THE

TRANSVAAL WAR

AND ITS

PROBLEMS.

BY

JEAN DE BLOCH,

Author of "The War of the Future."

"Nowadays an army without plans, and directions based on calculations, is a steamer without a compass."

PRICE SIXPENCE.

HORACE MARSHALL & SON,

125, FLEET STREET, LONDON, E.C.

THE

TRANSVAAL WAR

AND ITS

PROBLEMS.

BY

JEAN DE BLOCH,

Author of "The War of the Future."

"Nowadays an army without plans, and directions based on calculations, is a steamer without a compass."

PRICE SIXPENCE.

HORACE MARSHALL & SON,

125, FLEET STREET, LONDON, E.C.

THE TRANSVAAL WAR
AND
ITS PROBLEMS.

CHAPTER I.

No war has ever called forth so many and, at the same time, such varying expressions of opinion as that which is now proceeding in the Transvaal. When no attempt is made to force beneath the surface, that which is now happening seems to some inexplicable and enigmatical, and to others the result of a whole series of mistakes and blunders made by the combatants. A handful of undisciplined, psalm-singing peasants, without any military organization, as if with a ring, encircles the trained armies of England, but on every occasion when attempts are made to join issue in battle suffers severe defeat. A similar fate overtakes the English troops when they undertake an attack with the object of driving back the Boers. On these occasions the English troops, though displaying their customary intrepidity, notwithstanding the relative smallness of their losses, surrender considerable numbers into captivity. To replace her losses England sends out fresh forces, through deficiency of reserves, consisting of Volunteers and other contingents. But the question arises, if the present veteran soldiers have not succeeded, what will happen with the reinforcements? To answer this question is all the more difficult since the English War Office subjects to rigorous censorship all the news proceeding from the seat of war. One thing alone appears plain to the judgment of all competent critics, and that is, that the war will be very prolonged. It is in this that its great danger lies. England is weakening her forces at the very moment when the conditions of Europe are most unfavourable to her. The exaggerations of the colonizing epidemic I have already attempted to expose in the columns

of the *Times* of the 14th July, 1899. An examination of the value of commercial interests seemed to me to prove, in the most decisive manner, that the benefits gained by those states which make the greatest efforts to augment their fleets in order to devote themselves to colonial conquest are so insignificant that it is unreasonable to speak of a "national profit" or of a "national aim," and that it is mainly envy which characterizes colonial policy at the end of the nineteenth century. For, in spite of the progress of moral sciences, it is often not real utility which impels states to found colonies; more often jealousy of the welfare of others, even when it cannot be profited by, is the predominant factor.

The English Government, by its high-handed action in colonial questions, has excited irritation in every country, and at the present moment European populations are excited to such a degree that action inimical to England might take place even in spite of the wishes of the Governments. In addition to this, in recent years Jingoism has developed excessively in England, and has done much to create bad feelings toward that country. In England the hopes of all rest upon the fleet; but a coalition of fleets which might rival England's is not an impossibility. Yet even leaving this possible coalition out of account, and admitting that the British fleet will rule the sea, we may still ask whether the conviction of this is sufficient to guarantee England. What can the powerful English fleet effect? It may cause great damage on the enemy's coasts, but the bombardment of the coasts of Germany could have little result—no more, in fact, than the French fleet effected in 1870—against Russia still less. To France, perhaps, a little more damage might be done, but the dread of bombardment can have no effect on the mass of the population situated inland, and it is these people who will influence the decision of the Government.

It is worth here recalling the words of Prince Bismarck, which were uttered on another theme: "It must not be forgotten that the capture of a village means a real success, of which the importance is immediately felt, while the capture of the enemy's fleet is at best no more than a means of undertaking fresh conquests." Thus, for opposing powers there remains only the danger that the English fleet, being the stronger, would cut maritime communications. But in all continental countries the conviction obtains that the English fleet, though enjoying a material superiority which would make victory certain in a pitched battle, would find itself in a marked inferiority in a war of speed, or even in a scattered war,

which would lead to the incessant attacking of her weak points on the coast and at sea without ever giving an opportunity for a great battle. In a word, the employment at sea of the tactics of the Boers on dry land.

As a matter of fact, in our civilized nineteenth century all Governments are prepared to arm private vessels in a war of speed, and with that object, not contenting themselves with their own fleets, they pay each year millons of francs for merchant vessels which may be turned into cruisers. The question, therefore, whether the means could be found to destroy or capture a great proportion of the merchant ships which would take the risk of going to sea can only be answered affirmatively. The organization of a close enough blockade of an enemy's ports to prevent a single cruiser leaving is not to be thought of. And, indeed, this would be useless, for the enemy's cruisers will take the sea in advance, so that they cannot be locked in. It must be remembered that the maritime powers, even in times of peace, keep their cruisers in the ocean, as if they were afraid of inland seas, of which the outlets can be closed by an enemy's fleet.

And it must not be forgotten that the destructive power of every cruiser is immense.

To send squadrons to search for and pursue the enemy's cruisers would be to enter upon an enterprise so troublesome, that before ridding herself of these ships by such means, England would be compelled to end the war, owing to the troubles which would arise.

Even if trading steamers were despatched in groups under the protection of a naval convoy, the marine assurance societies, to avoid the great risks, would refuse to insure vessels; and in any event, maritime freights would attain great dimensions. And owing to the risk of attack and the increased requirements of the fleet, the merchant ships would find it difficult to obtain hands, except among adventurers and such like. As to protecting the routes followed by merchant ships by the stationing of squadrons at certain strategic points, and by constant cruising on certain settled lines, this is an impracticable task, owing to the immense number of ships required. To cover all the lines of commerce in such a way England would require 556 cruisers, and if manœuvres can give any, even an approximate, idea of the nature of a future naval war, they prove also the impossibility for England of guaranteeing the safety of her commerce. In the manœuvres of 1888 the supposed "enemy" Admiral Tryon with a weaker squadron pierced a blockade, avoiding battle—that is to say,

battle with the supposed "English" fleet, and made "contributions" on the great unfortified English and Scotch coast towns, capturing ships of war and commerce, and then, without being in the least interfered with, re-entered Bantry Bay and Lough Swilly, which his squadron had left in order to carry out these operations.

Thus a weak squadron gained an advantage over a stronger one, and England learned that a fleet of swift and well-directed cruisers could bring her to the brink of ruin without risking a single battle.

The interruption of maritime communications will not, however, have the same gravity for all countries.

For England the question is vital, because three-fourths of the merchant ships of Europe belong to her, and famine would be the result of interruption. For Germany and France interruption of communications is not in the least important, especially if Russia furnished supplies. As to Russia, which exports grain, it would create difficulty for certain parts of the Empire to have their maritime exports cut off—that is all.

England is thus the most interested in the problem of maritime communications.

