the fact that with parrying alone nothing can be decided. The utmost that can be obtained in the strategical defensive is a peace, which the opponent grants on account of exhaustion. Such was the peace achieved by Frederick the Great; however, a change in the political situation came to his aid. He was also extraordinarily favored by the methods of fighting in use in his time.

The attempt of the Southern States, in the American War of Secession, to tire out their more powerful opponent failed, in spite of the most patriotic exertions, in spite of better armies and more competent commanders. In the Russo-Turkish War, also, the strategical defensive succumbed after preliminary successes. He who is not able, at the conclusion, to pass over from the defense to the attack may generally be considered as lost. His collapse is only a question of time.

The strategical defensive will in most cases be obliged to abandon a certain amount of territory and its resources from the very beginning; for a defense conducted exactly on the frontier will hardly ever be possible. The defender does not escape without loss, unless he can, after a successful defense, recover what he at first abandoned to his opponent. Thus, with reference to its final objective, the defense has only itself to blame for an increase in the difficulties of the task.

The moral consequences resulting from consciousness of weakness, which is always present in the defensive and from enforced inactivity while waiting to see what the enemy will do, exercise an important influence. If movement develops new intellectual and moral forces in the aggressor, continual uncertainty puts the existing ones of the strategical defensive to a severe test. We have stated, it is true, that the defender may prepare surprises for the attack by observing his movements and falling upon him as soon as mistakes are discovered; but this is not easy, for the situation will never be perfectly clear. The attack will touch the defender, not only at one, but at several points simultaneously. Generally, those in immediate contact with the enemy imagine that their position is the one of the greatest danger. "As a rule, everybody is clamoring for assistance," says Clausewitz. This uncertainty results in false alarms and exertions, which, when they are recognized as useless by the troops, have a doubly depressing effect. Only a very sure and experienced eye will be able to perceive at once whither to turn. Moreover, the utilization of the errors of the attack is only possible in case of very rapid successes, and these demand great tactical superiority. Thus, here also, the advantage of the strategical defensive is conditional and limited.

Nor can the defensive ever be freed from the disadvantages that lie in the fact that an active enemy can menace its lines of communication with the rear, even when there are several of them. In order to protect the latter, the defender will often be forced to abandon advantageous positions.

Finally, it remains to be mentioned that in the strategical defensive the troops are often deprived of beneficial changes of location for long periods of time, whereby the danger of devastating diseases is increased and, as a rule, a depressing effect is produced on the minds of the soldiers.

Yet all these circumstances will not have as much weight as the one fundamental weakness, that with the strategical defensive—as with the defensive in general—we can only avoid defeat, never gain a victory.

2. The Tactical Defensive.

Most of the peculiarities and conditions which influence the strategical will also come into play in the tactical defensive. Some, however, produce their effect in a different way.

The principal advantage of the tactical defensive, and the one which generally causes its adoption when the commander is at liberty to take this course, lies in the fact that it avoids the danger of shattering the troops in an unsuccessful assault on the enemy's position. Headstrong assailants easily yield, especially in local combats, to the temptation of expending great efforts on objectives which are not worth the sacrifice. In this way the attack may cause a waste of troops. Even success, considering the fearful effect of modern fire-arms, may be so dearly bought that the general situation is made worse, rather than better. Pyrrhic victories are a special fatality of the tactical offensive of our times. The desire to make effectual use of fire action invites the adoption of the defensive in most cases, especially after bitter experience of loss in offensive battles. As a matter of fact, the defender has the continuous use of fire on his side, whereas the fire of the attack must be broken off during the forward movement. This advantage is limited in the defense only by the unavoidable divergency of the fire, while that of the attack, from the nature of things, is converging. The assistance of the terrain is still more efficient in the tactical than in the strategical defensive. The defender selects the obstacles which the assailant must cross under his fire, and, moreover, can often strengthen them artificially. Furthermore, the defender enjoys the special advantage of being able to station his troops under cover and of keeping his dispositions concealed, while the assailant has to advance in plain view, nearly always on the established roads.

This would give the defender still more frequent opportunities for surprise than are recorded in history, were it not so difficult to move troops out of assigned positions with the promptness requisite to take full advantage of the enemy's errors. The picture which shows us the defender lying in wait, so to speak, in his position, ready to pounce upon the enemy as soon as he makes a mistake, looks quite well, but is seldom realized. An army simply is not able to dash at its prey with the quickness of thought, like a tiger. The eye requires time to discover the opportunity; time must also be allowed for the decision to ripen, for orders to reach the troops, and for the latter to prepare for the advance and begin the movement. All this makes an aggregate of time which will generally permit the assailant, who is in continual motion, to pass the critical point.

After troops have once been assigned to places in the terrain, it is difficult to set them in motion again, especially in directions other than perpendicular to the front; this is the cause of the weakness of the flanks of every position. Otherwise the defender, who has the shorter lines, would always complete a change of front sooner than the assailant with his turning movement.

To be attacked from several directions at the same time, to be occupied in front and have one or both flanks turned, or even to be deprived of the line of retreat,—these are the principal dangers to which the tactical defensive succumbs. It is more difficult in this case to reply with counter-attacks than in the strategical defensive, because space is generally too limited and time too short to begin them and develop them to their full power. Such a procedure as advancing with the same troops, first against one and then against another portion of the enemy's army—that is to say, operating tactically on interior lines—will hardly ever be possible, because the distance between the separated groups of the enemy will be too small, and we should thus find ourselves not only between two opponents, but also between two fires.

Tactical counter-attacks on the field of battle other than in the simplest form, by a direct advance after repulse of the enemy, require a high mastery of the art of handling troops, such as was possessed by Napoleon. At Austerlitz he gave an example thereof worth imitating; but such examples are rare.

The defender will have a better chance of preparing a surprise for the assailant by appearing unexpectedly in a different direction, after the assailant has already made his dispositions with reference to the supposed direction of his enemy. The attack must then often be combined with a change of front, and this is the most fertile source of confusion and misunderstanding.

If the stability of the troops in the defense constitutes a certain weakness, it is coupled on the other hand with the peculiar advantage that it will not be necessary to make equally high demands on their dexterity and cohesion, nor on the skill of their leaders, as in the attack.

With troops with whom, on account of their general character, it would be impossible to carry out anything like an energetic attack, a very passable and even successful defense may be organized. Between these two tasks there is a great difference; and in case of free choice, with deficient troops, the defensive frequently offers a harbor of refuge.

VII.

ALTERNATION OF OFFENSIVE AND DEFENSIVE.

IT IS DIFFICULT to lay down definite rules for the alternation of offensive and defensive. The nature of both forms must be carefully considered and that one chosen which, at the time, is more suitable for one's own army and the more conducive to the attainment of the object. The selection of the proper moment for the change is a matter of tact. The commander must, so to speak, feel the pulse of his army, to ascertain what he can demand of it.

In the element of strategy we shall make a change from the offensive to the defensive, as soon as the destructive action of the former on the army, which, as we have seen,* results from the most natural causes, has become so great that superiority over the opponent, on which the assumption of the offensive was based, is in danger of being lost. In the endeavor to take full advantage of that original superiority, it would be an error to continue the advance until the force of circumstances makes it imperative to adopt a defensive course. The latter becomes all the more ruinous, because of the losses in moral and physical force connected with a violent change; these losses will no longer permit the assailant to

*See p. 39.

remain stationary at the pinnacle of his progress, but will push him down below it.

The commander must himself select the proper moment for the change to the defensive, and possess sufficient force of character to relinquish a continuation of the offensive voluntarily, if he desires to retain what he has already won. But in deliberating on the situation, he should bear in mind that the losses which he perceives in his own army unwittingly produce a greater effect on him than those which his imagination assigns to the enemy. Otherwise he will give up the attack too soon and not pursue his advantages to their utmost limit. To delay passing over to the defensive until the last moment, and then to make the change of one's own accord, is the highest achievement of the art.

Tactically, the same governing conditions hold good. An attack pushed too far generally leads to a fatal repulse; for here events move much more rapidly than in the domain of strategy, and the stemming of the tide, when once backsliding has commenced, becomes doubly difficult. The impressions of the moment here have greater power. However, it is less difficult in the tactical than in the strategical domain, to hit upon the right moment for the change. The diminution of forces becomes more plainly visible. The commander not only has the army under his eye, but can also overlook the stage on which the whole action must take place. The limit to which he should advance, and which can be attained without incurring the risk of sacrificing what has been won, becomes more clearly recognizable. In general terms this limit is formed by the enemy's line of defense; in detail it is marked by localities in that line, such as villages, strong enclosures, woods, and ridges. The rules of tactics teach us not to advance beyond localities immediately after capturing them, but to occuy them, restore order, secure possession—in a word, to change to the defensive temporarily.

The change, in this case, also, must not be an involuntary one, but must originate in the discernment and the well-considered purpose of the leader.

A change to the defensive because the distances and the exertions they will demand from the troops are too great would indicate neglect in the details of the preparation. Calculation in advance is difficult and demands a strict control of the imagination, which otherwise is easily swayed by personal desires and produces illusions. Napoleon I. has been criticised because in 1812, after the battle of Smolensk, he did not stop to change to the defensive, as the preparations for the maintenance of his army, vast as they had been, were still seen to be inadequate for a further advance. If this great genius made such an error, how much more likely is it to befall others!

A change to the defensive merely on account of a desire to take advantage of the terrain and make strategical or tactical use of a strong position will seldom accomplish its purpose. The circumstances which theretofore placed the aggressor in condition to make the attack, but forced the defender to limit himself to the defensive, will continue to be operative at the time when an exchange of parts might seem desirable. It is not to be supposed that the defender, who but just now felt himself too weak to stand his ground, will suddenly gratify our wish and change to the attack—especially when he has a strong and advantageous position opposed to his front.

Heavy losses in the attacks brought on by the strategical offensive may make a change imperative. Defensive action procures the time necessary to draw in reinforcements, or it may afford the opportunity to exact relatively greater sacrifices from the enemy for some time in the offensive battles, which, under certain circumstances, he is compelled to fight. Thus an equalization of losses takes place, which restores the original proportion. Such a case will arise when we succeed in hemming in and enclosing the hostile army to such an extent that

the enemy is bound to make room for himself at any cost, or in cutting him off from a communication without which he cannot live. However, such fortunate situations are rare. Though they cannot be excluded from theoretical consideration, in practice we generally cannot count upon them.

The alternation may also be of such a kind that both forms come into use at the same time. Those portions of the army which are not intended for decisive action are made relatively weak. They are instructed to act only so as to occupy the enemy, to give way when he pushes on with overwhelming forces, and to advance again as soon as he weakens himself,—whereas the troops selected for the engagement proper are made relatively strong at the expense of the former. The Allies made very successful use of this combination of offensive and defensive in the autumn campaign of 1813. They decided to retire before Napoleon, until the pursuit should be abandoned, whenever he might make his appearance at the head of his main army, but, on the other hand, to fall upon his marshals in command of detachments with all their forces whenever said marshals endeavored to operate against them. The only violation of this principle of action committed by the Army of Bohemia was punished by the loss of the battle of Dresden; its observance, on the contrary, brought to the Northern and the Silesian Army the victories of Gross-Beeren, Dennewitz, and the Katzbach. Still such proceedings require a very experienced eye and quick resolution. Blücher showed himself a master of the art, for he twice succeeded in drawing the Emperor after him into Silesia without offering him the ardently longed-for opportunity for battle. In both cases he was obliged to abandon the pursuit because the advance of the Army of Bohemia against Dresden recalled him. In the end he had attained nothing; he had only exhausted the forces of his troops to no purpose.

The difficulty of seizing the right moment for passing

from the defense to the attack is due to the fact that it must generally be ascertained from the condition of the enemy; and for the formation of this opinion we have only uncertain indications. The case will very seldom be so simple that a great increase of strength on our side, or a plainly visible decline on the enemy's side, practically forces the offensive upon us.

The essence of the defensive lies in retention, that of the offensive in acquirement, and, consequently, in expenditure of force. Like a good business man, the commander ought not to part with his means uselessly where success is not profitable; but neither should he stint when promising gains are in prospect. Judicious distribution of the forces, with reference to time and space,—and with it success,—depends upon a happy combination of these principles. To be equally strong and make the same efforts everywhere is the sign of clumsy leadership. Only he who knows how to husband his forces and present only a temporary front to the enemy at points where a disaster could not have decisive consequences will be in position to make a vigorous attack at another place and to gain the superiority at that one point, which should be the constant object of our endeavors.

VIII.

THE OPERATIONS.

1. Generalities.

In the course of military events there will always be separate groups of affairs springing into prominence, the parts of which are more intimately connected with each other than with preceding or subsequent occurrences. Military activity then tends with livelier interest towards a special object and leaves all others to one side, or subordinates them, until the former is attained. After that, a certain abatement, or perhaps a brief pause for recuperation, may be observed until a more rapid course is again adopted, and, in a manner, a new idea, a second objective, becomes visible.

Every such group of actions will be composed of marches, the assumption of positions, and combats, and is called an "operation." Thus in the narrative of the Franco-German War we speak of an operation against the Saar, against the Moselle, of the operations around Metz, etc. That the different groups of occurrences or operations must be connected by the bond of a common leading thought, and not arbitrarily or accidentally strung together, is a matter of course, and does not remove the distinction.

Again, among certain operations a more intimate relationship will generally be brought about by the fact

that they are conducted under similar circumstances, at the same time of year, against the same hostile army, and are separated from the rest of the operations through conditions of time or space, change of opponents, or alteration in the method of conducting the war. Such an association of operations is properly called a "campaign," which forms a definite portion of the war. Originally this designation referred only to the time of the year, and people spoke of "winter" and "summer campaigns." With the increase in the size of armies and extension of the theaters of war the differentiation with reference to location was added. Thus, for example, we distinguish in 1870–71 a Loire campaign, a campaign in the North and one in the East of France, etc. This classification, of course, has no practical significance for the conduct of war; still it facilitates a general survey when considering events of the past, as well as when forming plans for the future. That a war may, in exceptional cases, be concluded in a single campaign, and the two terms thus coincide, was shown in the year 1866, in Bohemia.

If we have stated that the nature of modern warfare demands an uninterrupted flow of events, this is not to be taken in a literal sense with reference to a whole war or campaign. No troops can march and fight day and night, continuously. Periods of rest are inserted. With reference to a single operation, however, we must hold to the requirement more rigidly; for the enemy will soon divine the purpose associated therewith and make use of every delay to frustrate our plans. Even a single inopportune day of rest may cause great harm, especially to the attack. Bazaine would probably have escaped from Metz if the German I. and II. armies had insisted on resting on the 15th of August, 1870. He, for his part, was carried into ruin because he did not sufficiently utilize the same day to effect his departure. In the defensive such interruptions of movement often occur of themselves, because delay is necessary to ascertain what

the enemy is doing. This, however, does not imply a standstill with reference to the general plan, for that very often merely aims at delay and gaining of time.

If the progress of action during the whole course of the operation is to be an uninterrupted one, if possible, then all the requirements of the troops must be well attended to beforehand. Their subsistence and the reserve supply of ammunition must be most carefully regulated for the whole course of the operation. The distances to be passed over must not be greater than can be covered, as it were, in one dash. In military history we seldom meet with operations which contain more than five or six successive marches in the same direction, without any change of design or objective. To stop in the middle of an operation for no other reason than that the exhausted state of the troops requires it, does not augur well for success. The opponent quickly observes that we have undertaken more than we are able to carry out, and this increases his confidence and strength. If the distances are too great, it will be better to divide the operation, or to make an attempt to move the troops slightly nearer to the enemy before the actual beginning, so as to arrive in a tract of country from which we can reach our object at one stretch. In that district provisions and ammunition are then collected, and the means for crossing the natural obstacles that may be found on the way are prepared;* and the completion of the last indispensable preparations should be immediately followed by the setting out of the troops. During the movement, communication with the region in which these preparatory measures have been taken must not be severed, for the necessary supplies have to be forwarded therefrom. That district forms the foundation upon which the operation is built up. This leads us to the conception of a base usually adopted in the Art of War.

*In this campaign to Portugal, in 1809, Marshal Soult was forced to make a detour of 140 miles, merely to find a crossing over the lower Minho; this was a punishment for thoughtlessness in the preparation of his undertaking. The bridge train had been left behind in the delusive hope that the inhabitants would be quite friendly, and that the bridges would be found intact.

2. The Base of Operations.

Formerly the designation "base of operations" was understood to apply to a definitely fixed geographical line, the possession of which was secured through special provisions, such as the construction of fortifications, bridgeheads, intrenched camps, etc. Often the operations of a whole campaign aimed only at gaining a base for the next one. Nations contented themselves with the capture of a few fortifications from which, perhaps not until the following year, the enemy's territory was to be invaded. The existence of a good line of communication between the important points of the base was, of course, necessary, as also the availabilty of a serviceable network of roads towards front and rear. A navigable river, with a row of fortifications commanding both banks at the principal points of crossing, consequently appeared to be the best base of operations, in the older sense of the word. Lines of fortifications connected by a great military road rendered similar service.

Along the base, protected by the fortifications, commissary storehouses were established, supplies of clothing and foot-gear accumulated, and the ammunition for a whole campaign brought together. Workshops were erected for the repair of damaged, and the replacing of lost, war material; artillery, bridge, and baggage trains were assembled; and often even depots of recruits were established in order to make good the losses in human life also. The army, in a word, was regularly installed, so that it could always, after exertions and losses, be restored to a good condition.

When the army advanced, care was taken to follow

it with the base, and a new line, a temporary or intermediate base, nearer to the theater of operations, was established. Although the arrangements in the latter case were not as complete as on the main base, it, nevertheless, was required to contain a supply to last several days, of everything that might be needed by the troops.

All great commanders, although their campaigns may bear the stamp of boldness, have attached the highest value to the possession of a good base. However much Alexander may have been tempted, after his first victories over the Persians, to follow at the heels of their defeated armies in order to make the most of the advantages he had gained, we nevertheless see him, as well after the battle on the Granicus as after the one at Issus, turn first to the maritime countries on the Mediterranean Sea; there he even undertook wearisome sieges in order to capture the harbors and thus establish a line of communication with his native country, besides securing places in which to create depots for his army. He even considered the conquest of Egypt necessary before marching into the interior, in order to provide himself with the naval forces needed for the extension of his conquests. Having started out from the small and far-distant territory of Macedonia, he changed his base after penetrating Asia and utilized the whole eastern coast of the Mediterranean Sea for that purpose.

Napoleon I. was not less thoughtful always to provide himself with a secure footing for his operations. Especially instructive in this regard are his measures for the campaign of 1813 in Germany. After the lines of the Vistula and the Oder had been lost the winter before, he chose the Elbe as a base of operations. At first he thought of undertaking a gigantic offensive from the lower course of this stream, in order to regain connection with the strong garrisons which he had left in the fortresses of the Polish-Prussian theater of war. He attached the greatest weight to the retention of the northern course of the Elbe,

with Magdeburg and Hamburg, in order to use it as a base, and recommended to the viceroy Eugene, with this sole purpose in view, the plan of taking up a menacing position, with the remains of the army returning from Russia, in advance of the former place, on the road to Berlin.

In the second portion of the same campaign the Emperor chose the middle Elbe as a base for the defensive. He arrived at this conclusion in view of the general situation, although it was quite contrary to his inclinations. It is instructive to examine in detail his careful measures for the security of the position. He already possessed three fortresses on the banks of the stream, Magdeburg, Wittenberg, and Torgau, but that did not satisfy him. Hamburg and Dresden were also fortified: the former strongly, so as to be able to offer independent resistance to the enemy for a long time; the latter so that it could be left in the sole charge of its garrison for a week. The Emperor did not anticipate remaining away from the latter city for a longer period, under any circumstances. During the campaign he also thought of adding two other places of arms, one at the opening of the Plauen Canal into the Elbe, and the other at the confluence of the Havel and the Elbe; in the course of events the project was, however, abandoned.

In this way Napoleon endeavored to relieve himself of all care for the security of his base while delivering rapid and powerful offensive strokes against the Allies, who surrounded him on a wide arc, extending from Mecklenburg, through Silesia, into Bohemia.

All the material of war that his army might need, and rich stores of provisions, were accumulated in the Elbe fortresses, so that he could look forward with confidence to a long and decisive campaign.

Yet it must not be forgotten that an antecedent armistice had given him ample time to equip his base properly. The events of war will not always grant a

sufficient delay for this purpose; and a rich territory with good communications, from which all necessary supplies can be collected during the operations is of extraordinary assistance.

In a wider sense, this whole region is also called a base, and we therefore speak of an army as based on such or such a province.

In the Occident dense networks of railroads permit us to bring reinforcements and supplies from the most distant sections of the realm in a few days. Even the limitation of a base to a certain district is abolished by this fact. The whole domain of the state takes up this rôle. And as the railroads of the enemy's country can also be used, in case his demolitions have not been too systematic and thorough, the frontier itself no longer forms an obstacle.

The conduct of war of our times therefore reckons with a movable base, and this is one of those advantages which permit the exercise of the utmost energy.

It is evident, without further proof, how favorably an army which controls such a movable base is situated. The assailant must, therefore, carefully prepare himself for the restoration of the railway lines of the theater of war beyond the termini originally controlled by him, and for the resumption of the operation of the roads interrupted by the enemy; otherwise the defense will soon have an advantage. The latter, in turn, must take the necessary steps to deprive the enemy of the use of the stretches of road he is compelled to abandon, either by barring them with fortresses or forts, or by thorough demolition.

A further requirement of a base is that it be sufficiently extensive. If it consists of only a short line, or even of a single point, it will naturally be easy to force off an army resting on it. In any case the base must bear a proper relation to the size of the army. An army numbered by hundreds of thousands cannot be suitably based

on one or two small fortifications. For so many men, the hospitals alone require more room. In order to be able to live, such masses require a greater space. All movements are hampered when the district to which the army, in case of necessity, must return is too contracted. The fundamental difficulty with all transmarine expeditions lies in the fact that they are usually limited to a single point, that of debarkation.

When a network of railroads forms the base, a large army would receive but poor support from a single line. There must be several of them in the direction of the line of operations, if some degree of freedom of movement is desired.

The straight line is not an advantageous form for a base. But if a base surrounds the theater of war on two sides, the situation becomes more favorable, especially if the two legs form an angle approximating a right angle. The party operating within this angle can find support and security in two entirely different directions. Hence it is called a double base. Napoleon I. endeavored to secure such a base in 1806, when the line on the Rhine, to the left of and touching the line of the Main, from which he advanced, was also prepared as a base.

To have one or more lines of railroad in rear, and to be certain that in the advance others will soon be found which arrive upon the theater of war from a lateral direction, constitutes the most favorable case. For this, however, the theater of war must have a very fortunate configuration.

A change of base in the midst of the operations of war is a quite difficult matter, even when we are able to make use of the domestic system of railroads by a circuitous route. The transfer of accumulated supplies to another line, in any case, requires more time than the impatience of the commander is willing to grant, or the necessities of the troops can concede. The delay is caused by the confusion which generally arises in rear of the

great armies of modern times, as well as by the extent and variety of the demands made on the officials in such situations.

A simple pushing forward of the base, so as to follow up an advancing army, is of course much less difficult; we have only to prolong the existing lines of communication and put into operation the railroads held by the advancing troops. It thus becomes merely a question of forwarding the means of subsistence of the army to the new termini.

In pushing forward a base, a fleet and a land force can support each other very well, whenever one side of the theater of war borders on the sea. Of this the Japanese are at the present time giving us a very pretty example in their advance against China. At first they occoccupied the disputed objective, Korea. Then, after a victorious combat, they crossed the border stream, Yalu. By this time the distance between their army and the harbors of Korea where they had disembarked had become immoderately extended. The fleet then appeared, with a second contingent of the army, in front of the fortified harbor, Port Arthur, situated at one side of the theater of war, and took it. Afterwards it captured Weihai-wei. In the further advance these points offered support to the land forces. From their position, both these points command the great basin of the Gulf of Pe-chi-li. Provisions, ammunition, and reinforcements can be dispatched to every port on the coast. An earlier appearance of the assailants before these fortified places would have exposed them to the action of relieving armies; a later one would have missed its purpose.

In the ages of antiquity we see the same thing carried out on a large scale by Alexander, who caused his land forces to be accompanied by the fleet of Nearchus, on the march to and from India.

