

An Essay to discover and determine the true Order
of Battle of the Roman Legions, founded on the nature
of their Arms, and confirmed by Authorities from the
Military Historians and other Writers of the Ancient
Greeks and Romans; and also illustrated by several
Plans & Figures.

J. Smith

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Introduction

An Essay to discover & determine the true order of Battle
of the Roman Legions, founded on the nature of their Arms,
and confirmed by Authorities from their Military His-
torians and other Writers.

Chapter I. My inspection & handling of a very entire
ancient Roman Sword, which was shown to me in
Autumn 1751, having thrown me into an attentive
consideration of what might be the best possible
Arrangement in one rank, or in two, three, or more
ranks, of any given number of fighting men,
Supposed to be armed with such Swords in their
right hands and wielding large Shields on their
left arms, I was soon brought to make the
following Conclusions.

That all foot Soldiers so armed & standing in one front rank prepared for action ought to have such vacant spaces or Intervals on their right and left, as to give every Man the best use of his Arms, for all postures, motions & exertions of attack & defence required in close Combat.

That they ought likewise to have behind them sufficient spaces for keeping them free in all such postures, motions, & exertions, from being straitned, pressed upon, or otherwise impeded by the men of the succeeding rank, supposing a line to have only the Depth of two ranks.

That all ranks (however many there might be in depth from front to rear) ought to have the men in them so placed with respect to those in the

the next ranks before and behind, as to admit with the greatest quickness, facility & safety all such successions by whole ranks, lesser parts, or even individuals, as might be required in the course of Action.

That for the rendering of such successions practicable in action with such advantages, there seemed to be but one possible arrangement, namely, the position of the ranks in such a manner with respect to each other, as that the men should not stand, one behind another, that is, in files or direct rows from front to rear, according to the General method of arranging Troops, but on the contrary, should be every where opposite to intervals, so as to form a checker order of men, and to have room for their pushing on, or falling back, as the course of fighting might require.

That an order of Battle composed of men so armed & so posted in two, three or more ranks, ought in general to be a full line, and to have no other intervals thro' it, than those abovementioned, unless it should be more intervals of distinction between parts or divisions, which might be wide enough to contain the respective officers and to admit their easily passing from front to rear, but neither to give space, at the shock, for the penetration of an Enemy, nor to cause any difficulty in preserving the Order of Battle.

That the number of ranks for forming a Line might be varied according to the extent of Ground, to be occupied, the strength & disposition of an enemy, and other relative circumstances, but in general that three ranks (as is the modern practice) might be

be sufficient for a front Line, or other fit Bodies
of reserve as occasion should require.

That if any light armed Infantry, as Archers, Slings-
ers, or Darters, were to be employed in the front of such
a heavy armed order of Battle to harass, annoy or
break the front of an advancing Enemy by plying
them briskly in a long open Line, with their va-
rious missiles, but always falling backwards so as
to avoid a close charge, they might easily & without
any confusion or loss of time be received back thro'
the intervals between the men in their own Line,
and pass on to the rear, or ~~act~~ between the last
ranks in readiness to pursue the Enemy if turned
to flight, or for any other service which might
be required.

And lastly, upon the whole, I conclude that the
Legi-

Legionary Infantry of the Romans, while carrying
 heavy defensive armour & fighting closely with such
 double edged cut & thrust Daggers, must have been
 constantly arranged for Battle according to the
 foregoing or Similar Principles, and in particular
 on a full front Line of two, three or more ranks
 with sufficient room for each Man, but without
 files and in the form of a General checker of men,
 and that any deviations from or alterations in
 such order of Battle, which might have been
 occasionally practis'd were only to be considered as
 exceptions ~~to~~ to some unusual circumstances
 or particular situations.

Chap. II.

Being strongly impressed with
 the foregoing conclusions, the truth of which I could
 not doubt of as having so naturally & as it were
 self evidently arisen from the undeniable principle,
 that the Roman Order must have admitted the
 free use of their Arms, I soon after betook myself
 with eager hopes of confirmation, to the perusal of
 such writings of Modern Authors as had either
 expressly treated of, or more slightly touched on the
 Military Art of the Romans, but to my no small
 surprise & disappointment, I found instead of coin-
 cident hardly any but the most opposite Ideas, as
 Justus Lipsius† and all succeeding writers whom I
 met with, although differing from each other in

Some

some particulars, did upon the whole, appear to concur in the following general positions.

That the original & established order of Battle of the Romans, from the period of their quitting the form of the Macedonian phalanx and adopting Manipular arrangement was of a fixed nature consisting of three separate classes or Lines of heavy armed Infantry placed at some distance behind each other and from the front to the rear respectively termed the Hastati, the Principes, & the Triarii, each of which consisted of divisions or distinct Bodies called Mani

† In his Treatise de Militia Romana first published at Antwerp in 1596. Justus Lipsius was born near Brussels in the year 1547, made Royal Historiographer to Philip II. King of Spain, & a professor in the University of Louvain in the year 1592, where he remained till his death in 1606. He was in high esteem for his Learning & the Author of several works chiefly relating to the manners, Customs, Laws, and other most remarkable Matters, of the Ancient Romans.

Manipuli of one hundred & Twenty Men or more in the first and second of the Classes, but only of sixty men in the third Class or Triarij,⁺ and that these

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Pl. I. F. 1. &
P. II. F. 1.

Manipuli being drawn up more or less closely in ranks & files on a depth of ten or twelve men from front to rear (for on this point of depth the Authors have differed) formed figures nearly square in the first and second Lines, but in the third only half Squares or rather rectangular figures nearly such, as having according to Lipsius only six men in the front & ten in Depth, or directly the reverse as asserted by other Authors who had preferred the supposition of equal fronts with half depths for the Manipules of Triarij.

P. I. F. 2.
P. II. F. 2.

That the Manipuli in these three

P. III.

lines stood separated from each other by considerable

void

void spaces or intervals on their right & Left, the particular extent of which had not been agreed on by these Authors, but had been by many of them supposed to equal exactly the fronts of the Maniples themselves, & that the three Lines were so posted behind each other from that of the Hastati in front, as that the Manipuli in each line stood always directly opposite to the intervals of the next line before it, and consequently that the three Lines thus arranged by Bodies & Spaces alternately did compose together a kind of General checker or Quincunx order resembling that said to have been used by the Romans in their art of planting.