The project propounded for creating food reserves in times of peace has not been put into execution. When a committee of economists, merchants, and politicians was convoked on the private initiative of a parliamentary group, the estimates showed that it would be necessary to hold a permanent stock of wheat to the value of tens of millions of pounds sterling. In order to store this stock, it would be necessary to build granaries costing tens of millions of pounds sterling more. And what is more serious, in order to renew these stocks there would have to be instituted a vast department which would demand immense sums every year. But even if England were to make this provision in future, she has not made it yet, and the danger is a present one. For the general conviction obtains that the strongest naval power in the world would be very much restricted by the enemy's torpedo boats. It would be easy to carry on a most destructive war against the English convoys, and even against English war ships, and to embarrass the supplying of a country which requires every year wheat for 333 days, barley for 263 days, and oats for 140 days, and large quantities of all other goods from over-sea. The rise in prices alone which would result from the increase in freight, consequent on the rise in insurance risks, would expose the

United Kingdom, which may be seriously disturbed even by the Transvaal war if that war should be prolonged, to a social crisis of the most terrible kind. But these considerations escape the eye of public opinion in England, and the appearance is kept up that there is no dread that the war and the enfeebling of the country may tempt other nations. In that case the danger is not for England alone, for in view of the rivalry between the powers, there is a danger that serious conflicts would arise in Europe.

It has seemed to me that in these circumstances—circumstances which, as Taine said, the people judge with the heart, and not with the head—the examination of some of the problems of the Transvaal war could not be without interest to the English people.

CHAPTER II.

THE war with the Transvaal has already lasted nearly four months, yet the decision of the quarrel has not yet advanced a single step. It is not surprising, therefore, that in England from all sides are heard demands for an inquiry, and, if rumour may be believed, after the opening of Parliament a Commission will be appointed to investigate the conduct of the war. Such an investigation may prove most useful, but with one condition, that the problem for inquiry be properly set. Judging, however, by the statements in the newspapers, there is reason to fear that the proper direction will not be given to the Commission. Up to this time all the evil has been attributed to want of foresight and system, and to the incapacity of the authorities. But of the essential causes of the British reverses, the new conditions of war, no account whatever has been taken. For civilians to understand the consequences of the introduction of smokeless powder, quick-firing rifles and artillery, modernized scientific entrenchments, and the whole series of other recent improvements in the mechanism of war, is very difficult. On the other hand, specialists of the military art, to whom these conditions are familiar, cannot, in their speculations on the future, rid themselves of a certain optimism; and this is only natural, for it is difficult for specialists to conceive that their speciality

may find itself at fault by virtue of its own perfection, and by reason of the multiplication of the resources at its disposal. It was therefore natural that the English War Office should lack prudence in undertaking the war against the Boers, relying upon opposing the improvements in defensive weapons with the moral attributes to their profession, that is, the military spirit and discipline. Yet a war in South Africa, owing to the nature of the country, its soil, climate, and the character of the enemy, was bound to present such defensive advantages to the Boers that to rely against this superiority on moral forces was more than imprudent.

It was also very natural that the British military authorities should fall into the mistake of comparing the Boers with the savage races with which they have been carrying on war of late, and into the further mistake of supposing that the military operations of recent years could be taken into account in judging of the nature of a modern war. But it ought to have been known to them that the most distinguished continental writers, such as the re-organizer of the Turkish army, the German General Von der Goltz,* have declared that recent campaigns, such as the Chilian-Peruvian, the Serbo-Bulgarian, the Chilian civil war, the Chino-Japanese war, and the English campaigns in India and Egypt, must not be taken into account in considering serious war. If these wars could be taken as a basis for determining the course of future operations, the solution of the problems involved in the war would have been easy.

The improvements in rifles, artillery, and ammunition, with the contemporaneous progress of instruction in the construction of entrenchments, have resulted, for the greater part, to the advantage of the defence and to the disadvantage of the attack. On this all military authorities are agreed. The advantage of the defence, firing from under cover, over the attack in such conditions may be as high as 8 to 1. In addition to this, the defenders may employ their fire more accurately and effectively than the attackers, since their supply of cartridges will be unlimited, the distances known, and no time wasted in advancing as in the case of the attackers, who cannot fire effectively while in movement. The greater the number of shots which may be fired in a minute, the greater their penetrative force, the more favourable become the conditions for the defender. But even if not one of these advantages existed

* "Das Volk in Waffen."

for the carrying on of defensive operations, yet the Boers could not have adopted any other form of action than they did. The Boers have no regular army, no regular staff, no permanent organization, or good artillery service; that is to say, the conditions do not exist which would enable them to move in masses for attack. On the other hand, they possess in the highest degree, as contrasted with the English, all the necessary qualities for defensive and guerilla warfare. Relieved of baggage by their simplicity and endurance, used to the climate, and knowing every inch of the land on which the contest is taking place, alert, good marchers, with defensive positions prepared in advance, and knowing well that if they attack their English foes they would meet with strong resistance, imperturbable courage, and an iron discipline which they do not themselves possess, they are compelled by necessity, as well as inclination, to restrict themselves to defence. The English War Office should, therefore, not have doubted for a moment that the Boers would avoid hurling themselves against the English troops in attack. On the contrary, it ought to have been foreseen that the Boers would force the British to attack them in positions sheltered from projectiles by the nature of the ground, compelling the dispersion of their slow-moving enemies who understand little of a sharpshooters' war.

With such conditions, the example of Plevna ought to have been remembered by the English War Office, and these ought to have studied the events which happened in that time. It may be assumed that the English War Office was not ignorant of the remarkable classic of General Kuropatkin on the Russo-Turkish war, which has been translated into all languages. The work deserves all the more attention since its author, at the time when it was written a young colonel, has now attained the position of Minister of War, and is rightly regarded as one of the greatest military authorities. If they had studied the principles of that work the English War Office would have understood how it was that although the defenders of Plevna had little artillery and fired from rifles seven times less deadly than those employed by the Boers to-day, yet they held in check a Russian army four times as numerous as their own for four months and inflicted upon it enormous losses. In their assaults on the Turkish positions as much as 60 per cent. of some of the Russian battalions were destroyed. Yet Plevna was not a position which afforded special advantages to the defenders. It was but an open position, which made it possible to rake the approaches with bullets. Of such

positions the Transvaal possesses a multitude, and every one of them can be made redoubtable to those who attack them. So much has this been recognized even in the past that General Todleben, one of the most distinguished of engineers, not only in Russia, but in the whole world, when asked what, according to his belief, was the strongest fortress in the world, replied, "The Champ de Mars (a level exercise ground in St. Petersburg), when I shall have entrenched it."

CHAPTER III.

THE lesson of Plevna as to the advantages which may be drawn from a position if it be strengthened with earthworks ought to have been studied by the English War Office, all the more so since the very latest students have given warnings in this respect. The Prussian General, Von Schlichtung, in his work,* which appeared last year, and General de Pelet-Narbonne in his review of Military Progress from 1873 to 1898, a publication issued by the German General Staff, both lay stress on this subject.