The uninterrupted maintenance of proper connection between the operations and a well-supplied and secure base has always been carefully considered by all great commanders. Twice in the year 1813 do we see Napoleon I. abandon his pursuit of Blücher in Silesia and return to Saxony, because the Elbe and the principal point of support thereon, Dresden, were menanced by the main army of the Allies advancing from Bohemia.

Yet circumstances may require us to abandon, temporarily, all considerations of the base, and, as it were, look only forward, not backward. We then pursue an object which, when it is attained, will furnish us a new support for future undertakings, in place of the one we have abandoned. General Sherman's march from Atlanta to Savannah, and thence onward through South and North Carolina to Goldsboro and Raleigh, gave an example of such an operation, which was attended with the greatest success. Yet it is to be remarked that the march was made through a territory almost denuded of hostile troops, and that the supplies taken along could be replaced in the country. The General also had the certain prospect of gaining another base on the sea-coast.

Careful preparation, very determined leadership that will not stop for anything, and decided superiority over the enemy are indispensable in such cases.* Nevertheless, the total abandonment of a base is always a leap in the dark.

The strength of the army plays an important part in this matter. It must not be out of proportion to the means of the country. Sherman on his march commanded 65,000 men. This is a considerable force for a thinly populated district like Georgia and South Carolina. With the armies of our times, running into the millions, it will seldom be permissible for the commander to separate himself from all connection with his base; unless it be just before a great decisive engagement, in order to gain a

*At departure from Atlanta, Sherman carried along in his wagons provisions for more than twenty days. *John Bigelow*, "The Principles of Strategy," Philadelphia, 1894.

favorable direction of attack, as was ventured by the Germans on the 18th of August, 1870, at St. Privat la Montagne.

Victory in battle restores complete freedom and opens all communications which before had been abandoned. It is a matter for correct judgment to determine, in individual cases, when and to what extent the abandonment of the base may take place without endangering the maintenance of the troops. Defeats are in such cases generally ruinous, as the destruction of the "great army of the Vendée" in its campaign north of the Loire in December, 1793, proves.* However, generals who fear isolation more than they love success will seldom accomplish anything really great. Those commanders who make the equipment and security of the base their principal business, controlling everything else, usually let slip the moments for favorable action.

If it be already difficult to separate oneself from the base voluntarily, it must become a serious matter when this occurs unexpectedly, through the action of the enemy. Interception should, however, not be considered in a purely geometrical way. The mere fact that a fraction of the hostile army is marching across the lines connecting us with our base must not by any means be permitted to frighten us. It is only when he also strikes those dispositions without which we cannot very well live for any length of time that a real danger arises.

If the army be in condition to forego connection with its base for some time, because it has in the meantime established new points of support farther in advance, or because it is moving in a district which affords it the necessary means of subsistence, the information that a hostile detachment is on its recent lines of communication will not be able to detain it. The intercepting body of

**Boguslawski*, "The War of the Vendée against the French Republic," Berlin, 1894, p. 199.

troops must, of itself, be of sufficient strength to inspire respect. Not for one minute did Napoleon I. think of turning about because the Duke of Weimar, in October, 1806, with a division of the Prussian Army, advanced through the Thuringian Forest and against the roads which connected the French with their base on the Main and the Rhine. This proceeding was conceived quite in the style of the old method of conducting war, in which it was believed that greater importance should be attached to geometrical relations than to the number of combatants. After Napoleon had established himself on the Elbe, in August, 1813, the idea that the Austrians from Bohemia might penetrate into the heart of Germany by Baireuth no longer worried him at all. "What is of importance to me," he wrote to St. Cyr on the 16th of August, "is that I be not cut off from Dresden and the Elbe; but little does it matter if I be separated from France." Should the Austrians undertake that move, he had made up his mind in advance to "wish them a happy journey, and to let them go." Evidently, they would only have been able to pick up or destroy a few supply-trains in Franconia, Thuringia, and Hesse, but could not have touched a single objective the loss of which would have seriously imperiled the Emperor's position, as the loss of his fortified principal depot, Dresden, would have done.

3. Lines of Operations, Lines of Communication, Object of Operations, and Lines of Retreat.

The conception of a base leads us quite near to that of *lines of operations and communication*. The former are the roads upon which the army advances from its base towards its object; the latter are the routes by land or water, or railroads, by means of which it is continually fed and cared for. He who has completely isolated himself from his base is also freed from all care concerning his lines of communication. When Hernando Cortes

burned his ships after setting foot upon Mexican soil, he probably was convinced that with his small force, in that populous foreign country, it would be impossible to keep up communication with the coast in any event. Thus with one stroke he rid himself of two hindrances.

On the other hand, the best equipped base will naturally be of no use if the roads leading to it are unsafe. The larger the army is the more active will be the intercourse in its rear, and the better and more numerous must the lines of communication be. With the enlargement of the masses of troops these lines gain so much in significance and importance that stategy, in general, has even been viewed as a study of the lines of communication—a conception which, of course, is entirely too limited.*

The highways of a country are the safest lines of communication; the enemy may annoy or interrupt transportation thereon, or even destroy the roads in places, but will very seldom be able to block them completely. Should one road be barred, then another remains open, and the main road can be reached again on byways. With the use of the highways less difficulty also is experienced when it becomes necessary to effect a change of direction and a transfer of the whole system of communications of the army. But the progress of wagons and pack animals is slow. The loads transported are comparatively small. Rain and snow have a great effect on their movements. Even the best-constructed highways are finally cut up by the incessant coming and going of wagon trains. Under certain circumstances winter closes mountain roads completely. Although special means are now sometimes employed to increase the usefulness of such simple lines of communication,—such as high freight wagons, harnessed with heavy horses, which are customary in the east of Europe; horse railroads, with hastily laid

**Willisen*, "Theory of War," pp. 33–35.

wooden rails; trains of freight wagons drawn by road engines, etc.,—yet expedients of this nature are applicable only to the great artificial highways and not to byways and mountain trails, and can never entirely displace the more rapid means of transportation which regulate commercial intercourse. An army of respectable strength which relies entirely upon the roads of the country will be hampered in its movements, and, according to modern ideas, be considered clumsy. All campaigns in the Orient, on the Balkan peninsula, and in Anatolia, to our eyes seem to bear that character. They can be correctly judged only by taking into account the circumstance that in most cases provisions and ammunition are transported on the backs of horses, mules, and camels. It is only in the level regions of these countries that ox-carts, such as are to be found there, can be utilized.

Routes by water, such as navigable canals and streams, furnish excellent lines of communication. Transportation in vessels is cheapest, and the largest single loads are carried in that way. Now that freight boats running along chains are drawn by steam power, as is done on the Elbe, such lines of transport are many times as efficient as in the days when they were dependent on favorable winds, oars, and sails. And yet the possession of the middle course of the Elbe, which intersected his whole theater of war, became for Frederick the Great one of the elements of his superiority in all his campaigns in Saxony and Bohemia.

However, the value of these lines is limited by the facts that in a severe winter they may be closed by ice, and that their direction cannot be changed. With a sudden change in the operations they may therefore lose their importance.

The sea, as a means of communication between an army and its sources of power, is free from both these restrictions; it does not freeze over except in the far

North, and vessels are not confined to a fixed line. But we must not be limited to a single harbor nor to a small number of them, especially while the enemy still possesses the means to become dangerous to us at sea. He would lie in wait for our transport ships when on their way to harbor, and destroy them. It must also be remembered that harbors on the coast of our latitude may be closed in winter by ice-floes, and that storms and bad weather may temporarily interrupt communication by sea.

We therefore give the preference to railroads as the most rapid means of intercourse, depending neither on wind and weather nor on heat and cold. They are, of course, inferior to ships in the power of carrying large single loads, and, in common with canals and streams, they have the defect that it is impossible to change their location to suit the convenience of the commander. Still, in western Europe railroads are more numerous than navigable water-courses, and, when an army suddenly executes a change of direction, it will generally be able to find lateral and cross lines available for its use. However, demolition by the enemy is not as difficult with railroads as with other lines; and with an extensive system the most careful guarding will scarcely be able to entirely prevent interruption. Railroads are weak lines of communication; but this fact affords us the advantage of being able to operate the line ourselves and of destroying its usefulness for the enemy.* Streams cannot be damaged at all, and the great roads of a country only with difficulty; but railroads are easily rendered unserviceable. When one of the termini is on the seashore, it is only necessary to withdraw the rolling stock to the interior to make the line worthless to the enemy for some time.

*One of the most untenable of the objections which have been urged in various quarters against establishment and enlargement of railroad systems—for example, in the Ottoman Empire, and this on the part of the military authorities, too—was that thereby a road into the country would be opened to the enemy.

It is not easy to convey locomotives and cars on ships, at a time when all the means of transportation are in use for the troops, their equipment, and their subsistence. In any case the amount of rolling stock so transported would hardly suffice to render considerable service. On other lines the demolition of a few structures will prevent their use for months.

The mention of railroads brings us to the fact that lines of communication and operations are not identical, as is often silently admitted. As it is impossible to advance into an enemy's country by rail, lines of railway will hardly become lines of operations;* in rare cases navigable rivers may be used in that way in countries where there are no roads, the army being transported in vessels. The two kind of lines of communication most capable of rendering service can, consequently, not be used at all, or only in exceptional cases, as lines of operations.

Under certain circumstances the latter deviate materially from the former in their directions. When the German II. Army advanced against the Loire, late in the autumn of 1870, it chose its principal line of operations by Joinville, Troyes, Sens, Nemours, and Pithiviers. It would have been impracticable to use this road continually, because of the great distances to be traversed by wagons. Therefore the railroad by Joinville, Chaumont, Chatillon sur Seine, Tonnerre, Joigny, Moret, Montargis, and Juvissy, to Orleans, was chosen. At times the railroad to Lagny, near Paris, was also used for this purpose. Thus, in this case, lines of communication and operations were widely separated. It may sometimes be a matter of no consequence if the enemy does cut the line of operations in the rear of the army. As soon as the troops ad-

*Exceptions, such as the turning movement of the French against the Austrians by way of Vercelli, May 23–31, 1859, are disregarded.

vance, these lines lose their importance, unless they are at the same time intended to serve as lines of communication.

In the general case the two of course coincide, or they are parallel, so that they share the same fate when the enemy makes his appearance.

Lines of communication must be made secure, above all things. The longer they are the more difficult does this become, the more liable are they to injury, the easier is it for the enemy to break them, and, naturally, the more difficult does the supply of the army become. Advances upon long lines of operations, which require similar lines of communication, are of the most difficult kind. The whole undertaking has often failed on account of their inordinate length; for instance, the march of Masséna against Lisbon, and of Napoleon against Moscow, or the advance of Frederick into Bohemia in 1744. A line of communication of more than five or six long marches may already be considered an extended one, and we shall do well to establish a new base, at least for means of subsistence and ammunition; this the German II. Army tried to do in December, 1870, when it reached the Loire.

The danger of losing the communications increases with the shortness of the base. The angle of meeting of the lines of operation becomes correspondingly acute. It naturally contains less space than an obtuse angle and is more easily turned. The lines, coming closer together, are more readily cut, and the theory of the Art of War formerly demanded, in the interest of safety, angles of a certain size between lines of operation. This purely geometrical conception is, however, very superficial. The only matter of importance is that intercourse in rear of the army shall remain open. A wide, navigable stream, commanded by our men-of-war, might form a very long, and yet a very good, line of communication. A great deal depends upon the density of the population, their feelings towards the advancing army, and the degree of their warlike character. Finally, the number of troops plays an

important part. Everything depends upon the proper proportion of the troops to the amount of space occupied. Count Yorck,* in his excellent work on Napoleon I., makes an interesting comparison in this regard. Three months and a half after the beginning of the war with Russia, the Emperor was in Moscow, with a line of communication 538 miles in length, extending to the Niemen in his rear. The territory through which the army had marched, and which was occupied by him, contained in all 94,170 square miles; the strength of the army was 213,000 men. The Germans, three and one-half months after the beginning of the Franco-Prussian War, were camped before Paris with their main body and were only 211 miles from the Prussian frontier. Their troops covered in all a space of 28,470 square miles and numbered 425,000 men. It is clear from this with how much greater security they controlled their theater of war than Napoleon I. did his. Operations against their lines of communication with their native country would have been much more difficult, and disaster could never have caused such a calamitous retreat as the French Army experienced in 1812. The safety of the communications in rear of the army, consequently, depends upon thorough control of the theater of war; and the former, for its part, has a direct bearing on the condition of the troops for battle. Favorable length and situation of individual lines, and definite measurement of the angle they form, do not matter so much as favorable relation of the strength of the forces to the space occupied, and the control they exercise therein.

He who pictures to himself how many wagon trains, each one belonging to a distinct body of troops, come and go in rear of an army, will easily understand what important consequences every transfer of base or change in the front of operations must have for the lines of com-

*"Napoleon as Commander," II., p. 160 *et seq.*

munication. A mere change of the relative positions of bodies of troops in the front produces difficulties. The trains of wagons cross each other, and confusion is unavoidable. As it is usually impossible to keep up incessant telegraphic or written communication between them and the fighting portions of the army, they will have trouble in finding their way as soon as the customary line of communication no longer conducts them straight to their destination. The wandering about of trains in rear of an army, looking for their organizations, is a common occurrence. In cases of change of front and shifting of position of the army corps we therefore content ourselves, as long as possible, with a bending of the lines of communication, even when unnecessary detours are caused thereby. The first long pause in the operations is utilized to make the necessary exchanges.

The best way of making these changes is to give up the old lines little by little and to establish the new ones gradually, so that for a time both will be in operation side by side. This, however, assumes that a new base is found by the side of the old one; its equipment alone requires a good deal of time. It is only when we possess a double base from the very beginning, or when the district serving as a base encloses the army in a semi-circle, that the transfer is easy. The advantages of a base of this kind are most clearly shown by the possibility of forming new connections in various directions. The advantages of a movable base are, however, still more pronounced in such cases. If we are skillful in the restoration of destroyed railroad lines,* we can begin the establishment of the new base at the same time that the decision to change

*Military forces—railroad troops—will never be able to accomplish this as well as great railroad contractors, who, in time of war, should be drawn into the service of the government for this purpose. In this way the bridge of Montereau could have been restored in 1870, and an excellent line of communication for the II. Army would have been opened by Troyes–Nogent sur Seine.

the line of operations is being formed, and thus transfer the whole apparatus for the maintenance of the army to another district. Nothing can endow the inventive faculty of the commander with a bolder flight than the freedom of movement thus acquired, and the Art of War of the future cannot help showing us still greater things than have so far been seen in history.

The greater the number of lines of communication an army possesses the better, of course, it is off. The most favorable condition is for each one of the units which are independent with reference to administration, supply departments, and recruitment to have its separate line of communication. At present, in most of the great armies, these units are the *Army Corps.* In 1870 and 1871 the Germans succeeded in almost every case in assigning a separate road to each one of these units for its exclusive use.

The object to which a movement especially relates is designated the *object of operations.* As all important undertakings in war require coöperation of the forces, the lines of march leading to the object will, in the nature of things, be convergent. However, we must not conceive the object as stationary, but as in motion. The possibility of union must therefore not be confined to the single point upon which we originally fixed our view. The lines of operation must rather be flexible, to the extent that they can be brought together earlier, as soon as the presence of the enemy demands it; or, so that they may be separated still more, and only brought together beyond the object originally intended. It is a serious matter to have several lines of operation, separated by impassable obstacles, in use at the same time. They expose the army to the danger that its separate parts may be defeated, in case the enemy should advance more rapidly than was anticipated, and bring superior forces to bear on one of the lines of operation.

Lines of operation directed to the rear, which are

used by an army retiring before a superior foe, are called lines of retreat. In their selection certain points may come up for consideration which are quite different from those referring to lines of advance.

The defeated army, which can no longer think of immediate resistance and only endeavors to withdraw from the enemy, will convert its line of communication into a line of retreat in order to secure subsistence and cover its base.*

However, we did not have in mind such an army as that, but rather one which is not yet checkmated, and which continues to play a vigorous game in spite of its retreat. For the moment, therefore, it suffers only from a relative inferiority, as compared with the strength of the enemy. Instead of escape and self-preservation, the most important thing for such an army is restoration of the equilibrium through reinforcement. Hence it follows that on a retreat we must use the lines which will unite the army with its reinforcements; and it is quite immaterial whether the latter are approaching on the same lines of operation or on different ones. In the bold determination to make light of all anxiety about the communications and the base, a retreating army has often found the means to bring about an unexpected turn in affairs. We have only to think of Blücher and Gneisenau after the lost battle of Ligny, when, instead of a retreat by Sombreffe, on Liége and Maestricht, where their natural communications were situated, they chose the line on Wavre and Tilly, where the possibility of union with the English lay, for whom they had waited in vain at Ligny. Thus they succeeded in arriving at Waterloo at the decisive hour, in winning the battle, giving a surprising turn to the campaign, and preparing a precipitate termination for the sway of Napoleon.

*The more awkward an army is, and the more defective the arrangements of its supply departments are, the more closely will it be bound to its base. Large, newly levied armies, such as those of the third French Republic in the winter of 1870–71, can scarcely get away from the railroads. The subsistence of the Turkish Army in the last Balkan War was only made possible by the extraordinary frugality of the soldiers, of which people in Europe can hardly form an idea. And yet the difficulty which the commanders experienced in just this point tied their hands to an unusual extent, and prevented all free and rapid movement. This was especially the case with the main army on the Lom.

Of course, the period during which the lines of retreat are separated from the communications must not be such a long one that the army is ruined thereby, or weakened very much through want. A union with the reinforcements would then no longer be able to effect the desired restoration of the equilibrium.

This restoration is sometimes to be sought in strong positions, which are reached by the retreating army. The deviation of the line of retreat from the line of communications, however, becomes more dangerous in this case. When retreating upon auxiliary forces, means of subsistence can generally be found with them; but not so with a position, unless this has been rapidly brought into communication with a newly created base. Such a base, instead of being situated in rear of the army, may be located to one side; and if the increase in strength resulting from the advantages of the position, or the arrival of reinforcements, is great enough to influence the enemy, such a situation may be an advantage rather than a disadvantage. The enemy must then not only renew his attack, but also unexpectedly change his line of operations. "Lateral bases are often decisive in preventing penetration of the enemy to the heart of the country," declares Jomini.

Lines of retreat which lead to such a base and leave the direct road to the object open to the enemy are, as a rule, called eccentric.

A movable base, such as a network of railroads, in case we control a sufficient extent thereof, facilitates connections with eccentric lines of retreat to a greater degree

than simple lateral bases; for, after separation of the lines of retreat from the original lines of communication, railroads not only restore to us the power to feed and supply the army, but also allow the rapid transportation of reinforcements. This advantage is especially useful to the defender in his own country.

If the increase of strength sought by the retreating army is to be derived either from positions or from reinforcements, good judgment should be displayed in choosing lines of retreat in the direction affording the greatest chances of success. On this subject definite rules cannot be given; however, we shall endeavor further on, when treating of defensive operations, to advance a few ideas bearing on their selection.

4. Preparation of the Army: Equipment, Mobilization, Concentration.

No army can take the field from a peace footing without additional preparation. This lies in the nature of the modern organization of armies, which in time of peace keeps together only a nucleus of the troops to be formed in time of war. In fact, in a great many cases even this does not exist, and entirely new bodies of troops have to be formed. Officers and men of the furlough class have to be called out, the number of horses, wagons, and means of transportation must be increased on a great scale, and a vast quantity of war material procured. A certain amount of time is therefore necessary to arm the troops. This can never remain a complete secret. The opponent will receive news about it, and will know what to expect. Rivalry between great powers has led to preparation for arming in time of peace, even when no war is in prospect. The maxim for such cases is to keep in store all those necessary supplies which, when the army must be transferred to a war footing, could no longer be procured, or the acquisition of which would require so much time that the completion of the preparation of the whole force

would be delayed thereby. In the same way all, even the most minute, administrative details that may be necessary are worked out on paper. The ideal of perfection set up in this regard is that the army should be ready to march as soon as the last soldier called out has taken his place under the colors.

This transition from a peace to a war footing, prepared beforehand to include the smallest details, is called the *mobilization* of the army.

The great relative advantages of mobilization are apparent. It makes a surprise of the enemy possible and does not betray the purpose we are pursuing until it is too late for the enemy to overcome the advantage we have gained. It does not become certain that we have decided upon war until just before its outbreak.

When the mobilization is completed, the troops are ready for war, but the army is not yet in position for action. The time we have gained might be lost again if the assemblage of the troops proceeded too slowly. This must therefore also be prepared in all its details. Some persons may remark that it is impossible to foresee where this concentration would have to take place. In the succeeding section of this work, however, we propose to show that this is an error. The plans of operations are supposed to fix the most suitable place for the assemblage of our forces, against each one of the neighboring powers. By careful work a combination of marches and conveyance by rail and water may be found, in consequence of which all the troops will be able to arrive at their destination without loss of time. The limit of the attainable is generally to be found in the capacity of the railroads. Not until all the railroad lines that reach the zone of assemblage are put to use, and each line is daily supplied with as many troops as it can transport, can the concentration be considered well arranged.

Among the most important features of the preparation are the permanent quartering of the troops—

peace stations—in such a way as to favor to the utmost their embarkation and transportation to the frontier; the ample equipment of all the lines with rolling stock, so that the greatest number of trains that the nature of the road permits of may be run; and finally, a completion of the network of railroads in accordance with military considerations. The latter would not tolerate impaired efficiency of two or more roads on account of the fact that for certain distances they use the same track, or have crossings of streams in common. Rivalry between neighboring states has caused the construction of entirely new lines, for no other reasons than those given above. Strategical railroads form a characteristic feature of our times.*

The time required for the concentration of armies is now reckoned almost in hours. It is a fact worth pondering that if France were able to complete the concentration of her army three days sooner than Germany, she might, before the latter could get ready, invest Metz and Diedenhofen, cut Strasburg off from its communications, and cross the Saar with her masses of cavalry. The German forces, on the contrary, might be compelled to transfer their point of concentration, perhaps back to where it took place in 1870. Much more important than the material gain of such a start would be the moral effect, the increase of confidence on the part of the troops. Even one day may mean a great deal, and, as a matter of course, no power which understands its own interests will allow itself to be surpassed in this respect, without the most stringent necessity.

5. The Plan of Operations.

Although it is now generally admitted that a complete plan for enterprises in the field is impossible, because we have to reckon with the independent will of the opponent, we still shall be loath to give up entirely our purpose of determining in advance what the course of action shall be. On the contrary, it is in the highest degree important that quite definite ideas be formed; for vagueness of purpose produces vacillation and uncertainty in the commands, which in turn are followed by incomplete or feeble execution on the part of the troops. Lack of clear conception of purpose gives rise to weak methods of conducting war and is the germ of future defeat. The only essential point, when devising operations, is to apprehend with good judgment how far we can go and to what extent we are permitted to enter into details. We must also guard against letting arbitrary assumptions slip in which might become the basis for erroneous inferences. It is dangerous to take for granted that our preliminary steps will be successful simply because they are worked out on correct lines; for, as we have already shown, in war the most judicious measures may fail through accident.* Our material superiority will seldom be so great that we can be certain of crushing the enemy, in spite of misfortune and error. Should such be the case, then the contriving of a plan is also very easy and does not require ingenious devices.

While making a study of the probable course of a prospective campaign we shall meet with certain possibilities which are within our reach; but the art of selecting with certainty the one promising the greatest success cannot be definitely taught. In such cases a certain divinatory talent comes into play, which is generally called *coup d'œil*, and is difficult to explain. Through study and experience this power may be heightened, but it cannot be created where Nature has failed to make an endowment.

*Their number is relatively greatest in Russia, because the private intercouse of the thinly scattered population does not require as many railroads as the military consideration of the concentration of the army makes desirable.

*See pp. 9 and 10.

Napoleon I., as is known, made the assertion that he never had a plan. Yet we see that all his undertakings are, from the beginning, directed at some large and definite object which may be easily recognized, such as the separation of the hostile army from its communications, as in 1805, or the threatening of the enemy's capital, for the protection of which his army is compelled to interpose and accept battle, as in 1806, or the like.

It is said that Jomini, before the beginning of the latter campaign, to the great surprise of the Emperor, guessed not only the object he had selected, but also the road on which his campaign would begin. We may therefore assume that for the intelligence of an attentive observer it was possible to foresee both.