That all the successions & relievings in action were performed by the advancements or

retirings of these squared Maniples through the intervals respectively before or behind them, and moreover that it was only through these large intervals between these Bodies, that the light armed Infantry advanced against or retreated from the front of an Enemy which they were employed to attack, harass & disorder, when approaching in Line of Battle.

Thus the most essential points of the Roman Order order of Battle appeared to have been layed down by those Writers so very repugnantly to the Ideas which had resulted to me upon a more foundation of Military Reasoning, that I should have been entirely discouraged not only from persisting in them against such authorities, but even from making any investigations on the subject, had it not been for the following

Observations which had unavoidably occurred to me during the course of my perusing those Authors.

Chap. III.

That almost all of these Authors whether Historians, Antiquarians, Translators, or Commentators appeared to have been either Men ^{of} literary professions unskilled in the practice of War, or Military officers, some of whom indeed were of considerable note & versed in War, but less acquainted with the learning and Languages of the Ancients.

That since the treatise of Justus Lipsius de Militia Romana which was the oldest in date, and the first work of this kind that came into my hands, there appears upon the whole to have been so General & implicit a conformity of
Senti-

sentiments amongst the succeeding writers, for his Quincunx order of Battle formed by bodies & intervals alternately, as gave the strongest reason to suspect that his opinion had been rather servilely adopted, than only admitted after due examination.

That neither Lipsius nor any of his followers (as was obvious from their writings) had even attempted to deduce from any consideration of the offensive & defensive arms of the Romans, their best arrangement for using them, or in other words their true order of Battle, but on the contrary seemed wholly to have founded a system for that order on a few particular passages in Roman Writings, which as I conceived might have been very liable to misinterpretation by persons of either

of

of the two classes above described, I could therefore not avoid presuming to think that there was still great room left for discovery, and that I might without incurring the imputation of a very considerable vanity proceed to examine into & to consider with my best Judgment a System thus introduced & thus supported by Justus Lipsius & his followers, when there occurred to me amongst many objections to it in point of military reasoning these following as of the greatest consequence.

Chap. IV.

That before coming to action or whenever obliged to move in order of Battle with strict regularity as in presence of an Enemy it would

would have been a matter of great difficulty, even on level & open surfaces, to have preserved that order.

That if the ground was unequal, broken, or embarrassed with obstacles, as must have been often more or less the case, the difficulty of preserving order before joining the Enemy must have been much increased, & to have maintained it so many & so great intervals during the course of long & obstinate engagements, as those of the Romans sometimes proved to be seemed to be quite impracticable.

That if the front Line of the Roman Infantry had not been a full line, but had consisted of Square like bodies & void spaces alternately according to the Lipsian System, it

must

most of necessity, on every general Shock with an
Enemy formed in a phalanx or full line (the
order of most nations) have been at once entered &
filled in all its intervals, & thus every separate
body of the Hastate have been at the same time
pressed in front & charged on both flanks, if not
even surrounded in its rear, a Situation evidently
of the most critical danger for the whole front line,
in which it would have been impossible for these
bodies even to have defended themselves but by
facing outwards whenever attacked, & keeping fast
on their ground without the power of Marching,
advancing or retiring in any direction whatever during
such attacks.

That no advantages could have been
gained, & much greater risk & difficulties must
have been occasioned by delaying to advance the
bodies

bodies of the second Line into the intervals of the first till after they were filled by a charging Enemy, than if they had been posted in them before the shock, besides that it would seem to have been very easy for an Enemy to have even stopped all such motions of the Maniples of the principes, by attacking them at the same time with the Hastati by means of bodies of equal fronts a little advanced, & pushing through the Roman intervals just before the charge; and when the usual superiority of their Enemies in point of numbers was considered it appeared that such an advanced force to attack the second class might have been easily spared by them, and even by an equal enemy having their main Body only in one full line of reasonable Depth.

That further if the bodies of the second class had been only to perform the motion of marching up into the intervals of the first it was evident that they

could

could not thereby have succeeded or given immediate relief to any part of the fronts of the engaged bodies or Maniples of Hastati, however much they might have suffered & stood in need of it, consequently it appeared manifest that ^{by} the Lipsian System the second Line could neither relieve, replace nor reinforce the first on its engaged parts, but only take up the Enemy in the intermediate spaces, whether they had entered the Roman intervals, or remained opposite to them in their own Line.

That if the three classes of Legionary foot had each been formed on so great a Depth as that supposed by the Lipsian System, the Roman Army which was generally inferior in number to that of their adversaries, would have been over-shortened & thereby much exposed to be surrounded & charged on either or both of the flanks, especially

in the

in the open situations where they frequently fought, and even against an Enemy of no greater force, but formed on a more moderate depth, they would have been liable to the same mischief, which has ever been held to be one of the most dangerous that can happen in action.

That further if the depth of the Maniples had either consisted of so many Ranks placed straight behind each other as was asserted by Lipsius, or only of ten Ranks in those of the first & second class, with five in the Maniples of the third or Triarij, as had been supposed by others, yet no more of so great a depth than the first and second ranks of the Hastati could have well been within a proper distance to throw their Javelins together at the Enemy before closing with them,

after

after which neither these nor any other Missiles could have been thrown at all.

That even those ^{foremost} ranks of the Maniples of the Hastati which were near enough to have darted their Missiles together into the Enemy's Front before closing with it, could only have given that annoyance, at least, with best effect to parts respectively opposite while those Maniples would not only have been exposed to an equal number of darts directly thrown from those parts of the Enemy, but to as many more coming obliquely from all the intermediate parts of their front which were unattacked.

That after the two lines had closed sword in hand, it seemed evident that independently of the great exposure of the Maniples of the Hastati

to an immediate assault on both flanks and even
 in the rear as has been before observed, they must
 have had, on the lowest computation of their depth
 no less than nine tenths of their ranks entirely un-
 employed when their front only was engaged, and
 these ranks could never with such an arrangement
 have given any assistance to that front but merely
 by succession, hence it was manifest that either
 many Roman Ranks, even of their first line
 must have been destroyed or at least forced to re-
 tire or that many others could not have been of
 any use at all, and with respect to the Maniples
 of the second Line or principes who were supposed by
 Lipsius to have their fronts placed fifty feet farther
 back than the rear ranks of the Hastati, it was
 evident that they could neither have used darts

nor Swords but must have stood quite non-effective in that situation.