General von Schlichtung says: "In the condition of modern armaments the spade may render to tactics services so great that it may become a great arm in itself, and not one of minor importance. To assure a prolonged resistance against offensive operations entrenchments will often render more service than permanent fortifications."

General de Pelet-Narbonne entirely shares these opinions. This is therefore the view of two very distinguished soldiers, and in my own work† I have shown that in the war of the future the tactical combinations will undergo a change; every body of troops standing on the defensive, or even taking the offensive — that is, if not engaged in a sudden attack—will fortify itself in a chosen position, burying, so to speak, its line of defence in the soil, and raising a series of shelters or covers as *points d'appui*, a work which, thanks to the trenching instruments now carried, will require only a few hours. Established behind cover, and being able to employ all the strength of their fire against the

* "Principes de Tactique et de Stratégie Moderne," 3e partie, 1899.

† "Budustchaya Voiná" (published in England, in an abridged form, under the title "Modern Weapons and Modern War").

enemy, the defenders will suffer relatively small losses, since in firing they expose no more than the head and arms, that is to say, one-eighth of their height, whilst the assailants will advance exposed to the uninterrupted fire of the defence almost without being able to reply thereto.

I further quoted various considerations of continental strategists which the English War Office ought to have taken into account before entering upon a war with an opponent whom it was certain to have to drive from entrenched positions. The Prussian General and celebrated military writer Von Rohne, on the basis of the results of the firing of the German army under military conditions, accepts the following results, which are illustrative of the enormous increment of strength to the defence :—

Suppose a corps of riflemen numbering 100, who do not know the distance which separates them from the enemy, and in trying to estimate the range, make an error of one-eighth of the total, fire at infantry standing at a distance of 1 metre one from another. In these conditions the riflemen aforesaid could strike, in the space of a minute (firing at men whose whole bodies are exposed, as, for instance, the English marching to attack), 40 per cent. at a distance of 600 metres, 72 per cent. at a distance of 500 metres, 118 per cent. at a distance of 400 metres, and 153 per cent. at a distance of 300 metres. Their opponents, on the other hand, who will only see the heads of the enemy, will hit at these distances, respectively, 4·65 per cent., 9 per cent , 16 per cent., and 32 per cent. The attackers, who from time to time show their whole bodies, are from eight to ten times more exposed than the defenders. That is to say, that 100 entrenched men, while the assailants, starting at a distance of 600 metres, approach the principal fire-station at a distance of 400 metres, can put 230 men out of action, while themselves having no more than 29 men killed or wounded.

How can attack, then, be carried on ?

It appears from very precise calculations made by the French General, Ferron, and by the Russian General, Skugarevsky, that if the attackers start at a distance of 800 paces, they must be much stronger than the defenders in order to attack with the bayonet with equal forces when they have reached within 32 metres of the trenches. It would be necessary that the attackers on starting had 637 men for every 100 of the attacked.

But let us return to General Rohne's calculations.

What will happen if the Boers allow the English to

approach to within 400 metres before giving fire? According to the statistics of General Rohne, 100 sheltered riflemen will put 153 men out of action before the assailant gets to within 300 metres, they themselves losing 32 men. But let me make another supposition—that the attackers get to within 225 paces without loss. In this case Skugarevsky says that of 400 men attacking, who start from a distance of 225 paces, 74 only will remain for the actual onset with the bayonet if the entrenched troops number 100. To prove that the bayonet can only be employed in exceptional cases, the same Skugarevsky makes the following calculation: Commencing the attack at 800 paces with an effective double that of the defenders, the attackers after having advanced 300 paces would not have more than half the strength of the defence. With equal forces the attackers might be let approach to within 200 paces, when the discharge of the six cartridges contained in the magazines would annihilate them.

The English War Office may have relied upon the belief that it could dislodge the Boers from the fortified positions which they occupy by means of artillery. But the success of such operations depends first of all upon the resistance which it meets with from the artillery of the enemy, who have many advantages for fire. The result of these duels—if the opposing batteries are about equal—will probably be the destruction of the artillery of the attackers; but if the superiority of the latter's artillery be considerable, the duel will probably result in mutual destruction. Owing to the immense surface covered by modern projectiles, it is necessary, in order to operate against an enemy sheltered behind fortifications, to approach the latter to within a short distance. But this cannot be done without the risk of having the artillerymen killed, and the Transvaal war has already afforded an example of this.

The Prussian General of Artillery, Muller, says: "The destructive power of shell and shrapnel at a distance of 1,000 metres is such that ten to twenty rounds will be sufficient to destroy a whole battery." The Prussian General Von Rohne has calculated that the explosions and shells which one battery will rain upon another in the space of ten minutes may strike:

	With a well-regulated fire.	With a less accurate fire.
At a distance of 2,500 metres ...	120 men ...	80 men.
,, 3,000 ,, ...	100 ,, ...	70 ,,
,, 3,500 ,, ...	70 ,, ...	40 ,,
,, 4,000 ,, ...	50 ,, ...	40 ,,

"But when a battery has lost fifty men," says General Rohne, "it will no longer be able to fire." From this it may be concluded that batteries posted in a flat locality at 3,000 metres from an enemy sheltered behind fortifications may be silenced in seven to twelve minutes, and in ten to thirteen minutes if they are situated at a distance of 4,000 metres from the enemy's fortified lines.

It must be remembered that batteries pushed forward in order to shell an enemy's position will undergo another risk. The enemy will have a line of sharpshooters before his front, while the attackers will have nothing of the kind. Small detachments of riflemen will be hidden around all the roads which are accessible to the enemy. Thanks to the comparative smokelessness of the new powder, the opposing artillery will find great difficulty in locating these sharpshooters, and it will be very difficult to reply to their fire.

Now, General Rohne says that 100 sharpshooters can put a battery out of action :

From a distance of	800	metres in	2·4	minutes.
,,	1,000	,,	4·0	,,
,,	1,200	,,	7·5	,,
,,	1,500	,,	22·0	,,

But if the British artillery proved so superior to that of the Boers that the latter could not resist it, it ought to have been foreseen that the Boers would take up positions from which they would use shrapnel from under cover. It may seem strange at first that slight cover could be taken advantage of for protection against artillery. But this arises from the fact that we are used to hear speak only of the old types of artillery and its great balls which penetrated and destroyed everything. To-day, however, artillery sends out a rain of small projectiles against which light shelters are sufficient. The English War Office, of course, had reason to rely on shells charged with lyddite. But here a new objection arises : first of all, it would have been necessary to have enormous quantities of howitzers and lyddite shells, which is possible enough when near the base of operations as at the present time, but which it will be impossible to transport into the interior when restricted by railways. In addition, it may be supposed that the enemy will be provided with the same weapons, and one will paralyse the other. And as the newspapers tell us, the Boers have replied by constructing before their entrenchments wire entanglements, which cannot be destroyed with shell fire at all.

