

The tax on the physical powers must, in such circumstances, be very much greater than formerly, as there is no possibility of traversing this long distance at the marching speed of former days. "Movements on the field ought now to be executed more quickly by infantry than formerly" (*Col. C. B. Brackenbury*) which, being interpreted, means that the foot-soldier, when in motion, must use the double, or rather must use the fastest pace consistent with the maxim that troops must be kept "in breath," and not be exhausted before reaching the point of decision. "The object should be to confer upon it (the infantry) the utmost possible rapidity of movement that is compatible with the effective action of an attacking body when it comes into collision with the enemy. . . . No pains should be spared to confer activity, speed and endurance." (*Gen. Macdougall*) The *pas gymnastique* is now the necessary rule where formerly it was the reluctantly admitted exception, and the formation of the troops must be adopted to the mode of movement which is imperative, and not the speed of movement restricted to suit the mode of arrangement of the men.

4. *Any movement in a compact formation with touch is inadmissible in traversing the zone of fire.*

This point has already been incidentally noticed, and as it is now admitted by all writers it would be unnecessary to say more upon it were it not that it is indirectly denied by regulation drill-books, which still speak of their double-column advances, advances in line, and movements to flanks by echelon of companies marching shoulder to shoulder, as if such things could be done within sight of the enemy, *i.e.*, under modern conditions, within range. For example, the close formation movements of the battalion are all directed to be done on the footing that "a battalion in line formation is supposed to be turned towards the enemy, the direction in which it is turned is called 'the front.'" "All interior movements of the battalion are to be made with reference to this front." (*Field Exercise*.) And the diagrams still present pictures of lines engaged in the "processional" advance, passing obstacles, or halted while broken by obstacles, and the reader is gravely told that a line halted according to the picture in several mathematically straight lines "will appear to the enemy unbroken (!), and every man will be able to fire" (*Field Exercise*); thus treating the formal close formations of a battalion as if they were fighting formations, to be used during the combat. But the "theory" which should prevent "peculiar methods from outliving themselves" has already said its say distinctly and clearly upon this matter—"advance of battalions in line with delivery of battalion volleys, and the attack in double columns of companies, are hardly compatible with the nature of warfare in these days." (*Von Boguslawski*.) And this for the reason that it has been ascertained that "the employment of closed battalions on level open ground under the effective fire of the enemy's infantry entails disproportionately heavy losses" (*German Cabinet Order*, 4th July, 1872); words written at a time when musketry fire was not nearly so destructive as now. Therefore, when that combat is entered on "infantry must advance in extended order" (*Major-General Macdougall*); that is an order without touch, it being now impossible "for a moment to admit that the processional advance of the closed line is possible." (*Col. Knollys*.) Whatever concentration may take place at the point of decision, all must reach it in an individual fashion, using that expression in the sense that they must be guided by the eye and by the intelligence in moving forward, and not be called on to maintain connectedness and direction by bodily touch. In other words, "the individual order has now become the only practical means for infantry fighting." (*Von Scherf*.) This, of course, does not mean that individuals are to do as they please; it is not individual fighting, but fighting in an individual order, in which men shall work in unison, though no longer guided in movement by a device by which they are practically bound together, but being compelled to use observation and exercise intelligence. In short, it is "not so much a question of loose formation as it is of substitution of individual and intelligent action in place of passive blind and mechanical obedience." (*Italian Précis*.) Soldiers must now, throughout the fight, succeed in working together, without bodily contact as a guide for direction, or as an aid to discipline and moral.