That moreover when the additional depth was considered of the rear-reserves which were frequently used by the Romans in one or two lines or other bodies, & each supposed to consist of all the three classes or as many ranks as in those of the front, the great depth & non-efficiency of men in the whole Army seemed too extravagant for any conception — And it was self evident that even a much less defect of cooperation of Troops in the critical circumstances of action would not only have shewn the most defective Order in Theory, but in practice have given decisive advantages to any Enemy making better use of their force.

That if even the above objections from distance against its having been possible for any more than two or at most three or four of the foremost ranks of Hastati to have darted their javelins into the Enemy before the charge had not been sufficiently conclusive, yet it remained evident that if the ranks of the Maniples had been drawn up directly behind one another, that is with the men in direct rows or files from front to rear, as had been supposed by Lipsius & his followers, then even the second rank of the Hastati could not have darted their javelins directly forward with force & good aim at the Enemy before the shock, nor indeed could have thrown their Missiles at all, but by giving to them, an elevation over the Heads of the front men, so as to fall with little or no effect.

That

That with regard to the successions of ranks or
 any parts of them after close action was begun, the
 evident difficulty & danger in executing them either
 by advances or retreats, seemed to render it incon-
 ceivable that such a practice could have ever
 obtained; for every man of a second rank being
 supposed to stand directly behind and only at the
 distance of a few feet from his file leader, must
 have either quitted his ground to allow the retreat
 of that front man if he was forced to fall back or
 must have both blocked up his passage and
 been himself disordered by his profusion & if toward
 this evil the second men had moved to the right
 or left then they could only have regained their
 former position by a counter motion, which seemed
 to have been impracticable while an Enemy was
 pressing closely after the retreating front-men,

and if the second men could not return to their first places, then was the file-order which was supposed by the system in so far broken along its front.

That further the same danger & difficulty seemed to be equally against the practicability of any motion forward by second men to take up the places of any directly before them, when these spent by wounds or fatigue & unable to maintain the fight, were forced to withdraw from it, as there was reason to think must have more or less happened in all the close & obstinate Battles of the Romans.

That thus the supposed disposition in file order of great depth seemed not only to be such as must have precluded the fit use of darts to a very great degree, but have also rendered the
 need-

necessary successions in the course of Action very dangerous & difficult if not wholly impracticable.

That if according to the spirit of the Lippian system the light armed infantry had been also formed before action in separate bodies of depth, and in order to attack with their Mispiles the front of an approaching Enemy had issued wholly through the large intervals between the Maniples of their heavy armed, they must have either proceeded to the attack in the same order of separate bodies or been changed into another order for that purpose.

That if the light armed infantry of the different kinds in each Legion taken together was only as numerous as the Hastati or principes,

(and

and the intervals thro' which the separate bodies of light armed advanced, were of an equal width with the fronts of Maniples, then the depth of these separate bodies could not be less than of ten or twelve ranks from front to rear.

That if the light armed infantry had proceeded in such separate & deep bodies to attack or annoy the Enemy's front with their Mispiles, whether darts, arrows or stones, they would have been not only precluded the proper use of their Weapons in the greater part of their Ranks towards the rear, but even from the very few Ranks nearest to the front could only have given partial annoyances to the enemy in opposite places of their
Line

Line without effectually harraſſing the whole which was the object of their ſervice.

That if to obviate theſe two eſſential defects and in order to carry on a general attack of the enemy's front with the beſt uſe of the Miſſiles, it ſhould be ſuppoſed that the light armed had always extended themſelves into a long & thin line before the attack, and after it was over had returned into the order of bodies to retreat through the intervals, then it was evident that not only ſome difficulty & loſs of time might have been occaſioned by theſe changes of form but that there would have been very great danger attending thoſe which proceeded the retreat, if they were either too tardily or unſkilfully executed ſo near the Enemy than advancing to the Charge.

That upon the whole it ſeemed quite improbable

that

that even the Romans could have practised with their light infantry such modes of advancing, attacking, or retreating, as would have been not only complicated & tedious but difficult & dangerous, more especially if by any other method more simple & safe, their moving attack with Missiles could have been better executed.

That further the chequer order of the three classes of the heavy armed in separate bodies of such depth & with such intervals between them as supposed by the Lipsian system seemed to be wholly unfit for admitting with quickness, regularity & safety, the execution of any great movements, evolutions or changes of form however necessary these might be either before or in the time of action

because whatever of them might have required to be performed from a full line of some extent & with any alteration in the depth, would have been entirely impracticable without some previous motions of the Maniples, & perhaps too, some changes in their forms in order to reduce them into the full line required.

That by those motions & changes of form not only time must have been lost, but also some embarrassment and danger occasioned, at least in all cases of a prevailing pressure by a superior Enemy, when the Romans were wont to throw themselves quickly into an orb or circle, or sometimes into several as their last resource of defence.

That such circular or oval figures might have

have been easily & quickly formed from one or more full lines of moderate depth, but according to the Lipsian order of deep & divided bodies, would have been difficult & dangerous if not impracticable.

That moreover the supposed order of the Roman Legions seemed to be absolutely unfit either for their marching quickly & in the greatest number together out of their Camp or for forming afterwards before it a Line or Lines of Battle with facility & dispatch, however essential those objects were in all cases either of attacking or repulsing an Enemy who had approached & with whom it was necessary to engage near the camp.

That the same objections of the want of facility

facility & dispatch lay as strongly against the Lipsian system with respect to the reduction of the line or lines of Battle into a fit order of march for returning into the Camp when that measure had become necessary.

That if the width of all the Camp gates, and in particular of that called the praetorian Gate which usually fronted the Enemy was of fifty Roman feet, i.e. of the same extent as that of the Camp streets between the classes of the Legionary foot, it appeared evident that even one Legion in the Lipsian form, altho' marching by its right or left flank, could not possibly have found half the space necessary for their passing together through a Camp Gate without the Maniples of the three classes being both brought to lateral closeness, &

also

also the usual intervals between the files entirely contracted.