The Boers have still another means of paralysing the action of the English artillery, that is, by manning their trenches only when the artillery fire has ceased in view of the advance of the English infantry to the assault. It would occupy too much space to enumerate all the incidents of the war which show the applicability of these considerations. And this although the Boer artillery hitherto has been badly served. But the English commanders must remember that these imperfections will be corrected little by little as the war progresses.

But in such circumstances, can it be possible to attack?

The English War Office ought to have known the opinions of the best continental authorities as to the difficulty of attack under modern fire. All writers agree as to this. The Prussian General, Muller, the celebrated military writer, says, that in order to avoid entire extermination, "the soldiers cannot attack otherwise than in scattered formation, and as far as possible unobserved by the enemy, and that they can only approach the enemy by creeping forward, hiding themselves behind inequalities of the ground, and burying themselves in the earth like moles."

If this be so, is it possible to think of taking an entrenched position? In the year 1898 in Germany an investigation in this direction was made, of which the particulars are set forth in the *Militär Wochenblatt*, a journal edited by the German General Staff.

According to the author of the report, the conditions chosen were most favourable: a plain covered with shrubs and without rocks 500 metres long. Yet after advancing in the way recommended by General Muller, it was found that the men were much more exhausted and breathless from creeping than if they had made a forced march, and that they took about four times the time to cover the distance.

"*The results of creeping forward were swollen arms, hands, and knees, while the men were so out of breath that they were unable to shoot calmly.*"

It cannot for a moment be doubted that the English War Office had a clear and complete map of South African battle-fields; they must therefore have known that they would have to fight in a land strewn with rocks and other obstacles, and that, in consequence, the methods indicated by General Muller were absolutely impossible. But the War Office, we may suppose, assumed that the inequalities of the field of battle would also give the English troops an opportunity of approaching in secret, without the need of creeping. If this

is so, the report of General Pelet-Narbonne might have served as a warning against entering upon such a war. For this authority has declared that, "*regarded from the purely technical point of view*, the defence is, beyond all contradiction, the most favourable form of combat, and that it is governed by the simplest and most easily understood rules." In consequence, every improvement in the ballistic qualities of arms must be to the advantage of the Boers.

Up to what point prudence was shown is indicated by the definition of a German General of the only way in which an attack can be made in the war of the future:

The Prussian General, Von Janson, says that to approach an enemy established behind strong cover, who fires over distances measured in advance, is an operation of such great difficulty that it may require two days' work. The first day the assailant must approach to the limit of fire of the enemy's artillery (that is to say, about 5 kilometres), and towards evening must push forward small detachments—companies, for instance—to the point where infantry fire becomes effective (say, 2 kilometres). These *points d'appui* will form the line from which next day the attack will take place.

But General Janson is far from being convinced that this process will succeed, even in the majority of cases. He assumes, indeed, as a condition of success, a timid and inactive defence, and adds: "But, of course, we have no right to have a worse opinion of the enemy than of ourselves, and for us it is impossible even to admit the thought of such a thing." But to exonerate the English War Office it must be said that before the Transvaal war the soldiers of all countries flattered themselves that with improved arms soldiers would fire so badly that the new rifles would produce less effect than the old, and that, in addition, troops taking the offensive would always find shelter. But in his report on recent military progress General de Pelet-Narbonne reduced this theory to nothing, as far as its importance can be taken into consideration in the future war.

"If the great extent of the field of fire is the first condition of the efficacy of defence, it cannot be seen why the attacked will renounce that first condition, unless it be out of consideration for the attackers. The latter, with the exception of troops disposed on the flanks, have no choice of ground offering natural shelters, and the attacking troops are forced to move over a country precisely known to the defenders. This relates to infantry as well as to artillery.

"The utilization of the ground by the attackers presents

the following difficulties: The infantry masses—even of an army corps—dispose of a tract of land limited and bounded. They are forced to advance straight in front. The brigades and regiments cannot close up; they are compelled to confront a murderous rifle and artillery fire."

It goes without saying that this form of attack recommended by Janson could succeed only after heavy losses, and even then only when the defenders have failed to offer a vigorous resistance.

If the English War Office had taken these considerations into account, it could never have imagined that the small force which it proposed to send to the Transvaal could quickly, and without immense losses, conquer the Boers, armed as they are with the best types of rifle. And the significance of the modern perfected rifle the English might have learned from the history of the Chilian war. In this campaign, in which the Congressional troops were armed partly with new and partly with obsolete rifles, it was shown that 100 men armed with the new rifle put out of action 82 men in the Dictator's army, while 100 men armed with the old rifle put out of action only 34. In addition to this, it should have been remembered that the danger from artillery fire is very much greater than in the past. The Boers have at their disposal cannon of the latest pattern, and these, if they were well served, would be thirty to forty times more powerful than those of 1870. In relation to the action of artillery fire, General de Pelet-Narbonne's publication contains a remarkable passage by the celebrated German authority, General Von Rohne, the commandant of the fortress of Thorn, who says:

"The thick smoke of the old black powder which hung before the embrasures of the cannon prevented more than anything else the accuracy of fire. No one suffered so much from the old powder as artillery, and it is it, therefore, which more than anything else benefits from the introduction of new explosives. The new powder has banished the difficulties which accompanied the operations of great masses of artillery, and increased to a great extent the importance of that arm. When black powder was employed, artillery was served, so to speak, with bandaged eyes, while now it never lets its target out of sight. As regard the opposing artillery, it cannot at first take counter measures, as it will not for a long time discover the spot from which the enemy's shots are fired."

The consequences of these improvements may be appreciated by means of calculations based on the statistics of professional artillerists.

Thus, if we base our calculations on the statistics of General Von Rohne, the losses suffered by a force of 10,000 men marching in loose formation to attack a fortified position, defended by the same number of men with the corresponding artillery which every force will have at its disposal at the beginning of the campaign, it appears that (taking only the artillery into account) before having traversed 2,000 metres in the direction of the entrenchments, the attacking troops may have every man, without exception, struck by bullets or splinters of shells, since in the time occupied by such a movement the defence may discharge 1,450 rounds of artillery fire, which will produce 275,300 bullets and splinters, of which, at least, 10,330 will find a victim.

However, as up to this time the losses in the South African war in comparison with the past have been inconsiderable, all these statistics seem theoretical and fantastic. For this reason it seems necessary to examine more closely the events which are proceeding in South Africa. This is a question of the first importance, as if the causes spring from the new conditions of carrying on war, then such are inevitable, and to seek for the reason of the British reverses in the accusations which are made would be unjust; but what is still more important, such a course would not obviate the evil, but, on the contrary, redouble it.

CHAPTER IV.

