

The History of the NINETEENTH CENTURY WARFARE.

By SIR CHARLES DILKE.

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THE editor has asked me to write upon the military progress of the century, but it is doubtful how far, even if as civilians we get over our natural dislike of talking military change as "progress." There has been any considerable advance in the larger aspects of military science within the century. The genius of Bonaparte, working upon the foundations laid by Frederick the Great, established a century ago principles which are essentially applicable to the military matters of the present day; and although the scientific developments of artillery and musketry have affected the details of battle-fields, the essential principles of the art of preparation for war and of strategy stand where they stood before.

Scharnhorst was the Prussian officer who began to reduce the Napoleonic military system to rules applicable to the use of German armies. Under Bonaparte the whole management of the army was too often concentrated in the hands of the man of genius, and the actual conduct of Napoleon had the defect that, failing the man of genius at the head of the army, it broke down. The main change made by the Germans, who followed Scharnhorst, in the course of the century has been to codify the Napoleonic system so that it was possible to more generally decentralize in practice without impairing its essence. They have also established a division of its supply department (under a Minister of War) from the "brain of the army," as Mr. Spenser Wilkinson has well called it, which manages the preparation for the strategy of war and the strategy itself. These so-called Prussian principles of decentralization and "initiative" are, however, not new and not Prussian, and may be discovered in the conversations of Napoleon Bonaparte. The French in 1870 had forgotten his teaching, and the Germans had retained it. It is, nevertheless, the case that the number of men placed in the field by the military powers has increased, the actual number of troops has increased, the number of corps commanders and even of general commanding divisions has become more essential. It is impossible that the great general staff can give orders in advance which will cover the responsibility of all the inferior generals, and brains have to be added in all ranks to obedience. The commander-in-chief in the field cannot with advantage direct his own troops, and he can only provide in his orders an outline sketch which his subordinates have to fill in. The "initiative of subordinates" is but the natural division of labor.

If the editor has called on me, a civilian student of military politics rather than a military expert, it must be because he desires to bring largely into the account the changes in military organization which on the Continent of Europe have made it permanently national, and which in the United States made it temporarily national during the civil war, and would make it so again in the event of a struggle on a great scale in which the North American continent might become involved.

Although the "armed nation" has replaced in France, Germany, Switzerland, Austria-Hungary, Italy, Roumania, and Bulgaria, the smaller professional armies of the eighteenth century, the general belief that the numerical strength of field armies has enormously increased is not so completely well founded as at first sight might be supposed. It is true that each nation can put into the field a larger number of men than it could a century ago, but it is still not beyond the bounds of possibility that in certain cases small armies may produce results as remarkable as those which attended British operations in the Peninsula in the early part of the nineteenth century; and, on the other hand, although there will, upon the whole, in future Continental wars, be larger armies in the field, more men will likely be actually brought to bear on the battle-field, and the number of men actually engaged in the field will be smaller than that which Napoleon traversed Europe before he invaded Russia.

The principles of pure military science as set forth in books have not been greatly changed during the nineteenth century. The Prussian Clausewitz only expanded upon the doctrine of Bonaparte, and the latest writers, such as the Frenchman, Dretzschne and Lewal—only continue Clausewitz. The theory of the armed nation has received extension, but after all the Prussian system is its essential basis.

considered by competent observers to be excellent. We may take as our type of the armies of today those of Germany and of France. These armies are also normal as regards their cost. Great armies are not so costly as they are in the habit of being made, and in all services, is extravagant in her military expenditure for the results obtained. Switzerland and Russia, with their different systems, and for different reasons, obtain their armies very cheaply; and if we wish to know the cost of the modern military system, it is to Germany and to France that we should turn.

Those who would study the French or German army for themselves will find a large literature on the subject. The principles which govern the establishment of an armed nation upon the modern Prussian scale, improved after the fashion of 1870 and 1871, are explained in the work of Von der Goltz, "The Nation in Arms." Those who would follow the principles into their detailed application, and see how the armies are divided between, and nourished and supplied from the military districts of one of the great countries, will find the fourth and fifth issues of the illustrated "Annual of the French Army," published each year by Pion, Nourrit et Cie., or in the official handbooks published by the Librairie Militaire Baudouin.