The surprising changes, which the great master of war had himself not anticipated, occurred only in the course of events, in accordance with the measures, and especially the mistakes, of the enemy.

It thus becomes clear what Napoleon meant. The plan is supposed to state what we desire to do, and, with the means available, hope to accomplish. It cannot prescribe the separate movements and enterprises through which we attain our object. The first serious encounter with the enemy has a quite decisive influence on our plans. We have only to think of Wörth and Spicheren, in 1870, as examples. The material and moral consequences of each battle determine subsequent action. As in the wars of our times operations begin with the completion of the strategic concentration, and the first battles ensue immediately thereafter, it follows that the farthest range of the plan can generally not be permitted to extend beyond the concentration. After that, the great general purpose alone remains as the guiding star for the commander in his undertakings.

In order to obtain a good conception of this general purpose, it is, above all things, necessary for the commander to have a correct understanding of the general

military and political situation and a keen appreciation of the capabilities of his own army. In 1870 the French committed a fundamental error. They believed it was possible to surprise the enemy by assuming a rapid strategical offensive. But the large units of their army were to be formed, for the first time, at the general assemblage; the reserves could not join until after arrival on the terrain of strategical concentration; and the administration of the army had been subjected to the most stringent centralization, so that the whole machinery was bound to be slow in its operation. The enemy, on the contrary, had prepared the mobilization and concentration of his forces in the most careful way; well-contrived decentralization permitted the quickest possible execution; and the great units, in the form in which they took the field, already existed in time of peace.

It was quite correct for the Turkish Army, which had just been conducting an offensive campaign in Servia and Montenegro, to confine itself to the defensive in the subsequent Russian War, as its entire organization made a forward movement to a great distance impracticable, and the enemy had the advantage in numbers and mobility. However, self-restraint ought not to have gone so far as to abandon wholly an active defense and individual offensive enterprises which could have impeded the march of the enemy, such as the occupation and detruction of the bridge of Barboshi, and the like.

Whoever plans a strategical offensive requiring energy and celerity, to be executed by awkward levies, the commanders of which have never had an opportunity to acquire, at great peace maneuvers, the necessary practice in handling considerable bodies of troops, is building a house without a foundation. It is bound to fall unless specially fortunate circumstances favor it.

On the contrary, the commander who, with a well-disciplined and suitably equipped army with experienced leaders, confines his action to the defensive, when dealing

with a foe of inferior quality, and without being forced thereto by overwhelming odds, buries a treasure.

Of course, nobody will be likely to commit such an error deliberately. Even in armies that are quite neglected, we have only to listen to the spokesmen; we shall generally find that they consider it capable of, and destined for, the greatest things. Either through lack of experience, or perhaps through pride, they ascribe to it the necessary qualities, and replace the solid foundation for their plans by artificial reasoning. For deficiencies that may exist, they would compensate by natural talent or special ideal powers, such as heroic bravery, enthusiasm, religious fanaticism, or the like.* Consequently a thorough general knowledge of our own capabilities and resources is the very first requisite for a proper grasp of the military object of the plan of operations. Often an enterprise that is good enough of itself will have to be dropped because the man who, from the nature of the situation, will be in command is not equal to it. In case it is the commander who forms the plan, let him ask himself, candidly and without self-deception, whether he believes himself capable of the great things he proposes.

In this way the first important point of the plan of operations will be decided—namely, the general method of conducting the war; whether it is advisable to proceed to the attack of the enemy, or to await an improvement of our own situation, on the defensive.

If we have to deal with several opponents at the same time, we must also determine against which one the main force is to be directed, and which others can be treated more as a collateral issue.

Then let us ask ourselves what the probable action of the enemy will be. Although the theory of war does

*The importance of such incentives should, of course, not be completely denied; but it would be still more erroneous to endeavor to cover up in this way all the weaknesses of an army, recognized by ripe and deliberate judgment.

not entirely preclude assumption of errors on the part of the enemy, when for special reasons we believe that they may with certainty be expected, it will, nevertheless, be circumspect to suppose, as a rule, that his measures will be correct—that is, such as will be most effective against us.

After we have arrived at a definite supposition in regard to the intentions of the enemy, it will be possible to draw up an image of the concentration of his forces, which is governed by the same fundamental conditions that control our own. The purpose which we ascribe to him permits us to recognize the district in which the assembly of his army must take place, and which, consequently, will form the base of his operations. The peace stations of his troops,—of which we should not be ignorant,—as well as the location and limits of his districts of military administration, will give us the points of departure from which his troops will start. The railroads and routes by land and water which lead from these points to the base will indicate to us their lines of approach thereto. At the place where the latter terminate we can sum up, and thus form an outline of the state of assemblage of the hostile forces. If this work be carefully done, it cannot turn out to be entirely incorrect. We can at the same time perceive the natural grouping of the enemy's forces into separate armies.

Our own strategic concentration should be planned accordingly. This, in case we intend to pursue the offensive, must, above all things, favor coöperation towards the front. But if we have a defensive plan in view, then the concentration of our forces on the probable line of advance of his principal body becomes the main point. In such cases it is of advantage to push the point of assemblage as near to the enemy as the security of the concentration will permit, as every step backward sacrifices territory, resources, and time.

After this, a plan for offensive action can furnish a

more detailed statement concerning the directions to be taken by the different columns, and may, moreover, designate the more limited space for the concentration preceding battle and the special point of attack, such as a wing, a flank, or the center of the enemy's army.

Beyond this we can only set up very general ideas as to probable action. They will, ordinarily, indicate the separation of the enemy from his most important communications, without which the continued existence of his forces is no longer secure. This is the easiest way of destroying the enemy, in the military sense of the word. That this problem is much more difficult of solution now than in the past is evident from our conception of a movable base, which affords a special means of support for the defender. As late as in the great American war, thirty years ago, the fate of an army could be decided by forcing it away from a single line of railroad. But at present this is no longer possible on a theater of war in western Europe. Here it would be a question of pushing an army away from entire regions, upon the resources of which it mainly depends for its subsistence. Unless we can surround the enemy, a complete decision is not attainable until we succeed in throwing him back against a neutral frontier, or against the shore of a sea not controlled by him.

Finally, a hint as to the way in which the enemy is to be forced to accept a peace forms the necessary conclusion of the plan.

A plan for the defensive will, in addition, state with some certainty in what strategical position the first resistance is to be made, or, in case this is to be only temporary, the probable location of the decisive stand. If the plan has been correctly developed, this place will generally coincide in point of time with the expected favorable change in the general situation. We must then also point out the sources of reinforcement which are to bring about this favorable change. It is manifest how important it is for the defender to so conduct his retreat as to approach these sources, at the same time leading the enemy away from his objective as far as possible. The more difficult his communications become, and the more ours improve in the course of the operations, the sooner will this change appear. The plan of defense concludes with an exposition as to when and where this change is to be expected.

It consequently does not, like the plan for the offensive, lead to a final termination, but can only open a prospect for the second period of the war, which will demand a plan for attack.

Sensible moderation is the quality which is more likely than any other to give value to a plan of operations. If it considers too much time and space and goes too far into details, which depend upon chance anyhow, it will soon be contradicted by the course of events.

However, some additional instructions are indispensable. The plan must prescribe general rules of conduct for armies on adjacent theaters of war. The object of these rules will be to prevent the events taking place on adjoining theaters of war from having any effect on the behavior of the main army before the decisive battle.

When fortifications influence the operations the mode of procedure with reference to them must be determined beforehand, because it reacts on the concentration. A siege-train of modern times can only with difficulty be transferred from one adopted line of march to another. It must, therefore, be decided in advance which of the enemy's strong places is to be taken by siege. We must likewise decide, when making the plan of operations, upon the place where the enemy's line of frontier fortifications, barring the way to his main army, is to be penetrated; for the troops advancing in that part of the theater will require a special equipment.

Finally, we must also consider the mutual relation of

the operations of the land and naval forces when a fleet is supporting the army.

A plan of operations thus forms a memorial, which begins with a general consideration of the political and military situation, especially with a comparison of the opposing forces, and deduces therefrom a rule of conduct for the course to be pursued in the general case.

Then it should make a statement of what the enemy may do and where he will effectuate the concentration of his forces, in order to determine furthermore, where our own must be assembled and how they must be grouped.

This is followed by selection of the directions for the first movements, the purpose of which is to deliver decisive battle against the hostile main body under the most favorable conditions.

Then a division into offensive and defensive plans takes place. The former indicates the further objects to be pursued in a way which, though general, still includes events up to the exaction of peace; the latter carries us only to the moment of the change and merely opens the prospect of a subsequent offensive campaign.

Finally, both discuss lateral issues which may influence the result.

IX.

STRATEGICAL OFFENSIVE OPERATIONS.

1. Object, Conditions, Expedients.

We already know that the object of all strategical offensive operations is to bring on the tactical decision under conditions in the highest degree favorable to us. We attain this when with superior forces we fall on the enemy's weakest spot. If, before the decisive battle, we succeed in bringing together all the troops that are at all within reach and in leading them against the enemy's most sensitive point, then we have, strategically speaking, done everything that ordinarily can be done in the offensive. To be the stronger at the decisive point is the object in which the whole science of war finally terminates.

The prime condition for success, aside from the fact that the means must be ample throughout, is concealment of our design, so that the enemy will not be able to perceive the direction of our thrust until it is too late for him to answer it by a concentration of all his forces before the battle. Consequently, at the moment when the movement has advanced so far that the enemy can no longer be deceived as to its purpose, the most distant fractions of our army must be nearer to the point where the encounter must take place than the corresponding portions of the enemy's force. If we have had good reports before the beginning of the operations, calculations in regard to

these distances can be made with some degree of certainty. The rapidity of the advance must, of course, be such that the enemy cannot surpass it. Energetic action must exclude every species of delay.

These conditions seem so very simple that one would believe a failure in their fulfillment impossible. What makes them rather difficult is the fact that the clearness of the situation, as we imagined it when resolving upon action, soon disappears in the execution. The contact of the two fighting armies does not take place at a single, but at a greater number of points. However, whatever their number may be, just that many forces are there to lead us off from the course we had chosen. With offensive enterprises matters are not in as bad a state as in the defense, where a cry of distress soon goes up in all directions; yet there is this similarity, that the forces everywhere seem to be too small and that reinforcements appear to be necessary. Nevertheless, the general is supposed to be able to withdraw troops here and there, in an unconcerned way, and put them in march in the decisive direction. Doubts then come up as to whether this has been fortunately selected. The operations of the enemy also have their effect and make the situation appear different from what he thought it was. For the further progress of the action real dangers arise which had not been foreseen. Instead of the one object of operations which he had in view while forming the plan, many of them appear before him in its execution.

In this crisis everything depends on whether, with correct *coup d'œil*, he is able to detect quickly the most important or at least *an* important, object, and has sufficient self-control to disregard the others for the moment. It will be of decisive value to bear clearly in mind, at all times, that the offensive generally wins the whole game as soon as it is victorious at a single point, no matter how its efforts at other points may turn out. In the skillful

utilization of this peculiarity of the offensive lies the secret of successful execution.

2. Selection of the Point of Concentration.

After we have chosen our object and have given the troops the proper direction towards the same, a great deal still depends on the selection of the point of concentration. If the troops, at the moment when they reach the object they are seeking, cannot coöperate, the operation is a failure, for the necessary superiority will not exist.

Now, it would be a good idea, in order to avoid this evil, to keep the forces united from the very beginning, and advance in a state of assemblage. This, however, is possible only in the rarest cases. We may, in the first place, have to reckon with a preliminary situation which was beyond our control, and which, for geographical reasons alone, prevents a concentration before the beginning of offensive undertakings, as, for example, was the case with the Prussians in 1866. Should we attempt in every case to follow the rule of first assembling all the troops on a base line before putting them in motion, so much time would be lost that the whole military situation might in the meantime be changed, and the assumptions on which our plans were based become useless.

We know that all such assemblages of great masses bring hardships to the army.* It may still be possible to feed the troops if we have a dense network of railroads behind us. The water supply is often a matter of greater difficulty. For an advance, subdivision and separation are requisite in every case. The necessity of finding a sufficient number of practicable roads makes such action imperative.† But this again makes previous designation of a point of assemblage indispensable.

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*See p. 22.

†See p. 22.

In the selection of that point of two great principles confront each other.

Napoleon I., as is known, is the principal exponent of assemblage before arriving on the field of battle. He formed his army into a single closed mass before delivering his irresistible thrust against the enemy. In order to have the assistance of surprise in such cases, he always took pains to conceal his concentration behind some covering obstacle in the terrain, such as a mountain range, a stream, etc. He called his system "breaking forth in mass."

Thus he united his army in 1805, between Donauwörth and Ingolstadt, behind the right wing of the Austrians, before crossing the Danube and attacking them in their rear at Ulm. In the same way he assembled his army, in the beginning of October, 1806, on the upper Main, at Baireuth, Bamberg, and Schweinfurth, ready to lead it forward in a concentrated mass. Similarly in April, 1813, with the masses approaching from France, he marched first to the lower Saale, at Merseburg and Weissenfels, where the viceroy Eugene was posted with the army remaining in Germany. True to his principle, he wished first to form a mass of his forces, and then advance against Leipsic and turn the right flank of the Allies, whose main force was in position south of that city. The spectacle is repeated in the same campaign toward the end of August, when the Emperor returned from Silesia, to the battle of Dresden on the Elbe. He did not fail to appoint a general rendezvous for his troops at Stolpen, in advance of the Elbe and of Dresden, in order to continue his movement therefrom in a united body. His very last campaign, that of 1815, began with a rapid concentration of all the troops stationed on the northern frontier, in the direction of Charleroi, in order to invade, in a compact body, the cantonments of the Prussian Army confronting them.

Quite contrary to this was the action of Frederick the Great at the beginning of the campaign of 1757, and also that of the Prussian Army of 1866 before Sadowa. Separated columns in these cases marched into the enemy's territory and chose their point of assemblage within the space occupied by the latter. The same procedure was repeated in 1870 and 1871 at Wörth, Orleans, and Le Mans, by the Prussian armies. Field Marshal Moltke appears as the exponent of the principle of concentration of separate columns on the field of battle, which is contrary to the Napoleonic principle.

The principles of both Napoleon and Moltke have led to great results. Both follow a similar purpose, to bring superior forces into coöperation in battle. In spite of the opinion of one of our most important military writers,* who, even after 1870, declared the principle of Moltke to be the less valuable, we must accept both on equal terms. Each corresponds to a definite preliminary situation, and cannot be arbitrarily applied.

With reference to preparation for war, Austria had gained the start upon Prussia in 1866. It was important to overcome this by rapid preparation and concentration of the Prussian forces, which were advancing from the eastern and western portions of the monarchy. Had General von Moltke attempted to assemble them at a single point before leaving Prussian territory, an additional loss of time would have been occasioned thereby.

The natural point of concentration, which could be most quickly reached by all the fractions of the army, lay in the direction of the enemy, in Bohemia, in the region of the upper Elbe. It is true that the enemy was able to arrive there first, though not with his *whole* army; for several corps were still at Lundenburg, in Moravia, while the most distant Prussian detachments were approaching from Dresden and Neisse, and could consequently arrive

*Count Yorck, "Précis militaire de la campagne de 1813 en Allemagne," Leipsic, 1881, p. 34.

in less time, in any event. The general advance in the direction of Gitschin had, therefore, not been resolved upon as a hazard which could only succeed in case of good fortune, but rather as a carefully considered and suitable expedient to counteract the unfavorable geographical conformation of the Prussian domain.

It is therefore quite possible that the point of concentration may sometimes be looked for in territory already controlled by the enemy; his control, however, must not be so complete as it is in the case when, with superior forces, he awaits our arrival in the occupied territory.

The Napoleonic principle of massing troops before the inroad has the advantage that, in case of surprise, when the circumstances are found to be different from what was expected, all of the troops will, nevertheless, be at hand, and that consequently there is not much to be feared. This is what happened to Napoleon I. in October, 1806, when, instead of encountering the Prussians on the great road to Berlin by way of Leipsic, he unexpectedly found them on his left flank, behind the Saale. A crowded advance, however, causes an increase of hardships and losses. Napoleon's army in 1813 was ruined by constant marching back and forth in this close formation. The Austrians in 1859, and also in 1866, suffered in the same way. And when the enemy is able to avoid the thrust, as Blücher twice was successful in doing in August and the beginning of September, 1813, the united mass will soon be constrained to give up the game or to separate in the presence of the enemy, and either is dangerous.

Finally, a concentration of this kind requires a certain amount of space for its execution. If the enemy is in position near our front, it can only be done by drawing the troops together on the base line. This necessitates flank marches, which, although not by any

means as dangerous as works on the Art of War have often made us believe, yet, when executed in too close proximity to the enemy, easily lead to surprises, confusion, and unpremeditated combats. If we conceive of two great armies, counted by hundreds of thousands, as collected near the frontier at the outbreak of the war and facing each other in close proximity,—which would be the case in western Europe,—it is easy to see that sufficient space for a closer concentration, before invasion of the enemy's positions, would be lacking, and that it would have to be accomplished while engaged in combats with the enemy.

The plan of concentrating in the enemy's territory naturally permits us to retain separate columns up to the last moment. In case the enemy retreats, we can likewise push the point of concentration forward. This facilitates subsistence and movement of the masses of troops. The principal danger is that the enemy may suddenly appear among the separated columns, and defeat them before they can assist each other. Often an accident, or the unskillful and timid conduct of a single one of the columns, causes the retreat of all, and the advantage of the offensive, in that it is generally victorious when it gains the upper hand at a single point, has been converted into the disadvantage of a general failure because a mishap occurred at a single place.

As the space occupied by an army expands, the influence of the commander-in-chief naturally becomes less, and the independence of subordinate commanders increases. The conduct of the latter becomes of great importance with reference to the general result. The concentration will not succeed unless at least the great majority of the generals are energetic, circumspect, and quite in harmony with the ideas of the commander-in-chief. The latter may easily be ruined by the errors of his subordinates. In its invasion of Bohemia the Prussian II.

Army did not allow itself to be detained by the failure of one of its corps commanders. Yet this might have occurred if a second corps had remained away—if, for example, General Steinmetz had acted at Nachod in the way that Bonin did at Trautenau. Therefore, we must know our men and be able to place implicit reliance upon them in every respect. The troops, also, must not be of poor quality, for accidents may easily cause the dissolution of separate detachments, as was the case in Oudinot's army on the 23d of August, 1813.* The concentrated advance furnishes great security against harm, and he who lacks confidence had better adopt it. On the other hand, the advance in separate bodies ordinarily gives promise of greater success, it being easier to surprise the enemy. For the latter, being attacked in several places at the same time, will have greater difficulty in recognizing the objective likely to prove most serious to him; he cannot arrive at a clear decision and definite action quickly; and the fact that danger menaces him at several points is likely to cause confusion and errors in his dispositions. Lastly, this method of concentration, when well carried out, will, from its nature, terminate in turning the enemy on the field of battle, and this, with the effectiveness of modern firearms, is the best form for the tactical offensive.

It is for good judgment to determine, from the situation,—different in each case,—which principle is to be our guide in selecting the point of concentration for the masses of our army. However, let us continually bear in mind that the object is not to look for the point of concentration in accordance with the one or the other of these methods, adopted as a fixed system, but to bring all the forces into coöperation on the field of battle.

*The battle of Gross-Beeren, where the rout of Reynier's troops caused the retreat of the whole army advancing in three columns.

3. Parallel, Convergent, and Divergent Advance; Night Marches and Flank Marches.

A direct advance on parallel roads has the advantage of always leaving the same space between columns during the forward movement; this can be utilized by them for the purposes of quartering and subsistence, Each column possesses its own line of operations, and, generally, also its own line of communication. Entanglement of the troops and of the wagon trains following them is prevented. An arrangement of this kind is undoubtedly the most convenient one for the movement of large masses of troops. But it would not lead to concentration on the field of battle except in places where the lines of march run quite closely together, and in that case the advantages above named would cease to exist. We shall therefore not be able, in general, to use this method of advancing, just before a battle. But, after a decisive engagement, we may have to march through the country separating the section just captured from the one where the enemy is preparing to make his next stand. In this case the above arrangement would be suitable, provided there is no prospect of encountering the enemy. This was the case, for example, with the German armies between the Saar and the Moselle in August, 1870. Changes in the order of march, however, became necessary, when the French unexpectedly made a stand behind the Nied.

As we approach the enemy, a converging advance becomes necessary. But we must not incline from the parallel directions too soon, in order not to betray the objective before the proper time, and not to assume too early the hardships resulting from limited space. As the point of concentration is not fixed, but moves about in a certain space, depending upon the action of the hostile army, which is also in motion, the converging directions of the separate columns are not actually aimed at a point, but, in a more general way, at a certain dis-

trict, until it becomes clear where the tactical decision may be expected. The word "assemblage" also must not be taken literally, as requiring all the troops to stand in touch, on the same field. An army is concentrated when its most distant corps can arrive on the field of battle on the same day, at a suitable hour. When the positions of the corps take the form of a semi-circle enclosing the field of battle, as was the case at Königgrätz, the situation is most favorable, and it is more probable that we shall be able to dispense with actual completion of the assemblage,—which was the course adopted there. This state of separation into fractions facilitates the march of troops and their deployment.

When the concentration which was necessary for battle is to be dissolved for the benefit of the troops, or to occupy the captured territory, the divergent advance becomes the afterpiece of a successful offensive battle. To subdivide the forces, preparatory to a divergent advance in the presence of the enemy, is dangerous. It should only be done when another considerable engagement is neither expected nor even considered possible.

The campaign of 1814, on two occasions, shows us the peculiar spectacle, on the part of the Allies, of separation into parts for no other purpose than to be able to envelop the enemy again and drive him into a contracted space. However, in this case personal motives also were influential, especially the ambition of Blücher to secure greater independence and freedom of action than were attainable in close connection with the main army. The war between Servia and Turkey in 1876, strange to say, began with a divergent offensive on the part of the Servians, their four army groups being directed to the three cardinal points in the direction of which the hostile territory lay. Political considerations had been the more influential ones by far, and a miserable failure of the undertaking was the speedy result. Still, these are exceptional cases, which probably will seldom be repeated.

The direction of the march will not always be perpendicular to the enemy's front, but will frequently be oblique, and at times even parallel thereto, so that the marching troops will present a flank to the enemy, and consequently execute a flank march. We therefore add here a few remarks concerning flank marches, although they may just as well occur in the defensive; for example, when it becomes a question of forestalling the enemy at a a point situated to one side.

Flank marches are only dangerous when we ourselves have no clear idea that our march is of that nature, and consequently are surprised by a flank attack of the enemy. A marching column can be deployed more quickly towards the flank than towards the head, for the distances are shorter. Of course, we must not be too near to the enemy, but must retain the space necessary for deployment. The service of security of a flank march, by means of a special detachment which is placed in position facing the enemy, is attended with a certain amount of risk. If the detachment be weak, it invites the attacks of the enemy at the least desirable moment; and if it be strong, then the lateral shifting of the main body will be delayed by the necessity of waiting for the detachment to follow. The requisite precautions are careful exploration, a change in the order of march so that some cavalry will be available in the middle of very long columns, and transmission of information to subordinate commanders, so as to keep them alert and ready for deployment towards the flank. An attack during a flank movement will, of course, always be troublesome, for the march will be directed at a perfectly definite object, which we desire to reach as quickly as possible. Every combat, even if it terminates successfully, causes delay. If the enemy is at a standstill, the flank movement derives a certain amount of protection from the fact that loss of time is involved in setting in motion troops which have been deployed and assigned to places in a position. The

situation becomes more difficult when the enemy is already ready in motion and we are endeavoring to slip past the heads of his columns. Often there is no remedy left but to attack them with separate detachments and bring them to a sudden halt, while all the rest of the forces continue their march. The danger is, however, imminent that through a number of such combats we shall be drawn into a general engagement at a place where we do not desire it.

Flank marches are unavoidable. Every concentration in the presence of the enemy of previously separated bodies of troops will make flank marches, or quasi flank marches, necessary. They must be executed cautiously and with full appreciation of the situation and of the object of the march, but, nevertheless, without timidity.