That even with those alterations made, there could only have been space barely sufficient for one Legion on the depth of Twenty-five men in its three heavy armed classes, which was the least depth supposed on the system, to have passed by its flank then become the front, through a gate of fifty feet width, as in that case each man could have had no more than a breadth of two feet Roman to march in with all his arms; but for a Legion on a depth of thirty four in its heavy armed as imagined by Lipsius himself to have marched by its flank through such a gate was clearly impossible without some doublings of the maniples being made

made behind each other.

That such complicated motions and changes of form in the Legions for issuing from & returning into intrenched Camps, would not only have been attended with some difficulty & delay in common cases, but in the presence of an enterprising enemy might have proved to be very hazardous as well as any formations of or reductions from the Order of Battle made with such disadvantages.

That lastly such a checker-order of deep bodies & intervals as that supposed by Lipsius and his followers would have been not only quite unfit for admitting with facility, quickness and

safety

safety any great movements or manœuvres which might have been necessary before or in the course of action or on any sudden emergency, but could hardly have been maintained with tolerable exactness, in ordinary marches from one Camp or post to another, even on the most open & level ground, & with respect to performing marches with such an Order in woody, mountainous or broken Countries or such as abounded with narrow roads and passes which might have frequently been the theatre of war, it appeared to be clearly impossible.

Chap. V.

The united force of these foregoing objections & others of a similar nature, which had thus occurred

to me on the several points of the Lipsian Order
against their expediency or practicability having
appeared to be so very conclusive that nothing
but the clearest testimonies from the Roman
authors themselves authorizing the Lipsian Tenets
could invalidate or defeat it, I determined to make
as close a search as my other occupations would
permit into the Writings Polybius, Caesar, Livy,
Vegetius & other authors of the Romans who had either
treated of their military art or warlike transactions,
(and in the course of this enquiry, it happened to me
that I not only could not discover any Autho-
rities even apparently in any degree seeming to
favour the System excepting the few passages
quoted by Lipsius & some of his followers, but
it

it even appeared to me that those very passages on farther consideration with the concurrence of many others did by a just & natural interpretation furnish both the strongest proofs against the reality of the Lipsian order, & for that of another form better adapted to the nature of the Roman arms.

But to be more particular with respect to the Arguments arising from Authorities I considered them under the distinct heads of Negative & positive. And with regard to the former sort of Arguments, namely those drawn from the want of positive Authorities in cases where such could not have been wanting had the Subject for them ever existed, these following

seemed

seemed to be of particular weight against the several essential parts of the Lipsian System.

Chap. VI.

That in general there was neither any mention what ever to be found in any of the descriptions of the Roman dispositions for Battle, Combats, & Skirmishes, nor in the many details given of these operations themselves, of any of those peculiarities and their consequences which according to the System were inseparable from the Roman order & distinguished ^{it} from all others, And in particular that there were not any intimations whatever to be met with.

Of any such alternate order of square bodies and intervals or checker combination as supposed by the System

Or

or of any difficulty to preserve such an order in action during movements or in any other operations.

Or of any intervals in the Roman front line having been ever entered & filled by any Enemy charging it in a full line, or of any of the Maniples of Hastati being thereby attacked on the flanks or taken in the rear.

Or of the Maniples of Principes having ever moved up into the intervals between Maniples of Hastati, either to prevent the penetration of an Enemy or to drive them out after it.

Or that these motions of the principes had ever been stopped by any advanced bodies of the Enemy.

Or that the position of the Principes was ever such

Such as prevented their being able to sustain,
relieve or succor to, any engaged parts of the front
Line

Or that the established depth of the Roman
order of Battle was usually so great as to over-
shorten its front, & thereby occasion its being out-
flanked or surrounded by an Enemy.

Or of the fixed number of Ranks from
front to rear in any of the Maniples being so
many as ten or twelve, or indeed of more than
one Rank, except in extraordinary cases and
for particular reasons.

Or of their having been of such a Depth that
any ranks of the Hastati could not by reason
of distance dart their javelins into the Enemy at
the Shock.

Or that their Maniples were exposed to receive double or even any greater number of Darts from, than the Throat, the Enemy.

Or that the principes were too remote to throw theirs against the Enemy at the same time with the Hastati.

Or that nine-tenths at least of the Hastati or even that any ranks of their Maniples remained unemployed after their front was engaged.

Or that any Ranks behind could not come into action by succession.

Or of there having ever been in the Roman order of Battle any files of ten or twelve men depth, or of any other depth whatever, or even

even any term in the Latin Language signifying
a File or direct row of men from front to rear.

Or that any men in a second rank
of Hastati or in the principes could not dart
their javelins with sufficient force and direct
aim, at the front of an Enemy on account
of file-leaders or front-men standing before
& obstructing them.

Or of the second rank, Principes
men, in the course of action having ever
blocked up the retreat of those of the front
rank, or been disordered by their pressure, or that
any lateral motions were practised to avoid these
two mishaps.

Or

Or of the light armed infantry having been
ever formed into separate bodies of depth, & that
they issued or retired in such forms through intervals
left between the Maniples of the heavy armed.

Or that by reason of the depth of their bodies
when attacking or annoying the enemy's front their
rearmost ranks could not use their darts or other
missiles.

Or that their attack or annoyance was not
general and equal, but on the contrary consisted
of as many separate attacks as there were divided
Bodies of them.

Or that in order to have the use of all
their missiles and to make their attack general
& equal they had ever opened into a thin & extended
Line, after having issued to the front in divided bodies.

Or

Or that when forced to give way by an Advancing enemy and to retrace through the intervals of the heavy Armed, they had ever reduced such a line & returned into the order of divided bodies.

Or that a full line or Lines of the Hastati, Principes, & Triarij, jointly or separately had ever been formed from divided & deep Maniples, for the purpose of making any great movements on a large front or for executing any particular dispositions for action.

Or that such a line or lines had ever been reduced to such an Order of deep & divided Maniples.