In the time of Bonaparte and even in the time of the Second Empire in France army corps were of varying strength, and there was no regular high military command of administrators less admirable than the first Napoleon himself of the exact numbers of men who could be placed in the field. In 1809 Louis Napoleon was wholly misinformed as to his own strength and as to that of his opponents, which were, however, accurately known to Von Moltke. In these days such statistics and difficulties are impossible. The army corps of the great military powers are of equal strength, and they are equally enforced in the extraordinarily rapid mobilization which would immediately precede and immediately follow a declaration of war. The chief changes in the century have been a greater excellence in these respects, a generally increased number (especially a great increase in the strength of field artillery), and in these last years a grouping of the army corps into armies, which exist in Germany, France, and Russia even in time of peace with all their generals and staffs named ready for war. The number of regular military countries the army is guided by the counsel of a general staff. Around the chief of the staff and the Minister of War are the "generals of armies," and in France a potential generalissimo (who on the outbreak of war would be superseded by another general in the actual command). In the case of Germany the command would now be exercised by the young Emperor. In the case of France it would be exercised by the generalissimo with the chief of the staff as his "berthier," or major general. Enormously important duties in the case of armies so widely as the entire forces of the first line and of the second line in Germany or France, and of the first line in Russia would be exercised by the "generals of armies." These generals in time of peace are called "inspectors of armies" in France, Germany, and Austria, and they inspect groups of army corps which would be united in war to form the armies which these generals would actually command. These generals also form the council of war or principal military council, and committee of advice for the generalissimo and chief of the staff. In Germany and in Austria-Hungary the German Emperor and the Emperor-King, respectively, are virtual general-inspectors-in-chief of the whole army, but in France and in Russia there is less unity of command. The Minister of War in Russia, and the Minister of War in France is intended to be the head of the supplies of the army in time of war, directing the administration from the capital and not taking his place in the field.

The Prussian system, so far as the men are concerned, was adopted after the disasters of Prussia early in the century, in order to pass in great numbers of men through the ranks without attracting attention by keeping up a large peace army. The system is now maintained by Germany, Austria, and France for a different reason. Such Powers desire to have an enormous force for war, but for budgetary reasons, to keep with the flag in time of peace the smallest number of men, and to substitute with training the men sufficiently to enable them upon mobilization to be brought back to their regiments as real soldiers. It is these considerations which have induced the younger and more thoughtful of the Prussian generals to force on Germany a reduction of the period of infantry service to two years. The army in time of peace becomes a mere training school for war, and the service is made as short as possible, given the necessity of turning out a man who for some years will continue to have the traditions of a soldier. It is a question whether something has not been sacrificed in France, at all events, to uniformity. A longer period of training, and a doubly necessary to make an efficient cavalry soldier than is necessary to make an efficient infantry private; and a man who has served about two and a half years only in a cavalry regiment cannot in the majority of cases be brought back into the cavalry after he has returned to civil life. Cavalry, in the modern armies,

is likely to be a diminishing force as war goes on. The armies will enter upon a war with a number of infantry which can be kept up, the losses of war being supplied by reserve men as good as the men of the line. Each army will enter upon war with a force of cavalry which will be rapidly destroyed if it is much used, and which will not be replaced in the same manner. The reserve cavalry of which the French press boasts is a paper force, and the pretended mobilization of two of its regiments a farce. The French would take the field with the cavalry of the first line only, seventy-nine regiments of 500 horses, or 39,500 men, or less than half the 80,000 cavalry with which Napoleon marched in 1812. The same thing might possibly be said of artillery as is said of cavalry, but for the fact that Switzerland tells a different story as to the possibility of rapidly training artillerists. The artillerists of the French army, the units at points fixed beforehand of the men of the reserves who bring the army up to its war footing, and the clothing and equipment of these men and the distribution to the mobilized regiments of their full materials of war. The cavalry and horse artillery kept upon the frontiers are now in a condition of permanent readiness in the principal military countries as they would be used to cover the mobilization of the remainder of the army. The moment mobilization is accomplished concentration takes place on the frontier in the case of the principal Powers. Near the line of concentration they stand in peace, and that their reserve men will be kept back with the army, and that the regular army of those who are fit to serve as cavalry and the reorganization of the greater number to the train and other services where ability to ride and manage horses is more necessary than the smartness of a good cavalryman. France and Germany nominally look forward to the creation of two lines of arms in time of war, one of the first line to take the field at once, and the other to guard the communications and garrison and support the fortresses, but in fact it is the intention of these Powers to divide their armies into three—a field army of the first line, a field army of the second line, out of which fresh army corps will at once be created on the outbreak of war, and a territorial army for communications and for fortress purposes and as a last reserve. It is a portion of the French and German system that each army corps of the first line and the same would be the case in war with the second line corps—has its separate organization of ammunition train and baggage train, and draws as largely as possible its supplies from its own territorial district.

