

able the tail which supplies the momentum.

But this is only measuring the physical force of troops by pound weight: the fact being that each atom of which a body of men is composed, possesses within itself a force which inanimate matter does not. The line allows the exercise of this force to the full, and is therefore the formation in which both the forces which infantry possesses—viz., fire power and physical force—have their largest development.

Mere weight is dissipated by fire; appearances go for nothing against good troops; and bad troops will certainly yield to realities as readily as the best.

The saying that the greatest numbers at the decisive point win was always only half true. Their formations and management must be such as to admit of the greater numbers using their powers.

OBJECTIONS TO THE LINE.—Continental authorities, followed by some of our own, while acknowledging the power of the line for the defence, and admitting that an advance in that formation would insure the least loss, excused themselves from recognizing it as suitable to the attack, alleging the impracticability of moving a large body of troops in line for any distance in anything like order and urged the mobility of small columns and the superior order in which they could be brought into contact with an enemy. Such writers overlooked the use and mechanism of the line. If their proposed columns were intended to deploy before entering upon the attack proper, well and good. But if that were to be delayed until the stubbornness of the defenders became manifest, the attempt would probably prove abortive, for they being already deployed are in a position to prevent such movements being executed so immediately in their presence. The adoption, under any circumstances of column as a formation of attack against line may be compared to the assailant's presenting himself at the critical point with the bulk of his force tied up in travelling bags,

The object of treating at such length much that is now undisputed, is to show how unsafe it is to pin our faith on the opinion of foreigners. It must be recollected that they followed by some of our own writers, maintained their views with regard to columns (and heavy columns too) up to a very recent date, long after the introduction of arms of precision; indeed, until they were washed away at St. Privat in the blood of 6,000 men. Even then the conviction was not complete until time had allowed reflection. "When at length the news arrived of the brilliant storming of St. Privat by the Prussian Guards—bloody though it was beyond precedent—there seemed to be no longer a doubt that even when opposed to the breech-loaders, the old charging tactics formed the only method of attack calculated to insure victory

The general voice of our own, as well as of the Russian army, rejoiced that the old cherished system of charging in masses, which had been displaced by the breech loader had returned triumphant, and had been reinstated in its proper position" 111—*S. of A. P. I.* pp. 56.

Objectors seem to imagine that it was necessary for the success of the attack in line that, say, twenty battalions, forming a line of nearly four miles, should march up "like a wall," and charge simultaneously. But these are not at all the principles laid down in the "Field Exercises," p. 244, par. 10. The functions for which the line was primarily esteemed according to a Peninsula officer, were its "superiority of fire and pliability of movement; and as to the fact of its em-

ployment in the attack, the following is the testimony of the same authority: "Foreign military writers generally appear to consider it impossible to advance for long distance in line to an attack. With British soldiers and British discipline, the possibility of it was proved over and over again in the *Peninsular War.*" (*Practical Lessons from Crisis of Waterloo*, p. 40.)

METHOD OF USING THE LINE.—In the Duke of Wellington's battles, corps, brigades, or divisions, sufficient for the front to be attacked, marched independently (through keeping up a connexion) by the most suitable routes, well-timed, and in the formation best adapted to the ground they had to traverse always deploying, generally covered by skirmishers, before attacking. Although precision is always the aim, a little waviness in this line, overlapping the error of a few paces, or a few seconds' difference between battalions does not impair the fire, nor diminish the effect of the shock, so long as each unit keeps in good order and engages the enemy in time to maintain the vibration. Although precision must still be strenuously inculcated, the extended range and rapid fire of modern arms render errors of distance, &c. of still less importance.

Abuse of the line.—In practice, the use of the line has also been mistaken whenever it has been marched, unprotected, under fire against an enemy, from beyond charging distance. Unassuming in appearance, it never was a machine to be so flouted before an enemy. It should be jealously protected until the last moment, and produced only when it can be felt. We have instances in India of regiments suffering severely in such parades, and one famous instance of a regiment which was marched in line against a battery; whereas, in the Peninsula a section extended was considered equal to that duty.