Or that these Maniples of the heavy armed, had ever been so changed either in their own figures, or in their positions with respect to each other, as that two or more Legions might march
toget-

together Column-wise by their Flanks out of a Camp-
-gate, in order to form a line of Battle with the
greatest quickness & regularity.

Or that they had ever returned from such a
line or lines of Battle into a Column or columns
of March, in order to reenter their Camp.

Or that the Maniples had ever been of
such forms as to render any marches through rug-
-ged, Mountainous, Woody or narrow and difficult
places impracticable without their being changed
in their positions & reduced to narrow fronts.

Or that ever such changes or reductions were
made by the Romans, altho' frequently marching
through countries of such a Nature.

Chap. VII.

But to conclude, on the foregoing species of authorities against the Lipsian order of Battle seemed to me upon the whole to afford a very strong confirmation of the arguments which had arisen from reason against its having ever existed — For that so many & so important singularities both in the form and consequences, should have actually distinguished the Roman Order for so many ages, from those of all other nations against whom they fought yet should have remained not only undescribed, but even totally unnoticed, notwithstanding the multitude of relations (more or less full) of Roman arrangements for action & of Battles, Combats, skirmishes, surprises, & other operations

of War

of War left to us by so great a variety of Ancient authors, appeared to be utterly incredible; nevertheless I judged it to be still incumbent on me to re-examine with the strictest attention those quotations from the Ancients, which had been used as the foundations of the Lipsian System, & that I should impartially consider & to the best of my judgment in how far they could be admitted as positive authorities for or against it, as also in how far they were in concurrence or not with ~~with~~ other passages respecting the dispositions of Roman Troops and their operations in Battle.

First then beginning with what had served as the main Basis of the Lipsian structure, namely the order of Battle of the great Scipio Africanus

against

against Annibal in the plains ^{of} Zama where the
 Romans gained their glorious & decisive victory against
 Carthage, I studiously applied myself to compre-
 hend with accuracy, the true meaning of the differ-
 ent relations given by Polybius, Livy, Appian,
 & Frontinus of that famous disposition, in as far
 as it respected the several points under my conside-
 ration, and for the better performance of this, I be-
 gan with making as strict & literal English Trans-
 lations, as I possibly could, of all the relative parts
 of the accounts given by these Authors which were
 as follow, my additional explanations being care-
 fully distinguished from the Greek & Latin Originals,
 by under lines.

Account by Polybius (Book XV.)

“But Publius Scipio placed the Ranks of his forces
 in this manner, first he posted the Hastati and
 their

u their maniples i.e. with void spaces between
u their flanks, and behind them, these Maniples of
u Hastati, the principes, placing the Maniples of them,
u not according or opposite to the aforesaid standing divi-
u sion i.e. Not directly behind the intervals of the

P. VI.

u first Maniples, as is the custom of the Romans,
u but behind or opposite to each other in off standing
u i.e. the principes directly covering the Hastati in
u rear at some distance, on account of the multitude
u of Elephants with i.e. on the Side of the Enemy.

P. VII.

u And lastly he posted behind the principes the
u Triarij. The intervals of the first Maniples he
u filled (Bodies*) Maniples of the light armed Infantry,

P.

ordering

* i.e. that some maniples, or similar bodies, of light armed or as many of them as amounted to the number of some Maniples, were distributed into the whole of the extraordinary intervals then made so as to fill them up, but not importing that even one maniple & much less, that several Maniples were posted in each of these intervals, which most probably had no greater width than was quite sufficient for the free transmission of an Elephant.

Notes

"ordering them to advance & begin the action, but if
 "hardly pressed by the Elephants of the Enemy
 "then to make their retreat & that those of them
 "who could escape most quickly should pass
 "through the straight intervals to the rear of the
 "whole Army, but that the rest who might be
 "in danger of being overtaken should slip aside
 "into the spaces behind the maniples i.e. behind
 "the ranks of the Hastati & principes x x x x x
 "then Hannibal commanded the Elephant-Riders to
 "make an attack upon the Enemy at which time
 "the Trumpets & Cornets sounding together on all
 "sides from both Armies, some of the Elephants
 "took fright & rushed back on the Numidian Auxiliaries
 "of the Punic Army, but the rest coming to action
 "with the Roman light armed Infantry in the spaces
 "between the two Armies, suffered & did considerable
 "execution, until being quite terrified, a part of them
 "rushed thro' the intervals of the Roman Army which
 admit.

"admitted them with safety according to the foresight of the
 "General, Scipio. — And here to make some obvious
 inferences from the above relation of Polybius. It
 appeared, in general, that the order of the Roman In-
 fantry on that occasion, was actually a particular
 disposition made by Scipio for unusual reasons, and
 in several respects entirely different from the
 usual Roman order of Battle. And further —

In particular, That the void spaces or intervals
 made between the Maniples of the Hastati, were
 so far from being usual in the Roman Order of
 Battle, that they were expressly mentioned to have
 been then made by Scipio for the particular pur-
 pose of furnishing a free passage to the Enemy's
 Elephants in case of their rushing on against
 his Lines. That

That therefore the Intervals of the Hastati behind which the principes used to be posted according to the Custom or Usage of the Romans, could not probably, as conceived by Lipsius and his followers, have been of the same kind as the unusual intervals, just made by Lipsius between the Maniples of the Hastati, for the new particular purpose of allowing free passages to the Enemy's Elephants, but on the contrary must certainly have been such intervals as were at least usual in the Roman Order of Battle, if not inseparable from it.

That of this usual nature must have been the Intervals between man & man in a rank of Hastati, as indeed in all ranks, and at least of sufficient width to give to every man

the

the indispensable use of his arms, and consequently could not well be of a less space than that occupied by the breadth of an armed man; and therefore it did appear to me that these must have been the usual intervals of the Hastati, behind which the men of the principes were posted, according to the common rule of practice, and which were large enough for their reception if advanced, as those of the principes were likewise for suffering the retreat of the Hastati through them in case of such necessity.

That the allegation made by Scipio for that occasion, by placing the principes in such a position behind the Hastati, which might be literally termed direct back standing simply amounted

to this, that the men of the principes did then stand directly behind those of the Hastati, instead of being opposite to the intervals between them in the usual way.