The peace strength of the great modern armies is for France and Germany about 500,000 men each, and the war strength between 1,000,000 and 1,500,000 men each. The peace strength of Russia is now over 1,000,000 men, and the war strength is about 1,500,000 men, including her army, which is now about 1,500,000 men, and an average of 1,000,000, and the British Empire, outside the United Kingdom and India, 2,000,000, or an average of 250,000 men in all upon land forces. The expenditure of the United Kingdom upon the maintenance of her army has been increased to an enormous extent by the South African war, and cannot now be estimated. The expenditure of France and Germany upon land forces is greatly less; and of Russia, large as is her peace army, less again. But France and Germany, at least, are not content with the army of the field, and place millions of armed men in the field in proper army formation and with adequate command, whereas the United Kingdom can place a doubtful three corps in the field in India with great difficulty, and in the true sense of the word no organized force at all. The organization and waste of time after the declaration of war, it is contended by the authorities responsible for the British army that two army corps could be placed in the field at home, and elaborate paper arrangements exist for this purpose; but the facts are as I state them, and not as they are professed to be. It is pretended that the British army could be rapidly dispatched to South Africa. But the cavalry and artillery were, in fact, created by lavish expenditure a long time after the war had begun and after disasters caused by their non-existence.

Centralized as is the administrative system of France and Germany in every-thing, the military system of modern warfare have found upon the Government of those countries an enormous amount of decentralization as concerns military matters, and the less efficient military machines of the United Kingdom and of Russia are far more centralized than are the more efficient machines of France and Germany. The army corps districts have in the latter countries a much greater autonomy as regards the political student the federal organization of the United States rather than the government of a highly centralized modern Power. As soon, however, as war breaks out, the

opening of war in the future be. This cavalry will be accompanied by horse artillery and followed by light infantry, constantly practiced in rapid marching in time of peace, or by mounted infantry. But the great battlefields of the later weeks will be the battlefields of the artillery. The numbers engaged will be so great that the heaviest of all the responsibilities of the generals will be the feeding of their troops during the battles prolonged during several days, which will probably occur, and it is doubtful how far the old generals (often grown unwieldy in time of peace) will be able to stand the daily and nightly strain of war. Clausewitz has said that when both sides are equally strong in numbers, in courage, and in many other elements of force, the great tragedy of Boadino is the typical battle. Lewal has pointed out that in the battles of the future such equality must be expected. The battle will begin on the outbreak of war in the principal frontier regiments. The great masses as they come to the field will pour into a fight already raging. The battle will be immense and prolonged. Promotion will probably be rapid among the generals, owing to incompetence and retirement, and certainly among other officers owing to their exposure in these days of smokeless powder, when round shots can pick off officers in a manner unknown in wars which have hitherto occurred. Whether it will be possible to get armies to advance under heavy fire after the officers have been killed is doubtful when we remember that modern armies consist of men who are not trained to stand under fire, and that regimental cohesion is weakened by the sudden infusion of an overwhelming proportion of reserve men at the last moment. On the other hand, in the German army the reserve men will be fewer in the first line than in the French and the regional system more available in the field, while on the French side the greater military aptitude of the French may perhaps be counted upon to remedy the comparative defect. The Prussians make up for the inferior military attitude of the German people by patriotism, discipline, and the conferring of honor and of civil employment in after life on all who do their duty in war. They also provide more effectively than do the French against incapacity in high place. Above all, however, we should attach importance to the wisdom of successive Kings of Prussia in treating the Prussian army as an almost sacred institution and in constantly working in time of peace to make it and keep it a perfect instrument.

