

and are apt to lead to tacit and passive resistance to orders in the case of subordinates, (l) while as regards those in authority they not unfrequently temporarily diminish the activity and acuteness of the mental faculties. They also have generally a considerable influence upon the temper. And therefore the evils they may do are not to be estimated by any illustration which has regard to the physical powers only.

Now, keeping in view the fact that the modern battle is likely to make greater demands upon both mind and body than the battle of former days, that the distance to be got over by actual fighting, in order to come to close quarters with the enemy, is four or five times greater than it was, and that greater coolness and steadiness will be necessary than formerly, it is certain that in settling what our Infantry Tactics are to be, three points must be especially attended to: (1) that everything that can be dispensed with should be cut out of the Drill Book; (2) that the manoeuvres should be such as to require the minimum of time and exertion; and (3) that the formation of troops should be those most likely to prevent the men being jostled against each other, being obliged unnecessarily to march where no man who was saving himself would walk, and being oppressed by want of cool air, or by breathing foul air. (m) To frame a system of drill without having any regard to such matters is to ignore the first principles of common sense. Even if men are to be dealt with as machines, no system is worthy of the name which deals with them merely as such, without any sufficient consideration being given to the non-dissipation of their animal vigour which is the steam that drives the machine. To place a man from whom great protracted exertion may be called for, in circumstances tending to exhaust and enervate him unnecessarily, is as foolish as it would be to expect that a ton of coals would raise the same amount of steam in a boiler, whether they were all set blazing at once, and to a great extent wasted, or carefully stoked by a skilful fireman. When Dick Turpin rode Black Bess in one day from London to York, no one will doubt that on the way he took her over as few rough places as possible, kept her by every means in his power from fretting, and never made her go one inch out of her way or through the slightest unnecessary exertion. I think it may safely be said that he never would have reached York that night had his mare been placed in similar circumstances to those in which the British soldier often finds himself. If some of Dick Turpin's friends had set off to see him ten or fifteen miles on his way that morning, would he have allowed four of them to ride close together in front of him, and two others, one on each side, rubbing and lurching against him, so that Black Bess should have as little air and freedom as possible, and that he should have to go over any

part of the road just as he was led? Or if he had allowed it, would such a process at the beginning of his ride not have taken off the enduring powers of his mare, and caused her to break down long before her master could have seen the towers of the Minster?

In framing a system of Tactics for Infantry, it should always be assumed that it may be necessary on occasions to strain their powers to the very utmost, and therefore the husbanding of these powers should never be lost sight of when any question, arises as between two different modes of forming or moving bodies of troops. An arrangement which will save strength ought to weigh against many minor advantages in favour of a different arrangement. All this seems so obvious that it would be a waste of time to argue upon it, were it not that the principle has been so generally and so often ignored in actual practice.

I shall now proceed to make the suggestions as to details which, as it appears to me would tend most to produce a system of manoeuvres in accordance with the principles which have been laid down. And my main proposition is, that the adoption of a four-deep formation as the basis of all tactical formations and movements, will be found the most advantageous course towards securing a system of drill in conformity with the principles already stated. I prefer to state my proposal thus boldly in plain words, although I know that in doing so I run the risk of causing my brochure to go at once to the back of many a soldier's grate, as "revolutionary rubbish" just as in the year 1833, when the Field Exercise stated that movements in fours were inapplicable to general service, any one who might have proposed to use them as they are now used, would have found it difficult to get a listener. I can only appeal to the reader who has had interest enough to bring him as far as this page, to hear me out, and to see what my proposition means in detail, before acting on any impulse resulting from the principles of the tactics of the last forty years being taken as axiomatic and applicable to all time, whatever changes may have come to exist in the application of tactics to modern fighting.