THE first thing that stands out with prominence in the present war is the difficulty of making reconnaissances and of directing armies in time of battle. The continental military authorities lay the blame upon the defective handling of the English troops. But have they any good reason for doing so? It cannot be said they have, for it is a recognized principle of tactics that every army which stands on the defensive, when preparing in advance the field of battle, will make every attempt to conceal its preparations. All the roads will be guarded by hidden sharpshooters, whose presence there will be nothing to reveal, and who will inflict upon the enemy advancing by these roads the most serious losses. During manœuvres which took place in Germany in the presence of the Emperor and his arbitrators, soldiers concealed at 400 metres in the margin of a forest fired

for a long time without their opponents being able to locate the position from which the fire was directed. It will be understood that in these conditions a body of troops arriving unexpectedly before the enemy might be entirely annihilated. Such incidents occurred during the Spanish-American war, and the representatives of the Governments on the spot during that campaign reported that men were seen to fall while it was impossible to say whence the shots came. Up to this time in this respect the Boers have not shown much activity, as the English troops have hitherto not been scattered over great distances, but when they shall have penetrated into the depths of the country, and guerilla warfare shall have begun, much more serious consequences may be expected. An episode of the war of 1877, mentioned in the *Revue Militaire Russe*, is very instructive in this connection. A Turk hidden among the branches of a tree had already killed a considerable number of the enemy before his presence was betrayed by the smoke from his rifle. Only then the Russian soldiers ran up and killed him. Imagine, then, the loss which a skilful Boer sharpshooter will be capable of inflicting on an enemy in a hilly and rocky country like the Transvaal, when there will be no smoke to reveal the spot where he is concealed. In what way can ruses so dangerous as these be baffled? Where can protection be found from ambuscades of this kind? The English will be obliged to send sharpshooters against sharpshooters. The struggle will thenceforward resemble the combats between the first colonists of America and the natives, with the difference that the natives were not armed with rifles which gave to every shot almost a certain victim at from 500 to a 1,000 yards. Nevertheless, it will be more than ever necessary for the English army, if it wishes to take the offensive, to feel not only its way, but the whole of the country which extends before it.

The English Generals are criticized because they have failed to attain by means of manœuvres and turning operations successes such as were obtained by the Germans in the war of 1870. But for this purpose it would be necessary to have the superiority of forces which the Germans possessed, and their strength was four times greater than that of the French—a superiority which it is impossible for England to obtain; and it would also be necessary first to determine every time the enemy's position, which is ten times more difficult now than in 1870, in consequence of the employment of long-range rifles, the absence of smoke, and the nature of the country in South Africa. But, in addition to this, every flanking move-

ment must in the end lead to an attack, if it is impossible to force the enemy to come out of his fortifications to defend some vital point, the fall of which into the hands of the enemy would have a decisive effect on the war, as, for instance, in France, Paris, in Germany, Berlin, and so on. But such points are not to be found in the Transvaal. The capital, Pretoria, owing to the primitive character of the Transvaal Government, has no great importance. In addition to this, Pretoria is strongly fortified, and in order to reach it by means of turning movements it would be necessary to advance over hilly country, in which it is impossible to deviate from railways and main roads, otherwise the advancing army would perish from hunger. Besides, this would require such a large army as England has not and could hardly have.

But supposing that the English people, who, with such heroism and without a murmur have made great sacrifices from patriotic motives on an unpopular war, make even greater efforts, of which they more than any other people are capable, and put a sufficient number of troops in the field, can it be supposed that this will decide the problem? Even then, owing to the losses suffered in officers, a sufficient number of men who really deserve that title will not be found to continue the war.

A French proverb says that "*La critique est aisée mais l'art est difficile.*" English officers are now criticized as incapable, but would things be any better in other armies? It is impossible to suppose that they would be in any way improved. In my book I laid great stress on the difficulty of leading troops. The French professor Coumès, in his book, "La Tactique de Demain," speaking of professional officers—that is, officers of the highest theoretical and practical training—declares that to command infantry on the battlefield requires so much knowledge that in every army out of 500 officers there will not be found 100 who understand how to lead a company under fire; and against this accusation not a single voice has been raised. But if this is so with professional officers, what will be the case with officers from the Volunteers and Militia, whose technical training has been based on the experience of the past and has been long forgotten? Such men may possibly be useful in defensive operations, but can never be relied upon in a war of offence.

But what is an army without officers? Nor can the tactical instructions issued to officers for the leading of troops in the field be of any real assistance. There are regulations of this kind employed by every army, and what is their value?

Listen to Colonel Mignot :—

"In essence, the directions formulated in the most recent French official regulations do not materially differ from the tactics adopted after the invention of firearms, that is to say, at an epoch when the effect of small arms was twenty times less than now, the only difference being that the musketeers of the past are now called riflemen, and that the pikemen of the past are represented by the reserves and the *masse*."

It is interesting to read the remarks on tactical attack in the "Report on the Progress of the Military Art," edited by the German Staff. In this composition, General de Pelet-Narbonne says : "The lines of riflemen are developed from a distance of 1,000 metres. A general fire is opened at a distance of about 1,000 metres, when the volleys begin to play a part. The riflemen should advance at a march towards the chief point of fire, which is found at 300 to 400 metres from the enemy. It is from this chief point that the men must make the decisive dash, and they must, if possible, be supported by artillery disposed on their flanks."

What are the results which will be yielded by such an attack ?

General de Pelet-Narbonne, in his "Rapport Annuel" for 1894, says : "In examining the offensive tactics of all armies, we see that they are almost the same as in the time of Napoleon I. They go back to a time, therefore, when guns were not rifled, when rifles were loaded with ramrods, and when the bayonet, after a short fusillade, decided the battle. But such rules of tactics have little applicability in the epoch of repeating small-calibre rifles."

Other authoritative military writers, speaking of the war of the future, predict that it will not yield any definite result at all. It would appear from this that the reproaches levelled against the English generals are unjust. Even the war of 1870 presented examples of indecisive battles. At Metz there were three battles, which were, strictly speaking, only three acts of one great battle. But which side was victorious at Metz from the point of view of a decisive attack ? In reality neither. The superiority of the German artillery was shown, and also that of the French infantry armed with the chassepot. In spite of the desperate efforts of both armies, neither side was able to defeat the other, in the former simple meaning of the word.

Liebert, a German writer with a certain reputation, has observed : "Formerly it was thus : 'the battlefield is ours, the enemy is in flight, cut him in pieces,' and this cry ran

from one flank to the other, horses were spurred, and the leaders thought of drawing the greatest possible advantage from their victory and of inflicting the greatest disaster upon the enemy. Nowadays, things present themselves in a different way. For infantry which has withstood for half a day destructive modern fire will be reduced to impotence."

CHAPTER V.

LET us suppose that such large numbers of troops are sent to the theatre of war that the Boers may be surrounded in their entrenchments, and that there will still remain sufficient troops to occupy the country. Here the difficulty arises, that the larger the army, the greater will become the difficulty of maintaining it.

It must not be forgotten that the farther from the sea the English armies penetrate the more difficult will it become to provision them with vital necessaries, and the interruption of communications which will result from the mobility of the Boers, their endurability, knowledge of the country, and ties with its local population will be a phenomenon of constant occurrence. In addition to this, a prolonged campaign, owing to the unavoidable deficiency of food and shelter, will probably develop disease among the English troops.