Not less deserving of banishment is the fear of night marches, which in recent times has become prevalent on account of anxiety to spare the troops. We can no more exclude them from strategical calculations than flank marches. Many examples from the campaigns of Frederick and Napoleon go to prove that well-organized night marches are possible without injurious effect on the condition of the troops. In southern latitudes they are the rule during the hot season. Osman Pasha, in July, 1877, made three night marches between Widdin and Plevna. The combats following them proved, however, that the efficiency of his troops for battle had not been impaired.

Just before a battle, night marches can render great service by enabling us to place densely crowded masses of troops in position close to the enemy, before the attack. With the growth of armies they will, in future, be indispensable; for otherwise two army corps cannot very well be directed to use the same road to the field of battle. But the habitual disturbance of night rest is to be avoided; this can easily be done by issuing the orders for the following day in proper season.

4. Special Forms of the Strategical Offensive.

It is clear that from the location of the base of operations, the selection of the objective, the direction of the line of operations or of retreat, the nature of the advance, and the determination of the points of concentration and attack, a great number of different forms may be put together, which cannot all be treated in detail. It suffices to bring forward the simplest ones, which, in a modified shape, are continually recurring in the conduct of war.

The Strategical Frontal Attack.

This is the simplest expression of superior force, and as such is entirely justifiable. He who knows that he is able to throw down his adversary under any and all circumstances makes straight for him, in order to attack him wherever he may be found.

In this method all artificial aids to increase the success obtained by superior force are, of course, neglected. The full benefit thereof must be sought in energy of action, especially in the pursuit, after preliminary victories. Neither the flanks nor the lines of communication and retreat are menaced. It is impossible to cause a surprise by the direction of the attack; it can only be attained by the celerity of the advance. However, the invention of any addition whatever to the simple frontal attack is, of itself, neither a subject for approbation nor a special source of strength. As it would require a detachment of troops, its first effect would be a weakening of the force as a whole. It is not until later, when the enemy is deceived, surprised, or led into error thereby, that artifices have their value. Consequently, when there are no special reasons which, on account of the nature of the terrain, the network of roads, the position of the enemy or of our own forces, naturally invite a combination of the strategical frontal attack with other undertakings, we should not hesitate to forego such association. This simple form of attack should by no means be consid-

ered as of inferior value. The object is to bring on a battle, and the shortest and quickest way of doing it is by a direct advance.

It is also a fact that there is in strategy less scope for development and turning movements than in tactics. Considering the great size of modern armed forces, it is easy to conceive of an army which, in its strategical concentration, is able to find secure supports, such as seacoasts, neutral frontiers, systems of fortifications, etc., for both flanks. Tactically this would seldom occur. Simple forms facilitate leadership and diminish the danger of confusion, misunderstanding, and error.

The strategical situation does not by any means indicate in advance the way in which the tactical decision is to be fought out. From a strategical frontal attack we can still very readily pass over to a tactically outflanking and enveloping attack.

The simplest method of advance—namely, on parallel lines of march, preserving uniform contact with the enemy all along the front—naturally only promises the least decisive results. It may find an application in case the enemy is so weak that it is only a question of running over him and occupying the territory he defends, without delay; or when, being supported by well-nigh inexhaustible resources, we endeavor to ruin the enemy through losses which he is unable to replace—as was done by Grant at the close of the War of Secession.

The distribution of the forces on the parallel lines of march is usually not uniform; that wing is strengthened which is expected to crush the enemy opposite to it by the weight of numbers. Finally, the strategical frontal attack generally makes use of converging lines of march, which are directed at a certain point in the enemy's position and thus give rise to a special form.

Strategical Penetration.

This form of strategical offensive, which breaks the hostile line and separates the individual portions of the army attacked, in order to defeat them in succession, must, if it succeeds, be highly effective and lead to great results. Moreover, the groups which have thus been driven apart nearly always lose their natural lines of communication, because they are forced to retire in a lateral direction. But, if the propelling force is not great enough, the wedge may stick, and herein lies the great danger of attempted penetration. From the nature of the case, it leads to numerous tactical frontal attacks, and these now meet with the greatest difficulties in the effects of highly developed fire. This will especially be true if the enemy's forces are already united, or if he is able to assemble them coincident with the attempt at penetration, so that all parts of his army come into coöperation. Then there will be enemies in front and on both flanks, just as in a sortie from a fortification.

The proper moment for strategical penetration consequently lies *before* the assemblage of the hostile armies.

In this way Frederick the Great entered Bohemia in 1757,* when he knew that the Austrians were still scattered in their cantonments, between Königgrätz and Eger and occupied with preparations for the coming campaign. He had reason to believe that he would be able to divide their army into several parts, and to defeat the groups separately. His success, nevertheless, was only a partial one. It is true that the Austrians were unable to assemble their whole army for the principal battle at Prague; but Frederick's triumph could only have been considered complete had he been fortunate enough, later on to frustrate Daun's attempt to raise the siege of Prague, and to force the army of Prince Charles of Lorraine, which was shut up in Prague after losing the battle, to lay down its arms. But Frederick himself had his forces scattered over too great an area before the invasion, and they were separated by the Elbe. This occasioned loss of time and diminished the weight of the blow.

*In the general direction of Leitmeritz.

Individual portions of the army we are about to attack may have different interests with regard to their lines of communication; this favors penetration and facilitates separation. This is what Napoleon counted upon in 1796, when, in his first campaign with independent command, he gave us one of the most brilliant examples of strategical penetration.

At the beginning of April of that year he occupied a position on the Riviera, about Savona, with 36,000 men; opposite his right there were 30,000 Austrians between Sassello and Voltri, with their line of communication running towards the northeast, along the Bormida and through Alessandria and Milan; on his left were 22,000 Piedmontese, about Ceva, with all their connections to the northwest, at Turin. He immediately decided to advance from Savona with his united forces, against the point where the two armies opposing him touched hands. The game was made easy for him, for the Austrian right wing came to meet him, and he was able to defeat them on the 11th and 12th of April at Millesimo* and throw them back on Dego. He captured the latter place also on the 14th,† and the Austrians concentrated at Acqui, while the Piedmontese remained at Ceva, so that Bonaparte with his army was then between the other two. The Allies therefore were separated and on divergent lines

*For Millesimo read Montenotte. The more important movements about that time were as follows:

April 10th.—Argenteau with 10,000 men from Sassello, by Montenotte, towards Savona; Beaulieu with 11 battalions on Voltri.

April 11th.—Argenteau is stopped in the pass of Montenotte by Col. Rampon. Beaulieu attacks Cervoni.

April 12th.—La Harpe in front, and Masséna in rear, attack Argenteau; the Austrian remnants rally at Dego.

April 13th.—Augereau and Masséna envelop the Sardinians at Millesimo.—(*Translator.*)

†The date given in the original is the 11th, which is evidently a typographical error. Masséna and La Harpe drove the Austro-Sardinians from Dego on the 14th.—(*Translator.*)

of retreat, which they had chosen, each one following his own inclinations. Their reunion had been made impossible.* Bonaparte now turned his victorious troops first against the Piedmontese, to defeat them and coerce them to conclude a peace, and later against the Austrians, to follow up his advantages.

As accident would have it, his last campaign had a very similar beginning, whereas the outcome was quite different. On the 15th of June, 1815, he pushed forward from Charleroi, against the cross-roads of Sombreffe, in order to separate the Prussians from the English at this point, where their interests came in contact. The former had their communications towards the northeast, with the Rhine; the latter towards the northwest, with the sea. On the 16th of June, Napoleon defeated the Prussian Army at Ligny; but, as we have shown in our previous consideration of lines of retreat, they quickly detected the design to separate them from their allies and frustrated it by a bold counter-move.† They forcibly accomplished

*On this point we quote from Jomini's "Life of Napoleon," Halleck's translation, page 90: "Nevertheless, the situation of the enemy was far from desperate. * * * The Allies might have repaired their fortunes by two days of vigor, activity, and resolution." And from Hamley's "Operations of War," page 144: "There was no doubt ample time after Beaulieu reached Acqui, on the 15th, for him to move behind the Tanaro to the aid of his ally, who was not driven from Mondovi till the 22d."

On the 15th Beaulieu was at Acqui with about 20,000 Austrians, and Colli at Ceva with 15,000 Piedmontese. Distances from Acqui: To Alba, by Nizza, 23 miles; to Cherasco, 33 miles; to Fossano, 45 miles. From Ceva to Mondovi, 10 miles; to Fossano, 22 miles. From Acqui to Ceva, by Alba, Fossano, and Mondovi, is only 67 miles, an easy day's ride for a courier. Beaulieu moved towards Alba with the design of joining Colli, on the 24th. The occupation of a position behind the Stura, between Coni and Cherasco, seems to have been feasible under the circumstances. According to Jomini, Napoleon feared that a movement of this kind was contemplated by the enemy.—(*Translator.*)

†See p. 87.

a reunion with their Allies on the 18th of June, to the destruction of Napoleon. The presence of mind and force of character of his opponent caused an originally well-planned operation to fail completely. It must be admitted that on the morning of June 17th, Napoleon, after winning the battle of Ligny the day before, was guilty of dilatoriness, which favored the success of his enemies.* It is clear that the assailant, immediately after piercing the enemy's front, must act with the utmost celerity in order to utilize the consternation of his opponent; for the latter, if time is given him to gather his wits, will generally find ways and means to restore the coherence of his masses.

Future wars in the Occident will very likely furnish new examples of strategical penetration. This simple and effective form, as a matter of course, attracts our attention when the armies counted by hundreds of thousands are crowded together in a narrow space, face the enemy in close proximity, and, for purely mechanical reasons, can scarcely be moved in any other direction than straight to the front. As the mobilization and preparation of an army on a frontier has, among the great military nations of our times, been reduced to a question of hours,† it will scarcely be possible any longer to pierce the enemy's line at the most favorable moment—that is, before the concentration of his forces. We shall find them already assembled, and a rapid decision, such as that of 1796, is out of the question. It will be more a question of a forcible working through than of penetration. As frontier fortifications are coming more and more into use, a combination of field and siege operations will arise.

* In April, 1796, Napoleon was swift, and Beaulieu very slow. But in June, 1815, Napoleon was comparatively slow, and Blücher, profiting at last by the numerous lessons he had received, was both swift and disinterested enough to keep his engagement with Wellington.—(*Translator.*)

†See p. 90.

A lunge against the point of concentration of different armies with divergent interests, as in 1796 and 1815, is now only seldom to be expected. When allies work together nowadays, they take pains to establish perfect unity of action. But the place where two particular groups of the enemy's forces will come in contact may be approximately conjectured from an examination of their strategical concentration, and later on, in the field, may, with sufficient acumen, be more definitely recognized. There the assailant will enjoy the advantage of a single head as against double leadership, in which the two commanders must come to an understanding with reference to concerted action by means of telegraphic or written communications. This will be the more difficult, the more sudden and dangerous the development of the situation—in other words, the more rapid and energetic the action of the assailant is. Those points, therefore, where the contact of two independent armies takes place at the time of the strategical concentration, will in future be the aim of strategical penetration.

The Strategical Attack of a Wing.

The dangers attending the attempt at strategical penetration diminish as the width of the gap we are able to make in the enemy's position increases. They disappear entirely when we are able to crush a hostile wing; for then that flank is kept free and there is no danger of being cramped for room. After a first success, other advantages develop quite naturally; for, by executing a wheel against the rest of the enemy's army, he is forced to form front to a flank, thus nearly always placing himself in an unfavorable situation with reference to his communications. At the beginning of the War of 1870 the Germans had something of this kind in view. They intended first to destroy the French right wing in Lower Alsace, and then turn his main body in Lorraine, from the south, in order to force it towards

the north, away from its communications with Paris. The battle of Spicheren, which caused the French to retreat on Metz, interfered with this plan. Later, on the western bank of the Moselle, the plan was realized in a different form. The strategical attack of a wing will perhaps be the customary form in the wars of the future; it is simple, and the width of front is suitable for the masses of troops engaged. The conditions to be observed are, that the deciding wing must be strong enough, after crushing the opposing enemy, to proceed at once to the rolling-up process; that its communications must not be lost; and, finally, that the refused wing must either be able to hold the enemy in check, or that the general situation will permit of the retreat of that wing without incurring losses of altogether too serious a nature.

Strategical Envelopment.

This term implies a simultaneous attack in front and on one or both flanks of the theater of war occupied by the enemy. The point of concentration for the different columns naturally lies within the space held by the enemy; and all the considerations mentioned by us when discussing the selection of the point of concentration will apply here also. And all the dangers of an advance on separated lines of operations between which the enemy is placed become active. If the enemy has completed his preparations, he will answer with a counter-stroke, and in that case we would have to be strong enough to enable each fraction to resist the blow for some time. This supposes a considerable superiority in aggregate strength.

When the enemy is not quite ready for action, the simultaneous advance from various directions which leads to envelopment will confuse him and cause changes in his dispositions and subdivision of the forces available for the defense, and thus make success easier. Frederick the Great achieved an advantage of this kind when, in 1757, he entered the theater of war in four columns, the direc-

tions of which enveloped the enemy. One whole Austrian corps, that of Serbelloni, was absent from the field on the decisive day at Prague.*

The campaign of 1866, fought out on the same ground, exhibits the greatest success of the enveloping strategical offensive on the part of the Prussians. It led to the enclosure and defeat of the hostile main army on the battlefield of Königgrätz. The most far-reaching consequences had in this case been relentlessly exacted.

It is a characteristic of operations of this kind that, in case of success, all the results to be expected are realized at one blow. The strategical penetration is, so to speak, only the prelude to victory, the full measure of which is only obtained by rapid passing back and forth between the separated hostile groups, and unremitting pursuit. The battle of partial or complete enclosure, resulting from strategical envelopment, cannot very well turn out to be otherwise than destructive. It bears its fruit on the field of battle itself. A pursuit will usually be wanting, because at the moment of triumph the troops, which have become united by advancing on converging lines, are thrown into such confusion that they must first be disentangled. They are not immediately available for new enterprises. This circumstance partially explains the lack of pusuit after the battle of Königgrätz.

In order to make sure of success, the envelopment must reach well to the enemy's rear, although the danger of disaster increases with the length of the detour. For otherwise the defense, conducted by a circumspect commander, will withdraw its forces from the envelopment by a short retrograde movement at the last moment, and the assailant will arrive before the front in an awkward

*In 1757 Frederick combined envelopment and penetration. His columns entered the theater of war from different directions, but later on they were given the general direction towards the center of the space occupied by the enemy.

formation. Every envelopment, therefore, must be ushered in with a certain amount of boldness of action.

One of the most daring attacks of this kind in recent times was undoubtedly that of Prince Frederick Charles against General Chanzy at Le Mans, in January, 1871. The numerically weaker army enveloped both flanks of its stronger foe and carried the enterprise to a successful conclusion, although its columns, separated by wide intervals, maintained only very loose connection with each other, and could secure immediate support only by advancing. The result was the dissolution of the French Army, which left a number of guns and many prisoners in the hands of the victors. But the danger which it incurred may be easily perceived. If General Chanzy, on the 11th of January, instead of accepting battle on a large semi-circle in front of Le Mans, had promptly retired over the Sarthe in his rear, he could have taken up a good position behind that stream. The Prussian troops following him would have poured into the extensive city of Le Mans, and would thus have arrived in front of his center. They were suffering from cold and hunger, and this large and rich city, which in former times had become fatal to the army of La Rochejacquelein, would have exerted a powerful influence on the men under such circumstances. It would, therefore, have been difficult to lead them on to a further frontal attack.

With far-reaching and energetic attacks, strategical envelopment becomes the most suitable means of holding an enemy who appears to have the intention of avoiding decisive action. If sudden attacks on the outer portions of the wings, or on the flanks, are successful, the middle of the line will also be unable to withdraw. Thus it was General von Moltke's intention to cause a powerful envelopment of both flanks of the Danish Army in its well-known position at Danewerk, near Schleswig, in order to prevent at once a retreat which would have prolonged the war. His plan, which was written in December, 1862,

was never executed, but it nevertheless forms a very instructive example.

The employment of strategical envelopment is the logical consequence of the possession of a double base, enclosing the theater of war on two sides. In such cases strategical concentration at a single place is usually either impossible, or else connected with great loss of time; this was true of the Prussian armies in 1866. The streams of troops naturally flow together on both sides of such a base; consequently there is nothing to be done but to unite them while advancing. From this action envelopment results spontaneously. Ordinarily in cases of this kind the attacking party is assumed to be numerically superior; and there is in fact no means which would make the enemy feel this superiority more quickly than strategical envelopment. Perhaps for this very reason it will also in future play an oft-repeated and important part.

The successful execution of this operation, however, requires the fulfillment of two more conditions—namely, tactical superiority of the troops, and uniformly good leadership. Both are of even greater importance than advantage of numbers. During such an attack nothing could interfere more seriously with the current of action than sudden and unexpected defeat of individual portions of the army. As a rule, rumor carries the news of these reverses to other portions of the army in an exaggerated form, and the depressing effect on the *morale* of the army is increased by the fact that everybody easily comprehends the danger of the situation.

The repeated miserable failures of the Republicans in their attacks on Vendée in 1793 furnish the proof that in such a convergent and enveloping advance the advantage of numbers alone does not always guarantee victory. The troops must be sufficiently trustworthy to be able, if necessary, to bid defiance to odds, in case the defender throws all his available force against a single

column; and the character of the leaders must supply the certainty that not a single part of the whole will break down completely.

Strategical Turning Movements.

When the attack not only envelops the enemy's flank, but reaches so far to his rear that his communications are threatened, and he is forced into such a position that defeat would cut him off, then the envelopment has become a turning movement.

However, after we have once taken up a position parallel to his front, such an undertaking will be exceedingly difficult. It may still be possible to shift the forces laterally and crush one of the enemy's wings by envelopment; but he will not look idly on while we disappear from his front and swing around on a large arc to attack his flank or even his rear. He will follow us and bar the road, or attack so that, at best, we can turn him only after a series of combats.

The turning movement must, therefore, be combined with the strategical concentration, and the latter must be consummated on or behind one of the enemy's flanks, at the inception of the campaign.

This is what took place in the most brilliant turning movements executed by Napoleon I.

In April, 1800, the victorious Austrians occupied positions on the Var and before Genoa, to which points they had pushed back the French Army in Italy. They occupied the territory behind them with a weak force. Apparently no danger menaced them there, and the Alps were considered a sufficient protection for the roads passing through Upper Italy to Austria. But long before this, Bonaparte, then First Consul, had pushed forward the so-called Reserve Army, supposed to be stationed at Dijon, according to public report, into Switzerland, and had assembled it at the foot of the northern slope of the mountains. From this point he crossed Mount St. Bernard in May, and emerged from the mountains directly in rear of the enemy's army. He was on their line of communications at the very beginning of the operation.

In 1805 the course of events was the same. Mack was waiting for Napoleon with an Austrian army posted on the Iller, facing west and guarding the eastern exits of the passes of the Black Forest. In the meantime the Emperor had, with the utmost rapidity, assembled his army from the north of France and from Hanover, between Mannheim and Lauterburg on the Rhine, and at Würzburg, respectively, and was hastening forward by Ludwigsburg, Hall, Ingelfingen, and Anspach. He appeared on the Danube between Donauwörth and Ingolstadt, with the concentrated mass of his army behind the right wing of the Austrians. A single French corps had made demonstrations against them from Strasburg, in a direction perpendicular to their front.

Napoleon operated in a similar way in 1806. From the upper Main at Baireuth, Bamberg, and Schweinfurth, he advanced with his united army, and passing between the Austrian frontier and the Prussian Army, which was concentrating behind the Saale, he marched straight on Leipsic, and, consequently, before a decisive battle, was nearer to Berlin than the Prussians.

Strategical turning movements, from their nature, generally lead to a battle with reversed fronts. And the side which turns the enemy and deprives him of his communications has at the same time abandoned its own.* The decisive battle must therefore necessarily terminate in the total defeat of one side or the other. This is what Napoleon always was driving at.

There are various circumstances which will make

*We are aware that Jomini requires seizure of the enemy's communications without relinquishing our own, but it will be possible only under very favorable circumstances to comply strictly with this demand.

strategical turning movements,of the Napoleonic kind extremely rare in the future, if not altogether impossible.*

The strategical concentration is restricted to a definite district on the frontier, the location of which is guessed by both sides.† The unwieldiness of the great masses of troops imperatively requires simplicity in the ways and means of movement; and the greatly extended service of exploration of the cavalry renders it much more difficult than formerly to conceal the turning movement from the enemy—and yet, the movement is intended to be a surprise.

We must remember that the electric telegraph, newspaper reporters, and the soil in which they flourish—public curiosity—no longer permit of prolonged concealment of uncommon facts. The whole civilized world is now informed, even of unimportant events, within twenty-four hours. We shall certainly receive information of the enemy's entrance upon our theater of war in a great deal shorter time. In the campaign of 1800, mentioned above, Bonaparte did not know what had become of Masséna in Italy, and Melas was not aware of the fact that Bonaparte was already in Switzerland. It will hardly be possible for such conditions to be repeated.

The strategical turning movement, consequently, like the penetration, will be accomplished after a series of preliminary combats, in which the retreating defender will lose his communications gradually, and the victorious assailant obtain possession of them at the same rate. An example of such an operation is furnished by the days before Metz, in 1870. On the 14th of August the French Army was still east of this place, confronting the German

*The example of the French, who between the 28th and 31st of May, 1859, turned the right wing of the Austrians by transferring troops from Alessandria to Vercelli by rail (see note, page 81), is too isolated a case to have convincing force.

†See p. 95.

I. Army, while the II. Army, farther south, had advanced to the Moselle and was about to cross that stream. In order to evade this movement, Marshal Bazaine resolved on retreat. But through the unexpected attack of th German advance guard in his front he was detained, and the battle of Colombey-Nouilly was brought about on the 15th of August. In this battle the fronts and lines of communication were still quite normal, corresponding to geographical conditions. In the meantime the II. Army had commenced crossing the Moselle, and the French commander-in-chief found himself forced to resume the retreat. But the Germans had already gained a start towards the west. After passing through Metz, Bazaine found himself attacked from the south and held fast. From this arose the battle of Vionville, in which the general front of the combatants was an east-and-west line, approximately at right angles to their position of August 14th. In spite of his numerical superiority, the Marshal did not succeed in shaking off his antagonist. Neither did he venture to continue his march towards the west by circuitous routes. He wheeled his army to the rear towards Metz and occupied a position on the plateau between Roncourt and Le Point du Jour, his front facing west, towards France. In the battle of Gravelotte and St. Privat la Montagne, on the 18th of August, the two fronts were already completely reversed. Both armies had passed through three-fourths of a circle, and, with reference to their communications, occupied a position diametrically opposite to that of August 14th. The French had lost their communications with France and the Germans had voluntarily abandoned theirs with the Rhine. The destruction of the defeated force was not completed until the capitulation of October 27th; this was due to the fact that they found temporary protection under the guns of Metz. The catastrophe had, however, been made unavoidable by the action of August 18th.

The strategical turning movements of the future

will present similar spectacles. They retain their value, and may continue to have the same consequences; but, as a rule, they will no longer have a place at the beginning of a war, their first application being deferred until some time during the course of the decisive operations.

Turning movements made in a slow and hesitating manner never had any prospect of success. If the combatant who is turned gains sufficient time to rest to recover his presence of mind and to answer with a counterstroke, then the one making the turning movement will himself soon be forced away from his communications, although he set out to cut off the enemy.

At Austerlitz the Allies learned that the mere idea of a turning movement does not insure victory. Their movement was introduced boldly. They conceived the plan of turning the refused wing of the enemy confronting them at Brünn by a movement towards the south. If defeated in the attack which was to follow, the enemy would be thrown back on the Prussian frontier, where a strong army was just then being collected to oppose him. As early as three days before the battle, Napoleon recognized the purpose of his opponents; for, while first advancing towards the west, they suddenly changed direction, in an open country, towards the south. And then, on the day of battle, they neglected to protect the movement sufficiently against the Emperor. The latter, in order to entice them into the trap, intentionally refused his right wing, which they expected to strike; and, when their principal forces were passing his front, he suddenly fell upon them and converted the movement into a crushing defeat. History records few examples of attacks begun with such joyous confidence of victory and ending in such miserable failure.