That on this occasion the men of the Triarii or third class of heavy armed were in like manner posted directly behind the men of the principes,

13. but being only one half in number could only cover the rear of every second man of the principes, and consequently the whole Line did by Scipio's disposition consist for the time, of direct rows or files of men from front to rear alternately two & three in depth.

That the light armed infantry by Scipio's particular disposition of them, were not kept in the rear

rear until commanded to advance through the intervals to the front of the Army, and to attack the Enemy as was the general practice of the Romans. But on the contrary were at least a part of them placed in the intervals newly made between the maniples so as to fill them up, & to preserve the usual appearance of a full line towards the Enemy, who were then at some distance.

That further the light infantry had a particular order from Scipio that they should afterwards advance at a proper time & begin the action, as also if they should find themselves at last too hard pressed by the Elephants, that the swiftest of them should make off direct through the intervals to the rear of the whole Army and the best, if in danger of being overtaken, escape aside to the right or left into spaces behind

behind the Maniples. That it appeared from
 an after part of the detail given by Polybius, that
 Hannibal had commanded his line of Elephants to
 be carried on against the Romans, at least as early
 as Scipio's light armed had advanced from their
 front line.

That it also appeared as very probable that
 the line of Elephants which were about eighty in
 number, & placed at such distances as never as to
 equal in length the Roman front, could not well
 after having undergone a conflict with the Roman
 light armed be supposed to remain more numerous
 but rather fewer than the large intervals provided
 by Scipio for their transmission.

That the light armed before quitting the line of
 their heavy armed had not only filled the new

Intervals

Intervals between their Maniples in order to conceal
 from the Enemy Scipio's Stratagem, but it seems
 probable that the remainder of them had stood di-
 vided along the right & left in the spaces between
 men of the principes or Hastati, & had also issued
 from these smaller intervals when the others march-
 ed from the greater so as to make one with them
 in their encounter with the Enemy's Elephants.

That altho' the manner in which the Roman
 light infantry fought with that part of the Enemy's
 Elephants which had pushed on, has not been
 described, yet as it was said that the latter both
 did & suffered Execution, it seemed to be most
 probable that the combat must have been (at
 least in some parts of it) very close, & that the light
 infantry when at last forced to give way had accord-
 ing to

to Scipio's orders made a speedy retreat to the rear not only by the large new made intervals between the Maniples but also by the lesser straight ones which by reason of the direct position of the maniples behind each other stood open for their passage

That if even any of the Elephants had not made for the great intervals they could have been easily let run through the lesser ones, without any injury to the Roman Soldiers, who standing then in files could at once by inclining to the right & left give sufficient opening for an Elephant to pass freely to the rear, it seems however most probable that all of the Elephants who were near to any of the large intervals between the Maniples, would rather push thro' them than

make at any parts of the armed Line.

And lastly that these Ideas seems not only to be confirmed by the real circumstances of the Battle respecting the attack by the Elephants, and their having passed through the Roman Line without injuring it, but concurred strongly to prove the judiciousness of Scipio's disposition for that purpose, which has been so justly admired & was directly the opposite of that made by Regulus* the last Roman General before

* The consul Marcus Atilius Regulus, who in the 497. year of Rome during the first Punic War having defeated the Carthaginians (near Adis) in Africa by suddenly attacking them in a hilly situation where their Elephants & Cavalry could not act, was himself soon after totally overthrown in a plain near Tunis, by the Superior Skill Xantippus a Spartan Officer, who had come with a body of hired Troops from Greece to Carthage and obtained Authority to discipline the Punic Army, which he afterwards commanded (by the consent of their Generals) at the Battle - Regulus besides having exposed his small Army with few Cavalry and without any Elephants in a plain Country against a Superior Enemy possessing both these advantages, committed a still more fatal error in the actual disposition he made for Battle

before him, who had fought against the Carthaginians in Africa & had been totally defeated.

And it was certainly a farther exultancy of Scipio's arrangement that not only it did not appear to the Enemy early enough to be counteracted or defeated but might be reduced to the usual Order of Battle with the utmost facility and quickness, as no doubt happened as soon as the attack of the Elephants was ended.

Chap. VIII.

Battle, having formed his line with so much depth and closeness, in order to resist the Elephants, that he had exceedingly contracted the length of his front, and thereby became not only outflanked but even surrounded and attacked in the rear by the punic Cavalry whilst their Elephants being engaged & enclosed in the deep & close mass of the Roman Infantry, failed not to commit great havoc amongst them, before they had shocked with that of the Enemy— Circumstances which chiefly contributed to that most ignominious & bloody defeat which left the army of the Consul together with the loss of his own liberty— Might not this disaster have been a Lesson even to the great Scipio?

Notes

I next proceed according to my plan, to compare the relations of Scipio's disposition given by Livy, Frontinus & Appian, with that of Polybius, & to observe how far they concurred with, or differed from it on the essential points of the Roman System, namely the nature of the Intervals, form of the Maniples, and position of them with respect to each other, and following the same method, I made as exact translations as possible, & with the same distinction of understanding whatever I had ventured to add as explanatory.

The relation by Livy (Book xxx. § 33.)

Scipio after that, i.e. after having made an animating speech to his Troops drew up first the Hastati, after them the Principes, & closed the rear of the line of Battle with the Triarii; but he did not form the cohorts by their flanks, each before their proper ensigns, but the maniples of the cohorts somewhat distant from

a from one another at their flanks that there might be
 a space i.e. intervals by which the Enemy's Elephants
 a being admitted might not disorder the Roman
 a Ranks x x x x x Scipio filled the open ways i.e.
 a the intervals then made between the Maniples
 a of the Antesignani, i.e. the Hastati & Principes with
 a Velites (for these were then the light armed infantry)
 a having given an order that upon the onset of the
 a Elephants they should either escape back to the rear
 a of the straight ranks, or by running off to the
 a right & left apply themselves to the Antesignani, i.e.
 a place themselves backwards against the Hastati &
 a Principes, and furnish a way for the wild beast to
 a rush through between Maniples thrown at them from
 a both sides.

Extract from the Relation by Frontinus (Book I.)