The perfection of arms has produced this result, that a small body of troops may now defend itself for several days against an enemy two or three times as strong. This fact, which has been formally established at manœuvres in Germany, may serve as a rule to the judges of the struggle. The Boers will surround their opponent, they will be everywhere on his path, they will wear him out with continual skirmishing, in which their skill will render sanguinary his every step, and they will force him finally to attack them in positions which it is impossible to take without immense loss.

As to flanking movements, much is spoken by persons who have not studied the territory, and who judge by the experience of the year 1870. But if we take a map of the Transvaal, we see that these movements must be carried out over hilly country, without good roads, and through a limited number of passes, some of which are at the level of the higher Alpine valleys.

Such are the results which may be obtained by turning movements.

But, in addition to the complaints as to leadership, the English troops are accused of lack of endurance, and have already, after inconsiderable losses, retired or surrendered. The actual proportions of losses have been slight when compared with the general number of troops, but their nature has been such that no army of any cultured nation could sustain them. Let us quote the opinion of a well-known expert in military affairs, a participant in the war of 1877, the present Russian Minister of War, General Kuropatkin. In his masterly work in dealing with the laws governing the human spirit in war he says :

"The proportion of losses unquestionably influences the moral condition of an army engaged in war. The degree of this influence depends much upon *the conditions under which, and the period of time in which these losses have been suffered.* We may fully admit cases where one and the same body of troops will hold their position after sustaining a loss of 50 per cent. of their number, yet under other conditions will vacate it after losing 10 per cent. Troops give way not so much because their numbers no longer allow them to hold a position (they might hold it even after losing 75 per cent.), or because of the losses they have suffered, but *from fear of further losses which they expect* if they remain in their position (or continue an attack). In the internal consciousness of the troops, in one or another section, arises a conviction of the impossibility of holding on. Thus, a battalion, losing in the course of a ten-hours' battle 200 men, has under many circumstances a greater chance of holding the position on its attack than a battalion which has lost fifty men in the course of five minutes. The sum of physical forces in the second battalion is greater than in the first, but the sum of moral force is less *comparatively* in the second than in the first." This is written by a Russian general concerning troops, certain corps of which in the attacks on Plevna lost as much as 60 per cent. of their number. But at Magersfontein the Highlanders lost no less than 670 in the course of three minutes.

Yet the high degree of nervousness of the present generation is admitted by all scholars. This nervousness is especially increased in night attacks, which have been so frequent in the Transvaal war. And the longer the campaign lasts, the greater will be the exhaustion of nervous forces, the consequence of a prolonged struggle, while a similar effect will be

produced by want of shelter and insufficient food. Some physicians have even put forward the hypothesis that these circumstances will not only be a cause of increased losses, but may result in the insanity of commanders, with possible disastrous results for their comrades and subordinates.

That in such circumstances the question as to the possibility or impossibility of an attack under the rifle fire of an enemy lying protected in trenches is difficult to resolve goes without saying. But even before the Transvaal war a dispute had arisen in military circles. In the "Annual" issued by the Prussian General Staff we read:

"The impossible remains impossible . . . On the level surface of the ground the attackers will be annihilated if only the defenders are able to take any kind of aim at all."

It may very well be that less cultured soldiers and officers than the English could stand even more than they, but in the course of the shortest time all, to the very last man, would be killed. Therefore, before bringing accusations, it would be wise to consider every separate occasion, and in the great majority of cases I am convinced that, instead of condemning those who have surrendered, it would appear to military men worthier to cry "honour and glory!" and to express gratitude for the moral courage which refuses to sacrifice innocent men in vain. Once it is impossible to obtain results, every man lost means simply murder, which is all the more shameful since such murder is not only unpunished, but glorified as heroism.

Just as unjust in the majority of cases is condemnation for the failure of night attacks and for the mistake of firing upon one's own troops. It is the difficulty which presents itself in frontal attacks in the face of fire which has given rise to the idea of attacking the enemy under cover of night. Some military writers attribute great importance to night attacks; others, on the contrary, find them, for various reasons, impracticable. General Dragomiroff attributes to night attacks the advantage that the assailant may remain some time unseen, and may surprise the enemy, the effectiveness of whose fire is thereby destroyed, which gives the attacker an opportunity of employing the bayonet. General Kuropatkin, the eminent historian of the war of 1877-78, insists on the advantage of night attacks, though admitting that it is easier to succeed with small detachments, but he declares that in order to carry them out picked troops must be employed.

On the contrary, other writers (not Russian for the greater

part), expect little advantage from night attacks, and in "The War of the Future" I have quoted a number of cases resulting identically as those which were undertaken by the English armies. In addition, I set out some reasons why the best led troops in the war of the future may be exposed to fire from their own side, either in night attacks, or owing to the great distances and scattered formations of modern battles. At manœuvres all goes well—there are brilliant uniforms which render recognition possible; but in times of war uniforms are so dirty and dust-covered that they resemble one another. As it is necessary that every infantry attack should be supported with artillery, it will be required to fire over the heads of one's own troops. Taking as a basis the rule that artillery projectiles must not pass over the heads of one's own troops at less than 10 metres, there appear, from observation of the most level trajectories, the following zones of security for infantry :—

Distance from Artillery.	Limit of Zone.	Length of Zone of Security
1,600 paces ...	From 500 to 1,100 paces ...	500 paces.
2,000 ,, ...	,, 350 ,, 1,600 ,, ...	400 ,,
2,500 ,, ...	,, 240 ,, 2,200 ,, ...	300 ,,
3,000 ,, ...	,, 200 ,, 2,800 ,, ...	200 ,,

That under such conditions the slightest inaccuracy or mistake will cause accident needs no proof. A very instructive example of this is quoted by General Kuropatkin. The distance separating the Turks from a battery was about 2,400 metres, and the battery was ordered to shell the enemy in flank and rear. When the command was given to open fire a lively dispute began among the officers. Some affirmed the troops in front were not Turkish, but Russian. In view of this, no one would take the responsibility of deciding, and the artillerists awaited the return of the men who were sent to clear the question up. It finally appeared that the troops were Turkish. This happened in 1877, when ranges were much shorter, and when the powder employed served as an indication. But in addition to this, military authorities, in order to keep up the spirit of attacking troops, require fire from one's own infantry. This is, of course, dangerous in the highest degree, and it is with entire justice that General Skugarevski says : "Look at the results of military firing in times of peace. The targets stand a few hundred paces away. Yet some bullets strike the ground a few feet in front of the marksmen. This is in time of peace! What will be the case

in time of war may be imagined. But losses suffered from their own fire produce a very melancholy impression on troops."

And so we again see that we have to do with new conditions of war, and that only in the most exceptional cases such accidents arise from neglect.

CHAPTER VI.