They had forgotten that even the best strategical conception owes its importance entirely to the fact that it leads to successful tactical decision on the field of battle. Strategical turning movements form no exception to this rule, their only object being to lead the troops up to the enemy in a specially favorable direction, in which he does not anticipate an attack, or in which it must prove more dangerous to him than elsewhere. It is not the end itself, but only a means to the end.

Strategical Attacks in Rear and on the Flanks.

Attacks on the enemy's rear, which shall be perfect in their execution and appear as the final result of a successful strategical turning movement, can no longer be reckoned among the possibilities. But, in the altered form of a final decisive advance against an opponent deprived of his communications through previous defeats, they may still take place. Their nature requires very clear decision and an energy of execution which will not stop for any consideration. The commander, moreover, must take it for granted that he will find the enemy in motion, and not at a standstill. We shall not, by any means, always find a Mack opposed to us.

The case is different with flank attacks. They are easily evolved from an advance against very strong positions, especially in battles near fortified frontier lines. To break through the front of such a line, when the hostile army is in position between the works, can only be thought of in case of great moral and material superiority. The assailant will generally endeavor to deceive the defender as to the true point of penetration, in order to induce him to collect his troops for the defense at a false place. The assailant then attempts to capture one or more of the strongholds, situated apart and not supported by field troops, by means of surprise. In case of success, he will naturally strike the troops on the farther side of the broken line in flank. However, as the electric telegraph, the telephone, cyclists, and riders at racing speed now report all unusual events with the greatest celerity, he must be prepared for an early encounter with the heads

of rapidly approaching columns of the enemy's troops. In the most favorable case the first battle will, therefore, be delivered against a hurriedly formed crotchet. Skill in rapidly bringing up troops from the rear and deploying them—a test problem for the general staff—will decide the victory.

It must, of course, be assumed that the enemy, either on account of the nature of his front, or because of our numerical superiority, was in the meantime prevented from replying to our undertaking by a counter-stroke delivered directly from his position. This would necessarily have interrupted our action and prevented the general movement against his flank.

X.

TACTICAL OFFENSIVE OPERATIONS.

1. Object, Conditions, and Aids.

As all strategical offensive operations primarily derive their importance from the results of battles to which they give rise, it will now be appropriate for us to add suitable remarks about the latter. In order to avoid unnecessary repetition, we shall discuss only those points in which a radical difference from the statements referring to strategical offensive operations is observed. They can, moreover, be properly included under the heading of tactical offensive operations.

The object of all tactical offensive operations is attack on the field of battle. As this will be easier if we can find the enemy in motion than when he has already taken up a defensive position,* it follows that the assailant must continually make efforts to force the enemy to decisive battle while he is still on the march.†

*How important the difference is may be seen from a comparison of the battles of Vionville and St. Privat, on the 16th and 18th of August, 1870, respectively. In the former, 2½ Prussian army corps sufficed to defeat and hold fast the whole of Bazaine's army. In the latter, 8 corps had trouble to force the same army out of its position.

†We cannot refrain from making the remark at this stage, although it more properly belongs to the province of army command, that the great degree of self-relying independence of the subordinate commanders, which was manifested in the German armies in 1870–71, and which some people at the present day are endeavoring to re-

Tactical superiority is the precondition for success. A well-considered, though bold, attack differs from a blind rush in this, that the resolve to make it is based on a well-founded conviction of the existence of such superiority. Whoever can foresee that he will be stronger to-morrow, and yet makes an attack to-day, commits an error, unless he has sufficient ground for the fear that the enemy may slip away from him over night. On the other hand, we must not go too far in waiting for the favor of circumstances. It would, of course, be an ideal case to have all our troops together for the battle, but this is realized only in the rarest instances.

If we make up our minds to undertake nothing serious until all the troops are assembled, the advantages of the general situation will disappear in the meantime. Wasted moments of good fortune do not return in war any more than in the ordinary affairs of life. All that is necessary is to allow the strategical introduction to ripen sufficiently before crowning it with the tactical attack.* To seize the proper moment for this act is a matter that must be determined by military perspicacity, in which natural talent, knowledge, and experience are combined into a single attribute.

In the tactical offensive, as in the strategical, rapidity

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strict, finds ample justification in the above reason alone. If every general commanding in the first line, close to the enemy, were to apply to the highest authority for permission before making an attack, which, under the circumstances, seems to him advisable, the enemy would in every case gain sufficient time to take up a position to repulse that attack, which he foresees.

*In this respect the Allies made a mistake before the battle of Austerlitz. Prussia was on the point of declaring for them. She expected to complete her armament about the middle of December. The Archduke Charles could, with a little skill, have led 40,000 to 50,000 men into Moravia. Three weeks later the Allies could have made a much stronger appearance than at the end of November. The general situation invited delay. In spite of this, they hastily proceeded to the offensive.

and energy of action, and surprise of the enemy, will be the chief aids to a fortunate beginning. Superiority of fire, which now decides the fate of battles, must make its appearance during the course of the action. To bring about concerted action of the columns approaching the field of battle, and, at the same time, regulate the harmonious coöperation of three arms, is the sum and substance of the art of the commander. The first requisite is the acquirement of ascendency in the artillery duel. Without this preliminary the infantry attack will seldom succeed. But the necessity of gaining the upper hand in small-arms fire, at the decisive point, still remains the second indispensable condition. He who knows best how to guide its mighty stream to suit his purposes will have the brightest prospect of success.

We must not entirely renounce the use of shock action against the enemy, nor relinquish all attempts at an actual breach in his position in that way. Whoever depends entirely upon shooting an enemy out of a position may experience bitter disappointments. When the defender sees that he is able to stop the advance of the assailant, the feeling of success naturally takes possession of him. The assailant really is forced, by the rain of projectiles sent against him, to advance incessantly. Gaining of ground is the sign of success. Actual contact in the mêlée will seldom occur in case of continuous advance, for the defender is already convinced of the inefficacy of his principal means of defense, and will not wait for the final proof with butt and bayonet.

2. Preparation of the Forces; Dispositions for Attack.

The coöperation of the troops, and the control of their fire with reference to a definite object, will turn out successfully only if we have kept them well in hand up to the moment of their entrance into the zone swept by the enemy's projectiles, and have led them to a favorable

point from which to make a decisive attack. If, before that moment, they have been engaged with the enemy, here and there, on their own account, it will be exceedingly difficult still to control their movements.

The raging fire of a modern battle rapidly dissolves the usual organization and throws the actual guidance of affairs into the hands of numerous subordinates of low rank. The well-commanded heavy columns of attack of Napoleonic times have become an impossibility. Of personal leadership nothing remains except that portion of the ideas of the commander-in-chief which, through his preliminary measures, has become a matter of general knowledge. On this account these measures come to be of the greatest importance. Judicious dispositions for the decisive attacks beget success.

The latter is, of course, materially facilitated when the intention to seek decisive action already existed, and the battle is a premeditated one. We then have free disposal of our forces and can determine what portions are to assemble opposite the decisive point, in readiness for the great struggle.

The situation is much more difficult in rencounters, in which case our resolution is not formed until the troops gradually become engaged with those of the enemy. Those portions of the army which are best fitted to deliver the decisive blow may then be already seriously engaged. We shall be constrained to leave them where they are and to form the decisive body of other troops, which are laboriously collected for this purpose. The great art then is to stay the planless expenditure of troops, to hold the enemy in check with those already engaged, and to restrain all the others from the dangerous temptation of participating on their own responsibility; all this in order to form masses. This is what Napoleon's mastery consisted in, as his conduct of battles shows.

The plan of attack, as expressed in orders, cannot contain much more than the dispositions for attack and

the designation of the objective and of the roads leading thereto. The details of the progress of the affair depend so much on the actions of the opponent—which cannot be ascertained until their execution has begun—that no definite arrangements to meet them can be made in advance. These must be governed by the circumstances, and regulated according to the general principles for the employment of troops.

3. Parallel, Convergent, and Divergent Advance.*

From the nature of the case, an advance of the different portions of the army against the enemy's position, on parallel lines, will only take place when we do not seek decisive action. Attempts to smash the enemy's front by the impetus of advancing masses are precluded by the effect of modern firearms.

The gaps, which under the fire of the enemy are caused by death, wounds, and straggling, must continually be filled. If we desire to arrive before the enemy's position with the same strength per mile that we had at the start, our front at the beginning would probably have to be twice as long as at the end; for the number of combatants will dwindle away at about that rate. This feature would naturally cause the offensive to adopt convergent lines towards the place where the enemy's front is to be broken.

It is difficult to go further into details as to the methods of determining these lines. At first the troops are confined to the existing highways; later on, to the cover in the terrain affording some protection against the hail of projectiles coming from the enemy. It rests with keen perception and practical experience to hit upon

*Concerning night and flank marches nothing special is to be said here. The same remarks will apply as in the corresponding chapter of the discussion of the strategical offensive, except that the misgivings there expressed become stronger in the immediate proximity of the enemy.

a good selection. In large affairs a correct understanding of the maps is of importance.* In such cases we also must not forget the mobility of the objective. Even when the opponent waits for us in his position, the latter will have a certain depth, and the mistake of taking the fighting line of his advanced troops for the main line of battle is easily made. We must avoid bringing the columns of attack close together too early in the advance.

We know that partition and scattering of the troops are weakening in every case.† Consequently, no reasonable excuse is imaginable for divergent directions in the tactical offensive. There is a single case in which use may be made of them, and that is when we desire to hold fast certain portions of the enemy's army at distant points of the field of battle. Here we have a case of indirect cooperation, for the enemy is weakened at an important point by non-arrival of expected support. In such a case we must, of course, be guided by the condition that a detachment thus pushed forward in a divergent direction will enable us to keep a larger force of the enemy from participating in the main action.

4. Special Forms of the Tactical Offensive.

On account of the greater variability of tactical events, the quicker effect of moral impressions, and the more rapid development of the action, in which cause and effect are in immediate connection, the number of combinations possible in the tactical offensive is even greater than in the strategical. If, however, we disregard certain slight deviations, all the combinations can, in this case also, be classified with the well-known general forms.

*The older soldiers are just the ones who, in many cases, neglect this branch of military knowledge.

†See pages 21 and 22.

The Tactical Frontal Attack and Breaking of the Enemy's Line.

Practically all there is to be said about the former follows from what has been stated about the tactical advance on parallel lines. It cannot boast of any natural advantages over the defensive confronting it. On the contrary, with the exception of the moral impulse which is imparted by every forward movement of troops, all the disadvantages are on its side; for convergency, the property investing the tactical offensive with strength, is wanting.

"The attainment of superiority of fire, individually as well as collectively, is the first tactical principle of the present and of the future."* When the position of the defender is sufficiently occupied with troops, and the assailant is unable to operate against him on a larger front, it is impossible to see how this superiority is to be attained if troops and arms are of the same quality. There would be only one means left—namely, a larger supply of combatants; so that the assailant could continually replace losses occurring in his firing line, whereas the defender would finally arrive at the end of his resources. But, as the latter enjoys the advantage of better cover, his losses will be smaller. The excess in numbers of the assailant would, therefore, have to be disproportionately large in order to make the advantage decisive.

In the frontal attack the hope of victory, therefore, is based only on the greater activity and better instruction of the troops and on the greater strength of will, experience, and knowledge of the officers; that is, upon forces which, properly speaking, should be excluded from consideration in the theoretical examination of the methods of conducting war.

However, we are not yet permitted, even theoret-

*Lieber, "The Employment of the Reserves in Battle," first supplement to "Militär-Wochenblatt," 1895.

ically, to reject the frontal attack without more ado, as something faulty. There are cases when the force of circumstances compels us to proceed in that way. There is then no recourse but to count upon the *morale* and numbers of the troops and to make skillful use of both. The successful solution of this problem is a finer and more difficult performance of the art of handling troops than a fortunate enveloping attack, and it is worth while to make a study of the subject.

There is one circumstance which, as a rule, assists the assailant in such cases. Even a mediocre man, when a difficult task is set for him, gains in mental power and does things of which we did not believe him capable. Qualities are developed which needed a very powerful stimulus to arouse them from their slumber. The same thing is true of the troops. The knowledge that there is difficult work ahead inspires the officers and gives rise to energetic exertion of all their powers; and from the officers this process is transferred to the men. For the defender the feeling of security, which enervates him, is often a source of danger. The moral reaction, which results when this security is found to have been a delusion, is particularly disastrous.

Frontal attacks will continue to be necessary and still can lead to fine results.

Whether their scope can be extended so as to include formal tactical penetration of the enemy's line, is another question. Undoubtedly, the new arms of the infantry and the artillery, as well as the modern battle training in careful utilization of all the advantages of the terrain, have greatly increased the defensive power, even of inferior troops. The modern infantry weapon is as frightful in its effects as it is simple in its manipulation. When a defender, armed with this weapon, has taken up a position under cover, and is not entirely lacking in stamina, it will be difficult to dislodge him. Even when forced out of a position, he has learned to take up another as soon as

an undulation of the ground, a ditch, or the edge of a wood offers him an opportunity to do so. Dangerous zones of fire have become much wider, and the progress of battles is slow. Even a defeated enemy does not disappear from the field, but sticks to the victor; for he knows that an unbroken tide of retreat under fire is much more dangerous than continuance of resistance. A line of battle is no longer a rod, which may be broken, as in the time of linear tactics, but a strong elastic band, which envelops our sides as soon as we push against the middle.

All these circumstances make actual penetration difficult. The effect of fire indirectly fills up gaps of quite considerable extent. Spaces of a mile or so in width, which formerly would have been a door sufficiently wide for a whole army, are now completely commanded from the flanks. The attempts of the armies shut up in Metz, Paris, and later in Plevna, to escape, naturally led to battles attempting to break the enemy's line, but the result in each case was ultimate failure for the assailant.

Breaking of the enemy's line by a tactical offensive will in future only occur in rencounters. For example, one army, closely concentrated and advancing on a number of parallel roads quite near to each other, may run into the heads of the enemy's columns scattered over a larger space, before they can deploy. Even a surprise like this will not have the same effect as in the past. The overthrow of the enemy by a sudden onset, the decision of battles in a few minutes, as at Rossbach, is now out of the question. The only way in which we can operate is by slowly pushing back the enemy. In the meantime the adjacent columns gain time enough to arrive and render assistance to their hard-pressed friends. The power of resistance of units of considerable size is now so great that a division, for instance, need not hesitate to engage an army corps of double its strength in the morning, if it can be certain of being supported by the

other division about noon. Even if it gradually succumbs, the process is so slow that assistance is bound to arrive in time.* If, in a rencounter, we are able to force one portion of the enemy's army across an obstacle, such as a stream, and to hold him there while we turn against the other portion and defeat it, tactical penetration may still be successful.

The battle of Orleans, on the 3d and 4th of December, 1870, may be considered as one in which the object of the assailants was to break through the enemy's line. But the great extension of the French Army, which had been split up into three parts by the attack, and the nature of the contest, which took the form of local combats, imparted to it more the character of a strategical than of a tactical operation.

Tactical Envelopment.

As the strength of the offensive lies in its convergency, envelopment naturally is the most advantageous form for the attack. The greater part of the battles of recent wars were decided in that way, and upon all European drill-grounds we see them imitated again and again by the troops. When opposed to an enemy already assembled, the difficulty of the frontal attack will cause the commanders to have recourse to envelopment whenever the circumstances of the case present no insuperable obstacles thereto. The great range of our firearms, which completely commands the space inclosed by an envelop-

*The imperial maneuvers of 1894 in East Prussia presented an illustration of this point in a manner corresponding very closely to actual conditions. On two successive days the two divisions of the I. Army Corps were a day's march apart; yet one of the divisions succeeded in fighting a delaying action in the forenoon, against the concentrated advance of the XVIIth Army Corps, until the arrival of the other division, thus averting a defeat on the first day, and even gaining an advantage on the second.

ment, even when it is several thousand yards wide, adds to their formidableness.

The difficulty of execution lies in the preliminary dispositions, as in other cases. Experience shows that out of one hundred attacks intended to envelop the enemy, eighty wind up by arriving in front of the enemy's position. The reason lies in the fact that the long range of firearms requires these preliminary dispositions to be made at a relatively great distance. The first line, therefore, if we conceive it as an arc of which the enemy is the center, will have to be comparatively long. An assailant whose troops are concentrated, or who is advancing from a single direction, will consequently often be obliged to divide his forces again in order to be able to operate in an enveloping manner. Such separation in the presence of the enemy appears risky to the eye; this is the reason why the dispositions for tactical envelopment are so often faulty in that they do not provide for reaching far enough around to the rear. It ought to be evident that the defender cannot proceed, offhand, to a counter-stroke by advancing into the open arc formed by our troops. The difficulty of counter-attacks from an occupied position has been previously discussed.* The danger of being routed by an enterprising defender while attempting tactical envelopment is, therefore, more imaginary than real. Tactical envelopment in this respect enjoys a decided advantage over strategical envelopment.

Lack of concert in the envelopment and frontal attack is a more serious matter. That the latter must be made at the same time as the former, goes without saying, for otherwise the defender would be entirely at liberty to form a strong crotchet on the menaced wing, or to roll up the enveloping troops with his reserves. But the frontal attack is just as likely to engage the enemy too soon and dash itself to pieces as the envelopment is to arrive too

*See page 59.

late, and the disconnected efforts of both parts are then defeated in succession. The great extension of battle-fields makes concert of action peculiarly difficult, as the occurrences on the 18th of August, 1870, at St. Privat prove.

The frontal attack should be seriously developed at the moment when the envelopment is upon the point of becoming perceptible to the enemy; and, on the other hand, the enveloping attack should enter into a decisive stage with sufficient promptness to prevent a retreat of the troops advancing against the front. The disadvantage, that the latter must remain for a considerable time in close proximity to the enemy and suffer serious losses, cannot be entirely obviated.

The enveloping troops must take precautions for the protection of their outer flank, against which the enemy will direct his counter-operations. They must, consequently, be followed by strong reserves.

A double envelopment—that is, on both flanks—facilitates the attack very much. The danger of counter-penetration in the center is almost precluded; for if the front be not entirely too long it will find a sufficient protection through the fire of the enveloping wings. An attack of this kind is, however, out of the question, unless the party making it has a great superiority of numbers, such as the Germans possessed at the battle of Wörth. Of all the examples of battles of double development to be found in recent military history, that of Wörth is most deserving of notice.*

Tactical Turning Movements.

At peace exercises many are loud in their condemnation of tactical turning movements. In war they will, nevertheless, be unavoidable, especially now that the efficacy of firearms permits us to close defiles against frontal attacks with almost absolute security. Mountain passes would often be impregnable but for turning movements, as numerous examples in military history, from the defeat of Leonidas at Thermopylæ up to the combat of Blumenau before Presburg and Gourko's advance through the Hain Boghaz Pass, go to show.

In a turning movement the gap between the troops becomes so large that it can no longer be indirectly closed by means of fire, and the danger of disaster becomes imminent. Wide turning movements challenge the enemy to a counter-attack. It is therefore important that special circumstances render a counter-attack improbable. This may result from the clumsiness of the troops or from the nature of the terrain. If the enemy is found in position behind a stream, and we are endeavoring to open a passage by means of a turning detachment, the latter cannot be pushed away and its connection with our main body destroyed, unless the enemy himself crosses the obstacle. In a mountainous country very often there are no lateral communications between passes. The defender can, therefore, operate against a turning column which has found a defile open, only by advancing against it from his own rear; consequently the assailant need not fear isolation of a portion of his army. Turning movements may, therefore, be very successful, and often afford the only means of surmounting an obstacle defended by the enemy. Mountain warfare is the field *par excellence* for their application. However, turning movements should not, any more than envelopments, be regarded as of themselves useful or advantageous. Intrinsic necessity must justify their use in every case.

Tactical Attacks in Rear and on the Flanks.

Tactical attacks in rear may be developed from suc-

*In battles in which the enemy is surrounded, as at Sedan, the preponderating importance attaches to strategical measures. For that reason we do not mention such battles here, although, on the surface, they appear as the most complete form of double envelopment.

cessful turning movements and are then very decisive, because they surprise the enemy and at the same time cut off his retreat and his communications. But a highly developed service of exploration will cause them to be a great rarity.* With reference to individual portions of the army, in very complicated battles or combats, they may arise through confusion or error. Thus some French detachments which had lost their communications in front of Le Mans and were trying to cut their way through attacked the rear of the extreme right wing of the Germans at night. It was more of a surprise than a regular engagement. But, for the main body, affairs of this kind will be quite rare. Flank attacks also, coming as a surprise and evolved without preliminary envelopment, are conceivable only under unusual circumstances and in case of great carelessness of the opponent. When thoroughly soaked ground or deep snow impede the action of cavalry, such cases as the last one mentioned may occur, for example, at Parigné l'Eveque, on the 10th of January, 1871, a French brigade marched past the 5th Prussian Division, but was then discovered, attacked, and defeated. In the general tactical case, still more than in the strategical, we can depend only on those flank attacks which are the natural result of envelopment.

*The case would have occurred at Blumenau, on the 22d of July, 1866, if an armistice had not interrupted the combat before its decisive stage.

XI.

STRATEGICAL DEFENSIVE OPERATIONS.

1. Object, Conditions, Aids.

In most cases the object of strategical defensive operations is to avoid an immediate engagement of a decisive nature, in order to look for it later on, under more favorable conditions. These are expected from exhaustion of the enemy, the attainment of a specially favorable position, or the arrival of forces not available at the beginning. For the study of such operations the most instructive campaign is the one conducted by Napoleon in 1813 after the armistice, to which frequent reference has already been made.

It may, moreover, be simply a question of waiting until the enemy arrives at a line especially suitable for defense; in such cases it would hardly be proper to speak of "operations."

As an object of strategical defensive operations, gaining of time amounts to the same thing as avoidance of decisive engagements; subject to the special restriction, however, that not much territory be sacrificed thereby.

It is one of the conditions for success that the gain in strength which we expect during the strategical defense, or the decrease of the same on the part of the enemy, must exceed the material and moral losses which always attend retreat, a waiting policy, or prolongation of

the operations. If, at the end of a defensive operation, we are not, as compared with the adversary, relatively stronger than at the beginning, we have gained nothing, and it would have been better to have ventured upon tactical decision at the start; for the troops will in the meantime unquestionably have lost a certain amount of confidence. Evasion and hesitation for fear of an unfavorable result cannot be called an operation; for consciousness of a purpose, on which to base the operation, is wanting. To have a large amount of time and space at one's disposal cannot but prove useful, so that in the course of events, advantages and means of defense, which had not been thought of before, may be discovered. This was the situation in 1812 of the Russian armies, which at first retreated into the interior of the country for no other reason than that they were scattered and did not feel themselves strong enough to offer resistance, but whose commanders afterwards developed this proceeding into a system when they recognized the destructive effects which the continuation of the operations exercised on the assailant.

Time, space, and obstacles which the country places in the way of the advancing enemy, as well as artificial defensive works, such as fortresses, are the principal aids to every defensive operation.

The most effectual lever to guide matters according to our wishes is the power of attraction which a retreating army exercises on the opponent.* Clausewitz has called attention to this in a very able manner. He observes that the Russian Army, in 1812, after its first retreat into the interior of that vast empire, could have executed a second one, from the interior towards the frontier, and could have arrived there at the same time as the weakened enemy, who was bound to follow.†

*See p. 53.

†*Clausewitz*, Posthumous Works, Vol. I., p. 121.

On account of this feeling of weakness, the defender very often does not fully realize the force of this power of attraction. His retreat then acquires the character of a flight, even when it is slowly made; for it is controlled entirely by the opponent. A courageous and skillful defender, on the contrary, often still finds the means, in this property of his army, which seems to be a magnetic power, to retain the initiative in spite of an unfavorable general situation.

The attractive power of the defender naturally increases, the smaller the superiority of the assailant becomes. A defender only slightly weaker than the assailant always ought to be able to draw the latter after him, wherever he pleases, if the theater of war affords him any sort of elbow-room.

Regard for the maintenance of this power often makes it absolutely necessary for the defender to avoid battle for the time being. When a portion of the army has the task of restraining a superior foe, by means of its maneuvers, from attaining certain definite objectives until reinforcements can arrive, this is most clearly applicable; for an unfortunate outcome of a battle weakens this power, and a complete defeat removes it entirely, for some time.

2. Selection of the Point for a Decisive Stand.

In the discussion relating to the plan of operations we made the statement that every systematically conducted defense must contemplate a limit at which a reversal of the general situation in favor of the defender is assumed as likely to occur.