Scipio against this form i.e. the disposition made by
 Hannibal

a Hannibal opposed the strength of the Legions, i.e. the hea-
 a vy armed infantry of the Legions in a triple or three-
 a fold line arranged by Hastati, Principes & Triarii, nor
 a did he draw up the Cohorts continued i.e. contiguous
 a to each other, but gave a space to the maniples
 a distant i.e. divided from each other, by which the
 a Elephants driven on by the Enemy might be
 a easily transmitted i.e. let pass through without
 a disordering the Ranks of the Legions, these inter-
 a vals between the maniples he filled with expedited
 a Velites, lest the line of Battle should shine through,
 a i.e. should be seen through, having given to them
 a the Velites an order that upon the onset of the
 a Elephants of Hannibal's Army, they should either
 a retire back to the rear, or be take themselves to the
 a sides that is to the right & left behind the maniples.
 a x x x x x which judicious Arrangement made by
 a Scipio was without doubt the Cause of his victory.
 Extract

Extract from the relation by Appian (Lybie Hist)

16. "And he Scipio also formed in three ranks in like manner
 was Hannibal, but more all the Maniples straight
i.e. direct behind each other"

Having proceeded next to compare these
 relations with that of Polybius, it appears to me,
 that although the three last authors had been less
 full & circumstantial, yet they had in as far as they
 had touched on the essential points of Scipio's
 disposition perfectly agreed with Polybius, for
 from Livy & Frontinus it was equally to be
 concluded.

That the disposition of Scipio's Infantry
 before the Battle of Zama began was so far from
 being the common or established order of the Romans
 that it was most clearly an exception or deviation
 from it, & merely a particular arrangement made
 for the special object of eluding the onset and
 fury

fury of Annibal's Elephants, by the means of
 direct intervals made between the flanks of the
 Maniples for their transmission.

That in order to prevent the appearance of
 these new intervals made in the Line, Scipio had
 kept them filled with his light armed infantry
 until the time of their advancing against the
 Elephants.

From Appian as well as Polybius that
 the Roman Maniples were at first placed di-
 rectly behind each other, that is men behind
 men & not opposite to intervals, which Polybius
 affirmed to have been the usage of the Romans, mean-
 ing (of necessity) those intervals between man & man
 in each rank which as has been observed were
 not only usual but indispensable for the
 free exercise of their Arms.

That

That further, the first position of the light infantry, their subsequent service against the Elephants, and the method of escaping from their furious onset, as well as of dispatching them afterwards, were so many particulars different from common practice, but judiciously directed by Scipio on that extraordinary occasion.

And lastly that there did not seem to have been the least foundation given by any of the preceding relations, for supposing the Maniples to have been of so great a depth as of ten or twelve ranks from front to rear, but on the contrary it had rather appeared that each was arranged in a single rank, and consequently that the whole depth of the line had consisted only of three ranks, for the plan of Scipio having been not to resist but to elude the attack of the Elephants, it would have been contrary to his
own

own tactical principle on this occasion, to have augmented the common depth of his Line at the expense of its length, but so far had he been from over-shortening his front, that it ever seemed doubtful whether he had spared from it the usual bodies of reserve & support, as no mention of such had been made by any of the Authors describing the disposition of his army, or the circumstances of the Battle.

But to conclude on this head of comparing the relations given by these different Authors, it did upon the whole appear to me that their concurrence in the several points above mentioned, had not less served to win & establish the reality of that order of Battle, the idea of which had so naturally resulted from the consideration of the
Roman

Roman arms, than it disproved the existence of that
contrary order held forth in the Lipsisian System.

Chap. IX.

But notwithstanding the above result I still
thought it proper to go on to an examination of such
other authorities as had been used for the invention
& support of the System, before hazarding to give
it a final rejection, & in this pursuit there occur-
red to me as authorities adduced by Lipsisius in
support of his supposed checker of square like bodies,
st a quotation of part of the following passage
in the second book Virgil's Georgics of which the
strict sense seemed to run thus.

The poet after saying that vines
may, in rich & level ground, be planted closely, &
yet be not the less fruitful, but that on acclivities or
Hills

Hills they ought to have more room allowed to
 their rows, add that nevertheless the trees being
 exactly placed, the longitudinal & cross ways between
them must quadrate without each other, the manner
 of which he goes on to explain by the following
 Simile " as oft in mighty war when the long
 Legion its Cohorts extended, & in the open field the
 Host ready stood, when the hostile lines of the
 Romans and their Enemy being drawn out for
 a Battle, all the ground waves far over, with re-
 fulgent Beefs of their shining arms, ere that the
 dreadful conflicts have begun, while Mars the
 God of war yet wanders doubtful amidst the arms,
 that thus must, all parts of the plantation be mea-
ured or divided out, with equal numbers of ways,
 not vainly to feed or gratify the mind with a
 prospect of pleasing order, but because the Earth
 could

"could not otherwise to all the vines give equal
 "force, nor could the Branches into empty spaces
 "themselves extend."

Now in observing on the above Text
 from which my explanatory additions were,
 as from that of former quotations distinguished
 by under lines; it did appear to me as most
 obvious,

That the two descriptive parts viz. of a
 long Legion with its extended Cohorts, & of the
 Hostile lines when drawn out against each other
 however fitly they might be applied to these
 long & full lines of a reasonable depth which com-
 posed both the Armies of the Romans & of most
 other Nations in order of Battle, yet were utterly
 inapplicable to that short deep & disjointed order of
 bodies imagined by Lipsius.

That altho' the checker method of planting the vines
 advised

advised by the author as being the only one by w^{ch}
 the greatest number of them within a given space
 could equally have both the advantages of most
 nourishment for their roots, & the freest expan-
 sion of their Branches might very accurately
 resemble a checker order of single men espe-
 cially in the days of Virgil, when the third class
 of the Legion was become of equal number with
 each of the other two, yet the comparison of the
 vine-plants with square bodies of one hundred
 and twenty men, or with half square of sixty
 men, of which two forms consisted the Lipsian
 Quincunx, appeared to be much too bungling, not
 to say too absurd, to have ever been imagined by
 the celebrated Poet. #

The next

Besides how could the Term of long Cohort apply to
 three disjointed Bodies, of square like forms, standing
 irregularly from front to rear.