5. *Lateral movements, such as closing in or moving to a flank, are most hazardous and often impossible.*

This is a proposition which, if true, must have a most important influence upon the infantry system. It runs contrary to the theory of foreign drill books. Some lay down rules for closing in the units in the fighting line, and pushing reinforcements into the spaces between; others propose to leave spaces in the line of original advance for the reinforcements to fill up. This latter idea is most objectionable, and necessity has been too strong for theory as regards the former. In the Franco-German war "if fresh detachments came up from the rear it was necessary to double them up with the old skirmishers, because

closing to a flank was not usually to be thought of," (*Von Boguslawski*) and it thus came to be recognised that "it is no longer possible for skirmishers within effective range of the enemy and in the face of the breechloader, to take ground to a flank, or to diminish their intervals without suffering fearful loss" (*Von Scherf*), and that "the simple front at support of the fire line, by doubling in, is almost the only one that can be carried out" (*Militar Wochenblatt*); and this opinion is now accepted by the best British authorities. "Under the tremendous fire that modern arms enable troops acting on the defensive to pour in, all movements to the right or left are vain," and "would reduce the fire, compel men who had won certain advantageous places to leave them, not to advance on the enemy, but merely to take ground to the right or left, a thing very difficult to do with any troops." (*Home*.) The difficulty is such as to amount to practical impossibility. "There is no manœuvring possible under close infantry fire. The attacking force is committed from first to last to a movement to the front, or a movement to the rear" (*Lieut.-Gen. Lord Chelmsford*), and, therefore, "in no case ought troops, when under anything like effective fire, to move to a flank, even for ten seconds, if it can be avoided." (*Gen. Macdougall*.)

6. *Control of troops more difficult as regards both the general conduct of the action and the prevention of drift, disarrangement of uniformity of strength, and loss of general direction.*

There are two causes which tend to create difficulty in these respects. The first is the great space to be traversed under fire, and the other is the greatly increased din, rapidity and efficiency of fire, all tending to produce a high state of tension at a much earlier time in the engagement than was formerly the case. This was the experience of the Franco-Prussian war, when first breechloader was opposed to breechloader on a great scale. "It was very difficult for officers to keep their men together, because the noise of a close conflict between B.L. and B.L. often drowns the sound of the human voice."—(*Von Boguslawski*.) But such a state of noise not only overwhelms the sound of commanders' orders, but also contributes to aggravate the heightening excitement which the modern combat produces from the terrible losses which troops must encounter at such distances from the enemy as to preclude the feeling of imminent victory from overcoming absolutely the strain of the situation. This same hotness of fire tends to make control and the maintenance of direction more difficult, by increasing the tendency of troops to hunt for cover, and thus to break the continuity of the line of attack, and check the advance. Thus it has happened, even with superior troops, that "Leaders soon saw their whole force rallied together, in a confused swarm of skirmishers, and apparently mocking all order and guidance" (*Frontal Attack of Infantry—German*), and in such a situation "The organic unity of the troops is naturally sundered at once." (*Ibid.*)

There can be no doubt that this state of things added enormously and unnecessarily to the losses of the German forces, and that they purchased success on more than one occasion at the cost of a terrible sacrifice, caused by their having entered on the war with obsolete formations; for "We must always bear in mind that the Germans started with a system long deprecated by our best and most experienced heads." (*Colonel Gawler*.)

7. *Greatly increased disadvantages and risks after the decisive stroke, whether it has been successful or has failed.*

Whatever may have been the case in former times, there can be no doubt that it is absolutely essential under modern conditions that every effort be made to minimise the unavoidable confusion which must exist at the final and decisive moment as much as possible. To be in any state of tactical confusion that is avoidable is not only a blunder, but a crime. It may make it impossible to reap the fruits of victory, it may cause defeat to become disaster, and disaster to mean destruction. Of its injurious effects in the case of success, we read: "At the battle of Neerwinden the position was seven times carried and seven times relinquished, merely because the successful columns were in so disorderly a state as not to be capable of taking post, and of manœuvring according to circumstances, and much less able to resist any feeble attack." (*General Fequières*.)

And again as regards the Franco-Prussian war, an able observer says:—"I have always believed that the reason why no advance was made after the battle of Koniggratz, was that there was such an inextricable confusion of the units of the army that it was impossible to advance without twelve hours to put the men back in their own companies, and the companies back in their own battalions."—(*Lieut.-Gen. Sir Beauchamp Walker*.)

Let it be again observed that the troops here spoken of consisted of the best drilled troops—according to the still prevalent theories of what drill should be—that our generation has known; the stiff-drill training of the Prussian infantry being carried out with a