If the favorable turn is expected solely from the exhaustion of the enemy, this limit must be located the farther into the interior the stronger the attack is. It can in such cases only be determined in a very general way, as it is impossible to calculate in advance where the culminating point of the offensive will lie. The latter

depends upon the losses sustained by the opponent during the course of operations on account of battles, combats, marching, or want and disease. The point for a decisive stand must, however, not be transferred so far to the rear that the continued existence of our own army is rendered impossible thereby. This procedure—a retreating defensive, pure and simple—is only permissible when the theater of war is very extensive. It would be impossible for any of the enlightened states of Western Europe; the losses in resources which are sacrificed thereby would be much greater than the losses of the enemy. At the general headquarters of the Turkish Army this very mistake was made, when, after the loss of the line of the Balkans, they endeavored to depopulate the country as far as the capital. The lines of operation were not long enough, and the country had not been sufficiently cleared of resources, to detain the assailant without additional ob-obstacles; and the stream of fugitives, which became a calamity in the capital—aided materially in forcing an unfavorable peace upon the government. The case would have been different had the Russians chosen the line for their main attack through Anatolia, with the Turkish fleet in command of the Black Sea.

When the retreating defensive, at the end of a rather long line of operations, finds a strong place of refuge which the assailant is unable to capture, because he has in the meantime become too much reduced in strength, the tables are turned. In such cases Russian theaters of war would not be the only ones upon which a defense of this kind might find application. Let us suppose that in 1870 MacMahon's army, instead of being captured at Sedan, had only suffered a reduction of strength through continued combats and had finally been forced back into the fortified capital. The losses of the Germans in their Third Army and the Army of the Meuse would have been considerably increased before arrival at Paris, probably more than by the operations around Sedan. It is, therefore, very doubtful whether they would still have been strong enough to effectively enclose Paris with its increased garrison. Probably it would have turned out that the German armies, in spite of their superiority at the start, were still too weak for the attack upon that large, rich, and densely populated country.

This supposition is not so far removed from reality as to be unworthy of becoming the subject of consideration.

The example of Wellington at Torres Vedras speaks still more clearly. In the spring of 1810 the cause of Spain, in its war against France, was in a hopeless condition. The Iberian Peninsula, with exception of a small portion, Portugal, had been conquered. Napoleon, at the zenith of his fame, had just overthrown Austria, and could now turn his thoughts towards terminating this affair also. Under the command of Masséna he was forming a main army which was to number 123,000 men, which seemed more than sufficient to drive the 30,000 Englishmen still retaining a foothold on the mainland of the Peninsula, to their ships. But the prudent Duke, while fighting, fell back slowly to the last corner of land, before Lisbon, where he rested on the friendly element of the sea commanded by the English fleet. On both flanks and in rear he was protected by water, and in front he had constructed a strong position, the effect of which on the advancing assailant was increased by the fact that he was completely unaware of its existence. In consequence of covering bodies, losses, and detachments on a long line of operations, the French, when almost touching their object, were too weak to completely attain it. From the moment that this became clear, the turn of the tide in the Peninsular War—indeed, in Napoleon's military career—began.

A similar thing would have happened if the Turkish armies, after the loss of Plevna and the line of the Balkans, had retired to, and made a firm stand at, the position of

Czataldcza, which extends from sea to sea, west of Constantinople. The Russian Army arriving in a reduced condition would neither have been able to capture the intrenched lines, nor to envelop or turn them, especially if England had decided to support the Porte, not only with diplomatic notes, but also with troops. A hostile fleet would have annoyed the assailant on both flanks, and an allied army could easily have been assembled in the quadrangle of the fortresses on the Danube, still in possession of the Turks; and the advance of such an army would have made the retreat of the victors necessary.

There is no case in recent military history in which a favorable situation,—although apparently a hopeless one,—but which upon closer examination afforded all the means for a brilliant rescue, has been so completely overlooked.*

If the change is expected upon the attainment of a certain position, then it becomes of the utmost importance to arrive with an army that has not been seriously shaken or defeated. However simple this may sound to our ears, there are, as a matter of fact, occasions on which it was forgotten.† If there is no prospect of reaching such a position, it will be more to the purpose to join other bodies of troops for protection and reinforcement, without which the strongest position would be worthless.

The principal danger in every defensive is that the enemy may involve us in decisive engagements at an inopportune time. Strategically this is still more difficult to avoid than tactically, because the commander-in-chief cannot have the whole army in view, and misunderstandings of subordinates may bring on the complications he is endeavoring to avoid. On the other hand, a non-resisting retreat easily degenerates into flight, and is very prejudicial to *morale.* The problem, therefore, is to maintain the correct medium between eagerness for combat and considerations of safety; this requires a perception as keen and a will as firm as was shown by Blücher in Silesia in 1813, and by Robert Lee on numerous occasions in his campaigns in Northern Virginia.

*This fact alone would give the Art of War, which is so often reproached with dealing in commonplaces, a perfect right to reiterate continually such simple matters as are here brought up.

†For the war with France, at the beginning of the century, Massenbach expected complete salvation from the position on the Ettersberg near Weimar, and the poor visionary, even after the battle of Jena had been lost, summoned the fugitive and leaderless fragments of the army to hasten to that position, as if the mountain alone could command Napoleon to halt.

But matters assume a different aspect when the favorable change in the situation is expected from union with approaching reinforcements—for example, with the army of an ally not prepared for war at the outbreak of hostilities. It is, no doubt, generally to be recommended that in such cases also both of the groups, at their union, be still free from severe losses. But there is an exception to this rule.

If the reinforcement is still so distant,* or so far from being prepared, that prolonged operations by the forces deployed against the enemy become absolutely necessary, a stout resistance may be preferable to a simple retreat. To reach strong positions, the capture of which will cost the enemy a great deal of time and strength, then becomes more important than the rapid approach of anticipated assistance.

In such cases the unfavorable fact for the assailant—namely, that the power of an army to endure the hardships of war is not an unlimited one, but is exhausted even in a successful course of events—comes up for consideration. After a certain period, the victor also becomes tired of war. The more highly civilized a people is, the more quickly will this weakness be developed. It is

*In which case it is also assumed that it is impracticable to bring them on by rail.

very difficult to overcome the apathy which takes possession of troops and their officers when, as the first campaign is about to close, they encounter a new enemy, so that, with the longing for home already in their hearts, they have to begin work anew. Napoleon's winter campaign of 1807 proves this clearly. When, after a campaign of victory without parallel, against the Prussian Army, he came upon the weaker but fresh Russian Army in Poland, his operations involuntarily came to a standstill. The Germans had a similar experience in 1870 when, after victory over the armies of the Empire, they unexpectedly had to take up a serious struggle against the armies of the Republic.

The leading idea of a strategical defensive can, consequently, very properly be based on this conception. The original plan of the Prussian commanders, to begin by delaying Napoleon I. in an exhausting campaign until late in the autumn of 1806, and to conduct decisive operations against him in the spring of 1807, Rith fresh Russian troops to assist them, was, of itself, not such a bad one. However, to make it a success, it would have been necessary for the execution of the plan to have been a less pitiful one.

3. The Final Defensive Position; Direct Withdrawal; Convergent and Divergent Retreat.

The place for the decisive stand may correspond very closely to the conclusion of the whole strategical defensive operation. It is, in fact, quite conceivable that it was originally selected for the former purpose, and that the defender's idea is simply to wait for the arrival of the assailant. This is the method which will always be adopted when we desire a battle, but do not feel quite strong enough to make an attack, which, in fact, requires a numerical superiority. This was Napoleon's situation before the battle of Austerlitz. Accordingly, he intentionally spread rumors about the poor condition of his army, and succeeded in his design. The Allies advanced and imprudently attacked him.*

An army in a fortified frontier position—for instance, the French Army as against Germany—may proceed in a similar manner. We can readily imagine that such an army would like to see itself assailed between and behind the frontier fortresses; for an attack, undoubtedly, is far more difficult under such conditions than in the open field. The fact also that years of labor and millions of money have been invested to prepare a defense, invites the adoption of a waiting policy. There seems to be a certain moral obligation to make use of the artificially created battle-field. But the assumption of such a position is generally justified only in case the enemy is compelled to attack.* We must not count upon always having so complaisant an antagonist as Napoleon found at Austerlitz.

The solution of the problem of defense, in a strategical position of this nature, amounts to nothing more than rapid shifting of troops by the flank to the place where the enemy has selected for the penetration of our lines. Good cross-communications behind the front and a suitable distribution of the troops, skillfully adapted to the capacity of the roads, are the points of principal importance. For the infantry of the defender, railroads may also play a part during the operation.

A direct withdrawal, from the first front of concentration to a position in rear, ordinarily indicates a previous error,† unless important political reasons have influenced strategy; for we do not retire in this way unless we find, upon approach of the enemy, that the position we

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*See page 125, and note, page 130.

†Unless we are endeavoring to inaugurate a system of repeated procedures of this nature, a so-called defense by sections, which is calculated to tire out the enemy.

have taken up is not sufficiently strong to enable us to make a successful resistance. But this conclusion might have been reached beforehand. It ought not to have required the battles of Wörth and Spicheren to convince the French of the weakness of their preliminary concentration on the German frontier. They might have derived precisely the same information from a careful objective comparison of the forces on both sides, and could then have taken up the retreat to the stronger line of the Moselle without a fight. If they had halted their main bodies on the Moselle in the first place, to prepare a defensive position while the advance guards hastened to the frontier, they would have fared much better.

The object of a convergent retreat is to assemble the armies in a favorable position, previously selected, which lies on the prolongation of the enemy's line of operation. The remark might, with seeming justice, be made, that it would have been more judicious to assemble the forces in that position in the first place. But there may be important reasons preventing this. We may not be willing to abandon our territory up to the frontier without further ceremony; consequently, we occupy it with our troops, not beginning withdrawal until the enemy makes his appearance. We may also apprehend that advance guards pushed out in front would, alone, not exercise sufficient attraction to draw the enemy on. When we entertain a doubt about completing our deployment before the enemy, and fear that the latter may begin operations before we are ready, the selection of a place of assemblage farther to the rear becomes an imperative precautionary measure. Prince Frederick Charles, at the time of the strategic concentration of the II. Army, had selected such a position at Göllheim in the Palatinate.

A convergent retreat to a position in rear is also the natural expedient in case of surprise. A central location makes assemblage easier. Thus, when Frederick the Great suddenly fell upon the Austrians in 1757, Prague,

simply on account of its situation, became their general rallying point. Finally, preliminary combats may demonstrate the impracticability of previously planned offensive operations. Falling back on a central position, such as that of the Austrians in 1866, behind the Bistritz, then forms the transition to the defensive.

The convergent retreat is the first and most essential operation for him who realizes his own weakness. "Concentration to the rear," therefore, has a dubious sound in the conduct of war. It is closely related to those central positions, which are praised because we can advance from them equally well in all directions, but which are generally assumed because we don't exactly know where else to go.

A divergent retreat to a flank position will in case of surprise, probably be no longer possible, except perhaps when this position is especially conspicuous on account of some peculiarity of form, and had thus become generally known. In such moments we do the things that are simplest and most natural; but retreats to a flank certainly are not of that kind. The latter require that the army be nearly all assembled beforehand and well under control of the commander. Marshal Bazaine's retreat to the position on the French Nied, after the 6th of August, might be called a divergent one; for he transferred his army to the right flank of the German armies, which were then advancing towards the Moselle. The benefit of a divergent retreat, in that it causes a surprise to the enemy, forces him to change his dispositions and order of march, and causes a loss of time in any event, would not have failed in this case either, if the marshal had waited for the effects to be developed.

A double divergent retreat, which intentionally divides the army, deprives it temporarily of ability to fight the enemy, and for this reason retreats of this kind have been condemned on principle. However, there are sufficient opportunities in war when we temporarily have the

greatest interest in avoiding all contact with the enemy. After a lost battle, a divergent retreat often is the best way of withdrawing from pursuit. In the first place, the use of a greater number of roads facilitates escape. Moreover, a divergent retreat deceives the enemy as to the direction taken by the main body of the retreating army. The example of the French, after the battle of Orleans on the 4th of December, is instructive in this respect. The victorious army of Prince Frederick Charles, after capturing the city, which occupied the center of the enemy's line had retreating bodies of the enemy on its right flank, towards the west, on its left flank, towards the east, and in its front towards the south. As a result of the unavoidable confusion caused by the battle, troops of different French corps, mingled together, were found in all three directions, and a doubt temporarily arose as to what had become of their main body.

The double divergent retreat, therefore, has its advantages, under certain circumstances, and may well be a subject for consideration.

A considerable obstacle in our rear, which has to be crossed in view of the enemy, may likewise force us to adopt a divergent retreat. For example, in the case of a large stream, it may be necessary for us to reach certain fixed points of crossing, separated by considerable distances.

A similar state of affairs may arise from the circumstance that we are expecting the assistance of an army approaching from our rear, and desire to remove the immediate consequences of a lost battle. The separation must, of course, be considered as only temporary, and a definite idea as to the place of reunion should be formed in advance.

A point of support is necessary for this latter purpose. It may consist in a naturally strong position, fortifications, or reinforcements.

For precisely the reason that a divergent retreat deprives the enemy of a definite objective, his pursuit will have an earlier termination, and it will thus become possible to draw the forces together again. In this respect, railroads may render good service. After the battle of Orleans the French succeeded in transferring several corps to another theater of war by rail, without prompt discovery of the fact in the German camp. A convergent assemblage on serviceable railroads, if planned and prepared in time, would certainly not be more difficult.

4. Special Forms of the Strategical Defensive.

We lay stress upon three special forms as being the most interesting ones:

(*a*) *The System of Flank Positions.*

The general subject of flank positions has already been discussed.* Only their premeditated application requires further elucidation.

Whoever feels himself strong enough to oppose the enemy in front and bar his advance will choose this, the simplest of all the forms of the strategical defensive. It is the safest, diminishes the danger of error, and does not permit the adversary to pass us by. We retain our lines of communication and of retreat behind us, and, if our resistance is not successful in the first line, it can be resumed at another, farther to the rear. It has the disadvantage, of course, of drawing the opponent on behind us in the direction he himself desires to take, and we must, therefore, be sure of our ability to stop him at some point before he reaches his objective.

When this certainty is wanting, advantage will be taken of strategical flank positions, as an artificially strengthening expedient. Their chief advantage is that the antagonist is drawn away from the direction of his

*See pp. 53, 87, 153.

objective, which we thus protect indirectly, after doubting our ability to make a direct defense. The change of direction, moreover, considerably increases the difficulties of the enemy.*

However, in most cases we thus increase the troubles of our own situation also. We establish our lines of communication and retreat on one flank where it is easier to lose them, and turn the other flank towards the enemy, thus exposing it to envelopment. If we are defeated, the opportunity of interposing a second position between the enemy and his objective is also gone. The complicated arrangements which always form a part of the system of flank positions, more easily lead to disaster; and they make higher demands on the skill of the leaders.

In any event special conditions will arise which render the situation more difficult. The army on the defensive, in the first place, must be strong enough to be able to exercise a sufficient attraction on the bulk of the antagonist. If the assailant's excess in numbers is very great, he will detach a portion of his force to confront the defender in his flank position, and with the mass of his army resume the advance on the unobstructed direct road. Every strategical flank position must, therefore, at the same time be a good location from which to inaugurate offensive operations. A combatant who retires behind a broad and deep stream and then destroys all the bridges may, indeed, be in a flank position, but he throws away all his advantages. He simply locks the door to the theater of operations against himself.

The flank position, moreover, must not be perceived too soon by the enemy, otherwise we will change direction towards it in time and we shall at most cause him a little delay.

Retreat from a flank position must not be impossible, but should be favored by the nature of the region, at least

*See p. 53.

on circuitous routes; otherwise we shall be confined there and rendered innocuous by the assailant. If retreat is practicable in various directions, we have the valuable chance of letting the enemy approach close to the flank position, and then of drawing him on by slow retreat, still further away from his original direction.

From this we see that the whole system requires a great deal of elbow-room in the country and a good network of roads. Freedom of movement is necessary. A strategical flank position must have country behind it. The best of such positions is one which covers a theater of war situated on a flank and still untouched, upon which an army can base itself, and from which it can draw reinforcements. Jomini's high opinion of such a base is well known.* It is evident that generally it will only be found by a defender in his own country.

A few examples will make the nature of this operation still clearer.

Clausewitz, in his discussion of the campaign of 1812, says: "If we consider that at Borodino there were only 130,000 Frenchmen against 120,000 Russians, no man can doubt that another direction of the campaign—for instance, on Kaluga—would have put Moscow entirely out of the game." At Kaluga the Russian Army would still have had ample territory behind it to live, and, after a while, even to have augmented its numbers. The French would have been compelled to follow them for the sake of their own safety; but they would have lacked the necessary surplus to occupy Moscow at the same time.† That such a course was not pursued, Clausewitz thinks is readily explained by the fact that nobody could foresee the rapid dwindling of the French forces, and that no arrangements had been made for a retreat of the army

*See p. 87.

†*Clausewitz*, Posthumous Works, 2d edition, Vol. VII., p. 119.

towards a flank. In such a comparatively uninhabited country preparations would have been necessary.

In discussing the defense of France against the Allies in 1814, he suggests a position for Napoleon, southeast of Paris. However, it would have been essential to protect the capital against a sudden attack; for mere occupation might, for political reasons, have decided the fate of the Empire.

We have then a final condition for the successful application of a defensive of this nature—namely, that the object to be protected, if it be of overwhelming importance, must always have a sufficient garrison to render it secure.

Moltke, as has recently become known,* proposed, in 1860, to defend Berlin, in case of an Austro-Prussian war, by a flank position. Taking into account the relative strength of the armies at that time, he considered a direct defense against the hostile army supposed to be advancing from Bohemia as disadvantageous. An unsuccessful battle had to be considered as among the possibilities. In that event we should also have lost Berlin, and, with an energetic pursuit by the enemy, been forced back to Stettin. But—he proceeds to explain—if the Prussian Army were to take up a position on the Elbe, between Torgau and Wittenberg, excellent results might be expected from every offensive operation inaugurated from this flank position. It would force the enemy to face in that direction and to give up his communications with Bohemia. In case of successful issue for us, the enemy would be thrown back on Silesia; but in case of defeat we could find protection behind the stream, and the possession of the fortifications would soon enable us to advance again. It would, of course, have been necessary to place Berlin in condition to be able, independently, to resist a direct attack for a few days.

**Field Marshal Count von Moltke's* "Views on Flank Positions," first supplement of "Militär-Wochenblatt," 1895, p. 5.

In a memorial dated 1868, in which the possibility of a war with both France and Austria is considered, a similar proceeding was again recommended against the second power. In addition, we had the further advantage that an army in a flank position on the Elbe would still have remained in good communication with the other Prussian army on the French frontier, and, in case of emergency, could have drawn reinforcements therefrom. This would have made the position of the Austrians marching past the flank position, and on Berlin, still more precarious.

The offensive element in the system of strategical flank positions has been still more strongly emphasized by Moltke than by Clausewitz. As a matter of fact, they form the best foundation for a defensive making use of counter-attacks, and the effectiveness of the latter is further increased by their favorable direction and the element of surprise.

Flank positions taken up by retreating armies are, however, not the only ones we have to deal with. They may equally well be evolved from offensive operations against the flank of the assailant, as Osman Pasha's example at Plevna shows. Its effect upon the Russian operations against the Balkans was increased by the fact that his appearance was not anticipated.*

Although flank positions offer undoubted advantages to the strategical defensive, it would, nevertheless, be a

*Critics have taken two exceptions to his conduct of affairs, unjustly so in both cases; namely, that he did not continue the offensive, especially after his first successes gained while conducting the defense, and that he remained in his position so long that he finally was unable to leave it. He did not have a sufficient number of troops for the former proceeding, and his army, moreover, lacked the necessary tactical mobility. As far as the second point is concerned, he acted in accordance with definite orders from higher authority, although contrary to his personal views and desires. A Turkish general is much less in position to disregard such orders than a German, a French, or even a Russian commander.

mistake to attempt their application under all circumstances. Our brief preceding discussion has enabled us to form an idea of how many conditions must be combined in order to make them useful. Moreover, the personal influence of the commander in-chief, the reputation which his army enjoys with the enemy, and many other points must be taken into consideration. General de Curten, with his division, found himself, on the 6th of January, 1871, in what appeared to be geographically a very effective position, on the left flank of Prince Frederick Charles, who attacked the line of the Loir at Vendôme; but nobody had any idea of stopping on that account. Nothing of a serious nature was apprehended from the General, who was not known, nor from his troops.

(*b*) *Operations on Interior Lines.*

Operations on interior lines form a well-worn theme of the theory of war, because they have repeatedly produced brilliant successes which astonished the world. When the defender supports himself at a fixed place, and his antagonist attacks him on separate lines of operation starting from various points of an arc surrounding him, we say that the defender is on interior lines. The same holds true if he occupies a position on which the opponent makes a direct attack with a portion of his force, while attempting to turn it with another portion. The conception has been generalized and made to include the situation of an army which finds itself among various hostile groups and is able to combine its forces, in the space enclosed, before the enemy can attack them with superior numbers.

The nature of these operations is best elucidated by the measures of Napoleon I. on the days of February 10th to 14th, 1814. Retiring on Paris before the Allied armies, the Emperor, on the 9th of February, was at Sezanne with the main body of his forces. Towards the north, separated from him by the Petit-Morin and its swampy valley, the Army of Silesia was marching past and advancing on Paris. It was not concentrated, but was marching on two roads—namely, along the Marne, and the shorter road by Champaubert. On both roads the army corps followed each other at considerable distances. These certainly were favorable conditions for a sudden attack, especially when offered to Napoleon. The latter at once took possession of the crossing of the Petit-Morin. Then, making use of the crossing, he moved rapidly to the southern road used by Blücher's army, and, on the 10th of February, destroyed the nearest force, the Russian corps of Olsuvieff, at Champaubert. On the 11th he hastened to Montmirail and defeated the corps of Sacken, which had already taken up a position at that point. The troops of the Prussian corps of York hastily drawn from the northern road along the Marne to the support of Sacken, were hurled back across that stream on the 12th at Chateau-Thierry. Napoleon then turned back to the southern road, where Blücher was now coming up with the Prussian corps of Kleist and the Russian corps of Kapezewitsch. On the 14th of February, Blücher was totally defeated at Etoges and was forced to rally his army in rear at Chalons before engaging in further enterprises.

A situation on interior lines is, of itself, not always favorable, by a good deal. It is generally brought about by the numerical superiority of the opponent. The defender may find salvation in the fact that he occupies a position between the enemy's lines of operations. The possibility of using the same force repeatedly against different groups of the enemy, gives the defender this chance. At the head of 30,000 men it is not difficult to defeat three detachments of 20,000 men each in succession, whereas a conflict with the united 60,000 would be hopeless.

The conditions making such action possible are, in the first place, great firmness at the headquarters of the army, not permitting a single hour to be wasted; for the enemy is in motion for the purpose of concentration,

which, if accomplished, would convert the situation into an unfavorable one. The next in importance is great efficiency of the troops; for repeated employment must of course, wear them out more rapidly than the ordinary amount of work. Continual marching and countermarching is fatiguing; and it becomes more difficult to subsist the army.* The distances must also be favorable. If they become too small the defender exposes himself to the danger, while engaged with one of the enemy's columns of being enveloped or surrounded by the other approaching forces. If they are too great, he will be obliged, while engaged with one antagonist, to disregard the others for a considerable length of time; the latter can then pursue their advantages without hindrance. Average distances, therefore, are necessary; in case of a convergent advance by the assailant they would exist only for a short time. On account of the uncertainty that prevails in war, it is difficult to seize the moment when the conditions are favorable.

Finally, we must also take for granted that the understanding between the commanders of the different columns of the enemy's army is imperfect; this is a necessary condition for success. If they act as the Allies did in 1813, when Napoleon's grand scheme of interior lines of operation, based on Dresden,† ended in failure, success will be frustrated.‡

Moreover, at the beginning of the wars of modern

*For this reason successful operations on interior lines are, as a rule, only available for the defender who is fighting in his own country.

†See p. 64.