The work of the general staff of Germany and of France, during his two years or nearly three years' training as the case may be, is as hard as any human work, and the populations of the Continental countries submit, not on the whole unwillingly, from patriotic motives to a slavery of which the more fortunate inhabitants of the United Kingdom and of the United States have no conception. The British or the Belgian public recruit would mutiny if forced to work as works the virtually unpaid and ill-fed recruit of Russia, Germany, Austria, and France. The enormous loss to many industries which is caused by the withdrawal of the men from the work of the field, when they are most apt to become useful workmen, is in the opinion of some Germans compensated for by the habit of discipline and the moral tone of stiffness and endurance which is communicated to the soldier for the rest of his life. This is perhaps more true of the German character than it is of the inhabitants of the other countries; and in France, at least, the soldier training of the entire population is a heavy drawback to industrial and intellectual life. There are, however, as will be seen in the concluding passage of this article, other considerations to be taken into account, some of which tell the other way.

The one successful exception to the prevailing military system of the day is to be found in Switzerland, which has a very cheap army of the militia type, but one which is, nevertheless, pronounced efficient by the best judges. The mobilization of Switzerland in 1870 was more rapid than that of either Germany or France, and great as are the strides that both France and Germany have made in military organization and in the number of men since 1870, the Swiss also have reorganized their mobilization system since that time and are still able at a much less proportional cost to place in the field at least as large a proportional force as Germany, and this force is believed to be more efficient, though not largely provided with cavalry.

The greatest change in the battlefields of the future as compared with those of a few years ago will be found in the development and increased strength of the artillery. A modern army when it takes up a position has miles of front almost entirely occupied with guns, and the guns are of a much heavier calibre than in the past. There is no room for such numbers of guns to be used in any other way. The attacking side if both, indeed, in one form or another, do not attempt attack will be chiefly occupied in obtaining positions on which to place its guns, and the retreating side, if it is not heavily entrenched, will be chiefly occupied in finding positions on which to place its guns. The early armaments of a war will, indeed, be engagements of cavalry massed upon the frontier on the second day of mobilization, so rapid will the

marine torpedo boats. Our machine guns are not thought much more of by most Prussians than the steam gun of 1844, ridiculed by Dickens in "Martin Chuzzlewit." If great change was to have been made in the art of war by modern weapons, one would have thought that the first things to disappear would be all vestiges of protective armor and the use of cavalry in the field. Yet protective armor has been recently restored to as large a proportion of many armies as used it in the wars of the beginning of the century, and the use of cavalry in the field is defended as still probably by all the highest authorities on the Continent. My own opinion on such matters is that of a layman, and should be worthless, but it agrees with that of several distinguished military writers. A confession that I doubt whether in future wars between good armies, such as those of France and Germany, it will be possible to employ cavalry on the battlefields, is as far as I am concerned, as far as to think that the direct offensive, still believed in by the Prussians, will be found to have become too costly to be possible. Our South African experience is not, however, regarded by Continental authorities as conclusive.

The author of "Ironclads in Action," Mr. Tison, who has made a very thorough study of the future of naval war, has pointed out with great force the most striking of difficulties of war in the future as caused by the enormous concentration of forces in a particular tract of country. The result of that concentration must be great difficulties about supply, and the possibility of having a large number of wounded will be exposed for longer periods than was the case in many of the earlier wars; but when we remember Leipzig and Dresden and the retreat from Moscow it is again easy to see that the change is rather in the direction of generalization of conditions, which were formerly exceptional, than a change to conditions wholly without precedent.