SKIRMISHERS AND OPEN ORDER.—The other extreme now to be avoided is the wide spread theory that skirmishers and their supports are sufficient to carry a position against good troops.

Line possesses the greatest "power," as well as the fullest development of physical force, and if it be held that extended formations (both sides being equally armed and courageous) can penetrate it, it would have to be explained what the extension should be—in fact, what inferiority of force and fire must be employed to insure the success of this anomaly. If it be urged that the "skirmisher swarm" would be numerically equal, or even superior (as seems really to be the theory) to the line, then it may be asked, within the same space, what subtle advantage has disorder and diminished control over order, that such happy results should be anticipated?

German Experiences with Open Order.—Field Marshal the Duke of Wurttemberg, under the problem, "it would be impossible however, to entirely avoid attacking on open ground, and to gain the object by turning the flanks alone, particularly in the case of great battles; it was therefore necessary to discover another form of attack," records as a practical solution the method adopted at the taking of Le Burget, 30th October, 1870, and states, "the attack in open order joined to the attack of skirmishers, was from that time adopted as the only efficacious one, and it was strictly forbidden to lead bodies of troops in close order, within a nearer distance of the enemy's fire than 2,000 paces."

But this taking of Le Bourget though exhibiting a very good method (not novel to us) of getting over the ground under a

hot fire as it professes to be, an instance of the success of the loose and open order in a direct attack against good troops in position. It was the attack on an outpost. The object of attack was a village, with garden walls six feet high, loop-holed and prepared for defence, and the entrance barricaded. Very different, therefore, from a position whence an enemy could use his utmost fire power, and then freely resort to the offensive. Moreover so far from its being a direct attack the flanks were (very properly) turned, and it was broken into from the rear.

Causes of Success.—The success of the loose and very extended formations, adopted by the Germans in their attacks on positions at the end of 1870, and beginning of 1871, (*S. of A. P. I.* pp. 37, 38) was certainly owing to the demoralization of the French, and the raw levies which had filled up the gaps in their ill-provided army. Circumstances fully justified the system then adopted by the Germans, but they would scarcely have ventured to adhere to it if they had been called upon to fight the tough warriors of Gravelotte over again.

The success of the loose, though less extended attacks by the Germans on some occasions in the early part of the war was due greatly to their numerical superiority, enabling them frequently to turn one or both flanks, and much to the application by the French of the opposite extreme in endeavouring to repel them. "With daring courage, great activity, and unparalleled élan densely massed groups, starting from behind their cover, threw themselves upon the enemy, interfering by their forward rush with their own riflemen." (*S. of A. P. I.* p. 10.)

Reason of adopting the "Swarm."—As has been already observed, foreign writers, copied by some of our own, advocated deep columns to a very recent date. Jomini tried to make a compromise between the column and the line. Von Molke apparently admired the line, but hesitated to adopt it. The war caught the Germans in their columns, and they got some startling lessons. It was too late to practise the line, or to get their skirmishers better in hand; so, with admirable good sense, they adopted the "skirmisher swarm." Their national enthusiasm being at the highest, and having good discipline, admirable arrangements, first rate strategists, and superior forces, they succeeded. But had they been able to adopt the line, they might have achieved the same with half the numbers, and at considerably less cost of life.

Duties of Skirmishers.—Extended formations (not "swarms") are indispensable to open the attack, cover the approach of the real attack, and to sting the enemy into active resistance. Inferior troops indeed might decamp under the skirmishers' attack, but a well posted line of steady troops lying down (perhaps behind shelter trenches) until the right moment, properly supported, only a due proportion firing, or having perhaps a separate covering of skirmishers, would not be displaced by loose formations or "swarms," even if backed in addition by the desultory attack of small closed bodies. Against such there must be at hand to back the skirmishers, and to reach the critical point, a body possessing that highest combination of fire power, physical and moral force, and pliability of movement, which the line alone affords.

THE SWARM SYSTEM.—The question at issue now between the "swarm" and any other formation seems to be—

I. The relative ability to maintain, from moral or physical causes, an advance which