‡In order to deceive the enemy's commanders and interfere with their concert of action, it will usually be necessary for the general operating on interior lines to leave a detachment, even if it be only a small one, to observe those columns of the enemy against which he is not operating with his main body. Thus Napoleon, when he turned towards Montmirail and Chateau-Thierry, had left Marmont behind to watch Blücher.

times, the great numbers of the armies stand in the way of success. Such masses as are raised in our times cannot be moved back and forth on interior lines, after the manner in which Napoleon handled his corps on those glorious days of February. Surprise also, which at that time contributed so much to success, ceases wherever the electric telegraph transmits numerous reports as to the actual location of the defender moving about in the interior space.

In future wars we shall probably see successful operations on interior lines only after prolonged contests have materially reduced the individual bodies of troops, and exhaustion besides has diminished the energy and vigilance of one of the combatant forces.

On a very large scale, when the strategical situation becomes a political one, such operations may be conceivable. In case of war in the east and the west of her territory at the same time, Germany would control interior lines and might find in this fact a means to increase her powers of resistance. Should she succeed in bringing the enemy's operations on one of the frontiers to a standstill, the almost perfect system of railways would permit the rapid transfer of considerable bodies of troops, thus giving her a numerical superiority on the other frontier. But promptest decision and most rapid execution would be necessary; for the beginning of the operation would not remain a secret very long. The operations of Frederick the Great against Austria, France, and Russia during the Seven Years' War were of this nature. Movements at that time were slow, but the news thereof also traveled slowly; and the arrangements between the Allied Courts for concert of action were a good deal slower still.

(*c*) *Combined Operations.*

The term "combined operations" is applied to proceedings of the defender when he makes use of both

offensive and defensive operations—that is, causes his forces to retire when it can be done temporarily without permanent disadvantage, but advances again when there is good prospect of profitable results, the object being gradual accumulation of a number of small successes into an overwhelming preponderance. The system of the Allies in the campaign of 1813, after the armistice, was of the nature just indicated. Nearly everything worthy of note on this subject has already been stated in the chapter on the alternation of offensive and defensive. Operations of this kind require a theater of war of ample size, and, in some portions at least, the nature of the terrain should be such as would furnish support for the defenders. Blücher's successful action against the French was greatly favored, in the campaign just mentioned, by the physical nature of Silesia, with its water-courses in deep-cut valleys. Fortresses and fortified positions may furnish similar assistance. With their aid one strategical wing may be very much reduced, temporarily, so as to gain for the other the forces necessary for an engeretic counter-stroke.

XII.

TACTICAL DEFENSIVE OPERATIONS.

1. Object and Aids.

The details of this subject should be found in tactical text-books. We shall here discuss only the general relations of tactical defensive operations.

They may, in contrast with tactical offensive operations, have a double object—namely, to repulse the assailant on the battle-field and to gain time. It does not always follow that we are bent on determined resistance whenever we take up a position. We have seen from the nature of the defensive that time is its ally, and that the defender can often consider himself successful, when, up to a certain moment, he has not yet been defeated. When an army, after losing a battle, is hard-pressed by the enemy and leaves its rear guard in position in order to gain the start which is necessary to enable it to occupy a strong position, the commander of the rear guard will generally have completely accomplished his task if he can hold the enemy in check for several hours. If the main body halted towards evening, it will usually be sufficient to prolong resistance until nightfall. We shall thus have gained the night for the accomplishment of our object.

Gaining of time may, consequently, be a complete substitute for advantage in battle; whereas in the offensive the advantage must be obtained at any price.

The object of the tactical defensive must, of course, not be purchased with too heavy losses; for otherwise we might by fighting secure the desired delay in the operations, or maintain a position to which we attach special value, and still be ruined by losses and forced to abandon the war. The sum of the means available for the defensive—namely, effect of fire, terrain, artificial defensive positions, and exhaustion of the enemy,—must in each case be great enough to make it probable that the change in our favor will counter-balance his previous superiority.

It remains to be explained how the exhaustion of the antagonist is to be considered as a means of which the defender can make use. The effect of fire, the influence of the terrain and of field fortifications will be understood without further explanation.

We know that the successful progress of an attack depends very materially on skillful dispositions and judicious deployment of the troops. When the retiring defender halts on his line of retreat, the assailant cannot at once rush upon him, but must first bring up troops from his columns in rear. If the defender's position is of some extent, and he has taken advantage of favorable features of the terrain, it will be necessary to reconnoiter the position before proceeding further. Then the roads approaching the position must be found and the troops brought forward on them and deployed in suitable battle formation. All this must be done beyond effective artillery fire, the range for which is now assumed at about 2,700 yards. The line of deployment will, therefore, be considerably longer than the enemy's position, and the necessary movements will be made across country. This uses up the energy of the troops. The larger the unit of troops, the more time will be required for deployment, and the more powerful will the effect of fatigue be. If the ground is soaked, or the fields are covered with deep snow, the laboriousness of progress may amount to a downright calamity. The method of fighting must also change; for the activity of the cavalry almost

ceases, that of the artillery is very much restricted, and practically the whole burden falls on the infantry. If we add to this the shortness of the days in winter, a factor which is usually coexistent with the other unfavorable circumstances, it becomes explicable why battles, not fought to a finish, but interrupted by darkness, before a complete decision is arrived at, become a common occurrence. For examples we have only to think of the Le Mans campaign.

When, after a battle, the troops file into the roads again, the picture of the deployment is repeated in inverse order. A consideration of the depths of the columns alone shows that an entire corps can be deployed for combat only once in a day A division, with the utmost exertion, might be able to deploy, resume column of route, and deploy for battle again. But the second exertion would be useless, for no time would be left for a combat before evening.

These circumstances are all of advantage to the tactical defensive. If the defender can deceive a large unit of the enemy's troops and induce it to deploy for battle, and can then withdraw without serious loss, he will have gained a day. This is often overlooked, and a precious means, that of accomplishing our object by simply threatening to fight, is not utilized.

Naturally, for the successful employment of these means, skill of the leaders and good fighting discipline of the troops are requisite. In the attempt to gain time it is easy to be held fast against our will and to be forced to decisive action when we did not contemplate it. To avoid this, a liberal use of artillery fire at the greatest distances is necessary to begin with. This diminishes the effect, to be sure; but effect is not what we are after, so much as deception. Separation of the batteries, in order to make the enemy believe in the presence of a greater number, is an entirely justifiable strategem and one that has fulfilled its object even at peace maneuvers, where

observation is so much easier. Fronts which are much more extended than the number of troops would ordinarily permit, and deployment of a very strong first line, with reserves which would be insufficient for serious resistance, may also be employed with profit on many occasions.

The most difficult part is to recognize the proper moment when we would be justified in considering our object as accomplished. If we have allowed it to pass, the punishment follows at once. The appearance becomes a reality, for which we are not prepared. In general, we may say that when the infantry once becomes seriously engaged, the battle will have to be fought through to a decision, because it is no longer possible to recall it without incurring the heaviest losses. We must, therefore, break off the engagement before this moment. This is not easy; for the enemy will notice it and soon begin to push with vigor.

2. Application of the Different Methods of the Tactical Defensive.

When is gaining of time, exhaustion of the enemy, or decisive battle, timely? The last of these three should indicate the final stage of the entire defensive operation and serve as the introduction to the reversal of the general situation. The decisive battle should, therefore, be accepted as soon as we believe that our powers of resistance are at a maximum. The number of troops, their condition, the strength of the position in the terrain, and moral powers are the factors which compose the maximum. It is not absolute, but must be determined by comparison with the enemy.

If we still expect an increase which will probably exceed the losses arising up to the time of its arrival, then delay, without decisive action up to that moment, is important, and the *gaining of time* becomes the main point.

Exhaustion of the enemy, which under certain circumstances is the most powerful resource of the defender, and which may lead to the complete debilitation of the assailant, will become the sole object of defensive operations whenever the limit of the latter is not yet well defined.

This discrimination sounds simple and clear. It is, however, not easy to carry it into practice; for the image which we have before our eyes in the field lacks the necessary distinctness. Although we are able to assume with some degree of certainty when and where we shall receive reinforcements, there will, generally, be no way of determining whether the enemy is not also being reinforced in the meantime, thus neutralizing our advantage. Still less will it be possible to estimate the prospective losses. In judging of the conditions existing in the enemy's army, considerable errors may be committed. We know how seriously the Allies were mistaken in this respect before the battle of Austerlitz.* The decline which the French Army underwent in Russia in 1812 did not become perceptible to the opponent until quite late. Even in his position at Kaluga, Kutuzoff was not yet fully aware of it. The assailant is better off in this respect than the defender. His road leads over the battlefields and camping places of the enemy—in fact, he generally marches by the same roads that the enemy made use of before him. Evidences of disintegration will hardly escape him; and he has better opportunities to take prisoners. The retreating defender has no such means at his disposal, and, if he is on foreign soil, will not even receive sufficient information from the inhabitants. The activity which the assailant displays in his combats would probably furnish a guide to estimate his physical and moral power, but we must not overlook the fact that this may depend on the greater or less energy of his plans.

Consequently, although it may theoretically be pos-

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*See p. 150.

sible to determine the points on which to base our estimate of the enemy, our judgment will, nevertheless, often grope in uncertainty. The diagnosis must be governed by the circumstances as a whole. Experience in war and knowledge of human nature are most likely to find the proper course.

3. Disposition of the Troops.

For every kind of combat the defender must decide upon suitable dispositions, which should form an organic whole. If he allows himself to be caught while in motion and defends himself only in such a way as the circumstances may permit, at the places where the troops happen to be, he relinquishes control of affairs. Such occurrences are usually without benefit to scientific investigation and the determination of rules.

When it is a question of serious and decisive resistance at the final stage of the operation, it is of the highest importance, in selecting the position to be occupied, to favor the efficiency of fire, for the latter, not the difficulties of the terrain, forms the greatest obstacle for the enemy. If the defender desires the battle to take place at the position he occupies, it will not even be advantageous to have too considerable an obstacle in front; for this may induce the enemy to make movements to deprive the position of its importance, so that it will have to be abandoned. A seeming weakness, as in Napoleon's right wing at Austerlitz, may be advantageous; for it induces the enemy to advance in a direction easily recognized. It is, of course, convenient, if a portion of the front is strong by nature; for, on the whole, we must consider the defender as the weaker of the two combatants. And, if he desires to keep the upper hand on at least a portion of the field, he must be able to exercise rigid economy in the employment of his forces on the other portions.

Another condition is the possession of a covered interior space which the enemy cannot readily observe.

Formerly undulations of the ground in advance were sufficient; now, when by means of captive balloons the enemy can look over the tops of considerable elevations, a terrain screened by cultivated fields, groves, enclosures, and gardens is more desirable, as it enables us to conceal the distribution of our forces.

In addition to the above, the terrain should be easily practicable. It is difficult to find a combination of these conditions complied with. Ground with cover is especially likely to be found in highly cultivated districts, which, on the other hand, abound in obstacles to movement. Although impassable water-courses, deep ravines, swampy stretches, and the like may be lacking, garden walls, drainage ditches, deeply plowed fields, wire fences, and similar evidences of improved cultivation take their places. Numerous roads, or, at least, passable ground to the line of battle and towards the flanks, are requisite. We should continually bear in mind that a change of front may become necessary.

If it is possible to select a position so that the enemy in approaching it must cross an obstacle which is passable only at a few points—for instance, a river restricting him to the bridges, the defender enjoys the advantage of knowing beforehand in what directions to concentrate his fire. The movements also of the assailant are then limited to a certain extent, and the defender can form an idea of what he has to expect.

In order to obtain the benefit of artificial strengthening of a position, it will be of advantage if, on a portion of the line of battle, the nature of the terrain facilitates such work.

We all know how small the prospect for the success of a frontal attack is.* The defender's attention must, therefore, be principally devoted to the flanks. It is more difficult to find secure supports for them tactically than

*See p. 135.

in strategical defensive positions.* We should endeavor to rest one of the wings, at least, on a secure point—if possible, the one which is by nature the stronger and consequently the weaker in troops. On the other wing the troops are accumulated, and the surplus necessary for an active protection of the flank thus becomes available.

The proper dispositions for this purpose will be indicated by the form of the battle-field.

One very simple means is found in the prolongation of the position, after the assailant has commenced his envelopment; his flanking forces will thus arrive before our front. For this purpose reserves in the rear of the wing are necessary. But a wing stretched out too far becomes weak, and may be easily shattered or driven off by the opponent, as the French were at Roncourt on the 18th of August, 1870. A defeat of this kind will have almost as disastrous an effect on the army as an envelopment. A crotchet formation will usually be stronger, especially if the assailant is unable to discover it until he has arrived at the flank of the position. The distance he has to go will then be greater than that to be traversed by our reserves, and the only advantage remaining to him will be the convergency of his attack.

The best way of securing flank protection is to place troops beyond and to the rear of a wing (echelon formation). As a rule, the main reserve could be placed there; for the front will not need it, and the pivot flank can be made secure by smaller bodies. This force, which is at first held back, can then advance against the enveloping bodies, and its unexpected appearance will surprise the enemy. The assailant, who is committed to the envelopment and therefore likely to believe he has already reached the goal, will always be effectually struck by such a counter-move. If the main reserve is thought to be necessary in another place, an independent detachment

*See pp. 118, 119.

can be detailed for the flank, with orders to maneuver against the enemy's envelopment. Although it cannot defeat the enveloping forces, it will still be able to delay them at the critical moment, and thus deprive the movement of decisive influence. General v. Keller's weak detachment on the Lisaine succeeded in doing this at Frahier on the 17th of January, 1871, against the French divisions of Crémer and Penhoat, which had begun an enveloping movement.

Behind a wing, the reserves, in case they are not needed in the final stage of the defense, will usually be in a very suitable place and condition to make a counter-attack.

If both wings are in the terrain, without points of support on which to rest, the stronger protection belongs to the more exposed wing. In the majority of cases this can be determined by consulting the enemy's interests in the premises. When the defeat of a particular wing would have the more important strategical consequences; when the lines of communication and of retreat run close behind one of the wings; or, when reinforcements are expected which the enemy's interests would prompt him to keep away, the proper position for the strongest reserves is clearly indicated.

Considerations of a quite different nature become influential when the object of the position is to gain time. This shown by what has already been stated concerning the nature of tactical defensive operations.* An inaccessible front then becomes a great advantage; for, if it discourages the enemy from attack, and forces him to make turning movements, our object is attained, though in a less expensive way. It is not absolutely necessary to have obstacles on which to rest the flanks; for turning movements also require time, and bring profit to the defender. Rivers which are difficult to cross; deep, swampy valleys with steep borders; and heights with

*See pp. 165, 168.

rugged slopes down to the plain, rendering them difficult to climb—though not at all suited for a decisive defensive battle—serve the purposes of an engagement, the object of which is to delay the enemy, very well.

The case is quite different when exhaustion of the opponent is our object. Something more is then required than mere delay, than the semblance of resistance. In such cases more serious combats are appropriate; however, finally decisive action is still avoided. A conjuncture of favorable circumstances of the terrain, of the season of the year, and of the arms and qualities of the troops, is necessary to promote success. What is ordinarily called a "defense by sections" here finds its field of application. Tenacity becomes a cardinal virtue, corresponding to energy in the attack. A region which is difficult to view, which is covered with a dense vegetation, and is intersected in many places, furnishes the greatest amount of assistance to a defensive of this kind. It hampers the use of superior numbers and the deployment of large masses, and restricts the effect of fire; it permits a defeated force to withdraw from annihilation, and a body falling back to resume its resistance after a short retreat. The duchies of the Elbe, Brittany, and Vendée are districts of this kind. The admirable resistance of the Vendeans and the Chouans against the First Republic in France is explained partly by the nature of the country.

We consequently see the most various considerations acquiring decisive influence in the selection of positions for tactical defense; and, accordingly, opinions as to their value differ considerably. The nature and location of the dispositions must be in harmony with the main idea of the operation and with the purpose it is pursuing at the time. Not every position is good simply because it is strong by nature; and not every disposition of the troops is correct merely because skillful advantage has been taken of the features of the terrain.

4. Special Forms of the Tactical Defensive. The Ambush Defensive.

We could pace in this class, to begin with, a form of defensive which, at the present time, is recommended in many quarters. The advocates of the tactical offensive cannot deny the overwhelming power of fire; those of the defensive cannot gainsay the moral impulse which an advance with a well-defined object gives to troops. The idea therefore arose of taking advantage of the former without sacrificing the latter. This becomes possible if we first allow the enemy to make an assault on a good position and suffer severe loss, and then, when he is exhausted, leave our position and fall upon him. Blume's sortie defensive, transferred to the tactical domain, would have about this appearance. The counter-attack cannot be executed by the same troops which had to take charge of the original defense. The difficulties to which they would succumb are well known.* For this purpose, therefore, other troops must be held back in concealment, and as the counter-stroke is to play a decisive rôle, they should form the greater part of the whole force. We, so to speak, lay an ambush for the enemy, and the whole affair may, be called an ambush defensive.

Austerlitz furnishes an example of such a defensive without a parallel up to that time; but we must not forget that Napoleon also had not been equalled as a master of the art of war.

If the ambush defensive were easy to carry out, we should in future see only this kind of defensive adopted. It is to be expected that the troops detailed to repel the enemy will soon be in difficulties; for they are supposed to be considerably inferior to him in numbers. As the whole maneuver may fail if the enemy defeats them before the proper time, they will have to be supported, and thus a portion of the troops destined for the counter-

*See pp. 60, 61.

attack will be prematurely withdrawn from the duty assigned to them. The remainder is then likely to be too weak. If we intend to push the counter-attack forward, through the lines of defense, we moreover incur the danger of coming to a standstill in the defensive lines, or, at best, of carrying them forward only a short distance and of missing the true object; for the combat attracts the approaching troops and checks the movement. A better place for these reserves would be behind the wings; for there they would have free scope for activity to the front. But in that case the enemy more readily discovers them and draws them into combat. The counter-attack thus is likely to become merely a prolongation of the orignal front, or to turn into a crotchet formation. The best prospects for the successful execution of a defense of this nature exist when the forces for the offensive stroke do not arrive on the field of battle until the decisive moment; for example, Blücher's Army at Waterloo, or the Prussian Second Army under the Crown Prince Frederick William at Königgrätz. In this form the ambush defensive may again be realized in the future, in case separated armies are advancing with small intervals. Should the concentrated enemy fall upon one of them with superior forces, its duty will be to weaken the enemy by skillful resistance and to delay him until the others can come up and proceed to the counter-attack.

If we have an insufficient number of troops, the ambush defensive may be employed in a modified form whenever the terrain is favorable. If the front is strong, but too extensive to be suitably occupied by our forces, it may be utilized for a temporary defense, which will force the enemy to decide upon his main line of attack and to show his strength. With our main body, which has been concealed behind this protecting line, we then suddenly attack the enemy at the point affording the best chances of success. If the front line is of such a nature that the enemy, after forcing it, will have to pass through defiles,

the defender, besides being well informed by the preliminary combats, enjoys the further advantage of being able to bring deployed troops into action against the heads of the enemy's long columns, as they appear.

*Tactical Flank Positions.**

Strategical and tactical flank positions are subject to the same rules; however, we must take into consideration the more limited space in which the latter move. The danger of discovery is greater, as is also the probability of being attacked on the flank turned towards the enemy.

The latter must, therefore, above all have a strong point of support, the wing in question being refused a little and the other wing pushed forward somewhat from the parallel to the enemy's line of operations. If we wish to deceive the enemy about the trap thus laid for him, we cannot leave the direct road to his objective entirely open. A rear guard must retire in that direction in order to draw the enemy along after it. The position must also not be farther than artillery range to one side, for otherwise the assailant retains too much freedom to change direction, deploy, and begin battle. It must also be easy to leave the flank position and take up the offensive, in order to be

*We quote here the masterly explanation of positions of this kind which Field Marshal v. Moltke gave in the solution of Tactical Problem No. 63: "A flank position is a position which is taken up near to, and parallel with, the enemy's line of operations—a position which the enemy cannot pass without sacrificing his communications,—a position in which victorious combat and pursuit would lead the enemy away from his original objective. We must remember in such cases, that we also give up our lines of retreat A flank position can therefore, as a rule, only be taken in the interior of a country, where friendly territory, on which we can subsist, is available in rear. In an enemy's country this will be much more difficult. In these cases we turn one wing towards the enemy; it is, consequently, a necessary condition that this wing find strong support in the terrain,—otherwise the enemy will advance on a diagonal and roll up our position from that line."

able to fall upon the enemy and punish him, in case he disregards our position and attempts to pass us by while pursuing his own plans.

Finally, in case we leave the main road and take up a flank postion, we must not entirely deprive ourselves of the means of retreat, but always keep a good line open. Consequently, in this case also, quite a number of prior conditions would have to be satisfied to make our plan feasible. A large part of them would cease to be operative if we took up a position so as to interpose directly between the enemy and his object.

Flank positions become particularly effective when they raise a doubt in the enemy's mind whether the troops he is likely to encounter therein are the same that have been retreating before him, or the advance guard of reinforcements. If, behind the flank position, there is an important defile, from which troops belonging to the army of the defender may be expected, or a railroad station, where they may arrive, the uncertainty of the general situation for the assailant is still further increased. This is especially true when the country between the latter point and the flank position is full of cover and cannot be fully observed. In so favorable a case the defender can, with quite inferior forces, derive the greatest advantages from the situation.

The best illustration of operations of this kind has been furnished by Field Marshal von Moltke, although it is not drawn from actual war, but from a tactical problem. A weak detachment is supposed to occupy a position west of Metz, at Gravelotte, with orders to delay a hostile army which is advancing to invest this fortress, and the heads of whose columns are supposed to have arrived at Vionville. It is necessary to gain at least a day, in order that the full strength of the garrison may have time to arrive.

In any position directly barring the enemy's road this would be quite impossible, the enemy's superiority

being much too great. The detachment, therefore, should take a flank position, south of the high road from Vionville to Metz, at the edge of the Bois des Ognons. Its strength could not be reconnoitered in that position; a dense forest lies in its rear, and behind it the market town of Ars, with two bridges across the Moselle, and a large depot, where reinforcements could be expected at any moment. The assailant would be in doubt whether he had to deal with a detachment pushed out from the garrison, or with the advance guard of an approaching column. He would not be able to undertake anything further until this doubt had been set at rest by a combat. Even the capture of the border of the forest, which alone requires considerable time, would not solve the doubt, for nobody could know how much of a force might still be in the woods. Not until he succeeds in pushing the defenders back to Ars, without noticing an increase in their strength, would matters become clear. By that time the detachment would have gained the necessary delay and have solved its problem.

When the defense in a flank position turns out to be successful, the defender reaps the further advantage that the assailant must begin his retreat under difficult circumstances, because it is only by a change of front that he can resume the natural direction suitable for his purpose. A counter-stroke from the flank position may, therefore, drive him entirely off his line of retreat.

Flank positions are most effective when they are opposed to an antagonist immediately after he has issued from a defile—for example, when he has just crossed a bridge over a large stream. In case of failure, retreat will then also become most difficult for the assailant, because it must be effected through a defile with which he is connected by a flank.

XIII.

OPERATIONS UNDER SPECIAL CONDITIONS.

ALL OPERATIONS may undergo a certain amount of restriction or alteration on account of the form and nature of the theater of war. Formerly a quite decisive importance was attached to these two influences. Different kinds of warfare were named after them. Thus mountain warfare was regarded as something quite independent. Special principles were laid down for use in such cases.

There likewise was a special theory for the attack and defense of rivers, etc.

No real necessity exists for this differentiation, at least not with reference to the principles of the Art of War. On such theaters also the conduct of war is governed by the general laws, and all that is necessary is to modify its methods to suit the ground on which they are applied.

Impassable districts, mountain ranges, streams, etc., should, primarily, be considered as obstacles to movement; they are, therefore, of advantage to the defensive.