I would propose, then, that instead of the ranks being formed two deep as at present, the men touching one another and being constantly formed into fours to be moved about, the normal formation should be four-deep, the men being only brought up into two deep formation when this is required for a temporary purpose. Thus a body of men formed on parade would be placed as they at present stand after the order "Fours-deep," the dressing being got by the leading man of each four taking arm's length from the leading man of the next four from the order being given, just as is now done in the dressing of a "squad at intervals," and the three remaining men of the four covering on the leading man of fours. I would also propose that each of the three men who are behind should be thirty inches from the man before him. In this way the companies retain the same formation, whether they move forward or backward, to the right or to the left, as they merely turn the direction ordered; the discomfort incident to dressing by touch is avoided, each man being perfectly free in his movements, and having free circulation of air in whatever direction he moves, and each four can to a great extent escape being forced over bad ground without deranging the whole company, small obstructions can be passed without inconvenience, at whatever part of the company's

front they present themselves, and the company, as will be shown immediately, ready to be formed into skirmishers, support and reserve, in the most convenient and safest manner to secure the advantages referred to in speaking of the principles.

(To be Continued)

The cost of the Crown has been a subject of much discussion of late. The entire Civil List for 1870, plus the pensions of the Royal Family, amounted to £516,941. Education in the same year cost the State £1,635,212; law and justice cost us £4,365,112. The total national expenditure on tobacco alone in the same year may be reckoned at £14,038,653. The phenomenon of pauperism is alarming the minds of our political economists, and with only too great reason; yet our paupers cost us but £8,000,000 yearly, whilst the contents of pipe and snuff-box take from us £14,000,000. The weight of local taxation is a frequent subject of complaint, yet the cost of tobacco falls very little short of the entire amount levied for local taxes, and if to the estimate were to be added the most modest percentage for pipes &c., it would greatly exceed it. The British Association has done more for the advancement of science than all other organizations combined. It yearly devotes the greater part of its income to experimental researches which have often an important bearing upon human well-being. For this high and noble purpose the Association spends yearly between £2,000 and £3,000. Compare this with the £14,000,000 spent upon tobacco. The most painful circumstance (says our lugubrious informant) connected with this subject is that by far the largest proportion of the money thus imprudently wasted is abstracted from the earnings of the working classes. Ninety per cent. was the estimate made in 1844, which would give £520,235,856 as the sum wasted on this indulgence in the seventy years by the working classes. If the British workman would pay in school fees that which he spends in tobacco there would be an end of educational difficulties of every kind. In 1871 alone it would have produced £12,684,787—a sum sufficient to equip an army of teachers. The sum would provide the school pence for 9,000,000 children all the year round. And yet people will smoke!

In a recent article, the Danish *Tidsskrift for Krigsrasen* calls attention to the present very unsatisfactory condition of the national defence. The *Tidsskrift* observes that any hostile attempts on the part of a foreign Power would most assuredly be directed against Zealand. Germany might no doubt attack Jutland and Denmark single handed would be powerless to defend it. The safety of Zealand must be the paramount consideration. It is imperatively necessary that the capital should be in an efficient state of defence, not alone towards the sea, but on the land side as well. The city must be secured against bombardment by an investing army on the land side. This, it is suggested, might be done by the construction of strong detached forts on that side within a radius of 4500 to 6000 yards from the centre of the city. The length of the defences would be about 2 Danish miles, and would require the erection of seven large and three or four small forts. They should be bomb-proof; the larger ones to hold 700, and the smaller 450 men each. The cost is estimated at about £2,500,000. Until this is done, neither Copenhagen nor the country can be considered safe, as it would be in the power of any active enemy to carry the capital by a *coup de main*.

(l) It will often happen that a man who falls out of the ranks in consequence of his feet being blistered will yet keep up with the rear of his corps. I saw this happen several times during the Autumn Manoeuvres. This shows that he could go on in his place, but that he is demoralized by suffering, and therefore falls out.

(m) Let anyone who doubts the importance of these matters try the experiment of marching for some time on a hot day in a column of fours, as in ordinary route-marching on a road, and let him vary his position, now taking place in the leading fours, now on the flank of a section of fours some distance from the front; he will thus have some idea now stifling and oppressive is the position of those in the middle as compared with that of those on the flanks and in front.