bought at the cost of men’s lives; but he did not take the next step forward and show how these calculations must inevitably be upset if the enemy possessed the power of destroying men faster than experience led one to expect. He formulates from his experience that a force of the magnitude of a division, say 10,000 men, can hold an overpowering enemy at bay for about six hours, and an army corps can hardly be destroyed in less than a day; on these data he bases his estimates of the marching area which an army may safely cover. But what if a new and unexpected method of applying “ the means at hand to the attainment of the object in view ” suddenly wipes out the divi­sion in two hours, or the army corps in six? In that case, surely, the independent will-power of the adversary would receive a most unwelcome check. Nor did he ever clearly formulate as a principle the importance of mobility. Every one of course has in a general way understood the advantages of "getting there first,” and all of us have for years been familiar with the importance which Napoleon attached to rapid marching. But the tendency has always been to consider the rate of marching in itself as an invariable factor, and to calculate every operation or disposition from the time a column normally takes to deploy into position from a road or defile. But no systematic attempt to determine the advantages which might on occasion be obtained by sacrificing comfort and convenience to the acceleration of a march has ever been undertaken. Yet Napoleon saw and appreciated the point, and it must remain a riddle for all time how such a mind as Clausewitz’s, which again and again had seen at first hand the consequences which followed from Napoleon’s *marche de manœuvre*—guns and trains upon the roads, infantry and cavalry moving in mass across country—could have failed to place on record the enormous advantages which might follow its adoption. The book as it stood, however, became the bible of the Prussian army, and its comprehension is an indispensable preliminary to all useful study of contemporary practice in war. Moltke’s mind, and that of bis whole generation, was formed upon it. To its strength the Germans owed all their successes, and to its weaknesses certain grave errors that were almost disasters.

Meanwhile the progress of invention suddenly destroyed the governing condition of all previous experience. The Napoleonic strategy, as we have shown, depended primarily on the certainty of decision conferred on him by his “ case-shot attack ”; but the introduction of the long-range infantry rifle (muzzle-loader) rendered it practically impossible to bring the masses of artillery to the close ranges required by the Napoleonic method. In the 1859 campaign (see Italian Wars) between France and Austria both sides were handled with such a general absence of intelligence, and the marksmanship of the Austrians in particular was so very inferior, that neither side derived advan­tage from the change. But when, in 1861-65 (see American Civil War), the theatre of interest was transferred across the Atlantic, the other causes united to give it immense importance. America in the sixties was almost as roadless as East Prussia and Silesia in Frederick the Great’s time, and its forests, rivers and marshes were far more impenetrable. Both the Southern and Northern armies, moreover, were entirely new to their work, and consequently their operations became exceedingly slow. As far as the generals and staff had studied war at all they had been brought up to the Napoleonic tradition as handed down by Jomini and his school; and failing as a body to appreciate the intimate interdependence of the three arms, they believed that a resolute crowding on of masses (whether in line or column does not signify) upon the decisive point must suffice to overrun all opposition. But the slowness of operations gave time for entrenchments, and consequently scope for the powers of the new rifle. Whereas against the old musket one rush sufficed to cover the danger zone, the rifle widened this zone about threefold, so that human lungs and limbs could no longer accomplish the distance without pauses, during which pauses, since guns could no longer assist effectively, the attacking infantry had to protect itself by its own fire, standing in the open within point-blank range of the rifles of the cool, skilful and well-covered defenders. Thus when similar experiences had established uniformity of practice in the two contending forces the result was a deadlock, which was ended only by enormous numerical superiority and the “ policy of attrition.” The lesson, however, passed unnoticed in Europe except in so far as popular attention was caught by the deadliness of the rifle fire, which was attributed, not as it should have been to the peculiar conditions under which it was employed, but to the nature of the weapon itself; and from this conclusion it was a short step to the inference that the breech-loader, firing five rounds to one of the muzzle-loader, must prove a terrible instru­ment of destruction. Actually this inference has hampered strategic progress ever since.

The campaigns of 1866 in Bohemia, and of 1870 in France, furnish positive proof that Clausewitz had not appreciated the Napoleonic teaching to its full extent, for though the conditions again and again were ideal for its application, no trace of his fundamental principle is distinguishable in Moltke’s orders. In the former it would seem from the maps that the Austrians actually possessed the form, though they had forgotten the spirit, as the detached group in Bohemia (see Seven Weeks’ War) might well be considered as an *avant-garde généralet* and on the three days preceding Königgrätz, the distribution of the Austrian main army was such that the application of Napoleon’s method must have followed had the idea been present. That Moltke himself never contemplated its employment is sufficiently evident from his unfulfilled plan of the 2nd of July, noon, wherein the whole Prussian army was to march across the front of the Austrians in position, precisely as Frederick had done with disastrous results at Kolin a century before.

No campaign, however, demonstrates in more striking manner the fatal consequences of ignoring Napoleon’s saying, *On ne manœuvre qu'autour d'une pointe fixe* than 1870. Here was an army enormously superior in numbers and organization, disposing of an admirable cavalry and far superior artillery, repeatedly on the edge of disaster, not because of the superior cunning of their adversary, but simply because the mind of a reasonable man proved quite incapable of conceiving the blunders that his adversary perpetrated. Moltke always placed himself in his enemy’s position and decided on what would be the rational course for him to pursue. He gave him the recog­nized three courses, but it happened that it was always the fourth (the unexpected, because from Moltke’s standpoint so hopelessly irrational) that he took. The situations of the 8th, 11th and 16th of August are all instances in point. On the last of these dates (see Franco-German War) the French commander-in-chief by merely standing still through irresolution found himself in a situation promising certain victory. It is true that he took no advantage of it, and nothing can detract from the magnifi­cent resolution of von Alvensleben, commander of the III. Corps, and the gallantry with which his troops and his comrades sup­ported him. But, equally, nothing can alter the fact that in spite of all Bazaine’s mistakes the dawn of the 17th of August found the German headquarters with only the debris of two corps on the ground face to face with the whole French army, of which only one-third had been seriously engaged.

Sedan nearly ended in the same way. The Germans had, with their cavalry, fixed to a man the precise position of their enemy, but no troops were told off to hold them, and all throughout the afternoon of the 31st and morning of the 1st the French army was free to issue from the bridge-head of Torcy on a broad front in *masse de manœuvre* and separate the wings of the Prussian army. Judging by the way they actually fought in the hopeless position in which they elected to remain, their prospects of success in the suggested manœuvre were not small. After the war it was easy and natural to place the blame for the situations in the early days on the shoulders of the German cavalry, but closer study of the facts has shown that in spite of all their shortcomings this arm did not deserve it, for they actually found the enemy and reported his positions, while nothing could be urged against them in respect to Sedan, for by that time they had established a relative superiority over their enemy which