If we consider the defensive as in possession of a mountain chain, it enjoys the advantage of a front which, in general, is vulnerable only at fixed points—namely, at the places where roads lead through the mountains. These points can be defended by comparatively small forces; and the intervals between them are, according to our conception, impassable obstacles, so that the whole chain has the appearance of a closed front. The question, therefore, is one of simple frontal defense which all the circumstances seem to suggest as the proper course. We are inclined to consider such positions very strong. It is to be observed, however, that in the Occident nearly all the mountains have been made quite accessible by the pursuits of civilization, and that good roads pass among them.* They hardly form an obstacle now. We must not assume, because the roads are impracticable, that the country is impassable, as the Turkish headquarters did in 1829, 1877, and 1878, with reference to the Balkans.† Finally, short mountain ranges, with thier extremities resting on secure obstacles, such as sea-coasts, are extremely rare. Positions in mountains are either very much extended, and on that account comparatively weak at all points, or else their flanks are exposed. This danger is doubly serious because the separate detachments occupying the front have little connection with each other, and are incapable of rendering mutual assistance. Reinforcement of the threatened point by the defender is generally only possible from the rear, and the troops advancing from that direction encounter the same difficulties as the assailant when he enters the mountain region.

Well aware of these circumstances, the assailant who finds an occupied mountain range before him will merely keep the defender in his front engaged, and will at the same time endeavor to turn him on one or both flanks. If the defender, in order to oppose him, takes up a more and more extended formation by occupying a constantly increasing number of passes towards the flanks, he furnishes the assailant an opportunity to break the line with

*Our chaussées in the mountains are mostly of the best character, because they rest on good foundations, and suitable material for their construction and repair is everywhere within easy reach.

† Infantry now overcomes the greatest obstacles, of which the Italian and French Alpine troops occasionally furnish examples in time of peace. The mule follows foot soldiers on remarkably difficult trails. Mountain artillery also goes almost anywhere.

his reserves. His method of operation in such cases will be to overwhelm one post, while holding the garrisons of adjacent posts in their places by means of weaker attacks. A precipitate retreat of the defenders, when they receive the news that the enemy has broken their line, is the final result.*

The defender, for his part, naturally will foresee such a course of events and will prefer to occuy the passes of the mountain chain with only relatively small detachments, unless special circumstances force him to make the decisive stand in the mountain country itself. In this way the defender is able to ascertain the assailant's direction and the strength of his forces, and at the same time to keep the bulk of his own forces in concealment behind the mountains, with orders to fall upon the enemy whenever his columns of route endeavor to wind their laborious way out of the mountain passes. Here we simply have another case of the ambush defensive.†

It is not a question, therefore, of setting up new maxims for the conduct of war, but rather of suitable application of those already known, to the circumstances of the case.

We find similar difficulties in the attack and defense of rivers; they nearly always suffer from the evil of too great extension, and cannot even be watched sufficiently throughout their entire length. In this case also the defender will generally prefer to defend the course of the river only in so far as may be necessary to develop the intentions of the enemy. He will assemble his main body farther to the rear, in order to attack the enemy when he crosses the river and when, with an obstacle in his rear,

*The abortive defense of the line of the Balkans by the Turks in the winter of 1877–78 is the most recent warning example of an overestimation of the value of mountain ranges as defensive positions.

†See p. 180.

he is compelled to accept battle without fully deployed forces.

Artificial defensive arrangements, also, do not cause a fundamental change in the rules for the conduct of war, but only call forth special measures in their execution.

We distinguish the following: Fortified positions, intrenched camps, and fortresses.

The first are intended either to create a strong position with flank protection, in which a weak army can offer decisive resistance to a numerically superior enemy, or their object is to strengthen only a portion of the front so as to save troops at that place and accumulate them at another.

In the former case they require substantial support in the terrain, and they play a part that is principally strategical. The lines of Torres Vedras, as well as the position near Danewerk, for the protection of North Schleswig and Jutland, which extended from sea to sea, belong to this class. At present, the position of Czataldcza, and the fortified French frontier line against Germany, extending from one neutral territory to another, furnish specimens of such defensive systems.*

Fortified positions of the second kind are preponderantly of a tactical nature. Secure support for both flanks is nearly always lacking, and the intrenched line forms only a portion of the front, at places where we may desire to station a comparatively weak force of troops. Turning movements are anticipated and a battle-field near a flank is selected at the very beginning. On this field we expect to make profitable use of the troops saved in the occupation of the position.

An intrenched camp protects the rear of a position also; it forms a closed figure, and its front may be in any direction. Yet it resembles a fortified position in

*The American Civil War also produced several examples of this nature.

this, that it requires the presence of troops to give it a value. Deserted by troops, it becomes worthless, like the camp of Conlie at Le Mans in 1871. An intrenched camp is intended to serve as a support or place of refuge for a an army which decides to abandon, temporarily, its communications and line of retreat. However, armies do not withdraw to such camps unless they feel that they are no longer have the power to resist the enemy in the open field. And we may logically conclude that they will not be any more likely to possess the necessary strength to leave the place of refuge again—that is, to effect their escape, after being surrounded. We should, therefore, never retire to an intrenched camp unless we can count upon approaching reinforcements with certainty. The army in such a case enjoys the advantage of not being weakened by further retreat and also of being able, in most cases, to bring the operations to a temporary standstill.

An entrenched camp may also serve as a point of support, on which, for example, we can rest one wing while the other maneuvers; or, to make a stubborn resistance at an important point, such as the crossing of a large stream, during the temporary absence of the main body. In this way, however, a camp acquires more the character of a provisional or auxiliary fortification, the only difference being that it is not made as strong as a real one. Dresden played such a part in 1813 and was selected by the Prussians in 1866 for a similar rôle.

A fortress is more independent than a camp. It is of stronger construction, cannot be captured by the use of the ordinary equipment of troops in campaign, possesses all the arrangements for the care and subsistence of its garrison, and is intended to be of importance even without the presence of an army.

The conclusion from this is that fortresses are really appropriate only when we desire to retain control of possessions situated at a distance from the theater of war,

without stationing an army there for that purpose. Provinces may be remote from the main body of the nation and without suitable means of intercommunication; or they may be so situated that the assemblage of an army therein would lead to disadvantageous division of the total fighting force. In such cases we may fortify one of their important cities. This cannot be defended by a weak garrison, and its capture by a regular siege would require considerable time. At the negotiations for peace we can then claim possession of the country, even if the whole district surrounding the fortress is overrun by the enemy's troops, and we thus avoid the danger of losing the distant province. The Turkish Empire has two regions which are menaced in this manner,—Epirus on the Greek, and the Albanian basin on the Montenegrin frontier. When hostile fleets control the sea, troops would have to be sent over the roads of the country, which would be extremely difficult, and, once located there, they could not contribute in the slightest degree to the general defense of the empire. Here, then, we have ample reason for fortifying the two principal places of those districts,—namely, Janina and Scutari,—so that they could always be defended by troops available in the immediate vicinity. In case of a stubborn, prolonged war, requiring the use of Germany's forces on several theaters of war, Königsberg, in East Prussia, might play a very similar part.

We readily perceive, however, that in laying out such fortifications, political considerations outweigh the military. All we desire is to have in hand a pledge for our claims during the negotiations for peace. Consequently, a purely passive resistance, which otherwise never could accomplish anything, serves our purpose in this case.

The addition of smaller strong points may prove useful, because in this way we retain control of a whole district, and this materially supports the validity of our claim. In this latter case, however, we must have a small body of troops available for service in the open field, in

order to keep up communication between the fortified points, although it need not be large enough to play a part as an independent field army.

In all other cases, strong positions or camps would have to suffice for emergencies; for the field army is present, or at least in the vicinity, so as to protect indirectly the points we wish to make secure. Complete independence and self-sufficiency of such points do not, therefore, appear to be indispensably necessary. But the fear that it might become a matter of necessity to leave some of these important points to shift for themselves for too long a time leads to the construction of fortifications at such points also, their object being to serve as supports for the operations. Thus Napoleon I., in 1813, desired to make a true fortress of Hamburg, so as not to lose the lower Elbe. On the middle Elbe, where his army was stationed, he contented himself, as mentioned above, with converting Dresden into a fortified camp.

With reference to an important place near the rontier, the defender may assume that, at the outset, he will be forced to retire from the vicinity, still retaining the idea, however, of making use of it again when all his forces have come up from the interior. This method of utilizing fortifications was exemplified by the part played by Kars, at the beginning of the Russo-Turkish War of 1877, in Asia.

The idea of mutual support of fortifications and field troops has brought it about that the former are now in all cases provided with a camp; this is done by surrounding them with advanced works which take the space necessary for an army under the protection of their guns.*

*Another object contemplated at the time of the construction of these works was to protect the heart of the place against the long-range guns of the assailant. As these kept on improving, the works were pushed out farther, and thus became more isolated and exposed. For this reason improvements have recently been commenced on the outer ring also, and the final result will be one fortification inclosed in another, which is far from the original purpose. The garrisons, of course, grow correspondingly and finally become so large that, as armies, they would have sufficed for the attainment of the object without fortifications. In this we have undoubtedly taken the wrong track, and departure therefrom is demanded by the interests of national welfare and economy of strength.

The parts that may be played by fortifications of this form, in combination with armies, are indicated below.

The army, retiring before a stronger foe, may leave the fortification in its front, to act as a buttress which is placed before a bridge and is designed to break the first thrust of accumulating ice floes. The enemy will be forced either to invest the place, or else to detach a stronger force in its front, in observation. Consequently, in case of further advance, he will arrive with diminished forces in front of those positions which the defender takes up later, to offer resistance. The prospects of success for the latter improve. Thus Achmed Muckthar Pasha succeeded in repulsing the first attack of the Russians, at Zewin, on the 25th of June, 1877, after they had weakened their force by the investment of Kars. When the field army, as in that case, was in contact with the fortification only a short time before, success will be rendered more certain; for the assailant cannot know how many troops may have been left behind in the fortress. The reasons why he cannot afford, under such circumstances, to disregard the defender's field army are, consequently, all the stronger.

It is, of course, a necessary condition that the fortress be large enough and the garrison strong enough to have a perceptible influence on the operations of the attacking army. Besides, the position of the defender, in which he desires to accept battle, must not be too near the fortress; otherwise the assailant will draw off the corps of investment for use in battle, and send it back later.

A fortress may also be used as a support for the flank of an army, in which case we should consider that with exterior works and long-range cannon it may command a space several days' march in width. It would, consequently, form a considerable part of the general front. It is not even necessary for the army to be in immediate contact with the fortress. A gap may with impunity be left between the position of the army and the fortress; this space may be increased with the size of the army. In 1870 the projectiles of the fort on Mont St. Quentin reached as far as Ars sur Moselle, a German mile from Metz. If the retreating French Army of the Rhine had taken up a position behind the Moselle, between Pont-a-Mousson and Novéant, the fortress would still have secured their left wing. The narrow strip between Ars and Novéant, now swept by the guns of the fortress would not have sufficed for the advance of the German armies, nor even for the deployment of a strong enveloping movement. The position of Metz would have been a doubly favorable one; for it was in advance of the line of defense, and threatened the right flank of the assailant. Portions of the field army, not employed in the front, might have advanced through the fortress and assumed a powerful offensive against that flank.

This also makes it apparent that a fortified place gains in importance when it is situated on a stream, and covers a transfer from one bank to the other.

If it commands the point of confluence of several considerable streams, its importance rises. Küstrin is a fortress of this kind, and Napoleon I. blamed the Viceroy Eugene severely because he had not taken advantage of its possession when making his retreat in February, 1813. Twenty days might have been gained there to secure Berlin—so Napoleon wrote to him. As a matter of fact, Eugene might at first have taken up a position in front of Küstrin, say at Drossen, and thus have restrained the enemy from crossing the Oder. Then, in the event of the advance of the enemy in overwhelming numbers, it would have been possible for him to retire from one of the sections between streams to another.

If we conceive, still further, of a third, or even a fourth, river or brook in a swampy valley, flowing towards the common point, the play may be successfully repeated still oftener, and the army, using the fortress as a pivot, may swing around in all the directions of the compass.

The only danger is that of being pushed into the fortified place and surrounded there. The outer wing must, therefore, be the stronger one. This is a simple rule, the importance of which everybody easily understands, but which, nevertheless, was overlooked by so experienced a commander as Marshal Bazaine, on the 16th and 18th of August, 1870. His unnecessary fear of being forced away from the fortress made him place his reserves behind the inner wing.

An army, when once it is shut up in a fortress, will, in its attempts to escape, be limited to tactical penetration of a position specially prepared for defense, with the difficulties of which we are already acquainted.* These difficulties are still further increased by the fact that the enemy's reinforcements, from the line of countervallation, will naturally approach the threatened point from the right and left; consequently, in the most effective direction with reference to the flanks. Hence, military history records very few examples of troops effecting their escape after they were once shut up in a fortress.

From the nature of the case, the proximity of a protecting fortress must exercise a great power of attraction upon the army when it is in difficult situations, and must make it much easier to withdraw the troops to the cover of its walls and guns than to march them out again from this safe asylum.† The employment of a fortress as a

*See pp. 136, 137.

† Every individual soldier will receive the impression that the army can no longer cope with the enemy in the open, and needs ar-

point of support and pivot of operations, therefore, conceals many rocks on which the command of an army may go to pieces. This has induced one of the more recent writers to make the very appropriate remark that a fortress is a sphinx which destroys him who does not solve its riddle.

This indicates what ought to be said about the last method of employment, for which our great fortified camps are considered suitable by some people—namely, to serve as a place of refuge for defeated or hard-pressed armies in the field, where they can rest, recuperate, and be provided with all the necessaries, so as to be able to resume operations in the open field. The whole conception is too theoretical to stand the test of the actual practice of war. Metz is the great warning example in this respect.

Fortified districts, General Brailmont's *régions fortifiées*, are to be preferred, because they cannot be enclosed, and yet sufficiently protect the space in which the army is to find accommodation.

We still have to consider the function of fortifications for the protection of the capitals of countries. With reference thereto the remark may be made that the assailant who is able to drive the army back into the capital will also possess the necessary power to reduce the city, and that, at most, it is only a question of gaining time. However, it must not be forgotten that such gain, with reference to the aid of allies, may be of value.

Furthermore, there are exceptions. Capitals which for inherent reasons play a controlling part in their country, but on account of their situation are very much exposed to attack, must be fortified. Constantinople,

tificial protection. This feeling, however, is by no means a suitable one to raise the *morale* of the troops and restore their confidence in success. Besides, it is no longer possible to replace the losses caused by combat and disease, and shelter for the troops usually is deficient. Therefore, the material advantages of the situation also disappear upon closer inspection.

Copenhagen, and Lisbon belong to this class. An enemy controlling the sea could take possession of them by a sudden stroke and thus paralyze the development of the whole power of the nation. Political reasons here become paramount. It may also be that the fortified capital is the nucleus of an elaborately prepared system of defense for the whole country. It is, however, impossible to overcome entirely the injurious influence of so large a fortification on the troops destined for the field. It exercises a strong attraction and not only supports the troops, but also holds them back, a considerable portion being retained for immediate use as a garrison. The danger of premature investment and surrender of the army also is imminent in this case.

The larger the fortification becomes in comparison with the field army, the greater will be the danger. Bucharest may more easily become fatal to Roumania than Paris to France.

If we should attempt to provide all places of importance for the defense of a country with modern fortified camps, their number would become a very large one. In spite of this, it would probably turn out, in case the operations of a campaign took an unexpected direction, that they are lacking precisely at the place where they are most needed. France was not by any means deficient in strong places in 1870; yet they were wanting at the two places where they would have been of the greatest value in the second stage of the war—namely, at Orleans and Amiens.

If the fortified camp is intended for the use of a rather large army, it must be extensive. But with extension its passive strength diminishes, and an increase of the garrison becomes necessary. The sacrifices in treasure and troops necessary for the fortification of the country are, therefore, doubly increased.

It would be desirable if we could find the means of making a fortified camp movable and of such construction

that a small garrison would suffice for protection against capture by force. The use of iron and steel as a means of protection, and their direct connection with the gun so as to form a movable whole of the piece and its cover,* indicate the way to such a system. We would be able to secure important points by the use of a few such contrivances, served by a handful of men, and to create a skeleton of future fortified positions or camps. These would be laid out as soon as their probable utility was indicated by the course of the operations. In this way it may become possible for a state to avoid the necessity of permanently maintaining ten or twelve large fortresses, with whole armies for garrisons. Of such large works one or two might prove useful in case of war; but at those places where they are most needed, possibly none would be available at all.

*Designated by the inexpressive term "ironclad carriages." The report of the Chief of Ordnance, U. S. Army, for 1893, contains a description of rapid-fire guns in "movable shielded mountings." In "Militär-Wochenblatt," No. 76, of 1894, the term "Fahrpanzer" is applied to such engines of war.—(*Translator.*)

XIV.

THE INFLUENCE OF NAVAL OPERATIONS ON THE CONDUCT OF WAR.

THE ASSISTANCE of a fleet in the strategical concentration of armies, by taking charge of the transportation of large bodies of troops, may become very important. The Turkish Empire, in 1877, would have been quite unable to collect its armies without such aid. During the course of the war it owed the restoration of the summer campaign on the Balkan peninsula to the fleet, which transferred the army of Suleiman Pasha from the Albanian to the Thracian coast.

How useful the coöperation of the naval forces may prove in moving forward the base and establishing new connections, when the operations on land occasionally touch the coast, was shown in the war between China and Japan.

The command of the sea, which permits the land force to obtain support at every point on the coast possessing a good harbor, is not less useful to the defender than to the assailant. A glance at the map will suffice to show the great importance for Germany, in case of war on both its eastern and western frontiers, of having secure control of the Baltic Sea. With reference to a Polish theater of war, the German armies would have quite a different degree of freedom of operation if they were at liberty, in case of emergency, to retire on Königsberg or Dantzic, than if

they were limited to a retreat in a westerly direction towards the Oder.

The command of the sea often makes costly and extensive systems of fortification unnecessary. As long as the Ottoman navy held the Black Sea and was at the same time strong enough to close the Dardanelles against all comers, the fortification of Constantinople could be regarded as a luxury. London could not be permitted to lie open if England did not have the oceans under her control.

Of two combatant powers, the one which is stronger at sea will, at all events, keep its rear free and retain connection with the rest of the world, from which it can draw means of resistance. It is enabled to make use of international industry in the arming and equipment of its forces. France, in 1870, after the downfall of the empire, would never have been able to accomplish such immense results in the formation of armies, which, though newly organized, were well equipped, if a hostile fleet had blockaded her coasts. The example of the American War of Secession shows that the blockade of a great country, which does not produce enough food for the subsistence of its own population, may literally starve it out, and finally render all its successes on land useless.

Between two opponents of approximately equal strength, victory will finally fall to the one who remains master of the sea. The latter will exhaust the financial resources of the other by destroying his commerce and interrupting all transmarine intercourse, thus undermining his military power also.

Aside from this indirect assistance, lying in the domain of grand strategy, a direct support of military operations, by the activity of the fleet, is also possible, when the form of the theater of war is favorable.

An army following a coast can place one of its flanks in absolute security by means of the accompanying ships of war, and need only take care of the other. By proceeding in advance and taking possession of coast towns, the naval force may facilitate the march. An attack on fortified positions or places on the sea-coast has little prospect of success without the participation of a fleet. If the defender retains his connection with the sea, it will be impossible to deprive him of reinforcements and additional supplies of food, guns, and ammunition, and he can prolong the defense indefinitely.

It will seldom happen that large water courses enable a fleet to assist directly in penetrating a theater of war. However, the great American Civil War furnishes an example of this also. One of the most important causes of the overthrow of the Southern States was the fact that the fleets of the Union, advancing at the same time from the sea and the upper course of the stream, gradually gained complete possession of the Mississippi, cut the South in two, and kept the parts permanently separated.

The naval forces may furnish direct support to the defender, as follows: By protecting fortified places on the coast; by sorties against the blockading squadrons; by maintaining communications by sea between separated portions of the national domain or between separated armies; and also by protecting the flank and rear of the land forces.

Under specially favorable circumstances this assistance may become decisive. It enables the defender to remove the culminating point of his strategical defensive far to the rear, to a remote part of land, up to which his own force then increases to a maximum, while the enemy is weakened by a long line of operations. His ultimate repulse then becomes doubly disastrous. Without the protection of the rear secured by the fleet, the attempt would never have been made to hold the lines of Torres Vedras, and the defense of the lines of Czataldeza would have been impracticable.

In conclusion, we have briefly to consider the nature and importance of descents. The peculiarity of these

enterprises is that the point selected as their first objective also becomes their base, and that they are, therefore, independent of connection with the rest of the army. They may pass beyond territory occupied by the enemy, and may appear unexpectedly in portions of the country quite untouched by the war up to that time. They are especially suitable for the purpose of demonstrations against an enemy's rear and his flanks.

Consequently, in sketching a plan for the defense of the lines of Czataldcza at the close of the Russo-Turkish War, we had a movement of that kind in view. On account of the possession of the Bulgarian quadrangle of fortresses, and the presence of not inconsiderable Turkish forces therein, it could have been made peculiarly effective.

If descents, on the whole, inure more frequently to the benefit of the assailant than of the defender, the reason therefor lies in the fact that the latter will less often have the necessary surplus of troops at his disposal. Otherwise, such enterprises would afford the defender, who is the weaker one on land, an opportunity to attack the assailant, whose communications and rear he would threaten by descents. The weakness of all landing enterprises consists in the fact that, on account of the difficulty of transporting troops by sea, the strength of the forces will always be limited, and, especially, that the supply of cavalry, artillery, and wagon transportation will be defective. This makes the troops that have landed unsuitable for a rapid and distant advance from the coast, which, however, is exactly what is necessary to gain room and enlarge the base.

In highly cultivated and densely populated countries, descents, consequently, never have any prospect of great success. The military organization of such states, and the means of communication, are so well developed that no question could arise as to the possibility of bringing crushing odds to bear against the landed party, whose strength at the beginning could hardly exceed 40,000 to

50,000 men. This condition is changed only in case the landed troops receive immediate support through a popular uprising, or from the forces of an allied power, which was only waiting for an excuse to begin hostilities. A French landing in Germany could acquire a certain importance only by a combination with Denmark. The proper time for such enterprises is at the very beginning of hostilities, when all the field troops are on their way to the frontier and the interruption would, therefore, be most effective; or, quite at the end of the operations, against a defender already exhausted and weary of the war.

Exceptions occur when an important object of operations lies on the coast itself, or near it, so that a temporary capture alone would necessarily exercise considerable influence on the course of the war. Political considerations may materially heighten the importance of landing expeditions, especially in cases where the capital is situated on the sea-shore. By the rapid occupation thereof, a hesitating government may be forced into participation, or the desired declaration of neutrality. Such an object justifies the risk which is always connected with enterprises across the water.

During the Crimean War the Allies desired to destroy the cradle of the Russian navy in the Black Sea, Sevastopol, and this special reason gave the otherwise not very influential place the necessary importance corresponding to the magnitude of that landing enterprise.

Colonial wars, and conflicts with nations of inferior military development in distant parts of the world, are the ordinary field for landing expeditions. In such places a numerically small but well-equipped and well-disciplined body of European troops has a decisive weight in the settlement of political quarrels. As the opening of these lands to the trade of the world and to European civilization advances, the effective sphere for such enterprises becomes contracted. Thus, we may say that the times when a few thousand of French or English troops, accom-

panied by a fleet, could compel the governments of great and populous nations in eastern Asia to bend to their wishes, as they formerly did, have disappeared forever with the close of the war between China and Japan.

CONCLUSION.

WE ARE unable to conclude this series of sketches illustrating the theory of war without once more inviting attention to the fact that they do not exhaust the subject by any means.

All the principles here elucidated and the forms portrayed are simple and easily comprehended. To be familiar with them is not a great scientific attainment, which, in the active affairs of war, could insure success. Every educated soldier knows them, but this does not make every one a capable general simply on that account. Only an exceedingly small number ever develop into really eminent leaaders of armies.

Now, when it comes to putting the principles we have deduced theoretically into practice, so many secrets of human nature have to be considered that only a keen mind, which is able to read these secrets with the rapidity of thought and to estimate their effect without laborious deliberation, can be successful.

Political, social, and material circumstances and conditions of all kinds must be carefully pondered.

The execution will, however, still invariably require a strong mind and firm character; for only such an one will remain true to himself and to his convictions in the stormy rush of warlike events. Power over men—which is denied to many an excellent man—is a further requisite; consciousness of purpose, and that difficulty definable talent of instinctively seizing all favorable circumstances, which in every-day life is called luck, are indispensable.

These conditions make the art of leading armies as difficult as the theoretical knowledge of the conduct of war appears easy.

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