I have all through this article written of Germany and France as the modern military countries to be taken as a standard in all comparisons. The French have initiated the Germans very closely since the war of 1870. But, although imitation is generally feeble, it must always be borne in mind that the French people have a greater military aptitude than the German, and that unless beaten at the beginning of a war they are always in the highest degree formidable. The perfection of system is to be found in Germany, and the peculiarities of the German system are the combination of enlightened patriotism in all its individuality with iron discipline. The system is so arranged that unless well managed it would crush out individual responsibility; but the system itself encourages this individual responsibility all down the gradations of the army to the humblest non-commissioned officer and even to the detached private. The universality of promotion by a certain high standard of merit and of the absence of jobbery are more thoroughly obtained in Germany than in any other army, and Lord Wolsey's criticisms on the 198 manœuvres of our own army, criticisms repeated in 1900, in which he told us that no one had done well in the field, and that no one could have done his duty during the manœuvres, would be impossible in Germany, and must have shocked military opinion throughout that country.

It is not unusual to assume that the enormous military establishments of the Continent of Europe are an almost unmixed evil. But this may perhaps be disputed on very good grounds. In some cases, such as that of Italy, the army acts as a kind of rough national university in which the varied life of districts often in discordance is fused into a patriotic whole, districts are forgotten, and a common language learned. In the case of France the military system is a powerful engine of democracy. There is a French prince (not of the blood royal) at this moment, who would be a corporal if the corporal is a young peasant from the same department. A few years ago I found the Duc de Lorraine, who is also Duc de Chaulnes and Duc de Chevreuse, the owner of Damphrey, the personal friend of kings, serving by his own wish, for, as the eldest son of a widow, he struck by the fate of the dragons, and especially saluting young officers, some of whom were his own tenants. The modern military system of the Continent, in the case of France and Germany at least, may also, I think, be shown to have led in favor of peace. It is possible to fire, or to occasionally demand a war with the sword, but to demand a war, as a rule, know what war means. These of us who have seen something of it with our own eyes are a very small minority. But every inhabitant of France and Germany has the reality of war brought home to him with the knowledge that those of his own kin would have to furnish many of the fighting men. The French and Germans call it the outbreak of any war, and the influence of the whole of the women of both countries is powerfully exerted in consequence upon the side of peace.

AN ABORIGINAL HERMIT.

Performance of an Indian as a Modern Rip Van Winkle.

An Indian hermit is a queer sort of a creature, if one can be pardoned for making such a comparison, but occasionally such a curious specimen of the aboriginal American race has been discovered. A recent story from Utah says that there is on the Utah reservation, near Fort Duchesne, an Indian who lies naked and alone except for the daily visits of his brother, who brings him food.

For more than twenty years he has lain there, almost without covering.

There are two stories regarding the strange actions of the Indian. One is that the man in his youth was crossed in a love affair.

The other is to the effect that in a moment of uncontrollable anger he killed both of his parents.

Out in Fort Duchesne this man is looked upon as the greatest attraction in the amusement line, for amusements in a Western fort are exceedingly limited, while the hospitality is generosity itself. So it is that when you arrive at the fort, you take out your things and each some of the small dust out of, not off, your face and hands, some of the officers or wives of the officers having seated you in front of a table loaded with some force of venison and other good things, will ask you if you have heard of the strange Indian they have there.

Having never heard of this unusual character you will say so, providing you are truthful and then the hostess will raise her eyebrows and say: "Really?"

"This crazy fellow was something the most ignorant earth to know."

"It's really worth a trip and you must see him," she continues, although it is

quite likely that you are interested in many matters regarding the fort and the part it has played in American history. The life of the officers, lead, even the monotony of it, appeals to your interest and you would like to hear all about it, but they fail to appreciate this fact, and back again they bring you to the Utah Indian, the only evening and every day continue playing at Fort Duchesne, when you hear the stories told of him, vouched for, ten, by officers of the United States and their wives.

The women cling tenaciously to the love story of the old Indian, that more than twenty years ago, when the Utes were a powerful nation, he was a young brave, who had won some reputation. He started out afterward to the eastward on a trip across the Wind River range. While there he met a young woman of the Banook tribe. Of course, it was love at first sight on the part of the young Ute brave, but the young Banook woman did not feel the same way about it. So the Ute Indian went to the medicine man and received a love powder and with this hung about his neck he wooed and won her. Strongly attracted, he had won her. Strongly attracted, he returned to the wigwam of his fellow tribe and told of his beautiful bride.