If from details we pass to general features, then it will appear that that which I predicted in my work has been realized, namely, that henceforth every war would begin with violent attacks on either side, but that these attacks would be fruitless, and would cost infinitely more to those who attempted them than to those who remained upon the defensive; and that manœuvring, turning movements, night attacks, these are only palliatives without essential importance; so that finally the two armies would remain immovable face to face in their respective fortified positions, each able to inflict serious losses on the other if it should be attacked, but without being able to carry the other's position. Further, I pointed out that we should see a return to the age of sieges. A German military writer of great reputation, Fritz Hoenig, says that such return to the time of sieges is in no way impossible. Belgrade, Mantua, and Plevna may be repeated. It is possible that the assailant, being unable to gain a decisive victory, will attempt to shut in the enemy in the position in which he finds him, constructing entrenchments himself, after which he will begin to make sorties in order to baffle attempts to provision the attacked until they shall be reduced to famine. When that moment approaches, the defending army driven from its position will make good its retreat by routes on which it will take up new positions, or will wait in entrenchments in order to avoid further losses until reinforced by fresh troops.

Such is precisely the spectacle which we are watching today. We have seen the Boers attempting to seize several English positions, but we find them still before Kimberley, Mafeking, and Ladysmith, unable to drive the English from the positions which they occupy around these towns, as

absolutely as the English are unable to take Magersfontein and to drive the Boers from their positions in Natal and Cape Colony. So we find ourselves in presence of a certain immobility and inaction imposed upon both armies, neutralizing to a certain extent their respective forces, and which exactly represents the situation predicted by me from the study of distinguished military writers.

In view of such conditions, it is opportune to ask, how will the Transvaal war end? It is the English War Office which must answer this question, and the English people, through their representatives in Parliament, will demand that an inquiry should be made.

The most intelligent men and peoples make mistakes no less than the unintelligent, but the difference between the first and the last is that the intelligent correct their mistakes, and do not repeat them. If the English War Office began the war without duly studying its problems, then in this respect it is not in any exceptional position, for no General Staff has more knowledge concerning warfare than the English. In my work on War, as well as in the lectures delivered by me at The Hague at the time of the Peace Conference, I pointed out that a great service would be done to the cause of peace if an investigation were made into the new conditions of war. I may repeat a few of my words here. After a representation of the reasons why every war now appears even more aimless and criminal than formerly, and why the sword cannot now finally decide disputed questions, but only postpone them, quickly giving rise to fresh conflicts, I wrote the following:—

"As far as the principal factors of war are concerned, the difference between the past and the present has been dropped out of sight. This difference consists in the composition of troops, their armament, the conditions of commissariat supply, the difficulties of attack, the impossibility in the face of smokeless powder of reconnoitring the enemy's position, the facility with which fortified positions may be raised, the enormous losses caused by the use of modern arms, the fact that no results are to be arrived at other than long delays before fortified positions, and, finally, the impossibility of helping the wounded and avoiding epidemics, which will create incalculable ravages in armies numbering millions of men.

"The time has come to remove the discussion from the domain of phrases and commonplaces, to abandon those verbal artifices which are so dear to diplomats and soldiers, and to pass on to the ground of serious study, in order then to

furnish to the Conference and to the peoples the materials which they need in order to form a definite opinion.

"But the field of research must be enlarged still more. The changes which have taken place from the economic point of view have produced a situation so different from that of the past that the necessity for entering upon new paths is generally recognized in all that concerns the interests of commerce and colonial and other conquests, all which ought to be the subject of serious study."

This last proposition I propounded in view of those dangers which may rise as a result of the obscure ideas which are held as to the advantages to be drawn from the seizure of colonies of one state by another. I am firmly convinced that if such inquiry were made, and military circles attempted to penetrate to the essence of the matter, the present war would not have broken out. I have written this not for the purpose of advertisement, but only in order to prove how necessary such an inquiry is to England. I may say that the only Government which has studied my work is that which is at the present moment opposing England. Immediately after the publication of the German translation of my work in the spring of last year, a considerable number of copies was dispatched to the Transvaal, and afterwards an abridged translation of the book was published in Dutch.

It must be said that if before the outbreak of the war there were reasons which rendered it impossible to make an investigation, then such have now disappeared. Before the war it was difficult to set out for inquiry the technical problem, as the tactics of the Boers were not then revealed. Now, however, there remains no question as to this, for the Boer tactics have been fully revealed, and there is no reason to think that after the brilliant results attained thereby they will be in any way changed in future. An inquiry is all the more indispensable, since every day the war continues England's adversary, at first no more than a horde of burghers, becomes more efficient, and, as the press reports inform us, the Boers have begun to employ one of the most terribly dangerous means of defence, the wire entanglement. In my work I called special attention to the efficacy of this method of defence. It has been found impossible to destroy wire entanglements even with Brisant shells, and it is easy to conceive the moral effect which must be produced upon the English troops when they find themselves stopped by these wires, and are exposed, without defence, to the fire of the enemy who are safe under cover. Colonel Veitko has taken some

trouble to collect and compare the instructions for removing these obstacles which exist in the various armies. It appears from his comparison that the methods which are recommended as efficacious in one army are condemned as absurd in another. Imagine then the position of attacking troops who find themselves stopped by such an obstacle, behind which men under cover fire fifteen shots a minute, each of which may wound or kill five or six men. What will be the result? Logic and common sense will answer that the assailants must undoubtedly be destroyed.

That it is possible to carry out an inquiry I am convinced. I have in my hands a collection, made for the purpose of preparing material for lectures and study, of the latest statistics of military shooting at polygons, showing all the differences between the conditions for attackers and defenders, using the various weapons of offence and defence, the three old arms, namely, infantry, cavalry, and artillery, and the new developments, quick-firing batteries, high-explosive shells, and trenching instruments.

With the great mass of intelligent forces which are at the disposal of the War Office, and with their excellent dispositions for such experiments, it would be possible in the course of two or three weeks to construct specimens of the defences which are employed by the Boers, and to carry out the firing experiments, and make the necessary comparisons of fire in attack and defence.

CHAPTER VII.