The next quotation made by Lipsius, was from the second book of Polybius, where that author censuring the Consul Flaminius for having made an impudent disposition of forces against the Insu-brian Gauls, says, that Flaminius having drawn up his army with its rear along the very bank of the river, he destroyed or lost or lost the peculi-
 - or property or advantage of the Roman fighting, by not having left space for the gradual recession, or slow falling back of the Maniples; & therefore that if it had happened to the Romans to be pressed back, even a very little way from their ground in the time of the action they must have thrown themselves into the River. * Thurn

49* It might frequently happen, and therefore prove victorious
 preserve their order of Position, remain unbroken and
 prove Victorious as in the Battle of Pydna & Cynoske-
 tes.

From all of which it only appeared that however careful the Romans might be to preserve their order of Battle from being broken, pierced through, or driven into decoits yet in the course of close engagements, their lines or parts of them were liable to occasionally pressed upon, & forced backwards, so that some small space at least in their rear was required; from the above quotations, however, Lipsius seems to have been desirous to draw some authority for his supposed order but so evidently without foundation that it seemed quite superfluous to make any observation thereon.

The last quotations made by Lipsius with a view to support his checker of Boetius were the two following, the 1st from Livy who in his

9th Book giving a preference to the Roman order of battle over that of the Macedonians. Says, the Roman being more distinct, consisting of many parts & affording a facility for either junction or division. And 2^d Polybius in his fifth Book says, the Roman order being divisible, the men may fight either in concert with the whole, or with parts & in all fronts from one arrangement, as two Maniples, nearest to the danger could always turn themselves to the proper front.

But how Lipsius should have conceived that these properties could be applied to prove, or even to favour his system of close & square bodies which were of so unfavourable a nature for them I was quite unable to comprehend whereas the distinctness, divisibility, variety

variety of parts & susceptibility of junctions and separations in the Roman order, as well as its peculiarity in so important points, as that all the individuals could fight either in concert with the whole, or with parts, and on all sides, or to all fronts merely from one first arrangement with an easy & steady attention which particulars had been pointed out as its special advantages, over the close & deep order of the Macedonian Phalanx seemed to correspond perfectly with the Idea of a Roman order of Battle suited to the nature of its Arms & which had not only the great distributions of a main body & wings in its infantry with different bodies or lines of reserve, & the subdivisions of each Legion into ten Cohorts, thirty Maniples & sixty half Maniples or Centuries but also all its individuals placed in such
Open

open & distinct order as to give them the freest use of their Arms, & the power of moving or fighting jointly or separately, on all sides, as necessity might require.

And lastly I found to my no small astonishment, that the sole foundation which Lipsius had used for supposing the maniples to have been of square like forms, & consisting in files of twelve men in depth to ten in the ranks of the first & second Classes, & in ten to six in the Trierij, was merely the junction of the two Latin terms Quadrata Legio, which he had quoted from a fragment of the poet Ennius, interpreting them to mean a Squared Legion, & thence concluding that the maniples of which it was composed, must also have been of squared or quadrilateral forms, altho' clearly unnecessary, may

unfit

unfit for composing such a disposition of the Legion,
had it ever existed; he had therefore assigned to
each of the Twenty Maniples of one hundred &
twenty men, fronts of ten with twelve in depth,
but to the ten maniples of sixty men each, only
fronts of six to ten— Form which by the bye,
but very imperfectly suited to his favourite
object of Squaring; & further it seemed to me evi-
dent that the terms Acies Quadrata or Legio
Quadrata were so far from importing a squared
order of Battle, or a Squared Legion, equilateral
figures which would have been as preposterous
as unfit for common service, that they meant
in reality nothing else, than a line or Legion
formed in fit & ready order for action, namely,
with a straight front made parallel to the Enemy,
& generally upon a Depth of four Rankes viz. three of
heavy

heavy & one of light armed infantry. the whole composing a very long & rectangular body or line, which might in these views be properly enough said, to be quadrated.

And this having gone through the consideration of every argument of authority alledged by Lipsius in support of his System, without being able to discover in them any substance even favorable to it by true & natural interpretations, but on the contrary affording many lights directly against it. I could not but conclude with the fullest conviction against every one of the main Suppositions in that System and finally found myself obliged to rest in a total rejection of them.

Namely the great depth asperned by it for the order of the three heavy armed classes — The position of the soldiers in files — The formations of the Maniples into squares or deep rectangles — Their Sepa-

rations

Separations from each other by large intervals — Their combination into a kind of general checker or Quincunx — And lastly that the supposed intervals between maniples were the chief, if not the only passage-ways for the light infantry to advance and retreat through.

Chap. X.

Having come to the preceding conclusions, I nevertheless judged it still necessary for me to reconsider with great attention, & to try by a farther search into authorities, that order for the Legionary infantry which had already (as has been observed) resulted to me both from Reason & authorities, before yielding my full & final conviction to it or to any other arrangement — And in order to perform this enquiry with the greater accuracy I pursued it under the following Quincunx.

Quincunxst

Query 1. Was the heavy armed Legionary infantry of the Romans when formed for Battle according to their usual & established method, arranged in a full or lines with or without bodies of reserve, or in what other order was it arranged?

2.nd Was it usually formed on a depth of three three ranks in a line or what greater or lesser number of ranks?

3.rd Were commonly the soldiers in each of these ranks, so placed with respect to those in the ranks next before or behind, as to compose a general checker of men throughout the whole line or lines, or were the soldiers in the several ranks placed directly behind each other from front to rear?

4.th Did the light armed infantry of the Romans

fell short of three roman feet which appeared to be the greatest and least allowances of room specified by any roman Authors. — And therefore that the Medium space of four & a half such feet for each soldier in Arms, or at least one differing but little from it, was the best & the most commonly used.

4th. That further, on a similar principle of reasoning from the greatest & least breadths which had been assigned by these Authors to the long intervals running between ranks, namely six & three roman feet, it seems highly probable, that altho' these breadths might sometimes be admitted yet that the medium of four & a half feet or an interval very nearly such, might be most frequently used at least between the first & second rank.

5th. That the depth of the front line consisted only of three ranks, being of the three classes of Hastati, Principes, & Triarii, each disposed in a single rank,