Afterward he set out again, promising to bring his bride. Some time afterward he came back, but he was alone. Then it was learned that he had gone to the Banook only to find his promised bride in the wigwam of another. Upon his return to his village he made a great oath that he would not cover himself or speak a word for more than twenty summers. Saying this, he left the village, and going to the outskirts, lay down on the bare ground. Before lying down he stripped off all his clothing. Since that time he has continued to lie there through the rains

RENT DAY AND THE PAWNSHOP.

A Big Business Done the Last of the Month in New York.

To the man behind a pawnshop counter, the last days of a month, afford peculiar opportunities of studying East Side economics, says the "New York Evening Post."

In the district from the Bowery to the East River there averages at all times one pawnshop per block, and for every hundred of population. Toward the middle of the month the proportion is somewhat less, but at the end it is much greater. The ebb and flow is regular, rent day being the high influence Saturday and Monday see the rising and falling of lesser tides, but it remains for the month end to set the great current pawnswards. More articles are pledged on January 31 than on the first three days of February.

Every pawnshop has his regular customers. A man without an overcoat comes in, his coat collar his only collar—turned up at his neck, and he has his hands thrust far down his pockets. Under his arm he has a bundle wrapped in a newspaper, which, unrolled on the counter, reveals a pair of worn-out shoes, a sidewalk and some of his own more intimate wearing apparel.

"He wouldn't wait," he says rather moodily, "I told him that if he didn't bring the rent to me by Wednesday next, he'd get to get it."

"That's what," answers the pawnbroker, cheerfully, "we've all got to get it," every time. How much rent? "Oh, about one dollar fifty, but that'll give us something to go on."

The broker reflects, tapping on the counter, "What have I got of your own?" "Nothing but my overcoat. But you're safe all right, for I only had one fifty in that."

The collateral security is apparently

The Wonders of Peat.

(From the Landon-Lancet.)

Herr Zaborner, of Vienna, has been experimenting with peat for twelve years, and has shown very conclusively that it has many astonishing qualities. In Ireland, in particular, the material should be welcomed. A building has been exhibited, in which everything, from the carpets on the floor to the curtains on the walls, and even the walls themselves, is made from peat. The fibres of the remains of the reeds and grasses of which peat is composed have, of course, their original character, but they are so changed, but the fibrous structure remains intact and the fibres themselves are very durable, elastic and non-conductors of heat. Peat is so changed that it is found to have the toughness of linen with the warmth of wool. There is no textile fabric that cannot be woven from these fibres. Blankets and other coverings used for horses and cattle have been found in use to excel in warmth and cleanliness. Paper of several qualities has been made, and the peat has been found to already been applied in various ways that may render the peat bogs of Ireland a valuable addition to the resources of that country.

First Inspection.

(From the Chicago News.)

"Your name is Dilke, is it? The Sheriff's clerk," he said, "repeated the prisoner's name, and he said 'Dilke'."

Evening Dress in San Francisco.

(From the Argonaut.)

A unique effect regarding the proper dress to wear for the evening has been sent out by the First Friday Club of this city. It says: "The standard of dress of the First Friday Club is what is locally known as 'evening dress.' It is a dress being encouraged and a commission of army or naval officer's uniform allowed, and inasmuch as the term is variously interpreted, the club deems it best to strike in advance a contract, as a desire to prevent any possible surprise or unpleasantness. We hold the term 'evening dress' to mean: 'For gentlemen, white or white linen, white bow tie. For ladies, the dress of homogeneous material, delicate and texture, though not necessarily worn on the head. It is a dress of heavy shade should be pronouncedly evening in other respects. Any doubt as to the proper dress for the evening will be decided upon by the club in favor of the club at large. Chaperons wearing seats in the parlor or on the lawn, but not expected to remove their hats. Full dress, excepting evening dress required.' In explaining the object of this notice, James G. Jones, the organizer of the club, said: 'It was issued for the guidance of members, many of whom might not know exactly what was meant by the term 'evening dress.' Ours is a middle class club and it is the desire of myself and the other active members to raise the middle class in correct social usage. We try to have only high-class music at our functions, and we try to be cheap times and we do not allow of holding and unseemly dancing. This hint regarding correct dress was sent to educate the club in the matter of evening dress, and to make it clear that it is not understood the correct thing, as might not