THE scope of this pamphlet, which has already exceeded the intended length, forbids me dwelling at length on all the beneficent consequences which would result from the study of these problems; but, in any event, thousands of lives would be saved. When all the statistics referred to shall have been set out, then it will be possible to draw a balance, remembering the saying of Napoleon I., "*Rien d'aussi brutal que les chiffres et sans budget, point de salut.*" In any case this is an irrefutable truth. If we admit that the inquiry would prove that the new conditions are such that to attain any result by attack is impossible, in such case the position is changed *de*

fond en comble, owing to the complete change in the point of view as to the methods of war. War is only a means employed by statesmen to obtain desired results. But if, in consequence of the absolutely new conditions which are revealed as to the carrying on of war, the end cannot be attained at all, or only after destruction so terrible that the object of the war has lost its value, we find ourselves in presence of entirely new circumstances. The cessation of war is no longer a moral problem. *C'est un cas de force majeure.*

It is probable that my conclusions will appear strange in the present state of public opinion in England, and may excite much indignation among Chauvinists. But if the military authorities whose duty it was had been better informed, statesmen would not have conducted the dispute in such a way as to make the war inevitable, and the state of public opinion would have been very different. The military authorities on the Continent thoroughly understand that all military progress has been to the advantage of the defence, in consequence of the radical transformation of such fundamental elements as the armaments of troops, the methods of fortification, and the composition of armies. And the opinion is general that war under modern conditions will be very prolonged. Von Moltke in his Memoirs expressed the following opinion: "We may admit that we shall not see a Thirty Years' or a Seven Years' war again. But it would be impossible to admit that a war can be settled by a few victories." General Leer expresses himself more decidedly: he assumes that a war would not last less than from one to two years. Other writers, not less authoritative, declare that the conclusion of peace will arrive not in consequence of victories, which are too difficult to gain, but in consequence of the exhaustion of the opposing forces. General Von der Goltz, who took part in the war of 1870, says (in the fifth edition of his work, "The People in Arms"): "The economic resources will be exhausted before the armies are destroyed, for operations must take place slowly. A war against Russia, for instance, could not in any event be terminated in one campaign, it would require several to arrive at any result. . . . . It may be said that a war could not be terminated otherwise than by the complete destruction of one, or the entire exhaustion of both belligerents." Another German General, Von Blume, who took part in the war of 1870, and who holds one of the highest posts in the German army, in a work of his, which has just appeared, comes to

the same conclusion: "Wars will last a long time, and economic resources will decide them." General Von Blume calls his book "The Fundaments of the Military Power of Germany" ("Die Grundlagen unserer Wehrmacht"). When he opens this book the reader expects to learn that these fundaments are the number of men, their training, courage, and perfect armaments. Not at all. For in the conclusion of his work General Blume declares that the factor which will decide a struggle will be economic resources.

A long time before the appearance of my book, "The War of the Future," I had weighed in detail the five great states composing the Dual and Triple Alliances, their destructive and resistive powers in time of war, regarding them from the two points of view of an offensive and a defensive war; and I was obliged to come to the conclusion that all the advantages are on the side of the defensive. But since in entering upon the war with the Transvaal this side of the question has not been sufficiently taken into consideration, it seems that it would be necessary for England to modify her plan of action.

I think it would be well in this relation to base my thesis on the opinions of specialists. In a study dating back as far as 1872, entitled "Ueber die Strategie," Von Moltke said: "Statesmanship makes use of strategy in order to arrive at ends which it has in view, but it reserves its freedom to increase or reduce its requirements according to the march of events." General Leer, formerly Chief of the Russian Military School, expressed the same view, adding: "The end being given, it is required to find the means and ways which lead there, whether it be by fighting, for instance, or some other proceeding."

But I know that at the present moment there is the great difficulty of making oneself understood on a matter like this. Although the English people have much good sense, the last word will rest nevertheless with the soldiers, and these, all over the world, are men of routine.

I foresee that my proposal would meet with much opposition. I will therefore, in order to prove that my thesis is not merely the product of present circumstances, quote the following passage from my work, concerning plans of operations:—

"The celebrated captain of the sixteenth century, Marshal Saxe, declared that 'the art of war is covered with shadows among which it is impossible to advance with a certain step. Its bases are tradition and routine—*enfants de l'inconscience.*" This accusation of *inconscience* is true to-day, even in spite of

the high degree of intellectual culture which distinguishes the English leaders. They have fallen into the error of regarding the war of the present through the prism of the war of the past. Yet, with the present conditions of warfare—the masses of men taken from the reserve, the loose formation employed, night attacks, and the probability of losing in the first battles the majority of the officers present—many things formerly considered impossible have become possible, and others once considered certain are no more than relatively possible.

This being so, the idea of giving up the scheme of occupying the Transvaal and adopting other tactics contains nothing surprising.

But it will be objected that to give up the offensive would mean the infinite prolongation of the war. This may be so, but the chances of attaining any other result by continuing the offensive, in spite of the immense material sacrifices and inevitable losses from bloodshed, sickness, and epidemics, are too problematic, judging by the results obtained up to the present, for it to be worth while to pursue them. But it is necessary for this, that the temper of the public mind should be disarmed, and that the people should become disposed to end the war by arbitration.

It would be necessary to question the good sense, the intelligence, and the nobler sentiments of the English people before it could be admitted that such a wise and humane procedure cannot be applied to a question which it is impossible to solve by arms under modern conditions. The fear that the prestige of England would suffer is quite illusory. Even if, as the result of enormous sacrifices, England succeeded in vanquishing the Boers, her prestige would be in no way augmented, and the more sacrifices she made, the less she would be feared, and the more likely would it be that difficulties would be made for her. The power of England does not rest alone in her material resources, but also in her moral ascendency, which will be imperilled by her refusing to settle the dispute by submitting it to an impartial and disinterested judgment. The Boers cannot hope to win in a war in which England holds the sea. The English resources are infinitely greater than theirs. They cannot look for help from political complications; therefore, they will accept arbitration, arbitration all the easier now while the losses are small.

I may end this study with the words of the eminent Russian surgeon, Pirogoff, who, after visiting the battlefields of 1870, cried: "The Chauvinism which incites nations to discord and massacre is only fit for their curses, and humanity

ought to bless those kings who seek not for a bloody glory!" And the entire world, after what has been witnessed in South Africa, all those who remember all the sufferings to which the victims of war are exposed on the field of battle and in their homes, will not treat the peaceful aspirations of England with contempt; on the contrary, they will believe that England having realized how terrible is war in its actual waging has considered it a matter of honour to spare her own subjects —since the States of South Africa are practically under her protection—and at the same time to deliver the world from unexampled calamities and suffering.

Henderson & Spalding, Printers, 1, 3 & 5, Marylebone Lane, London, W.

"THE KEY TO THE SOUTH AFRICAN SITUATION."

The Work to which M. BLOCH refers in this Pamphlet is

Modern Weapons and Modern War

(IS WAR NOW IMPOSSIBLE?)

BEING AN ABRIDGMENT OF

"The War of the Future in its Technical, Political, and Economic Relations."

By JEAN DE BLOCH.

M. BLOCH declares that under the altered conditions of Modern War it will be impossible, or very difficult—

1st. To make reliable reconnaissances.
2nd. To carry out frontal attacks without great loss.
3rd. To cross the zone of fire without cover.
4th. To carry out night attacks and surprises.
5th. To avoid the loss of guns through long-range rifle fire.
6th. To follow up victory.
7th. To locate the enemy's entrenchments.
8th. To carry on ambulance work.
9th. To advance outside the area of railway supply.

PRICE SIX SHILLINGS.

LONDON:

GRANT RICHARDS, 11, HENRIETTA STREET.